

LANDSCAPING/YARD AND GARDEN MAINTENANCE

WHY BE CONCERNED?

Practices used in landscaping can affect groundwater and surface water quality. Chemical fertilizers and pesticides that are misapplied or overused can soak into the soil and contaminate groundwater or runoff, and pollute lakes and streams. Exposed soil can erode sediments, filling lakes and streams, and clouding water. Sediments may carry other contaminants. Indiscriminate watering of lawns and gardens wastes large amounts of water. While it may seem that your contribution to pollution is minor, effects of chemicals, soil loss, and wasted water from hundreds or thousands of homes in your region can add up.

IDENTIFY ENVIRONMENTAL RISKS

Processes and potential wastes associated with landscaping and yard maintenance that could harm the environment are listed below. Check the activities that apply to your business.

- Selecting plants.
- Designing landscapes.
- Designing irrigation systems.
- Designing site drainage.
- Storing, mixing, or applying fertilizers.
- Storing, mixing, or applying pesticides.
- Managing pests.
- Maintaining landscapes.
- Handling materials that can spill (such as gasoline and pesticides).
- Managing wastes such as leftover pesticides or used vehicle fluids.
- Disposing containers for plant seedlings, pesticides, or fertilizers.
- Disposing or composting plant debris.
- Clearing and grading land.
- Using concrete or other cement-related mortars.
- Landscaping near surface water bodies or other sensitive areas.
- Have abandoned or unused well on site.

IDENTIFY METHODS OF WASTE DISPOSAL

Check the waste disposal methods that you use.

- Municipal sanitary sewer
- Septic system or lagoon
- Ground, storm sewer, or surface water
- Licensed hazardous waste disposal option
- Licensed sanitary landfill/transfer station
- Compost
- Recycle

- On-site landfill (prohibited in most cases)
- Incineration/on-site burning (see Solid Waste section)

If your home-based business discharges its non-domestic waste to a septic system, then your business is required to complete and submit an inventory form to KDHE. For inventory forms, call KDHE at 785-296-5560. Some wastes associated with a home business are considered "industrial waste" and may not be disposed of in a septic tank or domestic lagoon. Non-domestic waste from your home-based occupation should not be disposed of in a sanitary sewer without written permission from the municipality. Never put wastes in a storm drain or dump on the ground! See Wastewater section in the front of this publication.

BEST MANAGEMENT PRACTICES

- Return plastic seedling containers or trays to the nursery for reuse, or recycle the plastic.
- Recycle or safely dispose of engine maintenance products. (See chapter on Auto Service and Small Engine Repair.)
- Triple-rinse pesticide containers to be disposed of and pour rinsate in applicator. Dispose of containers in sanitary landfill.
- Should a spill occur, use kitty litter, vermiculite, newspaper, rags, or dirt to contain and absorb the liquid. NEVER wash it down the drain or into the gutter. Determine whether the waste is hazardous or not. If non-hazardous, place it in a plastic bag or sealable can, and put it in the trash. If hazardous, then see the Hazardous Waste Section at the front of this publication to determine disposal options.
- Use "dry cleanup" methods. Scrape and scoop before washing down.
- Never dump or burn leftover pesticides or used vehicle fluids on your property, particularly near wells or water sources. Never pour these products down storm sewers or sanitary sewers.
- Never burn hazardous materials as they may produce toxic gases, airborne particles, and hazardous ash.
- Compost plant clippings, leaves, grass clippings, and other yard wastes.

- Determine if you have a local recycling program and what products it accepts. Recycle what you can.
- Wastes determined to be hazardous, such as pesticides, must be disposed of in an appropriate manner. If you are a business and considered a small quantity generator (SQG), you cannot take your waste to a household hazardous waste collection facility. See the Hazardous Waste Section at the front of this module to determine your hazardous waste generator category and disposal options.
- Keep waste streams separate for reuse, recycling, or treatment. Keep non-hazardous materials from becoming contaminated.
- Unused or abandoned wells should be plugged in accordance with KDHE regulations. Abandoned wells, if not properly sealed, can provide a direct route for contamination to enter the groundwater. In addition, open wells are a safety threat to small children and animals. A record of the plugging should be filed with KDHE. For more information, consult the general Water section of this document, or call KDHE at 785-296-3565.

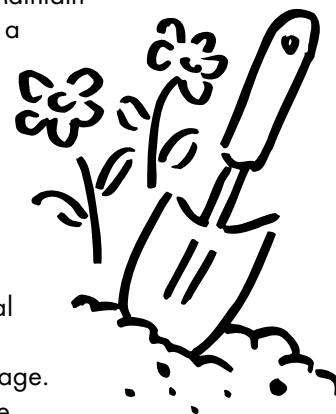
Disposal of any wastes other than domestic wastes to an on-site septic system or lagoon is prohibited. Never dump wastes onto the ground or into a storm drain. This practice can result in the contamination of streams, lakes, or groundwater.

POLLUTION PREVENTION AND WASTE MINIMIZATION OPPORTUNITIES

- Consider "Xeriscaping." Landscape with plants that are adapted to your region and climate (requires less watering), and are resistant to insects and diseases.
- Protect soil and reduce erosion by planting ground-cover vegetation, or using woodchip mulch or landscape fabric. Terraces or retaining walls on slopes can also help prevent soil loss.
- Provide buffer strips of unmowed vegetation along streambanks and lakeshores.
- Landscape yards to slow the flow of stormwater, and provide areas where water soaks into the ground to minimize the amount that leaves the property.
- Minimize paved surfaces for walkways, patios, and other areas.
- Conduct soil tests to determine if your lawn or garden needs fertilizer, and if so, how much and where. Do not apply on a routine basis.

The Small Business Environmental Assistance Program, SBEAP, is a confidential non-regulatory program funded by the state in an effort to assist small businesses with environmental concerns. Contact the SBEAP at 800-578-8898 or www.sbeap.org if you have questions.

- Apply pesticides only where pests occur. Select chemicals labeled specifically for the pest you are trying to control. Do not apply on a routine basis.
- ALWAYS read the label and follow directions.
- Purchase and store minimum amounts of chemicals and fuel for short periods. Try to avoid having leftover chemicals or fuel at the end of a season.
- Keep storage and work areas clean and well organized. Keep pesticides and fertilizers dry and out of the way of activities that might rip open a bag or allow rain to enter a bulk container.
- Should a bag be accidentally ripped, chemicals should be confined to the immediate area and promptly recovered.
- Provide pallets to keep bags off the floor.
- Store or mix pesticides and fertilizers downslope and at least 400 feet from your well to provide reasonable assurance well water will not be contaminated. Separation should be greater if the site has sandy soils or fractured bedrock near the land surface.
- When mixing, place receiving container in a larger pan or on an absorbant pad that can be discarded.
- When mixing chemicals, NEVER let the end of the hose hang into the opening in the top of the sprayer tank, to prevent siphoning back into your home's plumbing. Maintain an air gap or attach a backflow prevention device.
- Store pesticides and fertilizers in a locked cabinet or building.
- Use only safe, approved, or original sale containers for chemical or fuel storage. Containers should be



- clearly labeled and fitted with a spout or other device to allow pouring without spilling.
- Keep containers inside a bucket or other container that can prevent leaks from spreading.
- Think about how you would handle a spill, should it occur.
- Store dry products separate from liquids to prevent wetting from spills.
- If you plan to store large bulk tanks, provide a large enough containment area to confine 110 percent of the contents of the largest bulk container, plus the displaced volume of any storage tanks.
- Periodically check for leaks from storage containers and fuel-driven devices, especially if they have not been used for some time.
- Abandoned wells should be plugged and reported in accordance with the KDHE regulations (see Water section).

WHERE TO GET MORE INFORMATION

- Your county K-State Research and Extension office.
- Farm *A* Syst at K-State Research and Extension at 785-532-5813.

- The Kansas SBEAP has several publications that address these issues of regulatory compliance and pollution prevention. See the list of SBEAP publications at the end of this manual, or go to **www.sbeap.org** to view or download.
- For questions, call 800-578-8898. All services are free and confidential.
- A summary of environmental laws is found in the introduction/preface. The following laws may be applicable to this business:
 - wastewater regulations
 - solid and hazardous waste regulations
 - storm water regulations
- Regulatory compliance information can be viewed or downloaded from the KDHE Web site at **www.kdhe.state.ks.us**.
- See Resources section at the back of this document.

SOURCES AND ACKNOWLEDGMENTS

- Alabama Small Business Environmental Assistance fact sheet, *Landscaping Businesses*.

ACTION STEPS

What can you do to reduce wastes or environmental risks?	Set target dates for action.

Notes: