



Stormwater drain markers remind us that we are all connected to our surrounding environment.

# Concrete & Asphalt

Protect Our Aquatic Environment by Preventing Stormwater Contamination

## Spill Prevention

Spills of concrete, wastewater containing concrete, and chemicals used to expose aggregate, should be contained to prevent them from draining to streets, lanes or other areas where it may reach the stormwater drainage system.

In the event of an accidental spill to the environment immediately contact the **Provincial Emergency Program (PEP) at 1.800.663.3456**. In the event that the chemical is flammable, toxic, corrosive or has other hazardous properties call the **Surrey Fire Department** immediately at **911**.

Any person responsible for stormwater drainage system contamination may be held liable under the following environmental legislation:

- Federal Fisheries Act
- BC Hazardous Waste Regulation
- BC Environmental Management Act
- Surrey By-law No. 16138
- Surrey By-law No. 16610

## For more information

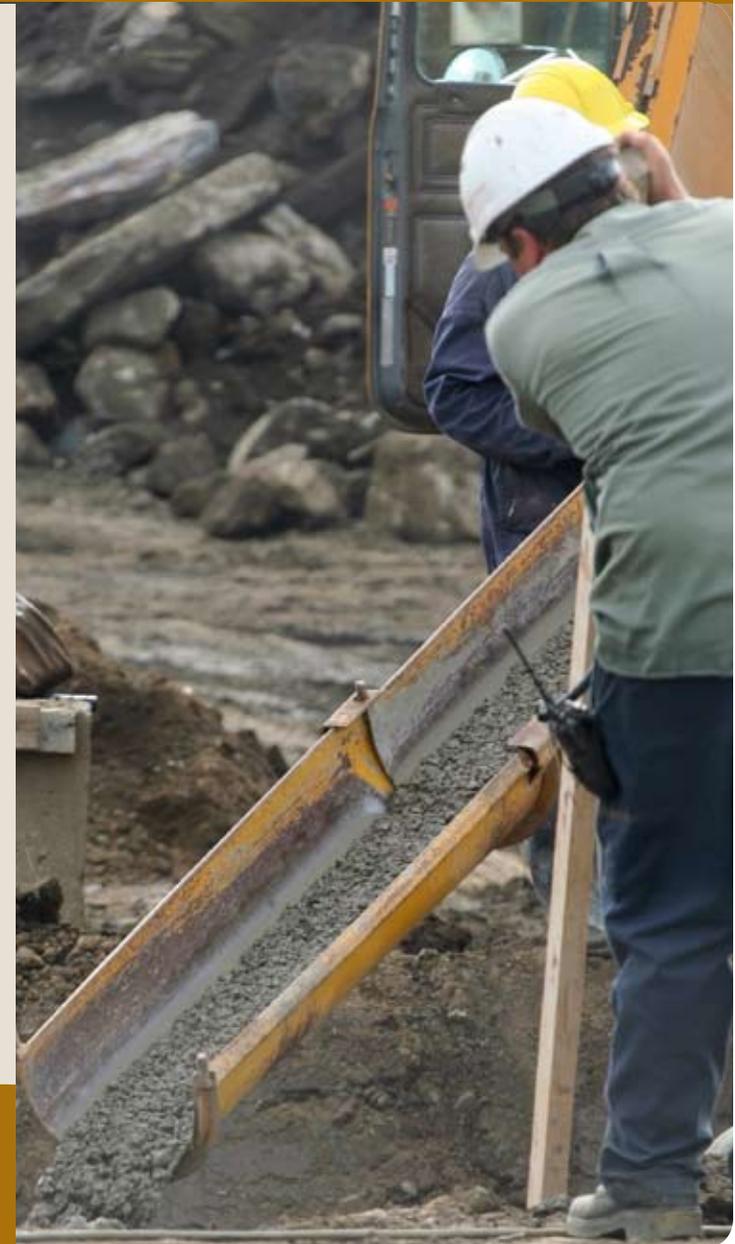
BC Ready-Mix Concrete Association  
**604.881.2522**

City of Surrey, Plumbing Section  
**604.591.4245**

City of Surrey  
Drainage & Environment Section  
**604.591.4321**

BC Ministry of Environment  
**604.582.5200**

If you witness a spill or chemicals being washed into a stormwater drain, please contact the City of Surrey's Engineering Department at **604.590.7226**, after 4:30pm at **604.591.4431**.





**This brochure applies if you apply asphalt, pour concrete for building construction, road construction, sidewalk, curb and gutter repairs or sealing of driveways.**

Should waste materials from concrete and asphaltic activities be allowed to directly or indirectly discharge onto paved surfaces, they can enter the stormwater drainage system. This system drains untreated to the streams, creeks and rivers. There are over 1500 km of open creeks and streams in Surrey which form an important network of watercourses that provide natural habitat for salmon, trout, and other aquatic life. **Contaminants that enter the stormwater drainage system can be toxic to fish and our environment.**

After concrete delivery or asphalt application, it is the typical practice to rinse the excess concrete or asphalt off trucks, chutes and other equipment before the material can harden. Diesel fuel is commonly used to remove excess asphalt from paving equipment. Concrete finishing activities, such as exposed aggregate for driveways, use wash-off water to remove the surface of the concrete to develop the desired finish.

Rinsing of concrete, diesel fuel or other chemicals to the stormwater drainage system can create the following problems:

- Concrete can solidify in the curbs, gutters, drains and pipes, restricting water flow or causing blockages that may lead to flooding problems.
- Wastewater or runoff from concrete activities can contribute suspended solids, metals and increase the pH of stormwater runoff causing detrimental changes the water quality of creeks and rivers.
- Asphalt contains high concentrations of toxic hydrocarbons, other toxic organic compounds, oils and greases, and metals. Stormwater runoff from recent asphalt application can contain these compounds in concentrations that can harm aquatic life.

## Best Management Practices

The following best management practices, or equivalent measures, methods or practices are required if you are engaged in concrete pouring or asphalt application:

### During Construction

- Use drip pans, ground cloths, heavy cardboard or plywood wherever concrete, asphalt, or asphalt emulsion chunks and drips are likely to fall unintentionally, such as beneath extraction points from mixing equipment.
- Provide catch basin covers, inlet protection or similarly effective containment devices over all nearby catch basins such that runoff from the construction activity does not enter the stormwater drainage system.
- Concrete delivery and pumping vehicles must not discharge any concrete, slurry, or rinse water into street gutters, stormwater drainages, drainage ditches or onto the paved surface of a roadway or driveway that may lead to the stormwater drainage system.
- All accumulations of concrete runoff, aggregate chunks, and other solids must be collected for proper disposal prior to removing the containment or cover devices.
- Direct exposed aggregate wash water to areas on the construction site where the sediments will be filtered out in the soil and will not drain to the stormwater drainage system.
- If wastewater cannot be directed to suitable areas on the construction site, it should be contained, collected and disposed of in an approved manner. Absorbents may be used to contain and collect wastewater.
- During rain events, portable asphalt mixing equipment should be covered by an awning or other simple structure to avoid contact with rainfall.

### Clean-up

- Designate a wash out area onsite where application and mixing equipment cleaning should be conducted. This washout area can also be used to contain excess material and slurry.
- Preferably, trucks and equipment should be returned to the batch plant for washing.
- Concrete in excess of that required on a site should be returned to the concrete batch plant for reuse or recycling.
- Sweep the pouring area at the end of each day or more frequently if needed to collect loose aggregate chunks and dust. Do not hose down the area to stormwater drains.

### Saw Cutting

- Slurry and sediment from saw cutting operations should be confined to the immediate work area by using temporary berms or diversion structures.
- Collect saw-cut slurry and remove from site. Cover or barricade all nearby stormwater drain during saw cutting to prevent any materials from entering the stormwater drainage system.
- Residue from cutting or grinding operations should be picked up by means of a vacuum attachment to the cutting machine. Residue should not be allowed to flow across the pavement, and should not be left on the surface of the pavement. It may be necessary to use a street sweeper or wash down the area and collect the water.
- Avoid saw cutting operations during rainfall events unless you can contain, capture and dispose of cuttings, sediment and wash water.

