

Concrete and wash-off waters from concrete delivery and finishing

The purpose of this guide is to inform contractors of their responsibility to protect the environment by preventing storm drain and watercourse contamination during construction.

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

Rinsing of concrete, diesel fuel, or other chemicals to the storm drain system is prohibited, and causes the following problems:

- Concrete will solidify in the curbs, gutters, drains and pipes, which restricts water flow and may cause blockages.
- Concrete wash water is highly alkaline, contains fine sediments, and chemicals, which will kill fish and other aquatic life.
- Diesel fuel or other solvents can also create potentially flammable or explosive conditions.

This is an important issue in the City of Langford because the storm drains (the roadside and parking lot drains) are separate from the sanitary sewer and discharge, untreated, into local creeks and streams. The City of Langford's many creeks create an important network of watercourses that provide natural habitat for salmon, trout and other aquatic life. Past practices of dumping deleterious substances into the storm drain system has had serious impacts on the fish habitat. It is therefore critical that we take extra care to prevent pollutants from entering our creeks and help to sustain the remaining fish and aquatic life.

Concrete and wash-off waters from concrete delivery and finishing activities must not be permitted to enter the storm drain system.

Best Management Practices

To prevent contaminants from entering the storm drain system and ultimately our creeks, it is recommended that you implement the *BC Ready-Mixed Concrete Association (BCRMCA), Best Management Practices*, which detail the following suggested procedures to capture waste water and sediments.

On-site Disposal:

- Direct concrete washings to areas on the construction site where the sediments will be filtered out in the soil. Do not allow washings to enter the storm drain system or any water course.
- Disposal of concrete washings and exposed aggregate wash-off water to temporary, freely percolating pits or trenches that will hold all of the waste water generated. Use dams and pumps in conjunction with these methods where necessary to prevent wash water from reaching storm drain gutters.
- Use compacted granular sand and gravel base to absorb wash water where soils are impermeable.
- Infiltration basins must be located as far as possible from drainage ditches, drain tiles and water wells. Where this is not possible, proper off-site disposal is required.
- Use drip pans to capture any diesel fuel and save for future re-use. Do not use diesel to lubricate equipment or parts.

- Diesel, solvents, etc., may be classified as "special wastes" under the BC Waste Management Act, and require special disposal considerations. Contact an approved disposal company that recycles solvents, or contact the BC Ministry of Environment, Lands and Parks (582-5200) for further disposal information.

Off-site Disposal:

- If wash water cannot be directed to a suitable area on the construction site, it must be contained, collected, and disposed of to an approved off-site facility or treatment center. For specific disposal requirements please contact the BCRMCA at 436-2083.
- Return excess concrete to the concrete batch plant for re-use or recycling.
- Trucks and equipment must be washed at the proper facilities at the batch plant.

Spills

Spills of concrete, concrete wash water, or chemicals used with exposed aggregate, must be contained and cleaned up immediately to prevent the spill from entering the drainage or sanitary sewer systems. Do not rinse these materials into the storm drain or sewer system.

Spills of diesel fuel or solvents that spread to the street or storm drain must be reported to the City of Langford Fire and Rescue at 911 and the Ministry of Environment, Provincial Emergency Program at 1-800-663-3456.

Persons responsible for storm drain contamination could also be liable under federal and provincial environmental legislation including:

- The Federal Fisheries Act
- The BC Waste Management Act

For more information, please contact:

- BC Ministry of Environment, Lands and Parks: 604-582-5200
- BC Ready-mixed Concrete Association: 604-436-2083 www.bcrmca.bc.ca
- www.buildinggreen.com/features/cem/cementconc.cfm

Please Note: This Environmental Protection Bulletin is provided as a reference guide only. It is the responsibility of the business operator to ensure compliance with all applicable by-laws and legislation.