



Arizona Requirements for a P2 Plan

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Outline

- Arizona P2 Policy and Toxic Substances Defined
- Basic Arizona Pollution Prevention
- Basic P2 Plan Requirements
 - Regulatory Requirements
 - What Must be in a P2 Plan?
- ADEQ P2 Team

The Arizona legislature adopted a state Pollution Prevention Policy in 1991:

In the interest of protecting the public health and safety and the environment, the legislature declares that it is the policy of this state to:

1. Encourage pollution prevention whenever technically and economically practicable, without shifting risks from one part of a process, environmental medium or product to another.
2. Reduce the amount of hazardous substances used and reduce the amount of hazardous waste generated in this state.

Arizona P2 Policy

In Arizona P2 Policy, P2 planning is required to reduce the amount of waste generated and toxic substances used to reduce risk to public health, safety and welfare, and the environment.

A.R.S. § 49-961:

- **Eliminate or reduce waste generation**
- **Eliminate or reduce toxic substance use**
- **Reduce total volume**
- **Inventory control**
- **Recycling**
- **Reuse**
- **Reclamation**
- **Substitution**
- **Changes in operating practices**
- **On-site or off-site treatment (only if it confers a higher degree of protection than reduction)**
- **Conserve natural resources and materials (energy, water)**
- **Prevent spills and accidental releases.**
- **Prevent raw material and product losses.**

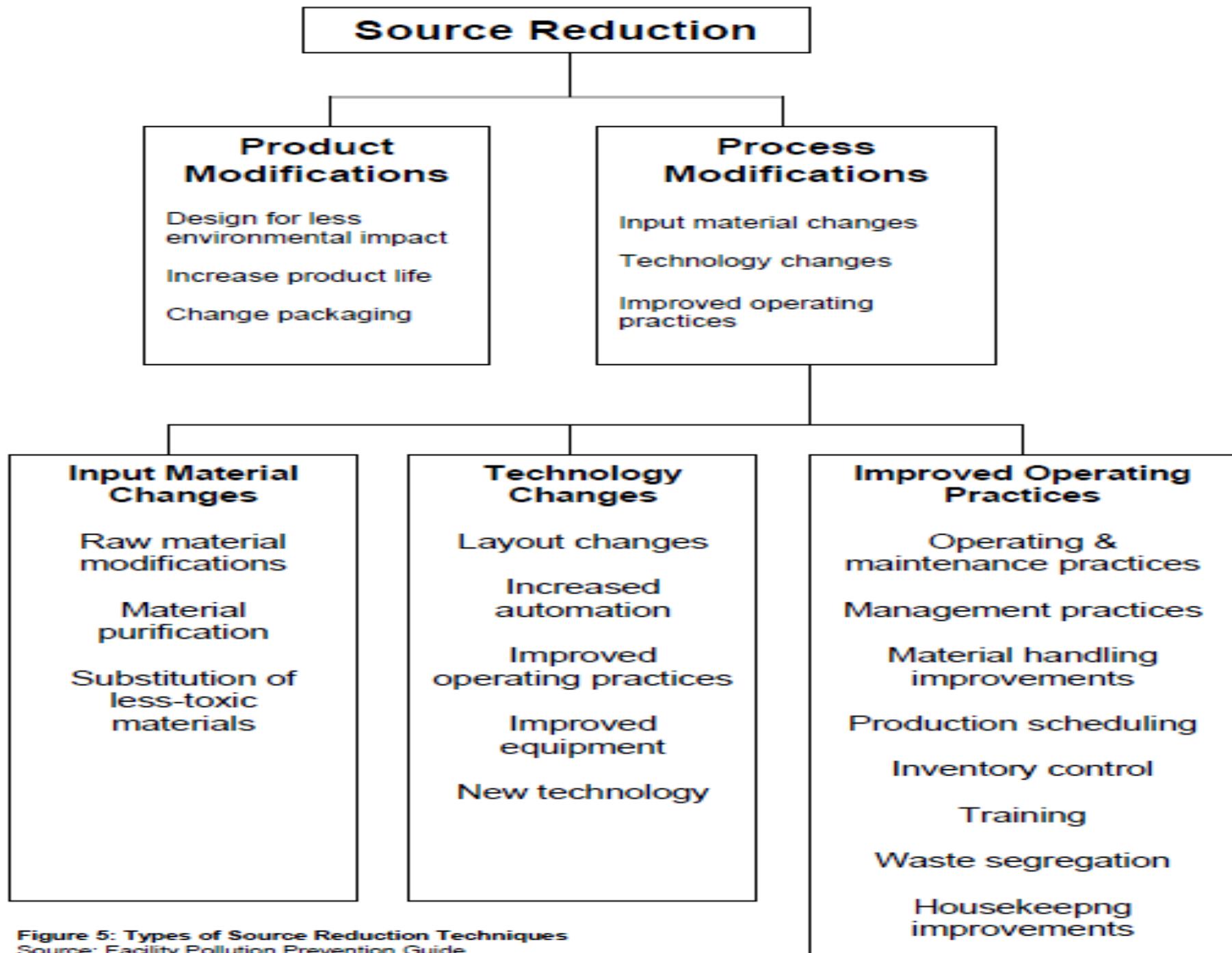


Figure 5: Types of Source Reduction Techniques
 Source: Facility Pollution Prevention Guide
 (USEPA/600/R-92/088)

What Is a P2 Plan?

- A Pollution Prevention Plan (Plan) is a stand alone management document that provides information on the facility operations that directly or indirectly produce waste or use toxic substances.
- A complete written P2 Plan analyzes the current work practices, outlines potential P2 opportunities and provides specific performance goals including a schedule for implementing these P2 activities.
- The Plan should also provide measurable reductions (pounds, gallons, kWh, therms).
- The Plan will also include information on past P2 activities that have already been completed at the facility.



Regulatory Program Requirements

1. Determine if a P2 Plan must be filed for the facility:

Review the filing thresholds. There are several different thresholds that, once any one is exceeded, could require a P2 Plan to be filed.

- The thresholds are related to hazardous waste generation or shipment or toxic substance use.
- If the facility does not meet any of the thresholds, a P2 Plan is not required. If the facility does meet a threshold, proceed to step 2.





What Are the Required Filing Thresholds?

- During the preceding calendar year, the owner or operator was required to file an annual toxic chemical release (EPA TRI) form (Form A or Form R) for the facility. [Ref: A.R.S. § 49-962.A.1]
- During the preceding calendar year, the facility generated an average of **1 kilogram** per month of acutely hazardous waste or an average of **1,000 kilograms** per month of hazardous waste in a calendar year, exclusive of an episodic, accidental or remediation related release or occurrence. [Ref: A.R.S. § 49-962.A.2]
- A facility that uses in excess of **ten thousand pounds** in a calendar year of a toxic substance as defined in A.R.S. § 49-961 shall file a P2 plan by December 31 of the following year. [Ref: A.R.S. § 49-963.D]

What are Defined as Toxic Substances?

- The chemicals covered by EPA's Toxic Release Inventory (TRI) program that can cause:
 - Cancer or other chronic human health effects
 - Significant adverse acute human health effects
 - Significant adverse environmental effect
- Currently, the TRI toxic chemical list contains 682 chemicals and chemical categories. It doesn't include all toxic chemicals in the US.
- Facilities that manufacture, process or use these chemicals in amounts above established levels must submit annual TRI reports on each chemical.



2. Determine if the facility is exempt

- Review the filing exemptions. Arizona businesses must file a P2 Plan with the department if they meet the thresholds and are not exempt.
- If a facility is exempt, a P2 Plan is not required, but may be voluntarily submitted. If the facility is not exempt, proceed to step 3.
- Examples:
 - The facility is located on tribal land
 - The facility is a household hazardous waste collection facility
 - All of the toxic substances used are for metallurgical or mining purposes (smelting, refining)
 - For more information please visit page 66 of ADEQ's P2 Guidance Manual.

3. Download the P2 Plan Guidance Manual and Forms

- Complete a P2 Plan by December 31 of the year after the threshold was met.
- [P2 Analysis and Plan Guidance Manual](#)
- [A Guide to Help Facilities Perform a P2 Analysis](#)
- [P2 and Plan Forms](#)
- [P2 Goal Forms](#)

<http://www.azdeq.gov/function/forms/appswaste.html#p2>



Regulatory Program Requirements

4. **Provide a Toxic Data Report to the department each year on July 1, which includes:**
 - A P2 Plan Annual Progress Report on completion of the specific reduction goals which includes:
 - Completion status (on schedule; closed; delayed; dropped)
 - How much reduction was achieved
 - [Annual Progress Report Instructions](#)
 - An Annual Toxic Chemical Release Inventory (TRI) Report *
 - U.S. EPA: Toxic Chemical Release Inventory (TRI) Form A or Form R
 - EPA's rule effective in January 2014: facilities have to submit TRI forms electronically unless they have a trade secret TRI
 - Any needed P2 Plan Amendments
 - To make changes to an existing P2 Plan
 - To extend the time frame of an existing Plan
 - To add new goals or amend existing goals



What Must Be In a P2 Plan?

(A.R.S. § 49-963.J)

The pollution prevention plan required by this section shall include all of the following:

1. The name and location and principal business activities at the facility.
2. The name, address and telephone number of the owner or operator of the facility and of the senior official with management responsibility at the facility.
3. A certification by the senior official with management responsibility at the facility that he has read the plan and that it is to the best of his knowledge true, accurate and complete.



What Must Be In a P2 Plan?

4. A written policy setting forth management and corporate support for the pollution prevention plan and a commitment to implement the plan to achieve the plan goals.
5. A statement of the plan's scope and objectives.
6. An analysis identifying pollution prevention opportunities to reduce or eliminate toxic substance releases and hazardous waste generation.
7. Specific performance goals for the prevention of pollution, including an explanation of the rationale for each performance goal. The plan must include a goal for the facility and may include goals for individual production processes.

What Must Be In a P2 Plan?

8. Provisions to incorporate the plan into management practices and procedures in order to ensure its institutionalization.
9. Employee awareness and training programs to involve employees in pollution prevention planning and implementation to the maximum extent feasible.
10. An analysis of pollution prevention activities that are already in place

How to Create a Successful P2 Program?

- Obtain management support and commitment for the necessary implementation resources.
- Use a champion, facilitator or focal point person to lead the program.
- Use the diverse skills of a cross-functional P2 team to develop innovative P2 activities.
- Ensure employees are trained in P2 and are involved in the program as required by A.R.S. § 49-963.J.9.
- Sustain employee motivation by using recognition programs.
- Track and communicate P2 progress.
- Ensure P2 opportunities are incorporated during the research/development design phases of the product or process.





Employee Awareness and Training Programs (ARS §49-963.J.9)

P2 Analysis and Plan Guidance Manual - Section 9:

- Pollution prevention training documents must, as a minimum, include a definition of pollution prevention, a description of the waste management hierarchy, the benefits of pollution prevention, and information on how the employees can become involved in pollution prevention planning and implementation.
- P2 training goal
- Continue P2 Training Goal



Boilerplate P2 Training Goal

Pollution Prevention Training Goal (ARS §49-963.J.9.)

Facility Name: _____ P2 ID # _____

Complete this form and include in Section 7 if no training documents are being sent to ADEQ-P2 at the current time.

<p>1. Goal Statement: (For the training goal, fill in dates and goal number in Box 1. Submit this goal sheet with your plan, or amendment and your Annual Progress report (until goal is closed). Also, submit the training documents to ADEQ-PPU when completed with your annual progress report.</p>	<p>2. Scheduled Completion Date (Month/Day/Year)</p>	<p>3. Completion Status: OS=On Schedule D = Delayed C=Complete DR=Dropped</p>	<p>4. Name of Toxic Substance and Waste stream Include CAS #; and RCRA Waste Code #</p>	<p>5. State Volatile Organic Chemical "VOC", Ozone Depleting Chemical "ODC", "Both" or "N/A"</p>
<p>Goal (#) Process Area(s) (# N/A)</p> <p>Develop a pollution prevention specific employee training program by _____ (date). Send training documents that include evidence (such as sign in sheet) of how many employees were trained to ADEQ-P2 by _____ (date).</p>		<p><input type="checkbox"/> C <input type="checkbox"/> OS <input type="checkbox"/> D <input type="checkbox"/> DR</p>	<p>CAS=NA RCRA=NA</p>	<p><input type="checkbox"/> VOC <input type="checkbox"/> ODC <input type="checkbox"/> ODC & VOC <input checked="" type="checkbox"/> NA</p>

6. If You Answered "D" or "DR" In Box #3, provide an explanation on back. Include a new estimated completion date for the delayed goal:

<p>7. Actions Needed to Implement the Goal:</p>	<p>8. Baseline Quantity (Starting amount)</p>	<p>9. Baseline Year</p>	<p>10. How much was reduced or eliminated?</p>	<p>11. Month & Year box #10 was measured</p>	<p>12. Reduction Quantity is adjusted for production</p>	<p>13. Production Ratio (optional unless Box #12 is marked Yes)</p>
<p>Actions we will take to implement the goal are: Implement a P2 Training Program as discussed in Section 9 to include employee awareness and training programs to involve employees in pollution prevention planning and implementation to the maximum extent feasible.</p> <p>The number of people trained this year was:</p>	<p>Quantity NA Check units <input type="checkbox"/> Pounds <input type="checkbox"/> Gallons <input type="checkbox"/> KWH <input type="checkbox"/> Therms or <input checked="" type="checkbox"/> No Measure</p>	<p>N/A</p>	<p>Quantity NA Check units <input type="checkbox"/> Pounds <input type="checkbox"/> Gallons <input type="checkbox"/> KWH <input type="checkbox"/> Therms or <input checked="" type="checkbox"/> No Measure</p>	<p>N/A</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>N/A</p>



Boilerplate Continuous P2 Training Goal

Pollution Prevention Training Goal (ARS §49-963.J.9.)

Facility Name: P2 ID #:

Complete one form for each goal

1. Goal Statement: (For the continuing training goal, fill in date and goal number in Box 1. Submit this goal sheet with your plan, or amendment and your Annual Progress report.	2. Scheduled Completion Date (Month/Day/Year)	3. Completion Status: OS=On Schedule D = Delayed C=Complete DR=Dropped	4. Name of Toxic Substance and Waste stream <i>Include CAS #; and RCRA Waste Code #</i>	5. State Volatile Organic Chemical "VOC", Ozone Depleting Chemical "ODC", "Both" or "NA"
Goal (#) Process Area(s) (# N/A) Continue to train employees in pollution prevention awareness (ARS 49-963.J.9.).		<input type="checkbox"/> C <input checked="" type="checkbox"/> OS <input type="checkbox"/> D <input type="checkbox"/> DR	CAS=NA RCRA=NA	<input type="checkbox"/> VOC <input type="checkbox"/> ODC <input type="checkbox"/> ODC & VOC <input checked="" type="checkbox"/> NA

6. If You Answered "D" or "DR" In Box #3, provide an explanation (on back) and include a new estimated completion date:

7. Actions Needed to Implement the Goal:	8. Baseline Quantity (Starting amount)	9. Baseline Year	10. How much was reduced or eliminated?	11. Month & Year box #10 was measured	12. Reduction Quantity is adjusted for production	13. Production Ratio (optional unless Box #12 is marked Yes)
Actions we will take to implement the goal are: By July 1 each year (in the annual progress report), document training for current and new employees, by providing a statement of when the training occurred and how many were trained. P2 training includes employee awareness and training programs to involve employees in P2 planning and implementation to the maximum extent feasible. The number of people trained this year was:	<input checked="" type="checkbox"/> NA	<input checked="" type="checkbox"/> NA	<input checked="" type="checkbox"/> NA	<input checked="" type="checkbox"/> NA	<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> NA



Process Review and Opportunity Development (A.R.S. § 49-963.J.7)

P2 Analysis and Plan Guidance Manual - Section 7:

- Describe the process steps
- Include a process flow diagram
- Why and where the toxic substances are used
- Discuss the wastes and emissions and include the waste codes
- What happens to each waste and emission?
- Identify P2 opportunities (feasible or non-feasible)
- Fill out a goal form for each feasible P2 opportunity

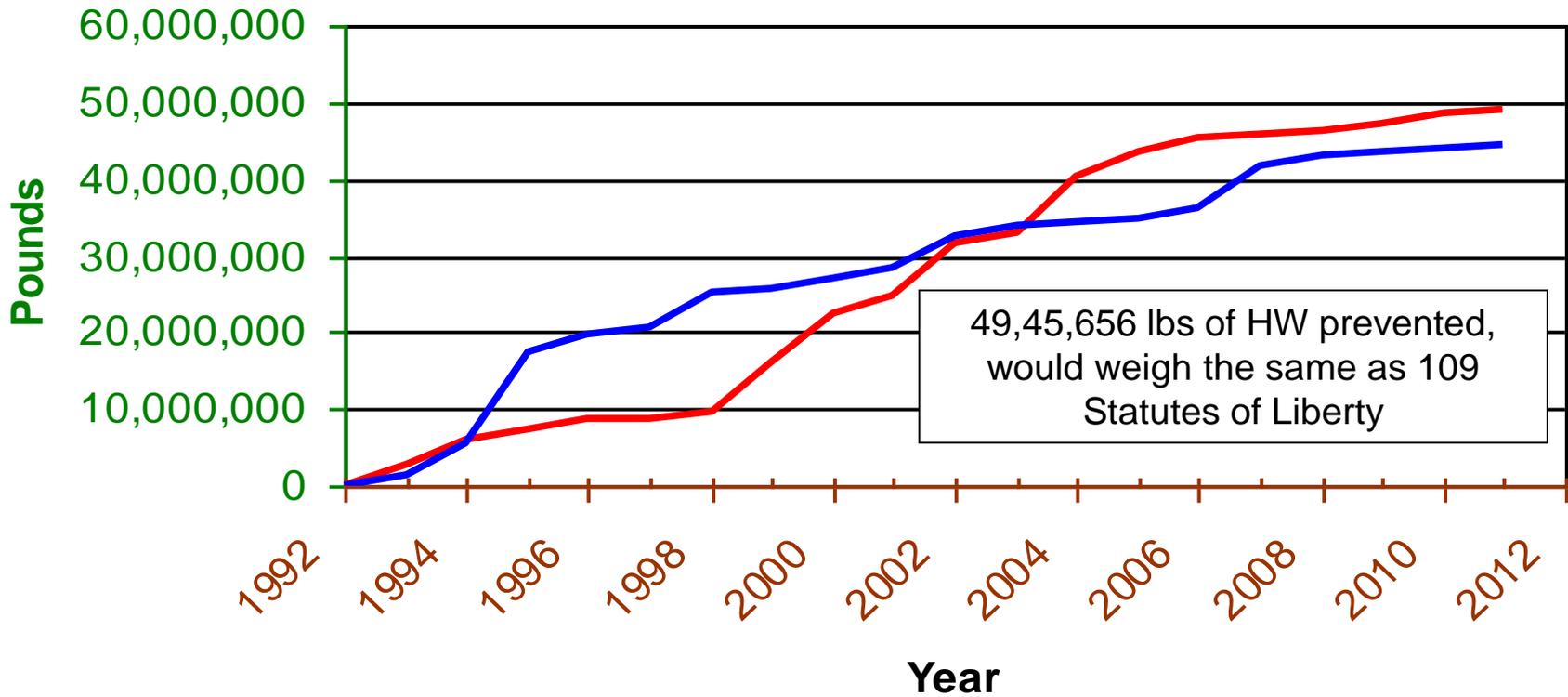


Our ADEQ P2 Team

- Collect, manage, and synthesize the TDRs from the approximately 260 large hazardous waste generators, TRI filers and TRI toxic substance users and measure the reductions achieved.
- Provide technical assistance to facilities to eliminate or reduce their toxic substance use and hazardous waste generation
- Track and update the P2 program information and results in an ACCESS program.
- Participate in the National P2 Results Data System and input pollution reduction measurements into the reporting software for the Pollution Prevention Resource Exchange (P2Rx™) (WSPPN for Region 9) for measurement aggregation into the National P2 Results Data System project.
- The reductions are reported for Solid Waste (non-RCRA), Air Emissions, Green House Gases, Water Pollution, Natural Gas, Hazardous Waste, Water Conservation, Electricity, and Hazardous Materials.

Reductions for Calendar Year 2011

Figure 1: Cumulative Hazardous Waste and Toxic Substance Use Prevented by Pollution Prevention



— **Cumulative Hazardous Waste Prevented**
— **Cumulative Toxic Substances Prevented**

Figure 2: Electricity Use Prevented by Pollution Prevention

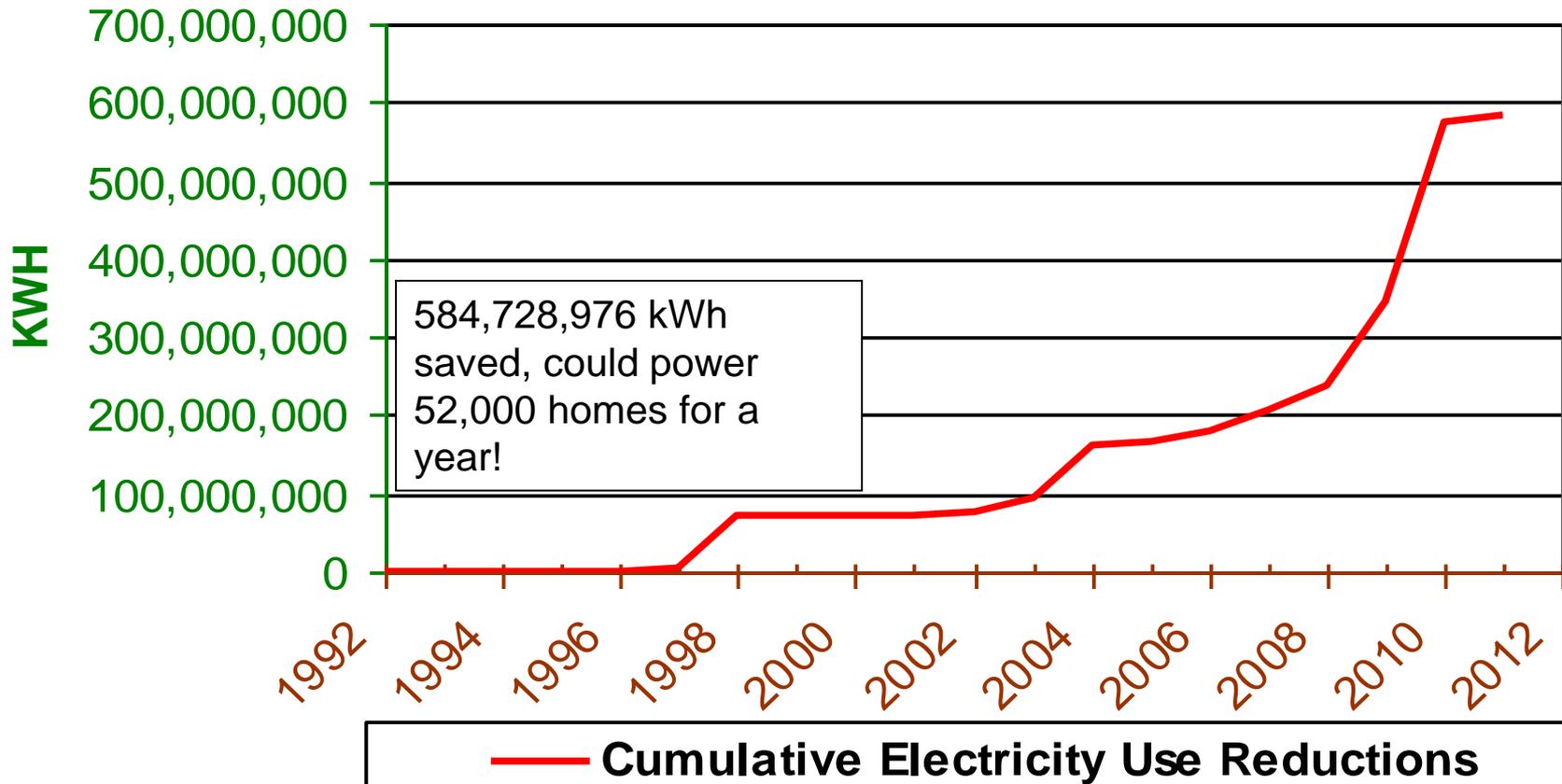


Figure 3: Water Use Prevented by Pollution Prevention

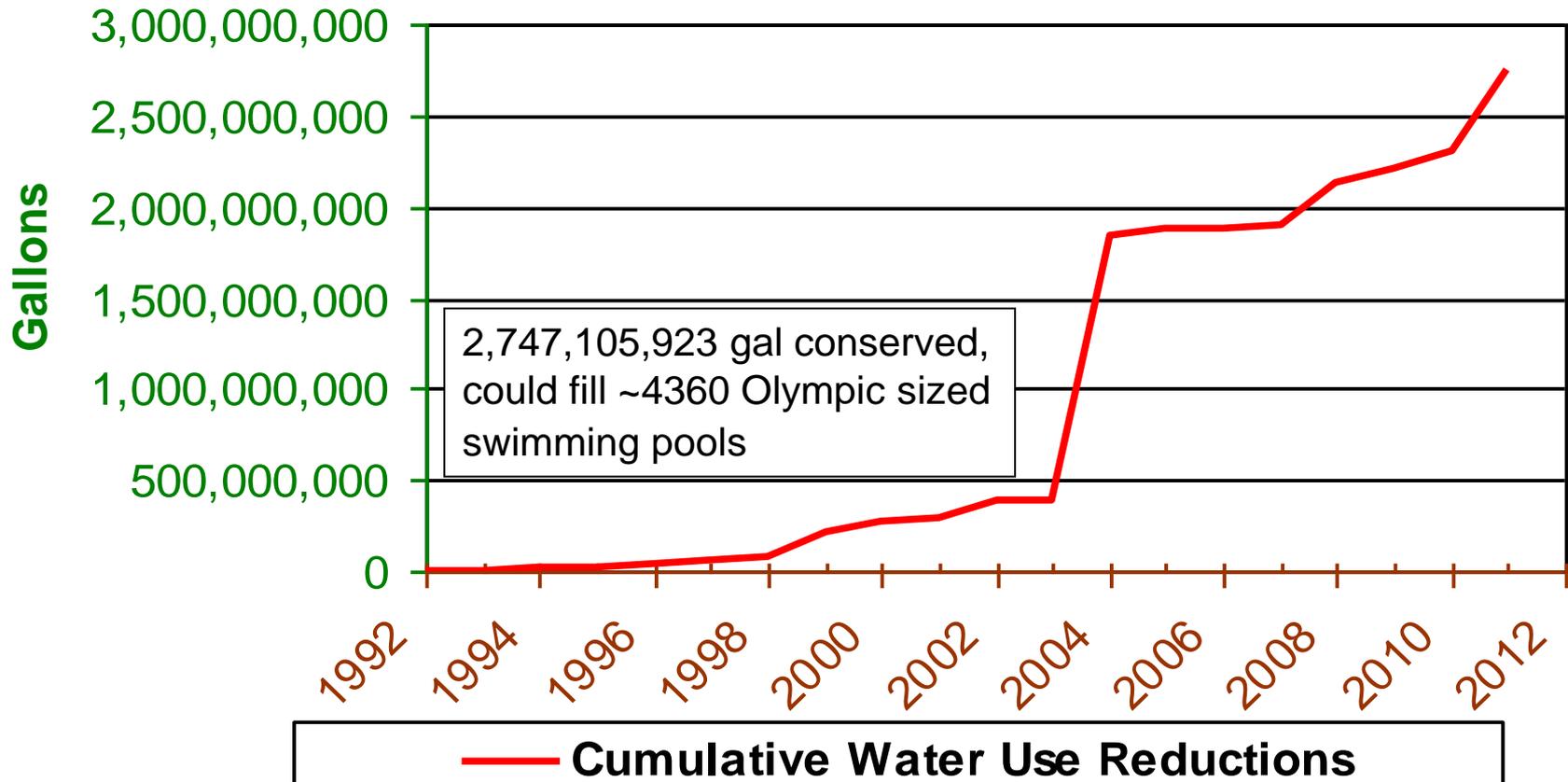


Figure 4: Cumulative Solid Waste Prevented in Landfills by Pollution Prevention

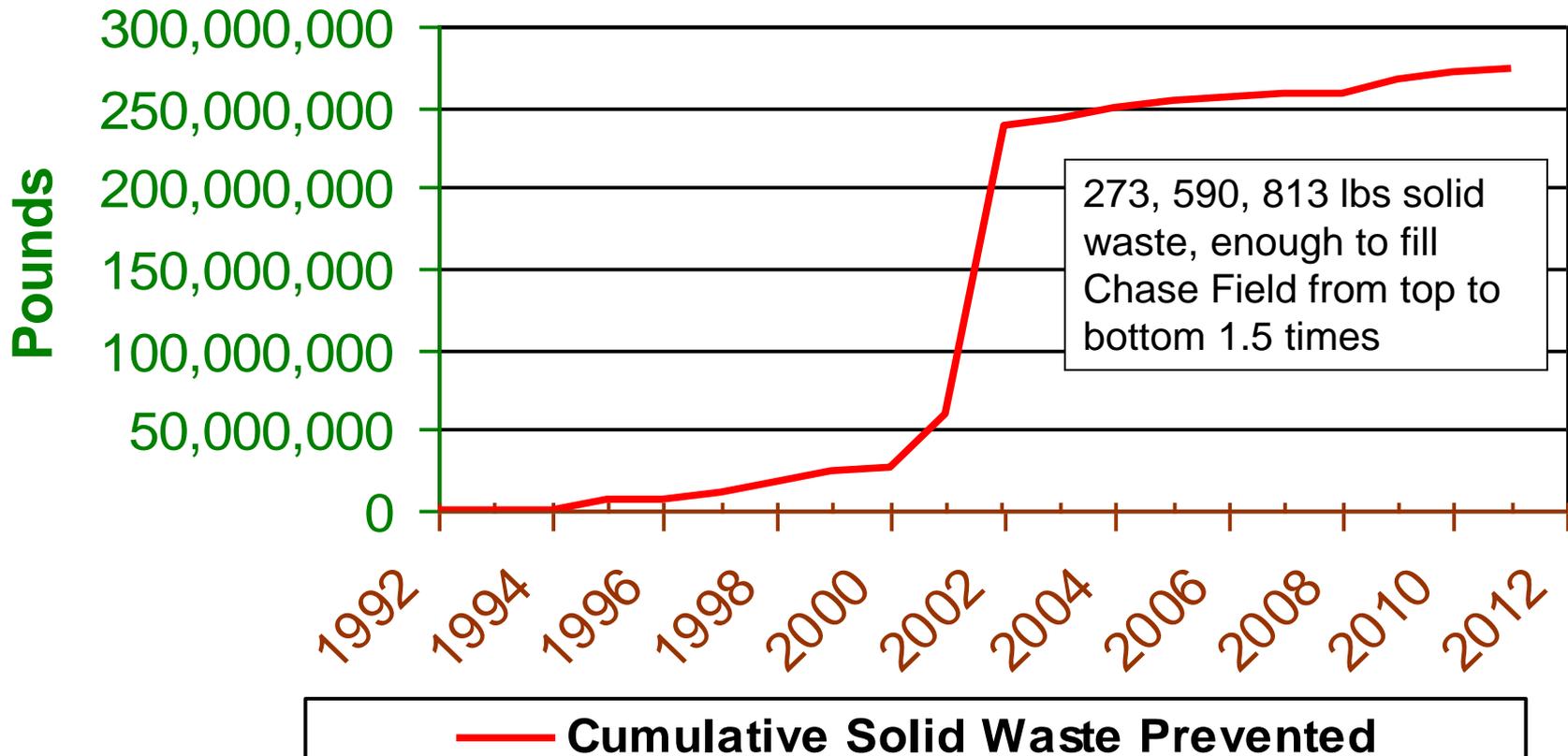
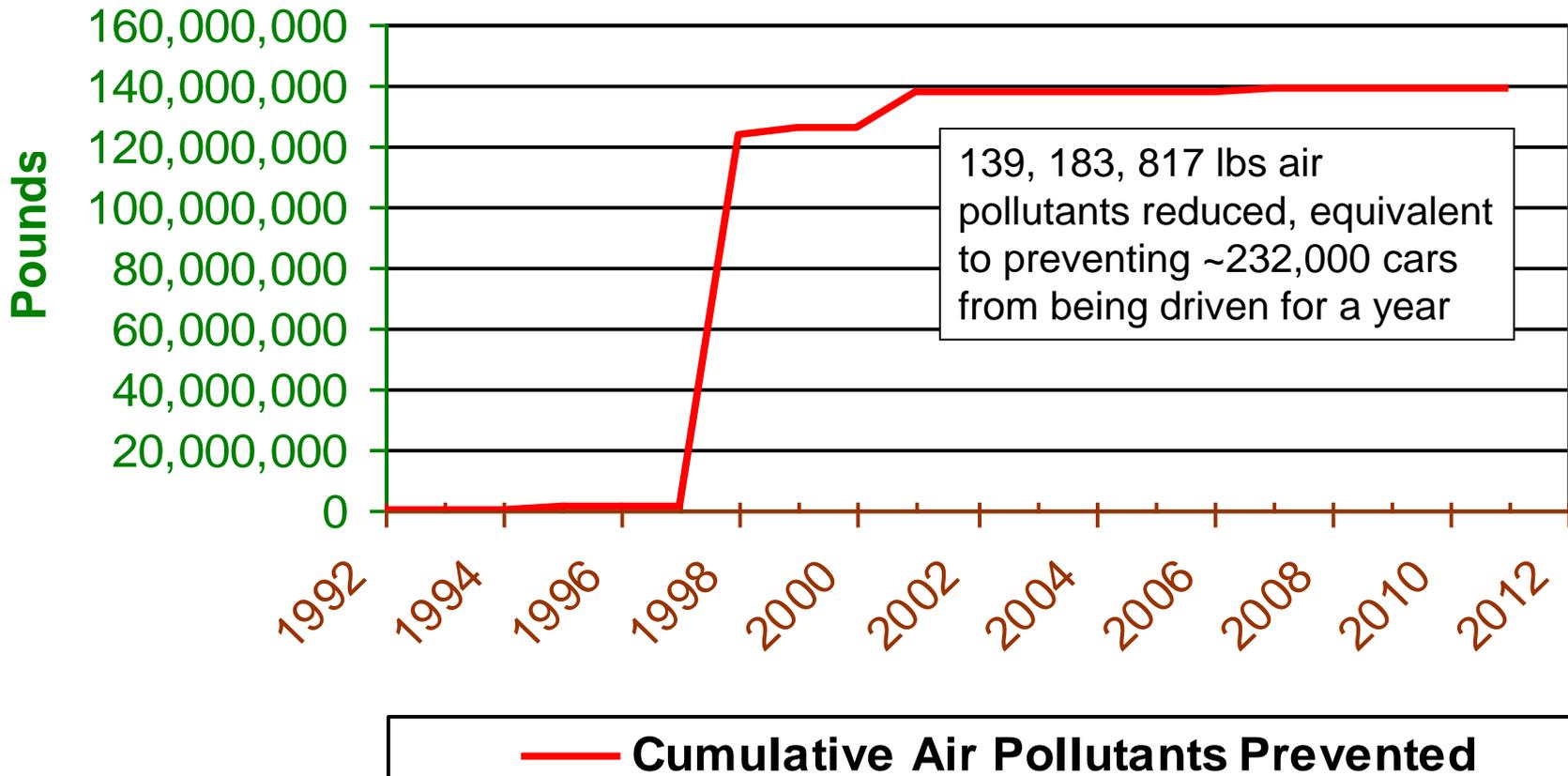


Figure 6: Cumulative Air Pollutants Prevented by Pollution Prevention



Bill Quinn- Our Former P2 Leader

Linda Mariner- ADEQ's Sustainability Unit Manager

Jeanine Inman- My teammate

Acknowledgement



Questions or Comments?

