

US EPA ARCHIVE DOCUMENT



# **Project Excellence (XL) In Leadership Status Report May 2003**



**City of Albuquerque  
Public Works Department  
Wastewater Utility Division  
Industrial Pretreatment  
p2 Section  
4201 2<sup>nd</sup> St. SW  
Albuquerque, NM 87105**

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## Synopsis

This document details the City of Albuquerque's Industrial Pretreatment (IPP) and Pollution Prevention (p2) Program's work in EPA's **Project "Excellence in Leadership" (Project XL)** pilot for Pretreatment Programs. This report documents our work from inception with partial authorization in 2000 to May 2003, with industrial sectors, new businesses, studies, testing, and reports that have resulted from the Project XL Pilot. Full authorization of a Pilot Project awaits issuance of a new NPDES Permit for the Southside Water Reclamation Plant (SWRP)

The pilot program we embarked upon is easily duplicated, and we believe has been successful with qualitative and quantitative results, as well as "lessons learned."





## Introduction

The City of Albuquerque's Industrial Pretreatment Program (IPP) was chosen in February 2000 as the **first city** selected by EPA into the **Project "Excellence in Leadership" (Project XL)** pilot for pretreatment programs.

Albuquerque developed a program document; *"Project XL: Albuquerque Pretreatment Project"*. The agreement was signed by EPA, New Mexico Environment Department, the New Mexico Silver Users Association, (a major local stakeholder association dedicated to promoting p2 to businesses that use silver), and the City in February, 2000. EPA authorized the City to implement a **modified, less regulatory program with creative approaches that increase environmental benefits.**

As stated in the Final Project Agreement, February 2000, by one of the stakeholders *"The City of Albuquerque and local industries have been pioneers in cooperative industrial pretreatment. This reinvention proposal would help support the evolution of an important legacy for future generations nationwide. We are confident that our City, if selected, will continue to serve as a national model in this area of work."* New Mexico Silver Users Association.

## Primary Goal



The primary aim of our project has been to achieve reductions of pollutants loading to the environment from industries and businesses in Albuquerque through the **integration of pollution prevention activities** within the existing mandated Industrial Pretreatment Program. Project XL has allowed Industrial Pretreatment to shift resources from less productive traditional requirements towards innovative P2 activities that yield superior environmental results.

## Broader Outreach

**P2 outreach is being accomplished by addressing hundreds** of different commercial sector businesses that have not been part of the work of traditional Industrial Pretreatment Program. Multi-media (air, solid waste, and wastewater and storm water) aspects of P2 are being addressed to avoid pollutant transfers between different media. We work to coordinate and compliment the work of many other city and state environmental programs. This results in strong liaisons with local stakeholders and statewide pollution prevention programs.



## Acknowledgements

We would be remiss if we did not mention the assistance we have received from the valuable alliances we have with other agencies and organizations.

We have been fortunate to enjoy the teamwork with other agencies such as the New Mexico Green Zia Environmental Excellence program, one of our key XL Project Stakeholders. NM Green Zia works toward fostering strong environmental management systems that incorporate P2 principals for businesses. We have directly benefited by receiving staff training and business interaction through the NM Green Zia program.

Another important partner is the New Mexico based "WERC: A Consortium for Environmental Education & Technology Development" program who has been instrumental in our program. We have collaborated in joint EPA grant funding to address medical facility waste management training.

Region 6 EPA P2 Coordinators Eli Martinez and Joy Campbell have provided invaluable assistance in the EPA Pollution Prevention Incentives to States Grant received.

EPA has played an important role in our XL P2 project from the beginning to present. Key EPA personnel, notably Adele Cardenas, Region 6 EPA Project XL Coordinator, and Lee Bohme, Region 6 Pretreatment Program Coordinator, have been instrumental for our project to come into existence. Without their support, guidance and advice it is doubtful our project would have gotten off the ground. In addition, individuals at EPA Headquarters, notably Chad Carbone, Program Analyst and Pat Bradley, National Pretreatment Programs Coordinator helped to set the national agenda at EPA to allow pretreatment programs to enter the Project XL national program.

Finally, we, like many other P2 projects and programs across the country, have directly benefited from the excellent materials and information generated elsewhere that has been generously shared. We hope our materials will continue to return the favor of shared information to anyone interested.





## New Initiatives

New initiatives include pollution prevention outreach by:

1. Forming alliances with local medical facilities to foster development of in-house waste management and reduction programs, which was funded by an EPA grant.
2. Working with local dentists to develop accredited CEU, training credits to receive our in-office P2 education seminars.
3. Positive recognition incentive awards to businesses
4. Outreach has been guided by new sewer sub-basin sampling and monitoring to learn where in the City certain pollutants of concern predominate.
5. Developed databases to identify areas in the City where hazardous materials are used or stored. Thereby learning where such wastes could potentially originate. The information is used to target pollution prevention outreach material development and promotion at appropriate locations and industries City wide.

## Latest Award

September 2002

- # The Wastewater Utility Division's IPP/p2 Program won a coveted **"Most Valuable Pollution Prevention Award"** from the **National Pollution Prevention Roundtable (NPPR)**. James Lewis, Chief Operating Officer for the City of Albuquerque accepted the award on behalf of the p2 Program on September 18, 2002, in Washington D.C.



James Lewis, Chief Administrative Officer, City of Albuquerque accepted MVP2 award with EPA's Charles Auer, VA DEQ's Sharon Baxter, U.S. Senator Jeff Bingaman & FEE John Howard



## Creative Permitting

Over the years, some permitted industries have developed excellent internal waste management programs that are reflected by near perfect compliance records. Others have accomplished closed loop or minimized total discharges of wastes.

Instead of a traditional permit, companies are offered **incentive-based Pollution Prevention Memorandum of Understanding (MOU)**. MOUs spell out specific **P2 oriented activities** for the business/industry to undertake and verify to the City. MOUs carry the incentive of P2 awards that businesses use in their advertising. Companies are relieved of most administrative reporting burdens and strict permit liability. To date, **seven formerly permitted businesses** accepted the opportunity to implement an MOU instead of a wastewater discharge permit. There are two pending conversions from waste discharge permit to MOU.

## Industries Invited to Participate In Project XL via MOUs

Company	Sector	Date of MOU	Key Points of MOU Agreement
CTS Wireless Components, Inc	Ceramic Mfg.	12/12/02	Advertise p2 to stakeholders & encourage co-participation when feasible Continued water reduction & reclamation of wastes Document newly implemented p2 activities Agree to annual p2 surveys & sampling
Hutch's Casting Company	Jewelry Mfg.	10/30/01	Advertise p2 to interested stakeholders & encourage co-participation when feasible Continued water reduction & reclamation of wastes Document newly implemented p2 activities Agree to annual p2 surveys & sampling
Kabana, Inc.	Jewelry Mfg.	10/30/01	Advertise p2 to interested stakeholders & encourage co-participation when feasible Continued reclamation of wastes Document newly implemented p2 activities Agree to annual p2 surveys & sampling
Shubes Mfg., Inc.	Jewelry Mfg.	12/10/01	Advertise p2 to interested stakeholders & encourage co-participation when feasible Continued reclamation of wastes Document newly implemented p2 activities Agree to annual p2 surveys & sampling
University of New Mexico (UNM)	University	6/24/02	Advertise p2 to interested stakeholders & encourage co-participation when feasible Continued water reduction & reclamation of wastes Document newly implemented p2 activities Agree to annual p2 surveys & sampling Agree to introduce 5 UNM campus locations annually to p2 certification or 5 PPM certification Continue annual recertification of all facilities that are Currently 5 PPM or p2 certified Virtually phase out all mercury sources
University of New Mexico Healthy Science Center Hospital	Hospital	1/31/03	Advertise p2 to interested stakeholders & encourage co-participation when feasible Continued reclamation of wastes Document newly implemented p2 activities Agree to annual p2 survey/5 PPM certification & sampling Virtually phase out mercury by 2005
Zia Laundry	Commercial Laundry	12/10/01	Advertise p2 to interested stakeholders & encourage co-participation when feasible Continued reclamation of wastes Document newly implemented p2 activities Agree to annual p2 surveys & sampling





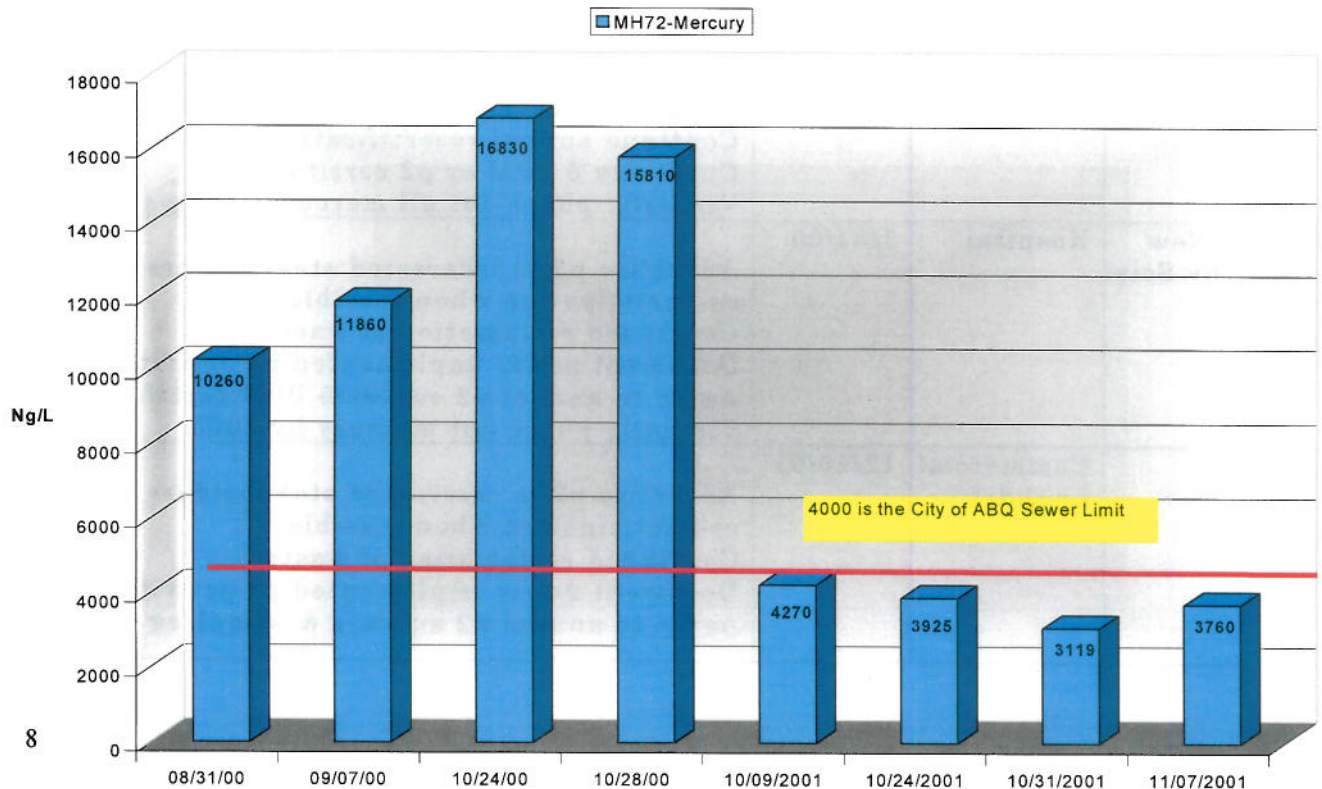
### Lessons Learned

The businesses and our program have learned that realistically it often takes time, planning, and additional work to incorporate meaningful pollution prevention measures within on-going operations. However, the cost savings and reduced regulatory burden of implementing p2 activities versus hazardous waste management can result in a bountiful return. We have also learned the importance of offering incentives to businesses to justify implementing new P2 approaches with positive trade-offs included.

## Testing Sewer Subbasin Monitoring as A Tool

We have changed from a traditional focus based purely on industrial monitoring and instead implemented a new focus on sewer system sub-basins at key manholes to learn where in the City certain pollutants predominate. **Subbasin monitoring is an innovative alternative** to current regulatory requirements that call for predicting pollutant loading based strictly on industrial inputs. Businesses in the City receive **more focused pollution prevention outreach** efforts and activities depending on the types and amounts of pollutants identified in subbasins.

**This new approach** facilitates the ability to track discharges to potential sources upstream by increasing sample collections. For example in an area with a high density of dental offices, high silver and mercury levels were found. Working with local dentists has increased P2 implementation. This had resulted in **less mercury and silver concentrations** found in certain sample points after one year.



In addition, other City of Albuquerque sections and departments can contact p2 about observed problems occurring in the collection system or polluting activities. This approach has:

#### October 2001

- # Generated three mass mailings to apartment complex residents containing educational information about the effects of pollutants to the collection system and to the Southside Water Reclamation Plant (SWRP).

#### November 2002

- # A mailing to a residential and commercial area of the City also discharging copious amounts of cooking grease.



#### *Lessons Learned*

What we have learned is that everyone on your staff must be informed of the "plan". It is important to have buy-in from your staff. When sampling sub basins you should decide if you want to follow spikes or averages when they show up during sampling. Continued monitoring into smaller basins becomes a necessity. Some parameters are surprisingly high in domestic sectors (for example, selenium and silver).



## Project XL's Quantitative & Qualitative Results

The City identified **13 substances known as "pollutants of concern" as targets** to achieve reductions in the wastewater system. These pollutants are based on the pollutant(s) potential to cause problems in our collection system, the reclamation plant or the environment after treatment and release to the Rio.

One of the goals of our pilot project is to **achieve in the range of 10 to 25% reductions of aluminum, cadmium, chromium, copper, cyanide, fluoride, lead, mercury, molybdenum, nickel, selenium, silver, and zinc** being treated. It is also desirable to minimize any deleterious impacts on the City biosolids reuse programs.

Another goal is to stabilize and reduce the inevitable growth rate of pollutant discharges. We have experienced rather impressive results comparing the following trends:



**City of Albuquerque - Southside Water Reclamation Plant**  
**Influent % Reductions**  
***Pollutants of Concern Concentrations 1999-2001***

<b>Parameter</b>	<b>1999/2000</b>	<b>2000/2001</b>	<b>%Reduction</b>
	<b>ppb</b>	<b>ppb</b>	
Aluminum	1907	1130	41%
Cadmium	2.5	2.2	11%
Chromium	8	7	12%
Copper	76	13.7	82%
Cyanide	Non detect	Non detect	Non detect
Fluoride	1.8	1.64	9%
Lead	27.3	20.2	26%
Mercury	Non detect	Non detect	Non detect
Molybdenum	Non detect	Non detect	Non detect
Nickel	13.5	12.3	9%
Selenium	Non detect	Non detect	Non detect
Silver	17.8	8.15	54%
Zinc	145	98.4	32%

It is notable that biosolid concentrations declined by similar margins in 11 of the listed parameters during the same time. Please note the parameters listed above as "non detect". We hope to continue this highly desirable trend. *Analytical data is from the City's Water Quality Laboratory an A2LA accredited laboratory.*

**5 PPM & P2 Awardees**  
**2000 to 2003**

## **Outreach for Businesses**

### **2000 To Date**

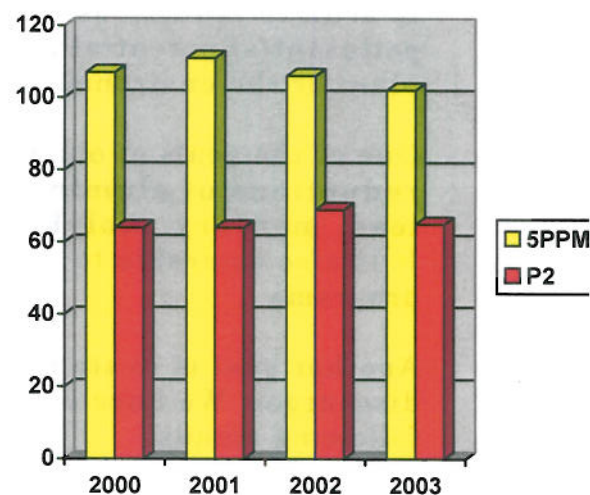
#### ***Certifications & Recognition***

##### ***2000 to Present***

# The chart to the right contains data concerning awardees participating in our two award programs the **5 Parts Per Million (5 PPM) Silver Award**, and the **Pollution Prevention (p2) Award**.

# Recognized awardees on January 9, 2003, in the *Albuquerque Journal's Business Outlook*.

# Recognize awardees on the p2 web page all year at [www.cabq.gov/p2](http://www.cabq.gov/p2)





## Jewelry Manufacturing

### 2000 to Present

- # **Pickle Plater Loan Program**-The p2 Program built two "Pickle Platers" (electrowinning process for acid pickle generated from jewelry manufacturing) for loan to local jewelers. Using the pickle platers eliminates acidic and copper discharges to the collection system. In addition, it reduces jeweler costs by allowing pickle to be reused.
- # The *Pickle Plater Loan Program* resulted in six different jewelers building their own pickle plater to reclaim pickle waste.

### November 2000

Pickle  
Plater

- # The p2 Program working with the Industrial Pretreatment staff followed up on Jewelers that use a technique called "cyanide bombing".



- # Out of 212 in the City of Albuquerque, only three jewelers continue to use cyanide bombing.
- # Jewelers that continue to bomb have either modified the bombing process to produce less waste, or changed cyanide destruction procedures.
- # Cyanide waste from three jewelers is not being discharged, but is being reclaimed.
- # One jeweler volunteered to share an improved and safe new cyanide bombing technique with other jewelers

## Medical Facilities

### October 2000 to Present

#### Pollution Prevention for Medical Facilities Grants



The City was the Primary Applicant in two *Pollution Prevention Incentives for States grants* for medical facilities. The first grant in 2000 resulted in:

- # A daylong workshop for assisted living facilities, clinics, and hospitals.
- # A synopsis detailing the workshop and best management practices for medical facilities posted on our website.

The second grant, titled "*Pollution Prevention for Medical Facilities*" resulted in:

- # **Four different** hospitals volunteered for detailed waste audits performed by the national expert, Hollie Shaner, R.N.

- # A half-day **workshop** for all hospitals in the City of Albuquerque, and surrounding areas on Pollution Prevention for Medical Facilities. Forty people from hospitals, clinics, and assisted living facilities attended.
- # **Four case studies** posted on our web page
- # A **limited study** on the effects of **Formaldehyde** on POTWs,
- # A synopsis of the workshop posted on our web page at **www.cabq.gov/p2**
- # The formation of the NM p2 Advisory Council for Medical Facilities.



Cath Lab creative re use of banded bags

- # A distribution list for the NM p2 Advisory Council was created. The NM p2 Advisory Council is sent updates regarding p2 for hospitals periodically.
- # One of the hospitals, University Hospital, applied for the Partner Award and received it.
- # The p2 Program received the Champion Award from H2E. Both University Hospital and the p2 Program are listed on H2E's website.

#### April 2002

- # The p2 Program helped WERC, "advertise" **their Hazardous Materials Management for Medical Facilities Workshop** by distributing announcements and pamphlets.

#### May 8, 2002;

- # Ann Jensen, M.P.H. an Occupational Safety/Industrial Hygiene Specialist at Sandia National Laboratories graciously volunteered her time to work with the City's p2 Program. Ann's work focused on disposal and waste management issues for unused and expired pharmaceutical **products**. Her findings were presented to the NMP2 Healthcare Ad Council on May 8, 2002.



Micro scale biomedical chemistry at VA Medical Center

#### February 2003,

- # P2 Intern, Alex Cisneros developed a fact sheet about the long term and short-term effects of mercury to human health. The fact sheet is posted on our web page

### Restaurants & Special Events Vendors

#### January 2000 to Present

- # The p2 Program at the request of the City's Environmental Health Program, and Stormwater section generated two educational brochures, and one poster on the proper management of grease at restaurants, Special Events, and at private residences. The poster was translated to Spanish.





## January 2003

- # IPP was contacted regarding proper management for wastewater from cleaning restaurant hood and duct systems. IPP worked with the companies that clean restaurant hood and duct systems to develop an educational brochure for these types of companies.
- # IPP also worked with the Restaurant Association on promoting the proper management of wastewater from these types of companies.



## Automotive

### May 2000 to December 2000

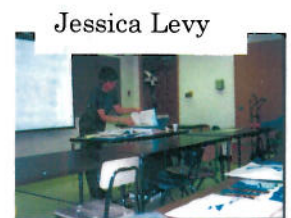
- # P2 staff and Jessica Levy assisted the City's Solid Waste Fleet Maintenance Section with meeting environmental regulations for auto shops. Jessica Levy is an expert in training and regulatory compliance. Solid Waste ended up using her services for training.
- # An updated p2 survey took place on June 8, 2000, at The Vehicle Maintenance Shop of Solid Waste. Based on the updated p2 survey, the p2 Program awarded the City's Albuquerque, Solid Waste Vehicle Maintenance an "**Award of Significant Improvement**" during a January 2001, City Council meeting.

### February 2002 to March 2002;

- # p2 staff partnering with Bernalillio County Environmental Health the Rio Grande Community Development Center (RGCDC) staff produced a workshop on March 19, 2002, for South Valley, auto repair shops featuring Jessica Levy a consultant for Levy, Powell & Associates. The workshop had a component in which Conditionally Exempt Small Quantity Generators (CESQG) could dispose of waste free.

### April 2000; Albuquerque Public School (APS)

- # p2 produced a report, which included waste minimization and reduced costs at APS's wash rack area in the *Operations and Maintenance* section. The *Operations and Maintenance* section was paying a hazardous waste handling company **\$1,000 every eight months** to manage waste from the oil/water separator. P2 Staff furnished information about recycling the oily water instead of handling it as a hazardous waste. The *Operations and Maintenance* section **saved \$1,000 annually**.

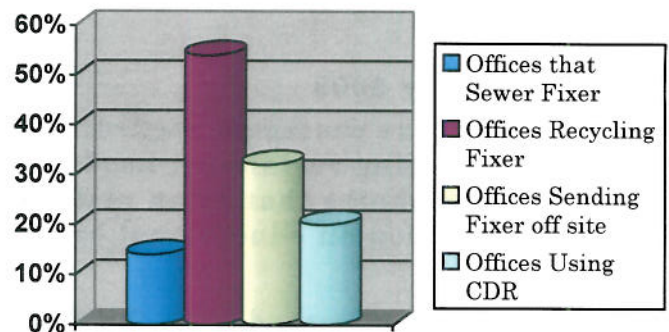




## Dental

### 2000 to Present

The p2 Program has built a strong and long lasting partnership with the Albuquerque District Dental Society, and the New Mexico Dental Association. This partnership has resulted in:



- # Biannual surveys documenting the waste generation and waste management at dental offices.
- # Regular articles regarding p2 for Dental offices are submitted to the ADDS monthly newsletter the *Mixing Pad*.
- # Regular presentations at ADDS Board meetings.
- # Since 2000 the p2 staff have been regular participants in the annual ADDS OSHA conference (usually held in February), and the New Mexico Dental Association annual conference (usually held in June).
- # The p2 Program continues to offer training to individual offices, and dental personnel are eligible for Continuing Education Credits.
- # Five offices have been furnished p2 surveys and reports.
- # A study of mercury and silver discharges from dental offices began in 2000, continues. Some results of the study are posted on our web page.

### October 2002 to Present

The p2 Program is currently collaborating with WERC on a grant, *Pollution Prevention for Dental Offices*. The grant includes:

- # 4 workshops throughout the state
- # *Dental Waste Guidelines; Best Management Practices for Dental Offices*,
- # Purchase of an amalgam separator to be loaned out to dental offices that are interested in reducing mercury discharges.

## Printers

### October 2000

- # The *Best Management Code of Practice for Printers* was distributed to 104 printers in Albuquerque. The p2 database for printers was updated during the distribution of the codes.

### Lessons Learned



It is imperative to have strong partnerships with stakeholders. The p2 Program would never have accomplished these tasks without the assistance of other City, state, professional associations, national organizations, and individuals dedicated to pollution prevention.

## New Business Contacts & Assistance 2000 - 2003

Listed below are businesses p2 initiated contact with through referrals, complaints, or a request for on site assistance regarding waste minimization, waste management, or source control. Many of these businesses opted to participate in the p2 or 5 PPM award after assistance.

First Contact	Company Name	Facility Type
01-Jul-00	Walgreen's #4651	1 Hour Photo Lab
01-Jul-00	Walgreens# 3366	1 Hour Photo Lab
15-Jul-00	Walgreen's #6587	1 Hour Photo Shop
15-Jul-00	Walgreen's #4911	1 Hour Photo Lab
01-Jul-00	Walgreens #3997	1 Hour Photo Lab
01-Jul-00	Walgreen's #4047	1 Hour Photo Lab
01-Jul-00	Walgreen's #10	1 Hour Photo Lab
01-Jul-00	Walgreen's #2111	1 Hour Photo Lab
01-Jul-00	Walgreen's # 1279	1 Hour Photo Lab
01-Jul-00	Walgreen's #22	1 Hour Photo Lab
22-Jul-00	Walgreen's #3367	1 Hour Photo Lab
01-Jul-00	Walgreen's #1316	1 Hour Photo Lab
01-Jul-00	Walgreen's #3035	1 Hour Photo Lab
01-Jul-00	Walgreen's #1591	1 Hour Photo Lab
01-Jul-00	Walgreen's #4649	1 Hour Photo Lab
01-Jul-00	Walgreen's #5923	1 Hour Photo Lab
24-Oct-00	Furrs #871	1 Hour Photo Lab
24-Oct-00	Furrs #873	1 Hour Photo Lab
01-Jul-00	Walgreen's #5731	1 Hour Photo Lab
27-Sep-00	J.D. Halle, D.D.S., P.C.	Dental Office
22-Jun-00	Costco Wholesale #667	1 Hour Photo Lab
01-Feb-00	Focus Advertising, Inc.	Advertising/Photo
02-Jan-00	Mary J. Mann Photography	Photography Studio
09-Feb-00	Alphagraphics on Osuna	Printer
First Contact	Company Name	Facility Type
02-Mar-01	Smith's Food & Drug #413	1 Hour Photo Lab
11-Apr-01	Walgreen's #5997	1 Hour Photo Lab
12-Jun-01	Sennheiser New Mexico LLC	PCB-Microphones, amp
27-Nov-01	Gold-Silver, Inc.	Jewelry Mfg.
First Contact	Company Name	Facility Type
24-Apr-02	O-P Silver Manufacturing	Jewelry Mfg.
19-Jul-02	Dr Dan R. Richey, D.D.S.	Dental Office
28-Jul-02	UNM Upper Division Undergraduate Laboratory	Organics Lab
28-Jul-02	UNM Grounds & Landscaping	Landscaping & Pest
23-Aug-02	Tow Diehm Facility (Lobo Training Room)	Off Site UH Clinic
26-Aug-02	Neuroscience Research Lab	Research Lab
15-Oct-02	Jess's Economy Tire and Auto	Auto Repair
03-Dec-02	d/b/a Sunsoft	Contact Lens Mfg



## Stormwater p2 Work

*June 2000 to July 2000*



- # The p2 Program assisted Hydrology with placement of 217 markers on stormsewers in the City's Broadway neighborhood. The markers were bilingual (Spanish and English).

*January 2001 to Present*

- # At the request of the City's Stormwater Section, the p2 Program initiated an educational outreach with carpet cleaners. Some of the local carpet cleaners were discharging wastewater from their process to the storm sewer. The educational material was developed in conjunction with a local carpet-cleaning supplier, Bridgepoint Southwest. Samples collected, determined what pollutants were present in the wastewater. The study generated:
- # A pamphlet on the proper management of wastewater for carpet cleaners was distributed to carpet cleaners in the Albuquerque area.

**April 1, 2002**

- # Submit article to the City of Albuquerque's Neighborhood News (Neighborhood Association newsletter) about proper management of wastes, and protecting stormsewers.

**June 2002**

- # P2 staff attended the *Stormwater Pollution Prevention Conference* for Region VI on June 11, 12, 13, 2002.

**September 13, 2002**

- # Distributed handout developed by Stormwater Section regarding cleaning up pet waste properly to the *Albuquerque Apartment Association*.



### ***Lessons Learned***

Our partnership with the City's Stormwater section is productive and mutually beneficial. We have learned that our greatest contribution to assisting with point source pollution is public education.



## Community Outreach

### *January 2000 to Present*

Pamphlets are regularly distributed at hardware stores, paint stores, automotive suppliers, jewelry suppliers, dental suppliers, and landscaping nurseries pertaining to proper management of wastes and source control for residents.

### *May 2000*

- # P2 booth at APS's annual Health & Wellness Fair. Over 1000 APS employees attended the Fair, where material regarding proper disposal of household hazardous waste, the Southside Water Reclamation Plant and water conservation was available.

### *November 2000 to Present*

- # P2 staff submits articles to the City's Neighborhood News, a newsletter produced by the Planning Department. Articles focus on Wastewater Utility Section and preservation of the Rio Grande.



### *2000 to Present*

The p2 Program participates in the WERC's annual New Mexico Environmental Health Conference (NMEH). Our contributions include:

- # 1996 Presentation - "The Jewelry Manufacturing Code of Practice"
- # 1997 Presentation - "Albuquerque's Pollution Prevention Program"
- # 1998 Presentation - "Partnering for Pollution Prevention"
- # 1999 Participated in the p2 Roundtable at the NMEH Conference
- # Presentation - "Public Health Water Quality Assessment of the mid Rio Grande and the Albuquerque Southside Water Reclamation Plant"
- # 2001 Presentation - "Pollution Prevention for Medical Facilities"
- # 2002 Presentation - "Pollution Prevention in Dental Offices"

### *June 2000 to June 2002*

- # P2 staff served as Examiners and Judges for the NM Green Zia Environmental Excellence Award Program administered by NMED

### *April 2001*

- # P2 Staff attended a Career Fair for middle school students in Bernalillo. Career opportunities available in wastewater treatment. This was the trial run of the "**p2 Wheel of Fortune**". This is an interactive game where students answer questions regarding the environment, and win prizes



### ***September 2001***

- # P2 staff attended Santa Ana Pueblo's annual Environmental Affair for 200 children in fourth and fifth grade. The "**p2 Wheel of Fortune**" was used to educate students on wastewater and environmental issues in NM. Students won prizes, and learned about the Rio Grande, and wastewater treatment.

### **June 2, 2002**

- # Bob Hogrefe, IPP/p2 Program Manager gave a presentation to the *Albuquerque Groundwater Protection Planning Committee* on June 13, 2002, and another at the *New Mexico Local Government Workshop* held on June 19, 2002. Both presentations focused on Project XL and the p2 Program.

### **July 2002**

- # The p2 Avengers coloring book is aimed at children age 6 to 10 years old. The coloring book is posted quarterly on the p2 web page. This activity educates children about household hazardous waste, and protecting the Rio Grande.

### **September 2002**

- # P2 Specialist, Andrew Padilla, attended the E-Waste Summit on September 13, 2002, which addressed waste management issues related to computers and other electronic devices

### **October 2002**

- # Furnished videotapes "**h2O TV**" for distribution at the annual Albuquerque ***Water Festival***.

### **December 2002 to Present**

- # David Wunker, p2 Coordinator for NMED, was given information on organizing a mercury thermometer exchange. Because of the information, Mr. Wunker applied to EPA for a *Persistent Bioaccumulative Toxic Grant* in 2003. The grant will open avenues for the proper disposal of household fever thermometers in New Mexico.



### ***Lessons Learned***

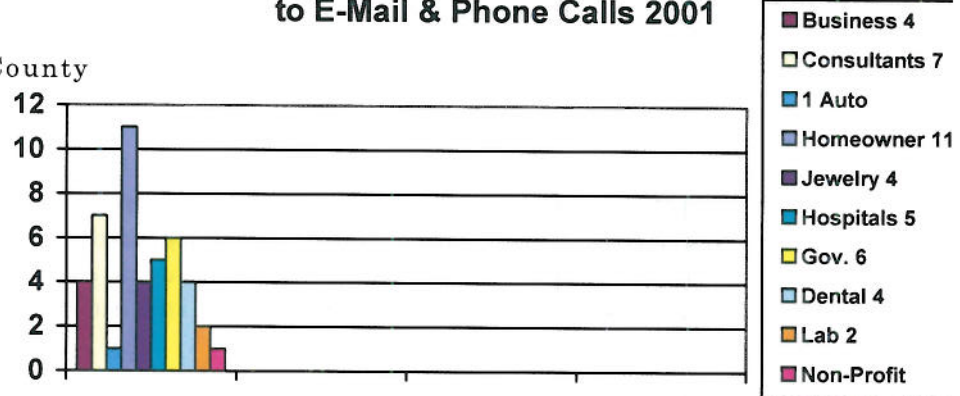
Public education takes persistence, but municipalities reap numerous. The information must be accessible through the World Wide Web.

## Assistance by E-Mail, Telephone

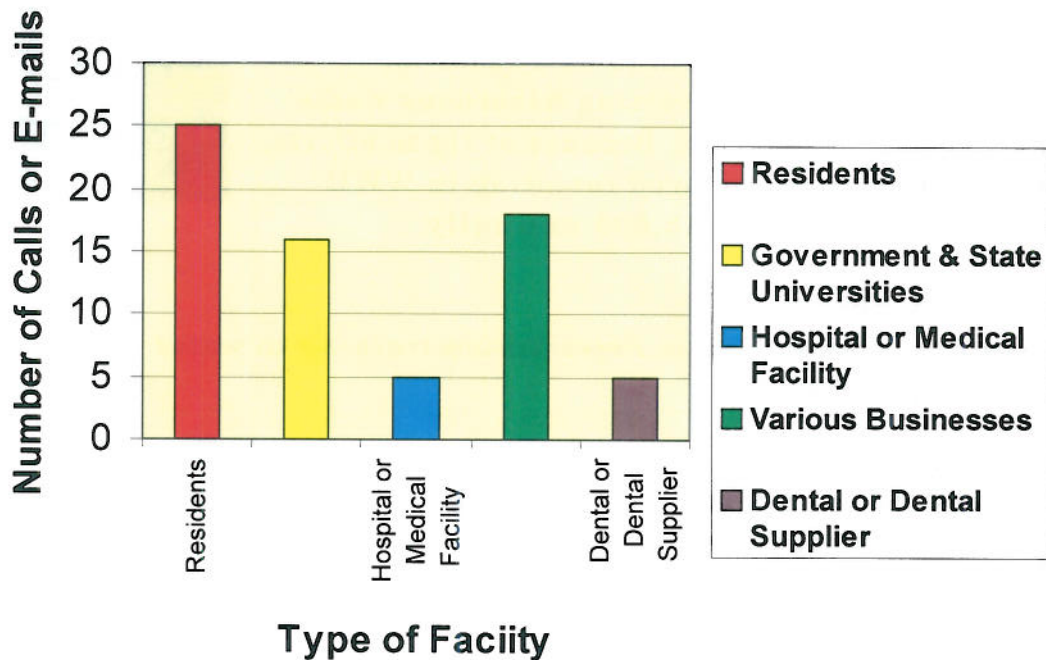
P2 is contacted by e-mail or telephone by residents, businesses, and other facilities for information or assistance. Some of the contacts lead to on-site assistance.

Automotive business  
4 various industrial sectors  
7 Consultants  
11 Homeowners  
4 Jewelry Manufacturers  
5 Hospitals & Pharmacy  
6 Government agencies; City, County  
Universities & Public Schools  
4 Dental Offices & Supplier  
2 Laboratories  
1 Environmental Non-Profit  
Organization

**Responses  
to E-Mail & Phone Calls 2001**



**p2 Assistance by Phone or E-Mail  
2003**





## Internal Pollution Prevention Work at PWD & Other City Agencies

Our staff believes it is important for government facilities to set the example for their private counterparts. In 2000, the p2 Program began surveying and assisting City facilities and sections within the WWU. Listed below are results of the internal surveys:



### January 2001 to Present

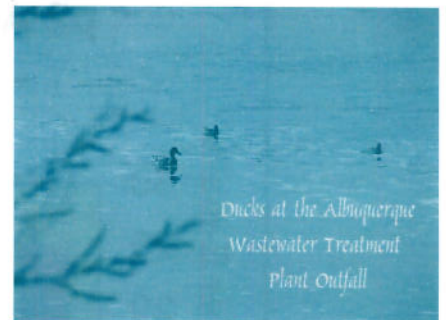
- # p2 staff conducted p2 surveys for each of the WWU Sections. As a result of the surveys it was determined that WWU is a *Conditionally Exempt Small Quantity Generator*.
- # Because of the surveys, cardboard, batteries, and used office supplies are regularly recycled. There has been more attention to spill control, hazardous communication training and environmentally preferable purchasing. The p2 Program conducts p2 surveys annually, and each year, documented improvements in source control are noted.

### January 2001 to Present

- # p2 Program met with Steve Glass, Manager of the Water Quality Laboratory (WQL) to discuss p2 opportunities outlined in the p2 report on June 19, 2001. Steve and p2 staff set dates for accomplishing the opportunities for improvement in the report. Another waste assessment will take place in June of 2003.

### August 2002

- # p2 staff monitored the WWU's solid waste pickups. Solid waste was reduced as a result of recycling efforts, and diverting hazardous waste for recycling, or disposal. Because of these efforts, waste pickups were reduced resulting in WWU saving approximately **\$15,000 annually**.



### December 17, 2002

- # p2 staff presented *Sample Preservation training* to water technicians and monitoring technicians

### Lessons Learned

It is crucial to examine internal pollution prevention practices at your own organization before offering outreach to private organizations. Self-examination gives government agencies a clear understanding of what private sector faces regarding source control, waste management, personnel, and financial restrictions. Being able to offer assistance to a business and "walk the walk" is priceless.



## How is Project Transferable To Other Organizations?

An important aspect of every Project XL is the idea of transferability of the project's techniques; information, successes and lessons learned to other potential users. The primary beneficiaries will be other municipalities, and the Albuquerque XL Project will be transferable to other cities as a model. This will save reinvention of materials and methods, which have proven to be effective. Likewise, information about approaches that did not work very well is just as valuable.



**Our program is dedicated to information sharing and has freely distributed our publications.** Our web site [www.cabq.gov/p2](http://www.cabq.gov/p2) is heavily relied upon to disseminate most of our program materials, and we have received thousands of web site visits. Our web site's Project XL Pilot Project is linked to EPA's Project XL web site for anyone interested in obtaining the data we submit to EPA.

We have assisted in the establishment of the New Mexico Technology Resources Center office, which is underwritten by the WERC and cooperates with the New Mexico Green Zia Environmental Excellence Program. These programs provide training and assistance to both local and national audiences to address business environmental waste management subjects.

## Internal Organizational Changes

**The greatest policy change** has been the concept of **institutionalizing P2** as an inseparable component of an EPA mandated regulatory program. Our **upper management supports our Project**; our Division Manager personally signed the *Final Project Agreement*, February 2000, with EPA, the State of New Mexico and Stakeholders. In addition, the City's Public Works Director attended meetings held with stakeholders during the development of the Final Project Agreement.

## Resources for Project XL?

Existing resources were used to integrate the XL project into our program. The primary means of accomplishment has been shifting of manpower and program resources after receiving EPA authorization to implement these changes. By adopting creative permitting methods, less regulatory sampling and monitoring more materials and time are available to accomplish subbasin monitoring at important manholes. Subbasin monitoring is one of our essential technical innovations we are using to track pollutants in the City to guide our P2 outreach work. This allows cross training for staff





and specific concentrated attention to areas that have documented discharges of *pollutants of concern*.

## Future Plans



- # Continue EPA grant assisted p2 Projects in Partnership with stakeholders
- # Continue 5 PPM Silver and p2 Award certifications
- # Address dental waste management citywide.
- # Use sewer system subbasin data to learn when certain pollutants predominate, and continue to refine sampling program.
- # Follow-up past Best Management Codes of Practices with updates.
- # Quantify results of p2 outreach at businesses.
- # Develop new p2 literature addressing areas and subbasins
- # Support the NM Green Zia Environmental Excellence Program, and WERC's Technical Resource Center.
- # Continue to work with Hydrology's Stormwater section on public education.
- # Continue to work with the community regarding pollution prevention, and other issues such as fever mercury thermometers, unused pharmaceuticals, etc.
- # Continue to strive for environmental excellence internally through p2 surveys, educating staff, and implementing source control and recycling procedures.

