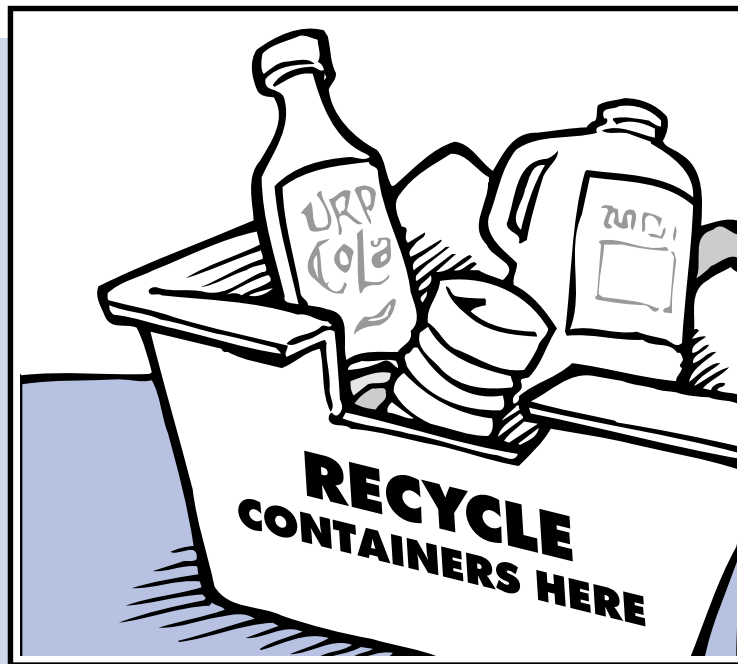




Community Partners for Clean Streams



SERIES #7: Managing Wastes



COMMUNITY PARTNERS FOR CLEAN STREAMS

NOTE: This handbook is one in a series of handbooks that describes specific practices businesses can use to protect water quality. A complete list of all handbooks and fact sheets available through the Community Partners for Clean Streams program is provided on the back cover. To obtain other handbooks in this series, contact the Office of the Washtenaw County Drain Commissioner at the address or phone number provided below.

Becoming a “Community Partner for Clean Streams”

We hope you'll join with the Washtenaw County Drain Commissioner's Office and other area businesses and institutions by participating in the Community Partners for Clean Streams program. Through this program, businesses help protect County rivers and streams.

To participate in the program, the checklist in the back of this handbook must be completed and approved. In return for your effort, we'll publicly acknowledge your business through newspaper articles, displays and speaking engagements. We'll also encourage consumers to look for the Community Partners logo at your business when they select services.

Washtenaw County Award for “Environmental Excellence”

By becoming a Community Partner, your business will have completed the water quality criteria for Washtenaw County's “Environmental Excellence” award. These annual awards are presented to businesses in the County that proactively protect the environment. For more information about this award program, contact the Community Partners Program Manager, or the Office of the Washtenaw County Drain Commissioner.

Community Partners for Clean Streams Program Manager
Washtenaw County Drain Commissioner's Office
705 North Zeeb Rd.
Ann Arbor, MI 48107

Phone: (734) 222-6833 or (734) 222-6813

Fax: (734) 994-2459

<http://drain.ewashtenaw.org>

Handbook Design and Illustration by David Zinn

Directions for Completing the Water Quality Assessment Checklist Questions at the End of this Booklet

- Please Read Carefully -

1. For each question, check the appropriate answer box in the Assessment column (*Always*, *Needs Improvement*, or *Not Applicable*).
2. Next, check the corresponding box in the Action Plan column (*Plan to Continue* or *Plan to Improve*).
3. For every activity, indicate:
 - **Who** is, or will be responsible. It is best to answer with a job position, i.e. facility manager.
 - **Schedule** or proposed date by which the activity will be completed.
 - **Action(s)** - please provide additional details regarding the implementation of a proposed activity, or explain what is already being done.
 - If the action requires ongoing employee training or commitment from management, check that box as a reminder to include it in your employee education activities.

(See example below)

THE ASSESSMENT IS NOT COMPLETE UNTIL THIS INFORMATION IS PROVIDED FOR EACH QUESTION.

Community Partners for Clean Streams
705 North Zeeb Rd.
Ann Arbor, MI 48107

Phone: (734) 222-6833 or (734) 222-6813
Fax: (734) 994-2459

SAMPLE CHECKLIST QUESTION:

1. Steps are taken to minimize the amount of potentially polluting materials and wastes kept in storage.

ASSESSMENT

Not applicable

Always

Needs Improvement

ACTION PLAN

Plan to continue

Plan to improve

Responsible job or staff position(s): Safety Manager

Schedule: Materials will be in place by 12/01

Action(s): Spill kits, absorbent pads, and spill response plans will be placed near all areas that have the potential for spills.

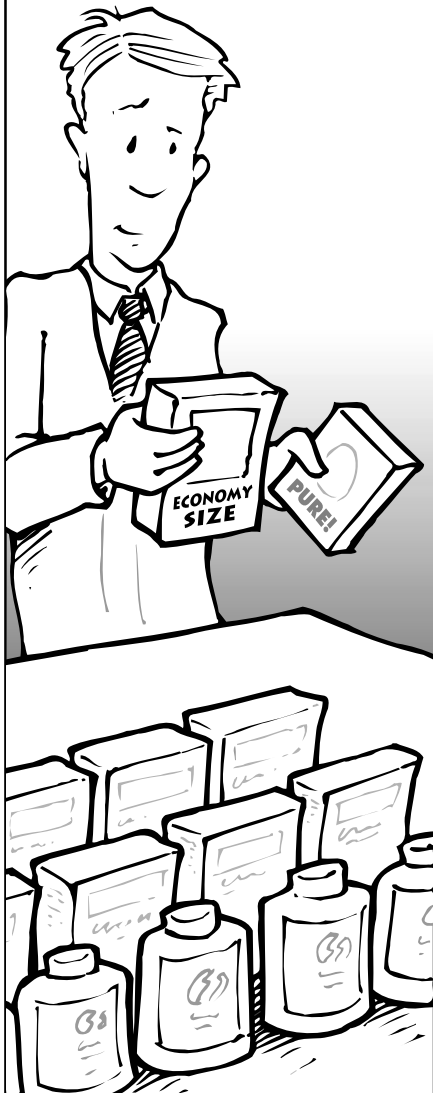
Requires ongoing education/commitment



Minimizing Waste

Why be concerned?

Using the least toxic products and procedures is one of the most important ways to protect water quality. Minimizing waste is just as important. Look for opportunities to reduce the toxicity and volume of your waste whenever possible. You will not only protect the environment – you may also reduce potential liability and disposal costs.



Choosing the Least Toxic Option

First, identify potentially hazardous products and their uses. Next, look for materials and procedures that can either be eliminated completely or substituted with a less toxic alternative. For example, less hazardous options for common cleaning activities include:

- using hot water/steam cleaning methods when washing oil from metal parts.
- using non-chlorinated and aqueous compounds rather than chlorinated and petroleum-based compounds.
- using phosphate-free detergents.

When purchasing products, ask your supplier for information about less toxic alternatives. For more assistance, contact one of the agencies listed under “Getting Help.”

Purchasing Power

- Buy the most durable products and parts available. Consider whether items are easily repaired, reused and/or recycled.
- Avoid disposable products and excessive packaging.
- Try to buy *only* what you need. For example, buy materials only in amounts that can be completely used in a timely manner.
- Consider hiring a contractor to perform occasional work so that unused materials don’t accumulate. Whenever possible, require contractors to implement practices recommended by Community Partners for Clean Streams.

Ideas for Using, Storing and Disposing of Products



- Recondition and reuse products, instead of buying new ones.
- Avoid routine applications. When using pesticides, acids and other chemicals outdoors, consider whether application is necessary.
- Carefully read and follow label directions: never use more product than the directions suggest.
- When possible, apply products to targeted areas *only*, versus wholesale application over a larger area.
- Maintain equipment and calibrate it frequently (including sprinklers) to prevent leaks, over-application and wind drift. Don’t apply products outdoors when rain or winds are forecasted.
- Use up materials *completely* and allow containers to air dry before disposing of them. When cleaning containers and applicators, try to use methods that don’t generate even more waste.
- Keep stored materials dry and contained. Label and date so that the oldest materials can be used first. For more information about storing materials and wastes, see **Series #1, Fact Sheet 1.1**.
- Separate wastes. Mixing wastes can prevent reuse and recycling. It can also cause non-hazardous materials to become hazardous – increasing both their threat to the environment and disposal costs.

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• Determine whether others can use your leftover materials. If they can't be reused, recycle your wastes whenever possible. For more information about reuse and recycling, see **Series #7, Fact Sheet 7.2** or contact one of the agencies listed under "Getting Help."

Preventing Leaks and Spills

Plan ahead to prevent leaks and spills. For more information about spill prevention and clean-up, see **Series #1, Fact Sheet 1.2**.

More Ideas for Minimizing Waste

Since each business is unique, opportunities to reduce waste will vary. Common options for reducing oil, paint and solvent waste include using:

- Extended-life engine and transmission oils.
- High volume low pressure or airless paint guns.
- Cyclonic parts cleaners which spin dirt out and so extend the life of the solvent. Solvent waste can be further reduced by buying or leasing a spray gun cleaner that recirculates thinner.

When looking for ways to minimize waste, be creative. Any waste reduction that you can achieve will protect the environment by an equivalent amount. For more information about ways to reduce waste, contact one of the agencies listed under "Getting Help."

GETTING HELP

Michigan Department of
Environmental Quality (800) 662-9278

Washtenaw County DPW
Pollution Prevention
Program (734) 971-4542

Washtenaw County DPW
Solid Waste Program (734) 222-6840

Community Partners for
Clean Streams (734) 222-6833

Recycling

Why be concerned?

Wastes can often be converted into a resource. Take advantage of opportunities to recycle your wastes and to buy recycled products.

Recycling fact sheets, specific to business types, are available through the Washtenaw County DPW Solid Waste and Recycling Program. For more information about the materials and services available through this program, call the Solid Waste Program Coordinator at (734) 994-2398.



“Closing the Loop”

Recycling hasn't technically occurred until recycled materials are purchased as new products. This is called “closing the loop.” Buying recycled products expands product market and reduce product cost.

Whenever possible, purchase products that you know can be recycled. For example, some absorbent materials are designed to be recycled whereas others, such as cat litter, must be landfilled. Ask your vendor about substituting products you currently use with those made from recycled - and recyclable - materials.

5 STEPS TO SUCCESSFUL RECYCLING:

1. Separate wastes

Combining different types of waste can prevent or complicate recycling and greatly increase disposal costs. For example, uncontaminated waste oil can be recycled, but waste oil mixed with solvents or other products requires a much more costly disposal process.

2. Recycle what you can

The following materials can usually be recycled:

- antifreeze
- tires
- car batteries
- oil and oil filters
- uncontaminated gasoline and brake fluid
- some solvents such as degreasing agents and paint solvents
- concrete and asphalt
- building materials
- metal scraps
- latex paint
- pallets and untreated wood
- landscaping wastes
- cooking oil, fats, and greases
- paper and cardboard
- glass, plastic, aluminum and tin containers

To start your own recycling program, talk to your waste hauler or call one of the agencies listed under “Getting Help.” Look for haulers that are willing to work with you to design a recycling program based on *your* needs. Basic questions include:

- What materials are accepted?
- What quantities are accepted?
- Will the hauler pay for certain recyclable materials?
- Will the hauler provide recycling containers?
- How much will the service cost?
- Will the materials be taken to appropriate sites?
- Does the hauler provide education materials such as training videos or pamphlets?
- Can the hauler supply references?



When designing a recycling program, be sure that it's useful to all of your employees. Provide clearly marked bins for storing materials and place them where they are easy to use. Involve your staff in designing and implementing the program. *(continued on other side)*

3. Consider contracting with an industrial fluid recycling service

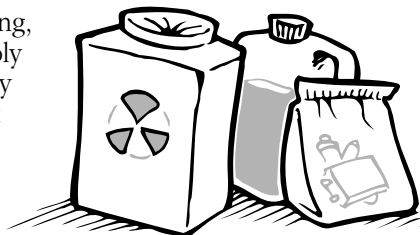
These services pick up and recycle a variety of used industrial fluids. Some will also recycle other materials, such as used oil filters and absorbent materials. Depending on the company, these services can offer several advantages, including:

- compliance with all applicable state and federal laws.
- financial protection in the event of a spill.
- waste stream analysis (finding ways to minimize waste and identifying wastes that are recoverable).
- assistance with paperwork, such as shipping manifests.
- equipment leasing and maintenance. Some companies lease parts cleaners, which they maintain and supply with solvent. On a regular schedule, clean solvent is exchanged for spent solvent that is recycled. This service is also available if you already own a parts cleaner. By using this type of service, over 85% of waste solvent can be turned back into fresh solvent and reused.

When choosing an industrial fluid recycling service, determine exactly what will be done with your wastes. If possible, hire a company that will refine and reuse materials instead of burning them for fuel (even though the latter is preferable to simple incineration or landfilling).

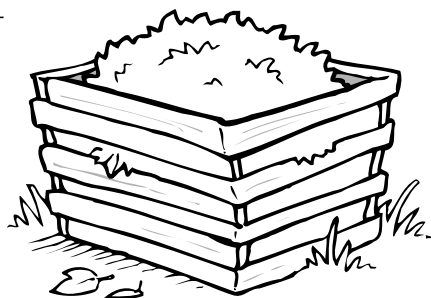
4. Properly store hazardous wastes prior to recycling

Legal requirements for storing, handling, and transporting hazardous wastes apply until the point that they are actually recycled. For more information about hazardous waste regulations, contact one of the agencies listed under "Getting Help."



5. Compost landscape wastes

Local landfills no longer accept landscaping waste. Composting this waste provides an environmentally sound alternative to landfilling. In addition, the compost can be used to enrich the soils on-site. For more information about composting, contact one of the agencies listed under "Getting Help."



GETTING HELP

Washtenaw County DPW
Solid Waste Program (734) 222-6840

Washtenaw County DPW
Pollution Prevention
Program (734) 971-4542

Michigan Department of
Environmental Quality (800) 662-9278

Community Partners
for Clean Streams (734) 222-6833

City of Ann Arbor -
Solid Waste Dept. (734) 971-7400

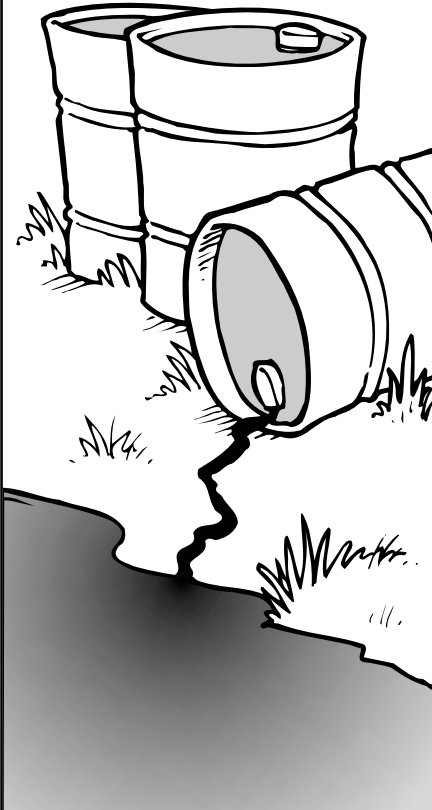
City of Ypsilanti (734) 483-1421

Disposing of Wastes

Why be concerned?

Improperly disposed of wastes don't just disappear; they may filter into our groundwater or wash off the land directly into lakes, rivers and streams.

Effective waste management is extremely important to avoid not only environmental problems, but legal ones as well. Businesses are legally responsible for their waste disposal even if it's handled by an outside contractor. And while the business owner has ultimate responsibility for disposing of wastes, employees may also be legally liable.



Maintaining a Litter-Free Landscape

Regularly remove debris from outdoor areas and dispose of it properly. This is especially important before rain storms and snow melts. Be sure to collect and compost landscape wastes. Leaves and other organic wastes can become pollutants if large quantities are allowed to enter surface waters.

Make sure that waste containers are conveniently placed and don't leak or overflow. (For more information about properly storing wastes, see **Series #1, Fact Sheet 1.1.**)

Identifying Hazardous Wastes

A waste is considered hazardous if it could be dangerous to human health, property, or the environment. The EPA lists types of hazardous wastes. In general, these materials are ignitable, reactive, corrosive, and/or toxic.

Hazardous products commonly used by businesses include:

- paints
- thinners
- solvents
- cleaning and polishing fluids
- coolants
- pesticides
- degreasers
- lead acid batteries
- acids/caustics
- metallic compounds
- petroleum products

If you don't know whether a waste is hazardous, contact one of the agencies listed under "Getting Help." Assume a material is hazardous until you find out otherwise. When in doubt, place the waste in a sealed, labeled container. Store it in a secure place where no one can accidentally use it prior to safe disposal.

Determining the Best Disposal Method

First and foremost, prevent wastes (including wash water) from entering storm drains. If you're not sure where a drain leads, call the Drain Commissioner's office and request that it be dye-tested to determine if it is connected to the storm or sanitary system.

Proper disposal depends on how much waste is generated and the material's chemical properties. Even if a waste *isn't* hazardous, it may not be advisable to put it into a dumpster or the sanitary sewer. State law prohibits the landfilling of certain non-hazardous materials, such as uncontaminated soil and landscape wastes.

There are also limits on what can be discharged into the sanitary sewer. Dumping an unapproved substance into a sanitary sewer can cause explosions or other problems due to the incompatibility of chemicals.

Before disposing of wastes into a trash receptacle or the sanitary sewer, call your local landfill and/or wastewater treatment plant to make sure they can be accepted (phone numbers are listed under "Getting Help").

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Disposing of Hazardous Wastes

If a waste is hazardous, estimate how much of it you generate and accumulate: this will dictate how it can be transported and disposed of under state law. Next, contact the Michigan Dept. of Environmental Quality (MDEQ) to find out whether you can transport your waste yourself or if you must use a licensed hauler. Hazardous wastes transporters must have an EPA identification number. The wastes must be delivered to a licensed treatment, storage and disposal facility (TSDF).

Be careful when deciding how to transport and dispose of wastes. As a generator, you remain legally liable for their fate "from cradle to grave." Many waste haulers, brokers, and TSDFs operate in this area. When choosing, be sure to:

- Check references. Seek referrals from businesses similar to yours.
- Make sure the hauler has a license and an EPA identification number from the MDEQ.
- Find out if the hauler has been recently cited for violations and, if so, what changes have been made in its practices.
- Find out what steps will be taken to prevent spills (spills on the road can also be the generator's liability), as well as the type and amount of insurance the company carries. Ask for proof of this insurance.
- Find out what will be done with your waste. It must end up at a TSDF where it can be reprocessed, recycled, blended into fuels, incinerated, or taken to a special landfill. If your waste isn't delivered to the treatment or disposal facility on the same day it's picked up, find out where it will be stored. Whenever possible, further verify the information you receive.

Laws governing waste disposal can be confusing. For example, it's often difficult to distinguish between the laws that apply to all hazardous *substances* and those that apply only to hazardous *wastes*. For the most current information regarding waste regulations, contact the MDEQ, Waste Management Division.

The Importance of Shipping Manifests

Shipments of liquid industrial waste must be accompanied by a uniform waste manifest signed by the generator. A manifest is also required to transport regulated amounts of hazardous waste. Be sure that waste manifests are provided when required and that they are accurate and complete.

GETTING HELP

Michigan Department of
Environmental Quality (800) 662-9278

Washtenaw County DPW
Pollution Prevention
Program (734) 994-4542 ext. 2001

Washtenaw County DPW
Solid Waste Program (734) 222-6840

Wastewater Treatment Plants:

City of Ann Arbor (734) 994-2840

Ypsilanti Community

Utility Authority (734) 484-4600

Saline City (734) 994-2003

Milan City (734) 439-2406

Dexter Village (734) 426-4572

Chelsea Village (734) 475-8113

Community Partners for
Clean Streams (734) 222-6833

Completing Your Water Quality Assessment and Action Plan

Assessment and action planning requires respondents to assess their current activities and identify any specific actions needed to prevent pollution and improve water quality stewardship.

To create your own "Water Quality Action Plan," please fill out the following checklist. Directions are included on the other side of this page. The "Actions" in this checklist directly correspond to recommendations made within this handbook. If you have any questions or would like help completing this form, please contact the Community Partners for Clean Streams Program Manager at (734) 222-6833 or (734) 222-6862. Send completed checklists to:

Community Partners for Clean Streams
Washtenaw County Drain Commissioner's Office
705 North Zeeb Rd.
Ann Arbor, MI 48107
Fax: (734) 994-2459

NOTE: To become a "Community Partner for Clean Streams," all checklists that apply to your business must be completed and returned. A complete listing of all program handbooks/checklists is provided on the inside of the back cover. To obtain copies, contact the Community Partners Program Manager.

Business Information

Business name: _____
Type of Business: _____ No. of employees: _____
Address: _____
_____ Zip: _____
Contact person: _____
Title: _____ Phone: _____
Water Quality Action Plan prepared by: _____ Date: _____
e-mail: _____ Fax: _____

Business Activities That Can Affect Water Quality

Please check the activities that your business is responsible for:

- | | |
|--|--|
| <input type="checkbox"/> Storing materials | <input type="checkbox"/> Maintaining buildings/pavement |
| <input type="checkbox"/> Spill containment and response | <input type="checkbox"/> Maintaining constructed stormwater controls |
| <input type="checkbox"/> Site design and/or construction | <input type="checkbox"/> Maintaining landscapes |
| <input type="checkbox"/> Managing wastes | <input type="checkbox"/> Managing employees |

IMPORTANT!

Directions for Completing this Checklist:

1. For each question, check the appropriate answer box in the Assessment column (*Always*, *Needs Improvement*, or *Not Applicable*).
2. Next, check the corresponding box in the Action Plan column (*Plan to Continue* or *Plan to Improve*).
3. For every activity, indicate:
 - **Who** is, or will be responsible. It is best to answer with a job position, i.e. facility manager.
 - **Schedule** or proposed date by which the activity will be completed.
 - **Action(s)** - please provide additional details regarding the implementation of a proposed activity, or explain what is already being done.
 - If the action requires ongoing employee training or commitment from management, check that box as a reminder to include it in your employee education activities.

(See example below)

THE ASSESSMENT IS NOT COMPLETE UNTIL THIS INFORMATION IS PROVIDED FOR EACH QUESTION.

Community Partners for Clean Streams
705 North Zeeb Rd.
Ann Arbor, MI 48107

Phone: (734) 222-6833 or (734) 222-6813

Fax: (734) 994-2459

SAMPLE CHECKLIST QUESTION:

1. Steps are taken to minimize the amount of potentially polluting materials and wastes kept in storage.

ASSESSMENT

- Not applicable
 Always
 Needs Improvement

ACTION PLAN

- Plan to continue
 Plan to improve

Responsible job or staff position(s): Safety Manager

Schedule: Materials will be in place by 12/01

Action(s): Spill kits, absorbent pads, and spill response plans will be placed near all areas that have the potential for spills.

Requires ongoing education/commitment

SERIES #7: MANAGING WASTES (Fact Sheets 7.1, 7.2 and 7.3)

1. Purchasing decisions are made to minimize waste (e.g., excess materials and packaging are avoided).

ASSESSMENT

ACTION PLAN

- Not applicable
- Always Plan to continue
- Needs Improvement Plan to improve

Responsible job or staff position(s): _____

Schedule: _____

Action(s): _____

_____ Requires ongoing education/commitment

2. Steps are taken to minimize waste when using chemical and petroleum products (e.g., over-application is avoided and products are used completely).

ASSESSMENT

ACTION PLAN

- Not applicable
- Always Plan to continue
- Needs Improvement Plan to improve

Responsible job or staff position(s): _____

Schedule: _____

Action(s): _____

_____ Requires ongoing education/commitment

3. Steps are taken to ensure that wastes are *not* dumped onto the ground or into a storm drain.

ASSESSMENT

ACTION PLAN

- Not applicable
- Always Plan to continue
- Needs Improvement Plan to improve

Responsible job or staff position(s): _____

Schedule: _____

Action(s): _____

_____ Requires ongoing education/commitment

4. All wastes that can be are reused or recycled.

ASSESSMENT

ACTION PLAN

- Not applicable
- Always Plan to continue
- Needs Improvement Plan to improve

Responsible job or staff position(s): _____

Schedule: _____

Action(s): _____

_____ Requires ongoing education/commitment

(continued on back)



5. Wastes that can't be reused or recycled are disposed of according to federal, state and local law.

ASSESSMENT

ACTION PLAN

- Not applicable
- Always Plan to continue
- Needs Improvement Plan to improve

Responsible job or staff position(s): _____

Schedule: _____

Action(s): _____

_____ Requires ongoing education/commitment

Additional Comments: _____





Community Partners for Clean Streams Fact Sheets



SERIES #1 - HOUSEKEEPING PRACTICES

- Fact Sheet 1.1 Storing Materials and Wastes
- Fact Sheet 1.2 Preventing and Cleaning Up Spills



SERIES #2 - MAINTAINING ENGINEERED STORMWATER CONTROLS

- Fact Sheet 2.1 Catch Basin Care
- Fact Sheet 2.2 Maintaining Stormwater Management Systems
- Fact Sheet 2.3 Oil/Water Separators



SERIES #3 - MAINTAINING EQUIPMENT AND VEHICLES

- Fact Sheet 3.1 Storing and Maintaining Equipment and Vehicles
- Fact Sheet 3.2 Washing Equipment and Vehicles



SERIES #4 - MAINTAINING BUILDINGS AND PAVEMENT

- Fact Sheet 4.1 Outdoor Pressure Washing
- Fact Sheet 4.2 Maintaining Building Facades
- Fact Sheet 4.3 Maintaining Paved Areas
- Fact Sheet 4.4 Using and Storing Deicing Systems
- Fact Sheet 4.5 Cooling Water Systems



SERIES #5 - MAINTAINING LANDSCAPES

- Fact Sheet 5.1 Maintaining Healthy Lawns, Shrubs and Trees
- Fact Sheet 5.2 Using Fertilizer
- Fact Sheet 5.3 Integrated Pest Management
- Fact Sheet 5.4 Using Pesticides



SERIES #6 - SITE DESIGN AND CONSTRUCTION

- Fact Sheet 6.1 Designing Landscapes for Water Quality
- Fact Sheet 6.2 Designing Stormwater Management Systems
- Fact Sheet 6.3 Clearing and Grading Land



SERIES #7 - MANAGING WASTES

- Fact Sheet 7.1 Minimizing Waste
- Fact Sheet 7.2 Recycling
- Fact Sheet 7.3 Waste Disposal



SERIES #8 - EDUCATION

- Fact Sheet 8.1 Education and Community Leadership



SERIES #9 - FATS, OILS AND GREASE

- Fact Sheet 9.1 Food Service Industry FOG Recycling/Proper Disposal