

## 10. CONTROL DE-WATERING

- Carefully control de-watering. Extreme care needs to be taken when doing this task.
- If you have muddy or contaminated de-watering water, treat it separately from other stormwater runoff.



## 11. MAINTAIN BEST MANAGEMENT PRACTICES

- Inspect erosion and sediment control BMPs at least once every seven days and within 24 hours after any discharge from the site.
- Cleanup and maintenance is a critical element for success. Cleanup activities include removing or stabilizing on-site trapped sediment.
- Follow BMPs for proper disposal.



## 12. MANAGE THE PROJECT

- Plan to construct projects in phases when possible. Sequencing will also reduce the impact to soils and surrounding stormwater systems.
- Record data when conducting stormwater investigations, inspections, preventive maintenance work, recording flow levels and repairing stormwater system components.

### INSPECTION SCHEDULE

See Confirmation of Commitment Letter for the required inspection schedule to be submitted from your engineer. Send your report to [landdevelopment@westvancouver.ca](mailto:landdevelopment@westvancouver.ca).

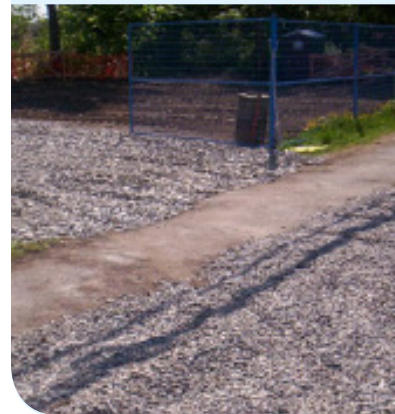
A GENERAL EROSION AND SEDIMENT CONTROL (ESC) GUIDELINE FOR SINGLE-FAMILY AND DUPLEX DWELLING BUILDING PLANS. REFER TO THE ZONING BYLAW FOR EXACT REGULATIONS.

## 1. PRESERVE VEGETATION AND MARK CLEARING LIMITS

- Protective materials and methods for prevention of anything but clear rainwater runoff entering the stormwater system **must all be in place prior to any soil disturbance**.
- Protect natural vegetation and trees. Use vegetated buffers where possible.
- Before soil disturbance or grading, mark clearing limits and sensitive areas for protection.
- Provide recognized and commonly used construction barrier materials to secure the work site.
- Direct surface drainage around work area.



## 2. ESTABLISH CONSTRUCTION ACCESS



- Minimize vehicle access points and the amount of vehicular traffic.
- Stabilize the vehicle entrance access point with crushed rock or similar material. Crushed materials such as limestone are not allowed under any condition.
- Clean road surfaces on a regular basis and at least at the end of each workday/shift.
- Minimize mud and dirt tracked onto paved roads.
- Shovel and sweep mud off roadway. Do not rinse away dirt or mud with water to the storm drains!
- A muddy ramp is not a good access point for vehicles. The mud tracked onto streets will wash out in stormwater.

## 3. CONTROL FLOW RATES

- It is our intent to reduce site impacts where specific flow controls will be required. In the event that flow control is required, only proven methods will be approved and used.
- Protect properties and waterways downstream from the site from impacts of stormwater runoff. Always seek a resolution that reduces flow to the absolute minimum and prevents erosion at all costs.

4. INSTALL SEDIMENT CONTROLS SPECIFIC TO THE SITE

- Any Information specific to the site topography, drainage, soils and vegetation must be noted and planned for prior to commencing work.
- Provide alternate Best Management Practices (BMPs) for difficult sites where most standard BMPs may have a tendency to not provide the protection required.
- Pass stormwater through a sediment pond, sediment trap, filter or other equivalent measure before it leaves the site or enters drain inlets.

PRINCIPLES FOR E&S CONTROL

keep runoff velocities low



break the flow maintain vegetation      minimize slope length and steepness



5. STABILIZE SOILS

- Soil stabilization includes temporary and permanent seeding, mulching, geotextiles, erosion control fabrics and sod stabilization.
- Identify any potential erosion problem areas and report them to your engineer.

6. PROTECT SLOPES

- Design and construct cut-and-fill slopes to minimize erosion. Methods may include terracing and diversions, and reducing steepness.
- Divert runoff around slopes and disturbed areas with pipe slope drains.
- Provide recognized and commonly used construction barrier materials to secure the work site.



7. PROTECT DRAIN INLETS

- Inspect drains, catch basins and other stormwater sewer components routinely.
- Protect all storm drain inlets from sediment.
- Install catch basin filters per BMPs.
- Clean and remove sediment from inlet protection devices when they fill to one-third of their capacity.

8. STABILIZE CHANNELS AND OUTLETS

- Stabilize drain outlets, adjacent stream banks, slopes and channels with armoring, such as rocks or gravel.
- No work can take place within 15 metres from the top of a bank without a valid Environmental Development Permit.



9. CONTROL POLLUTANTS



Follow the District of West Vancouver Waterworks Protection Bylaw:

- Prevent chemicals and other pollutants from contact with stormwater.
- Handle and dispose of prohibited substances properly.
- Prohibited substances include pesticides, herbicides, fertilizers, soap, detergents, household and commercial-grade cleaning compounds, paints, solvents, chemicals, chlorinated water, waste oil or any material or

substance that is a hazardous product, contaminant, toxic substance, deleterious substances, special waste, dangerous good or reportable substance, including any substance whose discharge to the watercourse system would violate the *Fisheries Act* of the *Environmental Management Act*.

- Prevent or treat contamination of stormwater runoff by alkaline sources, such as bulk cement, cement kiln dust, fly ash and water used to wash and cure concrete.
- Obtain written approval from the District of West Vancouver prior to using chemical treatment other than CO2 to adjust pH.

