



**Riparian Management Areas –
Multifamily Residential, Commercial and
Industrial Developments**

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Purpose:

The purpose of this bulletin is to outline the City of Richmond’s multifamily residential, commercial and industrial development application requirements for the protection of Riparian Management Areas (RMAs) pursuant to British Columbia’s *Riparian Areas Protection Act* and the associated *Riparian Areas Regulation*.

Definitions:

Designated Stream: A minor or major watercourse that may or may not contain fish.

Riparian Management Area: Setbacks assigned to minor (5 m) and major (15 m) designated streams measured perpendicular from top-of-bank that are to remain free from *development* unless authorized by the City on subject watercourses as defined in the Riparian Management Area Map (Official Community Plan Bylaw 9000, Section 9.0).

Top of Bank: The point closest to the boundary of the active flood plain of a watercourse where a break in the slope of the land occurs, and the grade beyond the break is flatter than a 3:1 for a minimum distance of 15 m measured perpendicularly from the break.

Qualified Environmental Professional: An applied scientist or technologist, acting alone or together with another qualified environmental professional acting within their area of expertise, and in good standing in British Columbia with an appropriate professional organization constituted under the *Riparian Areas Protection Act*, acting under that associations code of ethics and subject to disciplinary action by that association.

Development: Any of the following activities associated with or resulting from the local government regulation or approval of residential, commercial and industrial activities as subject to local government powers under Part 14 of the *Local Government Act*:

- Removal, alteration, disruption or destruction of vegetation;
- Disturbance of soils;
- Construction or erection of buildings and structures;
- Creation of non-structural impervious or semi-impervious surfaces;
- Flood protection works;
- Construction of roads, trails, docks, wharves and bridges;
- Provision and maintenance of sewer and water services;
- Development of drainage systems;
- Development of utility corridors; and
- Subdivision.

See over →

What is a Riparian Management Area?

Riparian areas are productive ecosystems that serve as a transition zone between terrestrial and aquatic environments. Riparian vegetation can include grasses, shrubs, and trees suited for semi-wet soil conditions. This vegetation stabilizes channel banks, filters surface water contaminants, regulates water temperature, increases local habitat value and is a source of nutrients for downstream watercourses when well established. The City's RMAs form a critical component of Richmond's Ecological Network Management Strategy (2015).

Richmond's slow moving floodplain watercourses are naturally low in oxygen and high in dissolved metals. Although they do not generally contain commercial, recreational or aboriginal species as defined in the federal *Fisheries Act*, they provide nutrients to these species in the Fraser River and habitat for a number of forage fish and wildlife.

City Council adopted the Riparian Response Strategy in 2006 to comply with Provincial requirements for the protection of riparian areas pursuant to the *Riparian Areas Protection Act*. RMA setbacks for major (15 m) and minor (5 m) designated streams were established in consultation with the Department of Fisheries and Oceans Canada. Watercourses within the City's designated RMA network are wetted the majority of the year and are considered to be streams as defined by the *Riparian Area Regulation*.

How do I find out if a property has a designated RMA?

A map of the City's RMA network is appended to this bulletin. The City also maintains Richmond Interactive Map (RIM), which can be viewed at www.richmond.ca/discover/maps.htm.

To search for properties in RIM, enter an address with the search function or zoom into a desired location, click on layers, expand planning services, select the 5 m and 15 m RMA layers.

What information is required to support a development application for a property with a designated RMA?

All multifamily residential, commercial and industrial development applications for properties with designated RMAs must include the following information:

1. Plans and surveys that clearly delineate the RMAs from the top of bank.
2. The Site Note provided below must be clearly marked on all applicable plans and surveys supporting the application.

City of Richmond Riparian Management Area (RMA)

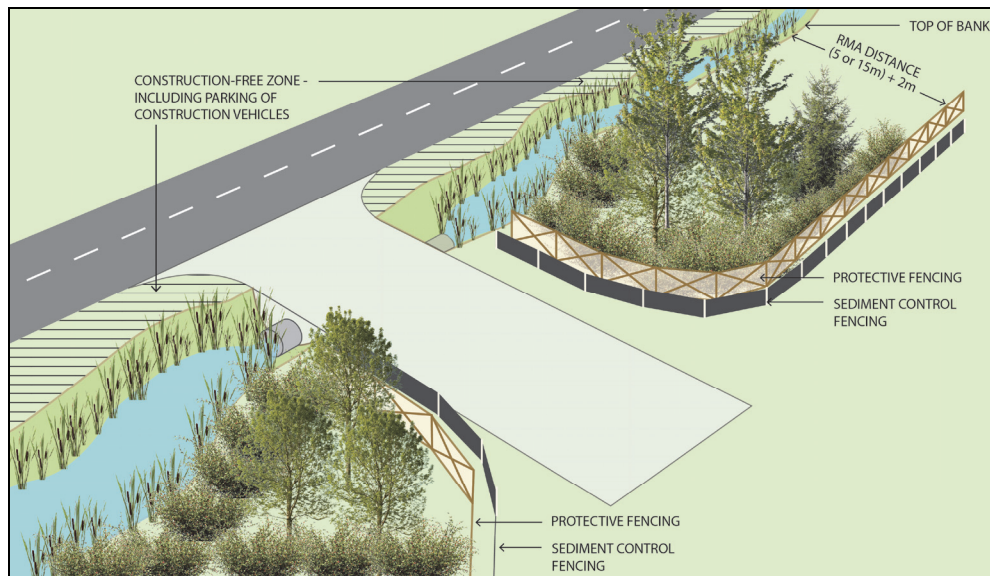
- *The RMA must not be altered except in accordance with a City approved permit and Construction Environmental Management Plan prepared by (insert company name), dated (insert date of report). No tree, shrub or ground cover removal; no storage of materials; no building, structure or surface construction including retaining walls can occur in an RMA.*
- *A brightly coloured, temporary fence of a minimum height of 1.2 m must be erected at least 2 m outside of the RMA. An erosion and sediment control fence must be installed on the property side of the brightly coloured fence. All additional RMA protection measures, as defined by a Qualified Environmental Professional must also be installed/completed.*
- *All protective fencing and erosion and sediment control measures must be in place before development begins, and remain in place until development is complete and final approval received.*
- *The landowner is responsible to restore to the satisfaction of the City any unauthorized development within the RMA.*

3. A Construction Environmental Management Plan (CEMP) prepared and signed by a Qualified Environmental Professional.

See over →

What should be included in the CEMP?

A CEMP must clearly demonstrate how mitigation measures will be implemented during development to protect the valued ecosystem components. Valued ecosystem components are to be identified by a Qualified Environmental Professional during a site-specific habitat assessment to support the CEMP. Recognizing that valued ecosystem components may differ slightly based on location, the City requires a level of detail that is appropriate for the proposed development activity. The figure below illustrates the City's typical RMA protection requirements for development. General terms of reference to assist with preparing the CEMP are also appended to this bulletin.



For additional information regarding Riparian Management Areas please contact the Sustainability Department at 604-276-4166 or 604-247-4661.

See attached →

CEMP Terms of Reference

The following report structure and content is expected by the City for project CEMPs. Depending on the context and scale of the project, some content may not be required and in some other cases, additional information may be requested.

Introduction

- An overview of the site location, historic and proposed land use, zoning and Agricultural Land Reserve status.
- An overview of the development proposal, scope of work, and all applicable permit applications.
- The location and approximate size of the RMA on site with a context map.
- A list of any applicable legislation and additional permits required from government agencies.

Biophysical Inventory

- Describe, list and quantify the density and size of plant communities (trees, shrubs and herbs) present and specify which species are native, non-native, or considered invasive based on applicable legislation.
- A list of all observed wildlife (aquatic and terrestrial) and a describe of limitations to wildlife use at the time of the site visit (i.e. time of year, length of time on site, weather).
- Details of any observations or signs of species-at-risk or their critical habitat as defined by legislation.
- A description of all significant natural features and functions, such as wildlife trees, veteran trees, active bird nests, wetlands, streams, hives, pollinator plant communities, and wildlife corridors.
- Photographs that appropriately represent the RMA and all significant features present on site.

Impact Assessment of the Proposed Development

- A description of all unauthorized disturbances to the RMA on site.
- A description of how the RMA will be protected from impact throughout development based on all applicable best management practices (Standards and Practices for Instream Works, Develop with Care Guidelines, etc.).
- If impacts to the RMA are proposed, quantify the extent and map all proposed disturbances to the RMA. This includes proposed buildings and structures, grading or fill, servicing, driveways, landscaping and staging for construction.

Mitigation Strategy

- A description of how the RMAs will be protected from disturbance during and after construction based on all applicable best management practices.
- Options for alternative site layouts and buffers to protect the existing RMAs.
- Recommendations for delineating and protecting the RMA during construction, including fencing (temporary or permanent), timing of works, monitoring, nesting surveys, relocation of wildlife, and erosion and sediment control measures.

Compensation Strategy for Unavoidable Impacts

- An area-based habitat balance sheet that outlines a net gain of the total area of RMA and natural areas present onsite before and after development that is based on proposed compensation plan.
- Report and map all areas proposed as compensation. Where net gain in RMA area cannot be achieved onsite, provide a strategy for achieving a net gain in function and/or net gain through offsite compensation.
- The location, size and species of trees, shrubs and vegetation proposed onsite. The plan should target 100% native BC species and include soil preparation and planting methods based on the City's MMCD Supplementary Specification requirements for growing medium.

Monitoring and Maintenance

- Measurable parameters for determining if mitigation and compensation requirements were successful in protecting and/or maintains a functioning RMA. This should include details on the reporting that will be submitted following completion of the landscape plan.
- Site monitoring requirements that comply with the proposed mitigation and compensation strategies and all best management practices.
- Specific criteria for determining the successful establishment of the landscape plan, and the conditions for sign-off by the City.