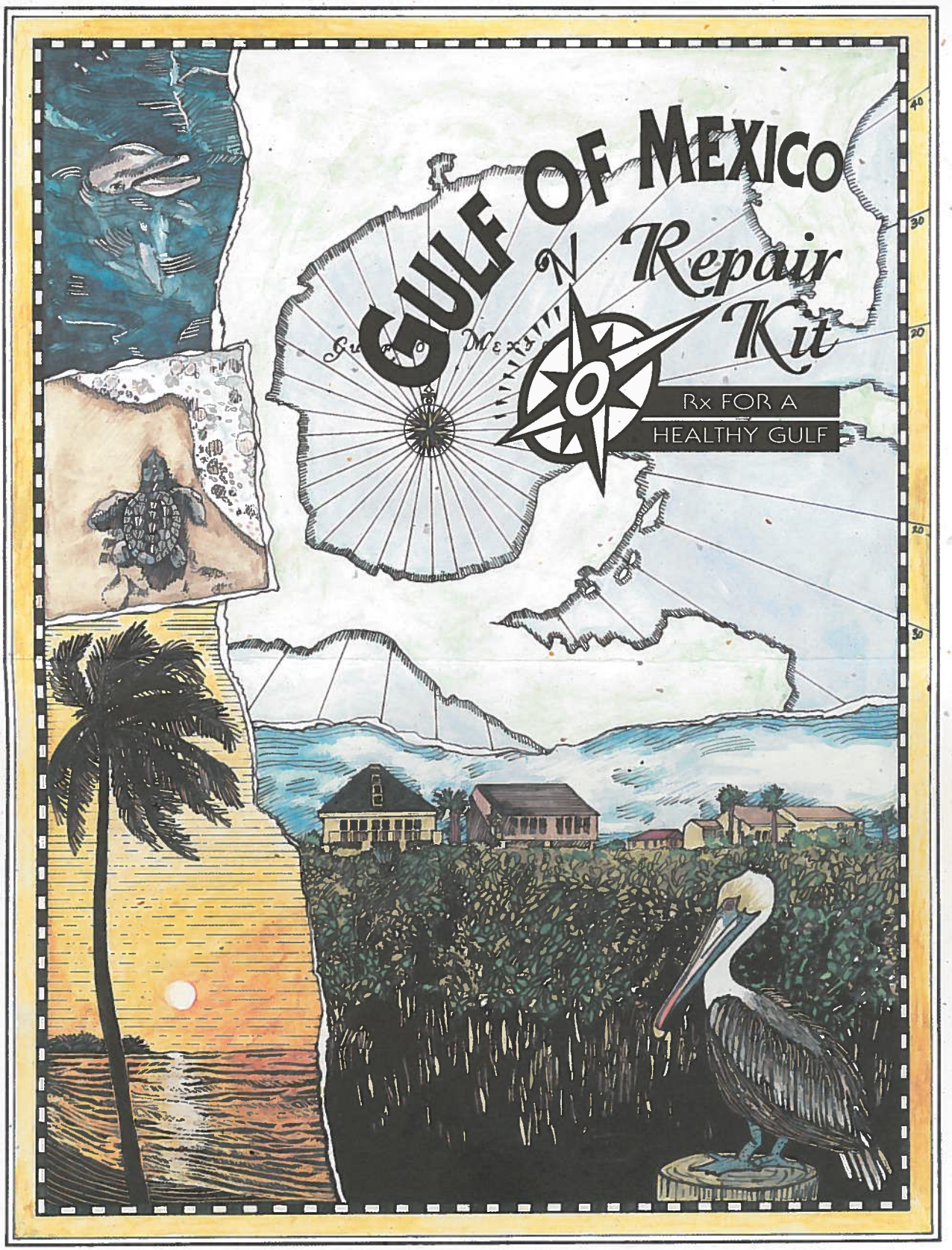
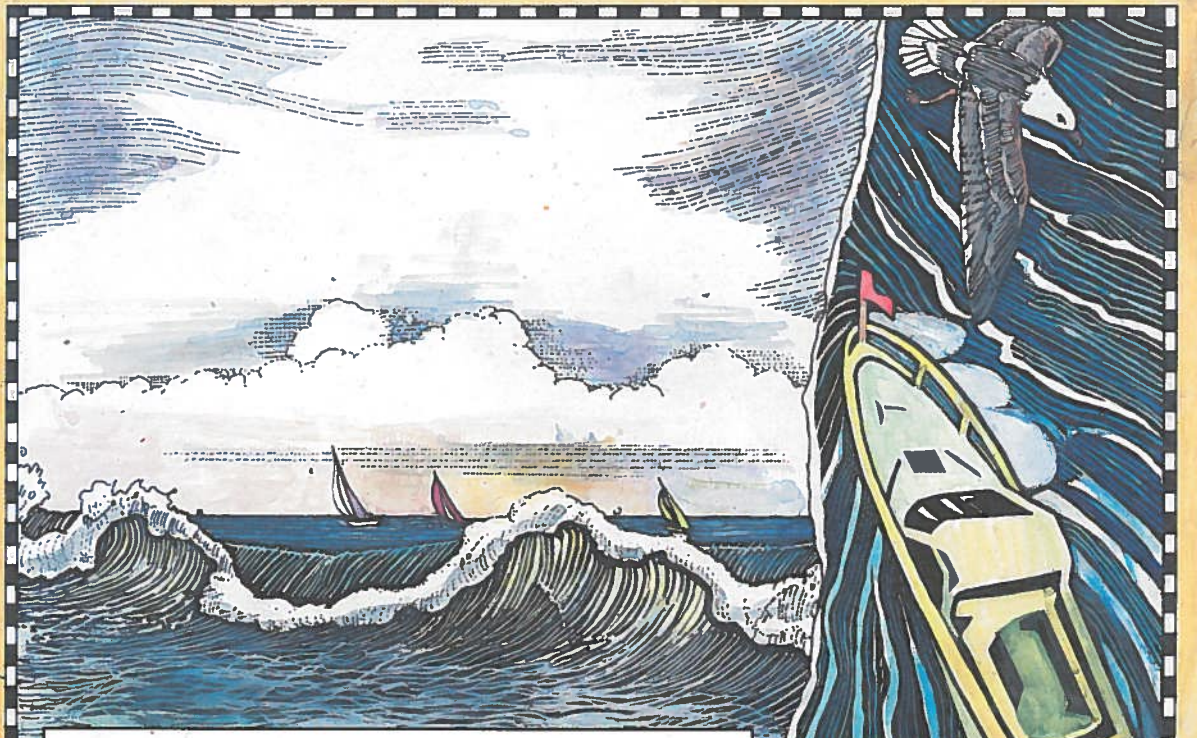


Texas A&M University Sea Grant College Program ✸ Texas Marine Advisory Service ✸ Gulf of Mexico Program



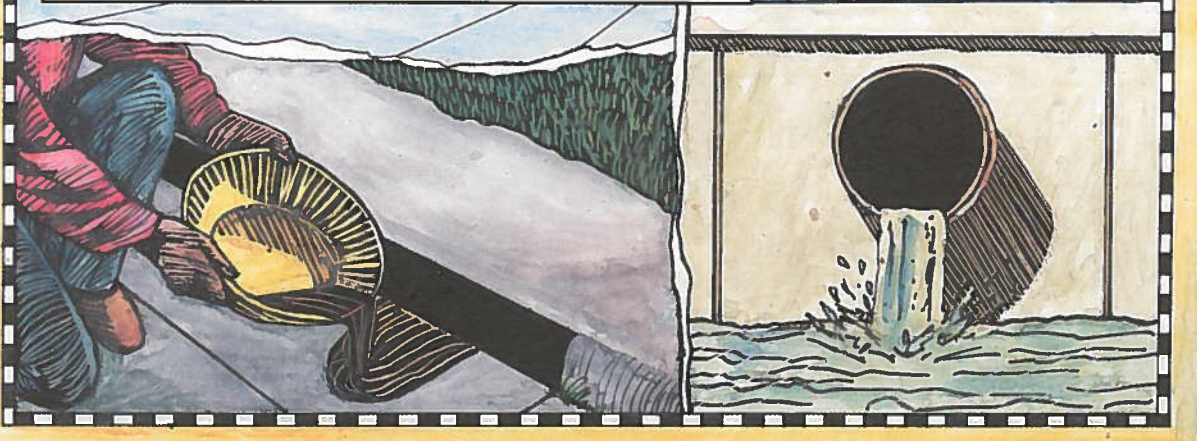
Fertilizers, pesticides, motor oil and garbage run off lawns and streets into neighborhood storm drains every day, fouling area streams, bayous or canals that ultimately discharge into America's Sea, the Gulf of Mexico. These pollutants harm plants, animals and marine organisms that call the coastal area or the Gulf their home.

If you want to help the Gulf, do a little homework.

Take a minute. In just 60 seconds, you can pick up a tip that can help the Gulf of Mexico.

Make a change. Take an idea from the Gulf of Mexico Repair Kit, make a change, then repeat the cycle.

Spread the word ... at home, at work, at school. Plant an idea with a friend and watch your efforts grow.



Gulf of Mexico Repair Kit

Rx FOR A HEALTHY GULF

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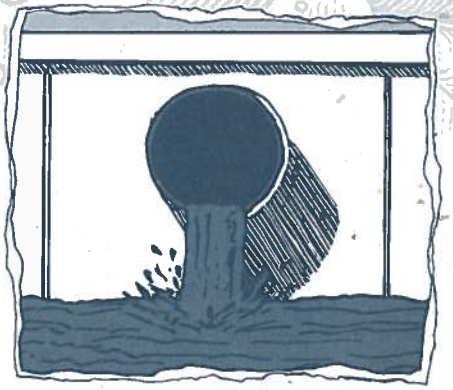
STORMWATER

Water from rain and irrigation carries fertilizers and pesticides, soil and debris off lawns and streets into neighborhood storm drains that eventually end up in our streams, rivers, lakes, bays and the Gulf of Mexico. Reducing pollution from runoff is one of the best ways you can help the Gulf of Mexico. To reduce runoff and keep it clean:

- Use fertilizers sparingly. Over fertilizing actually encourages certain insects and diseases and increases maintenance needs. When shopping for fertilizers, ask for products that contain nutrients in water-insoluble or controlled release form. The fertilizers give plants a chance to absorb nutrients slowly, reducing runoff. Contact your local county extension service for specific information on how to buy and apply fertilizers.
- Don't assume that chemicals are the only answer to garden pests, or that they must be used regularly. Pruning and hand picking can be as effective as any chemical treatment. Simply spraying infested plants with a water hose can be very effective in controlling many pests. Techniques such as these are part of an Integrated Pest Management (IPM) approach designed to protect beneficial organisms and the environment. Contact your local county extension agent for more information and request that your lawn care professional use IPM.



- Minimize paved surfaces outside the home. Consider using porous compounds like bricks, flagstone, sand or gravel in the construction of driveways and patios. These absorbent materials allow pollutants to percolate slowly into the ground, reducing direct runoff into neighboring waters.

- Where possible, landscape with swales (low areas) and berms (elevated areas) to catch and filter stormwater and reduce runoff onto paved surfaces.
- Position gutters and roof spouts to drain onto grass, and away from concrete, so that rainwater can soak into the ground.
- Lighten your workload. Take your car to a professional carwash where water is recycled and cleaning solutions can be better managed. If you must wash your car at home, wash it over grass using mild biodegradable, phosphate-free soap.
- Clean up after your pet. Animal waste runs off lawns and contributes to bacterial pollution of surface waters. Scoop or bag droppings and discard with the trash.

Landscaping for a Better Gulf

Be a friend to the Gulf and plant the native way. Landscaping with native and other adapted plants helps conserve water, requires less chemical and physical maintenance, and costs less to maintain. Conserving our limited water resources also reduces stress on freshwater supplies in rivers that nourish fish and wildlife downstream. Less chemical maintenance of lawns and exotic plants ultimately means less pollution that reaches the Gulf of Mexico.

Making the transition can be easy and rewarding. Begin with a plan, then proceed in stages.

Gulf Coast Penstemon

Turk's Cap

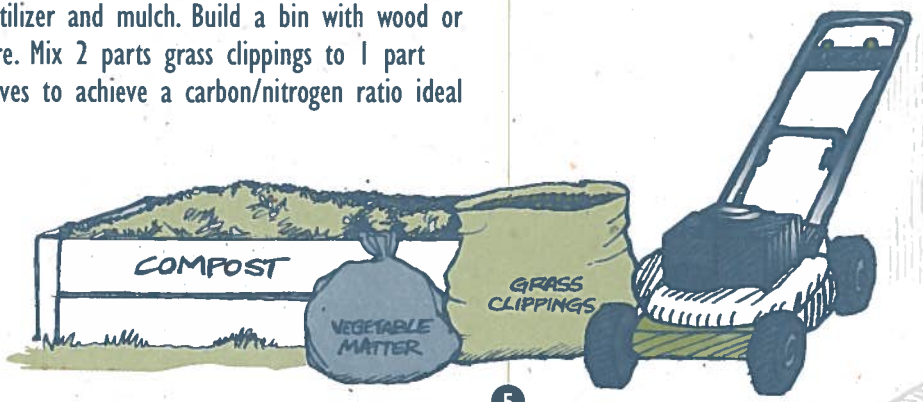
- Select native or adapted plants and trees appropriate for your soil and location.
- Group plants with similar water needs.
- Mulch gardens with a 2- to 3-inch layer of oak leaves, pine straw, or recycled mulch to retain soil and hold in moisture.
- Reduce water-thirsty lawn areas by increasing plant beds, natural areas and ground covers.

Contact your local county extension service for planning assistance.

More earth-friendly yard maintenance tips:

- Mow grass frequently so that no more than 1/3 of the blade is clipped at one time. Mowing too closely encourages shallow roots, making your lawn susceptible to damage by drought. Taller grass also shades the soil, reducing soil temperatures and water loss.

- Don't bag grass clippings. Left on the ground, clippings are an excellent fertilizer. Annually, clippings can supply nutrients equal to one or two fertilizer applications. Inexpensive mulching blades, available for many brand-name lawn mowers, provide a smart option for homeowners who want to reduce yard waste and dependence on lawn chemicals.
- Establish a compost pile for yard refuse to turn leaves and grass clippings into rich, organic fertilizer and mulch. Build a bin with wood or wire. Mix 2 parts grass clippings to 1 part leaves to achieve a carbon/nitrogen ratio ideal for "cooking" the pile. Turn the pile frequently and keep it moist to speed decomposition.
- Free mulch can be obtained from some cities and counties that recycle yard waste. Contact your local solid waste department to inquire.
- Use the minimal amount of fertilizer necessary. Choose a fertilizer that has at least one-fourth of the nitrogen in a slow-release water-insoluble form.



Save a Drop, Save the Gulf

Water conservation has a lot to do with water quality. Drinking water comes from groundwater sources or from area rivers that have been dammed. The more we use, the more we constrict the natural freshwater flows that are the very lifeblood of our bay systems. So essential is freshwater to fish and plants downstream that alterations in the supply can impact the ability of these species to breed and regenerate. Squandering water also strains our limited drinking water supplies.

Quick tips for water-savers:

- Check for leaks using one of two simple techniques: Monitor your water meter before and after a 2-hour period in which no water is used. If the readings are not identical, a leak is evident. For suspected toilet leaks, add several drops of food coloring to your tank. If the toilet is leaking, color will appear in the toilet within 30 minutes. Flush after conducting the test.
- Replace conventional shower heads with ultra low-flow models to reduce water flow by as much as 25 percent. Install aerators with flow restrictors on household faucets. Shortening your show can save up to 10 gallons per minute.

- Don't waste water. As much as three gallons per minute can escape each time you allow water to run while brushing your teeth or shaving. Turn it off when you're not using it!
- Install a toilet "dam" (available at home improvement stores) or another displacement device in your toilet tank to save water each time you flush.
- Let your lawn tell you when to water. Water only when you see folded grass blades and a grayish cast to the lawn. It won't hurt the grass to wilt, and you can save on your water bill.

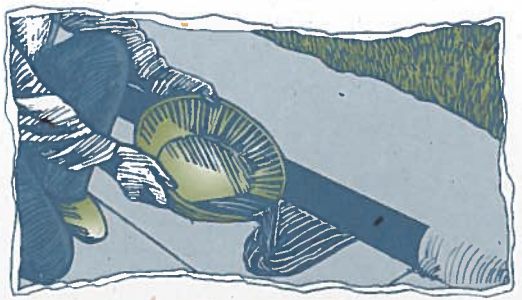
- Don't turn on an automatic sprinkler system simply to satisfy a few thirsty plants. Hand water them or install a drip system available to home improvement stores. Drip systems are easy to install; they hook onto outdoor faucets and may be exempt from water restrictions.
- Improve your aim. Adjust sprinkler heads to avoid watering driveways and concrete. Consider installing a drip or micro-irrigation system that waters more efficiently.
- Install shut-off devices on the end of your garden hose to reduce water loss.

Conservation is just as important for people using well water, which draws from ground water supplies.

Clean Living, Without the Side Effects

Household chemicals, improperly used or discarded, can leach into the soil or escape to neighboring waters. You can protect area waterways by reducing your dependence on these potentially hazardous substances and by monitoring what you spray on your lawn and pour down your drain.

- Never dump motor oil, paints or chemicals of any kind in gutters, storm drains or sinks. Motor oil can be recycled at numerous locations, including some local service stations.



Hazardous substances like pesticides, fertilizers, oils, paints and household cleaning products should not be placed in municipal waste collection where they can seep into groundwater or are burned, releasing toxins into the air. Household chemicals can be taken to county collection centers or held for special collection days.

When transporting household chemicals for a waste collection day, please remember the following:

- ✔ DO NOT MIX chemicals together!
- ✔ Keep products in original, sealed and labeled containers.
- ✔ Place container into cardboard boxes; use crumpled newspaper in boxes to prevent breakage.
- ✔ Place leaky containers in clear plastic bags; transport in boxes with newspapers.
- ✔ Put boxes in the trunk or back of vehicle, away from passengers.

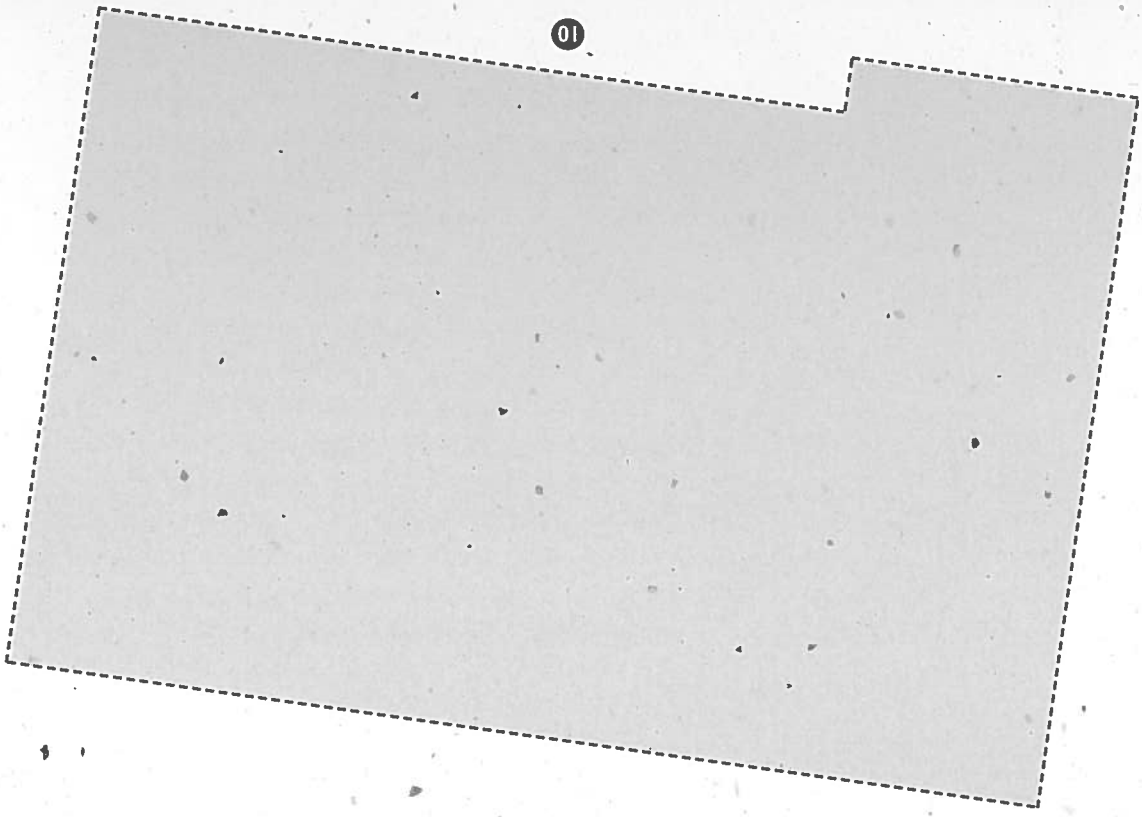
Clean Living

— Without The Side Effects

Fasten your apron strings and mix up a brew of these Gulf-friendly cleaning concoctions. They work, they cost pennies per gallon, and they won't harm you or the environment.

- For an all-purpose cleaner: mix a cup of vinegar in a pail of water.
- To disinfect, use one-half cup borax or sodium carbonate (washing soda) dissolved in a gallon of hot water.
- Wash windows and mirrors with one part vinegar to every four parts water, or add 3 tablespoons ammonia to the solution.
- To deodorize carpets, sprinkle with baking soda. Vacuum after 30 minutes.
- Oven cleaners containing lye and ammonia are especially toxic. For a healthier alternative mix two teaspoons borax and two tablespoons liquid soap in a spray bottle of water. Apply and allow to set for 20 minutes then scrub vigorously.
- Use phosphate-free laundry soaps. There are plenty to choose from on your grocer's shelves.
- To polish furniture, mix 3 parts mineral oil with 1 part olive oil and a drop of lemon juice, then apply with a soft cloth.
- **Toilets:** Use vinegar undiluted or 1/2 cup borax in a gallon of water. Clean frequently with baking soda.
- **Tub and tile:** 1/4 cup baking soda, 1/2 cup white vinegar, 1 cup ammonia and 1 gallon warm water.
- **Drains:** 1 cup each—baking soda, salt and white vinegar. Pour into drain. Wait 15 minutes. Flush with boiling water.

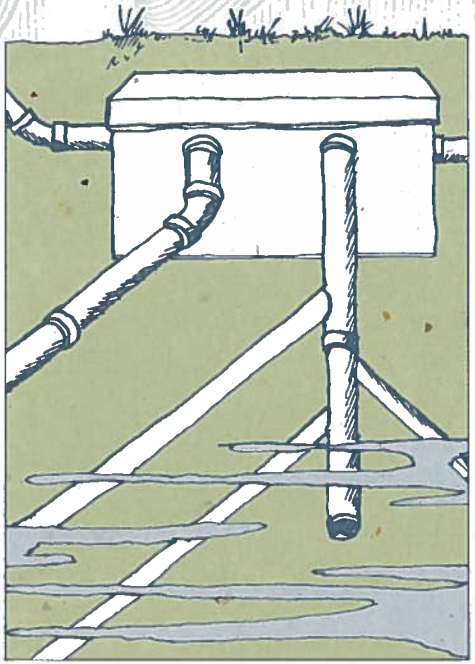
Cut out this handy reference and keep it in your file.



Septic Tanks

Septic tanks are a special area of concern. If not maintained carefully, they can pollute the Gulf and area streams and rivers with bacteria and nutrients. Problems occur when tanks and drainage fields become clogged, losing their ability to filter waste. Shallow drain fields also can overflow to nearby bodies of water. To prevent water pollution from septic tanks:

- Pump your septic tank every three to five years to avoid build-up of sludge. Inspect annually to observe accumulation.
- Do not use septic tank cleaning compounds. They can impair the tank's efficiency and damage the drain field.
- Practice water conservation to reduce the amount of water flowing through your drain field.



- **Think before you flush. Paper, plastics, diapers** and **cigarette filters** do not decompose. These materials clog the system, increasing maintenance needs. Toxic household chemicals should not be flushed into the septic tank under any circumstances.
- Garbage disposals are an additional burden on septic systems. Kitchen scraps should be composted or disposed of in trash cans.
- Be on the lookout for signs of septic system failure such as lush, green growth in areas of the lawn, toilets that flush slowly, or drains that back up.

Contact your county health department for further information.

Boating and Marine Debris

- Avoid driving your boat through seagrass beds or into marshes to prevent damage to these sensitive marine nursery areas from propellers. If you run aground, stop your motor, tilt it up and pole or push your way free.
- Stow trash carefully when boating to prevent it from going overboard. Plastics such as fishing line and six-pack rings are especially harmful to marine animals and coastal birds.
- Avoid oil leaks by properly maintaining your boat engine. Never dump oil in waterways, storm drains, ditches or on the ground. Bring used oil to marinas or service stations that recycle oil. Place oil-absorbent rags in the bilge of your boat to soak up oil that collects in the hull.
- Sewage from holding tanks should be discarded only at approved pump-out stations and marinas.
- Rinse and scrub your boat with a brush and fresh water. For stubborn dirt, use phosphate-free soap.
- Be especially careful not to top off your gas tank when refueling. Small toxic spills add up quickly.

Along the Shore

softened shoreline

The shorelines along the bays, area rivers and lakes are the last line of defense against water pollution that originates on land. To protect them:

- Establish a zone of native plants between your lawn and shoreline, or in areas where natural unvegetated shoreline remains.

hardened shoreline

- Where seawalls exist, consider "softening" the shoreline by planting natural vegetation such as mangroves or salt marsh grasses or place clean rip-rap in front of them. Natural buffers like these not only protect shorelines from storms, but provide food and shelter for fish and wildlife.

Enhancements may require a permit. Before proceeding, contact the U.S. Army Corps of Engineers and the appropriate state agencies.

- Remove noxious exotic plants and replant native species. Exotics like the Brazilian Pepper, Australian Pine and Melaleuca (punk tree) choke native vegetation and destroy wildlife habitat. Kudzu has recently caused problems along the Texas coast. For information on the identification and removal of these species, contact your local county extension office.

Australian Pine

Brazilian Pepper

Melaleuca
(punk tree)

Household Chemical Collection Days

Florida

Where: Collier County
Sponsored by Collier County Pollution Control Department
When: Once per year
What to Bring:
Fertilizers, pesticides, household chemicals and cleaning products, automotive fluids and paint products. No tires, pressurized cylinder, explosives or biomedical waste.
For Information Call: 941-732-2502

* * *

Where: Charlotte County — 3 collection sites
Murdock County Administration Building
Punta Gorda Mosquito Control
County Annex Building in Englewood
When: Once a month at 1 of 3 sites
Can drop off daily at landfill
What to Bring:
Fertilizers, fungicides, pesticides, herbicides, household chemicals and cleaners, solvents, automotive fluids, wood preservatives, pool chemicals, household batteries, oil-based paints and paint products, and hypodermic needles.
NO explosives or fire alarm systems.
NO Tires or used motor oil (Curbside pick-up)
For Information Call: 941-639-1802

* * *

Where: Citrus County
Landfill at 230 W. Gulf - Two Lake Highway; La Canto
When: Second Saturday in March, June, Sept., Dec.; 9 a.m. - 2 p.m.
Second Wednesday in remaining months; 8:30 a.m. - Noon
What to Bring:
Free up to 50 pounds
NO explosives or radioactive material
Free Tire disposal (5 per household)
For Information Call: 352-746-5000

* * *

Where: Dixie County
When: Once per year
What to Bring:
Fertilizers, pesticides, household chemicals and cleaning products, automotive fluids and paint products.
No explosives. Tires collected at the dump site.
For Information Call: 352-498-1240

* * *

Where: Gulf County — Gulf County Courthouse
Sponsored by Department of Solid Waste
When: Once per year
What to Bring:
Household cleaning products, paint, oil filter, automotive fluids, tires.
For Information Call: 904-227-3696

* * *

Where: Hernando County
14450 Landfill Road, Brooksville
When: During landfill operating hours
What to Bring:
Household chemicals and cleaners, solvents, automotive fluids, oil/filters, pool chemicals, household batteries, oil-based paints and paint products.
Tires accepted.
For Information Call: 352-754-4112

* * *

Where: Hillsborough County
Tampa
Sponsored by Hillsborough County Department of Solid Waste
When: Saturday only — 1 collection per month
What to Bring:
Household chemicals and cleaners, solvents, atuomotive fluids, pool chemicals, household batteries, oil-based paints and paint products.
Tires to Transfer Station (12 per homeowner)
For Information Call: 813-272-5680

* * *

Where: Lee County
Sponsored by Lee County Solid Waste Department
When: Every other month on Saturday
What to Bring:
Fertilizers, pesticides, household chemicals and cleaning products, automotive fluids and paint products. No radioactive waste accepted. Tires picked up curbside.
For Information Call: 941-338-3101

* * *

Where: Levy County
When: Once a year
What to Bring:
Household chemicals and cleaners, solvents, automotive fluids, oil/filters, pool chemicals, household batteries, oil-based paints and paint products.
Tires taken.
For Information Call:352-486-5127

* * *

Where: Manatee County
City of Bradenton, Palmetto, Bradenton Beach, Ana Marie, Longboat Key, Holmes Beach
Sponsored by Manatee County Public Works Department Solid Waste Division
When: Third Saturday of each month; 9 a.m. - 3 p.m.
What to Bring:
Household products, paint, aerosols, oil/filters, household batteries, ammunition, and flares. NO TIRES.
For Information Call: 813-792-8811, Ext. 5421

* * *

Where: Monroe County
Sponsored by Monroe County Department of Solid Waste
When: 2 Drop-off sites open 2 days per month
What to Bring:
Fertilizers, pesticides, household chemicals and cleaning products, automotive fluids and paint products.
Tires picked up at curbside.
For Information Call: 305-292-4432

* * *

Where: Okaloosa County
HAZ-MAT Collection
Sponsored by South County Road Department on Ready Avenue
When: Every Thursday, 1 - 3:30 p.m.
What to Bring:
Household hazardous materials or wastes: Pesticides, used oil, solvents, stale gasoline, paint, paint thinners, paint strippers, furniture polish, batteries, engine degreasers, brake build, antifreeze, pool chemicals, insecticides, and spot removers
For Information Call: 904-651-7395 or 904-689-5774

* * *

Where: Pasco County
2 Sites — Spring Hill; 14230 Hays Road — Dade City; 9626 Handcart Road
When: One day each week
One Saturday each month
What to Bring:
NO Biomedical. Household chemicals and cleaners, solvents, automotive fluids, oil/filters, pool chemicals, household batteries, oil-based paints and paint products.
Tires taken any time (charge for disposal).
For Information Call: 813-847-8041

* * *

Where: Pinellas County
Sponsored by Department of Solid Waste Operations
2800 110th Avenue North
St. Petersburg, FL 33716
813-464-7565
When: Each third Saturday of the month, 9 a.m. - 4 p.m.
Mondays, 9 a.m. - 5 p.m.
Thursday, 10 a.m. - 6 p.m.
CLOSED HOLIDAYS
What to Bring:
Fertilizers, fungicides, pesticides, herbicides, household chemicals and cleaners, solvents, automotive fluids, wood preservatives, pool chemicals, household batteries, oil-based paints, and paint products
For Information Call: Household Chemical Collection Hot Line — 813-464-4623

* * *

Where: Santa Rosa County
Sponsored by Public Works Department
When: One time per year
Tire Amnesty — Two times per year (limit 10 tires per person)
What to Bring:
Fertilizers, pesticides, household chemicals and cleaners, solvents, automotive fluids, oil/filters, wood preservatives, pool chemicals, household batteries, oil-based paints and paint products, and other toxic materials.
For Information Call: Public Works, 904-626-0191

* * *

Where: Sarasota County
2 Permanent Stations — Open 1 day a week
— BeeRidge Landfill; 8350 BeeRidge Road, Sarasota
— Transfer Station on Jackson Road, Venice
When: Twice each year, Fall and Spring
What to Bring:
Fertilizers, fungicides, pesticides, herbicides, household chemicals and cleaners, solvents, automotive fluids, wood preservatives, pool chemicals, household batteries, oil-based paints and paint products.
NO Tires (can be collected at curb)
NO explosives, radioactive materials or biomedical waste.
For Information Call: 941-316-1301

* * *

Where: Taylor County
Sponsored by the Department of Public Works
When: Every other month
What to Bring:
Tire Amnesty Day. Collect tires only. 15 tire limit.
For Information Call: 904-838-3528

* * *

Where: Wakulla County
Sponsored by the Department of Solid Waste
When: One to two times per year.
What to Bring:
Fertilizers, pesticides, household chemicals and cleaning products, automotive fluids and paint products.
For Information Call: 904-926-7010

Louisiana

Where: Baton Rouge Parish/City of Baton Rouge
When: Once per year — usually in April
What to Bring:
Household wastes **only**. NO business wastes.
NO tires, explosives, mercury or radioactive wastes.
For Information Call: Louisiana Department of Environmental Quality 504-765-0249

* * *

Where: Calcasieu Parish
Lake Charles
When: Once each year - Trash Bash
What to Bring:
Household chemicals and cleaners, solvents, automotive fluids, oil/filters, pool chemicals, household batteries, oil-based paints and paint products.
Tires — limit 4 per resident.
For Information Call: 318-491-1296

* * *

Where: LaFayette Parish
When: Once each year
What to Bring:
Household chemicals and cleaners, solvents, automotive fluids, oil/filters, pool chemicals, household batteries, oil-based paints and paint products.
NO biomedical waste or unlabeled medicine, ammunition, or leaking containers.
For Information Call: Parish Enviromental Department, 318-267-7078

* * *

Where: LaFourche Parish
When: Twice each year at multiple sites.
What to Bring:
Tires, paints, empty containers.
NO explosives, radioactive materials.
For Information Call: 1-800-794-3160

Texas

Where: Brazoria County
Brazoria County Recycling Center
10310 FM 523, Clute
When: Once each 6 months
What to Bring:
Fertilizers, pesticides, household chemicals, automotive fluids. No gasoline, radioactive material or ammunition. No tires.
For Information Call: 409-265-2252

* * *

Where: Corpus Christi
Sponsored by City of Corpus Christi Household Hazardous Waste Collection Day
When: Held quarterly
What to Bring:
Household hazardous waste, pesticides, batteries, tires.
Recyclable materials — Curbside collection.
For Information Call: 512-857-6284

* * *

Where: Harris County
Deer Park, Pasadena, Baytown, Channelview, Clear Lake
Sponsored by East Harris County Manufacturers Association
When: Saturday closest to Earth Day
What to Bring:
Household hazardous wastes, pesticides, auto batteries, recyclable materials.
For Information Call: 713-930-2422

* * *

Where: City of Houston
When: 4 times per year
What to Bring:
Batteries, paints, pesticides, car fluids, home and lawn chemicals.
NO TIRES!
For Information Call: 713-247-8589

* * *

Where: Matagorda County
When: Once each year — late March/April
What to Bring:
Household chemicals and cleaners, solvents, automotive fluids, pool chemicals, household batteries, oil-based paints and paint products.
For Information Call: Environmental Health Department 409-244-2717

Alabama

Where: Baldwin County
When: Monthly
— Free Day at Landfill
— Annual Agriculture Amnesty Day
What to Bring:
Monthly Collection Day — Household hazardous waste
Free Landfill Day — anything
For Information Call: 334-937-0222

* * *

Where: Mobile County
When: Coordinated with Baldwin County

Mississippi

Where: Jackson County
When: Monthly beginning October 1996
What to Bring:
Fertilizers, fungicides, pesticides, household chemicals and cleaners, solvents, automotive fluids, oil/filters, pool chemicals, household batteries, oil-based paints and paint products.
For Information Call: 601-769-3269

Produced by the Texas A&M University Sea Grant College Program for distribution through the Gulf Regional Sea Grant Program Network.

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National Estuary Program

Text based on **Tampa Bay Repair Kit** produced by the Tampa Bay National Estuary Program in cooperation with the Tampa Bay Regional Planning Council's Agency on Bay Management.

Publication of this document supported in part by grants from the Gulf of Mexico Program and the U.S. Fish and Wildlife Service and by Institutional Grant NA56RG0388 (A/I-1) to Texas A&M University by the National Sea Grant Office, National Oceanic and Atmospheric Administration, U.S. Department of Commerce. The Texas Marine Advisory Service is a cooperative effort of the Texas A&M University Sea Grant College Program, Texas Agricultural Extension Service and participating county commissioners' courts.

TAMU-SG-96-505
50 M June 1996
NA56RG0388
A/I-1

To Learn More about Issues Affecting the Gulf of Mexico

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