Some elements of pesticides, herbicides and fertilizers are poisonous to humans, and cause cancer, birth defects or other serious medical problems. Not only are these common chemicals harmful to humans, they also affect the area's wildlife habitat. For instance, nitrogen from fertilizers causes algae growth in Lubbock's playa lakes, which disrupts the delicate balance of the aquatic ecosystem. The chemicals from these applications break down slowly over time, therefore posing a threat to future generations. In order to keep this threat at bay, we must be responsible when using these chemicals. Always read the entire label prior to application of chemicals.

#### What Can I Do?

Here are some helpful hints for the next time you apply pesticides, herbicides or fertilizers to your lawn or garden:

CAREFULLY READ AND FOLLOW ALL DIRECTIONS LISTED ON THE PRODUCT LABELS

SEEK NON OR LESS HAZARDOUS ALTERNATIVES WHEN POSSIBLE

COMPOST LEAF LITTER AND GRASS CLIPPINGS FOR A RICH ORGANIC FERTILIZER ALTERNATIVE

BUY LIMITED QUANTITIES AND PRACTICE SAFE STORAGE

USE ONLY THE AMOUNT DIRECTED UNDER THE SPECIFIED CONDITIONS

MIX ONLY AS MUCH AS YOU NEED AT THAT PARTICULAR TIME

USE ONLY WHEN YOU NOTICE A SIGNIFICANT PROBLEM

DO NOT APPLY WHEN RAIN IS FORECASTED.

IN CASE OF A LARGE SPILL IN GRANULAR FORM, SWEEP IT UP RATHER THAN WASH IT INTO THE GUTTER OR DOWN THE STREET

IF YOU ARE NOT SURE ABOUT WHICH PRODUCT TO USE OR HOW TO USE A PRODUCT, SEEK ADVICE FROM YOUR LOCAL HOME IMPROVEMENT STORE OR GREENHOUSE.

# Motor Oil

### Why Should I Recycle Used Motor Oil?

It is illegal to dispose of used motor oil by pouring it down drains, storm sewers, your driveway, streets, or into playa lakes. Using oil or gasoline/diesel to suppress dust or to kill weeds is also against the law. Additionally, used oil contains small quantities of zinc, lead and cadmium that contaminate soils, plants, surface water and ground water. Just a single gallon of used oil will contaminate 1,000,000 gallons of fresh water.

We must be considerate of these and many other environmental issues that will affect the Lubbock area for years to come. Not only is recycling used motor oil good for the environment, it also helps lessen the nation's dependence of imported oil. A mere two gallons of recycled used motor oil can be burned to generate electricity to run a single household for 24 hours.

### Uses for Recycled Oil

Used motor oil and oil filters can be re-refined and reused in many useful forms. Recycled oil can be filtered and refined into new oil that is equal in quality to its previous state. Out of a 42-gallon barrel of crude oil, only 2.5 quarts of lubricating oil can be produced. However, it only takes one gallon of used motor oil to exact the same 2.5 quarts of lubricating oil, while using 50 to 85% less energy.

Additionally, used motor oil is reused in asphalt for street and highway repair, or burned for energy. Used oil is also re-refined into fuel oils and utilized to produce raw materials such as plastics. Used oil filters are melted down and the metal is used in many construction materials, such as nails, rebar and wire.

## Helpful Recycling Tips

Always put used motor oil into a clean, closable plastic container that can be easily transported. Take your used oil to a local area recycling drop-off center, or to a professional oil change business. Never mix used oil with other wastes like antifreeze, because it becomes much more difficult or impossible to recycle. Always use a funnel when pouring motor oil. Be prepared for any possible spills with paper towels, cat litter or other oil-absorbing product.

#### IMPORTANT CONTACT INFORMATION

To report any illicit discharge to the stormwater system, or for questions:

Stormwater Hotline

775-3118

To inquire about the disposal of hazardous material: Solid Waste Department 775-2482

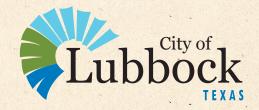
After hours and emergency situations: Water Utilities Control Room 775-2587

For other information regarding environmental issues: Texas Commission on Environmental Quality (TCEQ): www.tceq.state.tx.us

Local Area Recycling Drop-off Centers: 1631 84th Street (Near 82nd & Ave. P) 208 Municipal Drive (Across from Meadowbrook Golf Course)

For a complete list of acceptable recyclable materials, and how to prepare them for recycling visit http://solidwaste.ci.lubbock.tx.us

**Remember:** City parks are here for your enjoyment. Let's work together to keep them clean.



Brochure Provided by,
City of Lubbock
Stormwater Management Department
www.lubbockstormwater.org

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# Keep Our Playa Lakes Clean

Stormwater Solutions for a Beautiful Community



WE ARE ALL PART OF THE LANDSCAPE.

TOGETHER WE CAN KEEP IT CLEAN AND SERENE.



# PROPER USE AND DISPOSAL OF Grease

All too often, used cooking grease is washed into the sewer system through kitchen sinks. Along with oils and fats, grease sticks to the inside of sewer pipes, both on your property and the City's. This build up of fats, oils and grease eventually creates blockages in the sewer system and leads to sewage backups and overflows. When overflows occur, the polluted water finds its way to gutters and inlets of the storm sewer system and goes untreated into playa lakes. So, the excess fats, oils, grease and other items poured down your kitchen sink drain quickly and easily develop into severe storm water issues.

Sewage overflows are a very serious pollution problem. Not only do Lubbock's playa lakes serve as a home for area wildlife, the groundwater is also affected by playa lakes. Thus, the contamination of playas can adversely affect the viability of our groundwater and this is a potential pollution problem for us, and generations to come. To help prevent stormwater, playa lake and groundwater pollution, we need to dispose of grease, oils, and fats in an appropriate manner.



In 2007, the City of Lubbock responded to over 50 incidents of sewer overflows due to blockages. The blockage culprits included: fats, oils, grease, dish rags and construction debris! Since these wastes are not soluble in water, proper disposal is very important. Never throw solids, like dish rags, down the drain. When cooking, put used grease into a coffee can, metal cup, or other sturdy container. After the grease solidifies, throw the container away with your regular garbage. This will ensure that no excess grease goes down the drain.

# PROPER USE AND DISPOSAL OF Household Hazardous Waste

#### What is Household Hazardous Waste?

Household hazardous wastes are characterized by the EPA as "leftover household products that contain corrosive, toxic, ignitable or reactive ingredients". To help identify these chemicals, labels contain words like Caution, Danger, or Warning. Each year, Americans generate 1,600,000 tons of household hazardous waste and the average home accumulates about 100 pounds of hazardous wastes in their closets, garages, and basements. When these toxic materials are improperly stored, they pose many risks to both humans and the environment.

Some examples of household hazardous wastes are:

OVEN CLEANER
FURNITURE POLISH
DRAIN CLEANER
BATTERIES
MOTOR OIL

INSECT REPELLENT
PAINTS, REMOVER AND THINNER
ANTIFREEZE
WEED KILLER

### **Dangers From Improper Disposal**

When using any household hazardous waste, proper disposal is extremely important. Exposure to concentrated amounts of toxic chemicals may lead to chronic and acute health problems including headaches, nausea, birth defects and even cancer. Pouring hazardous wastes down the drain, on the ground, into storm sewers or throwing them out with the trash is very dangerous. These toxic chemicals harm aquatic life in our playa lakes, cause foul odors, and could potentially eliminate recreational use of the playas.

Since our storm sewers interact with Lubbock's underground water table, improper disposal contributes to severe pollution problems. Although the effects of household hazardous waste pollution may not be evident now, they pose a significant dilemma for future generations.

### What Can I Do?

Since there are so many potential risks associated with household hazardous wastes, it is vital that citizens always use, store, and dispose of materials containing hazardous substances safely.

BEFORE USING THE PRODUCT, ALWAYS READ THE ENTIRE LABEL FOR INFORMATION OF PROPER USE, STORAGE AND DISPOSAL

NEVER STORE HAZARDOUS MATERIALS WITHIN REACH OF SMALL CHILDREN

ALWAYS KEEP PRODUCTS CONTAINING HAZARDOUS MATERIALS
IN THE ORIGINAL CONTAINERS, UNLESS THEY ARE BECOMING
CORRODED

NEVER DUMP LEFTOVER HAZARDOUS WASTE IN ALLEYS, STORM DRAINS, ON LAWNS OR ANYWHERE EXPOSED TO STORMWATER

NEVER MIX LEFTOVERS WITH OTHER HAZARDOUS PRODUCTS.
INCOMPATIBLES MAY REACT, IGNITE, EXPLODE AND CAN
BECOME NON-RECYCLABLE

TRY TO USE NON-HAZARDOUS OR LESS HAZARDOUS MATERIALS WHENEVER POSSIBLE

ONLY USE THE AMOUNT SPECIFIED ON THE CONTAINER

### Ditch the Driveway. Use a Car Wash.

Home car washes may be an inexpensive way for you to make your vehicle shine, but the cost to the environment is priceless. First, you use more water. The average driveway car wash uses 80-140 gallons of drinking water, contrasted with the average commercial car wash use of less than 45 gallons of recycled water per car. Next, you are polluting the playa and canyon lakes. When you wash your car in the driveway, the detergents and chemicals are rinsed off your car and travel down the street to a storm sewer inlet or to one of the playa lakes. This polluted water is not treated before reaching the fish and wildlife at the playa lakes and canyon lakes. At the commercial car wash, however, the polluted water is filtered through a drain and travels to the waste water treatment facility. This summer, skip the home car wash and go green! It's a small price to pay for healthy fish and birds at our parks!

# Pesticides, Herbicides and Fertilizers

#### Storm Sewer Pollution

Pesticides, herbicides and fertilizers contain toxic chemicals that are hazardous to human health and the natural environment. Many citizens use herbicides and fertilizers to produce healthy and attractive yards. Pet owners also use pesticides to keep fleas and ticks from coming into contact with their animals. However, without proper storage, handling and application, these hazardous chemicals pollute Lubbock's storm sewers.

The stormwater drainage is conveyed through the city via the street and/or storm drain system and discharged directly into the playa lakes. Rain and excessive watering easily transports chemicals down our streets through the same path designed for stormwater. Even if the chemicals dry in the gutter before reaching the playa lakes, the dried chemical residues reach our waters when the next storm event occurs. Lawn and garden chemicals contribute to this runoff pollution, especially during spring and summer months.

### **Direct Effects**

Since 1968, Lubbock's water supply has been supplemented with water from Lake Meredith, near Amarillo. This generally decreased the number of actively pumping water wells in metropolitan Lubbock. Thus, in some areas the water table under the City has risen over the years.

As urban Lubbock grows, the construction of non-porous surfaces, like roads and parking lots, will impede the natural absorption of stormwater into the soil, resulting in increased stormwater runoff. To accommodate the increased stormwater volume, several playa lakes were dug out to increase their stormwater capacity. This process removed clay sediments that help keep the water in the playas from infiltrating the ground water. The removal of the protective clays combined with the rising water table, magnifies the interaction between storm runoff and the water table, therefore increasing the possibility of groundwater contamination from chemicals in pesticides, herbicides and fertilizers.