CHAPTER 4

BEST MANAGEMENT PRACTICES FOR SMALL BUSINESSES

Small business operators and their employees perform many different tasks during the course of their workdays. Some of these are general in nature and are performed by many different types of businesses. For example, many businesses have vehicles that require periodic maintenance or have significant quantities of new or used fluids such as motor oil or antifreeze. Some, however, perform tasks that are very specific to their type of business. For example, paint and body shops and marinas perform tasks that are unique to what they do.

The pollution prevention best management practices recommended below are divided along these lines. The first three sections recommend BMPs for tasks that may be performed by a variety of different businesses; the final four sections recommend BMPs for specific types of businesses. Owners and operators of these specific businesses should consult these sections for BMPs that might help them prevent pollution at their businesses. If your business is not among these specific ones, consult the first three sections for BMPs that might help prevent pollution.

Each of the seven sections below recommends a series of BMPs that are detailed in the appendixes at the back of this manual. To help you determine which appendixes apply to your business, a checklist of all the appendixes is provided. As you determine that a particular appendix applies to your business, mark it on the checklist. After you have determined all the appendixes that apply to your business, use the checklist to find the appendixes in the back. Each appendix has a tab on its edge with its number.

Checklist

To find best management practices for:	Look for this tab:
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Vehicles and Their Care

Cars, trucks, and other vehicles are part of the everyday operations of many small businesses. Perhaps your business has its own fleet of service vehicles and maintains the vehicles on site; perhaps you only provide parking spaces for your employees and customers. In any case, vehicles at your facility might contribute to nonpoint source pollution, and there are steps you can take to reduce that contribution.

Three categories of contributors to nonpoint source pollution from vehicles are parking lots, maintenance and repair activities, and vehicle washing facilities. To reduce the likelihood that such operations contribute to nonpoint source pollution, consider using the BMPs in the following appendixes to this guide:

Appendix 5—Trash Bins
Appendix 7—Parking Lots
Appendix 8—Vehicle Repair and Maintenance
Appendix 9—Vehicle Washing Facilities
Appendix 10—Drums and Barrels
Appendix 11—Waste Fluids
Appendix 12—Storm Drains

Parking Lots

Runoff from parking lots can carry fluids leaked from vehicles to the stormwater collection system. Follow the BMPs in Appendix 7 to reduce contributions to nonpoint source pollution from your parking lot.

Maintenance and Repair Activities

Maintaining and repairing vehicles involves checking, adding, or changing fluids such as:

- antifreeze
- windshield washer solution
- brake fluid
- power steering fluid
- engine lubricating oil
- automatic transmission fluid
- manual transmission and differential lubricating oils

•chassis lubricants

Drips and spills of those fluids can contribute to nonpoint source pollution if proper precautions are not heeded. Follow the BMPs in Appendix 8 and Appendix 10 to minimize nonpoint source pollution from changing and adding vehicular fluids.

Vehicle Washing Facilities

Some small businesses provide vehicle washing services as their principal business activity. Vehicles can either be washed at multi-stall car wash facilities or by using portable trailer-mounted units. Other small businesses wash their own fleet vehicles on site as part of regular vehicle maintenance. In any case, the BMPs found in Appendix 7 and Appendix 9 should help you in minimizing nonpoint source pollution from washing vehicles.

Bulk Liquids Management

It's the end of the workday and it's time to clean up the shop. So hose down the concrete floor and wash all the drips and spills down the drain, right? Wrong! The chemicals that were dripped and spilled from those barrels weren't meant to be washed into the local fishing hole. They must be carefully managed to prevent their release to the environment.

You can prevent nonpoint source pollution from bulk liquids if you know how to properly handle drums and barrels and the fluids they contain. You can also prevent releases from spills if you plan for and know the proper responses for spill control. To reduce the likelihood that such operations contribute to nonpoint source pollution, consider using the BMPs in the following appendixes to this guide:

Appendix 10—Drums and Barrels
Appendix 11—Waste Fluids
Appendix 12—Storm Drains

Drum and Barrel Management

Many small businesses store or use bulk liquids that are contained in 55-gallon drums, barrels of various sizes, or small liquid containers such as 5-gallon buckets and 1-gallon cans. The methods for managing bulk liquid containers are similar regardless of their size: you should train your employees how to prevent spills and how to respond to spills if they occur. You can use the BMPs in Appendix 10 to help train your employees to minimize drips, leaks, and spills from

drums and barrels stored at your facility.

Waste Fluids

Your liquid wastes are probably not much different from those generated by big chemical plants when it comes to the potential for nonpoint source pollution. The big difference between your operation and the big chemical plant is that you probably don't have a full-time environmental specialist to manage your wastes. However, sound waste management procedures for large and small businesses are the same: prevent the generation of wastes where possible; properly manage those wastes that you do produce. In addition to the BMPs of Appendix 10 for drums and barrel handling, you should look at the BMPs in Appendix 11 that have been tailored to the proper management of waste fluids.

Spill Control

Spills happen! Yes, even though your employees are properly trained to prevent spills, sometimes a mistake can result in more than just a drip or splatter. You should be prepared to respond to spills so that they are contained on site. The BMPs in Appendix 10 and Appendix 12 should be used to minimize the potential for nonpoint source pollution from spills of bulk liquids.

Open-Lot Operations

Your facility looks innocent enough. You just store treated fence material to sell to contractors in the area. Problem is, that treated lumber sits outside, uncovered. And when it rains, the chemicals that were put into the wood to kill the fungus that causes rotting leach out of the fenceposts. Where do those toxic chemicals go? That's right, to nearby receiving streams and ultimately to rivers and bays.

Your small business is an "open-lot" operation if you conduct any part of your business outside of a building. Why is this a special concern? Well, anything and everything exposed to rainfall has a tendency to get washed off into nearby streams and bays. This can result in nonpoint source pollution whether you operate an uncovered bulk storage area or work at a construction site. To reduce the likelihood that such operations contribute to nonpoint source pollution, consider using the BMPs in the following appendixes to this guide:

Appendix 4—Recycling Centers
Appendix 5—Trash Bins

Appendix 6—Automobile Salvage Yards
Appendix 7—Parking Lots
Appendix 9—Vehicle Washing Facilities
Appendix 12—Storm Drains
Appendix 13—Open-Lot Operations and Storage
Appendix 14—Construction Sites
Appendix 15—Grounds Maintenance
Appendix 16—Pesticide and Herbicide Applicators

Uncovered Bulk Storage Areas

If you own a lumberyard, plant nursery, concrete readymix plant, plumbing supply company, paper recycling center—well, you get the idea. When you store materials outside, unprotected, you create a potential for nonpoint source pollution from the material you store. You can prevent contributions to nonpoint source pollution from storing materials outside by following the BMPs in Appendix 13.

Construction Sites

If you are a contractor in any of the building trades, you've seen what a good rainfall can do to a site cleared for a new building. Now, imagine that the runoff from that Monday morning rainfall not only carries off topsoil, but also the paint thinner from that 5-gallon bucket you left outside on Friday. Oops! Construction sites present unique environmental threats because they are temporary. We don't see them as ordinary workplaces. Reduce nonpoint source pollution from your construction site—make sure you and your subcontractors use the BMPs in Appendix 14.

Recycling Businesses

General Recycling

You used to be called a junkyard. Today, you're a recycling center. Regardless of the name, you provide a valuable service in buying and selling recyclable materials—paper, aluminum cans, iron, copper, lead, and other materials too numerous to list. But the materials you buy and store on site could contribute to nonpoint source pollution if not handled carefully. The BMPs in Appendix 4 and Appendix 5 can guide you in the proper operation of your recycling center.

Metals Recycling

Many small businesses generate scrap metal with substantial market value—from the office's soft drink can collection to the copper scrap pile at plumbing, air conditioning, and electrical shops. Protect your scrap metal from the elements by storing it inside or in covered containers. This not only prevents the scrap metals from harming the environment, but, because clean scrap material fetches the best price, puts more money in your pocket. Follow the BMPs for recycling centers in Appendix 4 to keep your scrap metal "gold mine" from becoming a contributor to nonpoint source pollution.

Automobile Salvage Yards

The automobile salvage yard operator sees the hundreds of junked autos on his lot as a valuable investment—some of their parts will be sold, eventually. However, the oil, antifreeze, and other liquids present in those parts present a serious potential liability if improperly managed. If you operate an automobile salvage yard, you should follow the BMPs presented in Appendix 6 to reduce your lot's contribution to nonpoint source pollution.

Manufacturing, Machining, and Printing

You don't pollute. Your facility manufactures plastic toys. No chemicals here! Well, except when you have to paint the parts. And when the stamping equipment is overhauled, well, the mechanics use solvents, and you assume they know what they are doing when they wash the excess out the back of your shop. Okay, maybe there is a *potential* for nonpoint source pollution at your manufacturing, machining, or printing facility. If you use oils, solvents, or other liquids in your small business, consider using the BMPs in the following appendixes to minimize your contribution to nonpoint source pollution:

Appendix 5—Trash Bins
Appendix 10—Drums and Barrels
Appendix 11—Waste Fluids
Appendix 17—Machine Shops and Engine Repair
Appendix 18—Print Shops

Oils, Solvents, and Other Liquids

Your manufacturing, machining, or printing operation might use one or more of the following liquids:

•acids
•alkalies
•cleaning solvents
•degreasers
•detergents
•cutting oils
•engine oil and lubricants
•paint reducers, thinners, and paints
•refrigerants
•spill absorbents
•varnish and varnish solvents
•welding and soldering supplies

Refer to the BMPs in Appendix 17 and Appendix 18 to minimize the potential for nonpoint source pollution from such liquids at your facility.

Source Reduction Opportunities

The manufacturing, machining, and printing industries present many opportunities for source reduction—not generating pollutants or reducing the amount of pollutants generated to begin with. This can be done by substituting one material for another. For example, by substituting a non-halogenated solvent for a halogenated solvent you might cut down on the amount of hazardous waste generated at your business. Or you might reduce the amount of wastes generated at your facility by changing a process. For example, if you lengthen the dragout time from a chemical bath (plating, etching, etc.), you can reduce the amount of chemical which reaches the rinsewater. This can reduce the amount of waste rinsewater generated. Several similar opportunities can be found by investigating the information that is already available from governmental agencies and industry groups such as those listed in Appendix 1.

Service Stations, Auto Repair, and Paint and Body Shops

The automobile is your business's bread and butter: selling gasoline, changing oil, repairing "fender benders." Let's see—gasoline, oil, paint stripper—valuable liquids when they are properly handled. But liquids used in the automobile service industry can be harmful to the environment. If you operate a service station, auto repair shop, or paint and body shop, you should consider using the BMPs in the following appendixes to this guide:

Appendix 5—Trash Bins

Appendix 6—Automobile Salvage Yards
Appendix 7—Parking Lots
Appendix 8—Vehicle Repair and Maintenance
Appendix 9—Vehicle Washing Facilities
Appendix 10—Drums and Barrels
Appendix 11—Waste Fluids
Appendix 12—Storm Drains
Appendix 17—Machine Shops and Engine Repair
Appendix 19—Service Stations
Appendix 20—Paint and Body Shops

Service Stations

Gasoline, oil, transmission fluid, power steering fluid, antifreeze, brake fluid—if you intended to pollute a creek, those would make a great "cocktail" for that purpose. To keep your service station from contributing to nonpoint source pollution from normal operations, consider using the BMPs in Appendix 19.

Auto Repair and Paint and Body Shops

You know the smell of a paint and body shop—the solvent carriers of the paint being sprayed on the car. They smell good, somewhat sweet. They're "aromatic hydrocarbons," and they work really well in paints. Unfortunately, they are not "sweet" to the environment. Auto repair and paint and body shops use a wide variety of fluids:

- acids
- alkalies
- cleaning solvents
- degreasers
- detergents
- cutting oils
- engine oil and lubricants
- paint reducers, thinners, and paints
- refrigerants
- spill absorbents
- welding and soldering supplies

These fluids have a potential for nonpoint source pollution if improperly handled or managed. Follow the BMPs in Appendixes 8, 17, and 20 to minimize your facility's potential to contribute

to nonpoint source pollution.

Recycling

Service stations and auto repair shops can help reduce nonpoint source pollution by becoming a drop-off center for used motor oil, used oil filters, and/or used antifreeze. By becoming a drop-off center for these materials, you help citizens in your area properly dispose of these items and thus reduce their potential for becoming nonpoint source pollutants. For information on becoming a drop-off center, contact the Texas Natural Resource Conservation Commission's Used Oil and Used Oil Filter Recycling Program at (512) 239-6695.

Boats and Marinas

It's obvious—you located your marina at the water's edge because that's where the water is and that's where the boats are. So, you clean boats, sell fuel, pump out the boats' heads. You provide for parking for your customers and you also operate a hull maintenance and repair shop at your marina. Nonpoint source pollution from those operations doesn't have very far to go to get to the receiving water!

If you own a small business that refinishes boat hulls or operates a marina you should consider using the BMPs in the following appendixes to this guide:

Appendix 5—Trash Bins
Appendix 7—Parking Lots
Appendix 10—Drums and Barrels
Appendix 11—Waste Fluids
Appendix 12—Storm Drains
Appendix 21—Boat Hull Refinishing
Appendix 22—Marinas

Boat Hull Refinishing

If you refinish boat hulls your business is probably located near the water. It makes sense, you locate your facility where the business is. Unfortunately, boat hull refinishing at marinas presents a good possibility of polluting marina waters. Solvents, paint, and washwater generated during hull refinishing must be collected and prevented from discharge to adjacent waters. Follow the BMPs in Appendix 21 to prevent pollution of marina waters if you refinish boat hulls near marinas.

Marina Operations

Your marina presents the same potential for nonpoint source pollution as does a shopping mall parking lot—except that your marina is located on the water! Any releases from vehicles parked at your marina, or from boat hull refinishing services you provide, or from gasoline dripping from your boat fueling facility go directly into the water. To minimize the potential for your marina contributing to nonpoint source pollution, consider the BMPs in Appendix 22.