

# Preventing Water Pollution



## Automotive Repair



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# Why is Water Pollution Prevention Important?

In the past, the idea of pollution prevention was commonly thought of as keeping polluted substances out of the air and water. Communities built sewage treatment plants and put scrubbers on smokestacks with the hope of reducing released pollutants. Today, pollution prevention means much more. It means looking at every action to determine:

- How we can use fewer and less harmful substances;
- How we can create fewer waste products;
- How we can reuse or recycle substances; and
- What alternatives are available to keep these substances out of the sewer systems, landfills, water bodies, and air.

Many business activities have the potential to pollute air, water or soil. This booklet focuses on ways to prevent water pollution by conscious reduction, reuse or recycling of chemicals and hazardous substances. Information about other types of pollution prevention is available from the Nebraska Department of Energy and Environment.

## **Why is Water Pollution Prevention Important?**

It is in everyone's best interest to reduce the amount of chemicals and hazardous substances that flow into the sewer system. It is good for the earth, it is good for our pocketbooks and it is good for our communities.

## **Sanitary Sewers**

The fundamental reason we have to be careful about what goes into sanitary sewers is that

even the best sewage treatment facility has limitations. Nebraska's sewage treatment systems are designed primarily to handle sanitary sewage. Bacteria provide "treatment" by breaking down organic matter in the water. We need to remember that:

- Treatment facilities can not treat many chemicals, so the substances may pass untouched into the environment. This threatens fish, wildlife and vegetation, as well as people using polluted water sources for drinking or recreation.
- Some chemicals can destroy the bacteria in the treatment process—leaving the facility useless. This not only endangers the environment—it means a tremendous expense to community ratepayers.



- If the facility receives too much of one type of waste at a time, it will not be able to process the organic matter. Again, this creates environmental hazards, and the community may need to invest in greater treatment capacity.
- Chemicals in the sewage treatment system put system employees at risk. Exposure to chemicals can cause health problems.

### **Storm Sewers**

In most Nebraska communities, storm drains flow directly into rivers and streams, without passing through a treatment plant. It is for this reason that anything stormwater runoff is allowed to come in contact with will eventually wash into our local rivers and lakes. Improper disposal and storage of waste material creates a very high risk situation for contaminating stormwater runoff. It is everyone's responsibility to be mindful of

the possible contamination risk their day to day businesses can create. The proper storage, disposal and recycling are key factors in reducing these risks.

### **How Can Pollution Prevention Help Businesses' Bottom Line?**

Many businesses find that taking steps to prevent pollution actually saves money.

- Cutting back on chemical use can reduce material costs, as well as waste disposal fees.
- Reducing water use means less water down the drain—and lower service fees.
- Reducing chemical use can create a safer workplace, with fewer accidents and lower insurance costs.
- Ultimately, we will all pay if we need to build advance treatment systems. We all save by keeping harmful materials out of our lakes and rivers.

### **Be conscious of chemical use and types.**

Even the least toxic chemicals can be harmful if used incorrectly. Chemicals can be dangerous to employees and customers, as well as to the environment. Don't be careless about any aspect of chemicals, from initial use to disposal.

### **Reduce or eliminate chemical use whenever possible.**

Many businesses have found they have saved money by adopting new procedures that require less chemical use.

Substitute whenever possible. Many manufacturers are creating new products with less environmental impact. Avoid taking free product samples unless you are certain what's in them.

### **Use good housekeeping practices to clean up a spill.**

- Sweep, vacuum and mop floors rather than hosing them down, and do not leave sweepings outside where rain can wash them into storm drains. Do not send wash water down storm drains.
- Clean up spills immediately.
- Sweep parking lots in the fall, before the rains come. Be aware that rubber from tires and other products from automobiles contribute to water pollution.

### **Spill prevention and control.**

- Use chemicals only in designated areas where spills can be contained.
- Avoid moving chemicals long distances from storage to use.



When cleaning up spills, remove liquids with rags and sweep the floor with a dry absorbent; pour mop water into an oil/water separator before sending it down the drain. Keep absorbent materials on hand to handle different types of substances. Have a spill kit in place. Properly dispose of rags and absorbents.

### **Train Employees**

All employees—whether or not they work with chemicals—should receive training about the products in use, storage requirements, spill procedures and potential hazards.

### **Auto Repair Mechanic**

Next to our physicians and our TV repair folks, Americans revere their auto mechanics above all service providers. Service stations and auto repair shops are essential to the American way of life.

But because of the nature of these businesses, they also can contribute significant amounts of water pollution to local rivers and streams. Automotive products like motor oil and solvents endanger water quality and cannot be treated by sewage treatment facilities.

### **Contribution From Parking Lots**

Material that collects in parking lots—leaves, mud, rubber from tires, leaked oil—add to pollution problems when collected in rain water or hosed into storm drains.

### **Vehicle Owner Role**

Responding to environmental concerns can be done with simple everyday practices. Keeping cars tuned up and recycling motor oil are just a few. In addition, the automotive industry has been working aggressively to reduce its impact on the environment by promoting recycling or reuse of chemicals and by promoting other actions that keep toxins out of the environment. Yet the sheer number of cars on the roads today and those receiving repairs and maintenance represents a threat to clean water, so that each person working around automobiles must be doubly cautious to keep pollutants out of the storm and sanitary sewers.

The following pages outline steps that can help auto repair shops work more efficiently, reduce costs and contribute to improved water quality.



## System Connections

- Know where your waste water goes—does the drain lead to a sanitary sewer and a wastewater treatment facility, or does the water flow directly to a natural body of water? In either case, you will want to reduce pollutants, but if you are sending wastewater directly to a river, stream or lake, you will want to take extra precautions. Direct discharge of wastewater without a permit may be illegal.
- Keep vehicle fluids and other hazardous wastes out of the sewer systems. Store them in wellmarked containers for recycling or for disposal at an appropriate facility. Be sure not to include them with your garbage unless your waste facility is aware of them and approves them.

## Key Do's and Don'ts

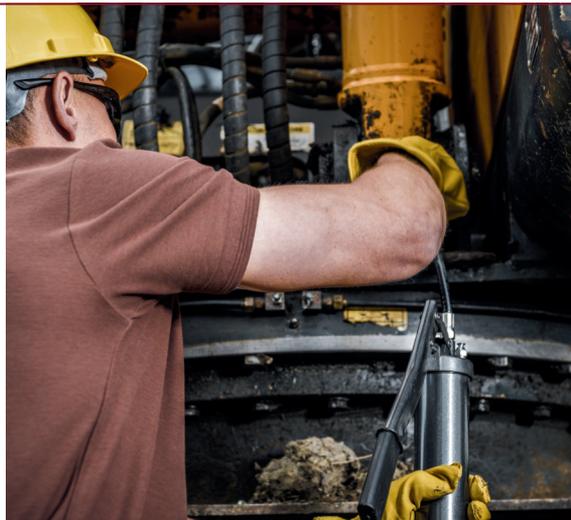
- Prevent spills, leaks and drips. Keep oil, grease, solvents and other chemicals out of storm and

sanitary drains.

- Use solvents only over self contained sinks or tanks. Do not allow solvents to drip onto the floors.
- Prevent leaks in solvent tanks; inspect tanks for leaks and repair any immediately.
- Keep tanks covered when not in use.
- Allow cleaned engines and parts to dry over the hot tank.
- Catch fluid from leaking vehicles in a drip pan, and use drip pans whenever you are changing fluids in a car.
- Recycle wash water from engine and parts cleaning or exterior washing as much as possible.
- Do not allow wastewater from steam-cleaning to flow into storm drains. It must be diverted to the sanitary sewer system with proper pretreatment.
- Do you need floor drains? If you are not washing parts or vehicles, or have other uses for the drain, consider plugging the shop floor sewer drains, thereby preventing discharges to sewers.

- Recycle motor oil, batteries, solvents, paints, oil filters, antifreeze, and lubricants. Be aware of any materials you use that are considered hazardous substances, and follow all regulations related to their storage, use or disposal.
- Keep dust from sanding and Bondo out of the sewers by:
  - Sweeping up, not hosing down, dust;
  - Allowing debris from wet sanding to dry out overnight before sweeping it up;
  - Purchasing sanders with an attached vacuum to reduce clean-up time;
  - Disposing non-hazardous dust in the garbage.
- Use only as much paint and thinner as necessary.
- Calculate the amount of paint necessary to cover a surface and use the best sized spray cup for the job. When you clean the spray gun, do not release the waste water to either sewer systems. Use an enclosed “gun washer.”
- Keep batteries and chemical containers dry and off the ground to prevent leads into stormwater.
- Drain and collect fluids from stored vehicles that are being dismantled. Reuse or recycle collected fluids.
- Inspect, maintain and clean all pretreatment equipment regularly. Separators and grease traps should be cleaned at least every three months.
- Dry-sweep areas around fuel dispensing islands.

After pollution prevention techniques, the best way to assure that pollutants stay out of the sewer system is to invest in a self-contained wastewater recycling system. Ultimately, this cuts down water and sewer bills and guarantees businesses are not contributing to water quality.



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For more information on the City of Beatrice's  
Stormwater Management Plan, contact:

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