

## *A Message from the Director...*

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Fiscal year 2002 was a year of challenge and achievement for the Arizona Department of Environmental Quality. Like elsewhere in state government, ADEQ felt the effects of the nation's economic downturn, absorbing a 7.75 percent across-the-board cut in our General Fund operating budget, which amounted to \$1,036,400 for the fiscal year. ADEQ reduced expenditures by holding 20 percent of the department's General Fund positions vacant and focusing on our core functions in carrying out our public health and environmental protection mission. In short, we set priorities and fulfilled responsibilities in the areas that had the greatest impact on people's lives and the quality of Arizona's environment.

As the fiscal year drew to a close in June 2002, ADEQ's senior management began finalizing its report to the legislature that the agency had met or exceeded all 13 of the program performance objectives set forth in its 2000 sunset legislation. ADEQ entered discussions with EPA and others to advance the department-wide effort to improve factors affecting environmental health conditions in South Phoenix. As the massive Rodeo-Chediski wildfire devastated the Mogollon Rim, we were hard at work on restoration activities, ensuring clean and safe drinking water, monitoring affected streams and preparing grant assistance for revegetation efforts on private lands.

As June gave way to fiscal year 2003, the Air Quality Division, in conjunction with its contractor, Gordon-Darby, opened the Valley's 13th vehicle emissions inspection station to further improve customer convenience and service. The Waste Programs Division rapidly advanced projects from investigation to clean-up, restoring groundwater for beneficial use and making contaminated urban properties safe for public contact. The Water Quality Division continued its march toward completing permit actions for all existing non-mining facilities in the state by calendar year's end. And the Administrative Services Division culminated planning and preparation to lead the agency's relocation to the Capitol Mall.

Fiscal year 2002 was, indeed, a productive year for ADEQ despite the challenges posed by the state's budget crisis. The faltering economy resulted in no less work for our dedicated staff who continued to meet deadlines, prioritize assignments and adjust to resource shortages. As you read through our accomplishments, you can see how our employees proved once again that they are capable stewards of Arizona's natural legacy and worthy of the responsibility entrusted to them. I am very proud to be associated with men and women so dedicated to public service and professionalism.

This year's annual report is structured around our core functions to help you better understand the nature of our work. More detailed information about many of our programs may be found in the [appendices](#) to this report and by reviewing our Web site

at [www.adeq.state.az.us](http://www.adeq.state.az.us). By reading through our accomplishments, you will see that Team ADEQ does its job well, providing value to Arizona's citizens.

*Richard W. Tobin II*  
*Acting Director*

## *ADEQ at a Glance...*

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The Arizona Legislature established ADEQ as the state's environmental regulatory agency under the Environmental Quality Act of 1986. Our mission is to protect public health by administering our state's environmental quality laws and delegated federal programs to prevent, control and abate pollution of our air, water and land resources in a manner that promotes productivity, quality, service and advocacy for Arizona.

During FY 2002, ADEQ had an average of 760 employees working in our Phoenix headquarters and our Flagstaff and Tucson regional offices.

The department's [organizational structure](#) is composed of three programmatic divisions that fulfill our environmental protection mission in the areas of air quality, water quality and waste programs and which are supported by the director's office and an administrative services division.

Our agency's core functions are vital to public health and safety, and by carrying them out, ADEQ employees ensure that Arizona's environmental quality is protected and that citizens enjoy an excellent quality of life. The core functions align with the agency mission, strategic plan and performance objectives, and fall under the following broad responsibilities:

### Productivity

ADEQ enhances productivity and provides value for Arizona citizens by reducing the cost of compliance with environmental regulations. By making our processes more efficient, we are able to respond quickly to the needs of the regulated community while reducing costs and without compromising public health or environmental protection efforts. ADEQ's efforts help balance an expanding state economy with a clean environment and a healthy citizenry.

### Quality

ADEQ achieves quality by reducing the public's exposure to pollutants through clean, safe water and air, and regulation, management and minimization of Arizona's wastes. By measuring how clean the environment is, ADEQ is able to take steps to reduce pollution and oversee cleanup of contaminated sites.

### Service

ADEQ understands that public service is a cornerstone of its mission as a state agency. Thus, ADEQ strives to meet and exceed our customers' expectations in all that we do. As we serve our customers, we reduce pollution and contaminants through preventative measures and remediation activities. Meeting customer needs also includes educating the public about the environment and involving stakeholders, who provide input on our programs, rules and processes.

### Advocacy

ADEQ is a leading advocate for Arizona's environmental interests. With the authority to administer federal programs and through high-level involvement in state and regional programs, we ensure that the regulations and modes of enforcement of these programs are applicable to the special needs of Arizona's environment. By making known our positions on national environmental issues, we help shape national policy to ensure that it reflects the unique needs of Arizona.

### *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 ambient standards are threatened or violated. Arizona’s current 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 incentives to encourage the public to reduce and eliminate waste and resulting pollution.

### *Environmental Clean Up*

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

**Emergency Response** – ADEQ’s scientists, engineers and technicians assist local responders and emergency coordinators by responding to hazardous chemical releases that threaten public health and the environment as a result of transportation accidents, fires or malfunctions at industrial sites.

### *Compliance Management*

**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 formal enforcement actions, often 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 staff also support

numerous advisory and stakeholder groups and conduct 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 and pollution prevention projects and activities.

### ***Public Policy***

***Policy Development*** – ADEQ works with state and national organizations and stakeholders to shape and influence sound 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 and strategic planning, managing contracts and procurement, maintaining our information technology systems, human resources, and general and laboratory services.

### **Fiscal Highlights**

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Information on our FY 2002 expenditures, revenues and full-time employees is shown on four charts. Total revenue from general fund appropriations, federal funds, interest, fines, penalties and fees was \$106,946,441 in FY 2002. [Chart 1](#) shows the sources of revenue and the percent contribution from each source. We expended \$113,808,319 in FY 2002. (Note: Expenditures may exceed revenues because funding has carried forward from previous fiscal years.) [Chart 2](#) displays the expenditures broken down by the state's accounting classifications, while [Chart 3](#) shows the expenditures by the four major funding sources. Information on funding sources for authorized staff is provided in [Chart 4](#).

### **Legislative Highlights**

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In FY 2002, ADEQ sought changes to authorize more efficient and effective operation of the department. The legislature clarified ADEQ's enforcement capabilities, enabling the department to move forward with its application for primacy for the

[National Pollutant Discharge Elimination System Program](#). The legislature also changed administrative procedures to allow more efficient public review of draft estimates and allocations for [total maximum daily loads](#). The legislature continued the [waste tire fee, fund and program](#), and the Water Quality Appeals Board for five and 10 years, respectively. Amendments during the 2002 session required ADEQ to administer the Clean Air Fund and continued the vehicle emissions inspection in-lieu fee. The voluntary vehicle repair and retrofit program was also changed, setting a \$10,000 limit on the amount of money that can be used to repair and retrofit a fleet of diesel vehicles. In addition, the legislature required ADEQ to submit a request for an emissions testing exemption for motorcycles and collectible vehicles and SIP revisions addressing regional haze to EPA. Finally, the legislature clarified the requirements for meeting ADEQ's sunset performance measures in regards to Title V air quality permits.

## [Employee Highlights](#)

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Enhanced productivity, quality, service and advocacy result from a workforce that possesses the technology, resources and commitment to get the job done. ADEQ values its employees for their professionalism and commitment to public service. Retaining quality employees has been a concern in state government for several years. Just two years ago, ADEQ had a staff turnover rate of 20.8 percent. This figure dropped to 11.7 percent in FY 2002.

Economic uncertainty no doubt influenced the decision of some employees who might have gone elsewhere to remain with the department last year. Nevertheless, we believe ADEQ's commitment to improve the professionalism of our staff is resulting in higher morale and reduced turnover. This commitment is evident through enhanced accountability for work performed, better training, improved internal communication and innovative approaches to rewarding employees for commitment to the agency mission and goals. These efforts have resulted in:

- *Continuing employee job satisfaction*  
Employee surveys show ADEQ's continued improvement for overall job satisfaction, from 51 percent in FY 2000, to 56 percent in FY 2001, to 58 percent in FY 2002. This improvement is statistically significant because it is difficult to sustain increases three years in a row.
- *Meeting customer expectations*  
ADEQ received an overall 90 percent approval rating from customers during FY 2002, well above the governor's 80 percent target. This compares favorably to the overall 80 percent approval rating received from customers in FY 2001.

## ADEQ Relocates to the Capitol Mall

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In the final weeks of June, ADEQ culminated more than a year and a half of planning and preparation and began its move from our Central Avenue headquarters to our new address, 1110 W. Washington St., in the Capitol Mall complex. Our relocation to the Capitol Mall presented ADEQ a



tremendous opportunity to enhance our effectiveness by consolidating into one building that was designed to meet our needs and more efficiently serve the public. The building's large floor plates allow us to group each of our air, water and waste divisions on a single floor, thus providing better coordination and assistance. In addition, its energy-saving design and construction minimized the building's effects on the environment and may qualify it for national green building certification.

## *FY 2002 Accomplishments...*

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### Pollution Control – Permitting

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#### *ADEQ Completes 21 Title V Air Quality Permits*

ADEQ's Air Quality Division committed to taking final action on [Title V air quality permits](#) for existing electric utilities, mines, smelters, lime plants, cement plants and ammonium nitrate plants by June 30, 2002. The division took final action on 21 of the 22 permits by the prescribed deadline. (One applicant had waived issuance of a permit by the deadline, which ADEQ acknowledged in accordance with Senate Bill 1339 of the 2002 Regular Session.)

By taking final action on these Title V permits, ADEQ is ensuring that major sources of air pollution in Arizona receive the proper, federally-approved permits under Title V of the Clean Air Act. In addition, since January 2002, the Air Quality Division has issued significant revisions for projects at cement, coal and natural gas-fired power plants, natural gas transmission facilities and a steel mini-mill.

#### *ADEQ Issues Air Quality General Permits for 10 Industry Sectors*

General permits are designed to ensure that businesses that will be emitting small amounts of pollution do so safely and within healthful levels established by law. Because the permits are general to the industry sector, ADEQ is able to issue them

more quickly and at less cost while ensuring that similar facilities receive consistent treatment. This is valuable assistance to businesses seeking to begin or expand operations in Arizona and support the state's economy.

The legislature had required ADEQ to complete the issuance of new general air quality permits for soil vapor extraction facilities, gas stations and asphalt batch plants, and to renew air quality permits for crushing and screening facilities and dry cleaners by June 30, 2002. ADEQ's Air Quality Division met its objective, successfully issuing or renewing general permits for all 10 of the required sector permit types. In addition, the division issued four general permits for concrete batch plants, commercial and industrial boilers, crematories, and generators.

### *ADEQ Reduces Backlog of Aquifer Protection Permits*

In November 1999, the Water Quality Division had an inventory of 416 [aquifer protection permits](#), which included permits in process as well as the list of existing facilities operating under legacy permits but required to obtain APPs. This "snapshot" of work became the basis for a performance measure to reduce the inventory by 50 percent by June 30, 2002. ADEQ was given 30 months to complete 208 aquifer protection permit actions, as well as process new permit applications submitted within the time frame and subject to licensing time frames.

The Water Quality Division completed 222 permit actions by June 30, 2001, accomplishing more than the target 50 percent reduction within 18 months and a full year ahead of schedule. In FY 2002, the division continued to issue permit actions at a record pace, completing 159 – more than in any other single year.

### *ADEQ Increases General Permits Under the APP Program*

This measure encouraged the Water Quality Division to identify opportunities within the [Aquifer Protection Permit Program](#) where a general permit could be used in place of requiring an individual permit, to craft the general permits and to formalize in rule. This action would significantly streamline the regulatory process while still protecting groundwater. In addition, the significant increase in the number and types of general permits would allow the Water Quality Division staff to focus its efforts on those facilities in need of individual permits, where the risk to groundwater was higher and protection was more critical.

The Water Quality Division completed regulatory changes under the umbrella of its unified water quality permit initiative in December 2000. These changes significantly streamlined and clarified APP and reclaimed water permitting, and strengthened protection by requiring more stringent technology controls for new wastewater discharges. Thirty-five new types of performance-based general permits were included within the unified permitting approach. These general permits took effect Jan. 1, 2001, fulfilling the performance measure to broaden the Water Quality Division's APP general permitting program. In FY 2002, the division began seeing the beneficial



impact of the new general permits available to discharging facilities, issuing 45 general permit authorizations to discharge in lieu of individual permits.

### *ADEQ Moves Closer to Managing Federal NPDES Program*

The [National Pollutant Discharge Elimination System \(NPDES\) Program](#) has achieved significant reductions in pollutant discharges since it was established by the federal Water Pollution Control Act Amendments of 1972. The development of this permitting program, in turn, has resulted in tremendous improvement to the quality of our nation's water resources. A NPDES permit is required for any discharge to a water of the United States. In FY 2002, Arizona remained one of only six states that has not assumed authority to implement this permitting program. Because of identified benefits of a state-operated program, ADEQ built on earlier progress with stakeholders to secure the necessary legislative and regulatory authorities to enable Arizona to manage the NPDES permitting, pretreatment and stormwater programs. EPA declared the state's application complete in July 2002, and the program is pending final authorization.

### *Accelerated Permits Enhance ADEQ's Productivity and Service*

ADEQ manages an accelerated permit processing program to enable facilities to expedite air quality and aquifer protection permits applications through use of experienced, state-approved contractors to write the permit. Permit applicants bear the additional costs associated with the program.

ADEQ processed an unprecedented eight air quality permit applications through the accelerated program in FY 2002. Five additional applicants were interested in acquiring their permits on an accelerated schedule, but were processed internally as demand exceeded the program's available budget. Tucson Electric Power, North Star Steel and two cabinet manufacturers in Kingman, Ariz., were among the companies to receive air quality permits via the accelerated route this year.

Meanwhile, ADEQ increased the number of contractors available to mining facilities to prepare aquifer protection permits by determining that contractors on the state-approved contract list for remediation activities were eligible for such work.

## Pollution Control – Planning

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### *ADEQ Submits Seven Air Quality Plans by Deadline*

As part of its 2000 sunset review, ADEQ committed to submitting seven air quality plans to EPA by June 30, 2002. Submission of these plans is the first step toward redesignation of the areas to attainment status for ozone and sulfur dioxide. Redesignation to attainment status has several advantages, including potential economic benefits for businesses and industries. Moreover, potential employees may find it more desirable to locate in an area that has been designated as meeting health-

based standards. ADEQ submitted all seven plans by June 27, 2002. The plans are the Maricopa County serious area ozone attainment demonstration plan and the attainment demonstration and maintenance plans for the six sulfur dioxide non-attainment areas in Arizona: San Manuel, Miami, Hayden, Ajo, Morenci and Douglas.

### *Two of Arizona's Moderate PM<sub>10</sub> Nonattainment Areas Achieve Redesignation*

Following Congressional approval of the 1990 amendments to the [federal Clean Air Act](#), EPA designated several areas in Arizona as being out of compliance with the federal health standard for particulate pollution, known as the national ambient air quality standards for PM<sub>10</sub> (particulate matter 10 microns and smaller in size). In 1995, ADEQ submitted to EPA air pollution control plans for these areas that included a number of particulate reducing strategies to be implemented by local facilities and governmental entities to bring the areas into compliance with the federal health standards. In addition, the Clean Air Act requires states to develop maintenance plans that demonstrate how these areas will continue to achieve healthful air for at least 10 years.

In FY 2002, EPA published official determinations that the Bullhead City and Payson areas had come into compliance with the standards, and on July 26, 2002, EPA approved the air quality plans and officially redesignated the Bullhead City and Payson areas as being in attainment with the federal health standards for PM<sub>10</sub>, effective Aug. 26, 2002. As part of the maintenance plan requirements, the strategies will continue to be implemented and ADEQ will continue to operate air quality monitors in both areas to ensure the strategies are adequately protective.

### *ADEQ Develops Arsenic Master Plan to Assist Arizona's Public Water Systems*

In FY 2002, EPA revised the federal maximum contaminant level allowed for arsenic in drinking water from 50 to 10 parts per billion, effective January 2006. High levels of arsenic occur naturally in Arizona, and more than 350 of Arizona's approximately 1,800 public water systems won't be able to meet the new standard. Capital costs of complying with this new standard are estimated to approach \$1 billion statewide, with annual operating costs falling between \$75 million and \$120 million.

In FY 2002, ADEQ developed the Arsenic Master Plan to help Arizona water systems come into compliance with this new standard by presenting them cost estimates and options for treatment approaches based on their particular needs and situation.

## **Pollution Control – Pollution Prevention**

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### *Car Care Program Emphasizes Service and Preventive Maintenance*

The [Vehicle Emissions Inspection Program](#) adopted the new name "Car Care" to better reflect the relationship between the motorist, the inspection process and the

repair industry. The Car Care name and logo reflect ADEQ's pledge to customer service and education as well as high quality, technically advanced inspection services. The Car Care theme, "Because Every Car Counts," speaks to ADEQ's commitment to help motorists take the best possible care of one of their most valuable assets.



In January 2002, Car Care implemented state-of-the-art on board diagnostics (OBD) testing for 1996 and newer light duty vehicles. The OBD equipment downloads and reports emissions-related operational data directly from the vehicle's computer system. This technology is improving the identification of vehicles needing emissions-related repair while significantly reducing test time. Implementation has been successful and without serious transition difficulties.

A major improvement in customer service is the [increased inspection capacity](#) in Phoenix and Tucson. The vehicle emissions inspection contract signed in FY 2001 provided increased capacity with three new inspection facilities in Phoenix and added lanes in Tucson. New stations have been located in [Surprise](#) (Grand Avenue and Bell Road), [South Phoenix](#) (16<sup>th</sup> Street and University) and [Chandler](#) (Chandler Air Park), increasing capacity to 59 lanes. ADEQ opened additional lanes at the two Car Care facilities in Tucson, bringing the total there to 13 lanes.

[Wait time monitoring](#) allows ADEQ to monitor contractor and network performance, through continuous accurate assessment of each customer's wait for inspection services. Using an entry gate and ticket system, similar to a parking facility, the contractor is able to monitor and report the time each customer must wait in line for inspection services. The system provides for improved customer service and accountability. Customers can access wait time information by calling a hotline number or online through their personal computers.

#### *Pollution Prevention Reaches Across the U.S.-Mexico Border*

ADEQ's binational pollution prevention program, [AMIGO](#), continues to strengthen the collaboration with its counterpart agencies in Mexico. AMIGO, which stands for Arizona-Mexico International Green Organization, provides recognition to industries that have implemented exemplary pollution prevention in the border region. During this year, the governors of Arizona and Sonora jointly presented ADEQ's AMIGO awards to two Mexican industrial facilities in Nogales, Sonora, for undertaking process improvements and pollution prevention outreach with their community.

## Environmental Cleanup – Remediation

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### *ADEQ Touts Underground Storage Tank Program Efficiencies*

ADEQ's [Underground Storage Tank Program](#) steadily streamlined its closure request process so that, by the end of June 2002, ADEQ was responding to closure requests within 60 days more than 90 percent of the time. Expedited closures of leaking UST sites facilitate property transactions and spur redevelopment. They also eliminate additional oversight and remediation expenditures that are incurred because of longer review times.

In addition, ADEQ has addressed more than 52 percent of the 644 sites that have been identified as requiring corrective action plans. The higher percentage indicates that the UST Program has progressed from investigation to cleanup at a significant number of groundwater contamination sites.

By streamlining processes and realigning resources, ADEQ also had reduced by May 2002 the UST Program's administrative costs to approximately 20 percent of the monies in the State Assurance Fund. As a result, a greater percentage of funding is available to reimburse owners and operators for the costs of corrective actions.

At the end of FY 2002, the [Governor's Regulatory Review Council](#) was considering final action on a risk-based corrective action rule that ADEQ had submitted following extensive stakeholder input and approval from the UST Policy Commission. Implementation of a risk-based corrective action program will result in cost effective cleanups by allowing selection of site specific, risk-based cleanup levels that are protective of public health as well as current and future property use.

### *State's Water Quality Assurance Revolving Fund Program Sees Results*

ADEQ uses the Arizona Water Quality Assurance Revolving Fund, created under the Environmental Quality Act of 1986, to support hazardous substance cleanup efforts in the state. The fund is dependent upon legislative appropriations, cost recovery from responsible parties, corporate income tax and special fees. The program identifies sites that are most in need of cleanup and adds them to the WQARF Registry. Under the [WQARF Program](#), liability for remedial costs is proportionate to a responsible party's contribution to the problem, with the "orphan" share paid by the fund.

The state's budget shortfall threatened WQARF funding and the continued cleanup of the state's 33 WQARF Registry sites. The \$18 million fund transfer from the Corporate Income Tax was reduced by \$10 million in FY 2002, with an additional \$5 million cut scheduled in FY 2003. Despite these challenges, ADEQ continued to make progress in eliminating significant threats to public health and the environment. During FY 2002, ADEQ spent approximately \$7 million in WQARF funds on early response action work, completing five early response actions and several early

response action evaluations, which will result in additional clean up actions at WQARF sites in FY 2003.

ADEQ successfully installed a soil vapor extraction system at F&B in the West Central Phoenix WQARF site; completed the removal of more than 3,400 tons of hazardous substances from the E.C. Winter property in the El Camino del Cerro WQARF site; completed the removal of a sump, septic tanks and more than 1,700 tons of hazardous substances at the 20th Street and Factor Avenue WQARF site; and abandoned a well at the Miracle Mile WQARF site.

ADEQ also worked on the design and construction of several other early response actions, including groundwater pump and treat systems at the Broadway-Pantano and the Central and Camelback WQARF sites. ADEQ continued operations and maintenance work at previously completed early response actions, such as the pump and treat, air sparging and soil vapor extraction at the ALSCo facility in the West Van Buren WQARF site and pump and treat at the Payson PCE WQARF site. Early response action evaluations were completed at the 16th Street and Camelback, East Central Phoenix/40th Street and Indian School, Tyson Wash, and Park Euclid WQARF sites.

By June 30, 2002, ADEQ had initiated potentially responsible party searches to recover remedial action costs from the parties who are potentially responsible for the contamination at all sites on the WQARF Registry. In addition, ADEQ completed a search for potentially responsible parties associated with the Estes Landfill WQARF site and initiated the multiparty allocation by sending a notice of liability and proposed remedial action plan to all responsible parties on June 28, 2002. Through the allocation process, ADEQ will recover some remedial action costs from responsible parties.

### *ADEQ Program Encourages Voluntary Cleanups*

Through its [Voluntary Remediation Program](#), ADEQ encourages property owners, prospective purchasers and other interested parties to investigate and clean up contaminated sites in cooperation with the agency. Benefits of the program include reducing exposures to contaminants and ensuring that cleanups meet applicable requirements. In exchange for their initiative and cooperation, program participants benefit from ADEQ's expedited review of the voluntary action and upon successful completion, a closure document that is accepted by all relevant ADEQ programs. Ultimately, a once idle and contaminated property is returned to marketability and productive use.

At the beginning of FY 2002, 57 sites were actively working through the Voluntary Remediation Program. By the end of the year, ADEQ had facilitated closure of 10 sites, which resulted in remediation of approximately 54,000 tons of contaminated

soil. In addition, program staff conducted 15 educational outreach activities to explain benefits of the program and how to get involved.

## Environmental Cleanup – Emergency Response

### *ADEQ Part of State's Effort Battling Rodeo-Chediski Wildfire*

The worst wild fire in Arizona history began in mid-June in the Apache-Sitgreaves National Forest located along the Mogollon Rim in east-central Arizona. By the time fire crews had it contained a month later, the \$43 million fire had burned some 470,000 acres, destroyed more than 460 homes and caused the evacuation of 30,000 people. ADEQ was one of 20 state agencies to contribute resources and personnel to the massive fire-fighting, relief and recovery effort.

Our Emergency Response Unit staff served as the state's on-scene coordinator for environmental and hazardous materials issues and participated in a multi-agency hazardous materials team that inspected several hundred homes destroyed in the fire. Our [Hazardous Air Response Team](#) assisted the on-scene commanders by collecting air quality data in the areas affected by the fire's mammoth plume. [Air Quality Assessment Unit](#) staff continued to collect data with the assistance of ADEQ's Northern Regional Office in Flagstaff and posted information on the department's Web site until the fire was fully contained.

ADEQ's [Recycling Program](#) provided Navajo County more than \$50,000 to purchase two wood chippers to help with the removal of burned and damaged wood. The chipped wood could be applied to the soil, thereby reducing erosion and the amount of waste to be hauled to landfills.

Staff from our Water Quality Division, with considerable support and assistance from the Northern Regional Office, inspected all drinking water and wastewater systems affected by the fire, identifying the number of systems that required "boil water" advisories. They provided technical support and assistance to municipalities and wastewater treatment system managers in areas receiving large numbers of evacuees, and through their diligence in evaluating water systems affected by the fire, they helped speed the process of returning residents to their homes.

### *Binational Emergency Response Efforts*

Recognizing the need for binational emergency preparedness on the border, ADEQ assisted with the development of the Sister City Emergency Response and Preparedness Plan that was signed by the mayors of Douglas, Ariz. and Agua Prieta, Sonora in November 2001. ADEQ also successfully coordinated the first binational emergency response on the Arizona-Sonora border in December 2001 when the municipal dump in Naco, Sonora, caught fire and led Cochise County to declare a state of emergency in that area. This noteworthy response led to the current pursuit of

a binational Sister Community Emergency Response and Preparedness Plan by the county of Cochise and the Mexican municipality of Naco, Sonora.

## Compliance Management – Inspections and Enforcement

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### *Increased Compliance Rates Result in Fewer Leaking Underground Storage Tanks*

Compliance with regulatory requirements for leak prevention is resulting in fewer releases or leaks from Arizona's operating underground storage tanks. Only 101 new releases were reported to ADEQ in FY 2002, as compared to the high of 978 leaking USTs that were reported in FY 1996.

Many of Arizona's UST facilities either installed new tanks or upgraded existing tanks to comply with federal requirements for corrosion protection and overflow and spill prevention that took effect in late December 1998. Since then, ADEQ's [UST Program](#) has inspected almost 90 percent of the approximately 3,000 UST facilities with regulated tanks in Arizona for compliance with these federal and other regulatory requirements for leak prevention. By the end of FY 2002, more than 97 percent of Arizona's UST owners were in compliance with the upgraded leak prevention requirements, as compared to the national average compliance rate of 90 percent.

USTs typically contain various regulated substances, some of which have cancer-causing constituents. The federal UST upgrade requirements and other operational standards were developed to prevent releases of these regulated substances. Continued compliance with UST leak prevention requirements should ultimately result in even fewer tanks leaking in the future and better protection of public health and the environment.

### *Notable Enforcement Cases Recognized*

ADEQ employs a spectrum of tools and resources to protect Arizona's public health and environmental quality. At the far end of this spectrum lie its enforcement authorities. ADEQ has shown leadership in taking enforcement actions against businesses that violate laws or otherwise act to endanger public health or the environment.

With the assistance of the Attorney General's Office, ADEQ announced in late June 2001 that North Star Steel, of Kingman, Ariz., paid \$7.75 million in the largest enforcement action in the history of the state's air quality program. The settlement was the most collected by any state against a single facility acting without the U.S. Department of Justice and resulted in increased monitoring and public apologies to the people and elected officials of Kingman and Mohave County.

In May 2002, EPA awarded a bronze medal, its highest award to citizens outside the federal government, to several members of ADEQ who had participated in finalizing the record settlement against air bag manufacturer TRW Vehicle Safety Systems Inc. in January 2001. The \$22 million in fines and penalties for repeated hazardous waste violations at its Mesa facility was the largest settlement of its kind in U.S. history.

### *Bringing ADEQ's Compliance Activities Together*

To improve the consistency, fairness and timeliness of the department's compliance and enforcement program, ADEQ appointed a centralized coordinator for its compliance and enforcement activities in FY 2002. As a result of this effort, ADEQ authored a compliance and enforcement handbook to serve as a comprehensive guide for staff on how to conduct compliance and enforcement activities and to promote consistent and timely evaluations of these activities by the department. Upon completion of the printed handbook, ADEQ made it available as an [electronic document](#), complete with convenient links to attachments and other online documents, making it even more accessible and user-friendly. The handbook now serves as a model for similar projects at ADEQ or other agencies.

Following this effort, ADEQ designed, developed and deployed an inspection, compliance and enforcement database to enable convenient tracking of ADEQ's compliance and enforcement efforts and ensure that department policy is obeyed. The agency's past administrative decisions since 1996 are now available online in a [searchable database](#).

### *ADEQ Improves Hazardous Waste Complaint Process*

In any given year, ADEQ's [Hazardous Waste Inspections and Compliance Unit](#) receives more than 200 citizen complaints alleging improper storage, treatment or disposal of hazardous waste and other environmental issues. Historically, these complaints did not receive timely attention, which resulted in dissatisfied customers and a backlog of casework.

Recognizing the role and value of the complaint process in protecting human health and the environment, unit management completed in FY 2002 a review of its methods for responding to citizen complaints and determined to improve the timeliness of its service. The unit set a goal of responding to complaints within five working days of receipt, and established rotating teams of three individuals who were to field complaints received each week. The unit also established procedures for obtaining information, so that a quality referral could be made if the complaint was outside the jurisdiction of the hazardous waste program.

Between Oct. 22, 2001, and March 5, 2002, the unit responded to a total of 75 complaints, of which 49 were new and 26 were backlogged complaints. The unit has since eliminated the backlog of complaints and all new complaints are now responded to within five working days.



## Monitoring and Assessment

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### *ADEQ Uses Varied Approach to Improve South Phoenix Air Quality Monitoring*

Acutely aware of concerns that South Phoenix residents have expressed about poor air quality in their community, ADEQ in FY 2002 pursued several strategies to engage the community to address these concerns.

#### ***Reducing Levels of Particulate Pollution***

ADEQ's particulate monitoring data collected near 22nd Avenue and Lower Buckeye Road support residents' concerns about the high levels of dust in South Phoenix. In fact, the Salt monitor, as it is known, has recorded violations of the annual health-based federal particulate standard every year of its operation, as well as numerous violations of the 24-hour standard.

After discussions with ADEQ and Maricopa County regarding these continued violations, on April 10, 2002, EPA issued a proposal in the Federal Register that would require the development of a new set of enforceable programs by Dec. 31, 2003, to bring the air in South Phoenix back to healthful levels. In response, ADEQ has worked with Maricopa County to install an additional particulate sampler near 43rd Avenue and Broadway to better define the extent of the particulate problem, and to replace the Salt monitor, which must be moved by the end of 2002.

A thorough understanding of the sources contributing to the problem is needed to reduce pollution levels. In May 2002, ADEQ and Maricopa County began to analyze satellite images and conduct field studies to identify all of the contributors. This information will indicate whether sources are complying with existing control programs and if those control programs need to be strengthened or new controls need to be implemented. ADEQ understands that community support for the controls is necessary to resolve the air quality, and the department continues to keep citizens informed and seek their input.

#### ***More Air Quality Monitoring on the Way***

ADEQ needs to relocate some of the existing particulate samplers located at sites around the Valley. This is good news for the South Phoenix community, which has told ADEQ that more monitoring is needed in the area. As a result of these concerns, ADEQ has examined potential monitoring sites in the community that will meet the technical standards set by EPA for all air quality agencies to use to ensure consistent monitoring is done across the country. At the end of FY 2002, ADEQ was still looking for a suitable site.

#### ***Measuring the Community's Exposure to Hazardous Air Pollutants***

In FY 2002, ADEQ collaborated with EPA, Maricopa County and three Valley Native American communities to address South Phoenix residents' concerns

about their exposure to hazardous air pollutants. ADEQ also discussed with EPA about securing federal funding for additional monitoring in the area to characterize exposure and to develop strategies for reducing exposure.

### ***Potential Multi-Media Toxics Reduction Plan for South Phoenix***

EPA and ADEQ also discussed possible funding for development of a Toxics Reduction Plan for South Phoenix. This development occurred as a result of EPA guidance to help communities address high levels of toxic exposure from a wide variety of sources, including indoor and outdoor air, water and waste. The guidance lays out a process by which a community develops and implements a plan with the help of state, local and tribal governments, local industry and others, including technical and other support from EPA. It is intended to integrate economic development with a straightforward approach to achieve short- and long-term toxic risk reduction.

Because the plan needs to be community based, it is necessary to have respected community leaders convene and show leadership in gauging the community's interest in the process and, assuming a favorable response, in developing the plan. This is particularly critical if a South Phoenix plan is to succeed. The only other pilot project that EPA has funded targets a neighborhood in Cleveland. The South Phoenix community is much larger in scale and diversity, and the [Cleveland pilot project](#) is EPA-driven, whereas a community-based approach will be used in South Phoenix.

### ***Binational Air and Water Quality Monitoring***

Binational air quality monitoring continued throughout FY 2002 for particulate matter in the sister cities of Nogales, Ariz., and Nogales, Sonora (Ambos Nogales). ADEQ also continued technical efforts for its comprehensive multi-year binational air quality study in Douglas, Ariz. and Agua Prieta, Sonora. Intensive air quality monitoring for particulates and hazardous air pollutants was completed and a binational emissions inventory was performed for both cities. Subsequent phases of the Douglas-Agua Prieta study will include development of a binational computer model and risk assessment.

Air quality monitoring in Nogales, Ariz., and Nogales, Sonora, displays elevated levels of particulate matter contamination. ADEQ co-chaired a border liaison mechanism subgroup under the auspices of the U.S. and Mexican consulates to identify a set of binational actions that could be taken to improve local air quality. This model process resulted in 12 recommended actions, which were developed faster than in any other U.S.-Mexico border community. Together with ADEQ's extensive local outreach efforts, these actions will improve local air quality and public health. As part of our outreach efforts with Mexico, ADEQ also developed its second-annual children's clean air calendar, which features winning drawings from more than 8,000 entries. Notably, Mexico's foremost

Olympic track star, Ana Gabriela Guevara, of Nogales, Sonora, dedicated this year's calendar.

ADEQ also undertook water quality monitoring efforts in cooperation with the Mexican government and the University of Sonora to examine the quality of groundwater and surface water in rivers and aquifers along the Arizona-Sonora border.

## Public Outreach – Education and Outreach

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### *Year of Clean Water*

The year 2002 marked the 30th anniversary of the passage of the Clean Water Act, and throughout the year, ADEQ sponsored a number of signature events to celebrate the improvements to water quality in Arizona and to rededicate ourselves to the continuing challenges. On June 7, Governor Jane Dee Hull addressed more than 100 citizens in Nutrioso, Ariz., who gathered to celebrate the water quality improvements achieved at the EC Bar Ranch on Nutrioso Creek. Other events held during the year included education activities with Arizona science teachers and training for volunteer monitors of Arizona's waters.

### *Lake Havasu City Sewer Bond Election*

Lake Havasu City is generally considered to be the largest city in the United States that treats and disposes of its wastewater through individual septic systems. City engineers had developed a design for sewerage the city and treating the wastewater for reuse, thereby minimizing its impact on the environment and creating more water resources for use in parks and golf courses. A bond election was scheduled for November 2001. At the request of Lake Havasu City's mayor, ADEQ worked with city staff and a citizen-led committee to educate the public about the negative impact of the many septic systems on the city's groundwater and options for collecting and treating the city's wastewater. As part of this effort, ADEQ's community liaisons and Water Quality Division deputy director participated in several informational workshops. ADEQ Director Jacqueline Schafer also testified before the city council. Voters responded positively to the information they received, and the bond election passed by a 75- to 25-percent margin.

### *South Phoenix Environment Initiative*

In June 2002, ADEQ representatives accepted EPA Region 9's award recognizing the department's South Phoenix Environment Initiative as one of the most ambitious community-based environmental outreach efforts that ADEQ has ever undertaken.

What began in May 2001 as a project to keep area residents informed about the department's early response action to address an immediate public health threat has developed into a long-term strategy to make a significant and lasting difference in the

environmental quality of South Phoenix. The initiative grew in scope and impact during FY 2002, and continues to provide the framework for forging a more productive bond between ADEQ and the community.

Specific agency actions taken under the initiative include:

***Increased Inspections*** – Over a one year period (November 2000 to November 2001), the South Phoenix initiative accounted for nearly 70 percent of all inspections conducted by the agency’s hazardous waste inspections section, as ADEQ and EPA conducted a targeted joint inspection sweep (51 sites from March to July 2001) of all treatment, storage and disposal facilities and large quantity generators in South Phoenix.

***Expedited Clean Up*** – Remediation efforts of brownfields in South Phoenix became a top priority for the agency as ADEQ eliminated an immediate public health risk at the East Washington Fluff state superfund site by conducting an early response action with \$3 million from the state’s Water Quality Assurance Revolving Fund.

***Began Work on a Comprehensive Air Survey*** – Initiated work to identify funding for a comprehensive ambient air monitoring survey in and around the South Phoenix area. (See pages 16-18 of this report for details.)

***Expanded Pollution Prevention Assistance*** – Ramped up the Small Business Pollution Prevention Program, which provides business owners with information on the reduction of waste generation and compliance with environmental regulations.

***Enhanced Public Education and Information*** – Partnered with neighborhood groups and community leaders to improve services and participation in recycling and hazardous waste collection.

***Re-established a Vehicle Emissions Inspection Station*** – Opened a new vehicle emissions inspection station at 1520 E. Riverview Drive to improve convenience and service for South Phoenix motorists.

***Organized a High-Profile Community Forum on Brownfields*** – Entitled “Tools for Success,” ADEQ hosted a high-level, multi-agency community seminar on programs to help urban communities address blighted properties and set the stage for economic revitalization.

***Initiated a Vigorous Grassroots Outreach Program*** – Established contact and ongoing dialogue with myriad community leaders and neighborhood organizations in an earnest effort to listen and act upon resident concerns.

### *Making More Information Available on the Web*

In FY 2002, ADEQ followed through on its commitment to improve communication with customers by standardizing the agency's major databases and making more information available via the Internet. The result has been improved data quality, more efficient development of applications and better customer service.

In addition, ADEQ's Web site now contains 10 interactive databases and other applications, as well as more than 600 pages of environmental information, and 3,000 forms, publications and technical assistance documents. When ADEQ committed to this effort in March 2000, only one of 22 applications was available on the Internet.

## **Public Outreach – Financial Assistance**

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### *Recycling Funding Assistance Program*

ADEQ's [Recycling Program](#) administers a funding program that provides financial assistance or start up money to private businesses, non-profit organizations and government entities existing or servicing areas within Arizona. In FY 2002, the Recycling Program awarded \$721,884 to 10 Waste Reduction Assistance (WRA) projects and \$138,595 to seven Waste Reduction Initiative Through Education (WRITE) projects.

WRA funding assists projects that divert significant amounts of material from the solid waste stream, or that represent comprehensive programs designed to achieve high solid waste diversion levels. All projects are related to one or more of the following: recycling collection, household hazardous waste, electronics and/or material recovery facilities.

WRITE projects assist the Recycling Program in its mandate to provide recycling education to the public. This funding provides Arizona residents with the information and education needed to increase their awareness of properly reducing and disposing of solid waste and to encourage participation in source reduction, reuse and recycling activities. Education projects may include, but are not limited to, school curricula, workshops, seminars, publications, mail outs, flyers and mass media campaigns.

### *Water Quality Improvement Grant Program*

ADEQ awarded \$2.88 million in FY 2002 through the Water Quality Improvement Grant Program to fund 28 projects statewide as part of our effort to improve water quality and watershed conditions. The funds are provided annually by EPA under the federal Clean Water Act to assist recipients with "on-the-ground" implementation projects that protect or improve water quality by controlling nonpoint source pollution – the nation's largest source of water quality problems. This type of pollution results when rainfall, melting snow or irrigation runoff picks up pollutants and deposits them in rivers, lakes, coastal waters or ground water sources. Agriculture, forestry,

grazing, septic systems, recreational boating, urban runoff and construction also contribute to nonpoint source pollution.

## Public Policy

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### *Arizona Emissions Bank*

The rule establishing the Arizona Emissions Bank became effective March 20, 2002. Under the [rule](#), sources that reduce carbon monoxide, oxides of nitrogen, sulfur dioxide, volatile organic compounds or particulate matter may have those reductions certified by the appropriate permitting authority and market the emission reduction credits through the emissions bank. Likewise, the rule enables sources wanting to locate or expand in an area to find available credits for offsetting any anticipated emission increases.

ADEQ has participated in the development of other incentive-based emission reduction credit programs, including the [Western Regional Air Partnership's](#) Backstop Market Trading Program for stationary sources emitting sulfur dioxide. ADEQ is also involved in the development of a potential cap and trade program for sources found to contribute to the metropolitan Phoenix haze problem, also known as "brown cloud." More information related to the Backstop Market Trading Program, Annex to the [Regional Haze Rule](#), and the Cap and Trade Committee's work stemming from the [Governor's Brown Cloud Summit](#) can be found on ADEQ's Web site.

### *ADEQ Sets New Fee Structure for Air Quality Permits*

In March 2000, the Air Quality Division began a comprehensive stakeholder process involving sources that ranged from large utilities to small gas stations and crematories to determine a more adequate air quality permit fee structure. The process was based on an in-depth analysis of the division's current and projected workload. The objective of the process was to provide sufficient revenue to cover state costs by addressing inequities identified by stakeholders, and to set state fees, which function as caps for county fees, to allow Maricopa, Pinal and Pima counties to collect sufficient revenue to administer their programs.

Agreement was reached, the rule was proposed for public comment in May 2001 and completed in time for the new fee structure to be in place by Jan. 1, 2002.

### *ADEQ Develops Remediated Water End Use Standards*

The [Water Quality Assurance Revolving Fund Program](#) worked with stakeholders and the Arizona Department of Health Services to develop an end use standards rule. The purpose of the rule is to facilitate the cleanup of the state's contaminated aquifers and, in turn, to facilitate the use, transportation and distribution of the remediated water.

The rule would enable contaminated water to be cleaned up to a level protective of public health based on its intended use. Potential end users and transporters would be knowledgeable of appropriate standards contained in the rule and would thus be encouraged to use and handle it.

ADEQ has developed and reached consensus among stakeholders on a draft end use standards rule, and in FY 2003, ADEQ will open a docket and proceed with the process to promulgate the rule.

## *Conclusion...*

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Fiscal year 2002 was a productive year for ADEQ despite the challenges we faced with reduced funding, staff and resources. By concentrating on our core functions, we were able to protect public health and the environment by ensuring compliance with laws and regulations that prevent pollution of our air, water and land resources. Yet, placing priority on permitting, inspections and enforcement meant a reduced emphasis on other functions critical to our mission and which enable us to plan and work proactively to further sound environmental protection policies in Arizona.

ADEQ faces several short- and long-term challenges entering fiscal year 2003. First among these challenges is to meet programmatic goals and customer expectations with reduced resources as the state's budget crisis continues. Also on our planning horizon:

- Addressing particulate air pollution and regional haze that threaten public health and diminish visibility in our national parks and wilderness areas
- Developing an appropriate and timely recommendation to the governor for defining the boundaries for areas that are not in compliance with the new federal eight-hour ozone health standard
- Ensuring that contaminated soil and groundwater sites are cleaned up safely and efficiently
- Improving the operational efficiency of the Underground Storage Tank Program
- Assisting Arizona's public water systems in complying with the new federal arsenic standard
- Strengthening protection of our state's aquifers from nitrate contamination

With the continued dedication of our employees, ADEQ will strive to meet the needs of Arizona's citizens, knowing that their judgment ultimately determines our success. We will further endeavor to streamline our operations and provide value to Arizona in fulfilling our public health and environmental protection mission.