CIGARETTE BUTTS, DIAPERS, CONDOMS, FAST-FOOD WRAPPERS, BOTTLES OF URINE... THERE'S A LOT OF GARBAGE ALONG CITY STREETS AND STATE HIGH-WAYS. IT'S NOT JUST AN EYESORE, THOUGH. IT'S BAD FOR THE ENVIRONMENT, IT'S BAD FOR TOURISM AND IT'S BAD FOR PROPERTY VALUES. THE BOTTOM LINE: ARIZONANS NEED TO CLEAN UP THEIR ACT.

BY KATHLEEN MONTGOMERY ~ PHOTOS BY JOHN BECKETT

njali Tierney navigates her black Saab through traffic on I-10 as cars dodge a roll of foam insulation that's fallen off a truck and into the middle lane. Strangely,

she seems oblivious to the insulation, even though she's the executive director of Keep Phoenix Beautiful, and we're discussing the issue of roadside litter.

But then, she has other things on her mind. Tierney has just spent the morning with a member of a litter task force that she created last year to develop a litter prevention and education program for Maricopa County. Now, she's headed back to her Downtown office to meet with her marketing consultant.

When Tierney took the job, her focus was on recycling. But she quickly realized that her organization's efforts merely duplicated well-established city programs. So, she shifted gears, found an underserved niche in litter, and began a crusade that sometimes feels almost quixotic.

Tierney is Arizona born and raised, but her dark, almond-shaped eyes, aquiline nose and café-au-lait-colored skin belie East Indian roots. She looks younger than her 35 years, but is solidly built and appears every bit the professional. She wears her glossy black hair in a blunt cut that nearly reaches the collar of her pressed, cotton blouse. A simple choker necklace, pinstriped skirt and mules complete the ensemble.

Before taking on this assignment, I didn't give much thought to litter. On an Earth Day in what seems a lifetime ago, I took my then-9-year-old daughter out to collect trash along the roadside. We were spectacularly unprepared. We took 30-gallon Hefty bags and filled them with cardboard, cans and car parts. Before long, our bags grew heavy. The sun seared our skin and sweat soaked our shirts. Having wandered too far, we had to drag our bulky bags along the roadside back to the car, tearing them in the process. I didn't do it again.

Likewise, Tierney did not really know what she was in for when she decided to take on the issue of litter. But it didn't seem such a stretch. "I've always worked in nonprofits, dealing with issues no one wants to talk about," specifically sexual assault and nursing homes, she says. So, it didn't faze her when her friends emphatically said: "Trash? Are you crazy?"

Now, she admits, it's been harder than she expected. Trash, it turns out, is complicated. Jurisdictions are confusing, funding miniscule and government bureaucracies implacable. At times, Tierney's crusade has inexplicably drawn the ire of people who should be allies. And while many people say they care about litter, few seem to be willing to do much about it.

So far, Tierney has raised \$53,000 toward her goal of \$200,000 to launch what she hopes will be a sustained, multicultural anti-litter campaign targeting teens and young adults. Most of the money has come through grants and sponsorships, but she's also pursuing money from county tipping fees and Proposition 400.

Because her budget won't permit TV or radio airtime, the campaign will rely on what Tierney calls "guerilla marketing." She hopes to create a media buzz with a catchy slogan on billboard-sized ads, T-shirts and large sculptural objects that can be moved to different locations (imagine a 10-foot-tall cigarette butt lying on the grass).

But educating sponsors and task force members is only the first step, and it hasn't been easy. "I've had some resistance," Tierney admits. Some believe the proposed tagline: "Litter: it's a big problem" is too negative. They want to focus on positive steps.

"What people suggest is almost too simplistic," Tierney says. "They say, 'Why don't you tell people what to do?' But I'm really, really committed to a first phase on raising awareness. Otherwise, we'll fail."

Tierney grows animated as she says this, punctuating her points with her open palm on the steering wheel.

"Getting people to change behaviors and attitudes is never easy," she says. "We have to think from the bottom up. This is really how you change behaviors and attitudes. Who am I to go against what's worked?"

As the question hangs in the air, we hear a thud from the bottom of the car. In the parlance of trash, we've hit roadside debris.

The engine and oil lights come on. Tierney steers onto the off-ramp hoping to make it to her office. With black smoke trailing us, we turn onto Washington Street.

"That's it," Tierney says, pulling her car to the side of the road. "I can't steer anymore. My brakes aren't working."

The car rolls to a stop between two parking spaces and refuses to budge. "Oh well," she says with a sigh. "I needed a little more drama in my life."

hile it's often treated as an aesthetic problem, litter is more than skin deep. It is a sign of neglect. Often, it is the first sign that a community is in distress.

Experts talk about litter in the way that some talk about marijuana as a gateway drug. Litter begets litter. It can lead to other forms of vandalism. It is a threat to health and safety. And it's costly.

Litter creates a poor first impression on visitors to a state dependent on tourism. In neighborhoods, it depresses property values and endangers wildlife. Birds and other wildlife ingest plastics and get tangled in ribbons and string. This often leads to death.

Cigarette butts leach toxins and ignite brushfires. Debris from improperly secured loads on vehicles causes accidents - more than 25,000 last year, causing as many as 90 deaths nationally.

And while the agency provides training about how to deal with hazardous waste, Arizona Department of Transportation officials concede that litter crews occasionally get needle pricks from syringes.

Some of the litter that road crews pick up is not considered hazardous, just plain icky. This includes diapers, condoms and bottles of urine that time-pressed truckers toss out along the interstate.

What's more, litter moves. One study found that 18 percent of litter winds up in the water supply, where it can leach contaminants. And Arizona state officials say they must deal with filtering systems that become clogged with debris.

All of this is costly. Even with the Adopt-A-Highway program in place, ADOT alone spends more than \$2 million per year on litter removal. And that doesn't include money spent by counties, cities and towns. The collateral costs are likely much higher. But no one really knows, because they haven't been calculated.

y husband, a former Boy Scout, has always been the one to spot hawks or bunnies at the side of the road. But ever since I started working on this story, he's turned his attention to litterers.

"Someone just tossed something out of that white car up there," he'll point out. A few minutes later, he'll say: "There goes another cigarette butt. Don't people use ashtrays anymore?"

One afternoon, he sees a boy in his lateteens emerge from a Circle K and pull a pack of Marlboros out of his baggy jeans. According to litter demographics, the young man is a prime suspect: young, male and a smoker.

My husband watches the boy unwrap the cellophane top from the pack and release it into the air. Next goes the silver foil.

My husband confronts him: "Don't you see there are trash cans all over the place?"

The boy's face goes red. He shrugs, picks up the litter, and throws it into the trashcan before skulking off.

I'm absolutely astonished. My husband has never done this. I'm convinced it's all my trash talk, and then I think, "Score one for the proponents of prevention education."

f litter were a person, it would be Rodney Dangerfield. While oil spills and air quality grab headlines, research and funding, litter gets little respect. There is no federal agency that oversees litter. No uniform protocol to study it. Few people even bother. So we don't even know how bad the problem really is.

Any longtime resident will certainly believe that the Valley has become more littered over the years. But good data are hard to come by. One measure is the number of bags of trash collected on the highways. But

ADOT has only been keeping track for five years, and the number hasn't changed much in that time. The highways do look more littered, but that might be from less frequent pick-ups, rather than more trash. (See Adopt-A-Highway sidebar, page 126.)

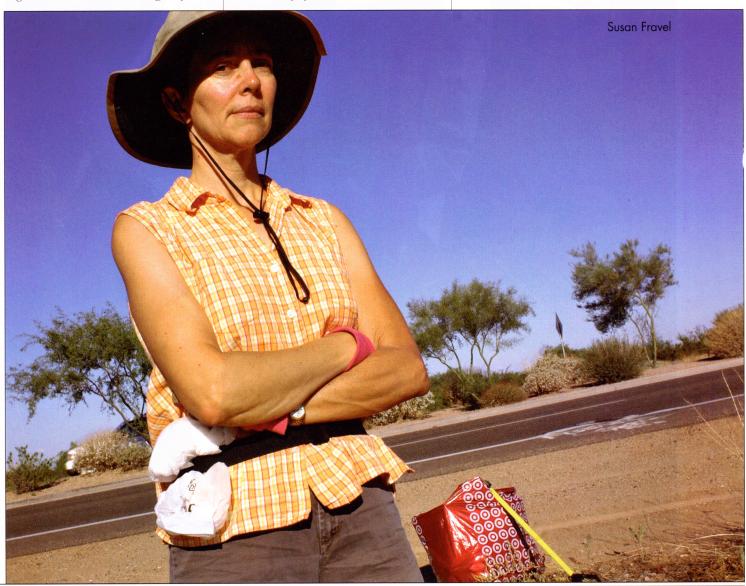
Nationally, litter is actually declining 1 to 2 percent a year. That's according to Dan Syrek, who has been studying the issue since 1973. Like so many trends, he believes the decline is partly because of the aging of the baby boomers. (The tendency to litter begins around age 12, peaks during the late-teen years, and decreases with age.) But it is also the result of state-run litter-control programs and the evolution of trash, such as the elimination of pull-tops on beverage containers.

It's hard to know how Arizona compares. Syrek's Sacramento-based Institute for Applied Research has conducted litter studies for government agencies in 19 states. He believes litter is the same everywhere, if you control for population and volume.

"We're all consuming the same products, watching the same TV," he says. Urban areas are different from the rural areas. But within those designations, he says, the rate of littering is similar throughout the U.S.

But Arizona does have a number of factors that pose challenges for people who deal with roadside litter. The most obvious is growth. Litter increases with population density. Given identical traffic volume, a street in a city with a million people will be four to five times more littered than a street in a city with 30,000, Syrek says. That's because people in larger cities generally have more disposable income, and they spend it on disposable things. People in larger cities move around more, creating more opportunities to litter. There's also more construction, adding construction-related debris.

Litter also increases with traffic volume. ADOT has opened new freeways at the rate of 10 miles a year, and they've become more congested.



Growth also means people are moving here who aren't invested in the community. A 1998 study conducted by ASU for the nonprofit Arizona Clean and Beautiful tried to get to the bottom of littering behaviors and attitudes. Place identity was high among people who reported that they didn't litter. Non-litterers also were more likely to be born in Arizona, and had lived in the state longer.

Even Arizona's weather, ironically one of the reasons all of those people are moving in, promotes littering. Littering peaks when the weather is 75 degrees and sunny, Syrek says. It declines when the weather gets cold and rainy. So, the Valley's widely touted "300 days of sunshine" has a dark side.

usan Fravel steps out of her Honda CRX and inspects the half-mile or so of Tatum Boulevard that is her trash route today.

It's 6 a.m., but already cars whiz past without pause on the six-lane road. The chainlink fence that runs the length of the west side of the street is littered, as usual, with scattered debris.

Just beyond the fence, three longhorn steers munch on dried yellow grasses underneath the shade of a scrawny mesquite. The litter contrasts strangely with this pastoral scene, but it's hardly surprising. Within sight are common sources of most urban street litter: strip malls that dot the four corners of Tatum and Bell, and an apartment complex that stretches the length of the east side of the street.

Fravel usually works her self-appointed routes alone, but has agreed to let me accompany her today. The weather forecast on this late-June day is 105. So she hands me a bottle of water and straps one onto her own waist before tucking several plastic shopping bags under the strap. She pulls on a pair of soiled red gardening gloves, grabs a yellow plastic trash picker that she purchased for \$14.95 at The Home Depot, and hands me a large, orange Ferti-lome lawn and garden supplies bag.

I hold the bag open while Fravel deposits trash. Because of a repetitive motion injury to her right arm, she uses her left.

"Most people call it tennis elbow," Fravel says with a smile. "I like to call it trash-pickers' elbow."

At 47, Fravel is delicate, almost birdlike, with arms so thin that she wears her watch pushed a couple of inches above her wrist. Her short-cropped brown hair gives her a neat, tidy look. No makeup covers her small

nose and gently sculpted cheekbones, just a smattering of freckles over pale skin protected by a white, Phoenix Open visor. Aside from her watch, Fravel wears no jewelry only a plain T-shirt, khaki hiking shorts and ankle-cut running shoes.

A respite worker who is married to a retired police officer, Fravel lives in a neighborhood where houses sell for about \$300,000. She served on the board of her homeowners association for two years, and now serves on the landscape committee. She's an avid hiker and a birder.

Although she doesn't have to, Fravel often rides the bus. She does this both to save the environment and to reduce the country's reliance on foreign oil. When she does, she picks up trash at her stops. On one of these trips, a homeless man, struck by her mission to clean, struck up a conversation with her. She shared her peanut butter and jelly sandwich with him.

Fravel operates outside the formal volunteer infrastructure. She won't adopt a street, because she thinks a mile of roadway, both sides plus a median, would be too much to do alone. Instead, she's developed five smaller neighborhood "routes" that she polices on her own. In cooler weather, she does one a week. Less in the summer.

For Fravel, picking up trash is a way to maintain a little control in a world that seems out of control. "I read a lot about world issues," she says. "I am an avid reader, and know that litter is probably low on the list of priorities around the world when they're dealing with health issues, living conditions that are sparse, crime and war, famine, all those things. Litter just doesn't hit the radar.

"And I feel completely helpless to make a difference in those other areas, but litter is the thing I can do. I can get out in the morning and I can pick it up. I can at least make a change in this area, right here."

It doesn't take long for us to fill up the Ferti-lome bag. Among its contents: a yellow and red striped cardboard container advertising Wendy's 99-cent chicken nuggets; several scraps of corrugated cardboard; a silver foil wrapper from an Arby's Roast Beef and Cheddar Sandwich; a band-aid, still wrapped; a cellophane Hostess Twinkies wrapper; instructions for assembling a cabinet; a brown Del Taco bag; a white Styrofoam cup marked "Tyler"; a soiled, white cloth napkin; several cans and plastic bottles (Sprite is big); and dozens of sheets ripped from the Yellow Pages, beginning with "Attorneys" and ending with "Houses."

The bag is surprisingly heavy, and I am



LITTERING IS A CRIME

In Arizona, littering is a class 3 misdemeanor that carries up to a \$500 fine, although many cities have their own ordinances. In Phoenix, for example, fines can run as high as \$2,500. In practice, however, convicted offenders don't pay nearly that much. In Phoenix Municipal Court, fines for criminal littering under the state code averaged around \$39 last year. And under the city ordinance, the average fine paid was \$93.

Dan Syrek of the Institute of Applied Research believes that enforcement of fines is more important than the amount. But studies have shown that it is difficult to catch someone in the act of littering.

The Arizona Department of Public Safety doesn't track the littering citations it issues. An analysis of several of the courts around the state found 585 convictions for criminal littering or littering from a motor vehicle under state statutes. Those numbers don't include the justice courts in Maricopa County, for which data were not available.

glad when Fravel suggests we tie it off and deposit it along the roadside to pick up on our return. We switch, and I pick up trash while Fravel holds a smaller bag from Target. It fills up quickly. At the end of an hour, we've filled three bags. It's hot. My hand is tired from operating the trash picker. My back is tired from bending over to pick up the large sheets of plastic and cardboard, and the flimsy bits of trash that disintegrate in the jaws of the picker. It's not as bad as my Earth Day experience, but I'm glad we're done.

We survey our handiwork.

"I like seeing the job done," Fravel says. "It does come back. I try not to think about it too much.

"There was one day when I kind of said, 'That's it. I'm not going to do this anymore.' Because it does get frustrating when you clean up an area, and a week or two later, it's back to the way it was. That was probably a month ago, and here I am."

ADOPT-A-HIGHWAY: DOES IT WORK?

The Adopt-A-Highway programs are the primary means of litter removal on the state's highways. In rural areas, the Adopt-A-Highway Volunteer Program consists of volunteer groups who commit to cleaning up 2-mile stretches of highway two to four times a year, depending on the district.

In metropolitan areas, most of the highways are maintained by ADOT's Sponsor Program. In these areas, Arizona businesses contract with one of the four pre-approved maintenance providers whose crews perform litter removal along sponsored, 2-mile segments of freeway. ADOT supplements these services by employing spot cleaning crews or inmates from Perryville prison to clean up the unsponsored segments. The agency also sweeps freeways weekly and picks up the larger debris that consists of everything from crushed ladders and wooden pallets to mattresses and kiddie pools.

Sponsored areas used to be cleaned once a week. But last year, the maintenance providers petitioned the state to reduce cleanups to twice a month, saying that they couldn't sell enough sponsorships at what they had to charge for weekly cleanings. The state agreed. Roadside Maintenance Manager Mark Schalliol says he initially supplemented the twice-a-month cleanings with on-call crews or inmates, but funding became an issue.

In terms of the sponsorships, the plan seems to have worked, at least in Maricopa County. Nearly 198 of the 208 miles that need litter service are sponsored. But the less frequent cleanings mean the highways appear more littered.

A litter survey done by the nonprofit Keep Phoenix Beautiful last December showed an increase in the appearance of trash on the highways during the one-week survey period. Using an index devised by Keep America Beautiful, the group rated the freeways within Phoenix as "littered," as compared with a rating of "slightly littered" in 2003.

Although the less frequent cleanups have resulted in trashier-looking highways, in absolute terms, collected litter really hasn't changed much in the five years ADOT has been keeping track. The agency recorded 62,500 bags of trash collected on Valley highways last year. That's up from around 49,000 bags in 2003. But it's lower than five years ago, when 65,000 bags were collected.

ADOT considers the Adopt-A-Highway programs a success, estimating they save the state around \$1.8 million a year. Groups like Keep Phoenix Beautiful agree, to a point. The organization's litter study did discover that sponsored segments were cleaner than the unsponsored segments. But the group also believes that the state could improve the program by taking a stronger hand.

While ADOT inspects the freeways, maintenance providers set the rates, which vary widely, from about \$325 to as much as \$5,000 per month. Anjali Tierney, the executive director of Keep Phoenix Beautiful, points out that a potential sponsor has to shop around to get the best price, and that the agreement is between the maintenance provider and the sponsor, not the state.

And while the program has been successful in Maricopa County, none of the corporately adoptable stretches of freeway in Tucson have sponsors, where the contractor charges rates at the top end of the scale.

etting a handle on litter won't be easy, because the solution goes well beyond litter removal. The trick is to get people to stop littering. And that, experts say, requires the same element as any other behavior modification program, such as seatbelts or anti-smoking campaigns.

The basics are these: Research who's doing the littering. Develop an education campaign, including media commercials and school programs, to target that population. Involve business leaders and politicians. Enforce laws. Do more research to see if the program is working. Fine-tune the methods accordingly, and then repeat.

Many states have done that. Texas and Oklahoma have achieved litter reductions of up to 20 percent per year with media-intensive prevention and education campaigns.

No one interviewed for this article could remember any state-run anti-litter campaign in Arizona. But that's about to change.

The extension of the half-cent tax with the passage of Prop. 400, which goes into effect in January, includes \$279 million for litter and landscaping to supplement ADOT's budget over the next 20 years. That includes some money for education.

At press time, ADOT and the Maricopa Association of Governments were planning to solicit proposals jointly for a prevention and education campaign for Maricopa County. They were still working out priorities, and hadn't decided on the scope of the project or a dollar amount. An ADOT spokeswoman estimated that the budget would be around \$200,000 a year.

That figure is less than half of Dan Syrek's recommendation for an area the size of Maricopa County. But it's a beginning. Anjali Tierney hopes Keep Phoenix Beautiful will win the contract, because it would represent a sustainable source of funding for her efforts. And sustainability is extremely important.

Oklahoma saw a 63 percent total decrease in litter at the end of its first media campaign, which ran from 1988 to 1991. When a new governor with a different set of priorities was elected, trash reverted back to original levels within two years. The state is now trying to get back on track.

In terms of education, ADOT does maintain a contract to run a litter hotline. When motorists report littering from a vehicle, the registered owner gets a litterbag along with a reminder that it is against the law to pollute the roadsides. This should be the most effective type of education, because it educates known offenders. And the fear of getting a fine was the number one deterrent among known litterers in Washington State focus groups.

really hope it works. Since my failed Earth Day trash collection, I had shut my eyes to litter. Now, I see it everywhere: A plastic shopping bag blows like a windsock from the arm of a saguaro. An orange Gatorade bottle lies along the side of the road. A street sign sports shrink wrap like a drag queen with a feather boa. If it's true that we are what we throw away, then according to Keep Phoenix Beautiful, we are mostly plastic. And cigarette butts. And that's something that really bothers me. Unsightly. Toxic. Our litter is like a banner we hang from every street corner. It shouts: Welcome to Arizona. Now go home.

RESOURCES:

- The Litter Hotline: 602-712-4683 in Maricopa County or 800-3-LITTER toll-free statewide
- Arizona Clean and Beautiful: 602-262-2532 or arizonacleanandbeautiful.org
- Keep Phoenix Beautiful: 602-262-4820 or phoenix.gov/ENVPGM/phxclean.html

DA/

— Kathleen Montgomery can be reached at phxmag@citieswestpub.com.