

# **ADEQ's P2 Program**

**Webinar: *Pollution Prevention Training*  
February 21, 2017**



- This webinar will be muted to reduce or eliminate external auditory disturbances;
- The webinar will be available for download at <http://wsppn.org/webinars/>
- If you are experiencing technical difficulties, call 1-800-263-6317, or 1-805-617-7000. Press 2 when prompted.

## **Brought to you by:**

- The Western Sustainability Pollution Prevention Network
- The Arizona Department of Environmental Quality

# Agenda

## Webinar Agenda

10:00 AM      Webinar Overview

10:05              Presentation

10:50              Q&A

11:00 AM      Adjourn



**Jeanine K. Inman, P.E.**  
Associate Environmental Engineer



**Linneth A. López**  
Environmental Engineering Specialist III

# Pollution Prevention (P2) Program Training

Linneth A. Lopez  
Jeanine Inman  
February 21, 2017

## Who we are

Under the Environmental Quality Act of 1986, the Arizona State Legislature created ADEQ in 1987 as the state's cabinet-level environmental agency. ADEQ is composed of three environmental programs: Air Quality, Water Quality and Waste, with functional units responsible for technical operational and policy support.

### Mission

To protect and enhance public health and the environment in Arizona.

### Vision

To be the No. 1 state in the nation in:

- Balanced, leading-edge environmental protection
- Technical and operational excellence
- Radical simplicity for customers and staff

# What is Pollution Prevention?

Pollution Prevention (P2) is any activity that reduces waste at the source.



Reducing



Eliminating



Preventing

Reducing the amount of pollution produced means less waste to control, treat or dispose.

## 1990 Federal P2 Act

- Pollution should be prevented or reduced at the source

P2 is reducing or eliminating waste at the source by:

Modifying production process

Promoting the use of non-toxic/less toxic substances

Implementing conservation techniques

Re-using materials and removing them from the waste stream

- EPA's definition



# Arizona's P2 Program

1991

Broadest P2  
program in the  
Nation

Reduction of:  
Toxic Substance Use  
Hazardous Waste  
Generation

For more information see the Arizona Revised Statutes  
(A.R.S.) §§49-961 to 49-973



# What is P2 in Arizona?

Business Operational Changes

Reclamation

Spill and Leak Prevention

Reuse

Inventory Control

Toxic Substance Use Reduction

Conservation

Source Reduction

Substitution

Recycling

Waste Minimization

## P2 in Arizona

Activities that avoid, eliminate or reduce the generation of hazardous waste, the toxic substance use, or the release of a pollutant or contaminant at the source

# Why P2?

## Control without Prevention

- RCRA
- Clean Water Act
- Air Regulations

## End-of Pipe Approaches

- Treatment
- Discharge
- Disposal

## Environmental Challenges Exist

- Landfills
- Toxic Substance Use
- Hazardous Waste Generation



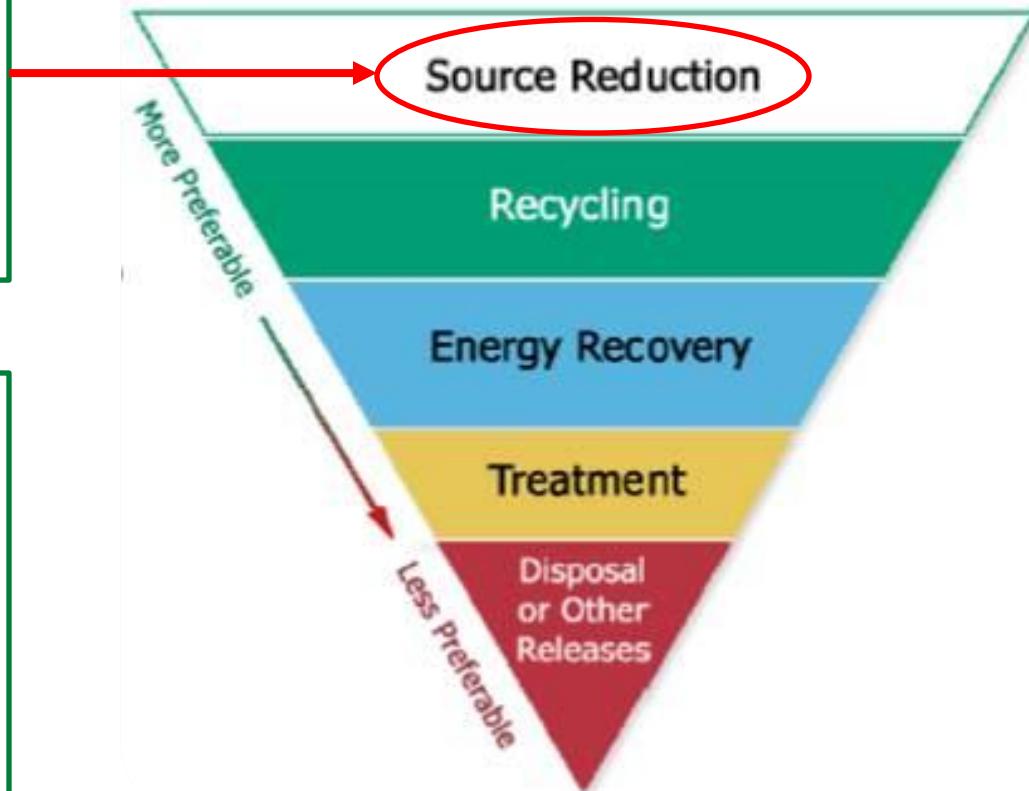
# Waste Management Hierarchy

The most preferable option is **source reduction**.

Pollution that is never created does not have to be managed, treated or disposed.

The second best option is **recycling**.

Waste Management Hierarchy



Let's take a look at the thresholds (or limits)!

A P2 Plan is required if during the **previous** calendar year a facility:

- ✓ Filed a **Toxic Release Inventory (TRI)** Form (form R or A)
- ✓ Used in excess of **10,000 pounds** of a **TRI listed chemical**
  - See the *Interpretation of “use” of toxic substances in excess of 10,000 pounds for the P2 program*
- ✓ Generated or shipped off-site, for purposes other than recycling, an average of
  - **2,200 pounds (1,000 kg)** per month of **hazardous waste** or
  - or **2.2 pounds (1 kg)** per month of **acute hazardous waste**

*Facilities only need to meet any one of the above thresholds to be required to submit a P2 Plan.*

# Are there any exemptions?

Yes! Please go to our website to find out if your facility meets any of the exemptions!  
[www.azdeq.gov](http://www.azdeq.gov)

State Agencies State Services Visit OpenBooks

SEARCH GO >

az.gov

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**Proactive screening for lead in school drinking water**

**Are Arizona's children at risk?**

**Learn More >**

**OUR MISSION**

To protect and enhance public health and the environment.

[Learn More >](#)

**FEATURED CURRENT NEWS**

ADEQ is issuing a High Pollution Advisory (HPA) for Saturday, Dec. 31, 2016, and Sunday, Jan. 1, 2017, for fine particulate matter (PM 2.5 ) for Maricopa County & Nogales, Arizona. This HPA is due to particle pollutant levels expected to accumulate enough to exceed the federal health standard...[See more >](#)

**FREQUENTLY VIEWED**

Welcome to ADEQ

**NEW PUBLIC NOTICES**

Feb.24 - COMMENT PERIOD ENDS | Preliminary Decision to Issue a State Water Quality

Jan.23 - COMMENT PERIOD BEGINS | Preliminary Decision to Issue a State Water

# Pollution Prevention (P2)

SEARCH

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with **QUICK  
PAY**

## OUR MISSION

To protect and enhance  
public health and the  
environment.

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 Emergency Response

 Community Outreach

 File A Complaint

Brownfields

Hazardous Waste Management

**Pollution Prevention (P2)**

Recycling

Solid Waste

Superfund | Federal DOD Sites

Superfund | Federal NPL Sites

Superfund | State WQARF Sites

Underground Storage Tank (UST)

Voluntary Remediation Program  
(VRP)

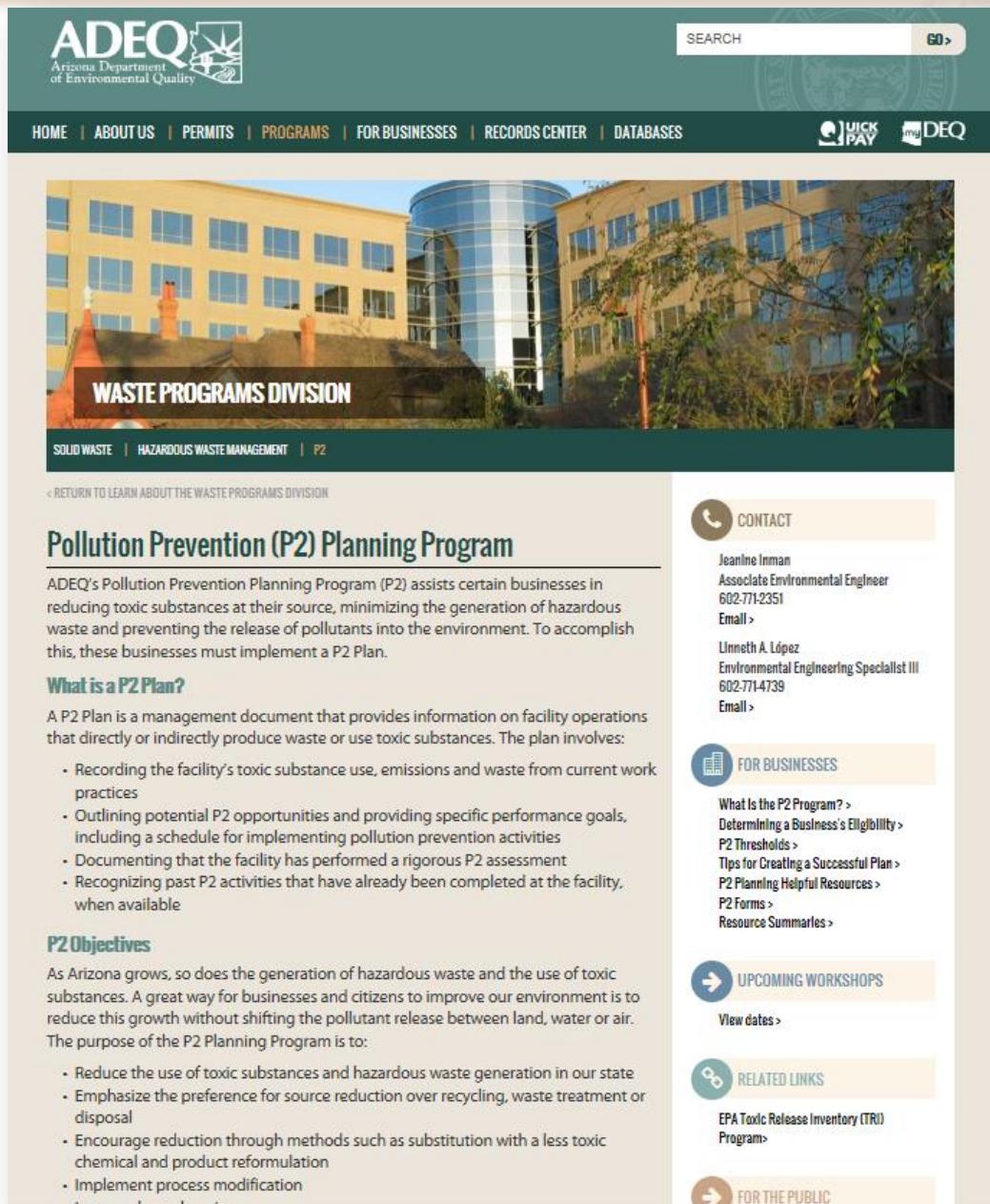


Learn How >



ADEQ is issuing a High Pollution Advisory (HPA) for 2016, and Sunday, Jan. 1, 2017, for fine particulate matter in Maricopa County & Nogales, Arizona. This HPA is due to levels expected to accumulate enough to exceed the standard. [See more >](#)

 Save as (displaying dia  
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The screenshot shows the ADEQ website with a header featuring the ADEQ logo, a search bar, and navigation links for Home, About Us, Permits, Programs, For Businesses, Records Center, Databases, Quick Pay, and myDEQ. Below the header is a large image of a modern office building with a glass facade and a red chimney. A dark overlay box covers the middle of the image, containing the text "WASTE PROGRAMS DIVISION" and the sub-navigation links "SOLID WASTE", "HAZARDOUS WASTE MANAGEMENT", and "P2". To the left of the main content area, there is a sidebar with a "RETURN TO LEARN ABOUT THE WASTE PROGRAMS DIVISION" link. The main content area is titled "Pollution Prevention (P2) Planning Program" and includes a description of the program's purpose, a section on "What is a P2 Plan?", a list of P2 planning activities, "P2 Objectives", and a summary of the program's purpose. To the right, there are three columns: "CONTACT" with links to Jeanine Inman and Linneth A. Lopez, "FOR BUSINESSES" with a list of P2 planning resources, "UPCOMING WORKSHOPS" with a link to view dates, and "RELATED LINKS" with a link to the EPA Toxic Release Inventory (TRI) Program. A "FOR THE PUBLIC" section is partially visible at the bottom.

**WASTE PROGRAMS DIVISION**

SOLID WASTE | HAZARDOUS WASTE MANAGEMENT | P2

< RETURN TO LEARN ABOUT THE WASTE PROGRAMS DIVISION

## Pollution Prevention (P2) Planning Program

ADEQ's Pollution Prevention Planning Program (P2) assists certain businesses in reducing toxic substances at their source, minimizing the generation of hazardous waste and preventing the release of pollutants into the environment. To accomplish this, these businesses must implement a P2 Plan.

### What is a P2 Plan?

A P2 Plan is a management document that provides information on facility operations that directly or indirectly produce waste or use toxic substances. The plan involves:

- Recording the facility's toxic substance use, emissions and waste from current work practices
- Outlining potential P2 opportunities and providing specific performance goals, including a schedule for implementing pollution prevention activities
- Documenting that the facility has performed a rigorous P2 assessment
- Recognizing past P2 activities that have already been completed at the facility, when available

### P2 Objectives

As Arizona grows, so does the generation of hazardous waste and the use of toxic substances. A great way for businesses and citizens to improve our environment is to reduce this growth without shifting the pollutant release between land, water or air. The purpose of the P2 Planning Program is to:

- Reduce the use of toxic substances and hazardous waste generation in our state
- Emphasize the preference for source reduction over recycling, waste treatment or disposal
- Encourage reduction through methods such as substitution with a less toxic chemical and product reformulation
- Implement process modification

For more information, visit [www.azdeq.gov/p2](http://www.azdeq.gov/p2).

**CONTACT**

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602-771-2351  
[Email](#)

Linneth A. López  
Environmental Engineering Specialist III  
602-771-4739  
[Email](#)

**FOR BUSINESSES**

[What Is the P2 Program?](#) >  
[Determining a Business's Eligibility](#) >  
[P2 Thresholds](#) >  
[Tips for Creating a Successful Plan](#) >  
[P2 Planning Helpful Resources](#) >  
[P2 Forms](#) >  
[Resource Summaries](#) >

**UPCOMING WORKSHOPS**

[View dates](#) >

**RELATED LINKS**

[EPA Toxic Release Inventory \(TRI\) Program](#) >

**FOR THE PUBLIC**

# Navigating the P2 Program Webpage



## CONTACT

Jeanine Inman  
Associate Environmental Engineer  
602-771-2351  
[Email >](#)

Linneth A. López  
Environmental Engineering Specialist III  
602-771-4739  
[Email >](#)



## FOR BUSINESSES

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[P2 Planning Helpful Resources >](#)  
[P2 Forms >](#)  
[Resource Summaries >](#)



## UPCOMING WORKSHOPS

[View dates >](#)



## FOR THE PUBLIC

What does Pollution Prevention (P2) Mean?  
[P2 House >](#)

- [Sustainable Furniture >](#)
- [Energy Conservation >](#)
- [Water Conservation >](#)
- [Interior Painting >](#)
- [Green Cleaning >](#)
- [Living Room >](#)
- [Garage/Laundry >](#)
- [Bedroom >](#)
- [Bathroom >](#)
- [Kitchen >](#)
- [Front/Backyard >](#)



## RELATED LINKS

[EPA Toxic Release Inventory \(TRI\) Program >](#)



## LAW & RULE

[Substantive Policies >](#)  
[Toxic Data Report | Progress Report | Exemption >](#)  
[P2 Plan | Progress Report | Exemption >](#)  
[Review of: Reports, Plans, Enforcement, Contempt >](#)  
[P2 Technical Assistance Program >](#)  
[Availability of information to the Public >](#)  
[Department Rules for Adding/Deleting Toxic Substances >](#)  
[Consumer Product Information >](#)  
[P2 Plan for State Agencies >](#)  
[Toxic Data Report for State Agencies >](#)

## See step #2 in Determining a Business's Eligibility for the P2 Program on the website

➤ *View P2 Planning Exemptions*

*7 exemptions related to:*

### FOR BUSINESSES

[What is the P2 Program? >](#)

[Determining a Business's Eligibility >](#)

[P2 Thresholds >](#)

[Tips for Creating a Successful Plan >](#)

[P2 Planning Helpful Resources >](#)

[P2 Forms >](#)

[Resource Summaries >](#)

- *Facilities located in tribal land*
- *Household hazardous waste collection facilities*
- *Treatment, storage, disposal facilities*
- *Toxic substance use related to mining or metallurgy processes*
  - *Please make sure to read the policies as not every process in mining or metallurgy is exempted*
- *Facilities that caused a one-time, unexpected event where a hazardous waste was generated*

 **FOR BUSINESSES**

[What is the P2 Program? >](#)  
**[Determining a Business's Eligibility >](#)**  

[P2 Thresholds >](#)  
[Tips for Creating a Successful Plan >](#)  
[P2 Planning Helpful Resources >](#)  
[P2 Forms >](#)  
[Resource Summaries >](#)

## Follow the Steps

1. Determine if your company needs to file P2 plan by reviewing filing thresholds
2. Review P2 filing exemptions
3. Complete a *Determination of P2 Plan Filing Status Form*
4. *P2 Staff will determine your business Eligibility*

## Determination of Pollution Prevention (P2) Plan Filing Status

- Used to determine if P2 thresholds are met
  - ✓ Toxic substance use
  - ✓ Hazardous waste generation
- Determines if exemptions are met
- Collects information on the major processes at the facility
- Collects information on the toxic substances reported to the Toxic Release Inventory (TRI) program
- Collects the last three years of hazardous waste generated including the amount recycled
- Collects information on water conservation, energy management, recycling and environmental management systems

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of Environmental Quality

### Determination of Pollution Prevention (P2) Plan Filing Status

Please complete this form and return it via e-mail to [p2@azdeq.gov](mailto:p2@azdeq.gov). If you do not have e-mail access, hard copies can be mailed to the attention of ADEQ P2 Program, 1110 W. Washington Street, Phoenix, AZ 85007.

The questions below are to be answered using the previous year information, i.e. if you are in year 2016, then information should be for year 2015, etc.

**FACILITY NAME:** \_\_\_\_\_

**LOCATION ADDRESS:** \_\_\_\_\_

**PRECEDING REPORTING YEAR:** \_\_\_\_\_

YES	NO	QUESTION
<input type="radio"/>	<input type="radio"/>	1. My facility is a household hazardous waste collection facility. [A.R.S. §49-961(2)]
<input type="radio"/>	<input type="radio"/>	2. My facility is primarily engaged in receiving waste from off-site and has a permit issued or plan approved by ADEQ for the storage, treatment or disposal of solid, special or hazardous waste. [A.R.S. §49-961(2)]
<input type="radio"/>	<input type="radio"/>	3. My facility is located on tribal land.
<i>If you select "Yes" to questions 1 – 3, you DO NOT need to complete the rest of this form. Please check the box at the end of the form confirming that you have provided accurate information, include your contact information and the date, and submit for review.</i>		
<input type="radio"/>	<input type="radio"/>	4. My facility has a current P2 Plan on file with the ADEQ. If you answered yes, list the P2 Plan ID number assigned to your facility: _____ [A.R.S. §49-963(A)]
<input type="radio"/>	<input type="radio"/>	5. During the preceding calendar year, the owner or operator of this facility was required to file an annual (EPA) Toxic Release Inventory form (TRI) for the facility. My facility filed _____ (Total # of Forms R + A). The facility TRI ID Number (if known) is: _____ [A.R.S. §49-962(A)(1)] Refer to EPA's TRI screening threshold tool to determine if your facility is required to file a TRI form <a href="http://www2.epa.gov/toxics-release-inventory-tri-program/tri-threshold-screening-tool">http://www2.epa.gov/toxics-release-inventory-tri-program/tri-threshold-screening-tool</a>
<input type="radio"/>	<input type="radio"/>	6. During the preceding calendar year, the facility generated or shipped offsite for purposes other than recycling an average of 1 kilogram (2.2 pounds) per month of acutely hazardous waste. [A.R.S. §49-962(2) and A.R.S. §49-963(B)] The EPA/Resource Conservation and Recovery Act (RCRA) ID # for this facility is: _____
<input type="radio"/>	<input type="radio"/>	7. During the preceding calendar year, the facility generated or shipped offsite for purposes other than recycling an average of 1,000 kilograms (2,200 pounds) per month of hazardous waste. [A.R.S. §49-962(2) and A.R.S. §49-963(B)] The EPA/RCRA ID # for this facility is: _____
<input type="radio"/>	<input type="radio"/>	8. My facility used in excess of 10,000 pounds of a (TRI listed) toxic substance during the preceding calendar year. [A.R.S. §49-963(D)]
<input type="radio"/>	<input type="radio"/>	9. The toxic substances used at my facility were pesticides for agricultural application subject to reporting and record keeping requirements, or my facility has been issued an agricultural general permit. [A.R.S. §49-963(O)]
<input type="radio"/>	<input type="radio"/>	10. The toxic substances used at my facility during the preceding calendar year were materials used or produced in connection with a mining or metallurgical operation. [A.R.S. §49-963(A)]. For additional clarification on mining, please review the <a href="#">Pollution Prevention Plans Mining Operations Exempt</a> policy and for additional clarification on metallurgical operations, please review the <a href="#">Pollution Prevention Plans Metallurgical Operations Exempt</a> policy.
<input type="radio"/>	<input type="radio"/>	11. The hazardous waste generated in the preceding calendar year was due to an episodic, accidental or remediation related release or occurrence. [A.R.S. §49-963(N)]
<input type="radio"/>	<input type="radio"/>	12. My facility caused a one time event in the preceding calendar year that generated hazardous waste or an acutely hazardous waste from an unused hazardous substance, and the unused hazardous waste cannot lawfully be used due to changes in statute or rule. [A.R.S. §49-963(M)]

# I met the thresholds, what is a P2 Plan?

Stand Alone Management Document

Analyzes Work Practices and Operations

Outline Potentials for P2 Opportunities and Goals

Required a minimum of two years but can extend longer

Required to maintain as long as facility meets P2 thresholds

# Components of a successful P2 Plan



# Updated P2 Plan Forms

## Updated P2 Plan Forms

- Fillable forms
- Reduced to 5 sections
- Certain sections automatically fill
- Training goal no longer required as a goal
  - Training information is required as part of the plan in Section 1
- Forms contain a single copy of each section to avoid paper waste.
  - Can obtain copies of additional sections through P2 webpage.

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Arizona Department  
of Environmental Quality

### Pollution Prevention (P2) New Plan

If you are submitting an amendment to your existing plan please do not use these forms. These forms are only for New Plan filers.

For faster processing, it is preferred that you email your completed plan. Send the completed plan to your assigned reviewer. If you do not know your assigned reviewer, or you do not know your P2 ID number please send an e-mail to [p2@azdeq.gov](mailto:p2@azdeq.gov). Alternatively, you may mail the plan to the address shown below:

ADEQ Solid/Hazardous Waste Unit  
Attn: (Insert Name of Reviewer)  
1110 W. Washington St.  
Phoenix, AZ 85007

How many facilities will be covered by this plan? Select one option below.

Single Facility, Single Goal (One location, one goal) – Complete entire plan i.e. Sections 1, 2, 3, 4 and 5.

Single Facility, Multiple Goals (One location, more than one goal) – Complete entire plan i.e. Sections 1, 2, 3, 4 and 5 and Insert Section 3s for additional process areas and Section 4s for additional goals as needed.

Multiple Facilities, Non-Umbrella (Different locations and different sets of goals) – Complete Sections 1 and 5 once. Insert Sections 2, 3 and 4 for EACH location and additional Section 3s and Section 4s as needed.

Umbrella Plan with Multiple Facilities, Same Goals (Different locations, all locations have same goals) – Complete Sections 1 and 5 once, and Section 2 for EACH location. Insert Section 3s and 4s as needed.

Umbrella Plan with Multiple Facilities, Different Goals (Different locations, all with different goals) – Fill out Sections 1 and 5 once, and Section 2 for EACH location. Insert Section 3s and 4s as needed.

Obtain additional copies of [Section 2, 3 and 4](#).

# Updated P2 Amendment Forms

## Amendment Form Updates

- Fillable forms
- Reduced to 4 sections
- Certain sections automatically fill
- Training goal no longer required as a goal
  - Training information is required as part of the plan in Section 1
- Forms contain a single copy of each section to avoid paper waste.
  - Can obtain copies of additional sections through P2 webpage.



### Pollution Prevention (P2) Amendment

For faster processing, it is preferred that you email your completed amendment. Send the completed amendment to your assigned reviewer. If you do not know your assigned reviewer, or you do not know your P2 ID number please send an e-mail to [p2@azdeq.gov](mailto:p2@azdeq.gov). Alternatively, you may mail the plan to the address shown below.

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(Insert Name of Reviewer)  
1110 W. Washington St.  
Phoenix, AZ 85007

How many facilities will be covered by this plan? Select one option below.

- Single Facility, Single Goal (One location, one goal) – Complete entire plan amendment i.e. Sections 1, 2, 3 and 4.
- Single Facility, Multiple Goals (One location, more than one goal) – Complete entire plan amendment i.e. Sections 1, 2, 3 and 4. Insert Section 3s for additional process areas and Section 4s for additional goals as needed.
- Multiple Facilities, Non-Umbrella (Different locations and different sets of goals) – Complete Section 1 once. Insert Sections 2, 3 and 4 for EACH location and additional Section 3s and Section 4s as needed.
- Umbrella Plan with Multiple Facilities, Same Goals (Different locations, all locations have same goals) – Complete Section 1 once and Section 2 for EACH location. Insert Section 3s and 4s as needed.
- Umbrella Plan with Multiple Facilities, Different Goals (Different locations, all with different goals) – Complete Section 1 once, and Section 2 for EACH location. Insert Section 3s and 4s as needed.

Obtain additional copies of Section 2, 3 and 4.

# Updated Progress Report Cover Page



## Pollution Prevention (P2) Annual Progress Report 2016

Pre-populated  
with facility  
contact  
information

Contact Information: Attn: Jane Keurtig. - P2 ID #: 200326  
ABC Incorporated  
1500 W. Maricopa Hwy  
Casa Grande, AZ 85193  
Telephone #: 480-411-6470  
E-Mail: Jane.Keurtig@abc.com

### Contact Information Corrections:

Please fill out the facility information below:

My facility has implemented a P2 team?  Yes  No Previous for 2015: Yes

My facility has implemented an Environmental Management System (EMS)?  Yes  No Previous for 2015: No

The number of employees trained in pollution prevention awareness (ARS 49-963.J.9) in 2016 was: \_\_\_\_\_  
If employees were not trained in 2016, please provide an explanation below and an expected date (mm/dd/yy) when training will be completed.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If your training material has changed since you submitted your last progress report please submit a copy of the updated training.

The amount of hazardous waste generated and recycled at my facility over the last three calendar years.

	Generated (pounds)	Recycled (pounds)
2014		
2015		
2016		

I certify that I have personally examined this Progress Report, that I am familiar with its content and attachments, and I believe the information presented in this report is true, accurate and complete.

Name (please print or type): Travis Rosebaum

Signature: \_\_\_\_\_ Title: Site Director

Date: \_\_\_\_\_ Telephone #: 520-421-6200 E-mail: Travis.rosebaum@abc.com

EPA ID (RCRA ID #): AZD981399584 EPA TRI ID: 85342RSSLB1500W

Send completed forms to: ADEQ Pollution Prevention Program  
1110 W. Washington Street  
Phoenix, AZ 85007  
or e-mail to p2@azdeq.gov

Questions or help: email p2@azdeq.gov

Include  
training  
information  
here

Include  
hazardous  
waste  
information

## Annual Toxic Data Reports (TDR's):

- Due by July 1<sup>st</sup> of each year
- Reminders sent during April/May
- Contain several of the documents below:
  - Progress report instructions
  - Progress report cover sheet
  - Goal forms
  - Amendment
  - TRI Submittal



 **FOR BUSINESSES**

[What is the P2 Program? >](#)  
[Determining a Business's Eligibility >](#)  
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[Tips for Creating a Successful Plan >](#)  
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**[P2 Forms >](#)**    
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[< RETURN TO POLLUTION PREVENTION \(P2\) PLANNING PROGRAM](#)

## P2 Forms

The Following form are available to you for submitting your P2 Plan

- [Determination of P2 Plan Filing Status](#) | [Download Form >](#)

[P2 Plan](#)

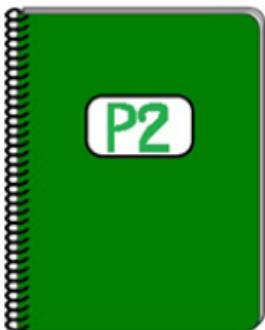
- [Complete New Plan](#) | [Download Form >](#)
  - [P2 Plan Section 2](#) | [Download Form >](#)
  - [P2 Plan Section 3](#) | [Download Form >](#)
  - [P2 Plan Section 4](#) | [Download Form >](#)
- [Complete Amendment](#) | [Download Form >](#)
  - [P2 Amendment Section 2](#) | [Download Form >](#)
  - [P2 Amendment Section 3](#) | [Download Form >](#)
  - [P2 Amendment Section 4](#) | [Download Form >](#)

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# P2 Planning Resources

## Sector Specific Resources for Business



EPA's Industry Specific Sector Notebooks contain profiles and P2 opportunities for different business sectors.

EPA's P2 Resources for Business provides useful P2 information for auto repair, healthcare, metal finishing and janitorial activities.

Topic Hubs from the Western Sustainability and Pollution Prevention Network (WSPPN) provide specific P2 opportunities for different business sectors. These web-based guides contain peer-reviewed information as well as key processes for different business operations. ADEQ's EMS guidance document was prepared to assist small-to-medium sized businesses establish and maintain an EMS.

## Energy Resources



Energy Star for small businesses provides information on how to prevent pollution by reducing energy use. The US Small Business Administration can help estimate your current energy usage.

Arizona Goes Solar's website is an effort by the Arizona Corporate Commission and implementation partners to provide residential and business customers information regarding solar options and incentives in Arizona.



## LAUNCHING AN ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

This guidance document was prepared to assist small-to-medium sized facilities establish and maintain an Environmental Management System (EMS). These procedures were developed by the Arizona Department of Environmental Quality (ADEQ) Pollution Prevention (P2) Program.

### DISCLAIMER

While this manual is written to provide assistance to individuals preparing an EMS, it does not replace the Arizona Revised Statutes, Title 49, Chapter 5, Articles 4 and 5. These requirements should be reviewed before using this guidance.

## ADEQ EMS Guide

- Prepared to assist small to medium sized facilities
- Launch an internal EMS

# P2 Planning Resources Continued

## Water Resources



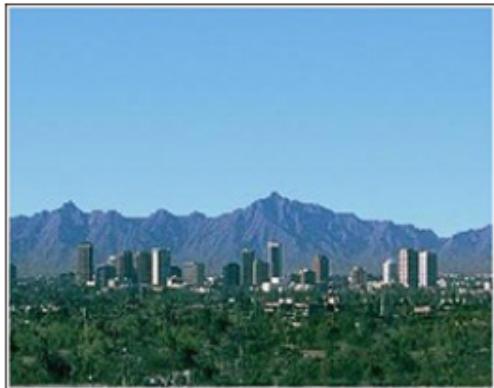
EPA's [WaterSense® Program](#) provides information and strategies for saving money and water that can help you manage your facility's water use.

[Arizona Department of Water Resources Commercial, Industrial and Institutional homepage](#) has more information on [water conservation tools, programs and resources in Arizona](#).

ADEQ's [Multi-Sector General Permit \(MSGP\) for Stormwater Discharges Associated with Industrial Activities fact sheet](#) can help you determine if there are specific permitting requirements for your business. The key to compliance with the MSGP is to keep pollutants out of stormwater through the use of proper P2 practices. These practices or control measures are site-specific and based on the nature of the activities and types of pollutants potentially exposed to and transported by stormwater.

[ADEQ's Water Quality Division web site](#) contains further information on obtaining authorization for discharges of stormwater associated with construction activity and information on Stormwater Pollution Prevention Plan (SWPPP).

## Air Resources



ADEQ's [air quality website](#) offers information on agricultural best management practices, travel reduction programs and fugitive dust control.

"[Clean Air Make More](#)" is Maricopa County's free downloadable app that provides current air quality conditions, including real-time updates on restrictions such as no burn days. The app offers detailed air pollution statistics on ozone, PM-10, carbon monoxide and PM-2.5 particles, as well as a means to report air quality problems.

## Recycling Resources

ADEQ's [recycling webpage](#) provides useful recycling information, including a [recycling locator](#) to find where you can recycle various items in Arizona.

# P2 Resources Summaries



## FOR BUSINESSES

- What is the P2 Program? >
- Determining a Business's Eligibility >
- P2 Thresholds >
- Tips for Creating a Successful Plan >
- P2 Planning Helpful Resources >
- P2 Forms > 
- Resource Summaries >

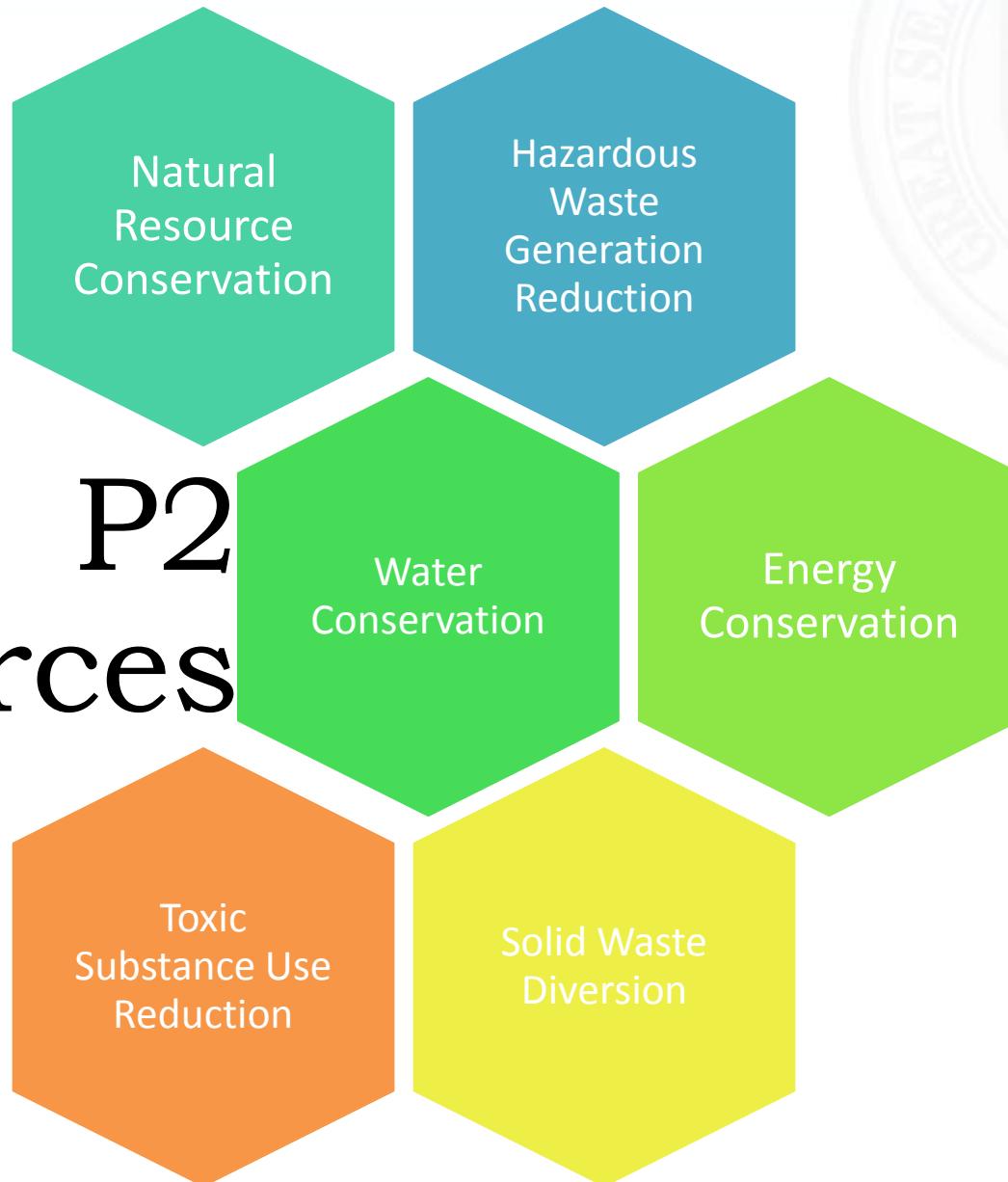
- Designed by interns with P2 staff guidance
- Quick summary fact sheets
- Assist facilities reduce pollution in specific sectors, processes or areas.
- Provide list of links that can help you reduce pollution
- Provide case studies

A collage of various Arizona Department of Environmental Quality (ADEQ) fact sheets and resource summaries, including topics like Pollution Prevention, Hazardous Waste, and Energy Conservation. The documents are tilted and overlapping, creating a dynamic, information-rich visual.

- Possible through an EPA grant
- 15 week internships (spring and fall semesters)
- ASU students
- Currently three interns
- Duties include P2 resource summaries, Food Recovery Program and Hotel/Lodging Outreach
- Focus is to provide outreach material to reduce toxic substance use and hazardous waste generation
- Facility site visits
  - P2 staff is looking for facilities interested in granting a site visit for upcoming semesters. Contact P2 staff if interested.



# P2 Resources



# Toxic Substance Use Reduction

## What can your company do to reduce toxic substance use?

- Chemical reformulations
- Green chemistry
- Substitution of toxic substances for non-toxic or less toxic substances
- Avoid raw material waste through unnecessary excessive use
- Modify processes for more efficient toxic substance use



## EPA Safer Choice Program

- Resources to reduce toxic substance use
- Facility cleaning supplies
- Degreasers
- HVAC Maintenance
- Athletic field paints



### Safer Chemical Ingredient List

- Solvents
- Specialized industrial agents
- Surfactants
- Emollients
- Chelating agents
- Colorants
- polymers

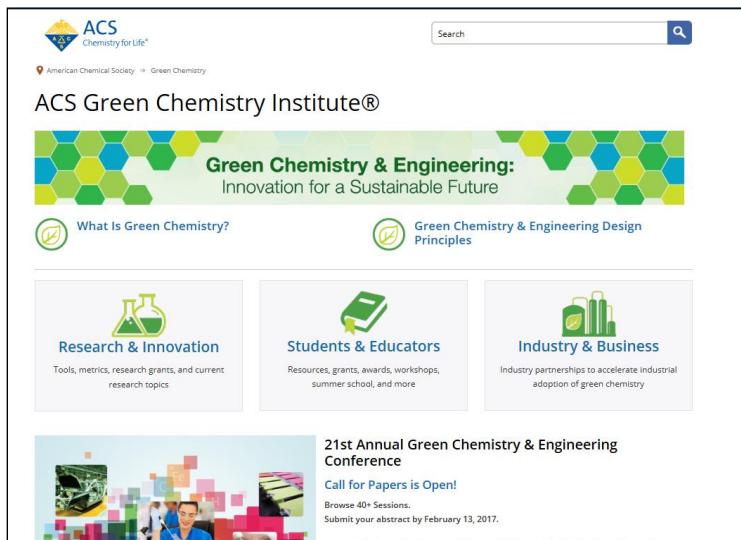


### Safer Chemical List

- [Safer Chemical Ingredients List \(SCIL\)](#)
- [How to List on SCIL](#)

# Other Resources Continued

## American Chemical Society (ACS)



The screenshot shows the homepage of the ACS Green Chemistry Institute. The top navigation bar includes the ACS logo, a search bar, and a 'Green Chemistry' link. Below the navigation is the title 'ACS Green Chemistry Institute®' and a sub-section 'Green Chemistry & Engineering: Innovation for a Sustainable Future'. There are several sections: 'What is Green Chemistry?' with a green leaf icon, 'Green Chemistry & Engineering Design Principles' with a green leaf icon, 'Research & Innovation' with a flask icon, 'Students & Educators' with a book icon, 'Industry & Business' with a factory icon, and a '21st Annual Green Chemistry & Engineering Conference' section featuring a photo of three people and a 'Call for Papers is Open!' message.

## Webinars & Videos

### Celebrating 20 Years of the Green Chemistry & Engineering Conference.



<https://www.acs.org/content/acs/en/greenchemistry/students-educators/webinars-videos.html>



<https://www.migreenchemistry.org/toolbox/directory/>



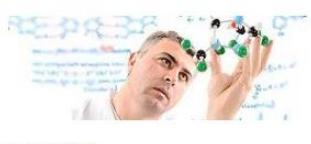
The screenshot shows the top navigation bar of the EPA Green Chemistry page. It includes the EPA logo, a search bar, and links for 'Environmental Topics', 'Laws & Regulations', and 'About EPA'.

## Green Chemistry

Green chemistry is the design of chemical products and processes that reduce or eliminate the generation of hazardous substances. EPA's efforts to speed the adoption of this revolutionary and diverse discipline have led to significant environmental benefits, innovation and a strengthened economy.

- [Watch our video on the benefits of green chemistry.](#)

### Basics of Green Chemistry



### Presidential Green Chemistry Challenge



<https://www.epa.gov/greenchemistry>

# Toxic Substance Use Reduction Continued

## Toxics Release Inventory (TRI) Program P2 Search Tool

 United States Environmental Protection Agency

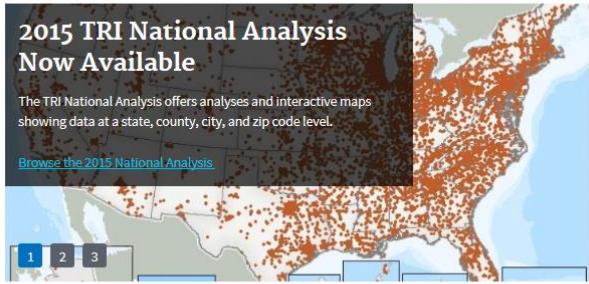
Environmental Topics   Laws & Regulations   About EPA   Search EPA.gov

### Toxics Release Inventory (TRI) Program

**2015 TRI National Analysis Now Available**

The TRI National Analysis offers analyses and interactive maps showing data at a state, county, city, and zip code level.

[Browse the 2015 National Analysis](#)



TRI is a resource for learning about toxic chemical releases and pollution prevention activities reported by industrial and federal facilities. TRI data support informed decision-making by communities, government agencies, companies, and others.

**About the TRI Program**

- [Learn About TRI](#)
- [Basics of TRI Reporting](#)
- [Common TRI Terms Explained](#)
- [TRI 30th Anniversary](#)

**TRI Resources**

- [2015 TRI National Analysis Report](#)
- [Pollution Prevention \(P2\) Data](#)
- [Tools for TRI Data Analysis](#)
- [TRI for Communities](#)

**Annual Reporting For Facilities**

- [Reporting Instructions and Guidance](#)
- [TRI Facilities Portal](#)
- [Determine if Your Facility Must Report](#)
- [Electronic Reporting with TRI-MEweb](#)

**Find TRI Factsheets for Your Community**

Search by: States   Metropolitan Areas   Watersheds   Tribal

Get email 



## TRI Resources

- [2015 TRI National Analysis Report](#)
- [Pollution Prevention \(P2\) Data](#)
- [Tools for TRI Data Analysis](#)
- [TRI for Communities](#)

<https://www.epa.gov/toxics-release-inventory-tri-program>

# Hazardous Waste Reduction

## What can your company do to reduce hazardous waste ?

- Inventory Control
- Conduct proper waste determinations
- Substitution of non hazardous materials in processes
- Modify processes to reduce waste
- Spill and leak prevention
- Segregate hazardous waste and non hazardous waste properly



## Resources

- EPA's basics on hazardous waste including what is a hazardous waste:  
<https://www.epa.gov/hw/learn-basics-hazardous-waste>
- Requirements for each hazardous waste generator and classes  
<https://www.epa.gov/hwgenerators/hazardous-waste-generator-regulatory-summary>
- EPA's basic hazardous waste basics  
<https://www.epa.gov/hw/learn-basics-hazardous-waste>

# Solid Waste Reduction

## What can your company do to reduce solid waste ?

- Solid waste assessment
- Inventory control
- Reduce packaging
- Reuse packaging
- Implement a recycling program
- Reduce food waste



## Resources

- **EPA's WasteWise Program** encourages sustainable materials management to reduce select industrial wastes. Join the program, conduct a waste assessment, define scope, set measurable goals. <https://www.epa.gov/smm/wastewise>
- Learn how to reduce, reuse and recycle from EPA <https://www.epa.gov/recycle>
- ADEQ's e-waste recycling toolkit <http://www.azdeq.gov/node/1198>
- Use the recycling locator <http://www.azrecycles.gov/> to figure out what can be recycled and where to recycle different items in your zip code.
- Contact ADEQ's recycling coordinator J.B. Shaw [js1@azdeq.gov](mailto:js1@azdeq.gov) or 602 771 5613

# Energy Reduction

## What can your company do to reduce energy use ?

- Conduct an energy audit
- Replace inefficient lighting
- Use energy efficient electronics
- Check and maintain equipment
- Turn off electrical equipment and lighting when not in use
- Install occupancy sensors/motion sensors and timers



## Resources

- Save energy with **EPA's Energy Star** - [www.energystar.gov](http://www.energystar.gov)
  - Energy Star Portfolio Manager – Benchmarks
  - Energy efficient products: Appliances, electronics, office equipment building products, heating and cooling (boilers, air conditioning), lighting...
- **Department of Energy** – <https://energy.gov>
  - Compressed Air Systems
  - Manufacturing Success Stories: <https://energy.gov/eere/success-stories/listings/manufacturing-success-stories>

# Water Reduction

## What can your company do to reduce water use ?

- Conduct a water audit/analyze water usage
- Install water efficient nozzles and aerators
- Reuse water in other processes if possible
- Identify and stop drips, leaks and unnecessary flows
- Practice xeriscaping landscaping
- Use motion sensors for low flow faucets and dual flush toilets



## Resources

- Save water with **EPA's Water Sense** – [www3.epa.gov/watersense/](http://www3.epa.gov/watersense/)
  - Find water efficient products – Sink faucets, toilets, irrigation controllers, commercial pre-rinse sprays
  - Best management practices for commercial and institutional facilities
- Arizona's Department of Water Resources – ADWR: <http://www.azwater.gov/AzDWR/>
  - Water conservation best management practices
  - Water conservation tools and resources:  
<http://www.azwater.gov/AzDWR/StatewidePlanning/Conservation2/>
  - Information on xeriscaping, native plants for Arizona and water efficient landscapes

## Metal Fabrication Facility

### Electrical Energy Reduction

**Action:** Facility replaced halogen lights with LED ones.

**Results:** In 2015 this resulted in 1,938,924 kwh reduced with a cost savings of \$82,500.



### Hazardous Waste Reduction

**Action:** Reclaimed contaminated water based paint by straining out the contaminated portion.

**Results:** In 2015 this resulted in a reduction of 44, 687 pounds of paint with a cost savings of \$61,412.



## Chemical Manufacturing Facility

### Water Reduction

**Action:** Reduced the amount of water used in the process by 5%.

**Results:** In 2015 this resulted in 8,792,000 gallons reduced with a cost savings of \$43,962.



### Hazardous Waste and Solid Waste Reduction

**Action:** Reduce total waste by 10% and incinerated waste by 25% by working with waste vendor to redirect waste.

**Results:** In 2015 this resulted in a hazardous waste reduction of 282,207 pounds with a cost savings of \$564,413 and 406,304 pounds of solid waste was diverted from the landfill.

# Other resources - WSPPN

## Western Sustainability Pollution Prevention Network

<http://wsppn.org>

The screenshot shows the WSPPN website with a header featuring the logo and text: "WESTERN SUSTAINABILITY & POLLUTION PREVENTION NETWORK" and "Arizona • California • Hawaii • Nevada • Tribal Lands • Trust Territories". Below the header are navigation links for News, P2 Training, Resources, Studies, About Us, and Contact Us. The main content area includes a section for the ACS Green Chemistry Institute, a photo of volunteers at a food rescue event, and a green box with waste management terms. Below this are sections for a conference call for papers, a tool for waste planning, and three resource boxes: Upcoming Webinars, Green Chemistry 101, and P2 101.

**WESTERN SUSTAINABILITY & POLLUTION PREVENTION NETWORK**  
Arizona • California • Hawaii • Nevada • Tribal Lands • Trust Territories

News P2 Training Resources Studies About Us Contact Us

**ACS Green Chemistry Institute**

Call for Papers: The 21st Annual Green Chemistry & Engineering Conference  
Abstracts are open for submission from January 4, 2017 to

Congratulations to EPA Region 9 winners!

upstream reduce trash sustainable priority haulers community waste planning recycling compost

Charting a Path Towards Zero Waste  
EPA releases new tool to help communities plan for less waste: Managing and Transforming Waste Streams

**Upcoming Webinars**

**2017 Webinars**

February 7, 2017 - ADEQ Solid Waste Overview

February 14, 2017 - ADEQ Hazardous Waste Regulations and Reporting

February 15, 2017 - ADEQ Hazardous Waste Regulations and Reporting

February 16, 2017 - ADEQ Hazardous Waste Regulations and

**Green Chemistry 101**

Learn the twelve principles of green chemistry taught during The Green Chemistry & Engineering Student Workshop in June 2013 in Washington D.C. This is a virtual training experience in high definition so that you will feel like you are part of the class.

[Learn more](#)

**P2 101**

WSPPN and the National Pollution Prevention Roundtable (NPPR) partnered to develop an online training in pollution prevention (P2). This nine-lesson virtual training was originally presented at a conference in Sacramento, CA to provide members of business and industry, and environmental technical assistance providers with a foundation in the key principles and strategies for preventing pollution.

[Learn more](#)

## *Great Lakes Regional Pollution Prevention Roundtable*



**Peaks to Prairies**  
Pollution Prevention Information Center



**ZERO WASTE**  
NETWORK

CENTER FOR ENVIRONMENTAL EXCELLENCE



**POLLUTION PREVENTION  
REGIONAL INFORMATION CENTER**

NEBRASKA  
MISSOURI  
KANSAS  
IOWA





## A.R.S. §49-192

- Identify and reward organizations with a good history of compliance
- Various categories
  - Copper, bronze, silver gold and platinum

## Reasons to join

- ADEQ recognition of your organization
- Reduced inspection frequency
- Coordination of multiple onsite inspections
- Advanced notification of inspections and enforcement rulings

Contact:

Ian Bingham,  
ADEQ Communications Director and  
Ombudsman

Phone: (602) 771-4322

Fax: (602) 771-2251

[idb@azdeq.gov](mailto:idb@azdeq.gov)



**Contact us!  
We are here to help!**

**[p2@azdeq.gov](mailto:p2@azdeq.gov)**

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**[ji1@azdeq.gov](mailto:ji1@azdeq.gov)**

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Jack Schrilla – (602) 771-4264  
**[jps@azdeq.gov](mailto:jps@azdeq.gov)**

Thank You