



Janet Napolitano, Governor
Stephen A. Owens, ADEQ Director

2005 DIRECTOR'S REPORT

A Message from the Director...

Fiscal year 2005 was a productive but challenging year for the Arizona Department of Environmental Quality (ADEQ). The department implemented several successful initiatives and continued to improve delivery of services and increase focus on the central functions of our mission: to protect Arizona's environment and the health and safety of our state's citizens.

The department underwent its Sunset Review by the Legislature and was granted a 4-year extension. The 4-year extension was approved subsequent to the Auditor General's issuance of the Sunset Factors performance audit, which recognized that ADEQ is "effective in meeting its overall objective and purpose," and acknowledged the progress being made in protecting Arizona's groundwater supply by issuing Aquifer Protection Permits, reforming the underground storage tank clean-up fund and ensuring that large potential sources of air pollution are operating in compliance with Arizona's environmental laws.

The department has been focused on implementing several initiatives begun during the previous fiscal year. Among the department's top priorities, the Children's Environmental Health Project has been met with an enthusiastic response from school officials, children's health experts, parents and educators. In August 2004, the department launched the School Bus Idling Pilot Project, a pilot program with seven school districts throughout the state to reduce children's exposure to harmful diesel emissions from buses idling near schools. The program was a major success and during 2005, additional school districts representing all 15 counties joined the program.

In January 2005, the department resolved its enforcement action against Kinder Morgan Energy Partners for the July 2003 rupture of the company's pipeline that released more than 50,000 gallons of gasoline into the soil and groundwater of Silvercrock Wash and Silver Creek subdivision of Tucson. ADEQ issued the company two notices of violation. The first violation, issued Sept. 11, covered the discharge of petroleum products to surface waters of the state. The second, issued, November 13, 2003, charged the company with violating groundwater quality standards and put the company on notice that ADEQ would hold it responsible for the continuing discharges associated with the spread of contamination from the pipeline break. As a result of ADEQ's enforcement action, Kinder Morgan paid a \$500,000 penalty – the largest penalty ever paid for violation of Arizona's groundwater protection laws.

The department continued its assistance to small water systems across the state as they prepare to meet the new, federal arsenic standard, which takes effect in January 2006. An arsenic technology vendor fair was held, bringing together remediation technology vendors and small water system operators in a marketplace to examine the different methods and technologies available to help meet the new standard. The department also increased its outreach efforts to small water systems by publishing the Arsenic Compliance Policy, the Point-of-Use Guidance Manual, as well as several Fact Sheets for water systems and consumers.

In August 2004, the Tanks Program Division (TPD) was established within the department. TPD is tasked with addressing contamination and cleanup from leaking underground storage tanks across the state. The department is committed to remediating sites in a timely manner, and establishing the TPD allows ADEQ to focus on cleanup efforts and outreach to help property owners access the State Assurance Fund (SAF) for cleanup assistance.

The department also launched the Arizona Performance Track, a voluntary program to provide incentives for regulated entities to go beyond the minimum requirements of the law and reward those who do.

Like many state agencies, ADEQ continued to feel the effects of the state's revenue shortfall during fiscal year 2005. In the past three fiscal years (FY02-FY05), the department experienced a 26.4 percent reduction in its General Fund appropriation. A fully-funded department will allow us to more effectively carry out our mission.

During the 2005 Regular Session, the Arizona Legislature also eliminated 67 full-time employees (FTE positions) from the department. Combined with the 64 FTEs eliminated in the December 2002 Special Session, the department has lost 131 positions in the last three years.

More detailed information about our department's programs may be found in the appendices to this report and on the department's Web site at: <http://www.azdeq.gov>.

Steven A. Owens
Director

ADEQ at a Glance...

The Arizona Legislature established ADEQ as the state's environmental regulatory agency under the Environmental Quality Act of 1986. Its mission is to protect and enhance public health and the environment in Arizona. The department achieves this mission by administering our state's environmental laws and delegated federal programs to prevent pollution of our air, water and land, and to clean up such pollution when it occurs.

During FY 2005, ADEQ had an average of 682 employees. The department's organizational structure is composed of four programmatic divisions that fulfill our environmental protection mission in the areas of air quality, water quality, waste programs and tank programs. Those divisions are supported by the director's office and an administrative services division.

Our agency's core functions are vital to public health and safety. The core functions align with the agency mission, strategic plan and performance objectives, which are summarized below.

Pollution Control

Permitting – ADEQ issues permits, approvals and certifications to ensure that facilities are constructed and operated in accordance with the law and that any discharges to the air, water and soil are within healthful standards established by law.

Planning – ADEQ's planning specialists develop management practices and increasingly stringent control strategies in areas where health-based environmental standards are threatened or violated. Arizona's air quality management areas and watershed planning efforts are examples of this activity.

Pollution Prevention – As an alternative to regulatory enforcement, ADEQ offers guidance, assistance and financial incentives to encourage businesses to minimize waste and resulting pollution.

Environmental Clean Up

Remediation – ADEQ investigates and oversees the removal and cleanup of contaminated soil and groundwater to protect public health and the environment.

Emergency Response – ADEQ provides technical support and assistance to emergency response agencies to help them minimize the impacts to public health and the environment in the areas of air quality, water quality and hazardous waste.

Voluntary Remediation Program - Through ADEQ's Voluntary Remediation Program (VRP), property owners, prospective purchasers and other interested parties investigate or clean up a contaminated site in cooperation with ADEQ. VRP results in a streamlined process for program participants who work with a single point of contact at ADEQ to address applicable cross-program remediation efforts. ADEQ reviews these voluntary remedial actions and provides a closure document for successful site remediation that is accepted by all relevant ADEQ programs.

Compliance Management

Compliance Assistance – ADEQ offers a variety of informational resources to help businesses understand and comply with environmental regulatory requirements and promote positive environmental practices.

Inspections – ADEQ inspects facilities on a regular basis and in response to citizen complaints to ensure compliance with environmental laws.

Enforcement – ADEQ ensures compliance with environmental laws by pursuing informal enforcement through notices of opportunity to correct or notices of violation and formal enforcement through administrative orders and judicial enforcement actions in conjunction with the Arizona Attorney General's Office.

Monitoring and Assessment

Monitoring – ADEQ's monitoring personnel collect air, water and soil samples for laboratory analyses to determine the presence or absence of contaminants.

Assessment – ADEQ's assessment staff interpret the data that result from field research to draw conclusions about environmental indicators and trends and form the basis for future planning and policy decisions.

Public Outreach

Education and Outreach – ADEQ offers a variety of seminars, workshops, presentations and publishes information via newsletter and the Internet to inform the public about department programs and activities. ADEQ also supports numerous advisory and stakeholder groups and conducts public hearings and meetings in support of our regulatory and public policy functions.

Financial Assistance – ADEQ offers financial assistance for leaking underground storage tank cleanup costs and provides grants to local governments for air quality and water quality programs. Other ADEQ programs also make funding available to eligible applicants for recycling, water quality and pollution prevention projects and activities.

Public Policy

Policy Development – ADEQ works with state and national organizations and stakeholders to shape and influence environmental policy at the state and federal levels. Policies are developed to explain how we interpret statutes and rules to ensure consistent, equitable decisions and to inform the public about how we do business.

Rule Development – ADEQ writes rules, based on science and public policy, to implement the broad statutory language contained in legislation.

In addition to these programmatic responsibilities, ADEQ has an administrative services division that provides centralized support for many of the agency's business activities including accounting, budgeting, strategic planning, contracts and procurement, human resources, general and laboratory services and maintaining our information technology systems.

FY 2005 Accomplishments...

Pollution Control – Permitting

Air Quality Permit Issued for Proposed Refinery in Yuma County

In April 2005, ADEQ issued an air quality permit for a proposed oil refinery in Yuma County. ADEQ conducted extensive community outreach in conjunction with the permit. The department held a series of public meetings and hearings in Yuma County during 2004 and also extended the public comment period earlier this year. The air quality permit issued is the most stringent air quality permit ever issued for a proposed refinery in the United States. Under Arizona law, the permit is issued for a term of 5 years, but the permittee must commence construction within 18 months of the effective date of the permit.

Air Quality Permit for Carlota Mine Upheld by Court Decision

In November 2004, the Superior Court of Arizona upheld the air quality permit issued by the department. The Court's ruling affirmed that the decision made by ADEQ in February 2003 to renew Carlota's air permit was proper under both the federal Clean Air Act and applicable state law. ADEQ's permitting decision had been appealed by Friends of Pinto Creek.

Pollution Control – Planning

Continued Progress toward Cleaner Air

In FY 2005, ADEQ continued to lead Arizona's progress to reduce air pollution and improve visibility throughout the state.

In September 2004, EPA proposed a final rule which took effect in October 2004, stating that the Phoenix metropolitan area be designated as an attainment area for carbon monoxide. The Phoenix area has met federal air quality standards for carbon monoxide since 1996.

In December 2004, EPA designated Arizona as being in compliance with National Ambient Air Quality Standards for particulate matter less than 2.5 microns in size, referred to as PM_{2.5}. The tiny particles that fall under this designation come from multiple sources, such as industrial and automobile and diesel engine emissions. The decision covers all Arizona cities and counties, excluding tribal lands.

In March 2005, the U.S. Environmental Protection Agency proposed to officially redesignate the Phoenix metropolitan area as having met the federal 1-hour ozone health

standard. Despite unprecedented growth and development, the Phoenix area has not violated the 1-hour ozone standard during the previous eight years. The proposed "attainment" designation recognizes the efforts being made to improve air quality in the Valley. The designation was effective June 15, 2005. The Phoenix metro area now faces the challenge of coming into attainment for the new 8-hour ozone standard. The deadline for compliance with the federal 8-hour ozone health standard is 2009.

Climate Change Advisory Group

In February 2005, Governor Janet Napolitano signed Executive Order 2005-02, which established the Arizona Climate Change Advisory Group (CCAG). The CCAG's mission is to prepare an action plan with recommendations to reduce greenhouse gas emissions in Arizona to be presented to the Governor by June 30, 2006.

Clean Colorado River Alliance

In 2004 the Colorado River was named the #1 "Most Endangered River" in the country by American Rivers. In February 2005, Governor Napolitano appointed the Clean Colorado River Alliance to develop recommendations to address water quality issues on the Colorado River. The Alliance is charged with developing an action plan to deal with pollution affecting the Colorado River. The final report is due to Governor Napolitano in December 2005.

Uranium Tailings Threaten Colorado River

In February 2005, ADEQ urged the federal Department of Energy (DOE) to protect the Colorado River by cleaning up a uranium mine tailings pile adjacent to the river near Moab, Utah and transporting the waste to a location away from the river. In response to the urgings of ADEQ and other states, in September 2005, DOE announced its decision to move the tailings to a holding site 30 miles away at Crescent Junction, Utah. DOE plans to begin the move during spring 2006.

Pollution Control – Pollution Prevention

ADEQ's School Bus Idling Program

In September 2004, ADEQ launched the School Bus Idling Program to reduce children's exposure to harmful diesel emissions from buses idling near schools. Idling school buses can expose school children to diesel exhaust on a daily basis. Diesel emissions can aggravate respiratory illnesses such as asthma and have been linked to heart and lung disease. The program is part of ADEQ's Children's Environmental Health Project to reduce environmental risks to children's health.

Key elements of the School Bus Idling Program include having drivers turn off buses upon reaching a school or other location and not turn on the engine until the vehicle is ready

to depart; parking buses at least 100 feet from a school air intake system; and posting appropriate signage advising drivers to limit idling near the school.

In addition to the benefits to children's health, rising fuel prices have given more districts an incentive to get aboard this voluntary program. The program began on a pilot basis in September 2004 with seven districts around the state participating. As FY05 neared its end, almost 150 school districts throughout Arizona had signed on to participate in this program.

ADEQ Launches Arizona Performance Track

In March 2005, ADEQ launched the Arizona Performance Track, a program to encourage and reward businesses that are good environmental stewards. Performance Track is a voluntary partnership between ADEQ, the air quality departments of Maricopa, Pima, and Pinal counties and businesses designed to encourage companies to go above and beyond the minimum requirements of the law. Companies participating in the Arizona Performance Track program will receive benefits in recognition of their commitment to environmental protection, including reduced inspection frequency, advance notice before an NOC (Notice of Opportunity to Correct) or NOV (Notice of Violation) is issued, flexibility of permit conditions, consolidation and reduction of reporting requirements, multi-media inspections and permitting, annual meetings with ADEQ executives, participation in pilot projects and the development of future incentives and recognition on ADEQ's Web site.

Arizona's Performance Track is based on the federal Environmental Protection Agency's National Environmental Performance Track, which started in June 2000 and includes more than 350 companies in 46 states and Puerto Rico. Five Arizona companies are current members of EPA's version of Performance Track: the Grand Canyon National Park, Honeywell, Motorola, Xanterra Parks & Resorts at Grand Canyon National Park and Xanterra South Rim, and Verkamps, Inc.

Arizona's program was shaped with input from the Arizona Environmental Strategic Alliance, which includes several of Arizona's major corporations and other members of the regulated community.

Waste Programs Project Uses Internet to Facilitate Recycling

In June 2005, ADEQ awarded a \$32,300 recycling grant to help establish a web-based material exchange system designed to help reduce waste and divert usable materials from landfills.

The Arizona Resources Exchange (AZReX) allows users to post materials for exchange or search the site for items they need. AZReX accepts only non-hazardous waste materials for posting on the site. Items include containers, construction materials, electronics, landscaping, fabrics, machinery, office furniture, scrap metals, vehicles, paints and other

reusable items. The site features an e-mail alert that can notify AZReX users when something they are looking for is posted. Users then can contact the owner of the posted material and negotiate the exchange.

The system was developed by the Arizona Environmental Strategic Alliance, a nonprofit public-private environmental partnership, and Earth 911, an Arizona-based company that operates an information network for solid-waste resources. The site can be accessed at <http://www.azrex.org>.

Green Businesses and Green Schools Cut Down on Pollution

In May 2005, ADEQ launched its Arizona Green Business initiative, to encourage auto repair shop owners, managers, and employees to reduce hazardous waste by using established pollution prevention practices. Auto repair shop owners who follow ADEQ's pollution prevention program can make a significant environmental impact by eliminating or reducing hazardous waste going to landfills and diverting potentially contaminated water from unprotected storm drains and waterways.

Shops that successfully adopt the pollution prevention techniques will be certified as Arizona Green Businesses and will receive the program's logo to display at their facility and use in marketing and advertising. ADEQ is partnering with AAA Arizona to launch the initiative. AAA Arizona will inspect and certify auto repair shops, following ADEQ's procedures and guidelines.

In October 2004, ADEQ began implementing its Green Schools grant initiative to bring green building design and operating information to school districts across Arizona. Funded by a grant from EPA, this initiative will make an important contribution to children's health and environmental protection.

ADEQ Promotes Recycling with Arizona Little Leagues

In April 2005, ADEQ awarded \$10,000 to Arizona Little League teams to promote recycling and prevent littering at baseball fields across the state. Under the Recycling and Litter Control Program, ADEQ gave 25 teams throughout Arizona \$400 each for banners promoting recycling to be displayed on outfield fences and backstops at their ball fields, and for containers for plastic bottles, aluminum cans, and other recyclable materials at the fields. Twelve teams participated in last year's pilot project. Due to the success of the program the number of participating teams doubled this year.

ADEQ Teams with StRUT to Recycle Computer Equipment and Mobile Phones

ADEQ helped promote and staff Computer Recycle Day on April 23, 2005. Technology users were invited to take old computers, computer components, hard drives, monitors, mice, printers, scanners, cables and cell phones to eight Valley locations and participating Staples and Data Doctors stores. The nonprofit Arizona Students Recycling Used

Technology (AZStRUT) Program will help students learn new skills by refurbishing the donated equipment and then donating the rebuilt items to local schools and non-profit organizations.

Environmental Clean Up – Remediation

Vulture Mill Cleanup Nears Completion

During fiscal year 2005, ADEQ oversaw the cleanup of the Vulture Mill WQARF site. Approximately 170,000 tons of soil were excavated and placed in a consolidation pile, which was then given a 24-inch earthen final cover. The excavated area was backfilled with clean soil.

The Vulture Mill site is about one mile northwest of Wickenburg. Gold ore from the Vulture Mine was milled, stockpiled and processed at the site from 1863 until 1962. The tailings and affected soil covered an area about 35 acres. The contaminants of concern included lead and arsenic.

Abandoned Underground Storage Tank Removals Continue

The County and Municipal Tank Closure Program (MTCP) has removed 64 abandoned underground storage tanks (UST) in 19 communities statewide since its inception in August 2001. The MTCP is available to counties (unincorporated areas) and incorporated towns or cities (populations of less than 15,000). Program funding is available to reimburse communities for the costs of application, tank removal, and cleaning up UST-related contamination, if necessary. To date, 19 cities and counties have submitted 54 applications to the MTCP.

Route 66 Initiative Serves as National UST Cleanup Model

The Tank Programs Division Corrective Actions Section has worked with underground storage tank (UST) property owners, their consultants and city officials to identify sites with UST-related contamination and accelerate and accelerate the cleanup process along the old Route 66 corridor in Northern Arizona. Their combined efforts have yielded final work plans or corrective action plans for 12 sites and cleanup of releases at 4 sites. The Initiative began in June 2004 with public meetings in Winslow and Holbrook. Communication and cooperation of all involved have been instrumental in the program's success. To date, the Tank Programs Division has concentrated efforts in Winslow, Holbrook and Joseph City because of the large number of UST releases that have impacted groundwater, but ADEQ will address additional communities in the future. The program has proven so successful that the U.S. Environmental Protection Agency is modeling its nation-wide UST cleanup program after ADEQ's Route 66 Initiative.

LUST Closures Accelerated

The Leaking Underground Storage Tank (LUST) Project team reviewed numerous LUST site cases during the fiscal year and closed over 200 releases. The Project was funded by U.S. EPA based on a grant proposal by ADEQ. Project personnel review LUST files and determine those having sufficiently low levels of contamination and sufficient site-specific information to warrant closure.

Brownfields Program to Help Cleanup Park Lands

In June, 2005, ADEQ awarded a \$60,000 brownfields grant to the City of Mesa to help clean up a contaminated lot and turn it into a neighborhood park. The grant will fund an environmental assessment of a 4.1 acre parcel located across the street from an elementary school. The grant was made from federal funds which ADEQ administers. The assessment is being done by ADEQ's Recycling and Brownfields Unit.

The City of Mesa wants to buy the lot as part of its plan for neighborhood revitalization. A preliminary assessment by Mesa found a clutter of old machinery, fuel dispensing equipment, telephone poles, large drums with unknown contents and underground storage tanks removed from other locations. Mesa needs a more thorough environmental assessment before it can purchase the property. Lack of funding for the assessment has delayed negotiations with the lot owner.

Contamination at the Adair Park Archery Range in Yuma County is also being addressed by the WPD Brownfields Program. The project contractor provided to WPD a final report on the phase II environmental site assessment. The project identified areas of the park where evaluation of options for cleanup activities related to lead are necessary. In the 1800s, the site was a silver mill with an adjacent tailings disposal area. The area was subsequently turned into a recreational area. Discovery of high concentrations of lead in the soil closed the Adair Park Archery Range in 2000.

Yuma County received a site assessment grant and has a \$200,000 Brownfields Federal cleanup grant. Yuma County will use a combination of excavation, capping, and institutional controls to restore public access to the park and archery range. Reopening the park is expected to bring an economic return of \$100,000 to the community annually.

Early Response Actions

ADEQ's Water Quality Assurance Revolving Fund (WQARF) Program places a high priority on early response actions where human health is potentially impacted, where sources of contamination can cause significant environmental impact, or where early actions can save significant WQARF funds by limiting the spread of contamination. Early response actions are remedial actions initiated before the selection of a final remedy and may include relatively simple short-term actions, such as fencing or providing bottled

water, or they may involve more complex actions such as a large-scale groundwater treatment system.

In FY 2005, the WQARF Program initiated the following significant early response actions, while operation and maintenance continued at nine locations where early response actions had been initiated in prior years.

7th Avenue & Bethany Home Road - ADEQ constructed a soil vapor extraction (SVE) system to remove the source of tetrachloroethene (PCE) and trichloroethene (TCE) contamination at a former dry cleaner. The PCE and TCE present in soil represents a continuing source of contamination in groundwater. The ERA was also necessary to prevent exposure, as the site has been vacant for years and is currently planned for commercial development. The SVE system was installed and began operation in June 2005. Remediation strategies for PCE contaminated groundwater are currently being evaluated.

Central and Camelback – In an effort to locate the source of groundwater contamination, ADEQ conducted an ERA evaluation during June 2004 near the Maroney's dry cleaning facility. Results indicated that soil vapor concentrations near the facility could be a continuing source to groundwater contamination. ADEQ initiated an ERA in January 2005 to address the presence of soil vapors. A pilot study was completed and results indicated that installation of a full scale SVE system is necessary. ADEQ is currently negotiating access with the property owner to install a SVE system in FY 2006 near the Maroney's facility.

An ERA was initially started at this site due to the presence of vapors in an adjacent parking garage. ADEQ installed a pump and treat system in 2003 as part of an ERA to control the migration of contaminated groundwater and to prevent exposure to vapors in the garage.

Shannon Road/El Camino del Cerro – In FY 2005, ADEQ funded modifications to an existing treatment system at Metropolitan Domestic Water Irrigation District (Metro). Since 1999, ADEQ has been funding an ERA at the Shannon Road/El Camino del Cerro site consisting of a treatment system designed to prevent the spread of contamination and also to provide drinking water to Metro. Upon discovery of PCE and TCE contamination in their South Shannon production well, Metro constructed a treatment system to remove these contaminants from the water prior to delivery to customers. Recently, PCE and TCE contaminant levels have risen and the treatment system requires significant modification. Through a cooperative agreement with Metro, ADEQ is funding the system modification and the continued operation and maintenance costs.

South Mesa - In September 2004, ADEQ began operation of an expanded SVE system to remove the source of contamination at a former facility located at 1545 North McQueen

Road in Gilbert. The ERA was initiated to reduce the presence of PCE vapors in a building and to reduce a continuing source of contamination to the groundwater.

Voluntary Remediation Program

The Voluntary Remediation Program (VRP) provides an opportunity for property owners, prospective purchasers and other interested parties to investigate and remediate a contaminated site in cooperation with ADEQ. The volunteer reimburses ADEQ for oversight costs through a signed reimbursement agreement. Upon successful completion of remediation activities, the volunteer has the opportunity to receive either a no further action (NFA) or conditional NFA determination from ADEQ for a site or portion of a site. A.R.S. § 49-282(E) and §49-187 authorizes the use of WQARF funds for this program, although no transfer to VRP occurred this year because the program is self sufficient.

The number of applicants to the VRP continues to grow. In 2005, the VRP accepted twelve new sites containing both soil and groundwater contamination. ADEQ continues to educate consultants and potential applicants about the benefits of the program by sharing success stories.

There are currently 79 active and 90 closed sites in the VRP with remediation of 575,963 tons of soil at participating VRP sites.

Emergency Response

Emergency Response Activity

During FY 2005, ADEQ's Emergency Response Unit fielded 188 reported incidents, 30 of which required on-scene response actions.

The ERU was also involved in several drills and exercises including the Arizona Statewide Homeland Security Terrorism Response Exercise and the annual Palo Verde Nuclear Generating Station Drill. In addition, the ERU dedicates significant staff resources in support of local, state and federal agencies during homeland security events, wildfire operations, as members of the Regional Response Team for the lower Colorado River, and to binational (Arizona/Sonora) hazardous waste response planning and coordination. Because of ERU's involvement, ADEQ has received hundreds of thousands of dollars in grant monies from the U.S. EPA and the Office of Domestic Preparedness (ODP). These grant monies have allowed the ERU to upgrade its ability to respond to threats to public health and safety.

Significant emergency response actions include:

Release of Radioactive Materials in Transit: ERU personnel received a request for assistance from the Arizona Department of Public Safety (DPS) to respond to a reported

release of radioactive material from a semi-truck on Interstate 40 westbound near Mile Marker 182.0 on August 15, 2004. The incident occurred at a rest stop just west of Flagstaff, Arizona which prompted the shut down of the westbound lanes of Interstate 40 and the rest stop. ADEQ assisted the DPS, Arizona Department of Transportation and the Arizona Radiation Regulatory Agency in determining that no radiation had leaked from the shipment.

Response to Potential Terrorist Attack: The ERU received a request for assistance from the DPS to respond to a suspicious odor which was found in several City of Glendale buildings. Samples were taken to determine the substance which was maliciously dumped at each of the locations listed above. Both chemical and biological agents were tested for since initial first responders detected the presence of a biological agents with meters used. Laboratory analysis found no detection of chemical and biological agents, but the possibility remained that the material in question was acid.

Environmental contractors arrived on scene for remediation. The substance was absorbed, the area was rinsed clean and deodorizers were applied. One victim was taken to a local hospital and released after complaining of the smell which was a pungent odor.

Response to Acid Release in Phoenix: ADEQ's Emergency Response Unit received a request on February 4, 2005 for assistance from the Phoenix Fire Department to respond to a spill of hydrofluorocilic acid from a semi-truck located near 5th Avenue and Monroe Street in Phoenix. The area from the 7th Avenue bridge northbound up to Monroe Street was affected and was shut down by local police.

Phoenix Fire Department hazmat teams examined the leaking tote in the truck and reported that approximately 110-130 gallons of acid had leaked from the truck. Later, environmental contractors confirmed that the tote had completely leaked out, releasing approximately 330 gallons. In addition, eleven people, primarily local police who had closed off the area, were evaluated at local hospitals and released.

The run-off affected several storm drains in the area. The contaminated roadways and scene area were neutralized with calcium hydroxide, and then swept up.

Firefighting Support

During July 2004, ADEQ provided air quality monitoring to communities near the Willow fire in Gila County and the Nuttall Complex fire in Graham County. Air quality monitoring equipment was setup in the vicinity and results were communicated to local media and residents on a regular basis.

During June 2005, ADEQ provided air quality monitoring to communities impacted by smoke from the Cave Creek Complex Fire in northeastern Maricopa County. ADEQ's air quality monitoring equipment collects and assesses data for particulate matter, a major air

pollutant found in wildfire smoke. Based on that data, ADEQ issues smoke advisories when appropriate.

Compliance Management – Compliance Assistance

Financial Responsibility Compliance Increased

During FY 2005, the Tank Programs Division conducted 721 underground storage tank (UST) facility inspections and determined that more than 90 percent of those facilities were compliant with financial responsibility requirements. ADEQ has focused on financial responsibility compliance by enhancing outreach and requesting evidence of compliance with financial responsibility requirements during UST facility inspections. Financial responsibility is a federal and a state requirement to cover the costs of UST corrective actions and third-party liability related to releases from owners' tanks.

Underground Storage Tank Database Completed

A new underground storage tank (UST) database has been completed following a concerted year-long effort by ADEQ to capture business functional and data needs, determine the technical needs and develop the required coding. The database is being integrated with ADEQ's AZURITE database system which directly provides core data to all of ADEQ's programs and indirectly provides specific data for the benefit of the public.

New Software Aids Site Cleanup and Saves Property Owner's Resources

New Tier 2 Risk Assessment software has been developed to allow all customers, including underground storage tank (UST) owners, operators, and consultants to calculate site-specific cleanup standards at their leaking UST (LUST) sites. The software will save UST owners money by helping in the design of more cost-effective approaches to the investigation and cleanup of UST releases.

Compliance Management – Inspections and Enforcement

During FY 2004, ADEQ continued its efforts to improve the consistency, fairness and timeliness of the department's compliance and enforcement activities. Since January 2003, ADEQ has worked to move away from a "one size fits all" approach to compliance and enforcement to focus resources on major violations and repeat offenders. As a result, the department has been better able to address those facilities that require increased scrutiny and maximize the time and resources devoted to prosecuting offenders.

The following are some of the more notable enforcement matters in which ADEQ was involved during FY 2005.

Kinder Morgan

In January, 2005, ADEQ announced that Kinder Morgan Energy Partners would pay a \$500,000 civil penalty for environmental damage done when Kinder Morgan's pipeline ruptured on July 30, 2003 in Tucson. Gasoline from the pipeline saturated five homes under construction and contaminated soil and groundwater in the area. This penalty is the largest ever under the state's groundwater protection law. The penalty was imposed pursuant to a consent judgment between Kinder Morgan and ADEQ. In conjunction with the consent judgment, Kinder Morgan also has implemented a long-term clean-up of the site to remove all remaining gasoline from the top of the aquifer, monitor the groundwater, and extract hydrocarbon vapors from the affected soil. The clean-up is estimated to cost Kinder Morgan \$5.5 million over the next several years.

Metco Metal Finishing

In June, 2005, ADEQ announced that Metco Metal Finishing agreed to pay a \$100,000 penalty for hazardous waste violations at the company's south Phoenix facility. In December 2003, a night-shift employee at the Metco facility mixed potassium cyanide with a tank of sulfuric acid, which caused a cloud of poisonous cyanic gas to erupt, leaving two employees unconscious. ADEQ inspected the facility after the incident and cited Metco for numerous violations, including improper storage, handling, and labeling of hazardous waste; treating, storing, and disposing of hazardous waste without a permit; and failing to protect against the release of hazardous waste that would endanger human health.

Bayless Investment and Trading Company

In January, 2005, ADEQ announced a settlement agreement totaling \$392,400 with Bayless Investment and Trading Company for releases of hazardous substances. The release site, located in Phoenix at the corner of Seventh Avenue and Bethany Home Road, had been used by commercial dry cleaners for several decades. Soil and groundwater beneath the site are contaminated with tetrachloroethylene (PCE), a solvent used in the dry cleaning industry. In August 2004 the site was added to the WQARF list.

Envirosolve

In January 2005, ADEQ announced a settlement agreement totaling \$80,000 with Envirosolve, LLC for illegal releases of hazardous wastes at its Tucson facility. Envirosolve, LLC is a hazardous waste management and transport company. In August 2001, Envirosolve illegally released 458 pounds of chromic and sulfuric acid into the parking lot of its Tucson facility. Stormwater washed the hazardous waste onto

neighboring properties, resulting in an emergency response by local fire and environmental officials.

Aero Spring and Manufacturing

On June 28, 2004, a chemical reaction caused by ineffective neutralization of used nitric acid in a rinse tank at the Aero Spring and Manufacturing facility at 32nd Street and Broadway Road in Phoenix resulted in a release of vapors into the ambient air causing an "orange cloud" in the area that led to the evacuation. ADEQ's Emergency Response Unit responded to the situation at the request of the Phoenix Fire Department and was immediately on site providing technical assistance. Aero Spring and Manufacturing was cited with a Notice of Violation for hazardous waste violations in September 2004 and is paying a penalty for the violations.

Innovative Waste Utilization

In December, 2004, an Administrative Law Judge (ALJ) rejected Innovative Waste Utilization's (IWU's) administrative appeal of ADEQ's decision to revoke its hazardous waste permit. ADEQ revoked IWU's permit and ordered IWU to cease operations at its hazardous waste collection facility in South Phoenix in February 2003, after law enforcement officials arrested several employees at the facility on drug-related charges related to drug lab waste processing. IWU had filed an administrative appeal of the revocation.

In rejecting IWU's appeal, the ALJ said that the testimony and exhibits presented at the hearing "demonstrate overwhelmingly that ADEQ had ample and substantial evidence upon which to conclude that IWU had violated its hazardous waste permit when its employees repeatedly removed and diverted drug lab waste . . . and reintroduced that material back into the illegal methamphetamine manufacturing and distribution trade."

In early 2005 IWU appealed ADEQ's action to Superior Court. IWU abandoned its judicial appeal in June 2005, however.

Universal Propulsion Company

In October, 2004, ADEQ and Universal Propulsion Company (UPCO) entered into two enforceable consent orders: one requiring the company to investigate and clean up perchlorate contamination at the north Phoenix facility; the other prohibiting future open burnings at the site. Non-compliance will subject UPCO to civil penalties. Tests had revealed that groundwater at the facility is contaminated with perchlorate.

Equilon Enterprises, LLC

In October 2004, Equilon Enterprises, LLC, dba Shell Oil Products U.S., agreed to pay a \$50,000 civil penalty for air quality violations. Equilon/Shell operated a facility that

distilled transmix, a mixture of pipeline derived diesel fuel and gasoline, into commercial grade gasoline and diesel fuel, from the time that Equilon/Shell purchased the facility from Valley Refining, LLC, in September 2001 until operations ceased in March 2004.

Arizona Water Company

In January, 2005, ADEQ announced a \$45,000 civil penalty as part of a settlement with Arizona Water Company for violations of the state's hazardous waste laws. Arizona Water Company had illegally discharged hazardous wastewater, failed to properly characterize lead-containing hazardous waste and failed to meet basic hazardous waste labeling requirements.

Laundry and Cleaners Supply, Inc.

In July, 2004, Laundry & Cleaners Supply, Inc. (LCS) agreed to pay \$80,000 for several hazardous waste violations observed during a September 2002, hazardous waste inspection, including failure to store hazardous waste in containers that are in good condition; treatment and storage of hazardous waste without a permit; failure to have a contingency plan and training plan; and failure to correctly label hazardous waste.

Black Mesa Pipeline, Inc.

In October 2004, Black Mesa Pipeline, Inc. was fined \$27,500 for an unauthorized release from the company's coal slurry pipeline that runs across northern Arizona. Black Mesa had entered into a consent decree in 2001 with ADEQ and the U.S. Environmental Protection Agency that required the company to take steps to prevent discharges from the pipeline. This \$27,500 fine was levied against Black Mesa for a discharge of 2300 wet tons of coal slurry that occurred on Aug. 21, 2004, pursuant to the stipulated penalties clause in the consent decree. The company has paid another \$229,250 in penalties for its failure to prevent discharges that have occurred since 2001.

Water Quality Facility Inspections on Schedule

The Compliance Section of the Water Quality Division met or exceeded all of its facility compliance inspection targets. The Compliance Section conducted 1154 scheduled inspections, often combined inspections, of drinking water facilities, permitted point source (Arizona Point Source Discharge Elimination System-AZPDES) and groundwater (Aquifer Protection Permit-APP) discharging facilities, including wastewater treatment plants, industrial and construction stormwater sites, and concentrated animal feeding operations (CAFOs).

Monitoring and Assessment

Safe Drinking Water Database Upgraded

The Drinking Water, Water Quality Compliance and Data Management and Analysis Sections of the Water Quality Division spent a significant amount of time in FY05 converting ADEQ's legacy drinking water database to the new Safe Drinking Water Information System (SDWIS/State). Although, the kickoff of the initiative occurred midway in FY04, the vast majority research, training, and data migration occurred in FY05. Some of the many benefits of this migration include the ability to better track new and existing drinking water rules, generate and upload accurate monitoring and reporting violations to the US Environmental Protection Agency, and easier data entry and tracking processes.

Status of Water Quality Report Issued

The Water Quality Division finalized publication of the 2004 Status of Water Quality in Arizona (the integrated 305(b) Report and 303(d) List). This comprehensive report provides a comprehensive overview of both surface and groundwater quality throughout the state, a summary of available monitoring data and identifies those surface waters that are not meeting standards or its designated uses for which total maximum daily load studies must be completed.

Air Toxics Assessment Project with Tribes

In January 2005, ADEQ launched an expanded partnership with three Native American tribes to monitor air-toxics levels at eight locations throughout the Phoenix area. The study is being conducted by ADEQ along with the Gila River Indian Community, the Salt River-Pima Maricopa Indian Community and the Ft. McDowell Yavapai Nation. The program is the only state-tribal cooperative air quality project in the nation. It will provide information on the risks posed by air toxics, raise public awareness of air-quality issues, and educate the public on how to reduce risks.

Groundwater Quality Monitoring Procedures Improve

In FY 2005, substantial progress was made to improve electronic reporting procedures for groundwater quality monitoring data collected at WQARF sites in coordination with the Water Quality and Waste Programs Divisions. Also, a process was developed in coordination with the State Laboratory to allow electronic reporting of lab analytical results for surface water samples collected by our water monitoring programs. Both these automated electronic reporting systems allow data to be sent digitally to the agency and validated prior to loading into the WQD databases. These measures improve data integrity, as well as move us closer to utilizing the agency Internet node for broad-based data sharing and reporting requirements. The longer-term goal is to improve and

streamline all agency electronic reporting processes, and to share water quality and other environmental data online through the Department's EPA-certified web node facility.

Public Outreach – Education and Outreach

Helping Schools Protect Against Lead in Drinking Water

In October 2004, the department developed a guidance manual to help schools throughout the state ensure that there is no potential for lead contamination in their drinking water. The manual was developed by ADEQ with the assistance of several Arizona municipal water providers. The manual outlines a process for assessing a school's plumbing system for potential lead contamination and then collecting drinking water samples for analysis by a licensed laboratory. If the sampling and analysis results conclude there is lead contamination, the manual identifies actions that can be taken to resolve the problem. The manual can be found on ADEQ's Web site, <http://www.azdeq.gov/download/lead.pdf>.

Federal Arsenic Drinking Water Standard

In FY 2005, ADEQ continued to provide extensive outreach and education on the new, federal arsenic drinking water standard of 10 parts per billion (ppb) which goes into effect on January 23, 2006.

Among many other efforts, in September 2004, the department held an arsenic vendor fair in order to bring together representatives from public water systems around the state with vendors and manufacturers of arsenic treatment technologies. The vendor fair afforded water systems an opportunity to learn more about the various treatment technologies available for bringing their drinking water supplies into compliance with the new standard.

ADEQ Awards \$888,000 for Arizona Recycling Projects

Landfill disposal fees are collected and used to support the Arizona Recycling Program, which includes awarding funds to private enterprises, political subdivisions, and non-profit organization, pursuant to A.R.S. 49-837. Funding can be requested in these project categories; Waste Reduction Assistance (WRA), Recycling Research and Development (RR&D) and Waste Reduction Initiate through Education (WRITE) projects.

In November 2004, ADEQ awarded \$888,000 in contracts to fund 17 recycling projects as part of the department's efforts to support and promote recycling in Arizona. Since 1991, ADEQ recycling grants have provided seed money to communities to find innovative ways to increase the volume and types of recyclable materials that can be diverted from landfills in our state. Arizona has nearly doubled the number of curbside recycling collection programs - from 15 cities and towns in 1991 to 28 in 2002 – and has increased the amount of materials recycled statewide from 70,500 tons to 999,000 tons

over the same period. In addition, many communities are now offering household hazardous waste and electronic recycling collection events to their residents.

ADEQ Awards \$1.6 Million in Water Quality Improvement Grants

In February 2005, ADEQ awarded \$1.6 million in grants to help improve the state's water quality and mitigate non-point source watershed pollution throughout the state. A total of 8 different grants were awarded to approved projects throughout Arizona as part of ADEQ's Water Quality Improvement Grant Program.

Non-point source pollution remains a top priority for ADEQ in its efforts to protect public health and the environment in Arizona. Non-point source pollution is caused by pollutants that are carried into lakes, streams or groundwater resources through natural runoff. Non-point source pollution is widely considered the most significant threat to water quality.

The grants are funded through U.S. EPA under the Clean Water Act.

ADEQ Awards Grant for Students' Envirothon Contest

In March 2005, the department awarded a \$32,000 grant to the 2005 Envirothon, a statewide contest that challenges teams of high school students to solve natural resource problems and develop solutions to environmental issues. While on the two-day retreat, students performed hands-on environmental experiments and were presented with environmental problems associated with the year's Envirothon theme.

Public Policy – Policy Development

Children's Environmental Health

In October 2004, ADEQ hosted a forum on creating environmentally healthy schools. The forum featured expert speakers in the field of environmental health in schools who addressed ways to reduce risks to children in the design and operation of schools. Speakers and panel members also discussed strategies for reducing asthma triggers in schools, preventing children's exposure to harmful diesel emissions from school buses and curtailing pesticide use at schools.

Public Policy – Rule Development

Aquifer Protection Permit Sent to Governor's Regulatory Review Council

During FY05 the Water Quality Division completed a four-year effort to amend the Aquifer Protection Program rules. The new APP rules became effective on November 12, 2005. The rulemaking builds on the foundation established in the revisions to the APP

rule in 2001. Among other issues, the rulemaking addressed groundwater nitrate contamination, including comprehensive provisions for nitrogen management, performance standards for on-site wastewater treatment facilities (i.e., septic tanks), management plans for sewage collection systems designed to minimize sewage discharges through leaky line, and an authorization and process for ADEQ to designate Nitrogen Management Areas in Arizona to manage potential sources of nitrate pollution.

Conclusion...

Despite the challenges presented by budget limitations and reduce staffing levels, ADEQ continued to make progress in FY05 in protecting Arizona's environment and the health and safety of the people of this state. Through the initiation of innovative efforts, like the School Bus Idling Program and the Arizona Performance Track, and an ongoing focus on improved and effective compliance, permitting and enforcement, ADEQ is committed to ensuring clean air, clean water and a healthy environment for Arizona's children and families.