

Riparian Areas Regulation

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1) **Application**

a) **Where does it apply?**

The Riparian Areas Regulation applies to the same geographic areas that the Streamside Protection Regulation applied to being the following regional districts and all municipalities within them: Capital, Central Okanagan, Columbia-Shuswap, Comox-Strathcona, Cowichan Valley, Fraser Valley, Greater Vancouver (except the city of Vancouver), Nanaimo, North Okanagan, Okanagan-Similkameen, Powell River, Squamish-Lillooet, Sunshine Coast, Thompson-Nicola and the trust area under the *Islands Trust Act*.

b) **What Activities does it apply to?**

The new Riparian Areas Regulation applies to the same activities as the repealed Streamside Protection Regulation. It applies to local government regulation or approval of **residential, commercial and industrial activities, or ancillary activities**, as regulated by Part 26 of the *Local Government Act* being:

- (a) removal, alteration, disruption or destruction of vegetation;
- (b) disturbance of soils;
- (c) construction or erection of buildings and structures;
- (d) creation of nonstructural impervious or semi-impervious surfaces;
- (e) flood protection works;
- (f) construction of roads, trails, docks, wharves and bridges;
- (g) provision and maintenance of sewer and water services;
- (h) development of drainage systems;
- (i) development of utility corridors;
- (j) subdivision as defined in section 872 of the *Local Government Act*;

It does not apply to a development permit or development variance permit issued only for the purpose of enabling reconstruction or repair of a permanent structure described in section 911 (8) of the *Local Government Act* if the structure remains on its existing foundation.

It does not apply to agricultural or institutional development. Nor does it apply to mining activities or First Nations reserve lands. However, other provincial or federal legislation may still apply.

c) **To What Areas does it apply?**

The regulation applies to the “riparian assessment area” adjacent to “streams”. The definition of “stream” includes a watercourse, whether it usually contains water or not, a pond, lake, river, creek or brook; and a ditch, spring or wetland that is connected by surface flow to a watercourse, pond, lake, river, creek or brook that provides fish habitat.

The riparian assessment area for a “stream” is:

- the 30 meter strip on both sides of the stream, measured from the high water mark,
- for a ravine less than 60 meters wide, a strip on both sides of the stream measured from the high water mark to a point that is 30 meters beyond the top of the ravine bank,
- and for a ravine 60 meters wide or greater, a strip on both sides of the stream measured from the high water mark to a point that is 10 meters beyond the top of the ravine bank.

d) What does local government need to do?

The Riparian Areas Regulation directs local government to use as a minimum either inclusion of riparian area provisions in zoning bylaws in accordance with the direction in the RAR Section 4, or to use the tools available to them under section 26 of the local government act that in the opinion of the local government provides a level of protection that in the opinion of local government is comparable to or exceeds that established by RAR Section 4.

RAR Section 4 specifies that the following conditions must be met prior to allowing development to occur in the “riparian assessment area” (as defined):

- 1) A qualified professional:
 - a) certifies that they are qualified to conduct the assessment (attached as a schedule to the regulation),
 - b) certifies that the assessment methods have been followed and
 - c) provides their professional opinion that there will be no harmful alteration, destruction, or disruption of of natural features, functions and conditions (as defined) that support fish life processes in the riparian assessment area, and
 - d) the local government is notified by the Ministry of Environment, that the Ministry of Environment and the Department of Fisheries and Oceans have been notified of the development proposal, and provided with a copy of the assessment report prepared by a qualified environmental professional that meets the conditions in a), b), and c), or
- 2) A Department of Fisheries and Oceans authorization for the development.

In order for a local government to begin receiving notifications from the Ministry of Environment the local government must contact the Union of BC Municipalities and request an access password to the Ministry of Environment’s Riparian Area Regulation Notification System.

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e) What about existing local government bylaws or permits?

The Riparian Areas Regulation is enabled by section 12 of the Fish Protection Act. Subsection 4(b) provides that an applicable local government ensure that its bylaws and permits under Part 26 of the Local Government Act must in its opinion, provide a level of protection that is comparable to or exceeds that of the Riparian Areas Regulation. Therefore if existing bylaws or permits in the local governments' opinion meet or beat the Riparian Areas Regulation provisions, then the local government is in compliance with the regulation.

Section 8 of the Riparian Areas Regulation provides that if a local government has bylaws or permits that establish streamside protection and enhancement areas in accordance with the direction in section 6 of the Streamside Protection Regulation, on or before March 31, 2005, then that local government is deemed to have met the requirements of the Riparian Areas Regulation. However if that local government wants to consider an amendment to those streamside protection and enhancement areas then they must follow the direction in the Riparian Areas Regulation.

f) What is the Scope of the regulation?

The Riparian Areas Regulation deals with riparian fish habitat, and only in association with new residential, commercial and industrial development on land under local government jurisdiction (this includes private land and the private use of Provincial Crown land). Other uses are subject to other planning and management approaches.

Although beyond the scope of Section 12 of the *Fish Protection Act*, it is acknowledged that attention also needs to be given to:

- hydrological impacts on fish habitat resulting from land use and development and the associated creation of impervious surfaces;
- water quality impacts on fish from point and non-point source pollution; and
- the role and importance of riparian ecosystems to terrestrial species.

It is anticipated that local governments will choose – as many already have – to address these matters through comprehensive, watershed-based, integrated stormwater and stream corridor planning and management.

g) Will the regulation limit local government’s ability to protect streamside areas?

The regulation will not restrict in any way local governments’ ability to increase the level of protection in riparian areas if they so desire for other values. They cannot however reduce it without specific authorization of the Department of Fisheries and Oceans.

The regulation creates a structured, consistent approach to providing what is needed to ensure that development protects fish habitat. Local government remains free to use its powers under the *Local Government Act* to protect other values.

h) Why was it changed?

The Streamside Protection Regulation did not provide an efficient and flexible mechanism for site specific determination of appropriate levels of protection of riparian fish values on a consistent basis. The Streamside Protection Regulation was also heavily dependent on government resources for implementation.

The Riparian Areas Regulation approach to urban fish habitat protection is designed to provide certainty and flexibility to development, while not being dependent on limited local, provincial and federal government resources and ensures protection of the province’s valuable fisheries resource, and shifting liability to development proponents.

i) What are the similarities and differences between the two models?

The Streamside Protection Regulation directed local governments to protect riparian areas subject to residential, commercial, or industrial development by establishing streamside protection and enhancement areas in accordance with direction in section 6 of the regulation. The establishment of these streamside protection and enhancement areas was dependent on government resources.

The Streamside Protection Regulation also provided a mechanism for site specific determination of streamside protection and enhancement areas. These were to be determined through direction in an Inter Governmental Cooperation Agreement that each individual local government would have to put in place if they wanted to entertain site specific flexibility. There was no specific direction in the Streamside Protection Regulation on how to determine what an appropriate level of protection on a site specific basis was.

In the Riparian Areas Regulation the cost and responsibility for the determination of streamside protection and enhancement area can be shifted from government to development proponents. With the detailed assessment in the Assessment Methods the Riparian Areas Regulation provides a mechanism for allowing the site specific determination of appropriate levels of protection.

2) Implementation

a) Timelines

The Riparian Areas Regulation came into effect on March 31, 2005. As per the Minister of Environment's Time Period Extension Order, local governments have until March 31, 2006 to adopt appropriate legislation. To date the Ministry of Environment in collaboration with the Union of BC Municipalities and the Department of Fisheries and Oceans have completed the following:

- a) Drafting of a Cooperation Agreement between the Union of BC Municipalities, the Department of Fisheries and Oceans and the Ministry of Environment that sets out the roles and responsibilities of the three partners in implementing the Riparian Areas Regulation;
http://www.env.gov.bc.ca/habitat/fish_protection_act/riparian/riparian_areas.html

- b) A Protocol of Interaction for compliance monitoring has been prepared which outlines the roles of all three levels of government in monitoring compliance and effectiveness of the regulation.
http://www.env.gov.bc.ca/habitat/fish_protection_act/riparian/documents/Protocol_ofInteraction.pdf

- c) Completion of a local government ‘liability legal opinion’ and ‘a response to the legal opinion’; The legal opinion was jointly commissioned by the Ministry of Environment and Union of BC Municipalities to address Resolution B75 passed at the 2004 UBCM annual convention requesting a legal review of local government liability from the RAR;
http://www.env.gov.bc.ca/habitat/fish_protection_act/riparian/riparian_areas.html#lo
- d) Establishment of a web based Notification system for Qualified Environmental Professional reports as per section 4(2)(b) of the Riparian Areas Regulation and including notification back to local governments;
http://www.env.gov.bc.ca/habitat/fish_protection_act/riparian/riparian_areas.html#notification
- e) Publishing of the Riparian Area Regulation Implementation Guidebook;
http://www.env.gov.bc.ca/habitat/fish_protection_act/riparian/documents/ImplementationGuidebook.pdf
- f) Training for government staff on their role in implementing the Riparian Areas Regulation, and
http://www.env.gov.bc.ca/habitat/fish_protection_act/riparian/riparian_areas.html#localtraining
- g) Training for Qualified Environmental Professionals in conducting the Riparian Areas Regulation Assessment <http://www.mala.ca/nrep/environment/rar.asp>

b) Roles and Responsibilities

A Cooperation Agreement in accordance with section 2(b) of the Riparian Areas Regulation is in the final stages of development by the Ministry of Environment, the Department of Fisheries and Oceans, and the Union of BC Municipalities that will establish the roles and responsibilities of the three partners in implementation.

c) Training staff and Qualified Environmental Professionals

Training of government staff on their roles and responsibilities in implementing the Riparian Areas Regulation has been delivered.

Training of Qualified Environmental Professionals (QEP) is being delivered by Malaspina University College, in collaboration with the Ministry of Environment, the Union of BC Municipalities, the Department of Fisheries and Oceans and the appropriate professional associations. Malaspina University College will be maintaining a list of QEP’s that successfully complete the Assessment Methods training course.

d) Notification and confirmation

The Ministry of Environment in collaboration with the Union of BC Municipalities and the Department of Fisheries and Oceans has developed a system allowing for the notification and submission to the Ministry of Environment and the Department of Fisheries and Oceans of the Qualified Environmental Professional reports, and notification back to local governments in accordance with section 4(2)(b) of the Riparian Areas Regulation.

e) Monitoring

A monitoring strategy has been developed to address compliance and effectiveness monitoring. The roles and responsibilities of the three orders of government in conducting and dealing with the results of monitoring is set out in the Protocol of Interaction.

f) Cooperate in developing strategies

The model is designed to reduce the potential for unacceptable assessments by qualified environmental professionals and the potential for proponents to not follow direction set out in the assessment. This risk management approach was specifically designed to reduce the potential for litigation and minimize local government's liability exposure.

Three major components to this risk management approach are; monitoring to ensure desired results are being attained, post development review and reporting by the Qualified Environmental Professional, and public education in the model and protection of the streamside protection and enhancement areas and measures once implemented. Section 5 of the Riparian Areas Regulation directs local governments to cooperate with the Ministry of Environment and the Department of Fisheries and Oceans in developing strategies to put in place these three components.

g) Local government flexibility

Guidance is provided in Section 3.4.1 of the Implementation Guidebook outlining how local governments can make minor adjustment to riparian setbacks which will allow for site specific flexibility.

h) Further field testing of Assessment Methods

In the period following release of the Assessment Methods, the Ministry of Environment and Fisheries and Oceans Canada undertook further field testing of the assessment methodology. In response to the field testing fine tuning of the assessment methodology has been completed.

i) Implementation preparation and products

The Ministry of Environment will continue working collaboratively with the Union of BC Municipalities, Fisheries and Oceans Canada and local governments in developing and initiating implementation strategies for the regulation and will update and revise the implementation procedures following the adaptive management direction found in the Cooperation Agreement.

j) Next steps

Ministry of Environment regional staff will contact all effected local governments and where requested will assist municipalities in locating resources that may be required in preparing to adopt appropriate legislation by the March 31, 2006 deadline.

The Ministry of Environment will recommend to Cabinet that the Regulation be amended to reflect the recommendations of the legal review of local government liability

The Ministry of Environment will continue to work with the Union of BC Municipalities and Fisheries and Oceans Canada to finalize the Protocol of Interaction.

3) Process

a) The Union of BC Municipalities involvement

Section 12 of the Fish Protection Act requires that the Ministry of Environment consult with the Union of BC Municipalities. To facilitate this the Ministry of Environment has involved the Union of BC Municipalities on the working group and steering committee in the development of the Riparian Areas Regulation. We believe we have fully met the spirit and intent of the *Fish Protection Act's* requirements for consultation with the Union of BC Municipalities and that we have addressed the issues identified in the 2002 the Union of BC Municipalities Convention endorsement of the proposed regulation (see next question).

b) The Union of BC Municipalities resolution points

At the Union of BC Municipalities 2002 Annual Convention there was a resolution that supported the proposed new model. Support was subject to resolution of the following issues that the Union of BC Municipalities has consistently emphasized as being important consideration in the development and implementation of the proposed Riparian Areas Regulation.

Provide liability protection for local government when making land use decisions based on a report by a Qualified Environment Professional on fish habitat

We have worked within the framework of a risk management approach to liability. First, the role of local government is clearly defined to make it clear that it is not responsible for the determination of whether a project will result in the harmful alteration of fish habitat. Its role is to ensure projects within the 30 meter riparian assessment area do not proceed until it has been advised that the fish habitat requirements of the federal and provincial governments as set out in the regulation have been met. Second, the model set out in the regulation is designed to reduce the potential for unacceptable assessments by qualified environmental professionals and the potential for proponents to not follow direction set out in the assessment. The following components were designed specifically to address this major design principle of the model:

- The detailed science based assessment that is part of the actual regulation.
- Requirement in the regulation for notifications to senior governments with the results of the assessment.
- Requirement in the regulation for certification by the qualified environmental professionals that they are qualified and have followed the methodology, and their professional opinion on the result of the development on fish habitat from following the assessment prescriptions.
- Requirement in the regulation for final review sign-off and reporting back to senior governments by the qualified environmental professionals on the implementation of the assessment prescriptions.
- Compliance and efficacy monitoring
- Working with the professional associations in the training, responsibility and accountabilities of their members.

Collectively, these measures will reduce the potential for litigation and minimize local government's liability exposure.

Ensure that no new responsibilities are downloaded on local government and that all training costs and management costs required to implement the new regulation are paid for by either the federal or provincial government

We do not believe that the new model downloads any new responsibilities to local governments and, in fact, anticipate that it will require less local government effort than the repealed Streamside Protection Regulation.

Ensure the process is timely and cost-effective from the community perspective

The proposed approach will generate consistent and timely advice to local government on whether proposed developments meet federal and provincial fish habitat requirements.

Ensure an integrated approach is implemented to avoid conflicts between the different levels of government

The cooperation agreement between the Union of BC Municipalities, the Province and Fisheries and Oceans Canada will ensure an integrated approach and respect for the roles and responsibilities of each partner in the implementation of the model.

Ensure that a balance is maintained between development and protection of the environment

Protecting riparian fish habitat, while guiding and facilitating urban development that exhibits high standards of environmental stewardship, is a priority for the Government of British Columbia. The new approach to urban fish habitat protection provides certainty and flexibility to development, is not dependent on limited local, provincial and federal government resources and ensures protection of the province's valuable fisheries resource.

c) Relationship to the Federal Fisheries Act

A central design principle for the new Riparian Areas Regulation model was that it satisfy the requirements of the federal Fisheries Act. The Department of Fisheries and Oceans has collaborated in the development of the Riparian Areas Regulation to ensure that projects reviewed and constructed in accordance with the Regulation will not result in harmful alteration, disruption, or destruction of riparian fish habitat.

Only the Minister of Fisheries and Oceans or a regulation under the *Fisheries Act* (Canada) can authorize projects that are non compliant with the results of the Riparian Areas Regulation Assessment Methods i.e. will result in harmful alteration disruption or destruction of fish habitat (HADD). Section 3.4.2 of the Implementation Guidebook provides direction on how to prepare a proposal for authorization by the Department of Fisheries and Oceans. This will help provide certainty and consistency in preparing a "no net loss proposal", by providing guidance on the situations where a proposal will be considered, and the information required to support a proposal.

d) Assessment design

The assessment methods include two options, the **simple assessment** and the **detailed assessment**. The simple assessment is basically the direction for developing streamside protection and enhancement areas found in section 6 of the Streamside Protection Regulation. The detailed assessment methodology was developed through consultation with a number of provincial and federal scientists and review of the pertinent literature. In the detailed assessment potential fish habitat impacts are examined in a 30 meter riparian assessment area. The focus of the assessment is on riparian vegetation and its functional role in maintaining fish habitat. It involves a determination of whether and how the site provides those features functions and conditions that maintain fish habitat

The main functions that the assessment addresses are: the role of riparian vegetation in providing wood for in stream channel and fish habitat structure; the role of rooted vegetation in stabilizing the stream banks and in filtering sediment; the role of the a sites vegetation in providing shade and maintaining stream water temperature, and in providing food and nutrients for fish. The assessment also involves developing measures to maintain the integrity of the area providing these functions at the site from the proposed development.

4) Some Key Concepts

a) Top of Bank vs High Water Mark

In the Streamside Protection Regulation the streamside protection and enhancement area was measured from the “top of bank” or the “top of the ravine bank”. In the Riparian Areas Regulation the streamside protection and enhancement area and is measured from the “high water mark”. The “riparian assessment area” also goes beyond the “top of the ravine bank”. The high water mark will be located by Qualified Environmental Professionals according to the direction provided in the assessment methods and in the Qualified Environmental Professional assessment training. If a local government has established the “top of bank” according to the Streamside Protection Regulation definition then the “top of bank” can be used in delineating the ‘riparian assessment area’. For the purposes of establishing the “riparian assessment area” the “Top of Bank” may also be estimated from 1:5,000 or larger scale topographic maps, recognizing the ‘high water mark’ would be refined later by the Qualified Environmental Professional when they are conducting their field assessment to determine the streamside protection and enhancement area.

b) Channelized Streams

In the detailed assessment, determining channel type is a key component for determining the role of riparian vegetation in, maintaining channel morphology, and providing fish habitat, along with forming and stabilizing stream banks. The three classic channel morphological types (step-pool, cascade pool, riffle-pool) are easy to distinguish but it becomes more difficult to determine channel types when some form of disturbance is at play: *i.e.* changes in stream flow discharge and sediment/debris loads. This is often the case with urban stream that been highly altered. The detailed assessment methodology provides a mechanism to determine channel type using a surrogate for stream power (channel width and slope). This mechanism is to be used only where it is difficult to determine channel type for severely altered channels often found in urban areas.

c) The Application of Science established on Forested landscapes

Much of the scientific research and literature investigating and discussing riparian ecosystems and their protection on forested landscapes has application to urban streams because of similarities in ecological values, diversity, hydrology, fish species, and climate. Riparian areas are universally important as fish habitat. The physical properties and functions of water are applicable in urban areas. Fish need clean water, food, and shelter. Riparian vegetation, though varying from species to species, share the same basic needs for light, water, and nutrients whether in the city, the desert, or the mountains.

The functional role of riparian vegetation to aquatic habitats does not change with land use. Different land uses may impact these functions in different ways. The detailed assessment methodology focuses on the determination of the functionality of the riparian

vegetation at a site. As a result, the information generated on forested landscapes in determining the functional role of riparian vegetation is applicable to the design and application of the Riparian Areas Regulation Assessment Methods.

5) Qualified Environmental Professionals

a) Who is a Qualified Environmental Professional

A Qualified Environmental Professional is an applied scientist or technologist, acting alone or together with another qualified environmental professional. He or she must be registered and in good standing in British Columbia with an appropriate professional organization constituted under an Act, acting under that association's code of ethics and subject to disciplinary action by that association. The applicable professionals are Professional Biologists, Geoscientists, Foresters, Agrologists, and Technicians in the ASTTBC. To be able to certify that they are qualified to conduct the assessment methodology, the individual's area of expertise must be recognized in the assessment methods as one that is acceptable for the purpose of providing all or part of an assessment report in respect of the particular development proposal that is being assessed. The individual is considered a Qualified Environmental Professional only for that portion of the assessment that is within their area of expertise, as identified in the assessment methodology.

The revised assessment methodology includes a matrix outlining the required skill sets of the QEP (s) for conducting each component of the assessment methods to help QEP's with making their certification

b) Qualified Environmental Professionals-qualifications, certification, resolving conflicts

Training of professionals in the assessment methodology is a component of the Riparian Areas Regulation model. The Ministry of Environment is working with the professional organizations in the training of their qualified members. The Qualified Environmental Professional's skill set requirement is provided in the assessment methods to help a Qualified Environmental Professional determine whether he/she is qualified to undertake the tasks in the assessment, and assist proponents in locating and hiring appropriately qualified professionals.

The revised assessment methodology includes a matrix outlining the required skill sets of the QEP (s) for conducting each component of the assessment methods to help QEP's with making their certification

The model includes objective assessment standards and thresholds to minimize the potential for conflict. The potential for disagreement with the Qualified Environmental Professional's results should be minimized as the assessment is measurable and repeatable, independent of observer. The criteria for resolving conflicts determined during monitoring would therefore be the detailed objective assessment. Adjustments will be made over time to the assessment methodology based on experience gained through monitoring and following the adaptive management process laid out in the Cooperative Agreement.

c) Liability of Qualified Environmental Professionals

This model should decrease liability and reduce the potential for litigation from the pre Streamside Protection Regulation situation. The requirement for Qualified Environmental Professionals conducting a science based assessment designed by the two senior governments provides significant liability protection to municipalities. Recognize that in hiring the professional, a relationship is created that attaches liability to the professional. If costs are incurred as a result of the professional negligence of the professional then there is the ability for civil recourse against them that is generally covered by their Errors and Emissions insurance policy.

The Riparian Areas Regulation has applied risk management strategies to reduce the potential for professional negligence and the potential for litigation. The following components were designed specifically to address this major design principle of the model:

- The detailed science based assessment that is part of the actual regulation.
- Requirement in the regulation for notifications to senior governments with the results of the assessment.
- Requirement in the regulation for certification by the qualified environmental professionals that they are qualified and have followed the methodology, and their professional opinion on the result of the development on fish habitat from following the assessment prescriptions.
- Requirement in the regulation for final review sign-off and reporting back to senior governments by the qualified environmental professionals on the implementation of the assessment prescriptions.
- Compliance and efficacy monitoring
- Working with the professional associations in the training, responsibility and accountabilities of their members

d) Involvement of professional associations and organizations

The professional organizations and associations will be working with their members and Ministry staff in the implementation of the model. The organizations have a role in ensuring the appropriate accountability mechanisms are in place for their members in undertaking their professional practice. This will involve acting on discipline complaints, and conducting practice reviews and audits. There is a training component to the model, delivered by Malaspina University College, to help the professionals conduct their responsibilities consistently. The professional associations will be working with the Ministry to ensure that future training requirements are identified in relation to the needs of their members. The associations have a role in being a conduit of comments and input from their members in the application of the assessment methodology, which will contribute to the adaptive review of the model. The associations will also have a role in providing input on the identification of skill set requirement provided in the assessment methods to help ensure that their members can determine whether they are qualified to undertake the tasks