

# Automotive Repair

CITY OF ABILENE—STORMWATER UTILITY DIVISION

**A**utomotive service stations and repair shops generate a variety of wastes such as fuels, motor oil and filters, antifreeze, solvents, detergents, oven residues, tires, batteries, rags, used absorbent, and metal scraps. These materials may enter nearby creeks and lakes, if not handled, stored and disposed of properly. Customers appreciate a clean

**Customers appreciate a clean shop and your efforts to keep our community and its waterways free of pollution.**

shop and your efforts to keep our community and its waterways free of pollution. The City of Abilene's Stormwater Utility Division is responsible for preventing polluting discharges to the city storm drainage system as mandated by the City's Texas Pollutant Discharge Elimination System (TPDES) Permit under provisions of Section 402 of the Clean Water Act and Chapter 26 of the Texas Water Code. This fact sheet provides automotive service stations and repair shops with information on how to operate without polluting Abilene's valuable water resources.

## The Problem:

### Unfamiliarity with regulations.

Unfamiliarity with hazardous materials and waste regulations can result in danger to employees and water resources due to mishandling or illegal storage and disposal practices. Furthermore, violations of City, State, and Federal regulations result in legal action with subsequent fines and penalties.

### Improper mixing of wastes.

Mixing of incompatible chemicals can lead to violent reactions and spills. In addition, combining hazardous wastes (e.g. flammable solvent) with non-hazardous wastes (e.g. motor oil) in a storage container leads to increased disposal costs, since the entire mixture is then classified as hazardous. The costs for transport and disposal of hazardous wastes is much higher compared to costs for non-hazardous wastes.

### Outdoor storage of auto parts.

Auto parts such as engine blocks, transmissions, torque converters

## Did you know...

**One car's oil change poured into a storm drain can create an eight acre oil slick in a waterway.**

and other scrap parts stored outside are exposed to rainfall. Batteries stored outside increase the chance for leaks from cracked casings and terminal corrosion. Rainfall runoff containing oil, grease, and other pollutants, washed from auto parts, flows to storm sewers leading directly to creeks and lakes. Oil and grease coats fish gills and aquatic plants and animals, destroying them. The oily sheen at the water surface blocks transfer of oxygen into water, needed by aquatic life. Used motor oil is toxic and can kill aquatic life at low concentrations. Used motor oil contains heavy metals such as lead, copper and zinc that persists in the environment and pose an exposure threat to humans and animals. Battery acid destroys living organisms and damages surface that contact it.

### Outdoor storage of automotive fluids.

Liquids stored in containers exposed to rain without lids or overhead cover can overflow onto the ground. Outdoors,



Container labels may be damaged or unreadable; losing valuable product information. Fluids accumulating on the outside or on top of containers from spills are easily washed off by rainwater. Containers in poor condition (rusty, bloated, dented) can leak. Unlabeled containers can be misused and neglected. Storage tanks, fuel dispensers, drums and other containers not properly secured are subject to vandalism and traffic accidents, increasing the chance for release. Spills outside spread or wash off with rainwater to soil or storm sewer and waterways resulting in costly fines and cleanups. Storing containers on unpaved surfaces also increases the chance for soil contamination. Illegal discharges are more likely when containers are stored near storm drains leading to nearby waterways.

### **Improper pavement cleaning practices.**

Pollutants such as trash, grease, oil, and antifreeze often accumulate on paved surfaces of businesses. Blowing wind or stormwater run-off carries dirt and sediment from unvegetated areas. Trash ends up on the ground from overfilled dumpsters and careless customers. Leaves and grass clippings collect along curbsides and gutters during seasonal leaf fall and lawn main-

tenance. Absorbent material is applied to spills and slick spots and left on the pavement. Besides being unsightly and a possible safety hazard, these pollutants will be flushed by rain to a storm sewer or waterway if not removed. Antifreeze and motor oil are toxic to humans, animals, and aquatic life. Grease, oil, and oil emulsions, in very low concentrations, interfere with respiration and reproduction in aquatic organisms. Oil coats and destroys algae and plankton, which are important food sources for fish. Fish eating contaminated algae and plankton may accumulate toxins in their flesh, making them unfit to eat. Dirt and sediment cause turbidity and cloudiness in creeks and lakes. Turbidity affects the growth of aquatic plants by reducing available sunlight. Sediment smothers bottom dwelling aquatic life and clogs fish gills. Many other pollutants, including metals, bacteria, and some nutrients adhere to sediment particles, increasing the pollution impact. Leaves and grass cutting contribute excessive organic material to a waterway. Oxygen is used up during the decay process, depleting oxygen needed by aquatic life. Trash and debris

clogs storm drains and waterways, leading to increased maintenance costs and flooding problems. Trash and debris also create an aesthetic nuisance; decreasing the recreational value of our creeks and lakes.

When pavement is cleaned, people tend to flush soaps, detergents, or degreasing solvents to storm sewers and waterways. Furthermore, the use of both chemicals cleaning agents and/or hot water significantly increases the amount of contaminants in the wash water. Hot water dissolves oil and grease from surfaces, so when flushed, pollutants are washed to the environment. Cleaning agents are designed to emulsify or bind pollutants such as oil and grease. So, flushing chemical cleaning agents from surfaces to the environment can have a devastating impact. Oil and grease destroys aquatic organisms. In addition, some cleaning agents contain hazardous or toxic ingredients that kill aquatic life. Soaps and detergents (especially phosphate detergents) promote algae blooms in waterways. The subsequent death and decay of the algae deplete sunlight and oxygen needed by aquatic life. The cumulative effect on our waterways from incorrect pavement cleaning is significant.

## **Did you know...**

*The most common problems found at automotive shops are storage of oily parts, open containers, and batteries outside, exposed to rain.*



**Inappropriate auto parts cleaning.** Used automotive parts often require heavy duty degreasers and solvents to remove oil and grease buildup. The common solvents used at automotive shops have a high human health risk rating and are extremely flammable and toxic. Cleaning parts outside with cleaning agents and discharging the wash water to the ground, storm drain, oil/grit separator, stormwater pond, or waterway is illegal. Cleaning parts outside also results in difficult, expensive decontamination of all impacted surfaces, and is a public health threat. Cleaning parts on an asphalt surface not only pollutes the environment, but over time, dissolves the asphalt surface since it is made of heavy petroleum.

In addition, plumbing a parts cleaning machine or sink to the ground or storm sewer results in illegal discharges to the environment. Solvent parts cleaning devices installed outside can leak or overflow onto the ground. Parts cleaners (e.g. wet cleaners, dry ovens, bead agitators) also accumulate sludge containing oil and grease, and heavy metals. Disposal of the sludge on the ground, in a drain, stormwater pond, waterway, or dumpster is subject to costly penalties.

**Improper vehicle washing.**

The cleaning of vehicles often creates a polluting discharge of wastewater to a storm drain or waterway, especially when cleaning agents discharged to a waterway not only carry dirt and grime, but also can provide nutrients that promote the growth of algae or toxic ingredients. The cumulative effect on

our waterways from all the vehicle washing by the community is great.

**Using microbes incorrectly.**

Microbes are sometimes used for pavement cleaning and spill cleanup, since these specialized bacteria and fungi “eat” petroleum and break it down to non-toxic compounds. Microbes, like other living organisms, need water, food, and air to survive. So, microbes applied to hot pavement without water will die. Likewise, applying microbes to contaminated soil without water and without tilling the soil to ensure adequate aeration results in microbial death.

Many microbial cleaning agents contain detergents which promote efficient cleaning by dissolving oil and grime off dirty surfaces. This concentrates pollutants in the wash water. Microbial cleaning agents may also contain nutrients like nitrogen to stimulate microbial growth and reproduction. But, if microbial cleaning agents are flushed by spill cleaning—or if rain water flushes cleaning agents off a dirty surface—the microbes may not find their intended food source. As a result, the dissolved spill pollutants such as oil and grease in the wash water will impact receiving waterways, and nutrients will over-stimulate algae growth. Also, applying microbes over large paved areas increases the likelihood that they will be flushed to storm sewers and waterways.

**Washing hands outside.**

Some shops don’t have separate employee hand washing sinks.

As a result, employees may wash their hands outside with the water hose to prevent the customer restroom sink from getting dirty. However, washing hands outside and allowing the wash water to discharge to the environment is illegal and can result in fines.

**Illegal disposal.**

Automotive wastes dumped on the ground, in a drain connected to either the storm or sanitary sewer system, in a septic system, or in the trash has serious consequences. Liquids or hazardous materials (e.g. solvent waste, acid car batteries) disposed in the trash result in landfill and associated groundwater contamination. These materials can also spill from trash trucks, harming sanitation workers and the general public. Used motor oil, antifreeze, and oil filters dumped in a dumpster can leak or spill out, contaminating the ground outside. This may result in time consuming and costly cleaning of the dumpster and the ground around it. Discarding many of these wastes in the trash is a waste of reusable resources. Dumping wastes on the ground contaminates the soil causing costly removal, disposal, and replacement of the contaminated soil. Disposal in a storm drain will carry the pollutant to area creeks and lakes, impacting aquatic life. Disposal in a sanitary drain may render a treatment system used to treat raw sewage inoperative. Disposal of hazardous wastes in either storm sewer or sanitary sewer system drains also poses a public health threat. Flammable gases from some hazardous materials may react with natural gasses in confined sewers causing explosions.

## **Improper use and maintenance of stormwater drainage structures.**

Oil/grit separators and stormwater ponds redirect stormwater and remove minor amounts of sediment and oil from stormwater runoff, but they are not designed to treat chemical wastes. Costly sampling and disposal of sediment/wastewater is required if chemical wastes are spilled or discharged to these structures. Fines as well as storm sewer and creek restoration are also a possibility. Many businesses in Abilene have interior drains in work and storage areas connecting to the storm sewer system. Chances for an illegal discharge are greatly increased when vehicles are repaired or chemicals are stored near storm drains. Furthermore, if not maintained properly, these structures become less efficient and fail, resulting in untreated stormwater runoff.

## **Mishandling of spills.**

Most spills typically occur during the transport of chemicals to and from storage receptacles, fuel transfer, vehicle repair, or from leaking vehicles.

## **Did you know...**

Motor oil dumped in the trash results in landfill and associated groundwater contamination. Thoroughly drain containers prior to their disposal.



Unattended spills outside are carried by rain to the environment. This only spreads the contamination, causing costly cleanups, fines, and site restorations. Some facilities are not properly equipped with spill containment and cleanup materials, a spill plan, or the appropriate training needed to use them effectively. Therefore, spills are often mishandled by flushing them with water to a storm drain, stormwater pond, or adjacent property.

## **Improper fueling activities.**

Careless gasoline dispensing creates discharges to the environment. Fuel releases occur from overfilling tanks, customers leaving the station without removing the pump handle from their cars (drive-offs), customers propping the pump handle switch open and disabling the pump's automatic shut-off, customers topping off tanks, filling of inappropriate fuel containers, maintenance by untrained workers, inaccessible shut-off switches, or employees unaware of shut-off switch locations. Fueling over a permeable surface such as soil or gravel leads to expensive cleanups and creates the potential for groundwater contamination should a spill occur. Uncovered fuel island allow accidental spills from pumping activities and leaking vehicles to wash off during rain. Every gallon of gasoline that hits the ground increases the cost of clean-up and the risk of fire and explosion.

## **Illegal plumbing connections.**

Plumbing hand washing sinks, mop sinks, car wash bays,

solvent sinks, parts washing machines, soda machines or drinking fountains to the ground outside, storm drain, or oil/grit separator is illegal. In addition, solvent parts cleaning devices installed outside can malfunction, leaking or overflowing onto the ground. Polluting discharges to the ground result in costly cleanup of contaminated soil or pavement. Discharge of wastewater to storm drains transports pollutants such as detergents, solvents, dirt, oil, and grime to Abilene's creeks and lakes.

## **Poor secondary containment.**

Secondary containment is necessary and often required for certain sized product or waste storage containers or for a certain number of smaller containers kept in one area. When storm drains are located inside containment areas, accidental releases from containers can reach waterways if special provisions are not made. Furthermore if not maintained, they can leak rain water and contaminants. If containment is absent or inadequately sized, spills discharge or overflow to the environment.

## **Improper use and maintenance of dumpster.**

It is illegal to dispose of toxic or hazardous chemicals, or any liquids in dumpsters. These materials can spill out while being emptied, threatening the safety of the sanitation workers and the general public. Liquid wastes are not accepted by municipal landfills. Spills inside the dumpster can create odor problems and attract vermin, thereby requiring removal of the dumpster for thorough cleaning at an approved facility.

Trash and debris spill out of dumpsters that are overfilled, in poor condition, or left open. Unbagged trash also promotes spills. This material is then easily carried to storm sewers or waterways by wind and rain. Decaying food wastes in waterways require oxygen for decomposition, resulting in strong odors, and a depleted oxygen supply for aquatic life. Trash and debris also clog waterways and decrease the waterway's recreational value. Cleaning the area around the dumpster is sometimes necessary, but can cause illegal discharges of cleaning agents and grime to storm sewers and waterways. In addition, placement of dumpsters on unpaved surfaces such as soil results in costly removal, disposal, and restoration of contaminated areas when leaks or spills occur.

### **Poor landscape practices.**

Excessive application of fertilizers and pesticides to landscaped and even paved areas, especially before a rain, causes the discharge of algae-promoting or toxic chemicals to a storm sewer or creek. Use of petroleum products to kill weeds significantly impacts the environment. These substances are very toxic, persist in the soil



for many years, and seep into and pollute our groundwater supply. Some are cancer-causing agents. Leaves and grass clippings blown off sidewalks, driveways and parking lots are also carried to storm drains when it rains, providing excess harmful organic matter to waterways. Tree and hedge trimmings can clog drainageways and promote flooding. As these wastes decompose in a waterway, they use up oxygen needed for aquatic life to survive.

### **Polluting construction/remodeling activities.**

When businesses expand or remodel, chemicals and materials such as drywall, joint compound, paint, thinner, turpentine, wood, and insulation are typically used. Any of these materials pollute our waterways if dumped or spilled. Drywall, paint, and joint compound act like very fine sediments blocking light needed by plants and smothering bottom dwelling organisms. Some paint, especially oil-based paint, contains petroleum products and hazardous metals. Poorly managed materials such as wood and insulation will clog the waterway, increasing the potential for flooding.

### **The Solution:**

#### **Know hazardous waste regulations and obtain necessary permits.**

Applicable State and Federal hazardous waste regulations depend upon the quantity of hazardous wastes generated and stored each month at your business. Follow these steps for compliance:

- Become familiar with the wastes you generate. A waste is anything you intend to discard. Knowledge of the chemicals used and stored at your shop will also help protect the health and safety of your employees.
- Determine which wastes are hazardous. Some common hazardous wastes include: used batteries, carburetor cleaner containing chlorinated hydrocarbons or cresylic acid, gasoline, caustic parts cleaner and sludge, parts cleaning oven residues, and automotive paint wastes. Hazardous wastes are more strictly regulated than non-hazardous wastes. However, it is still important that all wastes are managed appropriately.
- Determine how much hazardous waste you generate during a typical calendar month.
- Contact the Texas Commission on Environmental Quality (TCEQ) to verify your generator status, register your hazardous wastes, and obtain applicable requirements such as labeling, accumulation time, record keeping transporting, and quantity limits.
- Contact the Abilene Fire Department (AFD) to determine if you need a permit for receiving, producing, or storing specific quantities of hazardous materials. See the phone number at the end of this document.

Familiarity with these regulations reduces your liability, and lowers the likelihood of penalties and costly remediations.

## **Do not mix incompatible wastes.**

Mix wastes only if it is safe and approval is received by your waste disposal service.

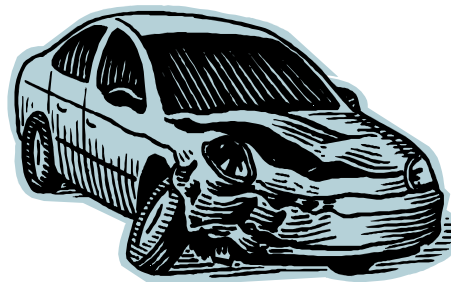
## **Dispose of shop wastes legally.**

Do not dispose of chemicals on the ground, in the trash, to a storm drain, or to a stormwater pond. Recycle used motor oil, drained oil filters, waste antifreeze, batteries, tires, and spent solvent through a service company. Give waste metal such as used parts, metal lathe filings, and solder to a scrap metal dealer. Have shop rags laundered by an approved service and tell them what the shop rags are used for. Do not saturate rags with gasoline, solvents or other hazardous liquids. Have wastes like caustic sludge and parts cleaning oven residues picked up by an approved hazardous waste disposal service (often called treatment, storage, and disposal facilities - TSD's). Choose a reliable TSD since you are responsible for wastes from "cradle to grave" Call the Hazardous Substances Information Hotline at 1-800-633-7585 to find out if a TSD has an EPA identification number or has been cited for past violations. They also provide a list of vendors who can transport your waste. Keep disposal receipts

## **Did you know...**

*"Parts" cars and wrecked vehicles can drip fluid for several days. So, drain them*

*upon arrival or temporarily use drip pans. Keep them on paved areas for easier cleaning if a spill occurs.*



and waste manifests as verification of proper disposal. They must be kept for at least three years but can be kept indefinitely to minimize liability.

Contact the City's Water and Wastewater Department for approved discharges to the sanitary sewer system such as pavement, equipment or vehicle cleaning wash or rinse water.

## **Reduce, reuse, recycle.**

The costs for treatment and disposal of hazardous waste is expensive. To reduce disposal costs:

- Do not mix wastes together - mixing may increase the amount of hazardous waste generated or prevent a waste from being recyclable,
- purchase supplies in bulk and keep them in bulk dispensers; this helps reduce empty waste containers requiring disposal,
- reduce the number of containers by reducing the number of different brands or grades of material used, evaluate the use of hazardous products and find ways to reduce the quantity of product used,

- substitute a non-hazardous material for a hazardous material,
- recycle wastes when possible - the useful life of some materials like solvents can be extended by such methods as filtration to remove solids or distillation to remove impurities.
- utilize TCEQ's RENEW Program (waste exchange program) which provides information on businesses and industry that reuse or reclaim wastes and,
- contact the City of Abilene's Environmental Recycle Center (ERC) to learn more about recycling of products.

## **Store parts under overhead cover.**

Store oily, greasy automotive parts indoors or under overhead cover, not exposed to the rain. Store covered parts on a paved surface to prevent soil or groundwater contamination. If you use plastic or canvas as covering outside, secure the covering during windy conditions and immediately clean any fluids seeping from underneath the covering. Install concrete curbing (with sealer applied to the floors and walls) around the storage area to contain any seepage or absorbent material used. Parts that are not oily or greasy can be stored outside provided rust staining on the pavement is not washed off with rain. If wrecked vehicles and "parts cars" are parked outdoors, keep them on paved areas.

## **Store chemicals properly.**

Keep containers (e.g. drums, bucket, pans) under overhead cover with secured lids and bungs. Properly label and regularly inspect containers to ensure they are in good condition. Follow hazardous waste labeling, accumulation time, and quantity limit requirements for stored hazardous wastes. Storage units must not leak, overflow, or display any signs of failure or incompatibility with their contents. Wipe drips and spills off the tops or sides of containers. Keep storage containers in a secured area away from traffic and possible acts of vandalism. Keep containers on a paved surface that is easily cleaned, such as concrete.

## **Collect and dispose of wastes during pavement cleaning.**

Check your lot daily for cleaning. Pick up trash and sweep up dirt, litter, leaves, and grass clippings. Absorb automotive fluid puddles with absorbent materials such as kitty litter or mop & bucket. Pre-clean heavy oil and grease stains, and slick spots using a small mixture of water and mild, powdered detergent. Brush the mixture into the stain. Pick up the mixture and waste using absorbent material, for disposal in the trash. Up to 220 lbs. of dry absorbent material can be placed in the dumpster each month. For larger areas that

require cleaning, do not allow wash water to enter a storm drain, oil/grit separator, landscaping, or stormwater pond. Instead, collect wash water by using a mop & bucket, scrubbing machine, or vacuum booms.

Dispose of wash water, not containing hazardous cleaning compounds, via indoor sanitary sewer drains (e.g. mop sink) with prior approval from the City's Water Department. Collect and dispose of hazardous waste through an approved recycling/disposal service. Do not dump mop water in storm drains or the street.

## **Contain and properly dispose of parts cleaning waste.**

Clean parts in a system that contains the cleaning material and collects the accumulated sludge for pick up by a certified disposal service. There are sinks, ovens or wash machines designed specifically for that purpose. Once a system is installed, maintain it properly. Install these systems indoors and do not plumb them to the ground outside, a storm drain, a stormwater pond, or a septic system. Wet parts cleaning machines plumbed to the sanitary sewer system must meet specific conditions including use of a non-hazardous cleaning agent. Contact the

City of Abilene's Water and Wastewater Department for the requirements and approval to connect to the City sanitary sewer system.

## **Clean vehicles properly.**

Removing dust and fallen debris such as leaves from vehicles with plain, cold water is acceptable; use the wash water to irrigate the landscape. When using cleaning agents, wash vehicles at approved facilities with drains having overhead cover and connecting to a wastewater treatment plant or system. Do not use cleaning agents containing hazardous substances. Car wash businesses typically have approved facilities that are permitted. Do not discharge wash water to a storm drain or stormwater pond.

## **Use microbes responsibly.**

Petroleum-consuming microbes are very useful in controlled cleanup situations such as oily soil remediation, contained parts cleaning, and wastewater treatment. Apply microbial cleaning agents according to manufacturer's direction, providing ample food, water, and oxygen. For pavement cleaning, use microbes only on oil stains and slick spots. Apply microbes with a minimal amount of water so that runoff does not occur. After ample application time, pick up the microbes for reuse or disposal by using absorbent material. Never leave microbes on paved areas - rain will wash them to a storm sewer or waterway. When using microbes for cleaning spills on soil, protect the treated area from rain so microbes will not wash away.

## **Did you know...**

*Oil eating microbes cannot be flushed to storm drains or waterway.*



Cover the spill area with tarpaulins or plastic sheeting and construct a berm around the perimeter of the spill. Do not use microbes for lead contaminated soil - microbes cannot break down lead.

Before using microbes for cleaning spills, obtain approval from the Texas Commission on Environmental Quality. Approval for microbe use is granted on a case-by-case basis. A phone number is provided at the end of this fact sheet. If you are using a wastewater treatment system, consider investigating the usefulness of microbes to help treat collected wash water to reduce disposal cost.

#### **Wash hands at a designated hand wash sink.**

Wash hands at a sink plumbed to the wastewater treatment system, never outside with a water hose. Shops should have a separate employee hand washing sink near the work area, so workers don't have to leave the work area or get the customer restroom sink dirty. Install a sink for both mop water and employee hand washing - it is a great way to combine uses efficiently and prevent illegal discharges.

#### **Prevent spills before they happen.**

Prevent spills, as much as possible, through simple planning of daily operations. While working on vehicles, keep drip pans or spill pallets under the vehicle. Capture the spill or leak as soon as detected. Use larger, flat, low-brimmed pans under cars where ordinary drop pans are too cumbersome. Don't leave drip pans or other open containers unattended. Promptly transport collected fluids to your

recycling or waste storage unit. Inspect customer vehicles and equipment regularly for leaks and repair them appropriately. Drain all fluids from wrecked vehicles and "parts" cars upon arrival. If necessary, place drip pans under them until they are drained. Also, drain engines, transmissions and other used parts kept for rebuilding. Work over an impervious surface such as concrete to prevent more extensive and costly soil cleanup. Don't allow customers to change their personal vehicles oil on your lot. Most important, prevent discharges to the environment by working inside your shop.

#### **Handle spills properly.**

Spills happen. Do not flush spills away with water. Instead contain them immediately, before they reach a storm drain and spread to a creek or lake. Also, do not put yourself or others in danger. Before containment, evaluate what materials have spilled, make a thorough assessment of risk, and determine how to contain the spill safely. If safe containment is possible, immediately stop the spread of liquids using absorbent materials. Keep spill containment and clean up materials appropriate for the type and quantities of hazardous chemicals used or stored at your facility. Immediately block off nearby drains (storm sewer or sanitary). It is much more costly to decontaminate the inside of a storm sewer pipe and/or restore a contaminated creek than it is to purchase spill containment materials.

Always wear appropriate safety equipment such as gloves, coveralls, goggles, and respirators. Access Material Safety Data Sheets (MSDS) for information about spilled materials. Keep MSDS's readily available for each chemical used or stored at the facility. An MSDS contains information that enables persons responsible for handling, using, or encountering chemicals to estimate the likely harm, potential hazards and risks that might arise in emergency situations involving those chemicals. Obtain an MSDS free of charge by calling the manufacturer's phone number from the label on the container.

Never leave spills unattended; designate someone to make spill notification phone calls. Immediately notify the Abilene Fire Department by dialing 911. Then report the spill to the Stormwater Utility Division by calling the City's 24-Hour Hotline at 676-6000.

Clean up surfaces contaminated by hazardous chemicals only if you are trained, experienced, and qualified. Excavate (e.g. soil) surfaces as quickly as possible to prevent spread of the contamination. Contact the Texas Commission on Environmental Quality (TCEQ) for soil cleanup instructions. Sweep up and containerize dry material spills on impervious surfaces (e.g. pavement) for proper disposal. Absorb liquid spills on impervious surfaces with absorbent materials (e.g. clay absorbent, pads, booms, etc.) and containerize for proper disposal. Do not use wet/dry shop vacuums for gasoline, solvents or other volatile fluids because of explosion hazards.

Post a site-specific spill contingency plan at your facility providing step-by-step instruction in the event of a spill. Practice these steps in a “spill drill”. Contact the Texas Commission on Environmental Quality or the City of Abilene’s Fire Department to acquire information regarding spill contingency plans and proper spill handling.

### **Ensure careful fueling.**

Monitor tank filling activities to prevent overfilling and drive-offs. Install and maintain overfill prevention equipment. Reduce drive-offs by monitoring fueling activities and installing break away hoses. In addition, install and anchor shear valves at the dispenser. Also, install automatic closing type hose nozzle valves to prevent spills during customer fill-ups. Clearly mark the shut-off switch and educate employees on its location and use.

Pave areas where fuel is stored and dispensed so accidental spills are easily contained and removed. Pave with Portland cement, not asphalt; fuel deteriorates asphalt. Cover the fuel island and do not drain the area to storm drain catch basins. Carefully plan above-ground storage tank structures for product dispensing.

### **Maintain stormwater structures.**

According to Federal law, only clean rain water may enter storm drainage systems. Keep all solid waste, wastewater and spilled products from entering drains, oil/grit separators and stormwater ponds. Educate employees about these devices and how to prevent their misuse. Post signs at storm drains. Routinely maintain these structures so they

function as originally designed. The Stormwater Utility Division provides a fact sheet with detailed information on stormwater ponds. A phone number is provided at the end of this fact sheet.

If you know your interior drains are plumbed to the sanitary sewer system, contact the City of Abilene Water Department for sanitary sewer discharge regulations. Work areas of machine shops or any business that manufactures, rebuilds or overhauls engines, transmissions, hydraulic systems or similar machinery cannot have work area drains plumbed to the storm sewer system or a waterway. Instead, plumb them to a hold-haul tank. Otherwise, if your interior drains are plumbed to the storm sewer system or to a waterway disconnect work area drains and remove them from service. If you are unsure to which sewer system (storm or sanitary) your drains are connected, contact the Water Department, the Stormwater Utility Division, or a licensed plumber for plumbing verification.

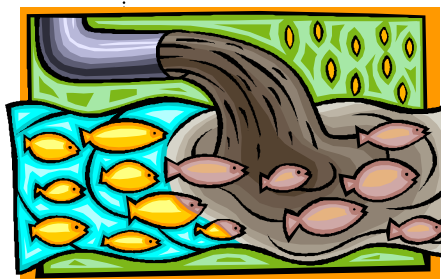
### **Correct illegal plumbing connections.**

If a mop sink, hand wash sink, water fountain, or car wash drain is not connected to a wastewater treatment system, have it fixed immediately. Stop use of illegally plumbed fixtures until they can be reconnected to the wastewater treatment system such as the sanitary sewer. Contact a local plumber for guidance on proper plumbing of parts washers.

### **Use and maintain dumpsters properly.**

Keep outdoor dumpsters on a concrete pad and consider installing concrete curbing around them to adequately drain stormwater. Dispose of only dry, non-hazardous waste in them. Do not dispose of used tires, oil, oil filters, or lead acid batteries in the dumpster. Dispose of garbage in the dumpster in tightly sealed bags. Carefully transport wastes to and from your dumpster, immediately clean up anything that spills. Plan scheduled waste service pick-ups to prevent overfilling. Should unanticipated overfilling occur, contact your disposal service for timely removal. Monitor emptying of your dumpster and promptly clean up spills caused by waste haulers. You are responsible for any contamination on your property. Keep the dumpster lid closed.

Check the dumpster area routinely for needed cleaning. If your dumpster needs cleaning, contact your disposal service to determine responsibility for cleaning. Keep the exterior of the dumpster, and surrounding pavement, as clean as possible. During cleaning, capture and remove wastewater for approved disposal to the sanitary sewer system. A mop and bucket works well to prevent wastewater runoff. Contact the City’s Solid Waste Division for proper use and maintenance of dumpsters.



## **Have proper secondary containment.**

Install secondary containment around product and waste storage areas to prevent costly spreading of accidental releases. For example, store used batteries inside where leaks from cracked casings or terminal corrosion will be contained (e.g. concrete bin with sealed floors and walls). State and Federal agencies require secondary containment for certain types and quantities of stored chemicals. For more details, contact the TCEQ at the phone number provided at the end of this document.

There are special City and Federal requirements for any containment area with a storm drain. Familiarize yourself with these requirements before you decide to install a storm drain. Keep containment areas clean and check them routinely for structural failure. Fix structural failures promptly. Immediately notify the Stormwater Utility Division of a spill within the containment. Pump contaminated materials from the area for legal disposal. There are pumping companies that provide this service.

## **Environmental friendly landscaping.**

Use Integrated Pest Management which emphasizes prevention and natural pest control methods instead of chemicals.

## **Did you know...**

***Tanks of certain chemicals including waste oil must be secondarily contained according to the State and Federal requirements.***

For example, control weeds by using ground cover plants and mulch. Landscape with native adapted plants that require less water, chemical fertilizers and pesticides. Use compost or manure as natural fertilizers. If used, chemical fertilizers and pesticides should be applied according to the directions on the label. Use only the amount necessary to do the job. Never apply toxic pesticides near water bodies, water wells and wildlife habitats. Check the weather before applying lawn chemicals to avoid application during wind or rain. Design a landscape that limits the volume or decreases the speed of stormwater runoff and irrigation water. This lowers the chances of erosion and washing of pollutants into storm drains. Leave grass clippings on the lawn. Sweep grass and leaves out of the street to keep them out of storm drains and waterways. Collect tree and hedge trimming for disposal through your waste disposal service. If your business is located along or near a creek or waterway, be careful about the landscaping methods you choose.

## **Proper construction/remodeling activities.**

Use plastic sheeting or tarpaulins while painting to capture drips and spills. Wash water-based paint equipment at a sink

that is plumbed to the sanitary sewer system. Place chemical containers under protective cover and keep them closed to prevent spills. Pick up construction trash and debris regularly and dispose of it in your dumpster. Plan to buy only the amount of materials needed to minimize disposal costs. If you have reusable leftover chemicals, contact the City's of Abilene's Environmental Recycling Center at 672-2209 for alternatives to waste disposal.

## **Train employees.**

Educate employees on how and why to keep pollutants out of our creeks and lakes. Develop written procedures for everyday practices which prevent pollution. Conduct training session, especially for new employees. Periodically check employees' work practices to be sure proper procedures are followed. Have employees routinely inspect the shop to identify areas needing attention. Provide employees with educational materials like fact sheets from environmental agencies and organizations. Display signs and posters to serve as reminders. Finally, recognize employees who are helping you keep a clean shop.

## **Educate your customers.**

Be aware of customer activities at your site. Ask them not to discard liquids into your trash cans, dumpster or lot drains. If they dispose of materials improperly at your shop, you will be responsible for the violation. If you have

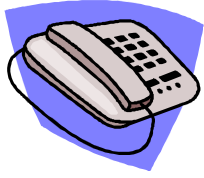


persistent problems, monitor your customers more carefully. Let your customers know, that as a “good neighbor” you are minimizing wastes and recycling fluids. Encourage your customers to do the same.

## **The Bottom Line:**

Businesses have found that it costs time and money to implement water pollution prevention measures. However, the expense to clean up spills and restore property is much greater. Small, seemingly insignificant leaks and spills can become large contamination problems over time if steps are not taken for containment, clean up, and prevention. Clean up and disposal after spills is often extremely expensive. Unless handled properly, spills cause soil or groundwater contamination which could impact future sale or transfer of property.

Cleanup costs and real estate depreciation are not the only possible pollution costs. Treatment of injuries and time lost from work are also substantial costs. Fines from City, State, or Federal agencies add thousands of dollars to the overall cost of a polluting discharge. In addition to fines, regulatory agencies can require businesses to undergo detailed compliance audits, implement long-term water monitoring programs, or require the installation of expensive pollution prevent equipment and programs.



For More Information:

**City of Abilene Stormwater Utility Division**

555 Walnut Street  
(325) 676-6281

**City of Abilene Environmental Recycling Center**

2209 Oak Street  
(325) 672-2209

**Hazardous Materials Handling and Storage**

City of Abilene Fire Department  
(325) 676-6434

**National Pollutant Discharge Elimination System (NPDES) Permits**

U.S. Environmental Protection Agency (EPA)  
Region 6: (214) 665-7523  
Federal: (202) 564-9545

**Texas Pollutant Discharge Elimination System (TPDES) Permits**

Texas Commission on Environmental Quality (TCEQ)  
Local: (325) 698-9674  
State: (512) 239-4671

**Utility types and locations**

One Call Location Center  
(800) 545-6005 (call 2 working days before you dig)

**Waste Disposal Information**

City of Abilene Solid Waste and Recycling Division  
(325) 676-6053

**Emergency Numbers**

|  |                                  |
|--|----------------------------------|
| Abilene Fire Department (emergency)      | 911                              |
| City of Abilene 24-hour Hotline          | (325) 676-6000                   |
| TCEQ Emergency Response Center (24-hour) | (512) 463-7727 or (800) 832-8224 |