



Deep Roots
Greater Heights

Watercourse Protection Development Permit (WPDP) Checklist With Low Impact Development Guidelines and Best Management Practices

This is an expanded document based on Schedule F of the Development Procedures Bylaw 5879-1999. A pre-application meeting with Environment and Planning staff prior to submission of an application is strongly recommended. All relevant schedules, guidelines and attachments can be found here:

<http://www.mapleridge.ca/EN/main/residents/environment.html> or directly from the Planning Department.

Mandatory Information

(to be provided after first reading with Rezoning applications or to accompany Subdivision applications)

1. A completed application form with the prescribed fee. A combined Watercourse Protection (WPDP) and Natural Features (NFDP) might be required where both water features and steep slopes over 15% are identified on site. Refer to the NFDP checklist for more details on this;
2. **An Environmental Assessment & Impact Assessment** (refer to applicable Guidelines for Environmental Assessments and Environmental Impact Assessments). This must include a water feature assessment using SPR method prepared by a qualified environmental professional (QEP;), steep slope assessment, wildlife assessment, restoration and habitat balance report where applicable.
3. **Natural Hazard Mitigation Plans** for geotechnical setbacks, forest edge treatments, floodplains etc. where appropriate that have been prepared by qualified professionals as required by the City that supports retention and appropriate mitigation BMPs for ESA areas and features;
4. **WPDP Guidelines Checklist** (attached) signed by the QEP with a digital copy of the most current approved information/plans/studies must be provided to the City. A digital copy of the information and CAD or GIS compatible mapping is required;
5. A **Preliminary Letter of Inspection** from the designated environmental professional of record is required to ensure appropriate protection and mitigation measures are in place & fully operational *before any clearing, grading, or construction activity begins* on site. The QEP is responsible for overseeing appropriate site preparation, coordination & supervision of protection, mitigation & restoration measures on site before, during, and after construction activity.
6. A **BCLS Site Survey** must be completed and flagged on the ground to identify boundary of protected areas such as setback boundaries & top of bank, steep slopes 25% or greater, and tree protection areas plus any additional required compensation areas once final layout has been approved (see attached Guidelines for Site Surveys);
7. **Senior environmental agency submissions** for notifications or approvals is required including supporting studies/information. Contact with all relevant senior agencies & branches such as DFO, RAR and WSA is required. A detailed RAR report is required for SPR variance requests or where relocation is proposed;

8. **Conceptual Detailed Three Tier On Site Stormwater/Rainwater Management Plans** (see attached Guidelines for Conceptual Stormwater/Rainwater Management Plans). Emphasis on Tier A & water quality requirements coordinated with protected ESA areas, landscaping and grading on site;
9. **Tree Management Plan** or Arborist Report & Permit (see Tree Survey Guidelines – *refer to new Tree Protection & Management Bylaw*) Emphasis early on in process should be on retention of significant tree clusters, periphery trees, and appropriate edge mitigation including critical root zone protection, compaction & hazard mitigation, and re-planting opportunities;
10. **Enhancement and Restoration Plans** must be submitted and signed by the QEP for disturbed or sparsely vegetated ESA protected areas with a cost estimate & security deposit. A ***Final Letter of Inspection*** from the QEP is also required in order to ensure appropriate implementation, survival, & restoration objectives have been completed before the security deposit can be returned;

Additional supporting information will be required where applicable:

- An Environmental Habitat Balance Report with justification and calculations that result in clear net habitat gains where compensation is applicable (see attached Guidelines). A detailed RAR assessment will also be required where variances to SPR setbacks are requested;
- A Certificate of Title and a Consent Form (if the applicant is different from the owner shown on the certificate of title) with any restrictive covenant documents registered against title;
- A Wildfire Hazard Assessment and DP report; and
- Other studies as required based on site context or recommendations of professionals

RESPONSIBILITIES OF QUALIFIED ENVIRONMENTAL PROFESSIONALS (QEP)

*The City of Maple Ridge Official Community Plan and Watercourse Protection Bylaw require the use of the following **Low Impact Development Guidelines** and Best Management Practices:*

- **A QEP should be available to approve mitigation, prepare the site, and oversee development activity before any clearing begins.** The QEP is required to contact City Environmental Technicians directly within 24 hours of any incident that constitutes an infraction and that has not been remedied. They are responsible for overseeing and reporting to City staff during:
 - Clearing and grubbing;
 - Servicing works; and
 - Construction of buildings.
- **Timing of development activity and inventories during suitable periods.** Encourage land disturbance activity between July and September. Studies, assessments, or construction should be carried out at an appropriate time of year, taking into consideration bird nesting periods, fisheries windows, etc.
- **Leave existing vegetation in place during the planning and approvals stages.** Pre-clearing vegetation results in increased costs for temporary re-vegetation and erosion control, at the same time it unnecessarily increases runoff and sedimentation.
- **Clear the site in stages as development proceeds.** For instance, for larger developments, clear only road and utility corridors during initial phases of development, leaving the building envelopes vegetated for as long as possible.
- **Protect edges of ESA natural features and areas on site & off site.** These protected areas include steep slopes, riparian or wetland areas, park areas, trails, root zones, clusters of mature trees, or other sensitive feature that may require additional mitigation measures.
- **Identify and protect infiltration and 3 tier SMP areas.** Designated rainwater management areas that require infiltration, biofiltration /exfiltration areas must not be compacted by equipment, construction activity, or storage of materials during construction. Temporary protective fencing should be used to protect these areas during construction periods.
- **Slopes and native soils must be protected and stabilized.** Soil stabilization, mitigation, and re-planting is immediately required for the following:
 - Interim periods where development is not active for longer than 30 days;
 - Where construction activity has disturbed or destroyed vegetation on slopes > 15%;
 - Where there has been encroachment into parks, conservation boundaries, or protected setback areas, or designated municipal greenway trail corridors.
- **Coordination of professional consultants and their recommendations.** This includes coordination of assessments, findings and recommendations with the following:
 - Environmental consultants and other relevant professionals of record working for the developer and with relevant municipal departments & staff persons
 - Any works within or adjacent to environmental protected areas, mitigation zones, will require input and coordination with the QEP of record and the City of Maple Ridge.



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Preliminary Letter of Inspection and Assurance For WPDP/NFDP Applicants

RE: Inspection For Development or Building Premises located at:

(Site Address and File Number)

A Preliminary Letter of Inspection and Assurance from the Qualified Environmental Professional (QEP) is required to be submitted to the Planning Dept. Development File Manager and to the City's Environmental Section **before any clearing or disturbance takes place.**

This letter provides confirmation that the QEP has carried out the following duties to ensure the required protection and mitigation measures are in place and operational:

General Site Protection and Landscape Management Standards

- The QEP has carefully surveyed the site prior to any disturbance to ensure appropriate protection and mitigation is in place and fully operational around protected areas and features. Temporary snow fencing should be in place to ensure features are protected.
- Appropriate approvals and site source mitigation measures are in place & operational for protected areas in addition to drainage controls, hazard mitigation, & restoration requirements before any clearing, construction, or soil disturbance takes place on site.
- The timing of construction and disturbance does not conflict with critical bird nesting periods, protected species, senior agency windows, or negatively impact adjacent sites. The proposed works will cease during heavy rain periods. Appropriate protection, mitigation, assessment and approvals from the City & senior agencies is required.
- Phasing of works to ensure minimal disturbance and clearing is required on larger development/ building lots over 2 hectares in size. Appropriate site source controls are in place for soils and vegetation on steep slopes > 15%, especially on larger development sites.
- Ensure hazard mitigation and approved mitigation is in place before disturbance occurs. Ensure there is no conflict with neighbouring properties, other applicable senior agency legislation, municipal regulations, or Building Code.

The QEP signing this form is the designated Environmental Monitor for this site.

The Environmental Monitor has completed an inspection of the premises on the following date _____ (date of inspection).

Environmental Monitor:

(Name and Company of Environmental Monitor)

Signature

Date

Phone: _____ Emergency Phone: _____

Email: _____



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Final Letter of Inspection and Assurance For WPDP/NFDP works

This signed letter must be provided to the City prior to inspectors conducting their final building inspection and prior to the return of the environmental security deposit.

RE: Inspection For Development or Building Premises located at:

(Site Address and File Number)

The qualified environmental professional (QEP) identified has inspected the site and provides the following assurances to the City:

1. The QEP signing this form has been the designated environmental professional for this site.
2. The QEP has remediated the premises in accordance with the applicable environmental DP requirements including the following:
 - Clean up, grading, and stabilization of all disturbed or exposed soil areas on site that still belong to the developer and within adjacent park conservation areas in accordance with City standards;
 - Removal of all temporary mitigation control devices, garbage, or construction debris on site that belongs to the developer or within adjacent park or watercourse setback areas, unless specified otherwise by the City;
 - Enhancement and Restoration landscape treatment and planting measures are in place or have commenced on site. A description of the works that have taken place to date must be provided.
 - The Protection and Retention measures, mitigation controls, enhancement/restoration works, and compensation requirements that were required and approved as part of the environmental development permit have been implemented and are accurately located on site.
 - Operational measures and requirements from senior environmental agencies including federal and provincial levels have been completed.
 - The signature of the Environmental Professional of Record confirming completion is required prior to releasing the securities.

The QEP signing this form represents the designated Environmental Professional Consulting firm that was responsible for overseeing the environmental management plans and supervision for this site.

The Environmental Professional has completed an inspection of the premises on the following date _____ (date of inspection).

Environmental Professional of Record

:

Name and Company

Signature

Date

Phone: _____

Email: _____

Watercourse Protection Development Permit Area Guidelines

Pursuant with Section 8.9 of the Official Community Plan, the Watercourse Protection Development Permit is assessed against the following guidelines. This checklist is intended to summarize the requirements of watercourse protection development permit and is to be completed by the Environmental Planner in consultation with the File Manager.

DP/___/___

Project Description:

(short description of the type and location of development, site conditions, setback requirements, environmental issues, etc)

Section 8.9.2 Guidelines	Consistent			Comments
	Yes	No	N/A	
<p>A. Watercourse Protection Area Establishment</p> <p>1. Watercourse protection areas are to be established in accordance with their habitat value and the potential impacts proposed by adjacent development. The City of Maple Ridge, the Department of Fisheries and Oceans and the Ministry of Environment, Lands and Parks have endorsed the proposed watercourse protection boundaries as shown on the City's Streamside Setback Map.</p>				
<p>2. The watercourse protection areas are to be dedicated where possible into public ownership for conservation purposes.</p>				
<p>3. The boundaries of the watercourse protection areas are to be physically located on the ground by a B.C. Land Surveyor prior to site disturbance.</p>				
<p>4. Temporary barrier fencing will be installed adjacent to watercourse protection areas prior to any construction activity and should be replaced with permanent post and rail fence upon development completion.</p>				
<p>5. All lots must provide the required minimum lot dimensions as set out in the Zoning Bylaw exclusive of the watercourse protection boundaries.</p>				
<p>B. Erosion Control:</p> <p>6. All work is to be undertaken and completed in such a manner as to prevent the release of sediment to any ravine, watercourse or storm sewer. An erosion and sediment control plan that involves implementation prior to land clearing and site preparation and the careful timing of construction is</p>				

7. Temporary fencing should be erected to prevent any encroachment or disturbance into the watercourse protection area prior to any clearing or construction on the site.				
8. Cutting and filling adjacent to watercourse protection areas is to be kept to a minimum incorporating appropriate structural fill material and blending graded areas with natural slope, as supported by the Hillside Policies of the OCP.				
9. The City may require environmental impact studies, enhancement works, and monitoring in support of development proposed to be located within a Watercourse Protection Area. Supporting documentation, technical studies, and recommendations with respect to impacts of the proposed development may include the following: <ul style="list-style-type: none"> a. A geotechnical slope stability and erosion control report; b. A flood protection report; c. A groundwater impact assessment report; d. Wildlife habitat assessment report; e. Vegetation impact assessment report; and f. A detailed trail plan. 				
C. Vegetation Management:				
10. Natural vegetation is to be retained wherever possible to ensure minimum disruptions to the environment and to protect against slope failure. Land clearing adjacent to the watercourse protection areas is to be restricted to a phased construction schedule.				
11. Habitat restoration landscaping of all bare or sparse riparian areas within the watercourse protection area will be required. Vegetation species should be native of the area and be selected for erosion control and fish and wildlife habitat values.				
12. Stormwater outflows to the stream or leave area should have water quality and erosion control controls so as to minimize their impacts on fish habitat and in compliance with the City's 3 tier on site stormwater management plans.				
D. Monitoring:				
13. The implementation and maintenance of environmental mitigative controls or measures approved by the City are to be monitored by a qualified environmental monitor.				
to be provided in accordance with the requirements of the City's Watercourse Protection				

Completed by: Qualified Environmental Professional

Date:

Reviewed by: Environmental Planner

Date: