



**Improving the effectiveness & delivery of
technical assistance in P2 Planning:
New strategies and approaches**

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The context for change

- Increasing knowledge of toxic substances and alternatives
- Increasing adoption of advanced environmental management systems
- Increasing adoption by businesses of waste-reducing production techniques which can also reduce toxics (“Lean and Green”)



The opportunities for change

- Providing flexibility for facilities using comprehensive approaches to environmental management
- New methods and priorities for toxics reduction technical assistance delivery
- Better alignment with “Beyond Waste,” the state’s solid and hazardous waste long-range plan.



Successful Technical Assistance Tools

- Non-enforcement “technical assistance officers.”
- Outreach and visits focused on whole industries.
For example:
 - Ship Shape - boatyards and marinas
 - Shop Sweeps - 1700 automotive repair shops
 - Cleaner Production Challenge - Metal finishers, aerospace, circuit board makers

Technical assistance visits

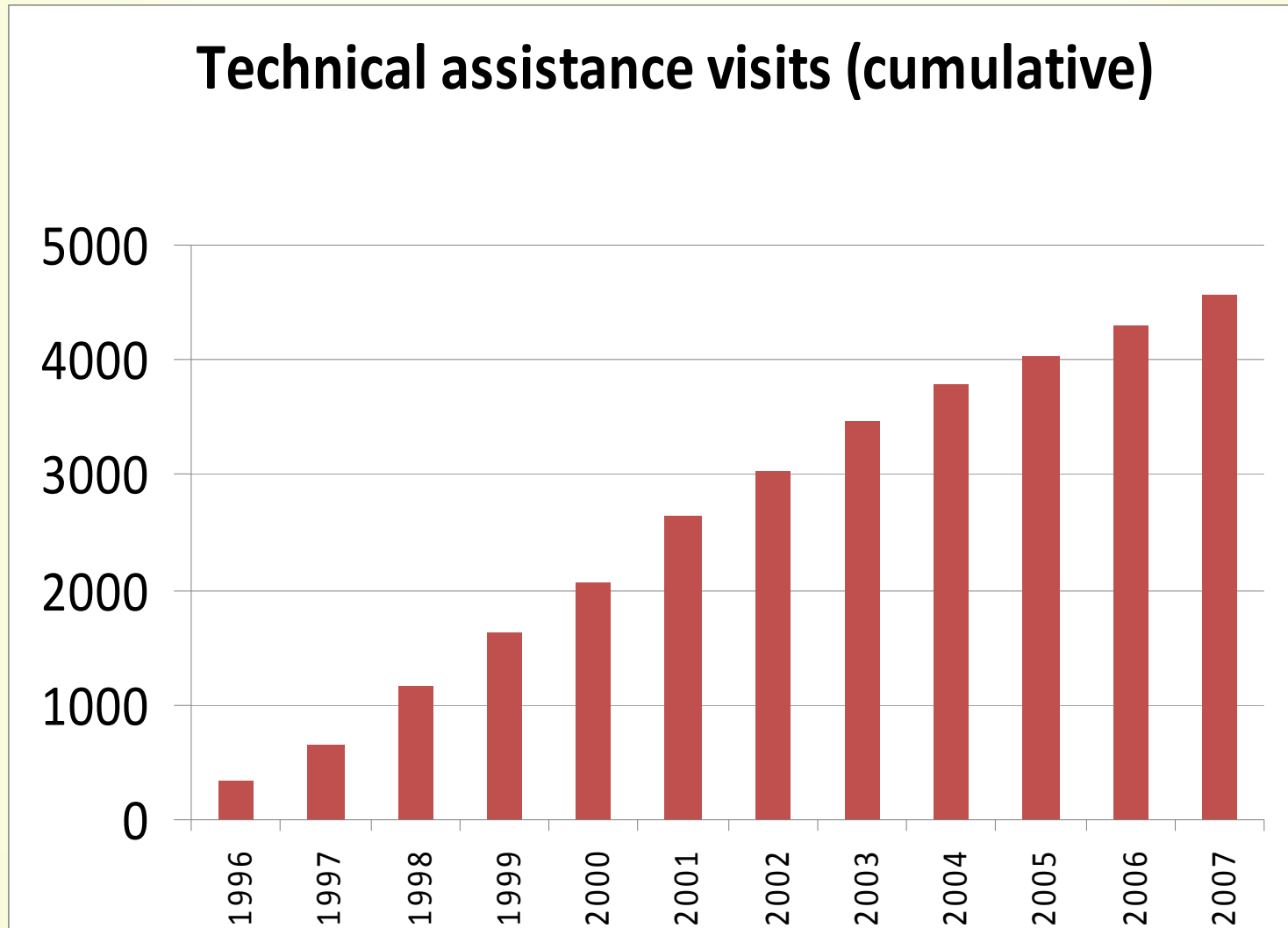


Errata: approx 1000 visits performed pre-1996.



DEPARTMENT OF
ECOLOGY
State of Washington

Technical assistance visits (cumulative)





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This 2007 lean & green manufacturing project at Canyon Creek Cabinets:

- Avoided the need for a Title V air permit,
- Increased business capacity to grow by 150 percent,
- Reduced toxic chemical usage by thousands of pounds,
- Saved over \$1 million per year.

Solvent-based staining area





Successful Technical Assistance Tools

- **TREE (Technical Resources for Engineering Efficiency) Team**
 - Multi-media collaboration with local air agencies, Water Quality Program, local sewer and water
- **Since 1998 TREE has made suggestions to help companies annually save...**
 - \$2.4 million
 - 206 million gallons of water
 - 229,000 pounds of hazardous waste

Award winning programs



Senator Murray meets with Toxics Reduction Engineer Michelle Costenaro
National Pollution Prevention Roundtable MVP2 (“Most Valuable Pollution
Prevention”) Award, 2004



Other Successful Tools

- 1997—Environmental Management System Alternative to P2 Planning
 - Based on feedback from industry
 - ~ 50 facilities participating
- Other advanced option piloted: “Lean P2 plan”



Possible Tools for the Future: Information Tools

- Online toxics inventory reporting mechanism
- Toxicity calculators for measuring achievement
- More online information about reduction techniques
- Online training, webinars



Possible Tools for the Future, continued

- Better chemical mass balance for WA
 - Get the big picture that we only see slices of now
 - Would result in assistance better targeted to risk



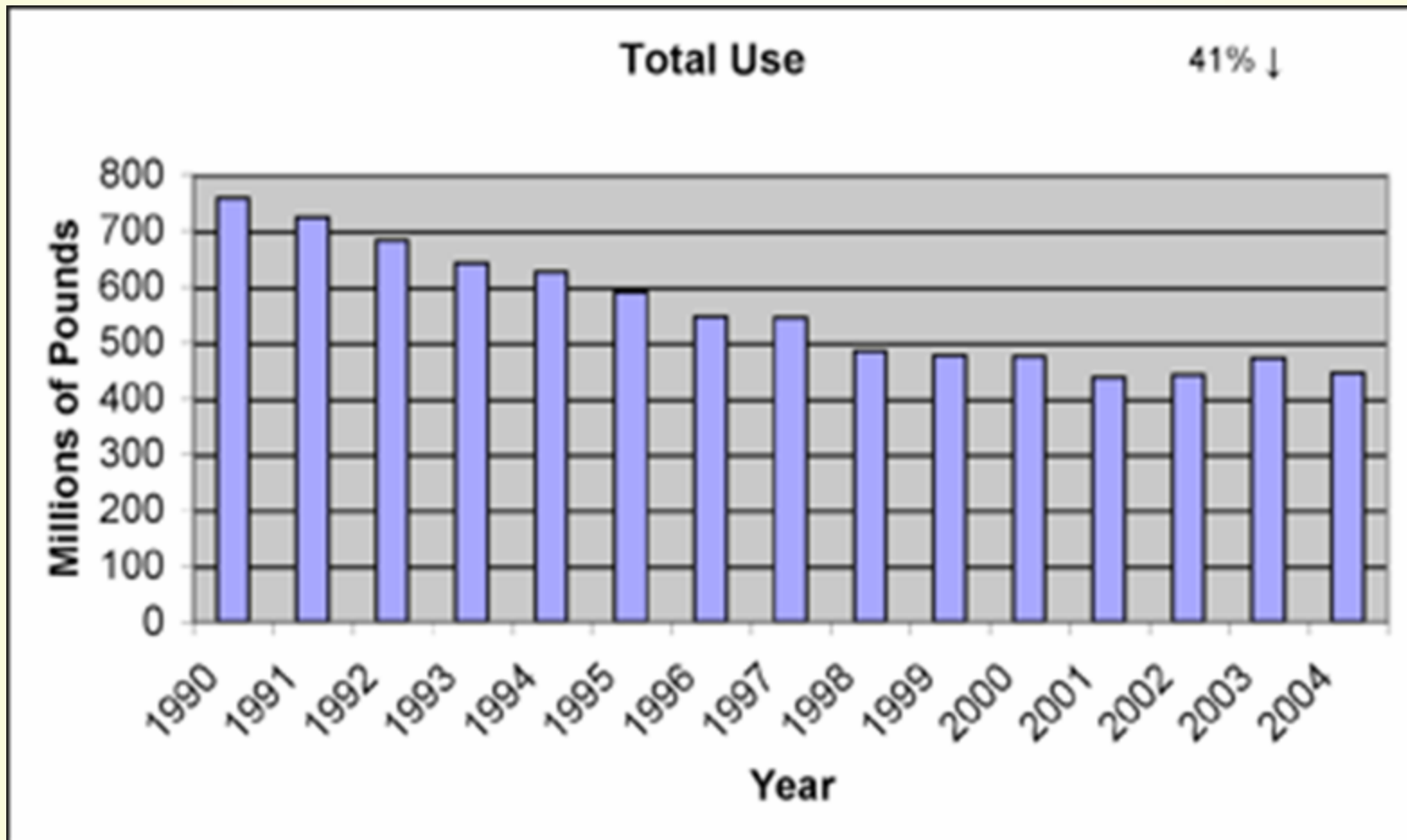
Possible Tools for the Future, continued

Advanced P3 Options

- Substitutes for traditional pollution prevention planning:
 - Environmental Management Systems
(current policy is not yet law)
 - Lean/lean design
 - Global Reporting Initiative
 - Others: sustainability plan, eco-mapping, The Natural Step, Baldrige Award



Other successful approaches: Massachusetts





Toxics Use Reduction Institute (TURI)

Mission:

- Research, test and promote alternatives to toxic chemicals used in Massachusetts industries and communities.
- Provide resources and tools for a safer place to live and work.
- Promote economic competitiveness through improved efficiency, compliancy stability and reduced risk.



Toxics Use Reduction Institute, continued

Services:

- Research industry and the university to identify and promote innovations in toxics use reduction.
- Training for toxics use reduction professionals, community group and trade associations in core planner training, sector specific technologies and methods, and management tools.



Toxics Use Reduction Institute, continued

Services:

- Technical Support from the TURI Library and their experts.
- Laboratory Services to test performance of safer cleaning solvents.
- Grants to industry, community groups, researchers in academia.

Possible Tools for the Future, continued

Interstate Chemicals Clearinghouse

- Forum for states' implementation, including technical assistance tools.
- Data base of chemical profiles (hazard and exposure data on individual chemicals).
- Clearinghouse for alternatives assessments and a database of safer substitutes for chemicals of concern.

Possible Tools for the Future, continued

- Engage businesses impacted by REACH with technical assistance.
- Focus on high priority chemicals
- Review & adopt “safer chemical alternatives” protocols.
- Promote Green Chemistry and economic development.



Areas of focus for the committee

- Which tools will most improve the effectiveness of technical assistance with an increased emphasis on toxics use reduction?
- What planning options should exist for facilities with advanced approaches to environmental management?
- Should a TURI-like program be established in Washington?