

RIPARIAN AREAS REGULATION
GUIDEBOOK

For Local Governments

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Ministry of
Forests, Lands and
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Protecting Fish Habitat Matters

INTRODUCTION

Federal, provincial and local governments recognize the importance of conservation of fisheries resources and protection of fish habitat to the economic and social well-being of British Columbia communities. In response to the increasing pace of development in BC, the Riparian Areas Regulation (RAR) was enacted to provide support to local governments in the creation of practical tools for fish habitat protection. The RAR is designed to provide local governments with adequate support, direction and assurance that, with the exercise of due diligence, protection of riparian fish habitat will be achieved.

The RAR, administered by the Ministry of Forests, Lands and Natural Resource Operations, applies to riparian habitat affected by new residential, commercial and industrial development on land under local government jurisdiction (private land and the private use of Crown land). This guide outlines various implementation tools that local governments may use to apply the RAR.

Compliance with the RAR does not exempt anyone from complying with other applicable federal or provincial laws, local government bylaws or related environmental legislation.

Note: Terms used in this guidebook in *italics* are those defined in the *Riparian Areas Regulation (2004)* and as amended.

What are local governments required to do to meet the Riparian Areas Regulation?

The RAR directs local governments to protect riparian areas during residential, commercial and industrial development, through the use of their authority outlined in Part 14 of the *Local Government Act*. The RAR establishes a science-based process that local governments can apply to achieve riparian area conservation. The RAR does not supersede the requirements of any other relevant legislation. When planning a development, a proponent should be aware that requirements in addition to local government regulations may apply.

Local governments have responsibility for land use decisions which relate to the protection, conservation and enhancement of the environment within their jurisdictions. As such, local governments have the primary responsibility for implementing riparian fish habitat protection on private land. Although RAR focusses on riparian fish habitat, local governments remain free to use their powers under the *Local Government Act* to protect other values.

Implementation Options for Local Governments

There are three basic options available to local governments in implementing the RAR. These options involve:

- utilizing the transitional clause in Section 8 of the RAR;
- following the direction in Section 4 of the RAR or;
- establishing a regime that provides a level of protection that meets or exceeds that of the RAR.

Implementation Tools for Local Government

Section 12 of the *Riparian Areas Protection Act* directs local governments to use their zoning or other land use management bylaws and permits under the *Local Government Act* to implement riparian area protection provisions. The following

table summarizes legislative tools that local governments can use to support RAR implementation.

TABLE 1: *Local government legislative tools for RAR implementation*

TOOL	LEGISLATIVE BASIS
Official Community Plan	<i>Local Government Act, Part 14</i>
Development Permit Areas	<i>Local Government Act, Part 14</i>
Zoning Bylaws	<i>Local Government Act, Part 14</i>
Subdivision bylaws	<i>Local Government Act, Part 14 and Land Title Act, Part 7</i>
Development Approval and Information Bylaws	<i>Local Government Act, Part 14</i>
Covenants	<i>Land Title Act</i>
Other Regulatory Bylaws Affecting Land Use	<i>Local Government Act, Part 9, and Community Charter</i>

Other non-legislative tools for the protection and conservation of riparian areas include information and education about stream stewardship, watershed or stormwater management plans, parkland acquisition, tax incentives and landowner agreements. Some of these tools are discussed in the last section of this guide.

BASIC REQUIREMENTS

Whatever tools a local government chooses to use to implement the RAR, there are three basic elements that the applicable regulatory process needs to provide:

- definitions of *streams* and *riparian areas* that are consistent with the RAR;
- a means of triggering a regulatory action if a development activity is proposed to occur in a *riparian assessment area*; and
- a means of requiring a QEP *assessment report* that complies with the RAR and its *assessment methods*.

Local government bylaws and policies do not have to use the same terms that are in the RAR. For example, a bylaw may use “waterway” or “watercourse” instead of *stream*; or “leave strip” / “watercourse protection area” instead of *riparian area* or *streamside protection and enhancement area* (SPEA). If terms are used that differ from the RAR, the definitions must still be congruent with RAR definitions and their applicability should be clear. Watercourses may be defined by a local government to include a broad range of aquatic and terrestrial components beyond fish habitat. This is entirely valid, provided these include all *streams* as defined in the RAR. In other words, local governments may provide more protection for riparian habitat than is prescribed by the RAR, but it cannot provide less.

The RAR has the expectation that the local government’s development approval mechanism, using such tools as rezoning or subdivision approvals, development permits, building/variance permits and others will be subject to the conditions outlined in the RAR *assessment report*, including the delineation and protection of the SPEA and incorporation of all applicable measures in the report.

LEGISLATIVE TOOLS

Implementation of the RAR has shown that new and/or separate bylaws, policies or procedures are not necessarily required to meet the standard expected in the



RAR. Many local governments have integrated progressive riparian protection measures into their existing frameworks and several local governments that are not subject to the RAR have put standards in place voluntarily. Now that the RAR has been in place for some time, ensuring compliance with the RAR is largely a matter of reviewing and where necessary, revising existing provisions.

Local governments can also use tools available under other parts of the *Local Government Act* to support implementation of the RAR. Many of the tools are complementary, and local governments may choose to use more than one method to achieve riparian protection. For example, a municipality may adopt objectives to protect riparian areas in its OCP; pre-designate SPEAs through Development Permit Areas or zoning bylaw setbacks, or use watershed level plans to define specific SPEAs on a stream system.

For more information about the use of these tools, see publications such as “Stream Stewardship: A Guide for Planners and Developers” and “Green Bylaws Toolkit” available from the Stewardship Centre for British Columbia.

OFFICIAL COMMUNITY PLANS (OCPs)

Official Community Plans provide the basic direction for land use decisions in a community. Among other things, OCPs can establish policies for “the preservation, protection, restoration and enhancement of the natural environment, its ecosystems and biological diversity” (*Local Government Act*, Part 14, Division 4).

An OCP can reference *streams* and *riparian areas* as defined in the RAR and establish policies for their protection in future planning or development approvals. OCP policies can set forth the objective of meeting the RAR, and define the

mechanisms or processes for doing so. These OCP policies then guide land use decisions made under local area plans and other land use bylaws.

DEVELOPMENT PERMIT AREAS (DPAS)

Development Permit Areas (DPAs) can be designated under OCPs for the “protection of the natural environment, its ecosystems and biological diversity” (*Local Government Act*, section 488(1)(a)). A DPA may specify that land may not be altered or construction started without a development permit first being obtained (*Local Government Act*, section 489(c)). A DPA must be accompanied by guidelines, set out in either the OCP or a zoning bylaw, that address how the objectives of the DPA will be addressed.

Development permit areas are the most common tool used by local governments for implementing the RAR and protecting riparian areas more generally. They allow a local government to regulate a wide range of development activities that involve various forms of site alteration beyond construction, such as the removal of vegetation and the disturbance of soils. A development permit can supplement requirements under zoning or subdivision bylaws, as long as it does not vary the zoned use or density.

A drawback of the DPA option is its limited enforcement measures. Violations of the terms of a development permit, or activities conducted in a DPA without a permit can be addressed only through a court injunction, which can be a time-consuming process. Where a proponent fails to secure a permit as required by a DPA and conducts works that impact the riparian area, the RAR does not provide a mechanism for “enforcement” action on the part of the province. As a consequence, gaining compliance with the objectives of a DPA is usually done more through education and incentives. The requirements in a DPA can also complement the use of other regulatory tools such as the *Fisheries Act* or *Water Sustainability Act*. In the most robust applications of RAR, a DPA is supported by enforcement bylaws and/or performance bonding to ensure riparian protection objectives are met.

ZONING BYLAWS

Zoning is a primary tool used by local governments to regulate land use, density, lot sizes and the location of buildings and structures. A zoning bylaw can establish riparian protection in the form of setbacks in which development is restricted or precluded. Setbacks are a common requirement of zoning bylaws that define the distance that structures should be from property lines, other structures, special features, between different land uses, and so on.

When used to implement the RAR, setbacks can reflect the *riparian assessment area* or RAR standards either by citing them generally, or by applying RAR compliant SPEA widths and measures on a stream-by-stream basis. The latter option requires a local government to undertake mapping of streams using the methodology outlined in the *RAR assessment methods*.

Zoning bylaws can also set guidelines on lot dimensions and layout to protect riparian areas. Some local governments have included a provision whereby the minimum lot size in particular zones must be defined exclusive of the riparian “setback.”

Zoning bylaw requirements are applied in several contexts:

- At time of rezoning, they can be used to achieve riparian protection over an entire parcel.
- At time of subdivision, in directing the size, shape and location of lots to protect riparian areas.
- At time of lot development, in regulating the siting of a building or other structure to avoid a riparian area.

Adjustments from the requirements within a given zone can be considered under a Development Variance Permit, which generally requires Council or Regional Board approval. Minor adjustments to zoning bylaw requirements can be handled by a Board of Variance, whose primary criterion is the determination of “hardship.” Proposed adjustments from compliant pre-designated SPEAs would trigger the need for an *assessment report*.

The adjustment process for zoning requirements is significant to the RAR in that it will ideally provide an avenue for adjustments to associated lot requirements; for example lot/yard setbacks or parking area requirements – that can help to accommodate the SPEA and associated measures.

The sample scenario in Figure 1 shows how the RAR requirements could be implemented for someone applying to create a new lot.

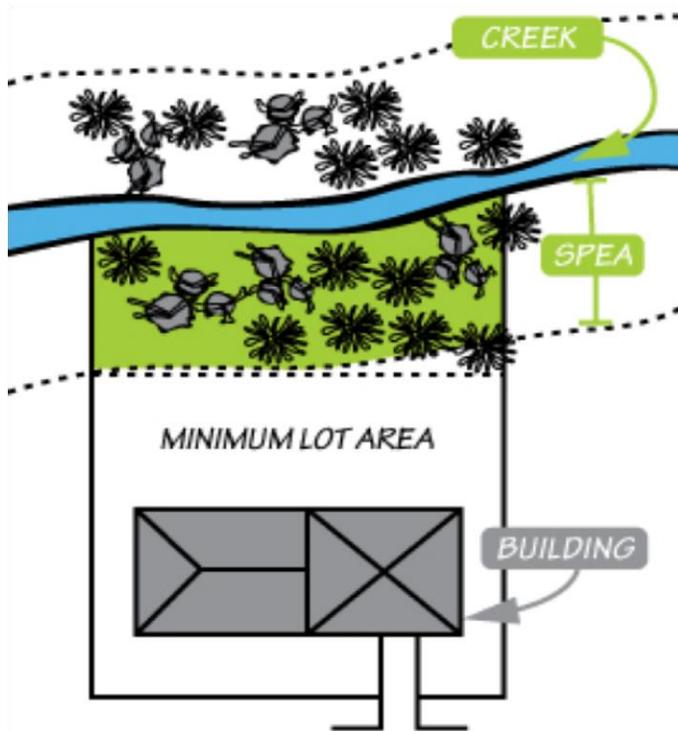


FIGURE 1. Sample scenario showing the Riparian Areas Regulation applied to an application to create a new lot.



A zoning bylaw can require that the creation of new lots must exclude the SPEA in meeting minimum lot area requirements. For example, if the minimum area for a single-family lot under a residential zone is 600 m², the area must be entirely outside the SPEA. The figure illustrates how this might work. Note that in this case, the SPEA would become part of the new lot but would be subject to special protective measures (e.g., part of a development permit area, subject to a restrictive covenant).

SUBDIVISION

Under Part 14 (Division 11) of the *Local Government Act*, local governments have the authority to adopt bylaws regarding the provision of works and services as part of subdivision. This authority is the basis for engineering standards that typically apply to the design and construction of roads and utilities. In support of the RAR, engineering standards can also be used to set requirements for protecting existing vegetation, replanting standards, and erosion and sediment control design standards. All of these measures can support stream and riparian protection.

The RAR applies to subdivision as the RAR has the goal of ensuring that development conforms to RAR requirements. This is especially important for subdivisions to ensure that subsequent development proposals for subdivided lots do not require variances from RAR standards.

The *Land Titles Act* addresses the process of subdivision, including the powers and responsibilities of subdivision approving officers.¹ Subdivision approving officers are obliged to consider local government regulations and policies in reviewing subdivision applications, which would include any riparian area protection provisions.

The Land Titles Act also authorizes subdivision approving officers to consider matters of public interest, including environmental issues, in approving subdivisions. For instance, they can require covenants on environmentally sensitive areas. Subdivision approving officers can also require dedication and improvement of “highways,” which are defined as “any way open for public use.”

¹ In municipalities, the subdivision approving officer is a staff member; outside municipal boundaries, the function of the approving officer is typically held by the Ministry of Transportation, though this is changing as regional districts negotiate the acquisition of subdivision approval authority.



This can be used to acquire trail rights-of-way to supplement riparian protection, where passive access along the outer portion of a riparian area is envisioned.

The Act also requires up to 5% of land to be subdivided to be dedicated as a public park. This can be a means by which a local government can acquire and protect riparian areas.

DEVELOPMENT APPROVAL PROCEDURES AND INFORMATION REQUIREMENTS

Part 14, section 460 of the *Local Government Act* states that a local government that has adopted an OCP bylaw or zoning bylaw must also define procedures under which a landowner may apply for a permit or amendment under that bylaw. Development application procedures bylaws typically set out such things as the application form, basic information requirements, timing and means of notification of the application. Such bylaws can be used to require applicants to indicate whether they propose to undertake activities in a riparian assessment area, and if so, require a RAR *assessment report* as part of the application.

Another means of acquiring this information is provided under section 484(e) of the *Local Government Act*, whereby local governments may require “development approval information” of development applicants, which can include natural environment information. Under this section local governments can also specify policies and procedures for providing that information. Again, this can be used to determine whether development will occur in a *riparian assessment area* and whether an *assessment report* is required.

OTHER LOCAL GOVERNMENT ACT PART 14 POWERS

LANDSCAPING

Section 527(b) of the *Local Government Act* provides the authority to require and set standards for landscaping for the purpose (among others) of “preserving, protecting and enhancing the natural environment.” Some local governments have separate landscaping bylaws while others have incorporated landscaping requirements into their zoning bylaws. This can be a method of regulating the preservation and enhancement of riparian vegetation.

SURFACE RUNOFF

Section 523 of the Act allows local governments to set requirements regarding the management of surface runoff, and establish maximum percentages of land area that can be covered by impervious surfaces (roofs, roads, parking lots, driveways, playing courts, etc.). These powers can assist the protection of streams / riparian areas by supporting the stormwater management measures required in RAR *assessment reports*.

SECURITY

Section 502 of the Act authorizes a local government to take security deposits, or bonds, as part of a development permit, development variance permit or temporary use permit. Security deposits can be used for satisfying landscaping conditions that have not been met, correcting an unsafe condition, and correcting damage to the environment resulting from a violation of permit conditions.

Security deposits can help to ensure that riparian protection and enhancement measures specified in a RAR *assessment report* are met, as a condition of any of these permits. These should be of a sufficient amount to act as an incentive to fully complete the activity specified and to cover a local government’s costs if they must take corrective action. The security can be valued on the basis of an estimated cost (e.g., 125% of estimated landscaping costs to restore riparian

vegetation), and can be held and/or released over several years (e.g., to ensure long-term survival of planted areas).

RESTRICTIVE COVENANTS

There are two types of covenants that can be used to protect riparian areas and other environmental features: restrictive and conservation covenants. These are discussed under “Long term protection of the SPEA,” below.

OTHER POWERS UNDER THE LOCAL GOVERNMENT ACT AND COMMUNITY CHARTER

Powers under other parts of the *Local Government Act* or the *Community Charter* are not referred to in the *Riparian Areas Protection Act* as a means of implementing riparian directives. However, in association with an OCP policy to protect riparian areas, some key regulatory powers from these other sources could be used to meet or exceed the RAR, or act as effective supplements to Part 14 powers. The following table summarizes these tools:

TABLE 2: *Additional local government tools supporting RAR*

AUTHORITY	LEGISLATIVE BASIS *
Soil deposit and removal	CC, sec.8(3)(m) (municipalities) LGA, sec.327 (regional districts)
Tree protection and management	CC, sec.8(3)(c) (municipalities) LGA, sec.500 (regional districts regarding tree cutting in hazardous areas)
Protection of the natural environment	CC, sec.8(3)(j) (municipalities)

Under any of these authorities, a local government could recognize riparian assessment areas, establish SPEAs and/or require Assessment Reports to evaluate SPEAs and their protective measures. Using these powers allows enforcement by ticketing and fines, which is an advantage in the eyes of some local governments who prefer this more immediate enforcement tool to court proceedings.

LONG-TERM PROTECTION OF THE SPEA

The RAR *assessment report* establishes SPEAs and associated measures which must be adhered to during development. Long-term riparian protection requires a form of legal protection of setback areas that resides with the land through successive owners of the property. Local governments are encouraged to use their authorities and tools to achieve long-term protection of SPEAs. Legal protection can take several forms: dedication of riparian areas as park or greenspace, conservation covenants, restrictive covenants and dedication to a land conservancy organization.

COVENANTS

There are two types of covenants that can be used to protect riparian areas and other environmental features: restrictive and conservation covenants. Restrictive covenants can be imposed by local governments. Conservation covenants are voluntary agreements.

Restrictive Covenants

Restrictive covenants are meant to prevent defined activities from occurring on a designated area of a property. They are provided for under Section 219 of the *Land Title Act* and have been used to protect environmentally sensitive lands, in particular stream and riparian areas. Registered on land title such that they remain associated with a property through changes in ownership, covenants can



be applied as a condition of rezoning, subdivision or development permit approval to inform landowners and developers of environmental values.

Restrictive covenants are variable in their effectiveness as they require monitoring by the government agency holding the covenant, usually the ministry or the local government. This is often challenging due to resource limitations. On re-sale of a covenanted property, a new property owner may not always be aware of or understand the implications of a restrictive covenant. It is often only when a complaint is lodged, usually by another landowner or resident that covenant violations come to light.

Conservation Covenants

Conservation covenants are legally binding agreements registered on title of a property to conserve land or features on that property. These have been developed as a means of protecting ecologically sensitive lands of all types, including riparian areas. Unlike restrictive covenants, conservation covenants are entered into voluntarily and allow landowners to permanently preserve natural features of their property while still retaining ownership and use. Also unlike restrictive covenants, conservation covenants can be held by designated conservation organizations or land trusts as well as local governments.

Conservation covenants can trigger some property tax reductions for landowners in jurisdictions that offer this as an incentive (see below). However, conservation covenants can have significant initial costs for both the organization that will be holding the covenant and the landowner, for the legal and administrative assistance in setting them up. Therefore, for a variety of reasons, both conservation organizations and landowners are selective in determining whether a conservation covenant is desirable on a given property.

Property Tax Exemptions

Property tax exemptions can be used as an incentive for riparian area protection. One example is the Natural Area Protection Tax Exemption Program (NAPTEP) administered by the Islands Trust in their jurisdiction. The Sunshine Coast and Capital Regional Districts are also participating in the program.

Approaches to implementing the Riparian Areas Regulation

The tools that a local government chooses to use to implement the RAR will depend on their individual legislative framework for stream and riparian protection, and the level of information it has at hand regarding streams in its jurisdiction.

Given these factors, this section outlines three general approaches to implementing the RAR and details some of the tools that can be used to apply that approach. The approaches offer increasing levels of pre-determination of SPEAs depending on the level of stream-related information and mapping that is available. The suggested approaches are discussed below and summarized in Table 3.

TABLE 3. Summary of approaches and bylaw options for implementing the Riparian Areas Regulation

APPROACH	EXPLANATION	ROLE OF APPLICANT/QEP	IMPLEMENTATION TOOL OPTIONS
1. Adopt the riparian assessment area only	Establish an area that is 30 m from the <i>top of bank</i> or 10 m from the <i>top of ravine bank</i> on all watercourses, within which a SPEA will be defined according to the RAR assessment methods.	1. BC Land Survey identifies top of bank (and/or top of ravine bank) 2. a) QEP determines SPEA according to simple assessment. OR b) QEP determines SPEA according to detailed assessment.	<ul style="list-style-type: none"> • Official Community Plan • Zoning bylaw • Development permit area • Environment/stream protection bylaw
2. Adopt the riparian assessment area and SPEAs generally	Adopt Table 2-4 from the RAR simple assessment methods, along with applicable definitions.	1. QEP determines which SPEA applies on site specific basis – i.e., conducts a simple assessment or 2. If applicant wishes to vary from applicable SPEA determined by simple assessment, QEP determines SPEA according to detailed assessment.	<ul style="list-style-type: none"> • Official Community Plan • Zoning bylaw • Development permit area • Environment/stream protection bylaw
3. Adopt and designate (pre-determine) SPEAs	Establish/designate SPEAs on streams according to Table 2-4 from the RAR simple assessment methods and adopt applicable definitions.	1. BC Land Survey identifies top of bank (and/or top of ravine bank) as RAA boundary; or 2. If applicant wishes to vary from designated SPEA, QEP determines SPEA according to detailed assessment.	<ul style="list-style-type: none"> • Local Area Plans, Watershed Plans • Zoning bylaw • Development permit area (requires a map) • Environment/stream protection bylaw

APPROACH 1: ADOPT RIPARIAN ASSESSMENT AREAS ONLY

A local government can establish an area around its *streams* that reflects the *riparian assessment area* as defined in the RAR; 30 m from the top of the bank on all *streams* and ravines less than 60 m in width, or 10 m from the top of the ravine bank for ravines larger than 60 m in width.

Any development proposed in this area would trigger the requirement for an applicant to have the SPEA defined by a QEP according to the *assessment methods*. The QEP, in consultation with the applicant can choose whether to use the simple or detailed assessment to define the SPEA. The QEP is responsible for completing and submitting an *assessment report*.

The *riparian assessment area*, and the need to define SPEAs at time of development application, can be established in several ways:

- As a policy in an OCP, provided it is supported by development permit conditions (see below).
- As a Development Permit Area under an OCP. The DPA guidelines would delineate the area subject to the permit requirement, which must be equal to or greater than the RAR *riparian assessment area* and refer to the RAR *assessment methods*. In some cases, a DPA may be supported by watercourse mapping, but a fully compliant DPA must contain language that allows all *streams* under the RAR to be captured in the permit area.
- Under a zoning bylaw setback provision.
- In an environmental protection bylaw. The bylaw can refer to the RAR *assessment methods* in its permit application requirements.

APPROACH 2: ADOPT RIPARIAN ASSESSMENT AREAS AND SPEAS GENERALLY

A local government can pre-establish *riparian assessment areas* as well as indicate how SPEAs are to be defined in these areas by adopting the equivalent of Table 2-4 under the simple assessment in the RAR *assessment methods*. This table sets out SPEA widths and measures based on certain stream characteristics: fish-bearing, stream flows and the nature of riparian vegetation.

Applicants proposing development within a *riparian assessment area* would commission a QEP to determine what pre-established SPEA would apply to their property. If the proposed development occurs outside the applicable SPEA width, then further assessment is not necessary and the QEP can submit the applicable *assessment report*. If the proposed development encroaches into the defined SPEA, the applicant may choose to:

- a) have a detailed assessment carried out to determine if this results in an alternative SPEA;
- b) modify the development plan to avoid the SPEA; or
- c) apply for authorization under the federal *Fisheries Act* (as defined in section 4(3) of the RAR) if adequate modification is not possible.

The *riparian assessment area* and pre-defined SPEA widths and measures could be established in the same ways:

- As a policy in an OCP, provided it is supported by development permit conditions (see below).
- As a Development Permit Area under an OCP. The DPA guidelines would refer to the RAR *assessment methods* in its application requirements and

outline the use of table 2-4 of these methods. In some cases, a DPA may be supported by watercourse mapping, but a fully compliant DPA must contain language that allows all *streams* under the RAR to be captured in the permit area.

- Under a zoning bylaw setback provision. Proposed adjustments to a defined SPEA setback (requiring a detailed assessment or DFO authorization) would be handled under a Development Variance Permit process.
- In an environmental protection bylaw. The bylaw would refer to the RAR assessment methods in its permit application requirements.

APPROACH 3: ADOPT AND DESIGNATE (PRE-DETERMINE) SPEAS

This approach can be considered by local governments who have mapped and classified the *streams* in their jurisdiction using methods that reflect the former Streamside Protection Regulation or the simple assessment in the assessment methods of the RAR. A local government could designate SPEA widths and measures, based on Table 2-4 in the RAR assessment methods, on identified *streams* for which they have sufficient information to conduct a simple assessment.

For those *streams* with predetermined SPEA widths and measures, a development applicant would not need to hire a QEP to define the applicable SPEA. They would be required to locate and survey the top of the bank (and/or top of the ravine bank, as applicable) to show where the predetermined SPEA is relative to the proposed development. If the proposed development encroaches into the predetermined SPEA, the applicant may choose to:

- a) have a detailed assessment carried out to determine if this results in an alternative SPEA;
- b) modify the development plan to avoid the SPEA; or

- c) apply for authorization under the federal *Fisheries Act* (as defined in section 4(3) of the RAR) if adequate modification is not possible.

If sufficient information is not available for all *streams*, a local government can combine the approaches – for example, using approach 3 on *streams* that are well documented and approaches 1 or 2 on all other *streams*.

This combined strategy lends itself to being implemented through more detailed Local Area (or Sector) Plans. These plans are adopted under OCPs and guide rezoning, subdivision and other permitting decisions. Other methods for implementing this approach are similar to those for approach 2:

- *As a development permit area* – In this case, if a DPA is established based on the predetermined SPEA width, any activity proposed within the DPA would require a detailed assessment to justify an alternative SPEA. The DPA guidelines would refer to the RAR *assessment methods* in its application requirements.
- *Under a zoning bylaw setback provision* – Proposed adjustments to a defined SPEA setback (requiring a detailed assessment or HADD authorization) would be handled under a Development Variance Permit process.
- *In an environmental protection bylaw* – The bylaw would refer to the RAR assessment methods in its application requirements.

Several local governments have adopted stream maps and classifications regarding fish habitat sensitivity, which they then use to establish riparian protection measures as part of land use decisions. Stream classification maps can be useful tools to support the implementation of the RAR, however while these maps may reflect RAR SPEA standards regarding fish-bearing potential

and/or stream permanence they may not specifically address riparian vegetation conditions. Local governments who have stream classification maps, or have other pre-designated riparian protection classes need to review their classifications regularly and also consider their validity when applied to a specific site. This helps ensure that all the stream characteristics used in the RAR are taken into account and that the requirement for an *assessment report* is applied wherever a *stream* as defined in the RAR is involved.

COMMONLY ENCOUNTERED ISSUES WITH RAR POLICIES AND BYLAWS

In the process of RAR implementation and dialogue between the ministry and local governments, some recurrent issues with delivery have been identified. These commonly encountered issues are included in this guidebook so that local governments can ensure their policies and bylaws take them into account.

WATERCOURSE MAPPING AND/OR PRE-DESIGNATED SPEAS THAT EXCLUDE RAR STREAMS

Several local governments have developed watercourse classification systems and associated maps for a range of purposes relating to environmental protection. In some cases, these maps have informed the designation of watercourses subject to RAR conditions and/or the pre-designation of SPEA boundaries. Watercourse mapping provides a valuable resource to meet the objectives of the RAR, but local governments must ensure that all *streams* as defined in the RAR are captured in their process. For example, as described below modified watercourses such as ditches are sometimes subject to different standards in bylaw language, although modified watercourses are typically considered *streams* under the RAR. An appropriate response might entail the inclusion of language that provides that RAR standards apply to all watercourses on the map and also those that are unmapped, with their RAR status determined by a QEP. The goal should be to ensure that the creation of a watercourse map

does create a misunderstanding on the part of proponents that RAR standards do not apply to any RAR *streams* omitted from the map.

APPLICABLE DEVELOPMENT EXEMPTED FROM PERMIT REQUIREMENTS IN BYLAWS

Development Permit Areas are the most common method used by local governments to implement the RAR. In most cases, DPAs include a list of exemptions to define which activities do not require a permit. The definition of *development* in the RAR is broad and includes such activities as the removal of vegetation, disturbance of soil and the creation of nonstructural surfaces that may typically be exempted from development permit requirements. To be fully compliant with the RAR, it is important that local governments do not inadvertently exempt activities in their DPA that are included in the definition of *development* as described in section 1 of the RAR.

ENSURING SUBMISSION OF RAR ASSESSMENT REPORTS

The RAR requires that local governments be in receipt of notification that an *assessment report* has been submitted to the province before approving development. The RAR assessment methods specify that a QEP must use the online RAR Notification Service (RARNS) for this purpose. In some cases, local governments specify that RAR related material including *assessment reports* be sent to the local government for review in advance of permit approval. This advance review procedure is permissible under the RAR; however a process where a RAR assessment report is submitted directly to the local government without using the RARNS is not compliant with the RAR as no notification will be issued. Use of the RARNS is important beyond the issuance of a notification as

the information submitted is used as a basis of ongoing RAR project auditing, compliance review, and effectiveness monitoring.

DITCHES AND CHANNELIZED WATERCOURSES OMITTED FROM RAR REQUIREMENTS

The definition of *stream* in the RAR is intentionally broad and captures many waterbodies that may not be commonly considered as riparian habitat. This includes both natural and man-made watercourses, whether they contain fish or not. The misinterpretation that the RAR only applies to watercourses containing fish, combined with a lack of awareness of the habitat value of modified watercourses, has led to some jurisdictions omitting these from RAR bylaw standards. Even in cases where a watercourse is assessed as a *ditch* as defined in the RAR, a SPEA will apply. Similarly, RAR standards apply to ditches and channelized watercourses in agricultural land (see below).

APPLICABILITY OF RAR TO AGRICULTURAL LANDS

The RAR does not apply to *farm practices* as defined in the *Farm Practices Protection Act*. In some cases, this can lead to the misinterpretation that the RAR does not apply to lands zoned for agriculture, or in the Agricultural Land Reserve (ALR). The RAR does apply to these lands for activities that are not *farm practices*, for example residential construction. It is important to note that local governments have the ability to establish bylaws that apply to agricultural lands, and some have implemented setbacks for agricultural buildings that complement the setbacks designated under RAR.

Local government enforcement tools

The RAR does not contain enforcement provisions because it is a provincial directive to local governments. It establishes a due diligence requirement and proactive complement to existing regulatory tools, notably the federal *Fisheries Act* and the provincial *Water Sustainability Act*. It relies on other Acts and powers such as those in local government, provincial and federal jurisdictions. These



include the federal *Fisheries Act*, which prohibits serious harm to fish; the provincial *Water Sustainability Regulation*, which regulates changes in or about a stream; and some local government bylaws (e.g., tree protection, soil preservation and watercourse protection) that have various powers and applicability depending on their wording.

The preferred course in addressing non-compliance will to be to first seek voluntary compliance by the proponent.

If this is unsuccessful, enforcement actions by the local government may be required using the tools at its disposal and based on the bylaws and policies by which it implements RAR. Some of these methods have been mentioned in the previous sections, and include tickets and fines, stop work orders, court actions, withholding approval, security deposits or bonds, and restrictive covenants. They are summarized in Table 4.

TABLE 4. *Enforcement tools available to local governments*

TOOL	SOURCE AND WHEN TO USE	COMMENTS
Ticket/fine	Can be applied under a regulatory bylaw established under the <i>Community Charter</i> or Part 14 of the <i>Local Government Act</i> (e.g., tree protection, soil deposit and removal, runoff management, environmental protection)	Can be used as a preventative tool instead of, or in addition to, a disciplinary measure. Typically enforced by bylaw enforcement staff; may require training on what constitutes riparian infractions. No avenue for requiring remediation unless tickets are used as a means of negotiating a remedy.
Stop work order	Building permits; may be applicable to permits issued under regulatory bylaws (see above)	Allows inspectors or local government staff to stop development activity on a site until infraction rectified. Applicable only while development is under way.
Withhold approval	For rezoning, under the <i>Local Government Act</i> ; for subdivision, approving authority under <i>Land Title Act</i> .	Can withhold approval of preliminary plan or design stage until riparian issues are addressed satisfactorily. For subdivision, the approving officer must be able to justify based on bylaw requirements or “public interest.”
Court order or injunction	Development permits	Stops work until infraction is rectified.
Security deposits/bonds	Can be required with most forms of permits	Should be of sufficient amount to act as incentive to complete the activity required or to cover a local government’s costs if it must take corrective action.
Restrictive covenants	Rezoning approval, subdivision approval, development permits	Monitored by the government agency holding the covenant. New landowners need to determine if any covenants exist on land that they purchase.

Other environmental concerns with fish and fish habitat during development

The RAR deals with riparian fish habitat, and only in association with 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 *Riparian Areas Protection Act*, local governments can also consider the following impacts that can be positively influenced by the application of bylaw provisions:

- 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.

Many local governments have chosen to address these matters through integrated, watershed-based stormwater / riparian planning and management.

LARGE WOODY DEBRIS (LWD)

Large woody debris can be problematic in urban areas and local governments regularly remove it because it poses a flood hazard to instream structures, primarily culverts.

The abundance of LWD in urban streams is considerably lower than that for forested streams. Areas with more urbanization tend to have more LWD removed from the channel and lower recruitment due to the removal of danger trees. Emphasis needs to be placed on finding opportunities to satisfactorily address both the fish habitat needs and municipal hazard concerns to enable the recovery of urban streams. Past practices of LWD removal should be re-evaluated in light of the importance of LWD to stream environments. It is recommended that local governments work collaboratively with DFO and the Ministry on developing best management practices for managing LWD in urban streams.

The RAR has designed the SPEA to support the supply of LWD (downed trees and large pieces of wood) to streams. Research confirms the role of LWD as an essential component of healthy fish habitat, contributing to the complexity and stability of stream channels as well as providing cover for fish and aiding in the cycling of nutrients.

WATERSHED PLANNING

Local governments are encouraged to undertake watershed planning because it leads to more informed environmental decisions. Watershed plans consider environmental, cultural and socio-economic values and identify clear and realistic goals, objectives and timelines. They enable the use of best available information, can resolve land and water use conflicts and build partnerships which lead to improved cooperation. Watershed plans reconcile short term actions and future plans for the watershed.

A component of any watershed plan should be riparian protection. The RAR can be used to provide the riparian fish habitat component of a watershed plan. Recommendations from watershed plans, because they are more comprehensive, may develop setbacks that incorporate a number of interests and values, and may exceed those established solely by following the direction in the RAR.

STORMWATER MANAGEMENT

Stormwater management is critical to the protection of urban and rural streams. Integrated stormwater management plans (ISMPs) are another tool that many local governments are using to address stormwater management in an environmental and drainage management context. Local governments are strongly encouraged to familiarize themselves with provincial stormwater guidance materials, including Stormwater Planning: A Guidebook for British Columbia.

WETLANDS

Wetlands are very sensitive to hydrological changes and water quality degradation. Although the RAR provides a SPEA for wetlands, if significant soil movement is part of the development plan a hydrological expert should also be retained. The hydrological expert will evaluate if soil movement will impact the water regime of the wetland and the riparian vegetation. Stormwater should be treated before being discharged into a natural wetland and a follow-up evaluation undertaken, to ensure that input of additional water over more frequent periods will not harm the functioning of the wetland.

HAZARDS

Some development properties will require assessment and confirmation that the land may be used safely for the purpose intended without undue risk of hazards. Hazards may include flooding, groundwater flows, mud flows, erosion, subsidence, land slip, earthquake or avalanche. With respect to watercourses, steep slopes found in ravines are often of special concern and require assessment by a professional. Development on areas with thick peaty soils may also cause heaving of soils that may impact the integrity of a SPEA.

Requirements for developing monitoring, enforcement and education strategies

The RAR also requires local governments to work with DFO and the ministry to develop strategies for:

- obtaining certificates from QEPs that projects have been carried out as defined in the Assessment report;

- monitoring and reporting, to ensure QEPs have prepared Assessment Reports according to the prescribed assessment methods and that the development has proceeded consistent with the Assessment Report; and
- educating the public on the protection of riparian areas.

This section of the RAR recognizes that it will take the efforts of all groups involved to plan new development or redevelopment projects so that riparian areas are effectively protected. Informing and educating people about riparian area protection and the requirements of the RAR are important parts of the compliance continuum.

Public awareness and understanding promotes compliance and ensures long-term recognition of the importance of SPEAs, both pre and post development. By being well informed about both the requirements of the RAR and the local government's regulatory approach, the public can be involved in reporting inappropriate or non-compliant activities.

The RAR contemplates a role for all levels of government to work together in developing strategies and tools for education purposes.