

PRINCIPLES OF EROSION AND SEDIMENT CONTROL

1. Planning

Prepare an Erosion and Sediment Control Plan for your site before starting work and submit it along with your building application to the City of Cambridge, Engineer's Office. The Plan should show how you will prevent stormwater pollution throughout the construction phase and until the site landscaping has been completed, i.e. the erosion hazard has been reduced to an acceptable level. Different controls might be necessary at different stages over the construction phase as the nature of the site changes. For example, changing drainage patterns, moving stockpiles to different places, etc... If such changes are likely, these must be shown on the Plan. Note that the Plan is made up of both Drawings and a Description and relates to a specific site.

2. Installation of Controls

Before starting any work, set up the erosion and sediment controls. Make sure that all site workers understand their individual responsibilities in preventing pollution. A recommended sequence for setting up controls is:

- (i) Establish a single stabilized entry/exit point to the site;
- (ii) Install sediment fences along the low side of the site;
- (iii) Divert upslope water around the site and, if necessary, stabilize the channels and outlet;
- (iv) Clear only those lands that must be disturbed during the building construction. Put up a barrier fence around areas where the vegetation is not to be disturbed;
- (v) Ensure that any stockpiles are on the site property and not on the adjacent lots. Where necessary, seek approval from the City or your neighbor(s) for any offsite stockpiles.
- (vi) Install onsite waste receptacles, such as dumpsters or bins, and wind-proof litter receptacle, etc.;
- (vii) Start building construction;

(viii) Install and connect roof downspouts before frame inspection; and

(ix) Stabilize any exposed earth banks when the building construction is complete.

3. Maintenance of Controls

All erosion and sediment control work should be checked at least once a week and after each rainfall to ensure they are working properly. Maintenance might include:

- (i) Removing sediment trapped in sediment fences, catch drains or other areas;
- (ii) Topping the gravel on the stabilized access;
- (iii) Repairing any erosion of drainage channels; and
- (iv) Repairing damage to sediment fences.

Remember that the erosion and sediment control work might need to change as the slope and drainage paths change during the development phase. Best practice includes anticipation of the likely risks and being prepared for unusual circumstances. For example, have spare sediment fence material on the site.

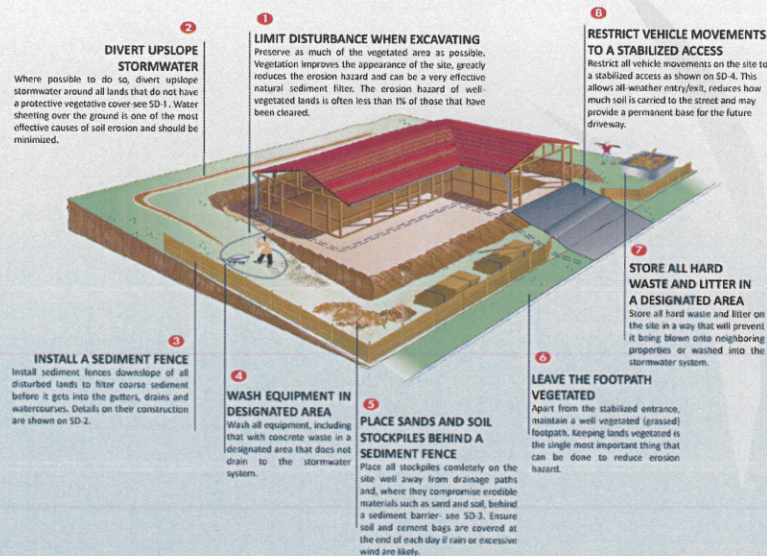
4. Finalization of Work

Ensure that the site is stabilized and no exposed soil remains before removing the erosion and sediment controls. If landscaping is not completed before handing the site over to the Owners, ensure they are aware of their responsibilities to prevent pollution.

5. Four Basic Principles

- (i) Make sure everyone working on the site understands how important it is not to pollute the stormwater.
- (ii) Do not disturb more of the site than you have to.
- (iii) Install erosion and sediment controls before starting work.
- (iv) Maintain your erosion and sediment control work throughout the construction phase.

FOLLOW THESE SITE MANAGEMENT PRACTICES TO HELP REDUCE THE IMPACT OF CONSTRUCTION ON OUR WATERWAYS.



PLANNING FOR EROSION AND SEDIMENT CONTROL ON SINGLE RESIDENTIAL SITES

All builders/developers are required to prepare an Erosion and Sediment Control Plan showing how they will minimize soil erosion and trap sediment that may be eroded from the site during the construction of a building. The complexity of the Plan depends upon the nature and the scale of the particular development, especially the amount of land likely to be disturbed. Small-scale developments, such as house additions and the construction of small driveways, may not require a Plan, but should still be undertaken in a manner which reduces pollution risk.

The Plan should be a stand-alone document consisting of both drawings and a commentary that can be understood easily by all site workers. This brochure outlines the information to be contained in a Plan for a single residential allotment. Make sure everyone working on the site understands the Plan and how important it is not to pollute the stormwater.

Responsibilities for stormwater management arise from the EPA NPDES Regulations. One way that you can help to comply with these regulations is to prepare an Erosion and Sediment Control Plan that shows how you will minimize stormwater pollution.

The EPA NPDES Regulations gives the City the power to issue cleanup or prevention notices and issue penalties. Higher penalties can be imposed for serious pollution incidents. Cleanup notices are issued to require cleanup action when pollution has occurred, while prevention notices require an activity to be carried out in an environmentally satisfactory manner. You are required to notify the City when a pollution incident occurs that causes or threatens environmental harm.

Builders/developers have the responsibility to manage the following pollution sources:

- Air pollution, including dust
- Noise that might interfere with neighboring properties
- Waste discharges including erosion leakage or spills of construction materials, soil, sand, gravel slurries and concrete
- Trade and domestic rubbish, including litter packaging, off-cuts and spoiled materials
- Toxic chemicals, including fuels, paints, solvents, sealants, adhesives, lubricants and pesticides

Refer to our "Erosion and Sediment Control Plan [Example]" for the required information in a ESC Plan.