Chapter 6
Public Education in Recycling

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The education that the Arizona Recycling Program has offered since 1990 has benefitted non-profit organizations, private companies, governmental agencies and the general public. The benefits have been received through the direct and indirect effects of recycling and source reduction workshops and conferences, demonstrations of products made from recycled materials, and the distribution of recycling education throughout the state.

The Arizona Recycling Program focuses on public education to encourage participation in source reduction, reuse, and recycling of solid waste. Although the fundamentals of recycling education are often centered around the implementation of the 3Rs, the Arizona Recycling Program also identifies techniques that will enhance waste reduction efforts. These techniques include educating the residents of Arizona about the importance of buying products made from recycled materials, properly disposing of household hazardous waste, composting, and preventing illegal dumping. Therefore, when the Arizona Recycling Program communicates the importance of recycling, it is presented as a solid waste management option with the ability to conserve our natural and economic resources, reduce the need for new landfills, reduce pollution, and create economic support for the recycling industry.

In addition to the Waste Reduction Initiative Through Education (WRITE) Grant-funded projects that are described in Chapter 5, the Arizona Recycling Program administered various recycling education projects throughout the past year. According to A.R.S. § 49-833 B., the Arizona Recycling Program is required to provide public education through the methods discussed below.

**Recycling and Source Reduction Technique**

**Educational and Technical Assistance Opportunities**

During FY 2000, the Arizona Recycling Program provided educational and technical assistance to jurisdictions, businesses, and the general public through the distribution of brochures, manuals, “how-to” guides, case studies of specific recycling source reduction programs, and other related educational materials. Information for both the Waste Reduction Assistance (WRA) and WRITE Grant programs is provided through presentations to initiate and/or support the establishment of waste reduction and recycling programs. The Arizona Recycling Program provided on-site assistance to schools and businesses to initiate waste reduction options when working with waste haulers and conducting waste audits.

The structure of the state's recycling efforts are community-based. Many jurisdictions offer recycling as part of their solid waste management program. However, if a jurisdiction does not have the infrastructure to offer recycling collection, non-profit organizations have assisted and organized grassroots recycling drop-off programs. In order to provide detailed information to the public regarding community-based recycling programs, the Arizona Recycling Program maintains a listing of local contacts.
titled “Public Recycling Program Coordinators List.” This list provides a point of contact for 102 jurisdictions throughout Arizona. The Arizona Recycling Program works with the recycling coordinators to provide assistance with their recycling efforts, to coordinate between other jurisdictions (if necessary), to develop educational materials, and to exchange knowledge of available recycling opportunities. For general public inquiries, the Arizona Recycling Program provides an overview of the statewide recycling efforts and how they correlate with their community's efforts. However, if community-specific information such as a current list of accepted recyclables or a schedule of pick-up days is needed, the public is encouraged to call their designated recycling coordinator.

When residential curbside recycling programs are not available to households or apartment complexes, the Arizona Recycling Program advises the public to create their own system of collecting recyclables at home and locating a nearby recycling drop-off site. In addition, residents are encouraged to call 1-800-CLEANUP or visit www.1800cleanup.org, a statewide recycling hotline and Web site, to locate the closest drop-off site for their recycling needs.

Individual responsibility to participate in the proper disposal of household hazardous waste (HHW) can only be increased if the public has the knowledge of where to take HHW. Some municipalities offer regularly scheduled HHW events for their residents, therefore, the Arizona Recycling Program has incorporated web links from the ADEQ homepage to those municipalities that provide a schedule of these events on their website. There are currently four permanent facilities within the state of Arizona. They are located in the city of Tempe, which services the residents of Tempe, Gilbert and Guadalupe; Pinal County; Pima County which can be utilized by the counties of Cochise, Graham and Santa Cruz and the city of Yuma.

To increase awareness of these HHW disposal options, the Arizona Recycling Program continues to update a referral listing of locations within each county. This listing includes transfer stations, local businesses, and permanent HHW facilities that will accept used paint, motor oil, antifreeze, batteries, and other types of HHW for reuse or proper disposal. During FY 2000, the Arizona Recycling Program received numerous phone calls on a daily basis regarding the proper disposal of HHW. In addition to the referral list, Arizona Recycling Program recommends other waste reduction and reuse options for HHW. For example, old paint can be donated to neighbors, theater groups, or beautification projects that use old paint to cover up graffiti. Used oil and antifreeze can be returned to most automotive parts and supply stores. The Arizona Recycling Program has referred businesses with larger quantities of batteries, fluorescent lights, and solvent-based products to the hazardous waste handlers in the area. The Arizona Recycling Program also encourages communities that lack the opportunity to properly dispose of HHW to apply for grant assistance to institute HHW events or permanent facilities.
Technical Workshops and Seminars on Recycling and Source Reduction

The Arizona Recycling Program worked cooperatively or contracted with other agencies, non-profit organizations, and/or grant recipients to sponsor or co-sponsor workshops and conferences as a means to provide recycling and source reduction program guidance.

The following is a list of the FY 2000 workshops and seminars co-sponsored by the Arizona Recycling Program:

Annual SWANA/NAHMMA Hazardous Management Conference

The Arizona Recycling Program co-sponsored the 1999 SWANA/NAHMMA Hazardous Materials Management Conference on Household, Small Business, and Universal Waste. The conference included numerous sessions to assist communities and businesses to manage their hazardous materials, establish collection programs, and discuss landfill options. The Arizona Recycling Program provided financial support for coordinating the conference and offered complimentary registrations to communities that were interested in attending but had limited budgets.

Co-sponsor Recycling Annual Conference and Trade Show

The Arizona Recycling Program co-sponsored the Arizona Recycling Coalition's first annual conference, "Arizona Recycles! Get Into The Loop," held on May 15 and 16, 2000, at the YWCA of the USA Leadership Development Center in Phoenix, Ariz.. The Arizona Recycling Coalition was awarded WRITE Grant funding to coordinate the conference and address Arizona's waste reduction and recycling needs. Approximately 200 attendees had access to more than 27 educational sessions on organic composting, waste tire management, institutional recycling, urban and rural community recycling issues, recycling markets, and recycling education programs. As part of the grant, scholarships were made available to those communities that were interested in attending the conference, but were financially constrained.

Co-Sponsor Southwest Market Development Conference

The Arizona Recycling Program co-sponsored Southwest Public Recycling Association's 8th Annual Rocky Mountain Southwest Recycling Market Development Conference, "Recycle and Compost '99." The conference was held Oct. 27 and 28, 1999 at the Mesa Sheraton Resort. The conference targeted elected officials, recycling coordinators, public works managers, purchasing officials, economic development officials, non-profit recyclers, campus/institutional recyclers, and facility managers. The conference focused on the following topics: recycling 101, education and research, economic development, green buying and building practices, composting, and a tour of the city of Tempe's Household Hazardous Products Collection Center. The Southwest Public Recycling Association received funding from the Arizona Recycling Program through the Arizona Department of Commerce.

The Arizona Recycling Program worked cooperatively or contracted with other agencies, non-profit organizations, and/or grant recipients to sponsor or co-sponsor workshops and conferences as a means to provide recycling and source reduction program guidance.
Recycling and Source Reduction Database and Hotline

As stated in A.R.S. § 49-833 B. 3, the Arizona Recycling Program is required to administer a recycling and source reduction database and hotline that provides referral services to waste generators. Since 1990, the Arizona Recycling Program has been compiling a database of recycling facilities and drop-off locations for Arizona residents to refer to for their recycling needs. Developing, updating, and maintaining a database has been an on-going project for the Arizona Recycling Program. Outreach events, such as site visits and regional conferences, create the opportunity for staff to acquire information on new and existing recycling facilities to add to the database.

From 1992 through 2000, the Arizona Recycling Program has worked with Cleanup, Inc., d.b.a. the Environmental Recycling Hotline (referred to as “the hotline” and “Earth’s 911”), to make this recycling database available to the public. By utilizing the 1-800-CLEANUP phone number and Web site, the Arizona Recycling Program fulfills the statutory requirement of administering a database and hotline.

In the urban and rural areas of Arizona, many communities do not have the opportunity to participate in residential curbside recycling programs. By promoting the use of the hotline system, the Arizona Recycling Program has increased the public’s knowledge of local area waste reduction efforts and recycling drop-off sites.

The Arizona Recycling Program continues to distribute promotional items such as magnets, pencils, rulers, and educational wheels that contain the hotline’s phone number and Web site. These items are distributed at outreach events to reinforce to the public the hotline’s phone number for recycling and environmental information.

Promoting Recycling and Use of Recycled Products

Each new year seems to generate more interest in
environmental education and awareness. The number of calls received from the public increased and the number of requests for recycling presentations followed suit. During FY 2000, the Arizona Recycling Program participated in numerous outreach events to promote recycling, waste reduction, and the use of recycled products. The Arizona Recycling Program traveled to local schools to talk with children in kindergarten through 12th grade levels about recycling. Recycling presentations were also made during conferences and civic group meetings, such as the Kiwanis Club and the Arizona Recycling Coalition’s rural recycling forums. Each presentation covered the basic messages of reduce, reuse, recycle, and buy recycled.

Recyclable materials are often brought to the presentations to demonstrate which materials can be recycled in their community and why those materials may differ from community to community. The standard recycling symbols, illustrated below, are often times, used to indicate the recyclability of certain types of packaging. The three chasing arrows (Figure 1) refer to packaging that is recyclable. The three chasing arrows enclosed in the black box (Figure 2) represent packaging that is made from recycled materials and is usually accompanied with the percentage of recycled content material used in the remanufacturing. The differences between the symbols are explained in presentations and pointed out on the actual products.

Recycled content products are showcased at these presentations to increase recycled product awareness, such as carpet made from recycled plastic soda bottles and playground equipment made from recycled plastic milk jugs. The concept of buying recycled products is emphasized to illustrate that recycling not only includes the collection and sorting of recyclables, but it also includes the remanufacturing of recycled products that need to be purchased by the public in order to close the loop of recycling. The audience is also provided with an explanation of the many benefits of reducing, reusing, and recycling.

Promotional items, such as rulers, pencils, bookmarks, brochures, stickers, are also made with recycled materials and have been distributed in classrooms to further demonstrate the availability of these products. Most of these items contain the 1-800-CLEANUP hotline phone number for future reference.
Outreach Events Promoting Recycling
America Recycles Day

Since 1997, America Recycles Day has been nationally celebrated on Nov. 15. This year's theme, “For Their Future, Buy Recycled Today,” focused on building consumer demand for recycled products and to continue to educate others on the environmental and economic benefits of recycling. People were asked to purchase recycled-content products and recycle more by completing a pledge card with their name, address, and how they would make a change in their daily routine. All the pledge cards were forwarded to Washington, D.C. where a national drawing for the children's prizes was held. Winners from this year’s event won a trip for four to Disney World. The adult grand prize drawing will combine pledge cards collected from this year's (1999) and next year's (2000) contest. The grand prize is the American Green Dream House that is constructed out of recycled content and energy efficient materials. The winner could have the home built anywhere in the United States.

State recycling organizations were encouraged to lead statewide efforts in conjunction with America Recycles Day by getting communities involved in recycling events, contests, races, and activities designed to promote awareness about recycling and buying recycled content products. A total of 44 states, the District of Columbia, two territories, and Mexico participated. Each participating state adapted the national day to fit their needs, thus the Arizona Recycling Program provided sponsorship to the Arizona Recycling Coalition to plan, coordinate, and promote Arizona Recycles Day activities through the assistance and expertise of a statewide steering committee.

Promotion of the Third Annual America Recycles Day included more than 130 events statewide. Media coverage included television, radio, and newspapers. The Arizona Recycling Coalition partnered with several organizations to help increase the awareness of America Recycles Day. Harkins Movie Theaters promoted the event for 4 weeks on 100 screens located throughout the state. Bashas' grocery stores were instrumental in coordinating, on a statewide basis, the distribution and collection of the pledge cards. Bashas' also advertised America Recycles Day on their plastic and paper grocery bags. A celebration ceremony was held on Nov. 6, 1999 at the Bashas' grocery store in Chandler, Arizona. Solid Waste Division Deputy Director Mark Charles, and the city of Chandler Vice Mayor Boyd Dunn participated in the kick-off celebration. The Arizona Recycling Coalition contracted with Radio Disney to promote America Recycles Day. Radio Disney aired numerous announcements and conducted several on-site promotions and contests. In addition, Governor Jane Dee Hull declared Nov. 15 Arizona Recycles Day by . The American/Azarian Recycles Day prompted nearly 13,000 Arizonans to pledge to buy recycled products.

Earth Day 2000

The Arizona Recycling Program celebrated Earth Day 2000 by traveling to events located throughout the state during the month of April. The promotional events were planned and coordinated by jurisdictions and non-profit organizations. The Arizona Department of Environmental Quality 2000 Annual Report
The Arizona Recycling Program participated in many events through an interactive display of products made from recycled materials. Events included Earth Day celebrations at Oracle State Park, Stardust Building Supplies, city of Scottsdale’s Earth Fest, and numerous classroom presentations.

**Computer Recycling – StRUT**

The Arizona Recycling Program partnered with public jurisdictions, non-profit organizations and local businesses to promote the Students Recycling Used Technology (StRUT) Computer Recycling Day.

Valley residents were invited to donate their old and obsolete computers and equipment, such as monitors, printers, etc. to the StRUT program to be refurbished for use by non-profit organizations and schools. The event hosted collection efforts at various drop-off sites throughout the valley, of which 4,000 computers and related equipment were collected to be refurbished or recycled.

**Electric Light Parade**

The Arizona Recycling Program, the city of Phoenix, A to Z Rentals, and Census 2000 sponsored a float in the 1999 Arizona Public Service’s Fiesta of Lights Electric Parade and received second place award. The float, Christmas Treecycling was adorned with more than 10,000 lights, a steel drum band, a dozen cut and potted Christmas trees, and mascots from the city of Phoenix, United States Forest Service, and Urban Forestry. More than 12,000 Treecycling tags were distributed along the three mile parade route. The Christmas Treecycling and red tag programs were promoted in most communities statewide.

**Grocery Bag Reuse Project**

During the month of April 2000, the Arizona Recycling Program worked with local grocery stores and the Bear Essential News for Kids publication to promote the reuse of paper grocery bags. Teachers were encouraged to borrow paper grocery bags from their local grocery store to provide to their students for decorating. The students creatively decorated the bags with an Earth Day message to show that kids care about the environment. Teachers returned the decorated bags to the grocery stores, and on Earth Day (April 22), customers received their groceries in the bags. As in the past, the project alerted students and grocery store patrons of the benefits of reducing trash through reuse and eliminating the need for new bags.

**Recycling and Source Reduction Public Education and Advertising Programs**

There are several recycling education and awareness programs that have been successfully implemented by communities throughout Arizona. Often times, municipalities do not have financial resources available for the production of recycling education materials. The Arizona Recycling Program can assist communities with recycling...
education curricula and tools at little or no cost to the communities.

The Arizona Recycling Program has developed an inventory of the various types of educational publications and materials that are available to schools, municipalities, non-profit organizations, and the general public. This inventory list provides the Arizona Recycling Program with an understanding of what is currently being used for the purpose of promoting recycling and what will need to be developed in the future. This inventory has been added to the Arizona Recycling Program's Web site for the public to access (www.adeq.state.az.us/environ/waste/solid/recycle.html). Grant-funded resources resulting from the WRITE Grants and other contracts have been developed for age or category-specific groups. These recycling education resources are required to be transferrable to other communities to support their recycling and/or waste reduction efforts. The Arizona Recycling Program has a clearinghouse of fact sheets, brochures, video tapes, manuals, and slides that have resulted from grant projects and from other state and federal agencies. The Arizona Recycling Program encourages the use of previously developed materials in order to focus resources on areas that lack guidance materials.

**Statewide Recycling Industry Newsletter**

The Recycling Review newsletter was a cooperative effort between the Arizona Recycling Program, Arizona State University, Arizona Public Service Company, and the Arizona Recycling Coalition. The Recycling Review targeted businesses, schools, organizations, and jurisdictions and provided them with information concerning municipal and private sector recycling programs, recycling events, innovative technology, and federal and state regulatory information. This newsletter published its last issue in December 1999. The interests of the partners involved had expanded beyond the original intent of the publication.

Since then, the Arizona Recycling Program has developed its own quarterly newsletter, Recycle Arizona. The newsletter contains information on the WRITE and WRA Grant programs, a description of projects recently awarded funding, America Recycles Day, Christmas Tree Recycling, Earth Day activities, upcoming events, and other related statewide recycling information.

The Arizona Recycling Program works cooperatively with other newsletters, including the Arizona Department of Education's Education Express, ADEQ's Trash Talk and The Arizona Environment, and the Arizona Recycling Coalition's The Inside Loop to promote recycling and waste reduction activities in Arizona.

**“Bear Essential News for Kids”**

In October 1999, the Arizona Recycling Program began working with the Bear Essential News for Kids publication to develop a 12 month series of lesson plans for elementary students. “Recyclebot,” the Arizona Recycling Program's mascot, was specifically designed to teach waste reduction habits to a younger generation of earth-friendly crusaders.

The full page design includes a masthead entitled, “Recycle Arizona,” and features
new exercises each month that teach the concepts of reducing, reusing, preycling, recycling, composting, and buying recycled products. Response to the Recycle Arizona page has been measured through mail-in surveys and through phone inquiries. The elementary students make up the primary audience, while teachers and parents are indirectly targeted. Teachers are able to obtain recycling ideas for classroom projects and parents are exposed to the information when they read the publication with their children.

**Recycling and Source Reduction Promotional Campaign**

During FY 2000, the Arizona Recycling Program partnered with the Arizona Environmental Hotline to promote Christmas Tree recycling and composting. The hotline can be accessed through their Web site at www.1800cleanup.org or by calling 1-800-CLEANUP. (For more information on the hotline, see Section C. “Administer a Recycling and Source Reduction Database and Hotline Providing Referral Services to Waste Generators.”)

The Christmas Tree recycling campaign kicked off in October 1999. The hotline coordinated the distribution of 200,000 red, tree-shaped tag ornaments made from recycled paper to numerous communities, commercial tree distributors and nurseries, Arizona Parenting Magazine, Home Depot stores, Phoenix Zoo’s Zoo Lights events, and the APS Electric Light Parade. The Treecycle tags were also distributed to recycling coordinators statewide, who then distributed them to Christmas tree retailers within their community. By using the Treecycle tags as a reminder to call 1-800-CLEANUP or to visit www.1800cleanup.org, the public was able to determine the closest Christmas tree drop-off location. The hotline coordinated the promotional campaign, that included radio public service announcements, the development of camera ready artwork for newspaper advertising, and the mailing of promotional packets to more than 250 recycling coordinators. To monitor the Christmas tree diversion results from year to year, the Arizona Recycling Program compiles survey information. With the contribution of the Treecycle tags and the use of the hotline, Arizona residents recycled more than 240,000 trees and saved 2,256 cubic yards of landfill space.

The next promotional campaign focused on composting. Rather than focusing efforts only during National Composting Week (May 1 to 7), the composting campaign was promoted throughout the month of May. The hotline handled the distribution of informational packets to the recycling coordinators and the distribution of the composting recipe cards to Home Depot stores and nurseries statewide. The informational packets were designed for use throughout the year to encourage composting as a daily habit.

The hotline also promoted the use of their composting section that includes what to compost, items to avoid, different types of composting systems, and how to build your own composter.
The Arizona Recycling Emblem
To fulfill statutory requirement, the Arizona Solid Waste Recycling Act of 1990 required that ADEQ establish a state recycling emblem and guidelines on how it can be used to help increase public awareness of recycling programs and the potential for reducing waste. ADEQ proposed a rule in June 1998 that would establish guidelines. The rule (R18-13-2501), finalized in July 1999, provides a description of the emblem, the use of the emblem as a tool to promote recycling education, and also describes how a person or organization can obtain a copy of the emblem.

The Arizona recycling emblem is composed of a cactus with the three chasing arrows, an oval frame that surrounds the cactus, and bears the slogan “Arizona Cares: Reduce, Reuse, Recycle.” It provides a recognizable symbol for recycling efforts and education within the state. To promote the use of the Arizona recycling emblem on a continual basis, the Recycling Program encourages other recycling organizations to use promotional items, such as rulers, pencils, pens and stickers, include the Arizona recycling emblem.

Waste Reduction Curriculum Software Program
In 1996, the Arizona Recycling Program awarded a grant to the Environmental Education Exchange to create a computer software program for students in grades four through six. The software program titled, “Mission 3R,” is an entertaining, hands-on program that encourages students to reduce the waste generated, to buy recycled products, recycle as much as possible, and compost organic matter. This software is designed to score the student's choices and provide a grade at the end of the game. Copies of the PC versions of the program continue to be distributed directly to teacher's in Arizona schools. A teacher's guide is accessible through the program that will provide teachers with assistance with scoring methods and definitions. Other classroom activities pertaining to solid waste awareness are included in the teacher's guide. Copies of the disks have also been distributed through the Arizona Recycling Program at various outreach events.

In June 1998, the Arizona Recycling Program contracted with the Environmental Education Exchange to upgrade the technical animation and audio segments of the program, as well as to change the 4-disk installation to a CD-ROM. The revised Mission 3R CD-ROM was completed in July 2000 and is available for distribution.

Recycling Essay Contest
In February 1999, the Arizona Recycling Review Advisory Committee initiated the Recycling Essay Contest to increase solid waste awareness and to motivate school recycling activities throughout Arizona. The contest was targeted at 11th grade high school students to promote creative concepts of the 3Rs...reduce, reuse, and recycle. With the submittal of an essay that describes a school solid waste awareness project, the student has the opportunity to learn the environmental, economic, and community benefits of the 3Rs, and to win a scholarship to the college or university of their
choice. The awarded projects needed to be designed for implementation during the following school year. If the school provided a letter of commitment to implement the proposed project within their school system, additional funding (up to $500.00) would be provided to the school to cover the cost of the project.

The Arizona Recycling Program was the sole sponsor of the second annual Recycling Essay Contest. Promotions for the contest were kicked off on the 1999 America Recycles Day and the winners were announced on Earth Day 2000. This year, the Arizona Recycling Program announced two winners: Emilee Cummings of University High School in Tucson, and Aaron Redman of Brophy College Preparatory School in Phoenix. The school recycling projects will be implemented during the 2000-2001 school year.

Upcoming FY 2001 Projects
The following is a list of public education projects planned for implementation during FY 2001:

Arizona Recycling Coalition Recycling Forums
The Arizona Recycling Coalition is sponsoring quarterly recycling forums. The forums focus on local recycling programs, available resources, recycling markets, and other waste reduction related information. The Arizona Recycling Program is providing assistance in the planning and coordinating of the forums.

4th Annual America/Arizona Recycles Day
An awareness campaign planned for Fall 2000 will promote the theme “For Their Future, Buy Recycled Today!” for Nov. 15, 2000, America Recycles Day. Several Arizona municipalities, private companies, and non-profit organizations will participate to increase the awareness of the buying recycled-content products.

Recycling Coordinator's Training Workshops
The Southwest Public Recycling Association (SPRA) will be hosting two workshops to assist Arizona recycling coordinators. Some of the topics will include: recycling markets, waste audits, expanding your program, and focusing your efforts to be more effective. SPRA was provided WRITE Grant funding to coordinate the workshops and to develop a reference manual. The workshops are scheduled for November 2000 in Sedona and Casa Grande, Arizona.

Arizona Department of Commerce Recycling Market Development Study
The Arizona Department of Commerce will complete a study of the recycling markets in Arizona. The study will focus on present and future business opportunities, economic impacts, a statewide directory of recycling collectors, processors, and end-users. The study will also include recommendations on how to further promote recycling market development in Arizona.

FY 2001 Planned Projects
- Arizona Recycling Coalition Recycling Forums
- 4th Annual America/Arizona Recycles Day
- Recycling Coordinator's Training Workshops
- Arizona Department of Commerce Recycling Market Development Study