



CITY OF SALEM, UT

# Preventing Storm Drain Pollution

## Guidelines for Commercial and Light Industrial Facilities

Stormwater runoff from industrial and commercial properties can be a major source of pollution that affects local waterways. Because stormwater (rainwater runoff) drains directly to waterways without filtration or treatment, controlling potential pollutants at business facilities is key to protecting water quality.

Businesses with outdoor operations, particularly those that process/store materials or repair/store vehicles outdoors, have the greatest potential to release pollutants. Proper storage of chemicals and materials, cleaning spills and leaks, and the use of covers and barriers can prevent pollutants from washing into stormwater drainage systems. Preparation and training for managing spills and the implementation of common pollution prevention *Best Management Practices* allow businesses to protect the community and environment while maintaining their own business objectives.

By following proper housekeeping practices, your business can help reduce pollution flowing to Utah Lake and protect the ecosystem for animal and plant life and to protect our quality of life for future generations.

## **What's the Connection?**

Whether your business is two blocks or ten miles from the water, it has two connections to Utah Lake. Indoor drains, such as sinks, toilets, and most floor drains convey wastewater through the sanitary sewer system to the treatment plant where the water is treated before its discharged into Beer creek to Utah Lake.

Outside your business, rainwater, wash water from buildings, road surfaces, vehicles and equipment pick up oil, grease, cleaning compounds, pesticides, paint, garbage and other pollutants. Storm drains carry these pollutants through the storm drain system directly into local creeks and Utah lake – they are not filtered or treated in any way!

## **So, What's the Big Deal?**

Rain and wash water in the storm drain can pick up all sorts of pollutants. Soap, pesticides, cleaning compounds, coolants, degreasers, automotive fluids, paint, oil, trash and other materials. Even products labeled nontoxic or biodegradable can be harmful to sensitive ecosystems. Polluted runoff is harmful to fish and wildlife. It can harm the environment and threaten the health of our children.

The soap, coolant or oil running into the storm drain from an individual property may not seem like a big deal but when commercial and light industrial facilities in Salem fail to clean up work sites, a lot of pollutants end up in Utah lake. In other words, seemingly small problems at your business add up to big pollution problems.

## **It's Also Against the Law!**

Allowing discharge of wastes into storm drains is also against the law. If your business allows anything other than uncontaminated rain into the storm drain, you could be cited and held liable under federal, state and local regulations. The procedures outlined offer some simple suggestions to help you ensure that your business does the right thing.

## **Doing the Right Thing**

By following these guidelines and making sure that your employees and contractors do too, you can help prevent storm drain pollution and keep your business in compliance. You'll also help protect our streams, fisheries and the plant and animal life that it supports for future generations. Remember, clean water isn't just good business, it's everyone's business.

## Cleaning

Wash water from cleaning often contains solvents, detergents and metals. Wash water should never be discharged to a street, gutter or storm drain. Contact your local wastewater treatment plant for guidance on what can and can't go to the sanitary sewer.

### Equipment cleaning

- ✓ If possible, clean equipment inside and dispose of wash water to a sink or floor drain that connects to the sanitary sewer.
- ✓ If you must clean equipment outside, work in a bermed area where wash water can be collected and then pumped to an inside sanitary drain. Contact your local wastewater treatment plant for guidance on what can and can't go to the sanitary sewer.

### Vehicle Cleaning

- ✓ If possible, wash vehicles at a commercial car wash where water is treated and recycled.
- ✓ If you routinely clean vehicles on-site, provide a bermed vehicle cleaning area with a wastewater collection and treatment system (such as an oil/water separator) which drains to the sanitary sewer system. Contact your local wastewater treatment plant for guidance on permit requirements for fleets.
- ✓ Do not allow soapy wash water to run into the street, gutter or storm drain. Wash where water will flow to a lawn, gravel, or unpaved area. Or contain soapy wash water within a bermed vehicle cleaning area and pump wash water to the sanitary sewer.
- ✓ Do not use solvents or acid-based degreasers in an area where wash water could flow to a street, gutter or storm drain. Instead, confine wash water within a bermed vehicle cleaning area where it can be

pumped to an indoor sanitary drain (if allowed). Before using solvents or acid-based degreasers, contact your local wastewater treatment plant for wash water disposal options.

- ✓ Reuse or recycle wash water to minimize discharges to the sanitary sewer.

## **Building and Surface Cleaning**

When cleaning sidewalks, plazas, and building surfaces, wash water is permitted to go into a street or storm drain ONLY if ALL of the following conditions are met:

- ✓ Oil or chemical spills have been cleaned up using spill absorbents or some other dry-cleaning method before cleaning with water. When oil or chemicals are absorbed, sweep the material up and dispose of it as hazardous waste.
- ✓ Surfaces are free of fresh oil stains and debris.
- ✓ You have swept the area thoroughly prior to cleaning with water.
- ✓ Wash water does not contain soap or other cleaning materials.

When using a cleaning compound, direct wash water runoff to a landscaped or dirt area, or cover storm drains with filter fabric and vacuum or pump wash water into a sanitary sewer drain. Contact your local wastewater treatment plant for guidance — harsh cleaning compounds may require permitting and/or pretreatment.

Never hose or sweep interior floor debris to an outside area. Use a broom or vacuum for inside floor cleaning. Collect and dispose of all debris in the garbage or as hazardous waste as appropriate.

Use a street sweeper to clean parking areas and roadways. Do not use water. Direct runoff to a landscaped or dirt area or filter runoff through a filter fabric to keep sand out of the storm drain. When finished, sweep up sand and debris.

## **Building Repair and Maintenance**

Use and dispose of paint, paint thinner, metal filings, cutting oil and concrete properly to prevent them from entering the storm drain where they will

harm local creeks. Also, make sure that your contractors follow these guidelines; you are responsible for your contractors' actions!

### Painting

- ✓ When pressure washing to prepare surfaces for painting, test painted surfaces for the presence of lead. If lead is not present, place a protective cover of filter fabric over the drain to catch paint chips and dispose of the chips in the garbage. If lead is present, collect chips and wash water and dispose of both as hazardous waste. Better yet, use a dry-cleaning method such as scraping and sweeping and dispose of paint chips as hazardous waste.
- ✓ If using water-based paint, brush out excess paint then wash brushes and equipment in the sink. Never dispose of paint or rinse water in a landscaped area, street, gutter or storm drain.
- ✓ If using oil-based paint, brush out excess paint before cleaning with paint thinner. Filter and reuse thinner when possible. Dispose of paint sludge and thinner as hazardous waste.

### Concrete

- ✓ Store concrete, grout, and mortar under cover and away from storm drains.
- ✓ Wash out concrete equipment, tools and trucks in a designated area where rinse water will flow onto a landscaped area or dirt pit. Let the water seep into the soil, leaving the cement residue behind. When the residue dries and hardens, dispose of it in the garbage. If you generate a large quantity of concrete, contact your local garbage hauler for disposal guidance. Alternatively, take concrete to a concrete recycling facility
- ✓ When washing exposed aggregate concrete, divert water to a dirt area where it will not run into a street, gutter or storm drain. If a suitable dirt area is not available, use sand bags to dam up the flow of wash water. Use a wet vac to collect the remaining sludge and then dispose of it in the garbage

### Saw-Cut Slurry

- ✓ Do not allow saw cut slurry to go down a storm drain. Completely cover or barricade storm drain inlets when saw cutting. Block catch

basin with protective devices such as a burlap bag containing 2-inch drain rock.

- ✓ Collect, evaporate and remove residue. Pick up all waste when you are finished in one location or at the end of each work day and schedule disposal. Minimize water use.
- ✓ Use an industrial vacuum for clean-up. Dispose of all liquids from saw cutting into a landscape area or to the sanitary sewer. Solids can be disposed of into the garbage.
- ✓ If saw cut slurry enters a storm drain catch basin, shovel or vacuum slurry into a garbage bin immediately.

## **Facility Equipment**

Following an inspection and maintenance schedule and disposing of equipment byproducts (blowdown water, condensate, residues, melt water, etc.) properly will help keep pollutants out of storm drains, local creeks and Utah lake where they can harm animal and plant life.

### **Material Storage**

- ✓ As a temporary storage option, use a tarp or plastic sheet to cover materials exposed to rainwater
- ✓ Install a roof over permanent outdoor storage areas, or store materials inside a building. Contact your local building and fire officials before beginning construction or relocating chemicals.
- ✓ Material storage areas should also have side protection, such as walls or curtains, to adequately shield materials from exposure to rainwater.
- ✓ Replace or repair leaky equipment and containers. Place drip pans or absorbent materials under leaky equipment and containers until they can be repaired.

HVAC, Chillers, Boilers, & Refrigerator Units

- ✓ Existing buildings with air conditioners can discharge noncontaminated condensate (condensate which does not contain descaling or anti-algal agents) to the storm drain.
- ✓ Direct HVAC contractors to dispose of flushing agent residues (descaling or anti-algal agents) in the sanitary sewer. The use of chemicals containing copper and tributyl tin is prohibited.
- ✓ Melt water from de-icing refrigeration units, cryogenic tanks, etc., may be disposed of in a storm drain as long as it does not contain any type of pollutant or come into contact with a pollutant (from drum and equipment storage nearby, for example).
- ✓ All treated boiler discharge and blowdown, including condensation, must be discharged to the sanitary sewer or reused or recycled in a closed loop system approved by your permitting agency.
- ✓ New buildings should be designed so that all discharges from air conditioner condensation lines drain to the sanitary sewer. Consult your local planning or building department for more information.

### **Air Compressors**

- ✓ Inspect and maintain air compressors routinely. Air compressors produce small quantities of automatic blowdown water, which commonly contains lubricating oil or other potential pollutants. This may not be discharged to the storm drain. Discharge all blowdown water to the sanitary sewer after contacting your local wastewater treatment plant for guidance.
- ✓ If the compressor has a frequent small bleed, use a drip pan to collect the water. Dispose of accumulated water into the sanitary sewer.
- ✓ Repair all fuel and oil leaks immediately. Use a drip pan until repairs are made. Clean any spilled fuel or oil using a spill absorbent or some other dry-cleaning method. When the spill is absorbed, sweep up the saturated absorbent and dispose of it as hazardous waste.

### **Loading Docks**

- ✓ Pick up litter around loading docks regularly.
- ✓ Keep absorbent materials nearby in order to clean up or contain spills promptly.

## Landscaping

- ✓ Never apply chemicals or rinse water from equipment that has contained fertilizers, pesticides or herbicides to vegetation within a 24-hour period of forecasted rain especially when handling liquids and powders.
- ✓ Use the least toxic product for the job.
- ✓ Use the recommended amount of chemical for the job. If using concentrate, mix only the amount you need and spray out all of the product. Rinse equipment over a landscaped area. Never pour rinse water down a storm drain.
- ✓ Dispose of excess lawn and garden chemicals as hazardous waste.
- ✓ Keep leaves, grass clippings, and other yard waste out of the streets, gutters and storm drains.

## Storm Drain Maintenance

- ✓ Locate and label all storm drain inlets on your business site.
- ✓ Sweep up debris from parking lots and other paved areas regularly.
- ✓ Clean out all storm drain inlets on your property with a vacuum or shovel at least twice a year — just before the start of the rainy season and after the first major rain.

## Spill Prevention and Cleanup

The majority of pollution that flows off a site can usually be avoided by taking precautions to prevent spills and cleaning spills up promptly if they do occur.

- ✓ Exercise care and planning to avoid potential spills, especially when handling liquids and powders.
- ✓ Maintain a regular inspection and repair schedule to prevent leaks from equipment and storage containers.
- ✓ Provide employees and contractors with absorbent materials for spill containment and cleanup. Keep spill prevention and cleanup materials in a location which is easy to find and easily accessible.



- ✓ Clean up spills immediately with a spill absorbent material. When the spill is absorbed, sweep up saturated absorbents and dispose as hazardous waste.
- ✓ Keep a supply of storm drain covers or plugs on hand. Make sure employees know where they are stored and how to use them. Keep these materials in a high-profile location.
- ✓ If you routinely handle liquids, your permitting agency may require that you install an emergency shut-off valve or storm drain plug that can be opened and closed in the nearest storm drain.

## Sharing Information

Make sure employees and contractors know where to clean equipment and dispose of wash water.

### Educating and Training Employees

- ✓ Storm drain pollution prevention begins and ends with effective employees and training.
- ✓ Train new employees on the procedures.
- ✓ Review guidelines regularly with all employees.

### Overseeing Contractors

- ✓ You are responsible for your contractor's actions.
- ✓ Before beginning work, show contractors where to clean equipment and dispose of wash water.
- ✓ Make sure contractors know where emergency spill equipment is stored and how to use it.
- ✓ Incorporate pollution prevention practices into contract specifications.

## THE BOTTOM LINE...

**YOU ARE A CLEAN BUSINESS:**

- ✓ **Tell your customers!**

- ✓ **Let your customers know what you're doing to prevent water pollution and encourage them to adopt clean water practices too.**