

CITY OF COQUITLAM

BYLAW NO. 3447, 2001

Stream and Drainage System Protection Bylaw

WHEREAS there is an increasing recognition of the need to protect our shared streams and drainage systems;

AND WHEREAS Council for the City of Coquitlam also recognizes the ongoing responsibility of the federal and provincial governments for the protection of our shared streams and watercourses under federal and provincial legislation;

AND WHEREAS pursuant to the *Local Government Act*, R.S.B.C. 1996, c. 323, Council for the City of Coquitlam has the authority by Bylaw to prohibit a person from fouling, obstructing or impeding the flow of a stream, creek, waterway, waterworks, ditch, drain or sewer, whether or not it is on private property;

AND WHEREAS pursuant to the *Local Government Act*, R.S.B.C. 1996, c. 323, Council for the City of Coquitlam has the authority to require works and services for drainage collection and disposal;

AND WHEREAS pursuant to the *Local Government Act*, R.S.B.C. 1996, c. 323, Council for the City of Coquitlam may by Bylaw impose penalties for contravention of the regulations adopted herein;

NOW THEREFORE, the Council of the City of Coquitlam, in open meeting assembled enacts as follows:

1. TITLE

1.1 This Bylaw may be cited for all purposes as the "City of Coquitlam Stream and Drainage System Protection Bylaw No. 3447, 2001".

2. REPEAL AND TRANSITIONAL

2.1 The provisions of Sections 6 and 7 of this Bylaw will apply only to construction work for which a permit, permission or approval from the City is required, and where the application for the applicable permit, permission or approval was received by the City after the date of final adoption of this Bylaw.

2.2 The provisions of Sections 4.2 and 5 of City of Coquitlam Sediment Control Bylaw No. 2929, 1995 will continue to apply to construction work for which a permit, permission or approval of the City was required and for which an application was received by the City prior to the date of final adoption of this Bylaw.

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2.3 Save and except to the extent that Sections 4.2 and 5 of City of Coquitlam Sediment Control Bylaw No. 2929, 1995 continue pursuant to Section 2.2 of this Bylaw, City of Coquitlam Sediment Control Bylaw 2929, 1995 is hereby repealed in its entirety and this Bylaw substituted therefor.

3. APPLICATION

3.1 This section applies to all lands whether public or privately owned in the City of Coquitlam.

4. DEFINITIONS

4.1 For the purpose of this Bylaw:

"*background level*" means the concentration of total suspended solids in a stream measured immediately upstream of point of entry of the total suspended solids;

"*building permit*" means a permit issued by the City pursuant to City of Coquitlam Building Bylaw No. 2987 as amended, authorizing construction of a building in accordance with approved plans;

"*Bylaw Inspector*" means a person appointed from time to time by the Council to act in the capacity as City Bylaw Inspector;

"*City*" means the City of Coquitlam;

"*construction work*" means any activity which might cause or permit a prohibited material to be discharged into a drainage system including, but not limited to, land-clearing, removal of soil, deposit of soil or other material, and the construction of any building, structure, paving, or underground services including the installation of drainage works;

"*drainage system*" means the system and network of streams, creeks, waterways, ponds (excluding stormwater control ponds but not their discharge), lakes, waterworks, ditches, drains or sewers, drainage works, mains, pipes, culverts, catch basins, leads, and curbs and gutters, located in the City on private or public property, by which surface or ground water is conveyed to receiving waters;

"*foul*" means to deposit, discharge, spill, dump, wash, whether directly or indirectly, a prohibited substance into the drainage system;

"*Manager*" means the Manager of Development Services for the City of Coquitlam, any successor in title to that position, and their designates;

"*owner*" means an owner as defined in Section 5 of the *Local Government Act*;

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4. DEFINITIONS cont'd/

"*paving*" means any graded and hardened surface covered with materials comprised of asphalt, concrete, masonry or combinations thereof;

"*Professional Engineer*" means a person registered as a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia;

"*prohibited material*" means:

- a) pesticides, fertilizers, soaps, paints, chemicals, chlorinated water, waste oil or any material or substance which is a "hazardous product", "contaminant", "toxic substance", "deleterious substance", "special waste", "dangerous good" or "reportable substance" that is identified or described in or defined by any applicable statute, regulation or law, including the *Fisheries Act* R.S.C. 1985 or the *Waste Management Act* R.S.B.C. 1996, c.482, which, if introduced into the drainage system, would foul it; or
- b) any sediment, rock, gravel, sand, clay, silt, sediment, earth, construction or excavation wastes, cement, concrete, or other substances which, when introduced into the drainage system, will at the entry point, result in total suspended solids in excess of 75 mg/L above background levels or a pH value outside of the range 6.5 to 8.0;

"*sediment control plan*" means the specifications, drawings, plans and design calculations for works to control and monitor the discharge of any prohibited material from any source into the drainage system, that meets with the requirements of Section 7 of this Bylaw;

"*stream*" means any natural depression with visible banks, or wetland with or without visible banks, which contains water at some time; and includes any lake, river, stream, creek, spring, swamp, gulch or surface source of water, whether containing fish or not; and includes intermittent streams; and includes surface drainage works and ditches, which are inhabited by or provide habitat for fish;

"*structure*" means any material or a combination of materials that are constructed for use, occupancy, or ornamentation whether installed on, above, or below the surface of land or water, but excludes paving;

"*wetland*" means land, with or without visible banks, which is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal conditions supports, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas, also includes within 7.5 metres the land above that just described, measured horizontally, and referenced from the Canadian Wetland Classification System.

STREAM AND DRAINAGE SYSTEM PROTECTION REGULATIONS:

5. PROHIBITION OF DISCHARGE

- 5.1 A person must not foul, obstruct or impede the drainage system or any part of it, or permit any prohibited material or water containing any prohibited material to be discharged, dumped, deposited, spilled or washed directly or indirectly into the drainage system.

6. CONSTRUCTION WORK

- 6.1 An owner or other person undertaking any construction work must not place, store, transport or dispose of any prohibited material in such a manner, so as to permit the likely escape of the materials into the drainage system, or any part of it.
- 6.2 An owner or other person undertaking any construction work requiring a permit, permission or approval by the City, with the exception of construction work related to a building permit for the construction of a single or two family dwelling, must submit a sediment control plan that complies with the requirements of Section 7 of this Bylaw as part of the application for the permit, permission or approval, prior to proceeding with the construction work.
- 6.3 In the case of construction work carried out under a building permit for the construction of a single or two family dwelling, the owner or other person carrying out the work must utilize the guidelines for sediment control that are attached to this Bylaw as Appendix "A", Section 1.
- 6.4 Notwithstanding the provisions of Sections 6.2 and 6.3, in the case of construction work carried out under a building permit for the construction of a single or two family dwelling, where any of the factors described in Section 2 of Appendix "A" apply, such that the guidelines for sediment control in Appendix "A", Section 1 may be inadequate to prevent the discharge of a prohibited material into the drainage system, the Manager may require the owner to provide a sediment control plan.
- 6.5 A person must not suffer or permit the discharge or washing of cement or concrete during the construction of exposed aggregate driveways, patios, other surfaces, or from concrete vehicles or concrete equipment, in a manner that is likely to foul the drainage system or any part of it.
- 6.6 An owner or other person must not suffer or permit any water to be discharged directly or indirectly from any real property that does not continuously and at all times meet or exceed the requirements of this Bylaw.

7. CONTENT OF SEDIMENT CONTROL PLAN

- 7.1 A sediment control plan must set out the works and measures required during construction work to prevent the discharge of prohibited materials into the drainage system, including such detailed plans, specifications and design calculations necessary to describe any works required to convey, control and treat suspended solids in run-off water from the site of the construction work.
- 7.2 A sediment control plan must include a monitoring program, with a schedule, sample locations and methodology to be used to measure the suspended solids in the run-off water discharged from the sediment control works. All testing data obtained under the monitoring program must be forwarded to the City within a week of receipt of the data.
- 7.3 A sediment control plan must include an operation and maintenance program for the duration of the construction work, including a maintenance schedule and methodology, the name and address of the person responsible for maintenance, and an emergency contact phone number. A record of all maintenance work carried out must be forwarded to the City.
- 7.4 A sediment control plan must be signed and sealed by a Professional Engineer registered in good standing with the Association of Professional Engineers and Geoscientists of British Columbia, unless otherwise approved in writing by the Manager.
- 7.5 A sediment control plan must include a letter of undertaking signed by a Professional Engineer which commits to undertake a program of management of the sediment control plan and which includes:
- a) inspection of the works to certify that they are being constructed in accordance with the approved sediment control plan;
 - b) periodic inspection of the works to certify that the standards of discharge of sediments established by this Bylaw are not exceeded;
 - c) ensuring appropriate and timely steps are taken if the discharge exceeds the standards of discharge of sediments established by this Bylaw; and
 - d) inspection of the receiving waters of the drainage system before, during or after the construction work to determine whether prohibited material was discharged.
- 7.6 The sediment control works required by a sediment control plan must be inspected, maintained and operated for the duration of the construction work by the owner and/or contractor performing the work as set out in the sediment control plan.
- 7.7 The sediment control plan must include hydroseeding of exposed land, or other suitable erosion protection, and restoration landscaping where it is deemed necessary in the opinion of the Professional Engineer submitting the sediment control plan.

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8.0 REMEDIES

8.1 If during any construction work any prohibited material enters the drainage system, then the owner or contractor performing the work must immediately notify the appropriate federal, provincial agencies and the City, and under the appropriate direction of those agencies must take remedial steps to remove such prohibited material.

8.2 If any person is carrying on any construction work or any other activity in contravention of this Bylaw, and which in the opinion of the Manager is causing or is likely to result in a discharge of prohibited material into the drainage system, then the Manager may order the immediate suspension of all or any portion of such construction work or other activity by posting a notice to that effect at the place where the construction work or other activity is ongoing. The Manager may further direct that steps be taken to prevent further fouling or discharge of prohibited material into the drainage system. The Manager shall send a copy of the written notice to the owner of the land where the construction work is occurring at the owner's address as it appears on the records of the Land Title Office, or other last known address.

8.3 If in the opinion of the Manager immediate steps should be taken to prevent the likely escape of a prohibited material in the drainage system, or to stop an escape which is ongoing, or if the Manager is not satisfied that the owner, or other responsible person, has taken the appropriate steps to mitigate the damages, then the City may enter onto the property to take such steps as are necessary in the circumstances. The Manager must provide written notice of the actions taken or proposed to the owner of the land where the construction work or activity is occurring at the address as it appears on the records of the Land Title Office or other last known address. The cost of any work done by the City will be assessed to the owner. The cost will be due and payable by December 31 of the year in which said costs were incurred and if unpaid on that date shall be deemed to be taxes in arrears and must promptly be so entered on the tax roll by the collector pursuant to the appropriate sections of the *Local Government Act*. If the work is done on City property, the cost will be billed to the persons responsible for the causing a discharge of prohibited materials to the drainage system.

9. AUTHORITY TO ENTER UPON REAL PROPERTY

9.1 The Manager and Bylaw Inspector are hereby authorized to enter at all reasonable times upon any property for the purpose of ascertaining whether the regulations of this Bylaw are being observed.

10. OFFENCE AND PENALTIES

- 10.1 Every person who:
- a) contravenes;
 - b) causes or authorizes, suffers or permits any act or thing to be done in contravention of; or
 - c) neglects or refrains from doing anything required to be done by any of the provisions of this Bylaw, terms and conditions of a permit, or an order issued pursuant to this Bylaw, commits an offence and is liable to a fine of up to \$10,000 for each offence.
- 10.2 Where an offence under this Bylaw is of a continuing nature, each day that the offence continues constitutes a separate offence.

11. SEVERABILITY

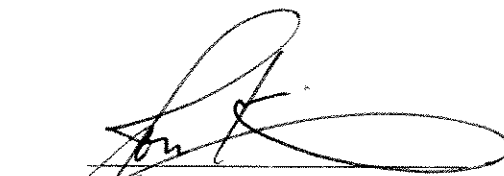
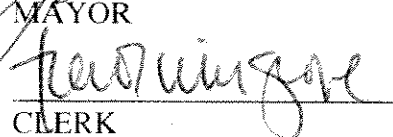
- 11.1 If any section, clause, sub-clause or phrase of this Bylaw is for any reason held to be invalid by the decision of any Court of competent jurisdiction, such decision will not affect the validity of the remaining portions of this Bylaw.

READ A FIRST TIME this 18th day of June, 2001.

READ A SECOND TIME this 18th day of June, 2001.

READ A THIRD TIME this 18th day of June, 2001.

RECONSIDERED AND FINALLY PASSED AND ADOPTED by Council for the City of Coquitlam this 3rd day of July, 2001.


MAYOR

CLERK

Appendix "A"
Section 1

GUIDELINES FOR SINGLE LOT DEVELOPMENT

The objectives during the development of an individual lot are to minimize erosion and release of sediment off-site by controlling the development and construction activities. Single lot erosion and sediment control measures include:

- Planning the construction access;
- Minimizing clearing and grading activities;
- Control of excavated soil stockpiles;
- Surface and slope preparations and surface runoff control.

Site Layout and Clearing

At the earliest stages, the individual lot development should be designed having regard to the general principles of erosion and sediment control, specifically:

- Design and layout of the building site to minimize impervious areas;
- Retain existing vegetation and ground cover where possible;
- Schedule construction to dry months of the year;
- Restrict vehicle access and provide a surfaced working area;
- Minimize clearing and stripping of setbacks and easements;
- Clearly mark building area and clearing boundaries on-site.

Soil Erosion Control

Surface soil erosion from individual lots and building sites is generated mainly from soil excavations and graded areas. To minimize erosion on-site the following should apply:

- Cover temporary fills or soil stockpiles with polyethylene or tarps;
- Re-vegetate or final landscape disturbed areas as soon as practically possible;
- Limit machine access and operation to prepared access areas only.

Drainage and Sediment Control

Site drainage features can usually incorporate sediment control features to limit the off-site transport of sediments directly into watercourse or into storm drainage systems that discharge into watercourses:

- Divert runoff away from cleared areas by use of swales or low berms;
- Utilize site fences around stockpiles and sloped area;
- Collect runoff into site sediment traps prior to discharge off-site.

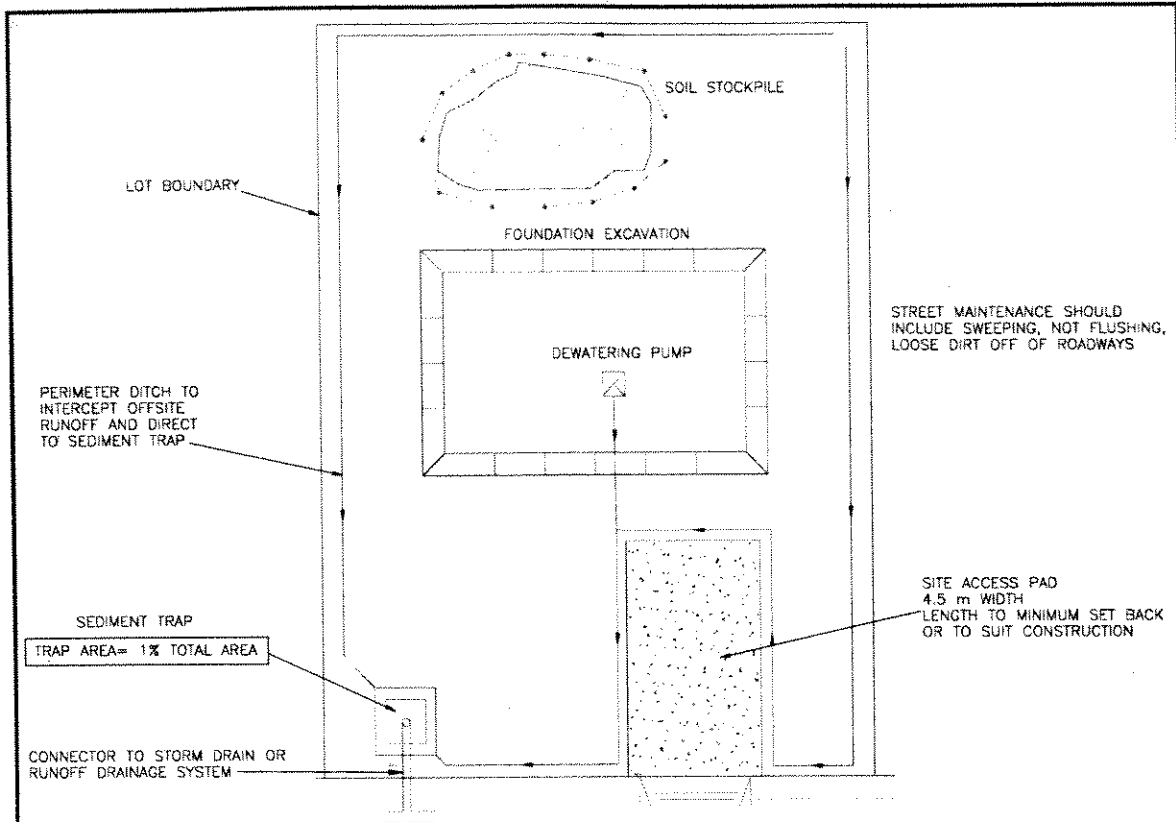
Drawing No. A4E06 illustrates a typical lot development plan with erosion and sediment control features.



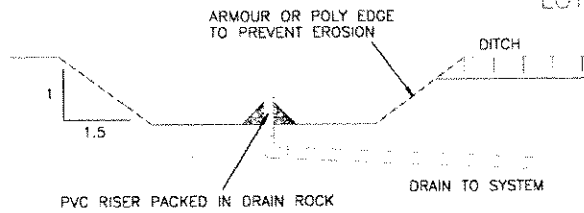
**Appendix "A"
Section 2**

The Manager may require the permit holder to provide a sediment control plan in accordance with the provisions of Section 7 of this Bylaw for sites that meet one or more of the following criteria:

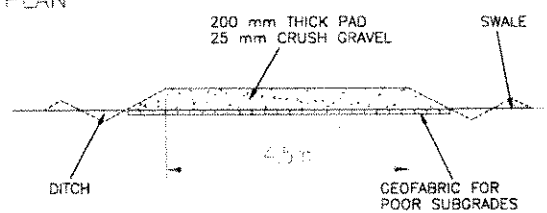
- the construction site is within 30m. of a stream;
- construction on slopes greater than 20 percent;
- construction on lands having a history of erosion events or lands designated by a geotechnical study as being subject to landslip, or flooding.



LOT PLAN



SEDIMENT TRAP SECTION DETAIL



ACCESS ROAD SECTION DETAIL

1. Erosion and Sediment Control to be installed prior to any other on site activities.
2. No sediment laden water is to be discharged from the site.
3. Soil Stockpiles to be covered with poly or surrounded with silt fencing
4. Site access pad 4.5m in width at all accesses to site.
5. Swales to be installed as needed based on lot grading.
6. These are guidelines. It is the owners responsibility to comply with Bylaw 3447.
7. Concrete truck wash and construction wash of exposed aggregate surfaces is not to be directed into any storm systems. Use of off site disposal for wash discharge is required.

FIGURE 5

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|---|-------------------|-------------|--------------------|
| City of Coquitlam | | | |
| Single Lot Development Erosion and Sediment Control Guidelines | | | |
| ADD NOTE 7. | 1 | 02/98 | D.W. |
| REVISIONS | No. | DATE: | CKD. APP. |
| DESIGNED BY: M.I. | DRAWN BY: A.S.K. | CHECKED BY: | APPROVED BY: |
| SCALE: N.T.S. | DATE: SEPT. 20/96 | X | DRAWING NO.: A4E06 |

