



THE CORPORATION OF THE CITY OF NORTH VANCOUVER

**“City of North Vancouver Stream and Drainage
System Protection Bylaw, 2003, No. 7541”**

CONSOLIDATED FOR CONVENIENCE – October 19, 2020

Amendment Bylaw, 2013, No. 8290	September 23, 2013
Amendment Bylaw, 2020, No. 8746	October 19, 2020

THE CORPORATION OF THE CITY OF NORTH VANCOUVER

BYLAW NO. 7541

A Bylaw to protect the Streams and Drainage Systems of the City of North Vancouver

WHEREAS the City of North Vancouver has committed to environmental stewardship and the protection of our streams and drainage systems and Section 8(3)(j) of the *Community Charter*, S.B.C. 2003, c. 26, authorizes Council to regulate, prohibit and impose requirements in relation to the protection of the natural environment;

WHEREAS Council deems it in the best interests of the community and necessary for environmental protection to prohibit the polluting, obstructing or impeding the flow of a stream, creek, watercourse, waterworks, ditch, drain, or sewer, whether or not it is on private property;

AND WHEREAS pursuant to the of the *Community Charter*, S.B.C. 2003, c. 26, Council may by bylaw impose penalties for contravention of the regulations adopted herein;

NOW THEREFORE, the Council of The Corporation of The City of North Vancouver, in open meeting assembled, enacts as follows: *[Bylaw 8746, October 19, 2020]*

1. This Bylaw shall be known and cited for all purposes as the “**City of North Vancouver Stream and Drainage System Protection Bylaw, 2003, No. 7541**”.

2. Definitions

2.1 In this bylaw, unless the context otherwise requires

“Bylaw Enforcement Officer” means the person(s) appointed by the Council to act in the capacity as City Bylaw Enforcement Officer.

“Building Inspector” means the person(s) appointed to the position of Building Inspector for the City of North Vancouver, or his or her designate.

“Chief Building Official” means the person appointed to the position of Chief Building Official for the City of North Vancouver or designates. *[Bylaw 8746, October 19, 2020]*

“City” means the City of North Vancouver.

“City Engineer” means the person appointed to the position of City Engineer for the City of North Vancouver or his or her designates.

“Construction Work” means any activity which might cause or permit a Prohibited Substance to be discharged into a Drainage System including, but not limited to, land-clearing, removal of soil, deposit of soil or other material, construction of any building, Structure or Paving, construction of any underground services including the installation of drainage works.

“Council” means the Council of the City of North Vancouver.

“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.

“Environmental Technician” means the person appointed to the position of Environmental Technician for the City of North Vancouver. [Bylaw 8746, November 2, 2020]

“Erosion and Sediment Control (ESC) Measures” means all erosion and sediment control methods constructed, installed or employed to reduce the likelihood of sediment and sediment laden water reaching the Drainage System during all stages of development. [Bylaw 8746, November 2, 2020]

“Erosion and Sediment Control (ESC) Monitor” means a Qualified Environmental Professional who is experienced in implementing ESC plans and who is responsible for the inspection and monitoring of ESC measures to ensure these are installed and maintained in accordance with the ESC Plan, and if necessary, are modified during development to ensure compliance with the requirements of this Bylaw. [Bylaw 8746, November 2, 2020]

“Erosion and Sediment Control (ESC) Plan” means the specifications, drawings, plans and design calculations for works to control and monitor the discharge of any Prohibited Substance from any source into the Drainage System. [Bylaw 8746, November 2, 2020]

“Fouling” means to deposit, discharge, spill, dump, wash, whether directly or indirectly, a Prohibited Substance into a Drainage System or Stream.

“Highways” means “highway” as defined in the “Street and Traffic Bylaw, 1991, No. 6234”. [Bylaw 8746, November 2, 2020]

“Owner” means any person who is registered under the *Land Title Act* as the Owner of the land, or any other person who is in lawful possession of land, or who is in lawful possession or occupancy of any building situated on the land.

“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 Substance” means: [Bylaw 8746, November 2, 2020]

- (a) pesticides, herbicides, fertilizers, soaps, detergents, household and commercial grade cleaning compounds, paints, solvents, 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 any substance that violates the *Fisheries Act*, R.S.C. 1985, or the *Environmental Management Act*, S.B.C. 2003, c. 53., which, if introduced to the Drainage System, would foul it; or

- (b) any sediment, rock, gravel, sand, clay, silt, sediment, earth, construction or excavation wastes, cement, concrete, exposed aggregate wash water or other substances which, when introduced into a drainage system, will at the point of deposition, result in a pH value outside of the range 6.5 - 8.0, a temperature increase of 2 degrees Celsius or more, or
 - i. during and for 24 hours following a Significant Rainfall Event a discharge exceeding a Turbidity level of 100 Nephelometric Turbidity Units (NTU), or
 - ii. during any other time result in a discharge exceeding 25 NTU.”

“Property Use Inspector” means the person appointed to the position of Property Use Inspector for the City of North Vancouver.

“Qualified Environmental Professional” means an individual who: *[Bylaw 8746, November 2, 2020]*

- (a) is registered, in good standing, and acting under the Code of Ethics, of one or more of the following professional organizations: Association of Professional Engineers and Geoscientists of BC; Association of BC Forest Professionals; College of Applied Biology; Applied Science Technologists and Technicians of BC; BC Institute of Agrologists, EnviroCert International (Certified Professional in Erosion and Sediment Control); or BC Society of Landscape Architects;
- (b) is registered, in good standing, and acting under the Code of Ethics of the Erosion and Sediment Control Association of British Columbia; and
- (c) has an area of expertise that is recognized in the field of Erosion and Sediment Control as one that is acceptable for the purpose of providing all or part of the design, inspection and monitoring of ESC Measures.

“Significant Rainfall Event” means any precipitation event, which meets or exceeds the amount of 25 mm per 24 hour period. *[Bylaw 8746, November 2, 2020]*

“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 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.

“Turbidity” means the measurement of suspended solids in water, which affects the clarity or degree of transparency of the water by interfering with the passage of a beam of light through the water. *[Bylaw 8746, November 2, 2020]*

“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.

3. Application

3.1 This bylaw applies to all lands whether public or privately owned in the City of North Vancouver.

4. Prohibitions of Discharge

4.1 No person shall foul, obstruct or impede a Stream or Drainage System, or permit any Prohibited Substance or water containing any Prohibited Substance to be discharged, dumped, deposited, spilled or washed directly or indirectly into a Stream or Drainage System.

5. Open Stream Policy

5.1 Land development planning, design and construction shall maintain an open Stream policy whereby Streams shall remain above ground and shall be enclosed only where crossed by Highways. Crossings on fish-bearing or potential fish-bearing Streams shall be fish-passable.

6. Construction Work

6.1 Any person undertaking any activity shall place, store, transport, or dispose of any Prohibited Substance in such a manner, and in accordance with good engineering practices, so as to prevent the likely escape of the materials into the Drainage System.

6.2 Any person undertaking any Construction Work requiring a permit, permission or approval by the City, with the exception of a building permit issued for the construction of a single and two-family dwelling, shall submit an Erosion and Sediment Control (ESC) Plan in accordance with Section 7 for the Construction Work as part of the application for permit, permission or approval, prior to proceeding with the Construction Work. *[Bylaw 8746, November 2, 2020]*

6.3 Notwithstanding the requirements of Section 6.2, the City Engineer may waive the requirement for submission of an ESC Plan for permit applications that do not involve the disturbance of soil. *[Bylaw 8746, November 2, 2020]*

6.4 In the case of Construction Work carried out under a building permit for the construction of a single or two-family dwelling, the Owner must utilize the guidelines for ESC that are attached to this bylaw as Appendix 1. *[Bylaw 8746, November 2, 2020]*

6.5 Notwithstanding the provisions of Section 6.2 or 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 Appendix 2 apply, such that the guidelines for ESC in Appendix 1, are considered by the City Engineer to be inadequate to prevent the discharge of a Prohibited Substance into a Drainage System, the City Engineer may require the Owner to provide an ESC Plan in accordance with Section 7 of this Bylaw. *[Bylaw 8746, November 2, 2020]*

- 6.6 No person shall 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 onto any Highway, sidewalk, publicly owned land or into a Drainage System.
- 6.7 No person shall permit the direct or indirect discharge, from any property, of water that does not at all times meet or exceed the requirements of this bylaw.
- 6.8 Every person who proposes to carry out Construction Work is responsible to ensure the site is in compliance with the Bylaw for the duration of the Construction Work, which includes ensuring that all Erosion and Sediment Control (ESC) Measures are constructed, installed, implemented, and maintained for the duration of the Construction Work. *[Bylaw 8746, November 2, 2020]*
- 6.9 The City Engineer or Chief Building Official may require a security deposit for Construction Work involving the disturbance of soil, in the amount specified in Appendix 3, to secure the full and proper compliance with the provisions of this bylaw. *[Bylaw 8746, November 2, 2020]*

7. Erosion and Sediment Control Plan *[Bylaw 8746, November 2, 2020]*

- 7.1 The Erosion and Sediment Control Plan shall set out works and measures required during Construction Work to prevent the discharge of Prohibited Substances to the Drainage System and must be designed, signed and sealed by a Professional Engineer, registered and in good standing with the Association of Engineers and Geoscientists of B.C., or a Certified Professional in Erosion and Sediment Control (CPESC), registered and in good standing with EnviroCert International. The ESC Plan shall be reviewed and signed by the ESC Monitor.
- 7.2 The Erosion and Sediment Control Plan shall include:
- 7.2.1 a four stage ESC Plan (Demolition, Civil Construction, Maintenance and ESC Deactivation), with all proposed ESC Measures for each stage and implementation timing;
- 7.2.2 detailed design drawing(s) showing the location of;
- (a) property line(s) and legal designations of the subject property or properties;
 - (b) existing underground services and proposed connections to existing services;
 - (c) existing catch basins and drainage infrastructure within the drainage boundaries likely to be affected by the Construction Work, as defined by the Professional Engineer, and proposed protection measures;
 - (d) existing and proposed watercourses, ditches, swales or other bodies of water, within 100 m of the site boundaries, and proposed protection measures;
 - (e) existing and proposed buildings or ancillary buildings or structures;

- (f) existing and proposed contours and relevant spot elevations;
 - (g) proposed limits of disturbance for each phase of development;
 - (h) anticipated soil type in areas to be disturbed and at all depths to be excavated;
 - (i) proposed site access location(s) and protection measures to prevent sediment from being tracked off-site; and
 - (j) proposed ESC Measures;
- 7.2.3 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;
- 7.2.4 detailed cost estimate for the installation, maintenance and removal of ESC Measures;
- 7.2.5 an ESC monitoring program conducted by an ESC Monitor with:
- (a) regular inspections of construction work and water quality of receiving waters occurring a minimum of twice a month during dry months (May – September), weekly during wet months (October – April), after a Significant Rainfall Event, and until at least 90% of construction is complete; and
 - (b) monitoring reports submitted to the City’s Engineering Department within one week of each site inspection;
- 7.2.6 an operation and maintenance program during the Construction Work that contains a maintenance schedule, methodology and maintainer’s name and address and emergency contact telephone number;
- 7.2.7 the proposed methods to restore disturbed areas following the completion of development; and
- 7.2.8 a letter of undertaking signed by a Qualified Environmental Professional who commits to accept responsibility for the management of the ESC Plan, including:
- (a) conducting a pre-construction inspection of initial ESC Measures installation to ensure accordance with the approved ESC Plan;
 - (b) periodic inspection of Construction Work to ensure that the materials entering the Drainage System are in compliance with the requirements of this bylaw; and
 - (c) conducting a post-construction inspection of ESC Measure deactivation and removal.
- 7.3 The ESC measures required by the ESC Plan shall be inspected, maintained and operated for the duration of the Construction Work by the Owner performing the work as set out in the ESC Plan.

7.4 The Owner must ensure the ESC Monitor conducts the inspection, monitoring, maintenance, and reporting of the ESC facilities in accordance with the ESC Plan.

8. Remedies

8.1 If during the Construction Work any Prohibited Substance enters the Drainage System, then the Owner performing the work shall immediately notify the appropriate federal, provincial and municipal agencies and under the appropriate direction take remedial steps to remove such Prohibited Substance. *[Bylaw 8746, November 2, 2020]*

8.2 If any person is carrying on any Construction Work or any other activity in contravention of this bylaw which in the opinion of the City Engineer, Chief Building Official, or Bylaw Enforcement Officer is causing or is likely to result in a discharge of Prohibited Substance into the Drainage System, then the Building Inspector 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. *[Bylaw 8746, November 2, 2020]*

8.3 The City Engineer, Chief Building Official, or Bylaw Enforcement Officer may further direct that steps be taken to prevent further Fouling or discharge of Prohibited Substance in to the Drainage System. *[Bylaw 8746, November 2, 2020]*

8.4 If in the opinion of the City Engineer or the Chief Building Official, immediate steps should be taken to prevent the likely escape of a Prohibited Substance, or to stop an escape which is ongoing, and/or if the City Engineer or Chief Building Official is not satisfied that the Owner, 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. *[Bylaw 8746, November 2, 2020]*

8.5 The cost of any work done by the City will be assessed to the Owner.

8.6 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 causing a discharge of Prohibited Substances to the Drainage System. *[Bylaw 8746, November 2, 2020]*

9. Inspection

9.1 The Environmental Technician, Bylaw Enforcement Officer, Property Use Inspector, or Building 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. *[Bylaw 8746, November 2, 2020]*

10. Offences, Penalties and Enforcement *[Bylaw 8290, September 23, 2013]*

Every person who violates a provision of this Bylaw, or consents allows or permits an act or thing to be done in violation of a provision of this Bylaw, or who neglects to or refrains from doing anything required to be done by a provision of this Bylaw, is guilty of an offence and is

liable to the penalties imposed under this Bylaw or any other applicable Bylaw of the City, and is guilty of a separate offence each day that a violation continues to exist.

Any person who contravenes any of the provisions of this bylaw commits an offence punishable upon summary conviction and is liable to a fine of not more than \$10,000 or to imprisonment for not more than six months or to both. Each day that an offence continues shall constitute a separate offence.

Pursuant to Section 264 of the *Community Charter*, S.B.C. 2003 Chapter 26, any person designated as a Bylaw Enforcement Officer pursuant to the Bylaw Notice Enforcement Bylaw, 2005, No. 7675 or is named as the Enforcement Officer pursuant to the Ticket Information Utilization Bylaw, 1992, No. 6300 is hereby authorized and empowered to enforce the provisions of this Bylaw by Bylaw Notice or Municipal Ticket Information or as otherwise provided by this or any other Bylaw.

The provisions of this Bylaw are severable. If, for any reason, any provision is held to be invalid by the decision of a court of competent jurisdiction, such a decision shall not affect the validity of the remaining provisions of this Bylaw.

READ a first time by the Council on the 12th day of January, 2004.

READ a second time by the Council on the 12th day of January, 2004.

READ a third time and passed by the Council on the 12th day of January, 2004.

RECONSIDERED and finally adopted by the Council, signed by the Mayor and City Clerk and sealed with the Corporate Seal on the 19th day of January, 2004.

“Barbara A. Sharp”

MAYOR

“Bruce A. Hawkshaw”

CITY CLERK

APPENDIX 1

Erosion and Sediment Control Guidelines for Single and Two-family Dwellings

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 run-off control.

Site Layout and Clearing:

At the earliest stages, the single lot development should be designed to include the Best Management Practices for erosion and sediment control, specifically:

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

Soil Erosion Control:

Surface erosion from single lots and building sites is generated mainly from soil excavations and graded areas. To minimize erosion on-site the following Best Management Practices must be applied:

- Cover temporary fills or stockpiles with polyethylene or tarps;
- Re-vegetate or final landscape disturbed areas as soon as practically possible; and,
- 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 watercourses or into storm Drainage Systems that discharge into Drainage Systems and Streams. Best Management Practices include:

- Divert run-off away from cleared areas by use of swales or low berms;
- Utilize silt fences around stockpiled materials and sloped areas;
- Collect run-off into sediment traps prior to discharge off-site; and,
- Protect catch-basins both on and off-site to prevent the discharge of sediment laden run-off to the storm Drainage System or Streams.
- Water leaving site will be in compliance with the discharge requirements described in this bylaw. *[Bylaw 8746, November 2, 2020]*
- Care must be taken to ensure that no silt or soil is tracked, spilled, or deposited onto the street.

APPENDIX 2

Single and Two-family Site Conditions Requiring Erosion and Sediment Control Plans

The City may require the Owner to provide an Erosion and Sediment Control Plan in accordance with the provisions of Section 7 of this bylaw, when in the opinion of the City Engineer a site meets one or more of the following criteria: *[Bylaw 8746, November 2, 2020]*

- Close proximity of the construction site to a Stream;
- Construction on slopes greater than 20%; or,
- Construction on lands having a history of erosion events or lands designated by a geotechnical study as being subject to landslip or flooding.
- Two or more adjacent single-family dwellings or duplexes are being developed simultaneously by the same property Owner.

APPENDIX 3

Deposits

The City Engineer or Chief Building Official may require a refundable security deposit prior to issuing a building permit, in the amount of \$1000, to secure the full and proper compliance with the provisions of this bylaw. The security deposit must be in a form acceptable to the City Engineer or Chief Building Official.

If the amount of the security deposit is insufficient for the City to complete the remedial work, the Owner will pay any deficiency to the City on demand.

When the Owner complies with the provisions of this bylaw the city will return the security deposit at such a time as the QEP provides the City with written notice that the site is complete, the site is stable and under control and the site no longer poses a threat to the Drainage System, and the ESC Measures have been removed to the acceptance of the City Engineer or Chief Building Official. *[Bylaw 8746, November 2, 2020]*