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Natural

OUTLOOK

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Landing New Uses
for Old Properties





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Natural OUTLOOK

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Exploring environmental issues and challenges in Texas

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Three Texas cities not only make their own compost but they sell it on the commercial market. McAllen, Austin, and Texarkana each has developed its own approach to adding green to their communities.

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In less than 15 months, the TCEQ's AirCheckTexas Drive a Clean Machine program helped retire 18,918 older vehicles, which means an equivalent number of newer, cleaner-burning vehicles are on the road.

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Cleaning Up and Moving In

Since 1995, the Voluntary Cleanup Program has issued more than 1,400 certificates of completion for once-polluted properties. Now rehabilitated, these properties help add jobs to their community and revenue to the tax rolls.



Remediation Begins on Dry Cleaner Sites

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The TCEQ has prioritized dry cleaner properties needing cleanup. So far, work has begun at 133 sites around the state.

Nonattainment Counties Could Increase to 27

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A year after the Environmental Protection Agency announced a new, tougher ozone standard for all states, Texas has proposed adding seven counties to those designated as nonattainment.

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Greener Fleet Helps Curb Emissions

Of the TCEQ's 388 fleet vehicles, the majority are either a hybrid or use an alternative fuel.

COVER: The former Mueller Airport in Austin is getting a new face. An "urban village" with homes, stores, and medical offices is being built. But first the contaminated property had to be cleaned up to levels appropriate for the new uses.

Photo by Bob Daemrich

For the Greener Good

Homegrown ideas advance local composting programs

By Staci Semrad

Several Texas cities are cultivating programs that transform discarded organic matter into valuable compost.

Three successful programs are run by the cities of McAllen, Austin, and Texarkana. By initiating programs that feed on organic waste, these cities have joined others around the country that are helping to expand recycling beyond the traditional lineup of glass, aluminum, and paper. This is noteworthy, considering that 25 percent of the U.S. municipal solid waste stream comes from yard trimmings and food scraps, and nearly 3 percent from biosolids, or sewage sludge, according to the Environmental Protection Agency (EPA).

Although McAllen, Austin, and Texarkana have developed individual formulas for organic waste disposal, they enjoy common benefits from their composting programs:

- **Economic benefits.** The cities realize savings by not having to haul solid waste to landfills or incinerators and not having to pay disposal fees. They also generate revenue from commercial sales of their compost products. At the same time, consumers save by being able to purchase reasonably priced, quality compost from their cities.
- **Agricultural and horticultural benefits.** Farmers, landscapers, and gardeners report that compost enhances plant growth.

Growers also report better drainage and less runoff because soil enriched with compost is more water-absorbent.

- **Environmental benefits.** Landfills last longer when organic materials are diverted from a city's waste stream. Producing compost with local materials saves on energy costs because there is no need to import soil amendments produced elsewhere. Using organic means to improve soil returns natural nutrients to the earth while reducing dependence on pesticides and fertilizers. This leaves a chemical-free lawn for children and pets to play on. Because compost helps the soil

absorb moisture, its use can help reduce the need for water, conserving limited resources.

Full Circle in McAllen

McAllen's vegetative composting program got off to a fragrant start a few years ago with a truckload of orange peel.

"Boy, it was the best-smelling stuff ever," recalled Ouina Rutledge, the city's renewable resources manager.

The fruit leftovers, donated by a local growers association, were the first moist ingredient the city had tried adding to its dry, poorly selling compost mixture of yard trimmings and brush. The pilot experiment led to a higher-quality, more marketable compost.



Compost ingredients in McAllen are dumped in a pile, which is the making of a windrow, a long mound of organic matter that eventually heats up.



The city's "Save the Greens" composting program, which won a TCEQ Texas Environmental Excellence Award in 2008, involves a full-circle process for recycling vegetative solid waste.

The city collects unsold produce and other vegetative waste from area farmers, a local grocery store, and other businesses. The by-products are transported to the city's composting

facility, where it takes several weeks to turn it into compost. The compost is then sold back to consumers, including farmers who continue the cycle by using it to grow more produce. The city's collaboration with area businesses is the first of its kind in South Texas.

The impetus for the program was the city's need to reduce the growing accumulation of yard trimmings and

brush collected from area residents, and to improve the quality of its compost.

Yard waste alone is dry and too low in nitrogen to make good compost, Rutledge said. The city had about 5,000 cubic yards of compost on hand but was only selling a couple of buckets a day. Collecting and disposing of yard trimmings and brush was also costing almost four times what the city was charging in collection fees, she said.

In 2006, city managers asked Rutledge to solve the problem, saying that something had to be done or the composting facility would be shut down and the brush and yard trimmings incinerated.

"I needed sloppy wet material coming in here, because the dry brush just wasn't getting it," she said.

In a presentation to a group of regional Wal-Mart executives, Rutledge mentioned her goal to start a vegetative composting program similar to San Francisco's. They offered \$9,000 in seed money, which helped pay for collection bins at Wal-Mart's McAllen store, signs, dumpsters, and biodegradable bags.

Rutledge contacted Texas Citrus Mutual and arranged for a truckload of orange peel to be used in the composting experiment. Based on the promising results, she developed an operational plan for the city's new partnership with Wal-Mart, which began in 2007.

The city started by collecting unsold produce and later adding by-products from Wal-Mart's floral, nursery, and bakery departments. Other entities have now begun contributing, including a local frozen foods manufacturer, the McAllen Produce Trade Zone, and the Rio Grande Valley Food Bank. A second grocery chain has shown interest in being a contributor.

Municipal Compost Businesses

McAllen, Fiscal Year 2008

Collected:	200,000 cu. yd. of brush and yard trimmings 2,056 cu. yd. of vegetative waste
Produced:	19,600 cu. yd. of mulch (screened and double-ground) 9,440 cu. yd. of regular compost (from brush and yard trimmings alone) 7,635 cu. yd. of premium compost (vegetative waste added)
*Sold:	\$230,000 29,000 cu. yd. of mulch 14,000 cu. yd. of regular compost (from brush and yard trimmings alone) 6,300 cu. yd. of premium compost (vegetative waste added)

Cost avoidance: About \$500,000 by eliminating trips to the landfill

*The amount of mulch and regular compost sold in FY 2008 was greater than the amounts produced in that fiscal year, because amounts sold includes products produced in the previous year.

Austin, Fiscal Year 2008

Collected:	120,000 cu. yd. of brush and yard trimmings 35,150 cu. yd. of biosolids waste
Produced:	40,000 cu. yd. of Dillo Dirt
Sold:	\$441,580 38,470 cu. yd. of Dillo Dirt
Cost avoidance:	\$400,000 in landfill tipping fees for yard trimmings

Texarkana, Calendar Year 2008

Collected:	642,500 cu. yd. of brush and yard trimmings 11,066 cu. yd. of biosolids waste
Produced:	44,734 cu. yd. of mulch 32,661 cu. yd. of Texarkana Compost
Sold:	\$148,919 14,974 cu. yd. of mulch 12,665 cu. yd. of Texarkana Compost

***Cost avoidance:** \$4.8 million by eliminating trips to the landfill

*In 2008, the area was hit by two major storms, which left behind large volumes of storm debris. Composting the debris instead of hauling it 25 miles to a landfill, yielded an unusually high amount of savings for the year.

The initial startup cost of the program was about \$100,000, half of which came from an EPA grant.

Today, city employees collect compost ingredients from dumpsters at Wal-Mart, and other providers haul their vegetative waste to the city's facility. The by-products are dumped into the top slit of a windrow—a long mound of ground-up yard waste that measures about 100 feet long, 5 feet tall, and 10 feet wide. The contents are turned every few days while they heat up, or “cook,” for six to eight weeks. Water is sometimes added.

The city's compost products sell to farmers and residents for \$15 to \$25 per cubic yard.

Austin Grabbed the Lead

The state capital can boast of being the first city in Texas to incorporate biosolids, or sewage sludge, into its compost program.



Photo courtesy of City of McAllen, Public Works

Local producers contribute unsold produce to the McAllen composting project. These peppers were trucked to the recycling site and will end up in a compost pile.



Photo courtesy of Texarkana Composting Program

When organic matter is mixed together in large mounds, the ingredients heat up, or cook, at temperatures as high as 170 degrees Fahrenheit. This breaks down the ingredients over a period of weeks. The result is compost.

Over the last 20 years, the program has met its goal of reusing two of the city's major waste streams—biosolids and yard waste—and producing a valuable yet economical compost product.

The program began as a pilot project in 1987 because the city needed a way to handle its biosolids, said Jody Slagle, Austin's compost and biosolids reuse manager. Two years later, the city started selling the resulting compost, a product called Dillo Dirt. In the mid-1990s, yard waste was added to the mix.

Dillo Dirt has become a popular product among locals who purchase it at garden centers, nurseries, and home-improvement centers for about \$25 to \$30 per cubic yard.

Though consumers have come to value the product, the idea of using a product that has sewage sludge as an ingredient initially stirred controversy, Slagle said. Over time, people have become less concerned with the human-waste element and more concerned with keeping industrial environmental contaminants out of the mix, he added.

Austin helps lessen the potential impact of industrial contaminants by encouraging industries to treat their wastewater before dumping it into the city's waste stream, Slagle said. This pretreatment program has been effective in lowering the level of metals and other industrial contaminants, he said. That in turn helps keep such elements out of the biosolids collected from the wastewater treatment system for composting.

Sewage sludge is separated from the wastewater by the city's two wastewater treatment plants, and the biosolids are pumped to the Hornsby Bend Biosolids Management Plant where they are anaerobically digested to produce “Class B” biosolids, acceptable for certain agricultural uses.

The city then combines the Class B biosolids with yard trimmings that have been picked up by the city's curbside recycling service and ground into wood chips. The mixture is formed into windrows about 500 feet long. No water is added, because the biosolids provide the needed moisture. The windrows,

which are turned every few days, heat up to about 150 degrees Fahrenheit for 15 to 30 days. Each pile is tested for fecal coliform bacteria to ensure it meets the state and federal criteria for unrestricted use. Then the mounds are left to cure for three to six months. Finally, the dry mixture is screened to remove larger wood chips.

Most consumers use Dillo Dirt on their lawns. By meeting the state and federal unrestricted-use criteria, it can also be used on vegetable gardens, Slagle said. The city sells most Dillo Dirt in bulk directly to contractors at \$11.75 per cubic yard. The rest is packaged and distributed by vendors for sale at retail outlets.

“One of the best things we’ve got going for us is our vendors, because they talk to people about it,” Slagle said. “Because of the way the system is set up, they’re making a profit, so they basically become our marketing staff.”

Though Dillo Dirt sales are strong, the city doesn’t expect its composting operation to turn a profit, Slagle said. “It costs so much to treat the biosolids,

I think usually the best we can hope for is to try to help reduce our expenses. But the cost avoidance of using yard trimmings is huge.”

The Twin Cities of Texarkana

The product known as “Texarkana Compost” is an example of how ingenuity can transform “cost” into cost savings.

After coming to work for Texarkana Water Utilities in 1988, Bill King looked into starting a biosolids and yard waste composting program for the two cities his department serves—Texarkana, Texas, and Texarkana, Arkansas. The adjoining cities were disposing of their Class B treated sludge by plowing it into 360 acres of land on the cities’ outskirts. Starting a compost program at the time would not have been cost-effective, said King, now executive director.

A couple of years later, city officials learned that plans for a state highway loop to encircle both cities would halve the land used for sludge disposal.

Utility officials began weighing their options: incinerate the sludge (too impractical and expensive), haul it to a landfill (too costly), buy more land to replace land lost to the highway project (even more expensive), or revisit the composting idea (suddenly more feasible).

“Composting was the most practical of the alternatives and gave more back to the community in the form of a useful product,” King said.

The project cost about \$750,000 to start, said Odus Tyler, the utility’s pollution control manager. The program combines yard waste and biosolids from both cities to create quality compost.

The public works and parks departments from both cities deliver brush and tree trimmings to the composting facility, which is located on the Texas side of the state border. The Arkansas city crew collects yard trimmings and brush from residents and takes it to the compost facility; the Texas side is looking at doing likewise, Tyler said. Residents from both cities also load their pickup trucks with yard trimmings and brush and deliver it to the facility themselves.

“People here understand the importance of not putting the green waste in the landfill,” King said.

As for biosolids, utility employees haul truckloads of sludge from the main wastewater treatment plant to the compost facility, located on the same property.

The yard waste, ground into wood chips, is combined with the sludge in a 3-1 ratio, respectively. No water is needed. Windrows 300 feet long are formed with alternating layers of wood chips and sludge. Once mixed, the compost process naturally heats the mixture to about 131 Fahrenheit and lasts 15 to 25 days, during which the mixture is turned every few days.

Consumers in both cities buy Texarkana Compost at the main wastewater treatment plant office for \$10 per cubic yard. Homeowners are the primary purchasers, using it in flower beds, vegetable gardens, and lawns. Landscapers also buy in bulk, Tyler said.

Texarkana comes close to selling out of the product each spring. “On pretty, sunny days, customers are lined up here to buy compost,” Tyler said. ♻️



Photo courtesy of City of Austin

Once compost is sold, it is applied to lawns and gardens. Many developers apply it to new home sites, where the lawns need a jump-start.



Bye-Bye, Clunker

Putting newer vehicles on the road benefits local air quality

By Jorjanna Price

Promised a monetary incentive for turning in old cars and trucks, eligible Texans wasted no time. In less than 15 months, they retired 18,918 vehicles under the TCEQ's AirCheckTexas Drive a Clean Machine program.

In turn, they received individual vouchers of \$3,000 or \$3,500 that were applied toward the purchase of newer, cleaner burning vehicles.

In many urban areas, exhaust from cars and trucks is a major contributor to impaired air quality. New, low-emission vehicles can be up to 98 percent cleaner than vehicles produced a decade ago.

The incentives were made available in the areas of Dallas-Fort Worth, Houston, and Travis-Williamson counties. All three regions conduct annual emissions tests on vehicles as part of their air quality improvement programs.

Since December 2007, an estimated 1.9 million households in 16 counties have been potentially eligible for the vouchers. Similar incentives had been around for several years, but the program got a major boost in 2007, when the Legislature increased its funding.

Expanding the vouchers to \$3,000 for a newer car or truck and to \$3,500 for a hybrid vehicle generated thousands of applications.

The applications go to the program administrator for each area. The North Central Texas Council of Governments administers the program for the counties of Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant. The Houston-Galveston Area Council covers Brazoria, Fort Bend, Galveston, Harris, and Montgomery counties. Travis and Williamson counties each process their own vouchers.

To be eligible, applicants must meet the program's income guidelines, which are adjusted each February. For example, a family of four might qualify if their net income this year does not exceed \$66,150.

The vehicle being retired has to be 10 years or older or have failed the state's emissions test. The vehicle being purchased does not have to be brand-new but does have to meet certain federal emissions control requirements and cost less than \$25,000.

When voucher recipients shopped for cars in 2008, they had their favorite choices. The most popular models purchased were the Toyota Corolla, Toyota Camry, and Ford Taurus.

Vouchers in all three urban areas will be available through the end of this summer, or until funding runs out.

For more information, visit driveacleanmachine.org. ★

Leading Models Purchased with Vouchers

Toyota Corolla	Chevrolet Cobalt
Toyota Camry	Ford Focus
Ford Taurus	Chevrolet Impala
Honda Accord	Nissan Altima
Honda Civic	Chevrolet Malibu

Turnover of Older Vehicles, Dec. 1, 2007–Feb. 28, 2009

Areas Issuing Vouchers	Vehicles Retired
Dallas-Fort Worth area	9,737
Houston-Galveston area	8,049
Austin-Round Rock area	1,132
Total	18,918

CLEANING UP AN

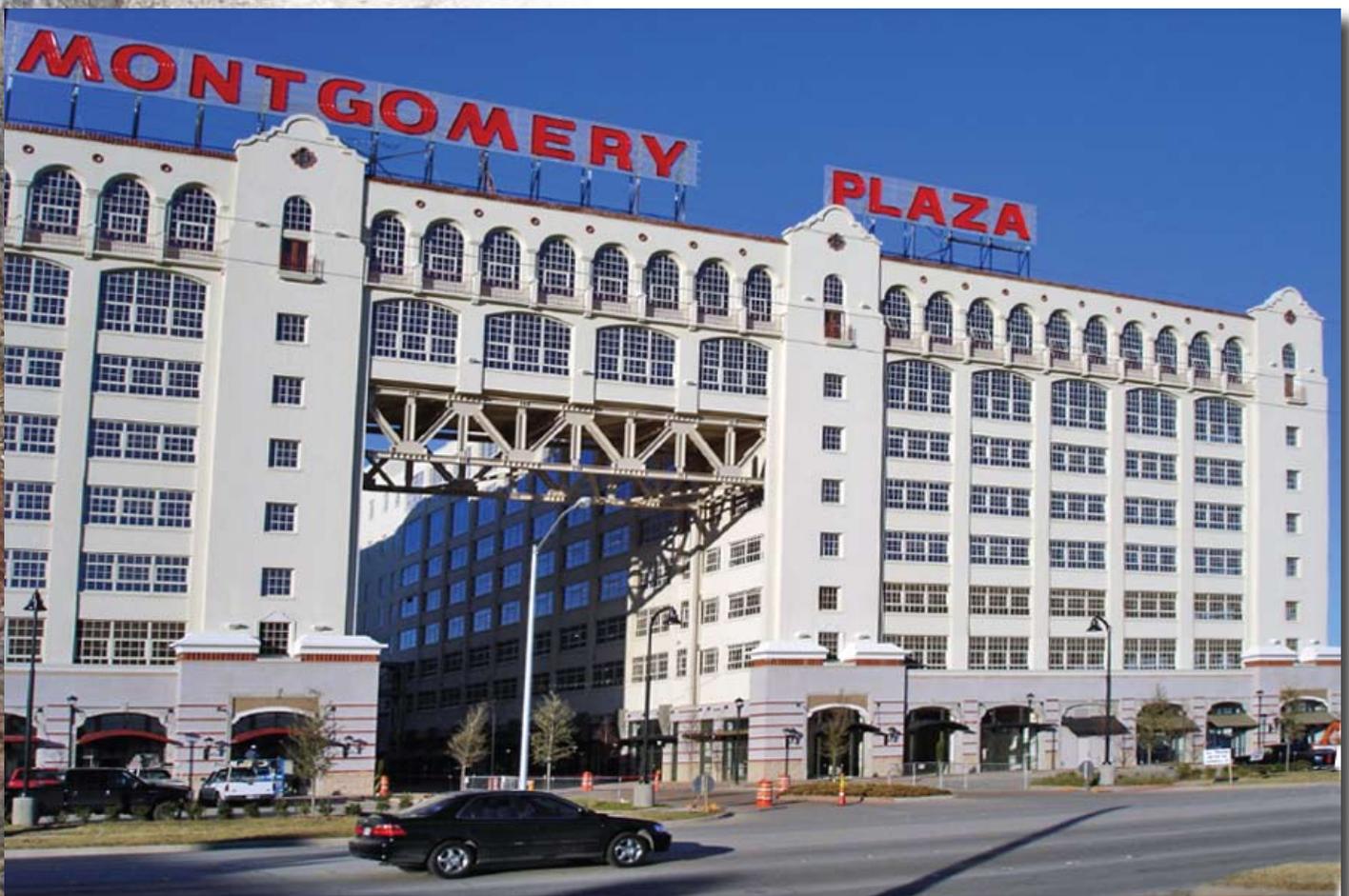
Pollution-plagued properties can turn productive

By Jorjanna Price

For decades, a trip to Montgomery Ward in downtown Fort Worth was an occasion for the whole family. The massive, eight-story building on West 7th Street held something for everyone. Dad could buy a shirt for work, Mom could check

out the furniture show room, and the kids could get school shoes.

The retail store, catalog center, and warehouse stayed open for 73 years. But in 2000, business was already declining when a tornado badly damaged the building. The Montgomery Ward complex closed the following year.



Formerly a Montgomery Ward store and warehouse when it was built in downtown Fort Worth in 1928, the eight-story Montgomery Plaza includes residential condominiums with restaurant and retail space.

Photos courtesy of John Weber, Kinco Montgomery Plaza, L.P., a joint project of Weber & Company and Kinco Real Estate Corp.

AND MOVING IN

For a while, this “white elephant” appeared to have no future. But that was before the property was enrolled in the TCEQ’s Voluntary Cleanup Program, or VCP.

In a dramatic transformation, the newly named “Montgomery Plaza” has now opened as a residential and commercial center. More than 200 condominiums are selling at prices from \$300,000 to over \$1 million. Residents can take elevators downstairs to enjoy restaurants, a wine bar, a coffee shop, and specialty retail stores. The museum district is just blocks away. One part of the property is home to a SuperTarget.

Before this downtown property could be restored as a thriving mixed-use center, the developers had to address the legacy contamination stemming from the old store’s auto service center, as well as on-site furniture repair and painting operations.

For Montgomery Plaza and hundreds of other properties around the state, the VCP has provided incentives for the cleanup of contaminated sites—by offering lenders and future owners liability protection.

Since the VCP was created, in 1995, about 2,070 sites have been enrolled. Of those, 1,422 have received certificates of completion, meaning that the cleanup was conducted satisfactorily and the properties were declared ready for reuse.



The Montgomery Ward complex in downtown Fort Worth before redevelopment.

Several hundred other projects are in line for certificates.

Properties See a New Day

The VCP was designed to provide administrative, technical, and legal incentives to get contaminated properties cleaned up.

Otherwise, the property owners or purchasers might be unable to develop the properties, which once operated as industrial or commercial sites, for fear of environmental liability. In many cases, pollution that occurred under a previous owner stands in the way of a sale, according to Jay Carsten of the TCEQ Remediation Division.

“If not for the VCP, many of these properties would just be sitting unused

How to Enroll in the Voluntary Cleanup Program

Each applicant wanting to obtain a “certificate of completion” from the VCP must submit a fee of \$1,000. This amount goes toward the TCEQ’s costs of providing oversight and reviews of the environmental cleanup.

After the initial \$1,000 has been spent, the agency will invoice the applicant each month to ensure that further agency expenses are recouped. The final tally of the project fees will depend on the complexity of the site being remediated.

For more information, visit www.tceq.state.tx.us/goto/vcp.

or abandoned,” he said. “That’s the message we hear time and time again from people who have gone through the VCP to rehabilitate property and give it a productive life. The VCP certificate of completion is the gold standard—once it is issued, that property can operate again as a business. It can hire employees and generate tax revenue.”

Based on information from a survey of VCP participants, property cleanups and redevelopment since 1995 have helped create about 21,400 Texas jobs and boost local tax rolls by at least \$1 billion.

The program’s success, Carsten said, lies in the fact that it is market-driven. “The prospect of money being made in the future from property development now encourages investment in cleanup.”

Once a certificate of completion is issued for the property, parties who were not responsible for the contamination, including future lenders and landowners, are protected from liability for additional site cleanup. Completing the program also restores a property’s market value, which further helps with resale or reuse. Moreover, nearby businesses and neighborhoods benefit when an eyesore is eliminated.

Carsten said that properties must clear several requirements to be accepted in the VCP. The site must not be subject to an order or permit from the TCEQ or be undergoing a TCEQ enforcement action. Also, the applicant must be able to pay for the remediation costs, plus the TCEQ’s \$1,000 application fee and additional TCEQ staff oversight costs.

Much of the \$1 million the TCEQ spends on the program each year is covered by the fees. The Environmental Protection Agency also supports the program with grant funds.

Measuring the Risk

Site cleanups under the VCP are risk-based, meaning that the level of environmental remediation is tailored for the intended use of the land. A site being restored for commercial use will not face cleanup standards as rigorous as a property destined for residential use. For example, a site intended for industrial use is allowed lead levels up to 1,600 parts per million, whereas a property planned for residences can have lead levels no greater than 500 ppm.

The Montgomery Ward project in Fort Worth was an unusually large undertaking, encompassing 46 acres. It had to address contamination left by several underground storage tanks, a truck wash bay, a paint booth, and an auto-service building. More than 3,600 cubic yards of soil were excavated. Also, shallow groundwater was restricted from drinking through a municipal setting designation.

The former Robert Mueller Municipal Airport in Austin is being redeveloped into a mixed-use urban village with apartments, single-family homes, parks, a town center, restaurants, stores, commercial office space, and medical facilities.



Photo © iStockphoto.com/Jeff Gardner

Another monumental VCP project—a former airport in Austin—had to go much further to remediate soil and groundwater, because individual homes were planned for the site.

In 1999, the City of Austin transferred civilian aviation functions from Mueller Municipal Airport to the former Bergstrom Air Force Base. That left 700 acres of empty land not far from downtown, the Capitol, and the University of Texas. After years of analysis and planning, the city decided that mixed use was the best option for the prime real estate, and opened the way for the development of an “urban village.”

That goal meant remediating the grounds, which had been an airport from the 1920s through the 1990s, to

residential standards—clean enough for planting gardens and children romping in yards. The city had to address pockets of the land that had been used for maintenance facilities, chemical and petroleum storage, and a landfill.

About 10,478 cubic yards of affected soil was excavated and disposed off-site. Multiple monitoring wells were established to test groundwater.

Today, hundreds of new homes and a park have been built within a short distance of newly built stores, restaurants, and medical facilities. The Mueller community, still in development, is expected to become home to some 10,000 people. City officials say the redevelopment is serving as an economic catalyst for the inner city.

Innocence Established

Another TCEQ program addresses liability for contamination that migrated from one property to another. A florist operating next to a dry cleaner may have had underground contamination and not know that the problem existed—until he’s ready to sell his shop.

The Innocent Owner/Operator Program was established for property owners who did not cause or contribute to the contamination found on their site. These applicants also pay \$1,000 and an hourly fee to cover the agency’s costs.

In fiscal 2008, the TCEQ issued 45 innocent owner/operator certificates, bringing the total since 1997 to 431.

Unlike the VCP release of liability, these certificates cannot be transferred to future owners or operators. ✨

Recent VCP Projects, 2007–2009

VCP Project	City	Type of Facility
DART Northwest	Dallas	Rail operating facility
Haven for Hope	San Antonio	Homeless shelter
McCoy’s Building Supply	Pharr	Building supply/lumber store
Mockingbird Paint & Body	Dallas	Autobody repair and sales
Spring Branch Service Center	Houston	Electric utility service center
Puckett Plaza	Amarillo	Shopping center
Habitat for Humanity Store	Garland	Building supply store
Adam’s Mark	Dallas	Hotel
Harris County Multi-use Facility	Houston	Maintenance facility
Green Water Treatment Plant	Austin	Water treatment plant
Maplewood Plaza	Dallas	Commercial office space
Farmers Market	Dallas	Vacant property
East Texas Medical Center	Mount Vernon	Hospital
Cypress Semiconductor	Round Rock	Semiconductor manufacturing
Lockheed Marshall Plant	Grand Prairie	Missile/aircraft parts manufacturing
North Texas Regional Airport	Denison	Offices and training facility

History of Cleanup Projects

Fiscal Year	Applications Received	Certificates of Completion Issued
1996	243	35
1997	269	94
1998	228	100
1999	195	125
2000	221	100
2001	130	99
2002	129	97
2003	113	109
2004	96	77
2005	122	86
2006	102	155
2007	121	103
2008	114	109
2009*	40	52
Totals	2,123	1,341

*As of March 25

Remediation Begins on Dry Cleaner

By Jorjanna Price

One of the newest programs at the TCEQ aims to clean up soil and water contamination resulting from dry cleaner operations.

In 2003, the Legislature created new environmental standards for dry cleaners and authorized a remediation fund to help with the investigation and cleanup of contamination tied to dry cleaning solvents. For the first time, the state began assessing fees on the registration of dry cleaners and the sales of dry cleaning solvents.

The fee revenue goes to the remediation fund. As of October 2008, total funds collected stood at \$33.1 million. Assessment and/or remediation work had begun at 133 sites, costing about \$16 million.

Most of the 133 sites were dry cleaners that had used the solvent perchloroethylene, or “perc.” Perc is a manufactured chemical that is widely used in dry cleaning fabrics. Once spilled, the colorless liquid is capable of quickly moving through the ground and entering surface or groundwater.

The legislation creating the remediation fund was an outgrowth of an environmental investigation in the Houston area of a property that was declared a federal Superfund site. The property in northwest Harris County is contaminated with perc from a small dry cleaner and other potential sources.

Enrollment in the Dry Cleaner Remediation Program is voluntary, said Michael Bame, the program coordinator. “Now the state can significantly advance a health and safety purpose by providing the framework by which the TCEQ collects funds for corrective action. Those funds will go to address health and safety concerns at sites around the state.”

Sites Get Registered

Before any remediation could begin, the TCEQ spent a year registering dry cleaners, and another year drafting and implementing regulations for the program.

Registration fees are based on the type of location, the dry cleaner’s registration status, and its gross receipts. Fees can range from \$125 to \$2,500 a year.

The TCEQ’s most recent report on registrations, as of October 2008, showed 1,662 facilities and 1,602 drop stations, in addition to 32 solvent distributors (23 of whom are active), 185 property owners, and 8 previous property owners. All were required to pay fees when registering.

Dry cleaner “facilities” differ from “drop stations.” Customers take clothes to a drop station, often at a strip shopping center. The company transports the garments to another location, where the actual cleaning takes place. Typically the garments are placed in large

“Our intention is to work on the sites that pose the greatest risk to human health and the environment.”

machines and immersed in a cleaning solvent. The dried, pressed clothes are returned to the drop station for pickup by the customer.

Perc became a popular cleaning solvent in the 1940s, when the industry discovered that the nonflammable liquid was effective at removing oil-based stains like grease, oil, and lipstick.

Dry cleaners turned to perc, said Bame, “because it was much less flammable than petroleum-based solvents and it had improved cleaning power. However, perc is now classified as a carcinogen. The dry cleaning industry has started to replace perc with other solvents.”

Because perc is a liquid that does not bind well to soil, it can make its way into the ground and ultimately enter groundwater, he noted, adding that investigations of dry cleaner sites have documented the solvent in groundwater as far as one-quarter of a mile from the original spill area.

Documenting Contamination

Of the 1,662 facilities registered in Texas, 61 percent report being current or previous users of perc. Although perc is still widely used in Texas, other cleaning methods are available.

Many companies use petroleum-based solvents, silicon, or alternative solvents. These establishments rely on water to clean fabrics and are not considered “dry cleaners.”

An application to the Dry Cleaner Remediation Program must include soil and groundwater sample data documenting that a release occurred from a current or former dry cleaner location. The cost of collecting the required samples can be applied toward the \$5,000 deductible required for each application to the program.

When contamination is discovered, property owners can apply to the program to have the property further investigated by the TCEQ and, if warranted, cleaned up.

Current or former facility owners are eligible to apply, as are current or former landowners. Only applicants who register with the TCEQ may receive benefits from the program.

“Property owners make up a large majority of the applicants,” Bame said. “That’s because many real estate transactions require an assessment to determine whether there is an environmental concern at the property being sold.”

The TCEQ began accepting applications for remediation in 2004 and initiated cleanup work the following year. So far, 182 applications have been received. The agency is cleaning up 38 sites and assessing another 102. Eleven sites are considered closed (either no cleanup was required or the cleanup is finished).

As of October 2008, the agency had spent about \$16 million assessing properties and conducting cleanups.

As applications continue to arrive—at the rate of about four a month, according to Bame—the program will reprioritize remediation projects every six months to ensure that the sites with

Fees Assessed on Solvents

The state fees on the sale of solvents are structured to provide an incentive for dry cleaners to use solvents other than perchloroethylene, or “perc.”

Perchloroethylene: \$20 a gallon

Other solvents: \$3 a gallon

the most severe contamination go to the top of the list. This is done by assigning each applicant a numerical score that reflects the severity of the problems.

“Our intention is to work on the sites that pose the greatest risk to human health and the environment,” Bame explained.

Once remediation begins on a facility that used perc, the dry cleaner is prohibited from using perc again. To ensure that the perc ban is enforced, Bame said, the TCEQ will place a deed in the public records stating “that the site can no longer use perc.” 🌱

Nonattainment Counties Could Increase to 27

The EPA will be urged to consider 2009 ozone season data

By Liz Carmack

By the spring of 2010, seven additional Texas counties may be designated as violating the revised 8-hour standard for ground-level ozone pollution.

In March, Gov. Rick Perry recommended that the Environmental Protection Agency (EPA) designate the counties of El Paso, Bexar, Travis, Hood, Smith, Gregg, and Rusk as being in nonattainment of the new, more stringent standard.

Unless monitoring data this summer results in improved ozone design values, the counties may join 20 others in Texas already on the ozone nonattainment list. The existing nonattainment counties are in the areas of Houston-Galveston, Dallas-Fort Worth, and Beaumont-Port Arthur.

The EPA tightened its 8-hour ozone standard a year ago, moving from 0.08 parts per million (ppm) to 0.075 ppm.

Under the federal Clean Air Act, all states had until March 12, 2009, to tell the EPA which areas within their boundaries were failing to meet the revised standard. The EPA is expected to announce the final nonattainment designations by March 2010.

Multiple Factors Considered

In formulating their recommendation to the governor last December, the TCEQ commissioners relied on staff analyses.

Using monitoring data, the staff calculated “design values” for the counties with ozone monitors and compared

those values to the new 0.075 ppm standard. A design value is a three-year average of the fourth-highest ozone level measured yearly in an area. Two design values for each monitor were calculated: one based on data from 2005 to 2007 and another based on 2006 to 2008.

All 20 counties already in nonattainment for the previous 0.08 ppm standard will remain nonattainment for the new 0.075 ppm standard.

The calculations further showed that ozone levels in six additional counties—El Paso, Bexar, Travis, Hood, Smith, and Gregg—exceeded the 0.075 ppm standard, although the exceedances were slight in many instances.

Staff also used a decision matrix to closely consider 11 different factors in all of the 45 counties reviewed. Those factors were emissions and air quality in adjacent areas, population density and degree of urbanization, monitoring data, location of emissions sources, traffic and commuting patterns, expected growth, meteorology, geography and topography, jurisdictional boundaries, level of emissions control, and regional emissions control.

“We looked at these factors and homed in on the ones that would be significant,” said Susana Hildebrand, director of the TCEQ’s Air Quality Division.

These considerations, she said, resulted in staff also recommending that Rusk County be classified as nonattainment under the new standard. Rusk,

which is upwind from Smith and Gregg counties, has significant stationary sources of ozone precursors—nitrogen oxides and volatile organic compounds.

Long-Standing Efforts

Many local governments in the seven counties have already spent years implementing emission-reduction programs, most of which are voluntary, to improve air quality. As a result, ozone levels in these areas have been dropping, according to Dan Eden, TCEQ deputy director of Permitting and Registration. His office is responsible for emission limits on air permits.

However, many of the areas “that had managed to meet the previous ozone standard through hard work, sacrifice, and innovation will not meet the new standard,” Eden told a legislative panel this spring.

To alert local communities to the new ozone requirements, the TCEQ held public information meetings around the state last year. Some communities pointed to their falling ozone levels as evidence of improving air quality and asked that 2009 ozone data be considered in any final decisions regarding their attainment status.

“Our leadership has explicitly talked to the EPA about including the 2009 data before they make their final call next year,” Hildebrand said. “We’re working to make sure those executive priorities are met.”

Hildebrand said that a few of the counties newly proposed for nonattainment status could attain the 0.075 ppm standard—if the 2009 data shows ozone levels down even farther. She said the agency plans to deliver the new data to the EPA by February 2010.

“It’s really the ones that are close to meeting the standard—San Antonio, Austin, and the Tyler-Longview area—that we’ll be particularly concerned with after this ozone season is over,” she said.

Deadlines Will Vary

Although the EPA is due to issue its final nonattainment designations in March 2010, it could delay that announcement up to a year.

The TCEQ will have three years after the announcement to submit a revised State Implementation Plan (SIP) outlining how Texas will reduce ozone levels in each nonattainment area. Each

area would have to meet the standard by a deadline set by the EPA.

The attainment deadlines will vary based on the severity of each area’s ozone problem. The more severe the problem, the more time the area is given to attain the standard.

If counties end up designated as nonattainment areas, the TCEQ will need to prepare ozone attainment demonstrations. The agency may also need to deploy additional air monitors in response to the new standard and also because more stringent monitoring requirements are expected from the EPA, Hildebrand stated.

Also, it may be necessary to increase the number of regional inspectors to ensure that regulated entities comply with any new regulations the agency issues for controlling emissions sources.

But before determining what regulatory strategy to take to help bring

nonattainment areas into compliance, the TCEQ must clearly quantify the emissions—including those from stationary, non-road, and off-road sources—in each area that contributes to ozone formation.

“Before we can define any strategies moving forward, we have to make sure we understand the emissions in each area and what is significant to ozone formation,” Hildebrand said. “It’s a complex question that has to be asked for each area. To develop air quality improvement strategies, we need to know what is affecting the monitors that are exceeding the ozone standard and what controls would be effective.”

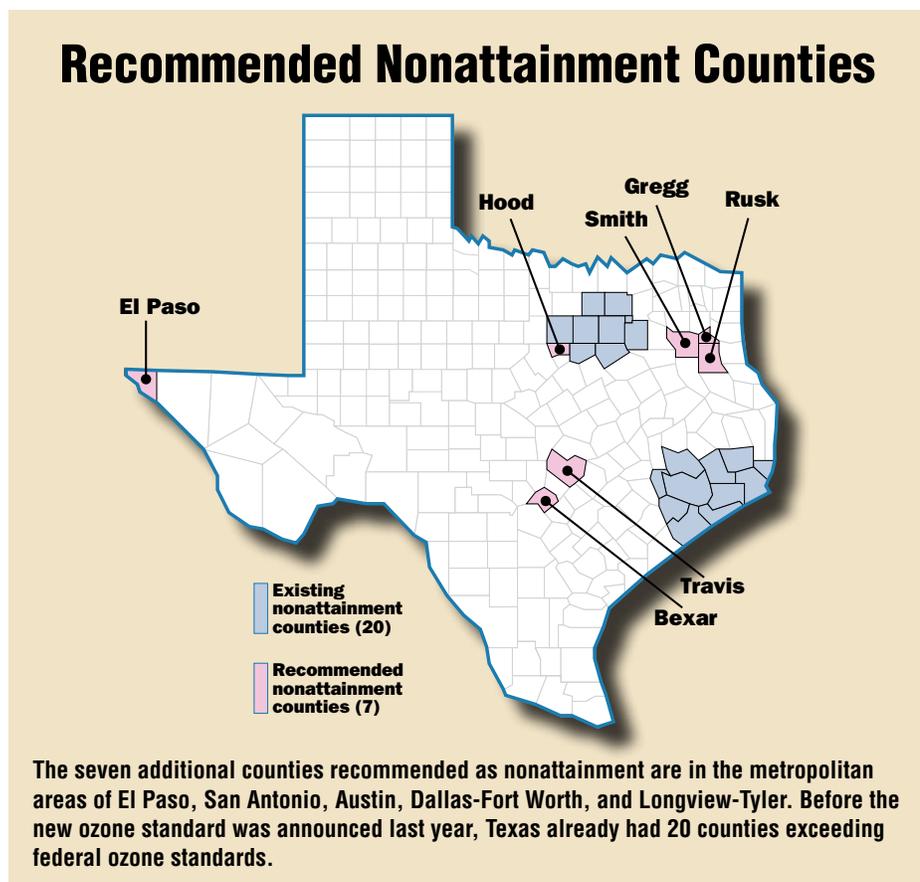
The TCEQ will also continue to work closely with local governments to devise appropriate control strategies for their area. Some of the voluntary pollution-reduction measures implemented by local governments would possibly become state requirements, she added.

For example, cars and trucks can be the major emissions source in some areas, and Travis and Bexar counties both have large numbers of commuters.

Some regulatory programs that are already being used to curb mobile source emissions in existing nonattainment areas include vehicle inspection and maintenance; monetary incentives to replace older polluting cars, trucks and heavy diesel equipment; and the required sale of low-emission diesel fuel or low Reid vapor pressure gasoline.

During his testimony at the Legislature, Eden affirmed that the new ozone standard would be difficult to achieve, but not impossible.

“Through innovation and development of new technologies and by developing new strategies, we expect to meet this challenge,” he said. 🌱





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Greener Fleet Helps Curb Emissions

The TCEQ's fleet of cars and trucks has been getting cleaner. Of the 388 vehicles in use, two-thirds of them run on alternative fuels or have hybrid engines.

The agency has 258 vehicles that operate on propane, ethanol,

biodiesel, or batteries. The hybrid vehicles include cars (Prius), pickups (Silverado), and SUVs (Ford Escape).

Most of the cleaner-burning vehicles were purchased in the last three years. The TCEQ plans to buy additional low-emission vehicles as the fleet ages and older cars and trucks need to be replaced.

Of the 388 vehicles in use, only 60 are assigned to the Austin headquarters. The remainder is used by the agency's 16 regional offices. Field investigators have agency vehicles on highways and county roads every day as they travel to inspect plants and facilities regulated by the TCEQ. In rural

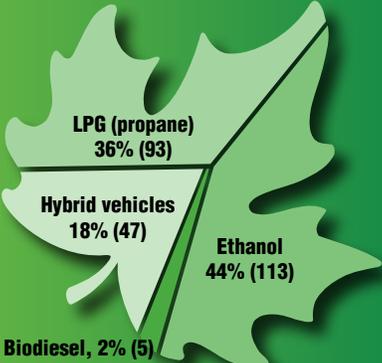
areas, a round trip can add 300 miles or more to an odometer.

In all, TCEQ regional staff travels more than 3 million miles a year by motor vehicle.

Back at agency headquarters, the support services staff has several electric-powered golf carts and trucks to make deliveries and pick up mail at various TCEQ buildings. ✨

Green Vehicles at the TCEQ

258 alternative fuel and hybrid vehicles from a fleet total of 388 vehicles



By Jorjanna Price