

Whatcom Watersheds Business Pledge

By taking the Business Pledge, I understand that I will receive free technical assistance in exchange for helping protect Whatcom watersheds. This is what I can expect in the coming weeks:

- ◆ In 1 week, I will receive my To Do list in the mail, along with an evaluation form to evaluate the site visit and materials.
- ◆ I will receive my plaque after I demonstrate that I am fulfilling some of my To Do items.

I, _____, of
(Manager Name)

(Business Name)

pledge to undertake the voluntary actions I have identified in the To Do list. I am committing our business to do these things to minimize our impact on local watersheds.

Signed _____ Date _____

Solid Waste

As we all know, recycling plays an important part in reducing waste. But reducing waste is also accomplished by waste prevention and through purchasing recycled products.

Waste reduction not only helps our environment, it also benefits your businesses' bottom line. It can reduce disposal costs and expenditures on raw materials, products, and equipment. Overall efficiency and productivity often improve as waste is reduced.

Recycling

Recycling: The collection and use of discarded items as raw materials in the manufacture of new products.

When we think of recycling, most people think of cardboard, newspapers, and aluminum cans that are processed and made into new paper and aluminum containers. But a huge variety of raw materials from metals to paper to plastics are used in our buildings, homes, businesses and vehicles: Many of these materials can be used over and over again.

The savings in raw materials, energy costs, transportation costs and landfill space are enormous when materials are recycled. Air and water quality benefit, too. For example, if you recycle the Bellingham Herald every day, in one year you will prevent the need to harvest almost three 40-foot Douglas fir trees. Recycling one aluminum can instead of manufacturing that can from virgin materials saves enough energy to power a computer for three hours.

The types of materials that can be recycled are constantly increasing (see the list at right). Look at the enclosed brochures or call the resources listed at the end of this section to find out whether an item is reusable or recyclable before you pitch it into your trash can.

Recyclable Materials

Paper

Mixed office paper, including magazines and unwanted mail
White paper
Shredded confidential paper
Newspaper
Cardboard

Glass and Plastics

Container glass
Plate glass
Plastic bottles, numbers 1-7
Plastic film (dry cleaning bags, plastic bags, pallet wrap)

Metals

Aluminum
Steel cans
Scrap steel
Non-ferrous metals

Building Materials

Wood debris
Asphalt/Concrete
Drywall (sheetrock)

Auto

Vehicles and parts
Motor oil*
Oil filters*
Antifreeze*
Solvents*
Automotive batteries*
Tires

Other

Pallets
Cooking oil
Used ink and toner cartridges
Rechargeable batteries*
Fluorescent light bulbs*

Electronic equipment*, including

- Computers
- Copiers
- Phones and cellular phones

* More information about reducing waste and recycling these materials is included in the next section, "Hazardous Waste."

Waste Prevention

Waste prevention: The design, manufacture, purchase or use of materials to reduce the amount and/or toxicity of discarded wastes.

Stopping waste before it starts is the best method for reducing solid waste. Fewer materials are used, and less waste is generated that requires recycling or disposal. For example, it is better to copy on both sides of a sheet of paper when possible. By making double-sided copies, rather than single-sided, you can cut paper use and purchasing costs by up to 50 percent.

Using Recycled Products

Buying recycled: Purchasing recycled products instead of products manufactured from virgin materials. This preserves our natural resources and supports the market for recyclable materials.

Recycling goes nowhere if nothing is done with the recyclable materials that are collected. Every business can help “close the recycling loop” by buying and using paper, packaging, motor oil and other products made from recycled materials.

When they first started coming out, some recycled products did not perform as well as virgin products. For example, recycled paper contained a lot of dust that gummed-up copiers, and plastic lumber warped under certain weather conditions. But times have changed! Many recycled products now outperform their virgin counterparts. Most recycled print and copy papers perform just as well as virgin paper; new plastic and composite lumber and building materials perform even better than traditional products. If you had a bad experience in the past, try using a recycled product again or use a different brand. New and better products are coming out all the time. Ask your office supply store, printer, and regular vendors.

For information about recycled products, call the Whatcom County-sponsored Recycling Hotline at 360-676-5723.

What You Can Do:

Purchasing

Almost every business activity begins with the purchase of materials or products, which ultimately become waste. Making wise purchasing decisions is the first step to minimizing waste.

Purchase durable, reusable products (e.g. cloth rags, durable cups and dishware) rather than disposables. Use reusable products as often as possible for processes and activities that occur regularly. Despite new cleaning and maintenance costs, you might save more than you realize by avoiding recurring expenditures and disposal costs.

Purchase remanufactured toner cartridges and ink jet cartridges for printers and fax machines. Return used cartridges for remanufacturing. Ask your office product supplier or look in the phone book for a printer service company that will pay you for spent cartridges and provide you with remanufactured cartridges (for about half the price of new). If you've tried remanufactured cartridges in the past but weren't satisfied, try them again – chances are they've improved – or try a new company. Call the Whatcom County Recycling Hotline at 360-676-5723 for vendors that supply these products.

Purchase products in concentrated form and/or in bulk quantities. At the same time, buy only what you are certain you can use. Try to anticipate any changes in processes, and use up product in stock if it will not be compatible with the new process. Buying products in bulk or in concentrated form reduces the amount of packaging used and can save you money. Approximately ten percent of every dollar we spend on products pays for packaging costs.

Purchase and use rechargeable batteries. Call 1-800-8-Battery for information about free disposal of nickel-cadmium rechargeable batteries.

Purchase equipment that conserves resources. Ask your vendor for information on resource use. Equipment such as copiers should go on standby when not being used, and can be programmed so that double-siding is the default setting. All lost product (raw materials, energy, water) is lost profit.

Refuse or return product samples that you will not use. Those that you accept, use up entirely. You will reduce your waste and costs, and will also save the product vendor time and material that could be invested elsewhere.

When contracting out printing or catering jobs, etc., specify environmentally-preferable products and services (paper, durable dishes, building materials, etc.)

Shipping and Packaging

Almost everything we buy or sell gets put in some kind of container, package or wrapper.

Use sturdy reusable shipping containers. Many businesses are starting to ship their products in reusable containers or in packages that have been redesigned to minimize the use of materials. Some are even redesigning their products so they take up less room when placed together, or can be stacked without using a container at all.

Use minimal packaging to sell your product. Think about how you can present your product using less paper, plastic, etc. Provide incentives for your customers to bring their own reusable bags, cups, and boxes to get your product to their home or place of business.

Reuse packaging materials. When you receive boxes, bubble wrap, peanuts, tissue paper, etc., save them and send them out with your products or customers. If the amount is more than you can use, take it to someone who can reuse it (or have them come get it). For a list of places that take excess packaging material from businesses, call the Whatcom County Recycling Hotline at 360-676-5723. For foam "peanuts," call the National Loose-Fill Hotline at 1-800-828-2214.

Ask or require your suppliers to deliver products to you in packaging you can return to them. Not only will you have less packaging to deal with, but your suppliers might start thinking about using reusable/minimal packaging themselves. If they balk, shop around and see if you can find someone else who will do as you ask.

Reuse shipping pallets or return them to the supplier. If neither of these is an option, use a pallet recycler. Refer to the "Construction Recycling and Reuse Opportunities" brochure included with your manual for pallet options.

Office Procedures

Most of us are pretty good about reducing waste (and costs) at home. Take this mindset to work. Stretch those resources to make your business more efficient than ever.

Print or copy on both sides of the paper. Americans make more than 750,000 copies every minute of the day. Double-siding can reduce paper use by 33 percent or more.

Use the other side of single-sided pages for drafts and notepaper, or make them into notepads. Some stores and printers will make notepads from your single-sided copies. You can also get kits to do it yourself through office supply stores and catalogs.

Run one copy before doing a large copy job. Most of us who use copiers regularly have made ten copies of that memo sideways, or with the back upside down. Doing a test run will save paper (and sometimes embarrassment!)

Reuse mailing envelopes and other office supplies. Set up a common area where employees can put supplies they no longer need and pick up stuff they do need. Reuse large mailing envelopes that other businesses send; you might never have to buy another. In larger businesses, set up an office supply exchange bulletin board.

Encourage your employees to use voicemail or email instead of written notes or memos. It's usually very simple to set up group messaging on phone systems or email programs.

Remove your address from mailing lists of companies sending you unwanted mail. Every year direct mail companies send out more than 34 pounds of mail for every person in the U.S. Have the mailing label on hand, because the company you're calling will probably ask for the ID numbers and exact spelling.

Keep your mailing lists up to date. Request address corrections and encourage recipients to call and remove their address if they are not using your materials. Add return request service that the post office provides.

Other Ways to Prevent Waste

Here are a few more suggestions for things you can do to tame the trash. None of these lists of suggested business practices are comprehensive; use your imagination to think of even more ways to reduce waste.

Donate new or used equipment, furniture, supplies or building materials to charitable organizations or schools. It might be old, slow or useless to you, but it's probably just what's needed somewhere else. Refer to the enclosed "Trash to Treasures" brochure for a list of places that accept various items, but don't limit yourself to these. We all know someone in a school, non-profit, church or club that might be a perfect candidate for some of these items.

Use durable dishware, utensils and cups in your lunchroom. Make a sink and cleaning supplies available so everyone can wash the items they use. It takes a little training, but it saves money and cuts down on waste.



Solid Waste Contacts

Whatcom County, Solid Waste: 360-676-7695
<http://www.co.whatcom.wa.us/pubwks/solidwas/solidwas.htm>

City of Bellingham, Solid Waste: 360-676-6850
<http://www.cob.org/cobweb/pw/WASTE/INDEX.HTM>

RE Sources: 360-733-8307
<http://www.re-sources.org>

Whatcom County-sponsored Recycling Hotline: 360-676-5723

Garbage and Recycling Companies / Opportunities:

Birch Bay Transfer Station: 360-371-7111

Blaine Bay Refuse: 360-332-5443

Sanitary Service Company: 360-734-3490 or 360-398-2025
www.ssc-inc.com

Sound Recycling: 360-733-7932

Office Supplies:

Recycled and Environmentally Friendly Alternatives Initiative

Organized by Sustainable Connections & Northwest Computer Supplies
1419 Cornwall Ave. Bellingham
Contact: Brandon (360) 734-3400 or
email: Brandon@NWComputerSupplies.com

Rechargeable Battery Recycling Coalition: 1-800-8-BATTERY

National Loose-Fill Hotline: 1-800-828-2214

Hazardous Waste

Waste Management

A hazardous waste, also known as dangerous waste, is a chemical product that is being discarded or a by-product of production that is discarded, and, that designates as a "dangerous waste" under the state's dangerous waste regulations; WAC 173-303. If you use any of the following materials, you probably generate some hazardous wastes:

Dyes, paints, thinners, solvents or cleaning fluids

Materials that burn or itch on contact with skin

Materials that dissolve metal, wood, paper or clothing

Pesticides (including herbicides, insecticides, fungicides, etc.)

Products with a warning label such as "flammable," "caustic," "danger," "hazardous," or "poison."



Some common office fixtures such as fluorescent light tubes and computer monitors contain heavy metals that are also considered hazardous. Like motor oil and antifreeze, they are not considered hazardous waste if they are recycled; only if they are disposed of as trash.

If you don't know whether a product or waste is hazardous, check shipping papers, material safety data sheets (MSDS), or product labels. The local Disposal of Toxics program can help you to designate your waste using the methods spelled out in the dangerous waste regulations. Contact them at 360-380-4640.

Hazardous materials require special handling. You can't put them in the dumpster, pour them down the drain or allow them to evaporate into the air. You must dispose or recycle your wastes through a recycling firm, treat them on-site, have them handled through a treatment, storage and disposal facility (TSDF), or locally through the Disposal of Toxics facility.

To dispose of your waste at the Disposal of Toxics facility, you must first sign up. You can call 360-380-4640 to request the business form, or get it online at www.cob.org. The Disposal of Toxics facility charges for disposal of business waste based on type and volume. See the lists at the end of this section for other hazardous waste service providers.

Common Hazardous Wastes

Electronics

Fluorescent lamps and ballasts: Fluorescent tubes contain mercury, a federally regulated hazardous substance. The Disposal of Toxics facility accepts fluorescent light tubes and will have them recycled. See the list of hazardous waste service providers for disposal options.

Light ballasts are the electrical components at the end of fluorescent light fixtures under a metal overplate. Light ballasts manufactured before 1978 can contain polychlorinated biphenyls (PCB), a hazardous substance. Those manufactured later are marked "no PCBs."

The best option for non-leaking PCB ballasts is to recycle them at a facility with EPA approval for recycling PCB ballasts. The Disposal of Toxics facility will accept ballasts.

Non-leaking PCB ballasts that aren't recycled must be managed and disposed as hazardous waste.

Leaking PCB ballasts must be managed as PCB waste and disposed in an incinerator or chemical landfill. Call the Disposal of Toxics Facility for disposal at 360-380-4640.

Computers and Monitors: A single computer monitor can contain up to 8 pounds of lead. The CPUs (computer processing units) are packed with heavy metals including silver, mercury, lead and more. According to the U.S. Environmental Protection Agency, more than 20 million personal computers became obsolete in 1998 – that's about one for every 14 people. Only 13 percent were reused or recycled.

Computer components don't belong in the trash! In fact, it's illegal in Washington State to dispose of monitors as garbage. Instead, choose a business that will repair and reuse computers locally or recycle them using environmentally safe methods. A list of opportunities is provided at the end of this section.

Painting Products

Paint, thinners: Use up leftover paint for touchups, primers, or undercoats. You can also list your leftovers with the Industrial Materials Exchange: 1-888-TRY-IMEX.

Automotive paint and thinner waste can be distilled and reused, either on-site or through an off-site service. Filters and sludge left after distillation must be handled as hazardous waste. Small quantities of latex paint with no lead or mercury in it can be dried in the can, or painted on cardboard or on boards, then disposed of in a covered dumpster. Liquid paint cannot



be placed in the dumpster. Most paint manufactured after 1991 has no lead or mercury. House paint manufactured before 1992 likely contains mercury and should be handled as hazardous waste. House paint manufactured before 1978 might contain lead and should also be handled as hazardous waste.

If you have cans of latex paint that are reusable, manufactured after 1992, and more than half full, you can take them to The RE Store, 360-647-5921, 600 W. Holly St. in Bellingham. Oil-based paints, stains, and thinners, if unusable, must be treated as hazardous waste. Call the Disposal of Toxics facility at 360-380-4640 for disposal instructions.

Automotive wastes

Motor oil: Used petroleum-based oil (motor oil, hydraulic oil, gear oil, and lubricating oil) can be recycled. Used oil contaminated with brake fluid, solvents, fuel, sediments, additives, chlorine, PCBs, heavy metals and/or water might be difficult to recycle. If hazardous waste has been mixed with oil, the mixture must be managed as hazardous waste. See the service provider list at the end of this section for vendors who will take oil waste.

Oil filters: Oil filters drained of oil are not considered hazardous waste. Puncture the top of the oil filter, turn it upside down and drain over a container for 24 hours to capture any oil remaining in the filter. You can then crush the filter and recycle it with a scrap metal recycler or the Disposal of Toxics facility, which accepts both crushed and uncrushed oil filters for a fee. Some vendors that take used oil will also accept filters.

When You Buy A Computer

Ask your computer sales vendor about take-back programs being developed or offered by electronics manufacturing firms. The Northwest Product Stewardship Council is working with the computer industry to create more environmentally friendly design and manufacturing processes. Visit the council website at www.govlink.org/nwpsc/ for more information.

For more information about the environmental impacts of exporting computers for processing, visit the Basal Action Network website at www.ban.org.

Disposal of Toxics Oil Filter Crusher

As a free service to the public, the Disposal of Toxics (DoT) program loans out its filter crusher to Whatcom County businesses. The crusher squeezes out 98% of the oil in the filter. This allows both the filter and the oil to be recycled. At present, ten local businesses use the crusher on a regular basis. This reduces solid waste and increases the recycling rate. It also saves the businesses money in disposal costs.



The filter crusher can be used by anyone in the county by calling the DoT program at 360-380-4640. A representative of DoT will then schedule a time for you to use the crusher. The crusher is delivered to, and picked up from, the home or business by the DoT. There can be a waiting list, so please plan ahead.

The Filter crusher was purchased in 1998 with grant money from the Department of Ecology. Since that time it has crushed tens of thousands of oil filters. Every filter that is crushed and recycled keeps used oil out of our landfills, groundwater and streams.

Antifreeze: Recycle antifreeze on-site with your own recycling equipment or off-site through a recycler (see list of service providers) or the Disposal of Toxics facility. If you don't recycle antifreeze, it must be disposed of as a hazardous waste.

Brake fluid: Most used oil haulers/recyclers will accept brake fluid as long as it isn't mixed with oil. You can also take it to the Disposal of Toxics facility.

Auto batteries: Washington State law requires lead-acid battery sellers-both wholesale and retail-to accept used batteries in exchange for new ones, if offered by the purchaser. You can also recycle automotive batteries through the Disposal

of Toxics facility, your curbside recycling program or at the facilities listed in the "Recycling Opportunities" brochures included with this manual.

Gasoline: Gasoline contaminated only with water is not regulated as hazardous waste if the water is removed and the gasoline is used as fuel. Gasoline mixed with hazardous wastes should be managed as hazardous waste. Some oil haulers take gasoline and other fuels. You can also use the Disposal of Toxics facility.

First-Time Visitor to The Disposal of Toxics Program?

As a business, here's what you can expect

The Disposal of Toxics (DoT) Program recycles and disposes of hazardous wastes from residents throughout Whatcom County and also any business that qualifies as a "small quantity generator" (SQG).

The DoT Program is not a regulatory enforcement agency, but offers free technical assistance on hazardous waste management and disposal issues. Staff can help small quantity generators with all types of hazardous waste needs – not only waste disposal, but also advice on waste reduction and storage and designation of hazardous waste.

Businesses are charged only for waste disposal.

Here is what a small quantity generator (SQG) can expect the first time using the service.

Call the facility at 360-380-4640. Describe your business and your waste.

After a brief phone consultation, you will be faxed or mailed a packet that introduces your business to the program.

Use the two-page form in the packet – and any material safety data sheets you have – to document all the hazardous wastes your business generates, the quantities stored, and the amount you want to dispose of.

If you qualify as an SQG, and your waste is acceptable, you will be directed to bring it to the facility. Facility hours are 9 a.m. to 4 p.m. Monday through Friday and the first Saturday of each month.

Staff will help you unload your waste and document the delivery.

Your business will be billed – by mail – for disposal costs.

Disposal of Toxics Facility

3505 Airport Drive

360-380-4640

Hours: 9 a.m. to 4 p.m. Monday through Friday and the first Saturday of each month. Businesses must call first.

The Disposal of Toxics Program is jointly run by the City of Bellingham and the Whatcom County Solid Waste Division, with partial funding from the Washington State Department of Ecology.

Other wastes

Sand blasting waste: Waste from blasting operations might be hazardous depending on the blasting medium, surfaces blasted, and materials removed. Heavy metals found in paint pigments are the most common contaminant. To find out whether the blasting residue contains hazardous waste, you might need to test it for metals. Call the Disposal of Toxics facility for a list of laboratories that do testing or look in the Yellow Pages under "Laboratories – Testing." Once your waste has been tested, Disposal of Toxics personnel can help you determine whether it is dangerous waste and how to dispose of it.

Carpet cleaning waste: Wastewater from carpet cleaning can typically be put into the sanitary sewer drain, often through a toilet or indoor sink. If the wastewater contains lint or other particulates, it should be filtered first so it doesn't clog the drains. Carpet cleaning wastewater should not be put down a floor drain or outdoor (parking lot) drain connected to the storm drain or septic system.

Compressed gas cylinders, empty: A compressed gas cylinder is considered empty if the pressure inside the cylinder equals or nearly equals atmospheric pressure. The best option is to return the empty cylinder to the supplier for reuse. Otherwise, recycle the cylinder through a scrap metal recycler. The Disposal of Toxics facility will accept propane cylinders. Call if you have other types of cylinders.

Dental wastes: Trap and send amalgam waste to a facility that reclaims mercury and silver, or use a hazardous waste broker that will do so. Don't put amalgam waste into an infectious (biomedical) waste container. Biomedical waste is often heat-treated, and heating amalgam releases

mercury into the air. Lead-foil packets should be recycled through a metal reclaimer or disposed as a hazardous waste. See the service provider list for vendors. (See "photoprocessing chemicals" below for information about recycling X-ray fixer and developer.)

Disinfectant and cleaning solutions: Disinfectants and cleaning solutions might be considered hazardous waste depending on their ingredients and concentrations and depending on what they were used to clean. For information about what can be discharged to the sanitary sewer, call your department of Public Works (see contact page at the end of this section).

Reduce Waste with an Aqueous Parts Washer

(see box on page 13)

- No solvent disposal fees
- No exposure to dangerous solvents and solvent fumes
- Environmentally friendly
- More time for technicians to do other work
- Cleans faster than solvents

Dry cleaning wastes: "Perc" (perchloroethylene or tetrachloroethylene) can be recycled for reuse through a closed-loop still, preferably in dry-to-dry machines. Sludge and filters from the distillation process must be managed and disposed of as hazardous waste. Separator water usually contains varying amounts (15-240 parts per million) of perc and cannot be discharged into the sanitary sewer, storm drain, or septic

system. Dispose of this solution through a hazardous waste vendor. If the separator water is treated and proven to be less than 0.7 parts per million perc, it may be evaporated.

Inks or dyes: Leftover inks might be hazardous under Washington law if they are petroleum-based. Ink (even vegetable-based ink) might be hazardous if it contains toxic driers and/or pigments with heavy metals. Dispose of inks that cannot be reused through a vendor (see list of service providers) or the Disposal of Toxics facility. Sell or give away usable inks. You can list them for free in the Industrial Materials Exchange catalog (call 1-888-TRY-IMEX). Depending on the type of ink you use,

it might be recyclable. Check with your supplier or call the Disposal of Toxics facility.

Pesticide residuals: Dispose of pesticides as hazardous wastes through a vendor or at the Disposal of Toxics facility.

Photoprocessing chemicals: You might be able to return used fixer and other photo solutions containing silver to the company that sells you photoprocessing chemicals. You can also buy or lease your own treatment unit to reclaim silver, send fixer to an outside facility for silver recovery (see list of service providers), hire a waste management firm to pick up the fixer, or take it yourself to the Disposal of Toxics facility.

Developer (not fixer) used in photoprocessing and X-ray development can typically go into the sanitary sewer (but not into a storm drain or septic system) after use. Unused developer contains high levels of hydroquinone and will be hazardous. Used developer that is mixed with fixer should also be handled as hazardous waste due to silver content.

Used photo fixer and bleach-fixer solutions contain high concentrations of silver. Because of these high silver levels, used fixer is a hazardous waste, and fixer solutions cannot be poured down the drain or into a septic system. The following solutions are hazardous:

- spent fixer from X-ray development
- spent fixer, bleach, bleach-fixer and
- stabilizer from photoprocessing.

These solutions must go through a silver recovery process or be handled as hazardous waste. Once the silver in the solution has been reduced to three parts per million through silver recovery, the fixer can go into a sanitary sewer with permission from your Public Works Department (see contact page). Used fixer should never be poured down a storm drain or into a septic system.

Shop towels: Cloth rags and towels contaminated with a hazardous solvent must be stored in a closed metal container. If rags or paper towels are contaminated with hazardous materials,

they might be a hazardous waste. Rags that are a hazardous waste can be laundered by commercial laundry facilities that treat or dispose of their wastes properly.

Solvents: See the list of service providers for vendors. Solvents considered hazardous under the dangerous waste regulations are those that catch fire easily (low flashpoint – less than 140 degrees F) or are toxic. Some commonly used solvents that are considered hazardous are:

- acetone,
- MEK,
- toluene,
- xylene,
- 1,1,1-trichloroethane,
- mineral spirits, and
- naphtha.

Some solvents that aren't hazardous before use, such as certain citrus-based solvents and high flashpoint petroleum distillates, can become hazardous during use if they are contaminated by metals or other chemicals.

Used solvents can be settled (sludge), filtered, or distilled and reused in your shop or sent off-site for recycling, fuel-blending for use in an industrial furnace, or incineration.

Chlorinated solvents (these contain chlorine) are always considered hazardous. (To identify chlorinated solvents, look for the syllable "chlor-" in the list of ingredients on the container or the material safety data sheet.) Chlorinated solvents can be reclaimed and reused if they're not mixed with other solvents. If chlorinated solvents are mixed with any other solvents, they might have to be incinerated, a more expensive option.

Farmer's Equipment Co. Reaps Benefits of Aqueous Parts Washer

Like many other businesses that have to clean parts on a regular basis, Farmer's Equipment Company in Lynden has made a switch to an aqueous (water-based) parts washer. "It not only makes sense from an environmental standpoint," says Kevin Pawlowski, the company's comptroller, "but it also means cost savings in the long run."



Before purchasing an aqueous parts washer, employees would put dirty parts in a bath full of chemical solvent and then scrub them with a brush. During the process, employees were exposed to hazardous chemicals. Now, employees simply put parts in the washer, set the timer and continue to do other work.

"Before, the guys had to take the time to put on protective gear and scrub the parts. The parts washer has freed up the technicians to work while the washer is doing the cleaning," explains Pawlowski. It's like the difference between having to do dirty dishes by hand or putting them in the dishwasher. Not only does the parts washer mean savings in the amount of time employees spend cleaning parts, it also means Farmer's Equipment Company spends less money on new solvents and hazardous waste disposal fees. "The parts washer was a considerable capital investment, but we'll save a lot of money in the long run," says Pawlowski, who bought washers for two locations. "It's also cleaner and takes up less space."

What You Can Do

Hazardous Waste Reduction

The best way to manage hazardous waste is to produce less of it. You might be able to reduce, or even eliminate hazardous waste entirely, by doing the following:

Buy the least toxic products available.

Look for "non-toxic" on the label. Do not let the term "biodegradable" mislead you. Products labeled "biodegradable" are not necessarily safe for the environment, particularly after they are used. For example, a "biodegradable" degreaser can become a hazardous waste solvent after it is mixed with oil and solvent.

Rather than solvents, use hot water/steam-cleaning methods for washing

oil off metal parts such as engines, tools and equipment. A hot water parts washer can significantly reduce the amount of hazardous waste you produce.

Use non-solvent cleaners. You can also reduce pollution by using a Stoddard solvent parts washer with a recycling service.

Use non-chlorinated compounds rather than chlorinated ones; they are less toxic and less expensive to dispose of.

Use waterless hand cleaners.

Try using safe cleaning alternatives such as baking soda and vinegar.

Don't buy hazardous materials if less hazardous substitutes are available.

Reject vendor samples you don't need.

Purchase products that have multiple uses.

Avoid chlorinated solvents (most disposal service vendors charge more if wastes contain them).

List usable materials with the Industrial Materials Exchange (1-888-TRY-IMEX).

Use a filter on parts washers to extend the life of the solvent.

Consider using an oven to bake off grease instead of using a caustic hot tank. While this system might be expensive at first, it can save you money in the long run by reducing your use of chemicals, hazardous waste disposal costs, and liability.

Reuse spent rinse water as makeup in hot tanks.

Make sure solvent is too dirty to use anymore before it is exchanged for new solvent.

If you use solvents, consider buying a commercial solvent recovery unit; the smallest units available handle five gallons. Most recovery systems pay for themselves in less than two years. Check with your local Fire Department for installation requirements.

Hazardous Waste Storage

Choose the right container. It's important to remember that not all containers are alike. When accumulating wastes, choose a container made of a compatible material. Use polyethylene drums, rather than metal containers, for corrosive wastes (strong acids and bases). Use unbreakable metal containers, rather than glass, for waste fuels.

Industrial Materials Exchange (IMEX)

See if others can use your leftovers. Use the services of the Industrial Materials Exchange (IMEX), an information network that helps businesses find inexpensive sources or markets for hazardous or non-hazardous materials. IMEX publishes and distributes a directory six times a year listing available and wanted materials. Companies that supply materials save disposal costs, and the companies that use the wastes get the product free or at a reduced rate. List your surplus materials in the catalog, so other companies can contact you. Or use the catalog to locate materials you need.

- Call 1-888-TRY-IMEX or go on-line to <http://www.metrokc.gov/hazwaste/imex>

Keep containers closed. Keeping containers closed not only reduces the chance that wastes will be spilled, but can also reduce the evaporation of some of the more volatile wastes, (evaporation of hazardous waste is illegal and can be a health risk to employees). If you need to add waste frequently, you might want to consider using a funnel with a self-locking lid.

Avoid mixing. Keep your wastes in separate containers according to the type of product, and keep records of the container's contents. Keep materials in the original container if possible.

Combining different types of waste can prevent recycling and greatly increase disposal costs. For example,

- Uncontaminated used motor oil can be recycled, whereas used oil mixed with solvent requires a much more costly and complicated disposal process.

- Adding a spent acid (e.g. sulfuric acid) to a container that used to hold a caustic material (e.g. sodium hydroxide) could result in the production of extreme heat or a violent reaction. For this reason,

avoid putting a hazardous waste in a container that used to hold an incompatible substance – unless the container has been thoroughly washed.

Also avoid phenol. Products containing phenol compounds are often not recyclable.

Label containers. Label each waste container with the name of the waste and information on the major risk(s) associated with the waste inside (such as “ignitable” or “toxic”). Warnings such as these alert you and your employees to manage these chemicals cautiously. Labels help prevent spills, accidental mixing of wastes, sloppiness, and wasteful use of the chemical. Unlabeled containers are more likely to be mistakenly poured down a drain or tossed into a dumpster.

Outdoor Storage

Place each container inside a larger empty one. For liquid products or wastes stored outdoors, surround the storage area with a curb or dike adequate to contain ten percent of the volume of all the containers or 110 percent of the volume of the largest container, whichever is greater. This must also be done for hazardous liquids stored indoors. These steps are called secondary containment and are required for hazardous waste.

Build a covered area such as a lean-to. Pave the surface area beneath, and prevent runoff from entering or leaving the area. Check with the Fire Department to make sure your structure conforms to regulations.

Make sure any containers containing hazardous waste are protected from vandalism. Chemicals such as anhydrous ammonia, for instance, might be stolen to manufacture methamphetamines. This is a growing law enforcement and safety

problem in both urban and rural areas.

Other chemicals to safeguard include:

- muriatic acid
- xylene, kerosene, acetone, toluene, or other flammable liquids

If the storage area is permanent, install a drain and valve. For used oil, hazardous waste, or materials controlled by the Fire Code, the liquid should drain to a dead-end sump.

Hazardous Waste Disposal

Choosing a Vendor

Although you might rely on other companies to haul away and dispose of your waste, you are ultimately responsible for the waste from “cradle to grave.” Choose your vendors carefully, considering reliability as well as cost.

Look for vendors whose services match your needs. Do you have just one waste, such as anti-freeze or used photo fixer? If so, it might be smart to find a vendor who specializes in recycling that particular waste. If your business produces a number of hazardous wastes, you might want to hire a more general hazardous waste vendor. These vendors, or brokers, can handle a variety of wastes.

The best vendor for you isn’t necessarily the least expensive one. Don’t trade short-term cost savings for long-term liability. If more than one vendor handles your waste (for example, if one vendor transports it and another recycles it), make sure each one is reputable. See the service provider list at the end of this section for a list of vendors.

When you interview a vendor, ask some questions:

Can the vendor provide the names and phone numbers of current customers (similar to you) as references?

Mercury Alert! Fluorescent Tubes

Fluorescent bulbs contain mercury, which is a human health hazard and an environmental poison. Be especially careful not to break either compact fluorescent bulbs or the more common tube-shaped bulbs. Take them to the Disposal of Toxics facility at 3505 Airport Drive between the hours of 9 a.m. and 4 p.m. any weekday except holidays. The site is also open the first Saturday of each month. Businesses must call first.

The Disposal of Toxics facility takes all types of hazardous household products (those marked "Caution," "Warning" or "Danger") except radioactive materials, asbestos and ammunition. Call the site at 360-380-4640 for details.

Does the vendor have adequate insurance? In addition to general commercial liability insurance, vendors should have coverage for pollution caused by spills while hauling waste.

Where do your wastes go?

What documentation and other paperwork are provided? Vendors might help you prepare manifests and shipping papers, but because you sign them, you need to be sure they are accurate. Manifests and receipts track your waste from your site, to the hauler, to the receiving facility.

How much will the services cost? The total cost of handling your waste can include a number of fees: a waste profile or lab fee, a hauling charge, a disposal fee, and a drum replacement charge. Ask which charges are one-time and which are on-going. Find out if there are any other fees you must pay, such as charges for wastes that are contaminated.

What recycling credits are provided? If you are subject to Ecology's Pollution Prevention Planning regulations and your waste is recycled into a usable product, you can get a credit against the total amount of waste you produced that year. You can use the credit when filing reports with the Department of Ecology.

Keep Records

For documentation purposes, always keep receipts from the vendor showing the amount and specific types of wastes recycled or disposed.

Keep copies of notification reports, inspection records, results from waste analyses or tests, and on-site recycling records.

Spill Prevention & Response

If you use paints, solvents, oils, gasoline, pesticides, or other hazardous products, your business should have basic procedures to follow during a spill.

Preventing Spills

Organize the delivery and unloading areas. Ideally, loading/unloading docks should have overhangs or door skirts that enclose the trailer end, and should be designed to prevent run-off of storm water (for example, by being surrounded by a low berm).

Use a funnel to transfer liquids from one container to another.

Store materials where they won't be knocked over.

Preparing a Spill Cleanup Plan

Provide specific clean-up instructions for different materials handled on-site.

Assign and train people to be in charge of spill clean up, updating the spill control plan, training staff in clean-up procedures, and maintaining the clean-up kit equipment and inventory.

Prepare spill containment and labeled clean-up kits that are easy to locate and use. Include any needed safety equipment as well as clean-up materials appropriate to the type and quantity of material that could spill. For example, in fueling areas, store absorbent materials in small bags for easy use, and keep small drums for storing used absorbent rags.

Post a plan summary (including clean-up coordinators, location of clean-up kits, and who to contact) at appropriate locations. Post your emergency evacuation maps in the same area.

When scheduling staff, make sure someone who has been trained in your specific spill cleanup procedure is available to work each shift.

Regularly practice spill-response skills. Schedule them at least as often as you schedule fire drills.

Cleaning up spills

If the spill presents a hazard to public health or safety, call 911 immediately.

Stop the source of the spill immediately.

Contain the spill. If the spill involves a liquid, block the flow by placing absorbent materials from your clean-up kit along the edge of the spill. If there is a chance the spill could enter the storm drain or sewer, cover the drain inlet (with

a rubber mat, for example). If a spilled powder could blow away, contain it by covering it with plastic or by dampening it with wet towels or a light water spray (be sure, however, that the powder does not react with water).

Cover liquid spills with absorbent material. Use materials that can be swept or picked up such as cat litter, shop rags, sawdust, or vermiculite. The idea is to contain – not disperse – the spill, so don't use emulsifiers or dispersants. If the spill is small and the listed absorbent materials are not available, use rags or paper. For solids such as powders, sweep or wipe up the material.



For large spills, use the services of a private clean-up firm.

Properly dispose of clean-up materials. Never wash spilled materials down a sanitary sewer or storm drain. Products used to absorb a hazardous waste (such as vermiculite used to soak up spilled degreasers) can not be put in the garbage. Instead, bag them or place them in a drum, label the container, and dispose of as a hazardous waste. You may take such materials to the Disposal of Toxics facility (call first if you have never taken wastes there before: 360-380-4640).

Note: Materials used to clean up a spill of vehicle oil are not generally considered hazardous unless they contain a high concentration of metals. For small oil spills, the absorbent materials can be placed inside a sealed container—sealed double plastic bags are fine—and put into the garbage can or dumpster. The Disposal of Toxics facility will take oil-soaked rags and floor dry.

Become an EnviroStar

Get free advertising, attract new customers, reinforce repeat customers and boost employee morale. EnviroStars helps you communicate your commitment to protecting the environment. The more proactive your efforts to reduce hazardous waste, the more recognition you receive. You can benefit by protecting your long-term economic viability, and reducing insurance costs and liability from property contamination and accidents.

Program Requirements:

- You are located in Whatcom County
- You don't generate large quantities of hazardous waste (not more than 220 pounds per month)
- You set a goal to reduce hazardous waste for the year
- You properly manage all hazardous waste
- You receive a visit from the EnviroStars site visit team to verify that your waste is properly managed.

For more information on the EnviroStars program, call the Disposal of Toxics Facility at 360-380-4640.



Hazardous Waste Service Providers

The following is a partial list of hazardous waste recycling and disposal companies and does not constitute a recommendation. We suggest calling several companies to see which one can meet your service needs. The vendors listed handle a variety of hazardous wastes.

Disposal of Toxics Facility, Bellingham: (360) 380-4640; Small Quantity Generators Only
 Advanced Environmental Technical Services (AETS), Tukwila: (800) 334-2387;
 slehmann@onyxes.com
 Basin Oil Co. Inc., Seattle: (800) 439-2948; fpkeene@aol.com
 Emerald Services Inc., Tacoma: 888-832-3008; www.emeraldnw.com
 Envirotech, Seattle: (800) 922-9395; rnelson@encirotechsys.com
 Keep It Clean Recycling and Equipment, Redmond: (425) 868-3535
 Kleen Environmental Technologies, Seattle: (206) 285-8010
 Philip Services, Renton: (800) 228-7872; www.philip.com
 Protective Environmental Services, Seattle: (206) 624-5503; protect@enviro.ws
 Romic Environmental Technologies Corp., Tacoma: (800) 646-2493; www.romic.com
 Safety-Kleen, Lynnwood: (425) 775-7030; tcarney@safety-kleen.com
 Shultz Distributing, Seattle: (800) 225-9666; www.shultzdist.com
 Univar, Chem Care Division, Kent: (800) 562-4860

More information is available under these headings, below:

Antifreeze Recycling

- On-Site Recycling (at your shop)
- Collection and Recycling

Computer Monitors

Dental Waste and Silver-Bearing Photo Waste

Fluorescent Lights and Ballasts

(Waste) Ink

Motor Oil Recycling

- On-Site Recycling
- Collection and Recycling
- Uncontaminated
- Contaminated

Solvents

Antifreeze Recycling

Businesses that generate only very small quantities of antifreeze should see the vendors listed in the enclosed "Recycling Opportunities" guide.

On-Site Recycling (at your shop)

Mobile Recycling Services Inc., Bellevue: (425) 869-6234

Collection and Recycling

Disposal of Toxics Facility, Bellingham: (360) 380-4640; Small Quantity Generators Only
 Automotive Environmental Service Corp, Tacoma: (888) 242-8592; janice@romic.com
 EnviroTech Systems, Seattle: (800) 922-9395; rnelson@envirotechsys.com

Kleen Environmental Technologies, Seattle: (206) 285-8010
Philip Services, Renton: (800) 228-7872; www.philip.com
Protective Environmental Service, Seattle: (206) 624-5503; protect@enviro.ws
Romic Environmental Technologies Corp., Tacoma: (800) 646-2493; www.romic.com
Safety-Kleen, Lynnwood: (425) 775-7030; tcarney@safety-kleen.com
Shultz Distributing, Seattle: (800) 225-9666; www.shultzdist.com

Computer Monitors

Chase Electronics, San Francisco: (610) 449-8160; sale@chaserecycling.com
Hallmark Refining, Mt. Vernon: (800) 255-1895; webmaster@hallmarkrefining.com
Kleen Environmental Technologies, Seattle: (206) 285-8010
Safety-Kleen, Lynnwood: (425) 775-7030; tcarney@safety-kleen.com
The RE Store, Bellingham: (360) 647-5921; restore@re-resources.org
Total Reclaim, Seattle: (206) 343-7443; clorch@totalreclaim.com

Dental Waste and Silver-Bearing Photo Waste

Disposal of Toxics Facility, Bellingham: (360) 380-4640 (small-quantity generators only)
Advanced Environmental Technical Services, Tukwila: (800) 334-2387 (no dental waste); slehmann@onyxes.com
Envirotech Systems, Seattle: (800) 922-9395; rnelson@encirotechsys.com
Hallmark Refining, Mt. Vernon: (800) 255-1895 (no dental waste); webmaster@hallmarkrefining.com
Keep it Clean Recycling Equipment, Redmond: (425) 868-3535 (no silver-bearing waste)
Kleen Environmental Technologies, Seattle: (206) 285-8010
Philip Environmental, Renton: (800) 228-7872 (no silver-bearing waste)
Romic Environmental Technologies Corp., Tacoma: (800) 646-2493; www.romic.com
Safety-Kleen, Lynnwood (425) 775-7030; tcarney@safety-kleen.com
Univar, Chem Care Division, Kent: (800) 562-4860

Fluorescent Lights and Ballasts

Disposal of Toxics Facility, Bellingham: (360) 380-4640
Advanced Environmental Technical Services, Tukwila: (800) 334-2387; slehmann@onyxes.com
Eco Lights NW, Seattle: (206) 343-1247
Emerald Services Inc., Tacoma: 888-832-3008; www.emeraldnw.com
Envirotech Systems, Seattle: (800) 922-9395; rnelson@encirotechsys.com
Keep It Clean Recycling and Equipment, Redmond: (425) 868-3535
Kleen Environmental Technologies, Seattle: (206) 285-8010
Philip Environmental, Renton: (800) 228-7872
Nu-Life Industries, Inc., Aldergrove, B.C.: (604) 857-5588
Romic Environmental Technologies Corp., Tacoma: (800) 646-2493; www.romic.com
Safety-Kleen, Lynnwood: (425) 775-7030; tcarney@safety-kleen.com
Univar, Chem Care Division, Kent: (800) 562-4860

(Waste) Ink

Disposal of Toxics Facility, Bellingham: (360) 380-4640 Small Quantity Generators Only
 Advanced Environmental Technical Services, Tukwila: (800) 334-2387;
 slehmann@onyxes.com
 Basin Oil Co. Inc., Seattle: (800) 439-2948; fpkeene@aol.com
 Emerald Services Inc., Tacoma: (888)-832-3008; www.emeraldnw.com
 Envirotech Systems, Seattle: (800) 922-9395; rnelson@encirotechsys.com
 Keep It Clean Recycling and Equipment, Redmond: (425) 868-3535
 Kleen Environmental Technologies, Seattle: (206) 285-8010
 Philip Services, Renton: (800) 228-7872; www.philip.com
 Romic Environmental Technologies Corp., Tacoma: (800) 646-2493; www.romic.com
 Safety-Kleen, Lynnwood: (425) 775-7030; tcarney@safety-kleen.com
 Univar, Chem Care Division, Kent: (800) 562-4860

Motor Oil Recycling

Businesses that only generate very small quantities of motor oil should see the vendors listed in the "Recycling Opportunities" guide.

On-Site Recycling

Northwest Industrial Oil Cleaning, Bellingham: (800) 632-2305

Uncontaminated Oil Only

Airo Services Inc., Tacoma: (800) 334-2387

Contaminated or Uncontaminated Oil

Disposal of Toxics Facility, Bellingham: (360) 380-4640; Small Quantity Generators only
 Advanced Environmental Technical Services, Tukwila: (800) 334-2387;
 slehmann@onyxes.com
 Basin Oil Co. Inc., Seattle: (800) 439-2948; fpkeene@aol.com
 Envirotech Systems, Seattle: (800) 922-9395; rnelson@encirotechsys.com
 Keep it Clean Recycling and Equipment, Redmond: (425) 868-3535
 Kleen Environmental Technologies, Seattle: (206) 285-8010
 Philip Services, Renton: (800) 228-7872; www.philip.com
 Protective Environmental Services, Seattle: (206) 624-5503; protect@enviro.ws
 Romic Environmental Technologies Corp., Tacoma: (800) 646-2493; www.romic.com
 Safety-Kleen, Lynnwood: (425) 775-7030; tcarney@safety-kleen.com
 Shultz Distributing, Seattle: (800) 225-9666; www.shultzdist.com
 Spencer Environmental Services, Sumner: (800) 286-0896

Solvents

Disposal of Toxics Facility, Bellingham: (360) 380-4640; Small Quantity Generators Only
(also accepts alternative solvents)

Advanced Environmental Technical Services, Tukwila: (800) 334-2387;
slehmann@onyxes.com

Basin Oil Co. Inc., Seattle: (800) 439-2948; fpkeene@aol.com

Emerald Services Inc., Tacoma: 888-832-3008 (no waste solvents);
www.emeraldnw.com

Envirotech Systems, Seattle: (800) 922-9395; rnelson@encirotechsys.com

Keep it Clean Recycling and Equipment, Redmond: (425) 868-3535

Kleen Environmental Technologies, Seattle: (206) 285-8010

Philip Services, Renton: (800) 228-7872; www.philip.com

Romic Environmental Technologies Corp., Tacoma: (800) 646-2493 (no waste solvents);
www.romic.com

Safety-Kleen, Lynnwood: (425) 775-7030 (also accepts alternative solvents);
tcarney@safety-kleen.com

Shultz Distributing, Seattle: (800) 225-9666 (no paint solvents); www.shultzdist.com

Spencer Environmental Services, Sumner: (800) 286-0896 (also accepts alternative
solvents; no waste solvents)

Univar, Chem Care Division, Kent: (800) 562-4860 (no waste solvents)

HAZARDOUS WASTE CONTACTS

Waste characterization, disposal and EnviroStars

Disposal of Toxics Facility: (360) 380-4640

Sanitary sewer and storm water information

City of Bellingham Department of Public Works: (360)-676-6850

City of Blaine Department of Public Works: (360) 371-5549 (Frank Arnett)

City of Ferndale Department of Public Works: (360) 384-4006

Leftover, usable materials

Industrial Materials Exchange: (206) 296-4899 or 1-888-TRY-IMEX

<http://www.metrokc.gov/lhwmp/cesqg/imextoc.html>

The RE Store: (360) 647-5921;

restore@re-source.org

Information on alternatives to hazardous products and service vendors

RE Sources: (360) 676-5723;

recycle@re-sources.org

Worker safety

Department of Labor and Industries, Industrial Safety and Health Division: (360) 647-7300

Hazardous materials labels

Sanderson Safety: (360)-734-1110

Department of Ecology Web Site: [http://](http://www.ecy.wa.gov)

www.ecy.wa.gov/programs/hwtr/hw_labels/index.html

Water Pollution Prevention

When rain falls on streets, parking lots, buildings, and other impervious surfaces (surfaces that can't absorb water), it runs off quickly instead of soaking into the ground. As rain flows across such hard surfaces, it often picks up pollutants such as oil, heavy metals, and dirt before the runoff reaches the nearest storm drain. These storm drains send water to the nearest stream, lake, or bay without treatment.

Just about anything on the ground can become a water pollutant. Some pollutants commonly found in our creeks and Bellingham Bay fall into the following categories: toxic compounds, sediment and nutrients.

Toxic Compounds

Common Sources: Pesticides, automotive fluids (such as antifreeze, battery acid, gasoline), most solvents, paints, and sealants.

Toxins can accumulate in the aquatic food chain as one larger organism eats many smaller ones that have been contaminated. Even in very small concentrations, these toxic substances can harm aquatic plants, animals, and our drinking water supply. Oil and grease can coat fish gills (making it hard for fish to breathe) and clog drainage facilities (leading to increased maintenance costs and potential flooding).

Sediment

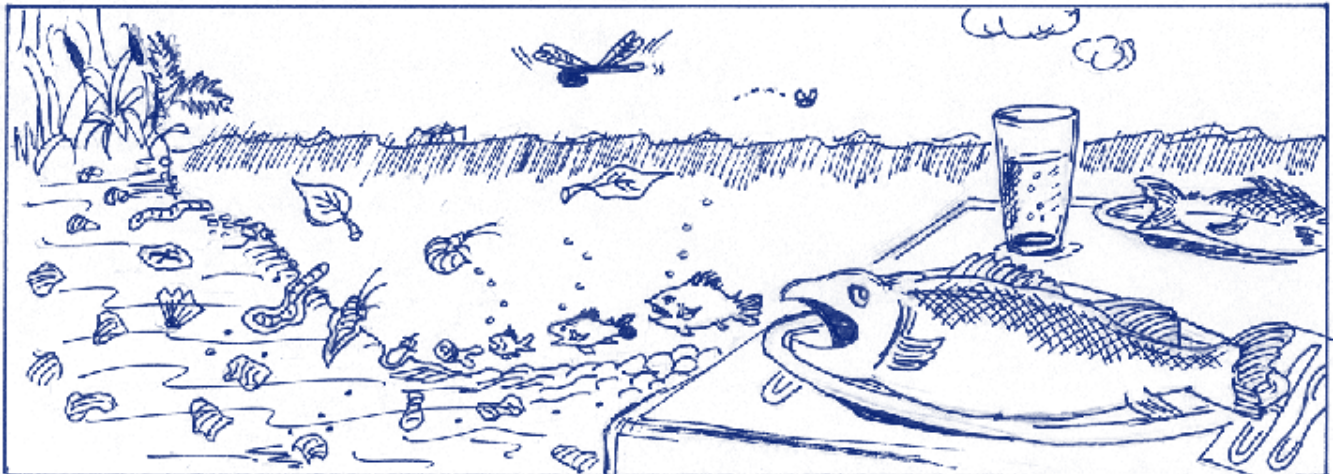
Common Sources: Eroded soil from cleared land or exposed soil, as well as dirt that accumulates on roads and paved parking lots.

When dirt is allowed to flow into storm drains, it can clog stormwater management systems, leading to higher maintenance costs and flooding. It can also turn the water in our streams, lakes and bays cloudy, making it more difficult for fish to find food. As it settles, sediment can also smother fish eggs. Other pollutants such as metals and bacteria tend to attach to soil particles. As a result, when sediments enter water, they usually carry other pollutants with them.

Nutrients & Oxygen-demanding Substances

Common Sources: Fertilizers, food waste, plant debris, detergents, septic systems.

When substances such as food waste and plant debris end up in our creeks, lakes and bays, they use up oxygen in the water as they decay. If oxygen levels in the water become too low, aquatic life can become weakened or die. Salmon and trout are particularly at risk, because they need high oxygen levels to live. Nutrients such as phosphorus and nitrogen can over-stimulate the growth of algae and other aquatic plants, which also results in lower oxygen levels when these plants decay. These algae blooms can also result in unpleasant odors and unsightly surface scums, making water less suitable for recreation.



What You Can Do

Good Housekeeping Practices

Many people know that it is illegal to dump chemicals or other pollutants down a storm drain. But you also break the law if you allow pollutants to be washed down a storm drain with rain or wash water. Unless you follow these guidelines, you might be polluting:

Never allow wash water from dirty vehicles, sidewalks, awnings, paintbrushes or equipment to go down a storm drain, even if you are using “biodegradable” soaps.

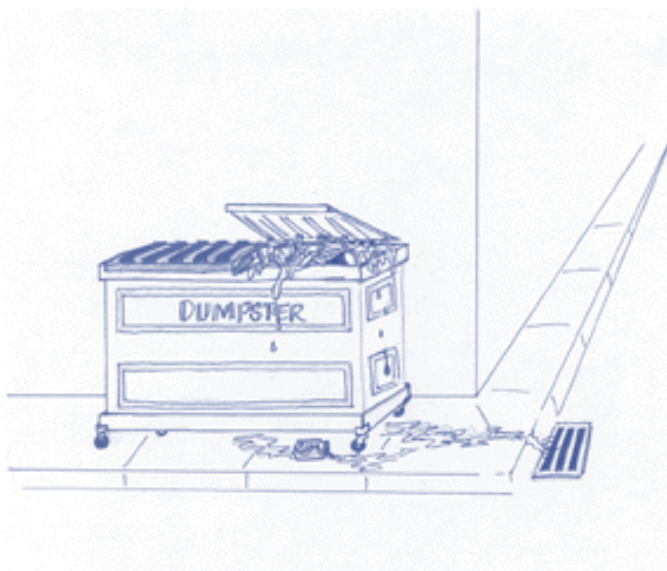
Always clean up antifreeze spills and other spills on your parking lot.

Never allow materials or wastes stored outside to leak.

Dumpsters

Spills and leaks from dumpsters are a common source of pollutants, especially from dumpsters at restaurants and other facilities producing damp or oily wastes that are compacted.

Keep the dumpster lid closed to keep the rain out and prevent leakage. Better yet, install a cover over the dumpster. (Call your garbage collection company first to be sure the design doesn't interfere with garbage collection.)



Inspect the area around your dumpster regularly and sweep (or use another waterless cleaning method) to remove wastes. Don't use pressure washing to get rid of waste; chances are you'll be sending it straight down a storm drain and into a creek.

If you notice that your dumpster is leaking, call your garbage collection company (see contact page at the end of this section), and they will replace it.

Indoor Drains

It is illegal for indoor drains to drain to storm water systems. If they do, take immediate action to remedy this, such as plugging the drains, converting them to a dead-end sump, or connecting them to a sanitary drain. If you want to connect them to a sanitary drain, contact your local public works department to find out whether that is permitted and if so, what steps must be taken. If you are not sure where your storm drains lead, your public works department can also help you run tests to make this determination.

Liquids Stored Outside

Wherever you store materials, especially liquids, there's always a chance they're going to spill or leak. And if a liquid spills or leaks outside, it's likely to be washed into a storm drain. Whether a liquid is considered hazardous or not, if it's not rain water, it shouldn't go down a storm drain.

See page 15 for precautions to take when storing materials outside.

Cleanup Supplies

When spills occur – even for materials that are normally considered harmless (such as food) – clean up the spill as soon as possible. Provide employees with specific clean-up instructions for different materials handled on-site. See page 16 for spill management suggestions.

Stockpiles

Stockpiles of building supplies and other materials – such as lumber, metal products, topsoil, sand, gravel, compost, sawdust, and wood chips – should be covered to keep rain from carrying off water pollutants such as sediment and nutrients.

Place stockpiles on a paved surface and cover them with plastic sheeting when they're not being used. Secure the sheeting with heavy objects such as sandbags or old tires.

Build a permanent, covered area for stockpiles.



Pressure Washing

Pressure washing can be an effective way to clean buildings, pavement, and equipment. Unfortunately, it also dislodges pollutants (such as paint chips, sediment, and automotive fluids), which are often washed down storm drains if preventative measures aren't taken. Instead of a pressure washer, use a broom or brush to clean as often as you can.

Pressure washing should be done on your site only if you're equipped to capture and properly dispose of all wash water.

Avoid pressure washing as much as possible. Use waterless cleaning methods such as absorbents, brooms, and wire brushes. Use tarps to catch paint chips.

Mechanically remove loose debris before applying water. Collect dislodged material and dispose of it properly. If you suspect the material might be hazardous, call the Disposal of Toxics facility at 360-380-4640 for information on how to dispose of it.

Use high pressure, low volume water to reduce overspray.

Avoid using acids or other harsh cleaning products and detergents that contain phosphates.

Contain wash water by temporarily blocking all storm drains (with rubber mats, for example). Then use sandbags or other materials to divert the flow of wash water to the sanitary sewer or a grassy/vegetated area that does not directly discharge to a storm drain. (This method should not be used if the water contains any hazardous substances.)

Alternatively, contain wash water by surrounding the area with sandbags or other materials. Then pump the wash water to the sanitary sewer – call your local Department of Public Works (see contact page) to make sure the water meets waste treatment plant requirements.

If it's not possible to divert or pump wash water, protect storm drain inlets with filter fabric bags. These can be hung down into catch basins to filter solids from runoff and then removed for disposal when they're full. When using this method, avoid using acids any soap or solvents.

Place dechlorination tablets in the filter bags or water flow to remove chlorine, which can kill aquatic insects and other organisms in the lake or stream that receives the discharge. Tablets are available from HD Fowler Inc. in Bellingham or from Pollare Water: 1-800-437-1146.

Vehicle & Equipment Washing

Washing equipment and vehicles can generate significant amounts of polluted runoff. In addition to detergent, oil, grease, heavy metals, and other pollutants, wash water can also contain grease cutters, acids and other toxic chemicals.

Use a commercial washing facility that drains to the sanitary sewer, preferably one that recycles the wash water.

Use an area inside your building with drainage to the sanitary sewer. Before discharging wash water to the sanitary sewer, call your local Public Works Department and make sure wash water can be accepted. Pre-treatment of water might be required. Certain materials are prohibited due to health and safety risks. In addition, water used to wash muddy trucks or equipment can contain high volumes of sediment, which can clog sewer lines.

Ideally, all washing should be done in a covered area. If you wash vehicles or equipment outdoors, water should never be allowed to go into a storm drain. In addition, the wash area should:

be bermed so that an area no bigger than 200 square feet drains to the sanitary sewer. Use of an area such as this would require special valves, as well as specific approval from the sewer authority;

be paved, preferably with concrete;

be well marked as a wash area and posted with signs prohibiting oil changes and washing with solvents.

Use other options as a last resort: If it is not possible to connect a wash area to the sanitary sewer, collect the water in a dead-end sump, tank, or other device for transport to the sanitary system for proper disposal.

Alternatively, place a temporary plug – such as a rubber mat – over the storm drain and pump the accumulated water to the nearest sanitary sewer.

Car dealers without washing facilities can wash new vehicles with high pressure, low volume water only; do not use soaps, detergents, or other cleaners. If necessary, direct wash water away from storm drains. Use a car wash kit to pump water into a sanitary drain. Call your public works department for a kit.

Fleet Vehicles

Properly maintaining equipment and vehicles will prevent oil, grit, fluids, and other pollutants from being deposited onto the ground and washed down a storm drain. Proper vehicle maintenance will also extend the life of asphalt – leaking fuels will cause asphalt to deteriorate.

Drain and properly dispose of fluids from cars or engines saved for parts.

Outdoor Projects

Place a tarp on the ground during remodeling, painting, sandblasting, or other operations that can create dust or debris, so these wastes can be collected and disposed of properly. Call the Disposal of Toxics facility at 360-380-4640 before putting paint chips, metal shavings, and other debris in the dumpster.

When sandblasting or spray painting, hang tarps or drop cloths to enclose the area (use temporary scaffolding if necessary). Arrange the tarps to protect the area from wind and to capture airborne particles.

Other tips for outdoor painting projects:

Use water-based paints instead of oil-based ones whenever possible.

Mix paint indoors, before starting work. This will reduce the opportunity for spills to enter a storm drain. Once outside, place paint cans in larger pans to contain drips and spills.

For large jobs, provide additional spill containment by surrounding the work area with a temporary berm such as sandbags. Portable, inflatable berms can also be purchased at industrial supply outlets.

Storm Drains & Catch Basins

Maintenance of below-ground drainage features can be hazardous; use caution or contact a professional maintenance company.

Storm Drains

Storm drain grates can become clogged with litter or leaves, especially in the fall. Regular inspection and removal of debris can prevent blockages that could lead to localized flooding.

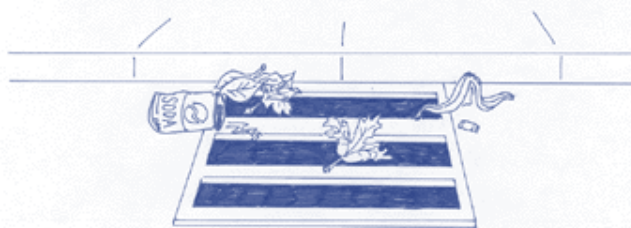
Stenciled messages are a good reminder that nothing but clean water belongs down a storm drain. Contact Bellingham Public Works at 360-676-6850 and borrow supplies to stencil the storm drains on your site.

Catch Basins

Catch basins are underground boxes (some are round) located below storm drain grates or where pipes intersect. When debris goes through a storm drain grate, it usually lands at the bottom of a catch basin and stays there while the rainwater flows on through the outlet pipe.

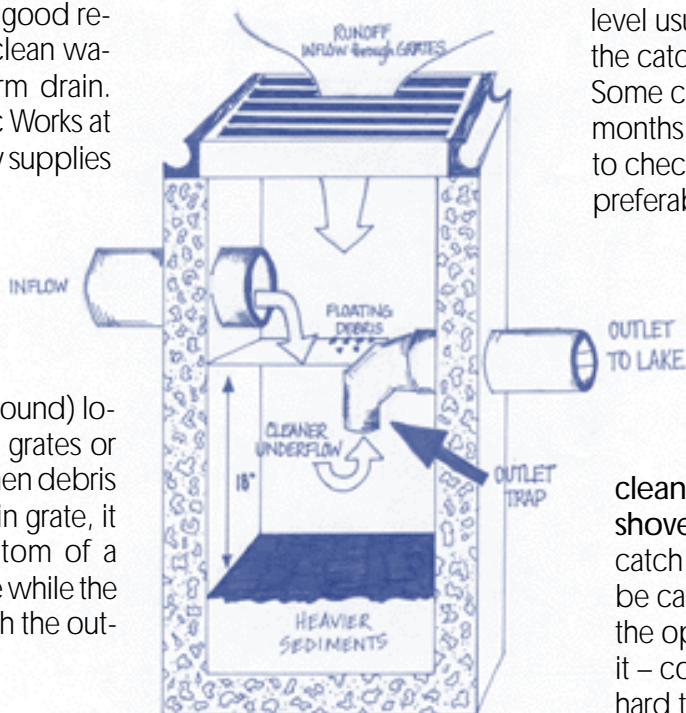
If debris is left to accumulate, it will eventually get washed out of the catch basin. From there, the debris will either go on to pollute a stream or lake, or clog an outlet pipe. If your outlet pipe gets clogged, it can cause flooding and will cost a considerable amount to get unclogged.

Inspect your catch basins regularly. Insert a yard stick or other probe to see whether



the catch basin needs to be cleaned. Notice when your probe hits the debris and continue probing to the catch basin bottom to estimate how deep the accumulation is. As a general rule, clean it when the area between the outlet pipe (where the water level usually is) and the bottom of the catch basin is about half full. Some catch basins fill up in three months; others take years. It's best to check at least twice a year, preferably in the spring and again before the rainy season begins.

If your catch basin is shallow enough (less than four feet deep) you might be able to clean it out yourself with a shovel and bucket. If the catch basin cover is rectangular, be careful not to drop it down the opening when you remove it – covers can be extremely hard to retrieve.



You can also hire a contractor to maintain the catch basins at your site. Look in the Yellow Pages under "Tanks-cleaning," or "Drainage contractors," and ask the listed firms whether they maintain drainage systems.

Properly dispose of what you take out. First let the residue dry out as much as possible. Then if the waste appears free of chemical odors, sheens, or other signs of contamination, you can put it in your dumpster. If you suspect the material might be hazardous, call the Disposal of Toxics facility at 360-380-4640 for information on how to dispose of the waste.



New Bellingham Storm Water Utility Fee

The Storm and Surface Water Utility fee is a monthly or bimonthly charge on Bellingham utility bills. The fee provides a dedicated source of revenue to the utility that, in turn, funds projects and programs needed to prevent flooding and erosion, and to protect water quality and fish habitat in local streams and Bellingham Bay. The fee also pays for ongoing operation and maintenance costs.

In addition to preserving the quality of the City's environment, these projects and programs fulfill the City's obligations to comply with Federal and State regulations summarized below.

The Storm and Surface Water Utility fee is \$5 per month for single-family residences with a "footprint" of 3,000 square feet or less. Homes with a "footprint" of 1,000 square feet or less are charged \$3 per month. Homes and businesses with larger amounts of impervious (built or paved) surface will be charged per square foot of impervious area. Properties that have engineered storm-water mitigation facilities might be eligible for a partial reduction in fees.

State and Federal Laws

Puget Sound Water Quality Management Plan (PSWQMP) is a regional plan that sets requirements for municipal stormwater programs, with the goal of reducing pollution in Puget Sound. Key elements include identification and ranking of pollution sources, minimum requirements for new development and redevelopment, operation and maintenance programs, education, and best management practices (BMPs) for stormwater.

Municipal Stormwater Permits are required under the federal Clean Water Act. These permits have similar requirements to the PSWQMP. In addition, they mandate BMPs and measurable goals for public education and involvement; detection and elimination of illicit discharges; construction of stormwater runoff control measures; post-construction stormwater management; and pollution prevention for municipal operations.

Finally, the Endangered Species Act (ESA) protects chinook salmon, bull trout and their habitat through wide-reaching measures – still under development – to address changes in stream flow and protect aquatic habitat and water quality. In the absence of a comprehensive surface water management program, releasing polluted stormwater or authorizing development that changes stream flows or affects habitat could be considered an illegal "take" of an endangered species.

Oil/Water Separators

One quart of oil, if allowed to enter a river or stream, can contaminate up to two million gallons of water! Properly maintained, an oil/water separator can remove sediment, oil, and grease from storm water runoff. Oil/water separators are also used as a pretreatment measure to keep oil out of the sanitary sewer system. Oil/water separators are used in areas with heavy traffic or high potential for petroleum spills, such as parking lots, gas stations, and loading areas.

There are three common types of oil/water separators:

floating material separators (FMS); these are also known as spill-control separators,

American Petroleum Institute (API) separators, and

coalescing plate separators (CPS).

If your oil/water separator is associated with indoor plumbing and connected to the sanitary sewer, call your local Public Works department (see contact page) for inspection and maintenance recommendations.

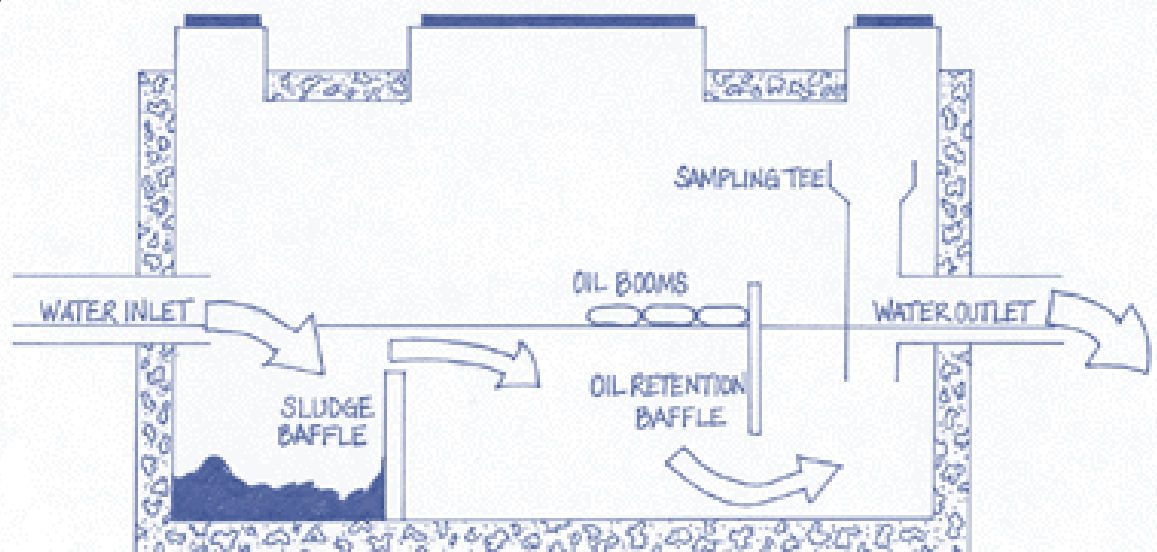
If you have questions about a separator that connects to the storm drain system, call your local public works department for free technical assistance. The following recommendations apply to oil/water separators connected to the storm drainage system.

Eliminate oil sources as much as possible. Oil/water separators don't remove all oil before discharge to streams and are not meant to receive large amounts of oil. Take steps to eliminate oil sources. For example, cover any oily parts, equipment, or pallets stored outdoors and promptly fix oil leaks on company vehicles. The less oil that reaches your oil/water separator, the less maintenance you'll have to do.

Do not allow water containing soaps or detergents to pass through an oil/water separator. The soaps or detergents would emulsify any oil trapped in the separator and release it down the storm drain.

Check the system at least twice a year and after any spills. To ensure that separators are properly maintained, it's a good idea to hire a professional service. You can find tank cleaning services listed under "Oils - Waste" in the Yellow Pages.

If you have a FMS oil/water separator, clean it when sediment has filled approximately half of the area between the catch basin bottom and the bottom of the t-shaped pipe. Also, oil needs to be removed from the separator when there is a visible sheen on the water surface.



To inspect API and CPS separators, open the inspection plates and push a long probe (about eight feet) to the bottom. Any resistance will indicate that sludge has built up on the bottom.

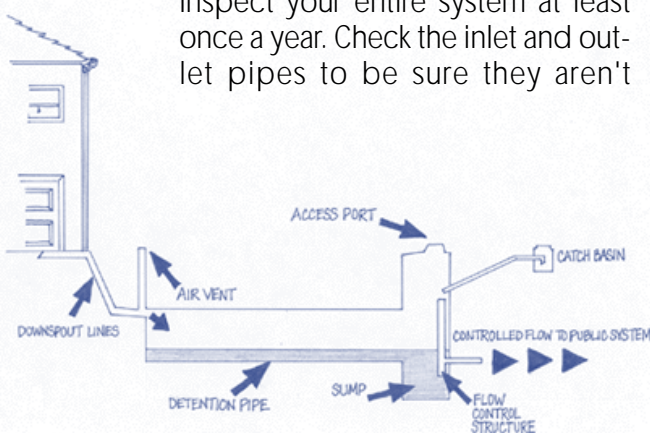
Service the oil/water separator when the sediment buildup is about eight inches deep in the inlet chamber (usually the one closest to the baffle). Also check the oil depth. Have the system cleaned when oil is two or more inches deep.

Replace oil absorbent pads (if your separator has them) in the spring and fall or when they are visibly brown and stained. Wearing rubber gloves, wring out the used pads over a container, recycle the collected oil, and then dispose of the pad in your dumpster or through the Disposal of Toxics program. If your separator doesn't have pads, consider installing them. Replacing the pads is less expensive than cleaning the entire separator.

Detention Facilities

Many commercial sites in Bellingham have detention facilities that store storm water runoff and release it slowly to pipes that lead to streams and lakes. Detention facilities come in a variety of sizes and shapes. The most common are vaults and ponds. Without regular maintenance, drainage systems will eventually stop functioning properly, losing their ability to control flooding and to remove pollutants from stormwater.

Inspect your entire system at least once a year. Check the inlet and outlet pipes to be sure they aren't



blocked, check all valves to be sure they still operate, and check the condition of pond control structures. Immediately repair or replace any damaged or defective structural components.

West Nile Virus?

If you are worried about mosquitoes breeding in your detention pond, be aware that non-toxic controls are available. For information, call the City of Bellingham Public Works Department at 360-676-6961.

Maintain thick, native vegetation around ponds to slow and filter stormwater. Avoid planting seasonal plants that shed leaves, which can block pipes and control structures. Each fall, cut back the plants in open ponds and trim the grass nearby. Always remove cut vegetation.

Regularly remove accumulated sediment and debris, especially around the inlet and outlet pipes.

Note: Herbicides used to control plant growth in ponds can pollute ponds and water downstream. Algae and aquatic plants can be controlled by limiting the input of nutrients (such as fertilizers, leaves, and lawn clippings) and by providing aeration.

Landscape Maintenance

Paving and Decking Materials

When rain hits impermeable surfaces such as concrete, asphalt, and brick, it runs off quickly, collecting pollutants as it travels. Try using alternatives (such as wood decking, porous asphalt, modular pavers, pebbles, gravel, or pervious concrete) that slow the flow of water and allow it to filter into the ground.

Treated Wood

Reduce your use of treated wood (railroad ties, pressure-treated lumber, etc.) Try rocks, earth berms, or "plastic lumber."

Be especially careful about wood treated with creosote. Creosote is a black, sticky, tar-like substance used to preserve wood. Creosote contains more than 160 chemicals, many of which can cause cancer, abnormalities, deformities, and death. When exposed to the ultra-violet light in sunshine, some of the chemicals in creosote become up to 1,000 times more toxic and are more likely to leach from railroad ties, telephone poles and pilings. From your landscape, they can wash into surface water, groundwater, and eventually, streams, rivers and the ocean. The creosote in treated wood can contaminate plants and animals and kill marine animals – especially eggs, larvae, and juveniles living in the water.

In addition to creosote, a common wood preservative is pentachlorophenol (often used in pressure-treated wood). “Penta” is highly toxic to both humans and the environment.

Irrigation Systems

Poor watering and maintenance practices can be a drain on your budget as well as our limited drinking water supply.

Assess your landscape to determine its water needs. Mature landscapes and existing native vegetation need less water than grass or newly planted areas.

Try incorporating separate irrigation zones. Zoned irrigation saves water and minimizes runoff by allowing appropriate amounts of water to be applied to sunny and shady areas of lawns and beds according to the separate needs of each.

Inspect and tune up your irrigation system. Because most watering is done during off-hours, problems often go unnoticed. Turn the system on and take a look. Even the untrained eye can catch obvious problems. Fix leaks, repair damaged heads, adjust wasteful overspray, and cap off any unnecessary sprinklers.

Follow an efficient irrigation schedule. Automatic controllers reduce labor, but they can also overwater if their schedules are not adjusted to keep up with climate changes throughout the growing season. Adjust timers on automatic sprinkler systems every week or so, depending on the weather.

Plants

Plants growing in their optimum environment are less likely to fall prey to pests or require extensive fertilizing. Some plants, particularly natives, have a natural resistance to many pests and diseases.

Plant (or ask your landscaper to plant) species that will thrive given the site conditions. For example, plants that require shade are more susceptible to pests when grown in full sun. Moisture and pH levels also affect a plant’s ability to withstand stress and pests. Select plants adapted to our dry summers and mild winters.

Plant a variety of species. Areas planted with a mix of plants are less likely to become infested than areas with just a few varieties.

If a plant suffers regularly from pests and disease, you might want to replace it with something else.



Pest Control

Pesticides can be harmful to wildlife and water quality as well as customers and employees. Many pesticides and weed killers end up working against you, because they often kill helpful organisms (such as honeybees, earthworms, and organisms that feed on the pest) as well as the pest itself. It's like destroying your landscape's own natural immune system. As a result, your landscape becomes more susceptible to pests, making it necessary to spend more and more money on pesticides.

First, consider alternatives to pesticide application. These include biological controls (e.g. using ladybugs to control aphids), **mechanical controls** (e.g. covering bare areas with bark mulch to prevent weed germination), and **cultural controls** (e.g. putting the right plant in the right site conditions). Redesigning the system so that it can't support the pest can be the most cost-effective long-term strategy.

Establish acceptable damage levels. For each potential pest, decide when a problem is serious enough to justify some kind of treatment.

Before buying pesticides, calculate how much you need and buy only that amount. Be sure the pesticide you are purchasing is targeted to the right pest.

Don't apply pesticides routinely unless you are absolutely sure they are needed. Schedule treatments to be most effective against the pest (during the pest's most vulnerable life stage) and to be least disruptive to naturally existing pest controls.

Be sure to read and follow the label when mixing and applying pesticides. Never use rough estimates for pesticide application. Extra pesticide does not mean increased effectiveness and, in fact, might kill or damage plants.

Apply pesticides to the specific area with the pest problem, not throughout surrounding areas.



Take measures to minimize drift during spraying. Adjust equipment correctly and be aware of weather conditions such as breezes and wind direction. Don't apply pesticides near or over water, including ditches, streams, ponds, and lakes.

Once an application is made, evaluate its effectiveness.

Fertilizer

Excess fertilizer can wash into waterways, stimulating weed and algae growth. Excessive plant growth makes our water less desirable for recreation and takes up oxygen in the water needed by fish and other aquatic life.

Don't use "weed and feed" combinations or insecticides. Weeds aren't the cause of an unhealthy lawn, they're the result of one. The best defense against weeds is a thick healthy lawn that comes from proper fertilizing, watering, and mowing. Since most insects found on a lawn are beneficial, insecticides should rarely be a part of a lawn care program.

It's a good idea to have your soil tested to find the exact types and amounts of fertilizer your soil needs. You can arrange for soil testing through Whatcom County's Cooperative Extension Service 360-676-6736 or buy soil-testing kits at some garden stores. You might find out your soil doesn't require any fertilizer at all –and that can mean a significant cost savings.

Try a natural (or organic), slow-release fertilizer. This will provide roots with constant nourishment rather than the quick boost that chemical fertilizers give. Slow-release fertilizers encourage strong root growth that helps make lawns more resistant to weeds.

Healthy trees and shrubs do not require annual fertilizing. Fertilizers should be applied only when a tree or shrub is growing poorly and the problem can't be traced to other causes (poor soils, insects, disease, weather).

Use a mulcher mower. By leaving clippings on the lawn, nitrogen applications can be reduced by up to 50 percent. Contrary to popular belief, grass clippings will not cause thatch. Avoid 2-stroke gas motors in mowers, leaf-blowers and other outdoor equipment; they contribute to gasoline pollution. Use mechanical methods (a broom or push mower) or electric options when you can.

Adjust mowers so that only the top one-third of the grass blade is cut, and leave grass 1.5 to 2 inches high after cutting. High mowing will keep lawns thick and healthy and will help to shade out weeds. Shorter blades don't produce enough food to feed root growth.

When applying fertilizers, follow the label directions exactly and keep fertilizers off paved areas. If you use a liquid fertilizer, be careful to avoid overspraying and wind drift.

Automotive Facilities

Indoor Drains

If any drains are still connected to the storm drainage system, they need to be sealed or re-routed to the sanitary sewer.

Fueling Areas

Gas and diesel spills are common where vehicles are fueled. Fuels contain organic compounds and metals that are harmful to aquatic life. If the fueling area is improperly designed, oil and grease, metals, and toxics can be washed to the drainage system in violation of state and local law. Here are some steps you can take:

Pave the fueling area using concrete, not asphalt. Fuel breaks down asphalt.

Design the fueling area as a spill containment pad. In other words, design it so that any spills are contained and so that storm water runoff from adjacent areas can't enter it. The steps on page 16 can help you develop a spill-prevention plan.

Cover the fueling area. This keeps rain from hitting the ground and washing away any spilled materials. Ideally, the cover should extend several feet beyond the spill containment pad.

Drain the fueling area to an oil/water separator and then to the sanitary sewer. Slope the pad toward drains that connect to the sanitary sewer. For example, locate drains along the perimeter on the "downhill" side of the fuel island and connect them to the sanitary sewer. Equip the drain with a valve to allow shutoff in the event of a large fuel spill. (Connecting to the sanitary sewer will require a side sewer permit from your local Public Works Department.)

Post signs that instruct fuel pump operators not to overfill gas tanks. Overfilling causes spillage and vents gas fumes to the air. Make sure the automatic shutoff on the pump nozzle works.

Place any temporary fuel tank (used to fuel vehicles in the field) in a contained, impervious area. The area should be large enough to contain 110 percent of the tank's total volume. Impervious liners such as heavy plastic or concrete will work.

Storing Equipment and Parts

Drain fluids such as unused gas, transmission and hydraulic oil, brake fluid, and radiator fluid from vehicles, parts or equipment kept in storage. Leaking vehicles or parts on site should be kept in a covered, contained area. Recycle or otherwise properly dispose of drained fluids.

Construction Sites

Preserving Vegetation

Vegetation prevents erosion. It also helps slow and filter pollutants from stormwater. Therefore, it's important to preserve existing vegetation, wherever possible. Maintaining a vegetated buffer zone along pond and stream banks is especially important.

Vegetated buffers should be as wide as possible, since the wider the buffer, the more plants will be able to slow and filter stormwater before it enters a water body.

Be sure to observe clearing limits and comply with all vegetation preservation and setback requirements.

Time the clearing so it occurs no sooner than necessary for subsequent construction activities.

Erosion and Sediment Controls

Sediment from poorly managed construction sites can be a significant pollutant. Erosion and sediment controls should focus first on preventing erosion. However, once soils become mobilized, sediment controls help keep sediment and associated pollutants on site and out of our water.

Provide temporary vegetation or cover. Once soils have been exposed, take steps to stabilize them as soon as possible with vegetation (such as sod laid perpendicular to the slope) or another type of cover (such as straw, hay, wood-fiber mulch, netting, or plastic sheeting).

Establish gravel or rock wash pads at all exits to prevent vehicles from tracking mud onto streets where it will be washed into storm drains.

Direct stormwater. Erosion can be further reduced by slowing stormwater and diverting it away from exposed soils. Runoff can be diverted using berms or ditches (preferably lined with vegetation or rock). Runoff can be slowed by roughening surfaces, planting grass, terracing or contouring the site, installing filter fabric fencing, and installing stone check dams.

Control sediment. Sediment controls (such as settling ponds and filter fences) are used to remove or settle out soil and other particles from storm water runoff. For information about how to choose and install sediment controls, contact the Department of Ecology at 360-738-8250 and ask for a copy of the Puget Sound Storm Water Manual.

Maintain erosion and sediment controls. Frequently inspect erosion and sediment controls to make sure they're working. This is especially important both before and after a storm. Be sure to remove sediment controls once the project is completed.

Provide permanent vegetation or cover as soon as earthwork is complete. Cleared areas that do not require further construction activity should be permanently vegetated. Options for permanent cover include permanent seeding or hydroseeding, sodding laid perpendicular to the slope, or other vegetation.

Restaurants

Keeping Fats, Oils, and Grease Out of the Sewer

It is important to prevent sewer lines from blocking by cleaning grease traps regularly or using another approved method. When sewer backups occur, the contaminated water that usually is sent to the sanitary sewer ends up going into the storm drainage system and straight to our creeks.

Keeping Fats, Oils, and Grease Out of Storm Drains

Oil and grease cause several problems in surface water. They can coat fish gills (making it hard for fish to breathe), block oxygen from entering the water, and clog drainage facilities (leading to increased maintenance costs and potential flooding problems). Some types of oil and grease contain chemicals toxic to aquatic life at low concentrations.

Oil and grease on surfaces exposed to rain or wash water can be washed to the storm drain and ultimately to a stream or lake. Cooking oil and food grease can enter the drainage system from a number of sources – notably from leaky dumpsters, from oils improperly stored or spilled outdoors, and from air vents that release oil and grease outdoors.

Cover or replace leaky dumpsters and compactors. You can also drain the pavement beneath them to the sanitary sewer.

Wash greasy equipment such as vents and vehicles only in a designated wash

area properly connected to the sanitary sewer system with an oil/water separator.

Keep containers with oily rags and empty containers indoors or covered. Wash greasy, oily equipment (using an indoor drain) before storage outside.

Recycle oil and grease wastes. Store them for pick-up in an area where leaks and spills will be contained (for example, inside a half barrel to catch drips).

Employee Education

Many activities that protect the environment need to be performed on an ongoing basis. Therefore, employee education is key to any successful pollution prevention program.

Teach employees the difference between storm drains, septic systems and the sanitary sewer. Let them know what is appropriate to send to each system.

Continue your training procedures in the future. Assign experienced workers to train new ones. Review procedures as a group at least once a year. You can coordinate this with worker safety training programs.

Display signs describing water quality protection and recycling activities where employees and customers will see them. For example, install a sign near dumpsters reminding staff to keep the lid closed.

A quarterly facility walk-through can help identify potential problems. Encourage employees to prevent pollution. Reward employees who come up with effective ways to improve pollution prevention practices.

Explain to peer businesses ways they could also prevent pollution and recycle. Encourage them to take the Business Pledge.

Water Pollution Prevention Contacts

City of Bellingham Public Works, storm water, storm drain stencils: 360-676-6961
City of Bellingham sanitary sewer information: 360-676-6850
City of Blaine waste water and storm water: 360-371-5549 (Frank Arnett)
Ferndale Public Works: 360-384-4006

Solid waste information (and dumpster replacement)

Sanitary Service Company: 360-734-3490
Blaine Bay Refuse: 360-332-5443

In case of flooding

911
Emergency Management: 360-676-6681

In case of sewage overflows

Bellingham Treatment Plant: 360-676-6896 (24-hour number)
Blaine: 360-371-5549 (Frank Arnett)
Ferndale: 360-384-4607

To report water quality violations

Department of Ecology: 360-738-6250
Bellingham Public Works: 360-676-6961

Permit information

Landclearing and Grading Permits
City of Bellingham Planning Department: 360-676-6982
Blaine City Hall: 360-332-8311
Ferndale: 360-384-4006
Whatcom County: 360-676-6907

Stormwater Permits
City of Bellingham: 360-676-6961
Blaine City Hall: 360-332-8311
Ferndale: 360-384-4006

Soil testing

WSU Whatcom County Cooperative Extension: 360-676-6736

Hazardous waste disposal and information

Disposal of Toxics Facility: 360-380-4640

Worker safety

Department of Labor and Industries, Industrial Safety and Health Division: 360-647-7300

Water & Energy Conservation

Compact Fluorescent Lighting (CFLs)

Compact fluorescent lamps are smaller versions of standard fluorescent lamps. CFLs can directly replace standard incandescent bulbs. Several types are available, including: two-, four-, and six-tube lamps, as well as circular lamps. CFLs can last up to 10 times longer than incandescent bulbs, use a quarter of the energy, produce 90% less heat, and produce more light. CFLs are most cost-effective in areas where lights are on for long periods of time.

Nearly 60% of energy consumed in commercial buildings is for lighting. This can be reduced by installing timers, occupancy-and daylight-sensors, and energy-efficient fluorescent bulbs, which can use 75% less electricity.

Programmable Thermostats

Programmable thermostats automatically adjust the temperature setting in a room or building. By maintaining the highest and lowest required temperatures for 4 or 5 hours a day, instead of 24 hours, the programmable thermostat can pay for itself within four years. Programmable thermostats store and repeat multiple daily settings (which can be manually overridden), and they adjust heating or air conditioning turn-on times as the outside temperature changes.

Reflective Roof Coating

Dark roofs raise summertime air conditioning demands. For highly-absorbative roofs, the difference between surface and ambient air temperature can be up to 90 degrees F, while highly reflective roofs differ by only about 20 degrees F. Reflective roof coating also minimizes thermal shock to building materials, prolonging the life of the building.

Low-Flow Toilets

Because of new low-flow toilets, which have reduced water flow from 7 gallons-per-flush to 1.6 gallons, Americans save \$11.3 million every day on their water bills. Toilet flushing uses up to 60% of water consumption in a business, so low-flush toilets are a good investment.

Energy-Efficient Windows

New energy-efficient windows improve insulation by reducing the transfer of hot and cold inside your offices. These windows are also longer-lasting, reducing the cost of replacement in the future. Replacement windows are inexpensive, reduce energy loss, and therefore lower utility bills.

Heat-Recovery Machines

Consider adding a hot-water recovery system to your central air conditioning or heat pump system. By doing so, your business could reduce electric bills for heating water by half. Electric water heaters use only electricity to make heat, while up to two-thirds of the energy used by heat-pump units is non-electric waste heat.

Cost Comparison Chart	27 Watt Compact Fluorescent	100 Watt Incandescent
Cost of Lamps	\$14.00	\$0.50
Lamp Life	1642.5 days (4.5 years)	167 days
Annual Energy Cost	\$5.91	\$21.90
Lamps Replaced in 4.5 years	0	10
Total Cost	\$40.60	\$103.55
Savings Over Lamp Life	\$62.95	\$0

Do-it-Yourself Water and Energy Conservation Checklist

Are energy-efficient fluorescent bulbs, light ballasts and tubes being used?

Are fans used instead of air conditioning?

Does the business use a programmable thermostat that can be easily adjusted?

Does the roof have a reflective coating?

If the business is equipped with refrigeration, do walk-in boxes have separate controls?

If the business has landscaping, is there irrigation support, an appropriate watering schedule, and appropriate plant usage?

Have the toilets been replaced with low-flow toilets?

If showers are available to employees, are water-saving shower heads used?

Are windows, doors, and vents caulked and weather-stripped?

Do windows need to be improved or replaced to reduce heat/cooling loss?

Are employees encouraged to report water leaks and repairs?

Are employees asked to use water efficiently when in kitchens for food preparation, food thawing and clean-up procedures?

Is a heat-recovery system in place?

Businesses can perform their own energy audits:

Locate areas where high energy is being used and wasted.

Determine inefficiencies in heating and cooling systems.

Determine budgeting limits for replacement or repairs of appliances and building materials.

Once priorities are established, proceed with energy-saving tactics.

The Federal Energy Management Program (FEMP) can help with financing through the Super Energy Savings Performance Contracts (Super ESPC's) and Utility Energy Services Contracts (UESC's).

<http://www.casciencecetr.org/geninfo/Special%20Announcements/Energy%20Conservation/businessconserve.htm>

<http://www.savingwater.org/businessstip.htm>

In Whatcom County, call Ray Trzynka, Community Relations Manager for Puget Sound Energy. His number is 360-647-6524.

