



South Coast Region

**Ministry of Forests, Lands, Natural Resource Operations
and Rural Development**

Guidance for Applications or Notifications for Changes in and about a Stream under the *Water Sustainability Act* in the South Coast Region



Photo Credit: Little Campbell River in Campbell Valley Regional Park by Sandra Jensen

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Citation:

BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development, South Coast Region, Guidance Document for Applications or Notifications for Changes in and about a Stream in the South Coast Region, 2019.

Foreword:

The intent of this document is to provide guidance for applicants who submit a Change Approval application, as per Section 11 of the *Water Sustainability Act*, and individuals who submit a Notification of an Authorized Change in accordance with Part 3 of the Water Sustainability Regulation within the South Coast Region.

This guide should help applicants with determining when a Change Approval or Notification of Authorized Change may be required, including information that may be requested to support certain Change Approval applications. Proactively submitting the recommended information will assist the Ministry in making a timelier decision on the application.

This document is intended to provide general guidance only. Please note that the statutory provisions should be reviewed for legal requirements that are potentially applicable to particular proposals; those statutory provisions prevail over this guidance document. When submitting applications for Change Approvals, applicants are responsible for meeting all applicable legal requirements. Also, persons proposing authorized changes under Part 3 of the Water Sustainability Regulation are similarly responsible for meeting all applicable legal requirements.

For more information on the BC *Water Sustainability Act*, visit our website:

<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-licensing-rights/water-licences-approvals/apply-for-a-change-approval-or-submit-notification-of-instream-work>

Acknowledgment:

Sandra Jensen, Water Officer, South Coast Region

Comments and Feedback:

If you would like to provide any comments or feedback on the Change Approval Guidelines, please send an email to the South Coast Region Water Authorizations mailbox at WaterActReferrals.LowerMainland@gov.bc.ca.

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SECTION 1: INTRODUCTION

1.1 PURPOSE AND VISION FOR THE CHANGE APPROVAL GUIDELINES FOR THE SOUTH COAST REGION

The [Water Sustainability Act](#) (WSA) is a result of B.C. Government's vision for sustainable water stewardship and sets the direction for changes to statutory provisions that govern water management, water diversion and use and related activities/works or construction. These changes are crucial for adapting to climate change impacts and the pressures placed on water resources from a growing population and economy.

The Ministry of Forests, Lands, Natural Resource Operations and Rural Development (the "Ministry") has certain responsibilities for the protection of streams and their habitats including in relation to public safety, land or other property through the WSA. The Statutory Decision Makers (SDMs) under the WSA must consider environmental impacts, mitigation measures, sensitive streams mitigation, species-at-risk and other concerns such as, but not limited to, impacts to existing water rights or riparian land or other property, and hydraulic changes to the stream in making a decision on an application for a Change Approval.

The Ministry is also required to conduct First Nations consultation as part of the adjudication of an application, which is typically initiated at the early stages of the process. Therefore, it is important that First Nations are receiving an accurate and clear project description (e.g. of the proposed Changes in and about a Stream) that is complete with identified impacts and proposed mitigation measures, if required.

The [Ministry's Standards and Best Management Practices for Instream Works \(March 2004\)](#) and [Environmental Mitigation Policy and Procedures](#) also provide guidance to avoid, minimize, restore on-site or offset identified impacts to the stream, stream channel, and its aquatic ecosystem, as well as to fish and wildlife (e.g. that carry out their life processes in the stream and depend on the natural environment of the stream), First Nations' interests, other legal requirements, as well as to public safety, land and property.

The intent of this document is to provide guidance for applicants who submit a Change Approval application, as per Section 11 of the [Water Sustainability Act](#), and individuals who submit a Notification of an Authorized Change in accordance with Part 3 of the [Water Sustainability Regulation](#) within the South Coast Region. This guide will help applicants determine when a Change Approval or Notification of Authorized Change may be required, and the information the South Coast may request to support these submissions. South Coast staff regularly request additional information on:

- potential for impacts on fish and wildlife (e.g. that carry out their life processes in the stream and depend on the natural environment of the stream);
- any best management practices or mitigation measures that might possibly offset any impacts;
- potential for impact on public safety, land and property, such as riparian land; or
- other legal requirements, including an assessment on potential for impact on First Nations' interests.

Information requirements for Change Approval applications are described in [Section 4 of the Water Sustainability Regulation](#). In addition, for certain kinds of more significant projects, South Coast staff regularly request additional information to support Change Approval applications in the form of a [Project and Environmental Management Plan \(PEMP\)](#). If you intend to submit a PEMP, or are requested to do so by a South Coast Water Manager, refer to [Section 5 "Supplemental Information for the Application"](#) for guidance with respect to the contents of the PEMP.

Ensuring that you provide all of the required information with your application, and requested supplementary information listed under Section 5, as applicable, will assist the statutory decision maker in meeting his or her obligations under the WSA and making a decision on your application in a timely manner.

For more information on Change Approvals or Authorized Changes, please see the Ministry's website at [Apply for a Change Approval or Submit Notification of Instream Work](#) or contact the [FrontCounter BC Surrey Office](#).

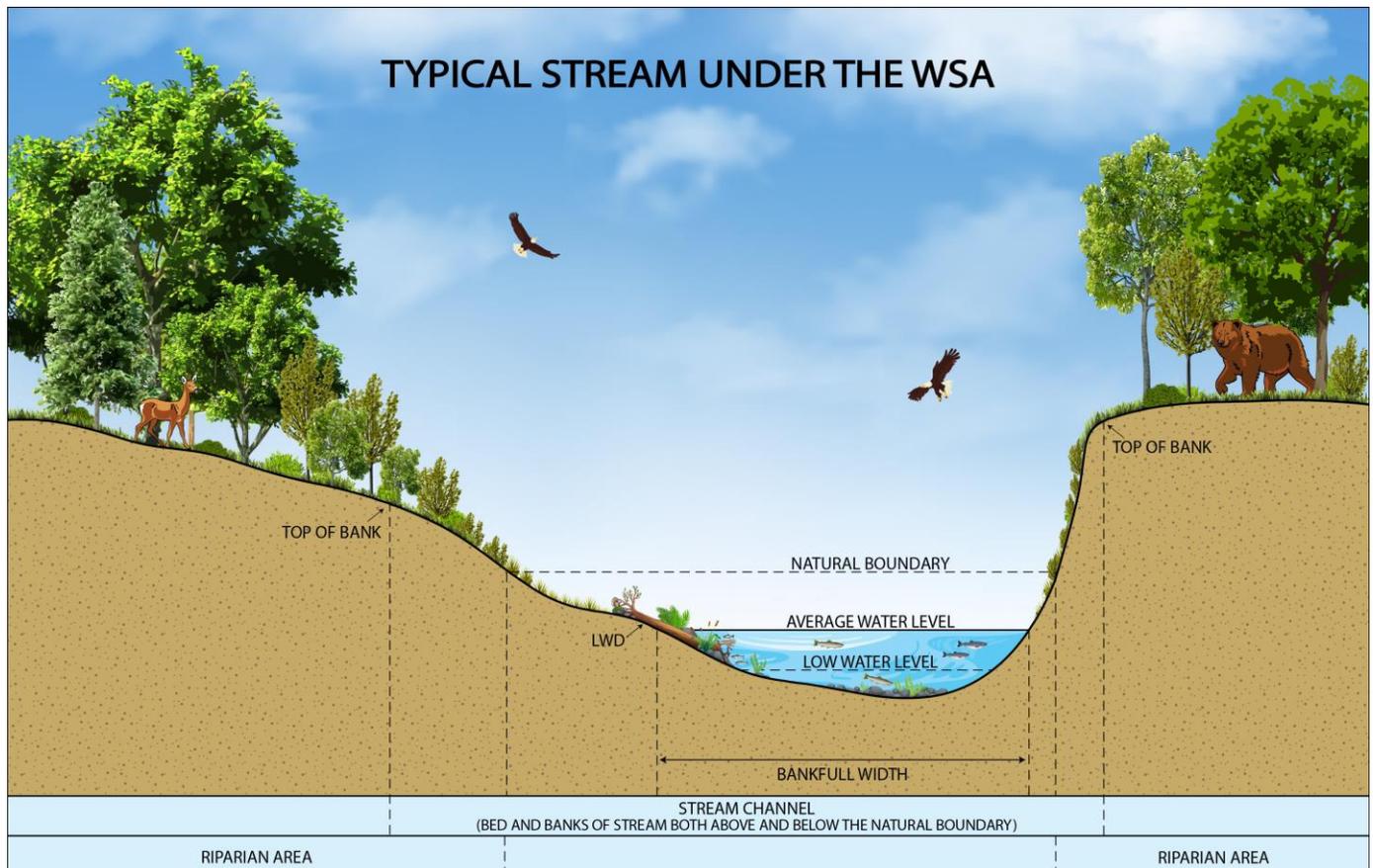
SECTION 2: AN OVERVIEW OF CHANGES IN AND ABOUT A STREAM

2.1 DEFINING A STREAM AND CHANGES IN AND ABOUT A STREAM

Changes in and about a Stream under the *Water Sustainability Act* means:

- a) any modification to the nature of a stream, including any modification to the land, vegetation and natural environment of a stream or the flow of water in a stream; or
- b) any activity or construction within a stream channel that has or may have an impact on a stream or a stream channel.

Illustration 2.1. Typical Stream Channel and Riparian Area



Note: If your activities/works are associated with residential, commercial, and industrial development, and your proposed activities/works will be within 30 meters of a stream, you may need to have your riparian area assessed by a Qualified Professional to determine appropriate protection under the [Riparian Areas Protection Regulation \(RAPR\)](#). Please be advised that the RAPR may include definitions not shown above in the illustration.

A **stream** under the *Water Sustainability Act* is any natural watercourse, including a natural glacier course, or natural body of water, whether or not the stream channel of the stream has been modified, or a natural source of water supply including, without limitation, a lake, pond, river, creek, spring, ravine, gulch, wetland or glacier, whether or not usually containing water, including ice, but does not include an aquifer.

A **stream channel**, under the *Water Sustainability Act*, in relation to a stream, means the bed of the stream and the banks of the stream, both above and below the natural boundary and whether or not the channel has been modified, and includes side channels of the stream.

The **natural boundary** under the *Water Sustainability Act* has the same meaning as in Section 1 [*definitions*] of the *Land Act*, which means the visible high water mark of any lake, river, stream or other body of water where the presence and action of the water are so common and usual, and so long continued in all ordinary years, as to mark on the soil of the bed of the body of water a character distinct from that of its banks, in vegetation, as well as in the nature of the soil itself.

Riparian typically pertains to an area adjacent to a stream, such as rivers or lakes; it describes the area adjacent to flowing water (e.g., perennial or intermittent streams, seeps or springs) that contains elements of both aquatic and terrestrial ecosystems, which mutually influence each other.

2.2 DEFINING A QUALIFIED PROFESSIONAL (QP)

A **Qualified Professional (QP)** under the WSA and its regulations typically refers to a professional engineer or geoscientist acting with the scope of their competencies and qualifications. However, depending on the activities or works proposed, a QP may include biologists, agronomists, geomorphologists, hydrologists, forester, qualified specialists in other disciplines, or persons with other qualifications specified by a decision maker.

2.3 INSTRUMENTS THAT MAY ALLOW CHANGES IN AND ABOUT A STREAM UNDER THE *WATER SUSTAINABILITY ACT*

Changes In and About a Stream generally includes activities or construction of works that take place in or about a stream, within the stream or stream channel, that could impact the physical condition of the stream banks, stream bed and possibly also impact the surrounding riparian area. Changes in and about a Stream may be made under:

- a) Change Approval under the WSA,
- b) Notification of Authorized Change under [Part 3 of the WSR](#),
- c) Authorization (Water Licence or Use Approval) under the WSA, or
- d) Order under the WSA.

These options are described in further detail in [Table 2.2](#).

Only those activities or works that are listed in [Section 39\(1\)](#) of the Water Sustainability Regulation (WSR) may be conducted in compliance with Section 39 of the WSR through the submission of a Notification of Authorized Change. In general, the activities on the list do not involve any ongoing diversion or use of water, can be completed within a short period of time, and should have little impact on the natural environment of a stream or the stream channel.

In general, activities requiring a Change Approval or a Water Licence are activities that fit within the definition of a change in and about a stream but that are not listed as an Authorized Change in Section 39(1) of the WSR. These are typically more significant works, including those that may permanently alter the direction, pattern or flow of a stream's path.

Table 2.2. Description of various instruments that may allow Changes in and about a Stream

Change Approval	A <u>Change Approval</u> authorizes an individual to make Changes in and about a Stream as described under Section 11 of the WSA.
Authorized Change	An <u>Authorized Change</u> authorizes an individual to make Changes in and about a Stream, as described in Section 39 of the WSR, without holding an Authorization or Change Approval, if the person provides Notice to a Habitat Officer and complies with the other requirements under Part 3 of the WSR. A Notice for an Authorized Change is referred to as a <u>Notification of Authorized Change</u> .
Authorization (Water Licence)	A <u>Water Licence</u> provides rights to divert, use or store water from a stream or aquifer, as well as the permission to construct the works which may include activities that would be Changes in and about a Stream as outlined in Section 11 of the WSA.
Authorization (Use Approval)	A <u>Use Approval</u> provides rights to divert or use water from a stream or aquifer for up to 24 months, as outlined in Section 10 of the WSA, and to make Changes in and about a Stream, as outlined in Section 11 of the WSA.
Order	An <u>Order</u> , issued by an appropriate statutory official under Section 93 of WSA, may authorize Changes in and about a Stream as noted in Section 11 of the WSA. An Order may also be issued to amend a term or condition of a Change Approval, Permit Over Crown Land or Authorization (Water Licence or Use Approval), in accordance with Section 26 of the WSA.

2.4 CHANGE APPROVAL VS AUTHORIZED CHANGE

The following [Table 2.3](#) provides examples of the types of activities/works involving submission of an application for a Change Approval or a Notification of an Authorized Change. See [Section 39\(1\)](#) of the WSR for a complete list of Changes in and about a Stream that may proceed on Notification of Authorized Change, as well as their associated requirements under [Part 3 of the WSR](#).

Please note, even when an activity is listed in Section 39(1) as an Authorized Change, if the statutory decision maker (e.g. WSA engineer under [Section 37\(2\)](#) of the WSR) determines that the proposed change has the potential for significant adverse impact on the nature of the stream, including the flow of water in the stream, or the stream channel, the statutory decision maker may require that an individual apply for and obtain a Change Approval or Authorization instead.

Table 2.3. Some examples of Activities/Works requiring either a Change Approval or Notification of Authorized Change Application

<p>SOME ACTIVITIES/WORKS THAT MAY BE ALLOWED BY A NOTIFICATION OF AUTHORIZED CHANGE</p> <p>See Part 3 of the WSR, particularly Section 39(1), for the complete list and description of requirements.</p>	<p>SOME ACTIVITIES/WORKS THAT TYPICALLY REQUIRE A CHANGE APPROVAL APPLICATION</p>
<ul style="list-style-type: none"> ➤ Road Crossing Culvert - Construction / Maintenance / Removal (culverts that have an equivalent diameter of 2m or greater or the design capacity to pass a flow of more than 6 m³/s must be designed by an Engineering professional) ➤ Clear Span Bridge - Construction / Maintenance / Removal (full structure of bridge must be above the top of bank) ➤ Pipeline Crossing - Construction / Maintenance ➤ Dry Hydrant - Construction / Maintenance ➤ Pier, Wharf, (including ramps and docks) - Construction / Maintenance / Removal (as a guideline, full structure must typically fit into an 80m² rectangular area) ➤ Cutting of annual vegetation in a stream channel ➤ Dike or Erosion Protection Works - Repair / Maintenance of existing works ➤ Storm Sewer Outfalls - Construction / Maintenance (must be designed by an Engineering professional) ➤ Control of Eurasian Watermilfoil or other invasive aquatic vegetation ➤ Ice Bridge / Winter Ford or Snowfill - Construction / Maintenance ➤ Maintenance of minor and routine nature by a public utility ➤ Removal of a beaver dam (as authorized under the <i>Wildlife Act</i>) ➤ Construction of a temporary ford ➤ Construction of a temporary diversion around a worksite 	<ul style="list-style-type: none"> ➤ Bank Erosion Protection ➤ Retaining Wall for Bank Erosion Protection ➤ Bridge (other than clear span) - Construction / Maintenance / Removal ➤ Culvert Installation (other than those listed under the “Stream Crossings” of Section 39(1)(a) of the WSR) ➤ Watercourse or Channel Realignment ➤ Channel or pond construction* ➤ Debris Removal by Machine ➤ All Dredging or Gravel Removal ➤ Construction of a Sediment Sump ➤ Dike or Erosion Protection Works – Construction ➤ Storm Sewer Outfalls - Construction / Maintenance (not designed by an Engineering professional and/or has the potential to cause significant environmental impact and/or if the outfall extends into a sensitive stream) ➤ Dam or Weir*- Construction / Maintenance / Removal (includes small rock or log structures that create natural habitat pool areas) ➤ Pier or Wharf (including ramps and docks)* - Construction / Maintenance / Removal (full structure does not fit into an 80m² rectangular area and/or requires pile driving and/or are located in a Sensitive Stream or a stream with known Species-at-Risk) ➤ Directional Drilling (contact the FrontCounter BC Surrey Office for more information) ➤ Other (works not included on either list)

*Works may also require a water licence for long term use of the structures

Note: It is the responsibility of the proponent to review the statutory provisions in the WSA and WSR for requirements potentially applicable to their particular projects.

Note: If your project requires dewatering with a pump, you should review Sections 31 to 34.1 of the WSR, as well as the Groundwater Protection Regulation provisions regarding drainage wells and dewatering wells. An authorization, such as a Use Approval for short term diversion and use, may be required if groundwater is being

drained by a drainage well for use for a water use purpose or dewatering is carried out by pumping groundwater using a dewatering well.

[Table 2.4](#) below describes some examples of instream activities/works that may generally be performed under a Notification of Authorized Change but only if undertaken by specific government agencies and must be completed in accordance with [Part 3 of the WSR](#). Other persons wishing to do any of the following activities must apply for a Change Approval.

Table 2.4: Instream activities/works which may be performed under a Notification of Authorized Change if undertaken by specific government agencies and in accordance with Part 3 of the WSR

WORKS / ACTIVITIES	AGENCY PERMITTED TO COMPLETE UNDER A NOTIFICATION OF AUTHORIZED CHANGE	RELEVANT SECTION OF THE WSR
Construction, maintenance or removal of a Flow or Water Level Measuring Device	Provincial or Federal Crown	39 (1)(e)
Restoration or maintenance of fish habitat	Provincial or Federal Crown	39 (1)(j)
Construction, maintenance or removal of a fish fence, fish screen or fish or game guard across a stream	Provincial or Federal Crown	39 (1)(f)
Restoration or maintenance of a stream channel	Provincial or Federal Crown, a Municipality or a Regional District (Note: Regardless of the agency, if the channel maintenance requires the removal of large quantities of sediment a Change Approval may be required)	39(1)(g), (h)
Construction or placement of erosion protection works or flood protection works during an emergency declared under the <i>Emergency Program Act</i> that involves flooding	Provincial or Federal Crown, a Municipality or a Regional District	39(1)(o)
Clearing of an obstruction from a bridge or culvert if the obstruction is causing or has the potential to cause a significant risk of harm to public safety, the environment, land or other property.	Provincial or Federal Crown, a Municipality or a Regional District	39(1)(p)

2.5 AUTHORIZATION (WATER LICENCE OR USE APPROVAL)

2.5.1 DIVERSION, USE OR STORAGE OF WATER FROM A STREAM

If the proposed activities involve a diversion, use or storage of water from a stream, a Water Licence or Use Approval may be required instead of, or in addition to, a Change Approval. Examples of non-consumptive water diversion that often require a Water Licence include proposed activities or works involving dams, weirs, sediment traps or ponds, debris traps, or any structure that controls and/or changes the water levels in a stream, and any works that permanently divert water from streams such as the construction of additional channels or ponds (e.g., for habitat conservation purposes). In addition, any structures or works where continuous and regular maintenance is required, would typically require a Water Licence.

A Use Approval (less than 2 years) may be granted for any short term diversion or use of water, including for diversion of water for habitat channels or dewatering on a construction site. A Use Approval may authorize temporary water storage but only for an existing dam. Any use of water of an existing dam longer than 2 years, or from a new dam, must be authorized by a Water Licence.

Temporary diversions for the construction of works associated with a Water Licence may also be conducted under a granted water licence.

2.5.2 CONDUCTING CHANGES IN AND ABOUT A STREAM UNDER AN EXISTING WATER LICENCE

[Section 7 of the WSA](#) states that a licence entitles its holder to do the following in a manner provided in the licence:

- a) Divert and beneficially use the quantity of water specified in the licence;
- b) Construct, maintain and operate the works authorized by the licence and related works necessarily required for the proper diversion or use of the water or the power produced from the water;
- c) Make Changes in and about a Stream necessary for the construction, maintenance or operation of the works referred to in paragraph (b) or to otherwise facilitate the authorized diversion; and
- d) Construct fences, screens and fish or game guards across streams for the purpose of conserving fish or wildlife.

Maintenance of authorized works specified in a water licence may include minor repairs or replacement of existing works. However, an [amendment to the existing water licence under Section 26](#) of the WSA is required if the licensee proposes additional or other works than previously authorized under the licence, such as to modify, relocate or add to the authorized works. Some examples include moving the intake to a different location, adding new works or making significant Changes In and about a Stream to protect existing works (i.e. installing rip rap), or relocating or diverting a stream for the construction of works.

2.5.3 ABANDONMENT OF RIGHTS UNDER AN AUTHORIZATION

If the proposal is to remove all works and abandon the water licence and the licensed diversion, use and/or storage of water, a [Section 31 abandonment application](#) will be required. For the removal of large works with the potential for significant adverse impact on the nature of the stream, including the flow of water in the stream or the stream channel, a statutory decision maker may request that a decommissioning plan be completed. Projects that often require a decommissioning plan include the removal of a dam, weir, pond, or water power works.

2.6 APPLICATION CONSIDERATIONS

2.6.1 EMERGENCY WORKS REQUIRED BY THE CROWN, MUNICIPALITY OR REGIONAL DISTRICT

Emergency Works submitted under a Notification of Authorized Change ([Part 3 of WSR](#)) can only be constructed by the Crown, a Municipality or a Regional District under [Section 39\(1\)\(o\)](#) and (p) of the WSR, and are summarized below:

Emergency Flood and Erosion Protection Works (Subsection 39(1)(o)):

The construction or placement, under the direction of the Crown in right of British Columbia, a Municipality or a Regional District, or an agent of any of them, of erosion protection works or flood protection works during a flood emergency declared under the [Emergency Program Act](#) that involves flooding.

Emergencies under [Section 39\(1\)\(o\)](#) are typically situations that require immediate attention during a flood event or as designated under the Provincial Emergency Program.

Flood Event Debris Removal (Subsection 39(1)(p)):

The clearing of an obstruction from a bridge or culvert by the Crown in right of British Columbia, a Municipality or a Regional District during a flood, if the obstruction is causing or has the potential to cause a significant risk of harm to public safety, the environment, land or other property.

Events under [Section 39\(1\)\(p\)](#) are typically situations that require attention in the near future, immediately prior to the next flood event.

An appropriately Qualified Professional (on behalf of the Crown, a Municipality or a Regional District) should confirm all Emergency Works. It is recommended that Emergency Works follow the best management practices and protocols for the type of emergency, as outlined in Section 7.8 of the [Standards and Best Management Practices for Instream Works \(March 2004\)](#).

Only works necessary to mitigate the emergency should be completed as Authorized Changes and Notice of them submitted to a Habitat Officer within 72 hours after construction of the works (Refer to [Section 38\(5\) of the WSR](#)). Remaining activities should typically proceed through the regular process and, where possible, deferred until the next [Reduced Risk Instream Work Window for the Protection of Fish](#). This includes restoration work on infrastructure damaged by the emergency event (e.g. repair or maintenance of dikes under [Section 39\(1\)\(k\) of the WSR](#)).

2.6.2 EMERGENCY WORKS REQUIRED OTHER THAN BY THE CROWN, MUNICIPALITY OR REGIONAL DISTRICT

The Ministry recognizes that emergency situations may arise that may not be the subject of emergency response by the Crown in right of British Columbia (or Crown agent, such as a Crown Corporation), Municipality or Regional District (or their agents) (i.e. such as on private property), and therefore, would not qualify as Emergency Works under [Part 3 of the WSR](#) (Section 39(1)(o) and (p)). However, if an emergency situation arises that would present a high potential of danger to human life, significant damage to property or significant adverse impacts to fish or wildlife populations or their habitats, and if not addressed immediately prior to the next flood event, contact the [FrontCounter BC Surrey Office](#) to discuss your concerns, in which case a decision maker will assess the options available.

Without pre-determining whether these types of works indicated below would be able to proceed, these examples might be considered as requiring more immediate attention:

- Restoration to erosion protection works or flood protection works not conducted during a flood emergency, but under conditions when the risk of flooding is reasonably anticipated;
- Preventative clearing of obstructions from bridges and culverts not during a flood emergency, but under conditions when the risk of flooding, public safety or damage to property is reasonably anticipated; or
- Removal of debris from upstream of a bridge or culvert under conditions when the risk of flooding is reasonably anticipated and the upstream debris may lead to an obstruction, public safety concerns or damage to property.

2.6.3 WORKS WITHIN A DESIGNATED SENSITIVE STREAM

There are currently 15 Sensitive Streams in the Province with 7 of them located within the South Coast Region. See [Schedule B of the WSR](#) for the current list of sensitive streams. A sensitive stream designation aims to protect fish populations that are at risk from damage to the stream's aquatic ecosystem.

Table 2.5 List of Designated Sensitive Streams under Schedule B of the WSR (as of May 2019)

South Coast Region	West Coast Region	Omineca-Peace Region
Chapman Creek	Black Creek	Salmon River
Kanaka Creek	Englishman River	
Lang Creek	French Creek	
Nathan Creek	Fulford Creek	
Silverdale Creek	Goldstream River	
West Creek	Little Qualicum River	
Whonnock Creek	Little River	

Mitigation measures are required for all applications made on designated Sensitive Streams. [Section 17 of the WSA](#) states that a statutory decision maker may grant an application on a sensitive stream only if satisfied that:

- The adverse impact will be insignificant on the sustainability of a protected fish population of the Sensitive Stream; or
- Proposed mitigation measures will ensure that the adverse impact is insignificant; or
- Compensatory or alternative mitigation measures (in place of or supplemental to proposed mitigation measures) will enhance an aquatic ecosystem elsewhere to fully compensate for the significant adverse impact on the protected fish population or aquatic ecosystem; and
- Implementation of the mitigation measures or compensatory mitigation measures is made part of the terms and conditions of the Authorization or Change Approval.

DESIGNATED SENSITIVE STREAMS

Prior to submitting an application, such as for Changes In and about a Stream in respect of any activities or works within a Sensitive Stream, contact the [FrontCounter Surrey Office](#) to discuss the project.

Works or activities conducted by the Crown such as installing a water level measuring device, fish fence, fish screen or restoration or maintenance of fish habitat on a Sensitive Stream may be submitted for a Notification of Authorized Change.

If you are considering a Change in and about a Stream on a Designated Sensitive Stream, you are advised to discuss your proposed works with the [FrontCounter BC Surrey Office](#) prior to submitting your application.

[Section 37 of the WSR](#) states that if a statutory decision maker considers that an Authorized Change may have a significant adverse impact on the nature of the stream, including the flow of water in the stream, or the stream channel, the decision maker may require that an application for a Change Approval or an Authorization be made in connection with the change.

If an application is submitted for works in and about a Designated Sensitive Stream, it will be expedient to include details regarding how the proposed works will mitigate or compensate for the impacts of the proposed activities on the stream and/or the aquatic ecosystem. Please be advised that if an application relates to a Designated Sensitive Stream, as per [Section 17 of the WSA](#), the decision maker may require the applicant to provide prescribed plans, specifications, and reports of assessments or other information to consider in their decision.

2.6.4 WORKS IN AND ABOUT THE FRASER RIVER

Portions of the lower Fraser River are managed by the [Port of Vancouver](#) in addition to the Province of BC (such as under the [Water Sustainability Act](#), [Land Act](#), [Dike Maintenance Act](#), [Mines Act](#), or [Wildlife Act](#), etc.). Instream works in this area of the Fraser River may, therefore, require Change Approvals or Authorizations under the WSA and permits from the Port of Vancouver. Examples include, instream works such as dredging, bank erosion protection, pier construction or removal, or barge loading facilities.

Refer to the Vancouver Fraser Port Authority [jurisdictional map](#) on the [Port of Vancouver](#) website for an overall view of Provincial Crown land and land administered by the Port of Vancouver within the lower Fraser River.

We advise you to contact the [FrontCounter BC Surrey Office](#), in addition to the Port of Vancouver, if you have any questions about your respective permitting requirements.

2.6.5 SUBMITTING A CHANGE APPROVAL APPLICATION OR NOTICE OF AUTHORIZED CHANGE

A person proposing to make a Change in and about a Stream must submit a Change Approval application for any Changes in and about a Stream that are not classified as Authorized Changes under [Section 39 of the WSR](#). A Change Approval is a written authorization to make Changes in and about a Stream and is granted with terms and conditions attached. The terms and conditions often relate to the timing of the work or protections for aquatic ecosystems, water users, riparian owners or other directly affected land owners, or the hydraulic integrity of the stream channel.

If the activity is listed as an Authorized Change under Section 39 of the WSR, the activity may be undertaken by providing Notice to the Habitat Officer (Notification of Authorized Change) a minimum of 45 days before beginning work. However, it is recommended to submit the Notice more than 45 days ahead of time so that there is sufficient time for review of the Notice of the Authorized Change proposed. The Habitat Officer has 45 days to respond to the Notice and to provide a written statement of terms and conditions that are applicable to the Authorized Change.

To apply for a Change Approval or to provide Notice by a Notification of Authorized Change, please see the Ministry's website to [Apply for a Change Approval or Submit Notification of Instream Work](#).

RESPONSIBILITIES OF THE APPLICANT

The Applicant is responsible for ensuring that the activities they are proposing are in accordance with the requirements listed as Authorized Changes in [Section 39](#) of the WSR.

Refer to [Section 3](#) below for responsibilities of the Applicant and Approval Holder for more information.

2.6.6 CONTACT SOUTH COAST REGION FRONTCOUNTER BC SURREY OFFICE

If you have any questions regarding your application, please contact your local FrontCounter BC office at 604-586-4400 (Monday to Friday, 8:30am-4:30pm) or by email at frontcounterbc.surrey@gov.bc.ca.

FrontCounter BC website: <http://www.frontcounterbc.gov.bc.ca/>

SECTION 3: RESPONSIBILITIES

3.1 RESPONSIBILITIES OF THE APPLICANT

As part of the submission of the Notification of Authorized Change or Change Approval application, the applicant is required to declare that they understand the following:

- The submission of the application alone does not provide authority under the WSA to construct works in and about a stream;
- As part of the review of the application, additional information may be requested; and
- The proposed activities or works (subject of the application) may also require permissions under other enactments, such as the provincial [Dike Maintenance Act](#) or federal [Fisheries Act](#).

3.2 RESPONSIBILITIES OF THE PERSON UNDERTAKING AUTHORIZED CHANGE OR CHANGE APPROVAL HOLDER

In addition to the above, the person undertaking an Authorized Change or the Change Approval holder is responsible, in part, for:

- The construction of the specific works as authorized in the Change Approval or as an Authorized Change under the WSR and in accordance with any specified terms and conditions; and
- The repair, operation and maintenance of the works authorized in the Change Approval or as an Authorized Change under the WSR.

And when working in and around water, the person or holder must:

- Recognize and address the potential impacts to aquatic and riparian habitats, water quality and quantity, fish and wildlife populations that depend on the aquatic ecosystem to carry out their life processes, and potential impacts to public safety, land and property from those activities or works;
- Recognize and address the need to avoid, mitigate or lessen those impacts or risks;
- Ensure the protection of fish and wildlife populations and their habitats, including species at risk, that depend on the aquatic ecosystem to carry out their life processes, from potential impacts from those activities or works;
- Ensure the protection of land, property and human health from potential impacts from those activities or works;
- Obtain the appropriate permits and other authorizations from all regulatory agencies before proceeding with activities or works; and
- Conduct the activities or works in a manner that complies with the law and avoids, mitigates or lessens potential impacts to aquatic and riparian habitats, water quality and quantity, fish and wildlife populations, and public safety and property.

SECTION 4: APPLICATION INFORMATION REQUIREMENTS

Section 4 describes the information required when you submit a Change Approval application or Notification of Authorized Change online. By submitting the information listed in this section, an applicant will likely fulfil the application requirements. However, it is strongly recommended that applicants and proponents review the specific requirements prescribed by legislation (e.g. WSA, WSR, etc.). While it is recognized that this information covers what is typically required for a complete application, many projects in the South Coast Region are increasingly complex. As a result, additional information may be requested by the statutory decision maker in order to understand the full scope of the project including potential for environmental impact, potential impact to private and public property, and how these potential impacts will be mitigated. [Section 5](#) of this document describes some of the common information requested by decision makers in the South Coast Region.

If the Ministry must seek additional information from the applicant in order to make a decision on an application, delays will likely occur. It is therefore recommended, especially for projects that are likely to have direct impacts to a stream or an aquatic ecosystem, to review [Section 5](#) and consider whether information requests are likely to be applicable to you. If you are unsure about the complexity or scope of your project impacts, we recommend that the applicant contact the South Coast office before submitting their application to discuss what type of additional information may be requested by a decision maker.

Note that various links to information are provided throughout the document that will assist in the preparation of a Change Approval application. The Ministry may include [Questionnaires for Qualified Professionals](#) for certain works that may have high environmental impact and an Project and Environmental Management Plan Submission Checklist, upon submission of the application, that may assist the applicant in providing information to support their application.

NOTIFICATION OF AUTHORIZED CHANGE

While [Section 5](#) describes information that is regularly requested for Change Approval applications, individuals submitting Notifications of Authorized Changes are also encouraged to review the section for information that may also be requested for their projects. Decision makers will often request additional information if they cannot determine the impacts of the proposed activities or works on the stream, aquatic environment or on other users. In such cases, there may be some information, as described in [Section 5](#), which would be helpful to accompany a Notification of Authorized Change, such as a Stream and Stream Channel Impact Assessment or technical drawings.

4.1 CONTENTS OF ONLINE SUBMISSION FORM: CHANGE APPROVAL APPLICATION AND NOTIFICATION OF AUTHORIZED CHANGE

This section will assist in compiling the information required under the WSR and the online application form pertaining to the submission of an application for a Change Approval or a Notification of Authorized Change.

START YOUR APPLICATION

1. Go to the FrontCounter BC webpage at <http://www.frontcounterbc.gov.bc.ca/>
2. Select “START a Natural Resource Application”
3. Select “Water” under Topic
4. Select “Change Approval” or “Notification of Authorized Changes” under Changes in and about a Stream
5. Click on “Apply Now” to apply for a Change Approval or Notification of Authorized Changes

STEP 1 - INTRODUCTION

1. Select either “Apply With a BCeID” or “Apply Without a BCeID”. Note: Processing your application with a BCeID allows you to save your application.
2. Enter the code displayed in the white box to determine that you are not a robot and click “NEXT”

STEP 2 - ELIGIBILITY

If your application is to be considered and authorized by the Oil and Gas Commission, you will not be able to submit a Change Approval application through the above site. Proceed to the [Oil and Gas Commission](#) webpage for further information regarding Change Approval applications associated with oil and gas activities.

STEP 3 – TECHNICAL INFORMATION

Your application must include the information specified in [Section 4 of the WSR](#). The following list provides a description of what is expected for these requirements on the application form:

1. Fee Exemption Request

Select if you belong to, are you applying on behalf of, or are the Provincial or Federal Government or a First Nation to use water on reserve land, a person applying to use water on Treaty Lands, a Nisga’a citizen or an entity apply to use water from the Nisga’a Water Reservation Fee Exemption Request with the submission of the application.

2. Are you applying on behalf of the government?

Certain types of Works (i.e. Emergency Works, Channel Restoration or Maintenance) can only be completed by the Crown, Municipality, Regional District, or its agents, therefore it is important to correctly indicate Yes or No in your selection.

3. Type of Activities/Works

Select the correct authorization type for your proposed activities/works (Change Approval or Notification of Authorized Change). Refer to [Part 3 of the WSR](#) for further assistance when selecting your activities/works. When selecting the “Type of Works”, ensure that all the proposed works in the application are checked [v]. If “Other” is selected describe the proposed works in the white box provided.

4. Add a Site

To add a site for your proposed activities/works, click on the “Add Site” box and complete the section. If you are applying for multiple sites, each site must be added under the section along with the Stream Location and Detailed Description of Work.

- a) Location ID: Enter a unique name or number that references the location.
- b) Stream Name and Source Flows Into:
 - Enter the official name of the stream, or, if there is no official name, a location description of that stream (i.e., unnamed tributary to Smith River, near the 128th Street alignment); and
 - Enter the official name of the stream into which the subject stream discharges, or, if there is no official name, provide the name of its immediate tributary or main stem channel. If the source flows to ground, enter this information.

c) Proposed Activities/Works - Detailed Description of the Project:

- Provide a rationale for and detailed summary of the proposed activities/works that clearly indicates what changes to the stream are proposed. The summary might also include the description and classification of the stream, approximate area in the stream and stream channel that corresponds to the footprint of the project, as well as of any related impacts, and any proposed mitigation/compensation. Ideally, there should be sufficient information in the summary to understand the proposed activities/works, the scope of the project, any potential impacts from the project and any possible mitigation / compensation proposed with respect to potential project impacts.
- Indicate if the project is required as a result of compliance and enforcement action.
- Identify if the project requires, to the best of your knowledge, any other Provincial permissions, such as a [Land Act](#) tenure or a [Dike Maintenance Act](#) permit. Any existing permissions (tenures, permits) or reference to applications for them should be submitted to the Ministry at the same time as the Change Approval application so that bundling of applications can occur. When project applications are bundled, First Nations Consultation and Agency Referrals are completed together, which assists the Ministry to process applications more efficiently.
- If your project is a capital project funded by Provincial and/or Federal agencies, indicate the contact information of the agency and timelines associated with the funding.
- This information might also be expanded upon within [Section 5.1.1.1](#) of the Project Overview, discussed below.

d) Footprint of the Project:

- Enter the maximum total area expected to be disturbed by the proposed activities/works.
- If you have completed a habitat balance for the project, it should be referenced here. Refer to [Section 5.1.2.5](#) for additional information on how to complete a habitat balance.

e) Proposed Timing for Works:

- Indicate construction start and finish dates for the works (i.e., time required to complete the activities/works);
- Indicate if the proposed timing is within the approved South Coast Regional [Reduced Risk Instream Work Window](#); and
- If the activities/works are proposed outside the Reduced Risk Instream Work Window, provide a brief explanation for the alternative timing window in the “Detailed Description of the Project” and provide further details in the recommended supporting reports and documents discussed in [Section 5](#) of the guidelines, as applicable.

f) Location of Proposed Activities/Works and Access and Ownership of the Land:

- Provide the legal description(s) and civic address(es) for land where the activities/works will be located and land that must be occupied to access the works or to undertake activities;
- Where possible, it is recommended that you upload the land title documentation; and
- Enter the latitude and longitude coordinates for the location of the proposed works.

g) Photos of the Activities/Works Location: Upload photos of the activities/works location.

h) Land Ownership at the Location of Proposed Activities/Works and Related Access:

- Unless the bullets listed below apply, the applicant must be the owner of the land, have a significant interest in the land (i.e. including a lease or tenure (granting rights to possess or occupy

the land), which information should be provided with the application), or be a legal agent for the land owner.

- If the land is owned by a person other than the applicant, written consent from the land owner is required or evidence of an appropriate legal interest over the land. This also applies if the land is required for site access.
- If Crown land access is required, provide proof of the authority to occupy the Crown land, such as a Permit over Crown Land, [Land Act](#) tenure, or another applicable authorization, or proof that an application for a permit, tenure or other authorization has been made.

i) Other Contacts

If the work is to be carried out by someone other than the applicant, add the person's name, professional affiliation, if any, a mailing address, and telephone number at which that person can be contacted.

STEP 4 – LOCATION

1. Drawings

Attach a drawing to scale that meets the [Water Application Drawing Standards](#). See also Sections 3(1)(p) and 4(e) of the WSR for application requirements. Key components that should be included on the maps to identify the location of the property is the property boundaries, legal descriptions of properties within the work area, location of proposed activities/works and access routes, and name and direction of flow of the stream and any tributary of that stream.

2. Mapping Option

Select the applicable Mapping Option that was used to create the drawings. Refer to [Appendix A](#) of this document for more information on the Ministry's spatial data resources.

STEP 5 – DOCUMENT UPLOAD

Attach all drawings, maps, photos, project reports and/or documents (e.g. project documents), as required by Sections 4(e) and 3(1)(p) of WSR. Where additional project documents are available to better describe the project, it is also recommended that these be included.

Table 4.1. Possible application submission documents

ATTACH THE FOLLOWING PROJECT DOCUMENTS WITH THE SUBMISSION, WHERE APPLICABLE:
<ul style="list-style-type: none">➤ Drawing to scale: General map of proposed project location and site specific maps of the proposed work area, including aerial photos of the stream and area.➤ Photos of the stream, existing works, location of proposed works, areas of environmental concern and any other relevant photos. A description, including the date taken, should accompany the photos.➤ Letter of Agency, if required.➤ If not the landowner where activities/works are proposed to take place, written consent of the landowner to use of their land for any activities/works and their construction, as well as for any required access over private land.➤ Any other reports or information that is required under the WSR (E.g., engineered drawings are mandatory for storm sewer outfalls when submitting a Notification of Authorized Change under

**ATTACH THE FOLLOWING PROJECT DOCUMENTS
WITH THE SUBMISSION, WHERE APPLICABLE:**

- Section 39(1)(l) of the WSR).
- Other recommended reports (as outlined in [Section 5](#)).

STEP 6 – PRIVACY DECLARATION

Read the Privacy Declaration and then check that you have read and agree to the declaration.

STEP 7 – CONTACT INFORMATION

1. Check if you are an individual or company/organization

- Enter the full name of the individual including mailing address, telephone numbers and email addresses.
- If you are applying on behalf of another person or a company/organization (e.g. as agent), select what your relationship is to the person or company/organization? You *must* also provide a **Letter of Agency** that authorizes you to submit the application on behalf of the individual or to confirm that you are authorized to act on behalf of the company/organization.

2. Referral Information

- If proposed activities/works will be carried out or constructed by a person other than the applicant or if an agent such as a qualified professional is acting for the applicant, enter contact information for the person who would best answer questions about your application that may arise from anyone who receives a referral or notification of the application. For example, this person may be the project Engineer or Qualified Professional.
- Provide consent to disclosure of any personal information, if any contained in the application, when the application is disclosed to other agencies, government ministries or other affected parties for referral or First Nation consultation purposes, as described in [Section 12 of the WSR](#).

STEP 8 – REVIEW

Review your application and make any noted changes.

STEP 9 – COMPLETE

Once you complete your application, you will receive an email that your application has been received and is under review with FrontCounter BC along with a tracking number associated with your application. Once the file has been reviewed and accepted by FrontCounter BC, the applicant will receive another email with the water authorizations file number associated with the application. Please use the water authorizations file number for all future communications with the Ministry.

SECTION 5: SUPPLEMENTAL INFORMATION FOR THE APPLICATION

Change Approval application requirements listed in the WSR and summarized in Section 4 of this document may not provide sufficient information to properly assess the risks of a project and inform a decision on the application. Consequently, South Coast Region staff regularly request additional information in the form of Project and Environmental Management Plans (PEMP) for projects that are likely to pose a significant risk of adverse impact to the stream, an aquatic ecosystem, or other affected property owners.

In addition to the PEMP, Change Approval applications also regularly require some form of technical plans and/or drawings, especially if engineered works will be installed or there is a permanent or semi-permanent alteration to the stream.

[Table 5.1](#) outlines a list of supplemental information that is commonly requested by the South Coast Region in respect of applications. Refer to the corresponding sections for additional details on the supplementary information.

Table 5.1. Supplementary Information for the Application

SECTION	SUPPLEMENTAL INFORMATION FOR THE APPLICATION
5.1	Project and Environmental Management Plan 5.1.1 Project Overview 5.1.2 Stream and Stream Channel Impact Assessment
5.2	Technical Plans
5.3	Other Reports
5.4	Post Construction Plans

The Ministry recommends that a PEMP, that is relevant to their project, be submitted with their application. Given that additional application information requests by a decision maker can result in delays to adjudication, proactively submitting the PEMP with relevant information may assist with a timelier decision on the application.

Recognizing that the complexity of every project will differ, even if a PEMP and technical plans and/or drawings are submitted, applicants are advised that the decision maker may still require supplemental information directly pertinent to their project that may or may not be included in this document.

It is recommended that applicants hire a [QP](#) to complete any technical work requiring professional qualifications, as it may not be possible to accept work completed by a person without the appropriate qualifications. If you are unsure whether your project may require additional information, contact [FrontCounter BC South Coast Office](#), to discuss your proposal.

5.1 PROJECT AND ENVIRONMENTAL MANAGEMENT PLAN

The two main components of the PEMP include a Project Overview and Stream and Stream Channel Impact Assessment. The types of activities that regularly require a PEMP include, but are not limited to, the following:

- Stream diversion/infill;
- New channel or wetland construction;
- Stream crossing (non-clear span);

- Debris removal;
- Gravel removal;
- Bank protection works; and/or
- Works within the Fraser River, such as dredging.

5.1.1 PROJECT OVERVIEW

The Project Overview is intended to provide greater detail and rationale for the proposed activities/works such that the statutory decision maker can fully understand the scope of the project and potential impacts to the stream, stream channel, aquatic ecosystem, as well as to riparian or other affected land owners, Crown land, public works, water rights holders, and potential for impacts on Indigenous interests. The following sections below should be considered for inclusion in your Project Overview.

5.1.1.1 PROJECT BACKGROUND AND RATIONALE

Describe the background and rationale for the proposed activities/works. Note: this is an opportunity to expand on the detailed description of works within the application (Refer to [Section 4.1 Step 3, 4\(c\)](#) above).

5.1.1.2 ASSOCIATED PERMITS

If your project requires a permit or other authorization from any other Municipal, Provincial, or Federal agency, please identify this in the Project Overview and provide copies of the permits (tenures, authorizations, etc.) or copies of related applications. This applies particularly to permits, tenures or authorizations applied for or received from Fisheries and Oceans Canada or the Province. If you have submitted an application to the Ministry for other permissions, such as a [Land Act](#) tenure, [Dike Maintenance Act](#) approval or other statutory authorization, the applications for the project may be bundled for First Nations Consultation and/or Agency Referrals and this may expedite the approval process.

Identify any other permission (e.g. permits, tenures or authorizations) that you already have or plan to apply for and indicate the status of related requests or applications. If your proposed activities/works are part of a development permit application and/or request for rezoning, please indicate at what stage of the Municipal processes the project has reached (i.e. Level of Rezoning request, Level for Development Permit application, Bylaw Reading Level).

5.1.1.3 SITE DESCRIPTION AND AQUATIC ENVIRONMENTAL CONTEXT

Describe the location of the proposed activities/works in respect to the watershed and ecological context. Identify areas to be affected by the proposed activities/works, access routes, and condition of the site if not already described in the application.

Identify the stream classification (e.g. fish bearing, fish bearing-overwintering, non-fish bearing but provides food and nutrients to downstream fish and fish habitat) and associated habitat values, and how the stream is classified by the local government (e.g. Municipality, Regional District or other).

Include descriptions of the stream's origin and its receiving waters, if applicable.

Include a map with aerial photo imagery that shows the stream in relation to the project area and indicate the direction of flow to support the requested stream description. Attach photos of the area(s) of the stream(s) that will be impacted as a result of the proposed activities/works.

Indicate whether the stream is a [Designated Sensitive Stream](#) under the WSA. If so, please consider information requirements under [Section 17 of WSA](#) and [Sections 17 to 21 of WSR](#). Refer also above in [Section 2.6.3](#) for more information on Designated Sensitive Streams.

5.1.1.4 DESCRIPTION OF PROPOSED WORKS

a) Description of the Proposed Activities/Works

Provide a description of all instream activities, works, access routes, placement of material and debris resulting from construction, stream isolation, temporary stream diversion, and if any works were or are to be completed under a Notification of Authorized Change. The description of instream works should include the footprint, length and width of the activities/works, an estimate of how long it will take to complete each activity and how the works function, if applicable.

b) Equipment/Machinery

Briefly describe the type of equipment/machinery and where the equipment/machinery will be placed during construction (i.e. bank, instream, road, or trail). Indicate if you are working outside the stream channel, such as from the top of the bank or within the stream channel.

c) Construction Steps and Timelines

Briefly describe the construction steps for each of the proposed activities/works including the timelines and mitigation measures associated with them. Steps may include the removal or decommissioning of works prior to the construction of new works. It is helpful if the applicant communicates this information as outlined in the table below. A project that is completed in multiple phases might have multiple tables.

Table 5.2. Example of how to outline construction steps, timelines, impacts, and mitigation measures.

Instream Activities/Works Construction Description and Construction Stage	Area of Impact (Dimensions and Footprint)* (See Section 5.1.2.1 for more details)	Proposed Duration and Time of Year for Construction	Potential Aquatic and Riparian Benefits and/or Impacts (See Section 5.1.2.2 for more details)*			Proposed Avoidance/Mitigation measures* (See Section 5.1.2.3 , 5.1.2.4 and 5.1.2.5 for more details)
			Aquatic Ecosystem Values (eg. aquatic species by life stage)	Water Quantity	Water Quality	

*Refer to relevant sections identified above in this document for more information on how to populate these columns.

d) Timing Windows: Timing of Works / Activities and Applicable Reduced Risk Instream Work Window for Protection of the Aquatic Ecosystem

The timing of proposed activities is important for the protection of the aquatic ecosystem (e.g. including for fish and wildlife whose life processes are carried out in the stream or depend on the stream's natural environment). The South Coast Region Reduced Risk Instream Work Windows are diverse and dependent on the species, life cycle (periodicity) and the stream. Please review the [South Coast Regional Reduced Risk Instream Work Window](#) prior to planning your project.

The typical South Coast Regional Risk Instream Work Window for salmonid species is between August 1 to September 15. For the lower Fraser River, refer to Fisheries and Oceans Canada (DFO) [Area 28 of the Fisheries and Oceans Timing Window to conduct projects in or around water](#) website for the reduced risk work window.

The South Coast Region also considers whether there is any potential for impacts to White Sturgeon when reviewing a project application. Where applicable, it is important to understand the periodicity of White Sturgeon in streams frequented by that species within the South Coast Region. Typically, instream works and activities are expected to be carried out within the applicable reduced risk instream work timing window, as may be specified by a Habitat Officer in response to Notification of an Authorized Change or by a decision-maker in a Change Approval. Please contact the South Coast Region if you have any questions regarding the South Coast Regional Reduced Risk Instream Work Window.

If proposed works/activities are being considered to be constructed **outside** the South Coast Regional Reduced Risk Instream Work Window or if the proposed works/activities are within the Reduced Risk Instream Work Window but could harm fish species and/or environmental conditions in the stream, stream channel or their aquatic ecosystem, the applicant will likely be requested to provide justification for works/activities outside the reduced risk instream timing window and to discuss any mitigation measures proposed to avoid harm. In that regard, please review the Stream and Stream Channel Impact Assessment ([Section 5.2](#)).

For example, such measures might include that the stream would be completely dry or have marginal flows for the duration of the construction activities/works. Also, an Environmental Monitor may be expected to be onsite daily or on a full-time basis during instream activities/works and to maintain a log of construction and mitigation actions. This information would also typically be included in a [Post Construction Monitoring Report](#), where required, as outlined in [Section 5.4](#) of the document below.

e) Roles and Responsibilities of Qualified Professionals Assisting with the Project

Briefly outline the roles and responsibilities of any [Qualified Professional\(s\)](#) that will be working on the proposed activities/works and their contributions to the PEMP, environmental monitoring, and post-construction reporting.

For some projects the professional submitting the application may be different than the professional overseeing the construction and/or involved in long term monitoring work. In those instances, the applicant and the later Qualified Professional(s) may be asked to provide information outlining the specific roles and responsibilities of the different professionals involved in the implementation of the project. The expectation is that such professionals would work within the area of their expertise.

f) Long-term Maintenance Requirements

Describe any long-term maintenance requirements associated with the proposed instream works. For example, anticipated maintenance and bank stabilization works related to the construction of a bridge to ensure it can withstand the forces of the stream under high flow events.

5.1.1.5 FIRST NATIONS – IDENTIFICATION AND CONSULTATION

The Province is legally obligated to consult and accommodate First Nations, where required, on land and resource decisions that could impact their Indigenous Interests. More information is available as follows:

<https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations>.

The applicant may also wish to review the Ministry's website on [Consulting with First Nations](#) as it provides information on Engaging First Nations, Proponent Resources, Sector-Specific Proponent Guides such as Environmental Assessment, Major Mines and Clean Energy Projects and provides a link to the [First Nations Consultative Areas Database](#). This database provides preliminary contact information for First Nations who may have Indigenous' interests identified within the area queried. It is an online, interactive mapping tool that allows the general public, industry, other levels of government and First Nations to identify First Nations who have treaty rights or asserted or proven rights or title on the land base queried. [Appendix A](#) of this guide offers more information on how to use the First Nations Consultative Areas Database.

While the Province is responsible for ensuring adequate and appropriate consultation and accommodation, it may involve the proponent in the procedural aspects of consultation. Applicants are generally encouraged to engage with First Nations as early as possible in the planning stages to build relationships and for information sharing purposes that may support consultation. If possible, any potential impacts to First Nations' interests should be identified and possible mitigation measures proposed as early as possible in the project planning process. If you have had an [Archaeological Overview Assessment \(AOA\)](#) or [Archaeological Impact Assessment \(AIA\)](#) completed on your project, it is recommended to include this with your application. The AOA or AIA may be provided to First Nations during consultation if the works/activities could impact Indigenous interests in the area.

DID YOU KNOW?

In order for consultation with the First Nations identified in your project area to proceed, the First Nations will seek to have a clear understanding of the project and potential impacts of the project on their Indigenous' interests. Therefore, it is valuable to have the Project and Environmental Management Plan with the recommended information on your project which includes the impacts and how they will be mitigated.

Change Approval applications in the South Coast Region are sent to First Nations with Indigenous interests in the vicinity of the activities / works for comment at the early stages of the technical review. Standard timelines for responses are 45 days, but may take longer if the project information is unclear, has significant environmental concerns, has potential for impacts on First Nations' interests, is submitted without a summary of proposed mitigation measures, or if there is a high potential for archaeological impacts.

Applicants are encouraged to contact the Archaeological Branch with respect to requirements under the [Heritage Conservation Act](#). These may include requirements to stop activities / works if sites or objects of potential heritage values are encountered; permitting requirements including for prior heritage inspection or investigation, including studies, and whether an [archaeological impact assessment](#) is required for the project.

5.1.1.6 IMPACTS TO OTHER AFFECTED LANDS AND PEOPLE

You must have permission to occupy or to access any land that is not owned by the applicant. For private land this might include written consent from a land owner, whereas for Crown land, a Permit over Crown land may be requested or a Crown land tenure may be required.

At times, projects may also pose a potential risk of impacts to riparian land along the affected stream or other property and works if these might be physically affected, even if potentially outside of their immediate vicinity of the project. For example, construction activities/works or access may impact:

- Upland property or produce hydraulic changes in the stream that could lead to possible erosion and flooding of nearby riparian properties;
- Existing water licence holders or other authorized users with instream works;
- Right-of-ways for hydro lines, public works, railway lines, roads, dikes; and
- Private or public infrastructure.

If you believe your project could impact authorized water users, riparian land or other land or their works, it is recommended that you discuss these potential impacts with them and secure their consent or support prior to submitting your application.

If proposed activities/works might increase risk of flooding, erosion or other damage to properties, you may be requested to provide an opinion from a Professional Engineer regarding this risk and/or proposed mitigation measures. You may also be asked to provide an assessment or other documentation to show that the works have been designed by an appropriately Qualified Professional (e.g., Professional Engineer), and do not pose a risk to safety or property.

Types of works that may increase risk to adjacent landowners often include: rock weirs, dams, riprap, and flow control structures; other structures that decrease hydraulic capacity (e.g., by significantly decreasing channel width); or involve installation of objects that could become dislodged (e.g., large woody debris placement).

It is recommended that the PEMP identify potential impacts to adjacent land owners (riparian owners and owners of land that may be physically affected by project works/activities) and authorized water users (such as authorization holders), as applicable, and whether the impacts would be mitigated. Potential impacts include but are not limited to:

a) Land Owners and Structures

- Potential riparian owners or other upland owners in the vicinity of the works that may be impacted or physically affected by the activities or construction of the proposed works.
- Whether the proposed works cross any Crown land tenures, areas subject to restrictive covenants or other areas that may have a right-of-way or authorized recreational activities, etc.
- Whether the proposed activities/works could impact infrastructure (e.g., power lines, sewer lines, gas lines, pump stations, water lines, private roads, municipal roads, provincial roads, railway, etc.).

b) Water Licence holders

- Water licensee(s) on that stream reach (including hydraulically connected) and their authorized works if they could be adversely impacted by the proposed changes, including hydraulic changes.
- Use the [iMapBC](#) tool with the 'points of diversion' layer turned on, to identify water licences in the vicinity of your proposed works.

c) Potential impacts from construction activities or access:

- Potential impacts or physical effects from the proposed activities/works, changes on riparian land or other private land.
- If there might be any direct effects on water licensee(s)' works (e.g., water pipelines) and whether the proposed works might result in temporary or long-term changes to stream discharge or water quality, which might affect existing licensed or authorized works, water diversion and use or water quality.
- If the works involve relocating a stream, identify and explain whether there will be any changes in riparian setbacks that could affect another property owner's ability to develop or use their land (i.e., under the [Riparian Areas Regulation](#) or local government bylaws). Include a map of the stream and setback locations relative to property boundaries.

d) Notice to Potentially Impacted Land Owners or Water Rights Holders

- Under [Section 13 of the WSA](#), the statutory decision maker may require an applicant to give notice of an application. The statutory decision maker may provide direction to you, based on the expected potential impacts of your project, as to whether you must provide notice to any potentially impacted persons, such as to authorization holders, riparian owners or other potentially impacted landowners.

e) Impacts to Public Works and Permitting Requirements

- If your proposed project overlaps with any public works (e.g. a highway or utility right of way), a permit may be required from that agency. It is recommended that any necessary permits be obtained in advance of your application if there could be any impact on them as a result of the project.

5.1.1.7 SUPPLEMENTAL PLANS

Briefly describe other plans that have been or will be developed to support the application and the persons responsible for their development. These plans may include, for example, an Erosion and Sediment Control Plan, Construction Environmental Management Plan, Riparian Planting Plan, Off-Setting Plans, or other relevant plan(s) for the project outlined in [Section 5.3](#) of this document.

5.1.2 STREAM AND STREAM CHANNEL IMPACT ASSESSMENT

For larger or complex projects in particular, a **Stream and Stream Channel Impact Assessment** may be requested to identify existing **environmental values** (e.g. threatened and endangered species and wetlands) and associated **components** (e.g. fish and aquatic wildlife habitat supply and condition, fish and aquatic wildlife population size and distribution, connectivity of habitats and ecosystems across landscapes) that are measured, managed or maintained:

- to ensure the integrity and well-being of the environmental values;
- to assess the potential impacts to the environmental values and associated components from the project; and
- to describe mitigation measures to reduce harm to the stream, stream channel or their aquatic ecosystem.

Guidance on identifying environmental values and assessing impacts is provided in the Ministry's [Environmental Mitigation Policy](#) and [Procedures for Mitigating Impacts on Environmental Values](#). Decision makers often refer to the Environmental Mitigation Policy in reviewing applications, including in respect to potential impacts of a proposed project. Information of the nature described below, if included with the application, will assist in that review:

Table 5.3 Components of the Stream and Stream Channel Impact Assessment

SECTION	COMPONENTS OF THE STREAM AND STREAM CHANNEL IMPACT ASSESSMENT
5.1.2.1	Project Footprint and Area of Influence on Environmental Values and Components
5.1.2.2	Assessment of Impact on Environmental Values and Components
5.1.2.3	Applying the Four Mitigation levels of the Environmental Mitigation Policy
5.1.2.4	Determining a Habitat Balance
5.1.2.4	Implementation of the Mitigation Measures and Monitoring Plan
5.1.2.5	Questionnaires for Qualified Professional (QP)

5.1.2.1 PROJECT FOOTPRINT AND AREA OF INFLUENCE ON ENVIRONMENTAL VALUES AND COMPONENTS

The Stream and Stream Channel Impact Assessment helps to demonstrate that a proposed project has been appropriately planned and mitigation of potential impacts considered. The first step in the assessment is to describe the existing conditions of the project site area along with the associated environmental values and components. The inclusion of the following information, as relevant to the project and proposed works/activities, will help facilitate review of the application.

1. STREAM CHARACTERISTICS

- Bankfull channel width and depth, wetted channel width and depth, and high water mark (HWM)
- Channel morphology (riffle-cascade/pool, step/pool, non-alluvial)
- Channel substrate (bedrock, boulders, cobbles, gravel, sand, fines)
- Hydraulic connectivity of the stream with groundwater (whether any potential hydrology changes as a result of the works/activities may occur as discussed further in Section [5.1.2.2](#) (2) below)
- Tributaries and/or confluence streams
- Stream order and location within a watershed and watershed characteristics
- Stream classification (such as fish bearing, fish bearing-overwintering, non-fish bearing but provides food and nutrients to downstream fish and fish habitat) along with any Municipal classification.
- For these purposes, stream classification should ideally be verified on site by a qualified professional (QP) with experience in fish and aquatic wildlife assessments.
- Water Quality Parameters (temperature, turbidity, dissolved oxygen, PH)
- Estimated or known mean average stream flow
- Historical changes to the stream and stream channel
- Length and gradient of relevant reaches
- Habitat features within the stream and stream channel reaches where works / activities to be carried out (i.e. leafy woody debris (LWD), shade and litter, aquatic plants, benthic Invertebrates, etc., within the aquatic ecosystem)
- Existing stream and stream channel impacts (i.e. bank erosion, unstable undercut banks, invasive plant species, etc.)
- Natural and anthropogenic fish barriers
- Other anthropogenic impacts on the stream and stream channel
- If the stream is a Designated Sensitive Stream under Schedule B of the WSR (see [Section 2.6.3](#) for more details)

Note that a wetland is considered a stream under the WSA and is further described as a swamp, marsh, fen or prescribed feature. The guidance [Wetlands of British Columbia: A Guide to Identification \(2004\)](#) may provide further information on assessing wetlands.

Also, the Ministries' Forest & Range Evaluation Program includes field guides that outline helpful procedures for assessing stream (including wetlands) and riparian health. Refer to the [Forest & Range Evaluation Program Fish/Riparian Monitoring](#) webpage for links to these field guides and field cards. Note that not all of the components of these programs will be applicable as these documents are more focused on other kinds of resource activity with information more pertinent to impacts associated with logging. Therefore, caution should be exercised to refer only to relevant components for information to assist with WSA/WSR related assessments.

2. PRESENCE OF FISH, AMPHIBIANS, AQUATIC WILDLIFE SPECIES, AND THEIR HABITATS

Aquatic ecosystem accounts for the ability of a stream to support fish, amphibians, and aquatic wildlife species and their habitats in and around a stream. The aquatic ecosystem is likely to be impacted by changes to the area of available habitat and to water quality and quantity. The assessment of project impacts should identify:

- The available information on the presence of fish, amphibians or other wildlife in the stream, stream channel and their aquatic ecosystem and immediately adjacent riparian areas, as well as within the project location;

- The available information on species-at-risk in the stream, stream channel and their aquatic ecosystem and immediately adjacent riparian areas, as well as within the project location;
- The vegetation in the stream, stream channel and their aquatic ecosystem and the immediately adjacent riparian areas, including identification of any provincially-listed ecological communities;
- A map, description and classification of any wetlands present on site as per the [Wetlands of British Columbia, a Guide to Identification \(2004\)](#).
- Other environmental information relevant to the project area, such as provincial conservation areas.

3. PROVINCIAL CONSERVATION AREAS

If you are aware that your project is proposed within a Wildlife Management Area, Wildlife Habitat Area, Ungulate Winter Range or any other conservation area, it will be beneficial if you identify the type and name of the conservation area in the assessment and any measures you are proposing to mitigate any anticipated impacts. The Ministry will submit a referral to the appropriate Ministry designate or agency for comments and/or, as necessary, to consider, consent to, and/or authorize proposed uses and activities in these areas.

[Wildlife Management Areas](#) (WMA's) are the primary designation tool for the provincial conservation land program under Section 4 of the [Wildlife Act](#). The Ministry has administrative control of the land (to manage the land) in which conservation and management of fish, wildlife and their habitats is the priority but other compatible land uses may be accommodated. You can view and search for conservation lands through the Ministry's [conservation lands mapping website](#).

[Wildlife Habitat Areas](#) (WHA's) are established under the [Forest and Range Practices Act](#), and are also the responsibility of the Province. Wildlife habitat areas (WHAs) are [mapped areas](#) that are necessary to meet the habitat requirements of an Identified Wildlife element. WHAs designate critical habitats in which activities are managed to limit their impact on the Identified Wildlife element for which the area was established. The purpose of WHAs is to conserve those habitats considered most limiting to a given Identified Wildlife element. Approved WHA's can be found on the [Ministry's Approved WHA's](#) website.

An [Ungulate Winter Range](#) (UWR) is defined as an area that contains habitat that is necessary to meet the winter habitat requirements of an ungulate species. Approved UWR's can be found on the [Forest and Range Practices Approved UWR's](#) website.

Other types of conservation lands for which the Ministry has administrative control include Transfer of Administration (TAC), Acquisition (ACQ), and Long-Term Lease (LEA). There are also non-administered conservation lands (e.g., *Land Act* reserves).

4. SITE VISITS AND OBSERVATIONS

Site visits are recommended to confirm the environmental setting and potential impacts of the project on the stream, stream channel and their aquatic ecosystem, water quantity and water quality, as well as on riparian land and other potentially impacted land and on water rights and related works. Records of site visits and observations should, at minimum, consider the following:

- The physical characteristics of the project site, stream(s) and habitat conditions and species observed during the site visit(s); and
- Include the date(s) and time(s) the site was visited, the weather conditions and personnel that conducted the site visit. Also include date stamped photographs obtained during the site visit with an explanation of what is depicted in each photograph. Aerial photographs are often helpful.

5.1.2.2 ASSESSMENT OF IMPACT ON ENVIRONMENTAL VALUES AND COMPONENTS

1. IMPACTS TO ECOSYSTEMS

Instream activities/works are potentially intrusive to streams, stream channels, and their aquatic ecosystems and immediately adjacent riparian ecosystems. Such activities/works can disrupt the continuity of riparian corridors, increase flows and stream power, cause temporary or permanent loss or alteration of aquatic habitats, and result in temporary or permanent loss of vegetation in streams, stream channels and immediately adjacent riparian areas.

To evaluate these impacts, this section should describe:

- Potential impacts on the stream, stream channel and their aquatic ecosystem, including related fish habitat, fish and wildlife access dependent on the integrity of the aquatic ecosystem;
- If site isolation is required to carry out project activities/works and may result in the entrapment of fish and/or amphibians, the methodology of site isolation, duration and mitigation measures;
- Anticipated impacts to water quality and quantity, such as those resulting from construction activities/works (e.g., runoff, spills, etc.);
- Whether the project can be implemented without any significant net adverse impact(s) on environmental values of the stream, stream channel and their aquatic ecosystem;
- If the project may impact fish and/or wildlife, which depend on the stream, stream channel and the aquatic ecosystem, and a fish and/or wildlife salvage is required, include the name of the QP that will conduct the salvage(s) and outline the Provincial and/or Federal salvage permit requirements. The Ministry may request a copy of the *Wildlife Act* permit prior to commencement of the project; and
- Description of the [habitat balance](#) indicating the aquatic ecosystem and related riparian loss and gain as a result of the project. Refer to [Section 5.1.2.4 for more information on the habitat balance](#).

2. POTENTIAL CHANGES TO THE HYDROLOGY OF THE STREAM

This section should include, where relevant:

- Changes proposed to the stream, stream channel, including hydrology, bed or bank of the stream, whether permanent or temporary;
- Technical or engineer reports that describe changes proposed to the hydrology of the stream;
- Description of plans that were completed to support proposed changes to stream or hydrology, such as a storm water management plan or hydraulic analysis;
- Consideration of how proposed changes in hydrology might impact the integrity of the aquatic ecosystem, as well as to the nature (e.g. land, vegetation and natural environment) of the stream or stream channel; and
- Changes to the degree of hydraulic connectivity between the stream and an underlying aquifer.

Changes to the hydrology of a stream have been known to contribute to impacts to the stream, stream channel and aquatic ecosystem, including significant flash floods and erosion, the overwhelming of undersized culvert capacity, loss of flow within the stream channel and downstream to existing streams, impacts to fish and wildlife habitat which depend on the stream, stream channel and their aquatic ecosystem, and potential impacts to downstream or upstream water users, related works, riparian land or other physically affected property.

Examples of works that may impact the hydrology of a stream include, but are not limited to: stormwater outfalls, the construction of new instream works, gravel or sediment removal, bank erosion protection, construction of a retaining wall along the bank, stream diversions, stream infills, construction of compensation channels, ponds and/or sediment ponds, or the construction of new channels to accommodate development.

If your proposed activities/works involve potential changes in hydrology, it is recommended that you describe any changes in hydrology, potential impacts to the stream, stream channel, and aquatic ecosystem. Changes in hydrology might also include information on possible hydraulic connection with groundwater, such as by considering the underlying geology, streambed material and water level elevations of the stream compared to the underlying aquifer (i.e. perched stream). If hydraulic connection with an aquifer is anticipated, further studies may be required for stream diversions or relocations to determine if the stream is known as a losing or gaining stream relative to the aquifer, as it may have implications for the aquatic ecosystem.

For larger or complex projects, the statutory decision maker may need to request and to consider watershed analysis to ensure there is no loss of flow to the existing stream(s) or that any hydraulic connectivity with groundwater from a connected aquifer will not be altered.

3. POTENTIAL IMPACTS TO RIPARIAN AREAS

Riparian areas located immediately adjacent to a stream, link water to land. They border streams, such as watercourses, lakes, and wetlands. The blend of stream channel bed and banks, water, trees, shrubs and grasses in those areas provides fish habitat, and directly influences it.

If your proposed activities/works will impact the riparian area of a stream during residential, commercial, and industrial development, including on private land and the private use of Crown land, the applicable local government may require you to have a Riparian Areas Assessment completed for the purposes of the [Riparian Areas Regulation](#) (RAR) or to comply with local government streamside protection guidelines or bylaws.

The purpose is to protect the many and varied features, functions and conditions that are vital for maintaining stream health and productivity, including:

- Sources of large organic debris, such as fallen trees and tree roots;
- Areas for stream channel migration;
- Vegetative cover to help moderate water temperature;
- Provision of food, nutrients and organic matter to the stream;
- Stream bank stabilization; and
- Buffers for streams from excessive silt and surface run-off pollution.

If the applicable local government requires a riparian area assessment (prepared by an appropriately designated Qualified Professional) in respect of the proposed development activities/works or requires a particular setback protection area, reference to the report or upcoming report, or a summary of its finding, should be included as part of the Stream and Stream Channel Impact Assessment. Also, even where a RAR assessment is not required, it is still best practice to consider the potential for any impacts to the immediately adjacent riparian area that may arise from activities/works proposed in the application as Changes in and about a Stream. A recommended approach for considering such impacts is a [habitat balance](#), described further in [Section 5.1.2.4](#).

5.1.2.3 INFORMATION ON APPLYING THE ENVIRONMENTAL MITIGATION HIERARCHY AND SELECTION OF MITIGATION MEASURES

As described in [Section 16 of the WSA](#), when reviewing proposals for Changes in and about a Stream, statutory decision makers consider whether they are likely to have a significant adverse impact on water quality, water quantity or the aquatic ecosystem of a stream or aquifer, a stream channel or other uses of water from them. In such cases an applicant preparing information in support of a Change Approval application should be aware that the Ministry is interested in information that responds to the Environmental Mitigation Policy.

Especially for larger or complex projects, the following information may help demonstrate that the Environmental Mitigation Policy has been considered in preparing the application. For further information and guidance, please

refer to the [Environmental Mitigation Policy](#) and [Procedures for Mitigating Impacts on Environmental Values](#) or contact [the South Coast Regional Office](#).

1. APPLYING THE FOUR LEVELS OF THE ENVIRONMENTAL MITIGATION HIERARCHY

Determine the specific strategies and mitigation measures for each level of the mitigation hierarchy indicated below. The length and detail of this assessment will depend upon the size and impact of the project.

LEVEL 1: AVOID

- Identify if the impacts can be avoided by changes in location, alternative means, alternative timing or by not proceeding with the particular activity.

LEVEL 2: MINIMIZE

- Consider mitigation measures to minimize the scope, scale, and duration of the impacts on environmental values and associated components.

LEVEL 3: RESTORE ON-SITE

- Mitigation measures to remedy impacts on environmental values and associated components range from measures that immediately stabilize the site of the impacts, to measures that bring a site back to full ecosystem structure and function as existed before the project or activity, or what existed historically. The total anticipated area of the stream, stream channel and their aquatic ecosystem, including immediately adjacent riparian area, expected to be impacted and restored on-site should be documented in the [habitat balance](#) and submitted with the application.

LEVEL 4: OFF-SET

- The offset should address the nature and extent of the impact(s) remaining after “avoid,” “minimize,” and “restore on-site” has been considered and implemented. The total anticipated area of the stream, stream channel and their aquatic ecosystem, including immediately adjacent riparian area, expected to be impacted and off-set should be documented in the [habitat balance](#) and submitted with the application. If the proposed activities/works are expected to produce a net habitat loss it is recommended that a habitat offsetting plan be developed and provided with the application.

2. SELECTION OF MEASURES TO AVOID, MINIMIZE, AND RESTORE ON-SITE

It is recommended that the description of proposed activities/works include a summary of possible avoidance and mitigation actions that may be proposed to avoid potential harm associated with activities/works, construction, fish and aquatic wildlife salvage, timing of works and applicability of reduced risk instream work windows.

Depending on the size and potential impacts of your project, mitigation measures might include best management practices, enhancement and/or restoration of habitat on-site during construction. For example, incorporation of habitat features such as instream boulder clusters, large woody debris (LWD), and planting on stream banks, might be used at certain sites to improve habitat complexity. Information about habitat loss and gain may be provided in a [habitat balance](#), described further in Section 5.1.2.4.

Best Management Practices

Best management practices are science-based recommendations that, when followed, should allow the applicant to undertake instream activities/works in a way that avoids, limits or mitigates impacts to the stream, stream channel, their aquatic ecosystem and immediately adjacent riparian habitats, as well as to water quality and quantity, fish and wildlife species dependent on the aquatic system, downstream water users, related works,

riparian land or other physically affected property and public safety. Best Management Practices should always be tailored to site specific context, including time of the year and species presence.

Examples of best management practices include:

- Working in favourable weather and low flow conditions;
- Implementation of isolation methods;
- Comprehensive erosion and sediment control measures;
- Removing excavated material from the site or to a location above the high water mark;
- Protecting vegetation along access routes and banks of the stream;
- Ensuring works do not restrict fish passage and/or lead to fish stranding;
- Ensuring equipment and imported materials are free of deleterious substances or invasive species fragments or seeds;
- Ensuring rip-rap is clean of any substances deleterious to aquatic life and constructed to resist movement by stream flow;
- Keeping a Spill Containment Kit readily accessible onsite in the event of a release of a deleterious substance to the environment and ensuring that on-site staff are trained in spill response;
- Ensuring hydraulic machinery is kept clean and uses environmentally sensitive hydraulic fluids; and
- Ensuring contact names and information are immediately accessible if archaeological materials are encountered or a spill of contaminants occurs onsite.

The document, entitled [Standards and Best Management Practices for Instream Works \(March 2004\)](#), describes additional methods to avoid or mitigate impacts to a stream. However, proponents and applicants for Changes in and about a Stream are advised to review this document with caution as some of its sections have been superseded by new legislation. Revisions to the document are forthcoming.

Describe the applicable best management practices that may be implemented on site for your project.

On-site and Off-site Habitat Offsetting

In some cases in which considerable environmental impacts cannot be avoided or addressed through best management practices or restoration on-site, an applicant might consider whether alternative measures or offsets might be proposed instead. Off-site compensation should only be considered after all on-site options have been exhausted. Examples of offsets include habitat restoration of a different part of the stream and population management measures (e.g., removal of invasive species) and, in some cases, of a different stream. When designing new aquatic habitat for offset purposes, appropriate goals include providing similar area and habitat value to that lost, located in an area that currently has limited habitat value. If your proposed project is anticipated to result in a net habitat loss, it is recommended that an off-setting plan be submitted with the application or such a plan may be requested.

The Offsetting Plan should identify and quantify the anticipated habitat loss in a [habitat balance](#) and describe the proposed mitigation measures and any compensation measures proposed by the applicant.

In the event that the applicant is proposing compensation measures on a different stream, it is the responsibility of the applicant to secure a proposed site for any off-site offsetting. Other measures to protect habitat offsetting should also be included as part of the plan. The Off-setting Plan should also include a post-construction monitoring plan to ensure that the constructed habitat is functioning as designed. In addition, repair and/or improvement of the constructed habitat to ensure continued function should also be addressed.

An applicant may wish to also check local government bylaws in case there are additional requirements, particularly with development projects. [Appendix B](#) also provides links to other BMP documents.

The purpose of monitoring is to ensure that mitigation measures (such as those outlined in a mitigation plan) are implemented as planned and that they effectively meet the intended mitigation commitments and goals.

If the proposed project should require monitoring of implementation and effectiveness of proposed mitigation measures, including restoration on-site (e.g. on same stream) or offsetting (e.g. on a different stream), discuss what monitoring is proposed and include the monitoring plan with your Stream and Stream Channel Impact Assessment.

5.1.2.6 QUESTIONNAIRES FOR QUALIFIED PROFESSIONAL (QP)

For applications involving Qualified Professionals (QPs), the South Coast Resource Management group has prepared project specific questionnaires to help QPs in the preparation of Change Approval applications that are to be submitted by or on behalf of their clients. The questionnaires are designed to highlight the areas QPs might focus on for their specific project, and are designed as guidance only. A QP might consider completing the specific QP questionnaire if proposed activities/works involve the following:

- Stream diversion/infill;
- Stream crossing (non-clear span);
- Debris removal;
- Bank protection works; and/or
- Works within the Fraser River (White Sturgeon).

The QP Questionnaires will be forwarded to the applicant by the Ministry. Feel free to contact the South Coast Region, if you have any questions on the forms or if you require a copy of any of the QP forms.

If you have completed a questionnaire, please include this with your Stream and Stream Channel Impact Assessment.

5.2 TECHNICAL PLANS AND/OR DRAWINGS

Generally, some form of technical plans and/or drawings should be included in a Change Approval application for works to be constructed within a stream and stream channel.

Under [Part 3 of the WSR](#), engineering drawings are mandatory for authorized changes involving storm sewer outfalls in accordance with [Section 39\(1\)\(l\)](#) of the WSR, and culverts in accordance with [Section 39\(1\)\(a\)\(ix\)](#) of the WSR.

However, engineering drawings may also be requested in support of an application in respect of any Changes in and about a Stream involving activities/works that require structural components, permanent or semi-permanent alteration to the stream or any control structure that will change the flow of the stream. Typically, drawings include a Plan View, Profile and Cross Sections, and should clearly indicate the following:

- The location of the proposed activities/works relative to the stream channel;
- What activities/works may occur on the stream bank versus outside of top of stream bank. and/or above versus below the high water mark and/or in stream areas that will be wetted versus dry at the time of the work; and
- The current location of the stream/stream channel and the proposed location of the stream/stream channel if the channel is being relocated or diverted.

Additional technical drawings may include, but are not limited to, a Grade Plan, Erosion and Sediment Control Plan, Compensation Plan and a Riparian Planting Plan.

It is recommended that drawings be in a form “Issued for Tender” or “Issued for Construction”. However, if the project has been reviewed or is currently being reviewed through the applicable local government, plans may also be acceptable if they are at a minimum of 75% complete. It is expected that with 75% complete drawings, minimal changes in the design are anticipated.

If substantial changes do occur after submission of a Change Approval application or after an Authorization has been provided, the [Qualified Professional](#) should contact the Ministry immediately. A significant amendment to the design may result in additional technical review, consultation with First Nations, and the issuance of an amendment if the Change Approval or Authorization has been granted.

5.3 OTHER REPORTS

Depending on the size and complexity of the project, type of activities/works, location of the project, environmental impact of the project and First Nations’ interest in the area, additional reports may be requested. Types of reports that are sometimes requested include:

- Archaeological Overview Assessment (AOA)
- Archaeological Impact Assessment (AIA)
- Hydraulic Analysis
- Stormwater Management Plan
- Off-Setting Plan
- Riparian Areas Regulation Assessment (if for related development)
- Riparian Planting Plan
- Species at Risk Management Plan
- Erosion and Sediment Control Plan
- Construction Environmental Management Plan
- Restoration or Remediation Plan
- Decommissioning Plan
- Side Scan Sonar
- Bathymetric Survey

If you have any questions if any additional report or plan is required, please contact the South Coast Region for guidance. You may be advised during technical review of the application, that additional information is required.

5.4 POST-CONSTRUCTION MONITORING REPORTS

5.4.1 POST CONSTRUCTION MONITORING REPORT

A Post-Construction Monitoring Report is often a standard condition in a Change Approval, to be submitted to the Ministry Water Authorizations staff within 60 days of project completion. If required, the report typically includes a signed statement from the Environmental Monitor and, depending on the project and potential for environmental impacts, may include the following components:

- Authorization number and key staff contacts;
- Location of the project construction site (include a site map) and summary of authorized work;
- Frequency of monitoring and by whom;
- Detailed summary of the in-stream works completed, and include any activities/works that diverged from those provided in the Change Approval application and/or challenges experienced during the course of the project (i.e., challenges due to inclement weather);

- If works were completed outside the reduced risk instream work window, describe additional mitigation measures and BMP's conducted;
- Timeline (date and time) of key project activities/works;
- If non-compliance with the terms and conditions of the Authorized Change Approval occurred or an incident occurred, include the date and time;
- If in situ water quality parameters (e.g., temperature, dissolved oxygen, pH, turbidity, etc.) were collected include the date, time and results;
- If an aquatic species salvage was required prior to instream works, include the method utilized to remove the species (i.e., minnow trapping, dip netting, electrofishing, etc.), duration of the applied method and summary of the species captured (include the species name, number of each species collected and where they were relocated);
- A selection of date and time stamped construction photographs that show the site before, during and after project activities/works. Each photograph requires a description of what is depicted and the location shown;
- Total in-stream area directly affected;
- Quantity of sediment removal, if applicable;
- If required as part of the Change Approval or Authorization, summarize the applied habitat compensation or site restoration measures (include photographs); and
- A detail of any environmental incidents, and how these incidents, non-compliance or other difficulties were addressed.

5.4.2 ADDITIONAL POST CONSTRUCTION REPORTS

Depending on the project and potential for environmental impacts, additional reports may be requested such as:

- Riparian Planting Monitoring Plan
- Fish Habitat or Benthic Sampling
- Water Quality or Quantity Monitoring Plan
- Post-Construction Works Monitoring Plan

If any additional post-construction reports are considered advisable as part of the Change Approval, this will be discussed with you prior to the issuance of the Change Approval, and, if required, will be included as a term and condition of the Change Approval.

APPENDIX A: SPATIAL AND IMAGERY DATA RESOURCES

- The Ministry’s **iMapBC** can be used to locate property boundaries, existing water licences and streams.
 - a. Spatial data available under “Build Your Map” where you “Add Layers” through the government spatial database. To find water licences, go to “Fresh Water and Marine” and then choose “water rights” and then both the “applications” and “licences”. Other Provincial layers can be found such as wells, dams, aquifers, land ownership, etc. in the “Add Layers” selection.
 - b. Once the layers are loaded, use the “i” identification tool to see information associated with the spatial data, such as water licence information.
- Species at Risk data is available through **CDCiMap**.
- Municipalities are a great source for obtaining spatial data, particularly on property boundaries, municipal works, streams, parks, current imagery, etc.
- Other imagery resources include Google Map, Google Earth and Bing.
- First Nations consultative information is currently available at: **First Nations Consultative Areas Database**. Once the CAD is launched, the Consultative Areas Database provides three guidelines for instructions on using the CAD. Follow the technical User Guidance Technical Assistance for Using CAD Report Tools.

How to use the First Nations Consultative Areas Database:

- a. Launch the [First Nations Consultative Areas Database](#) by clicking on this highlighted link.
- b. Once the CAD is launched, the Consultative Areas Database provides three guidelines for instructions on using the CAD. Follow the technical [User Guidance Technical Assistance for Using CAD Report Tools](#).
- c. Enter your coordinates for the proposed work area and zoom in to the area using the “Zoom In” feature, by scrolling, or by using the scale menu at the bottom of the screen.
- d. As set out in the Technical Assistance guidance document, click on “SOE Report” in the top menu.
- e. The CAD Tool will let you select four types of geometry. Select the “Point” for the middle of the proposed work area and click “Next”.
- f. Enter a **50m** buffer, name the report and click “Submit”. The Report will be produced which will provide the First Nations and contact information.

IMPORTANT NOTE

Archeological sites (both recorded and unrecorded) are protected under the [Heritage Conservation Act](#) and must not be altered or damaged without a permit from the Archeology Branch. Anyone involved in ground-disturbance and construction who encounters archeological materials, must halt all activities and immediately contact the Archeology Branch at 250-953-3334 for direction.

If the project overlaps any Archaeological Site or Interest, an Archaeological Overview Assessment (AOA) and/or Archaeological Impact Assessment (AIA) may be required. Often, First Nations request that either a study be completed for the project or that a First Nations Archaeological Monitor visit the site during works, if there is a potential for archaeological findings. If you have completed an AOA or AIA, it is recommended to include this in your application so that it can be submitted to the First Nations during the Consultation process. This will assist the First Nations with their review and response to the Ministry and will expedite the technical review.

As noted in [Section 5.1.1.5](#) of this document, the Province is legally obligated to consult and accommodate First Nations, where required, on land and resource decisions that could impact their Indigenous Interests. If you should decide to also engage directly with the First Nations regarding your project, the following might be useful information to Ministry staff dealing with the application:

- a. Keep a summary of any communications to and from First Nations, and of related engagement activities and outcomes. Include a communications log with copies of any relevant correspondence (e.g., letters, meeting notes, attempts to communicate, etc.).
- b. Describe any known information about Indigenous' interests in the area, such as hunting, fishing or plant gathering, and how those interests might be affected by your project.
- c. Summarize any archaeological information available by [Accessing Archaeological Data](#) through the [Archaeological Branch](#). Refer to the [Access to Provincial Archaeological Information](#) document on requesting records and the four categories of information.
- d. As noted above, the [Heritage Conservation Act](#) may require that a permit be obtained, including related [Archaeological Overview Assessment \(AOA\)](#) and [Archaeological Impact Assessment \(AIA\)](#), in respect of your proposed activities/works if the site has the potential to encounter archeological materials.
- e. Provide the Ministry with information regarding the results of that engagement, including as to any discussions that touched on possible ways to address any potential adverse impacts to Indigenous' interests, including through avoidance or mitigation measures.

APPENDIX B: RESOURCE AND TEMPLATE LINKS

RECOMMENDED DOCUMENTS TO BE INCLUDED IN THE PROJECT DESCRIPTION AND ENVIRONMENTAL MANAGEMENT PLAN IN SUPPORT OF YOUR APPLICATION:

- Project and Environmental Management Plan Submission Checklist, which may be provided to the Applicant by the Ministry.
- [Habitat Balance Table](#) (fillable Excel format) for the Stream and Stream Channel Assessment, available online at our [Regional Terms & Conditions & Timing Windows webpage](#) with the Change Approval Guidelines or can be provided to the Applicant by the Ministry.
- QP Questionnaires (fillable PDF format) for Stream diversion/infill; Stream crossing; Debris removal; Bank protection works; and/or works within the Fraser River (White Sturgeon), which may be provided to the Applicant by the Ministry.

COMMONLY USED PROVINCIAL RESOURCES

- Standards and Best Management Practices for Instream Works (March 2004)
- A User's Guide to Working in and around Water (May 2015)
- Best Management Practices for Amphibian and Reptile Salvages in British Columbia (PDF)
- Guidelines for Amphibian and Reptile Conservation during Urban and Rural Land Development in British Columbia (2014)
- Guidelines for Translocation of Plant Species at Risk in British Columbia (PDF)
- Guidelines for Raptor Conservation during Urban and Rural Land Development in British Columbia - 2013 (PDF) (PDF 2.7MB)
- Develop with Care Environmental Guidelines for Urban and Rural Land Development - 2014
- Wetland Ways: Interim Guidelines for Wetland Protection and Conservation in British Columbia
- Wetlands of British Columbia: A Guide to Identification (2004)
- Forest & Range Evaluation Program Fish/Riparian Monitoring for Field Guides on Wetlands, Streams and Riparian Management Areas
- Environmental Mitigation Policy and Guidelines
- Riparian Areas Regulation Brownfield Site Revegetation Guidelines
- Riparian Areas Regulation Assessment Methods
- Guidelines for Riparian Restoration in British Columbia – Recommended Riparian Zone Restoration Prescriptions/Silviculture Treatments
- Guidelines for Management of Flood Protection Works in B.C. (PDF, 3.2MB)
- IMAPBC: <https://www2.gov.bc.ca/gov/content/data/geographic-data-services/web-based-mapping/imapbc>

REGIONAL RESOURCES

- Mitigating the Impacts of Channel Maintenance in the Lower Fraser Valley - 2003-2004 Field Trial and Literature Review (PDF)
- Guidance for Determining High Water Marks for Lakes in the Okanagan under the Riparian Areas Regulation (PDF)
- Thompson Okanagan Guidance for Instream Work During a Flood Emergency
- Guide to Identification of Low-Elevation Wetlands in the Okanagan Valley using Primary Indicators (PDF)

- Terms and Condition for Changes in and about a Stream Specified by MOE Habitat Officers, Cariboo Region (PDF)
- A Compendium of Wildlife Guidelines for Industrial Development Projects in the North Area, British Columbia - Interim Guidance (PDF)
- Atlin Placer Mining Best Management Practices Guidebook (PDF) - Skeena Region
- Tree Replacement Criteria
- Riparian Planting Criteria

REGIONAL REDUCED RISK INSTREAM WORK WINDOWS

- Guidelines for Reduced Risk Instream Work Windows for the Lower Mainland (2006)
- Reduced Risk Timing Windows for Fish and Wildlife for the Omineca and Peace Region
- Timing Windows and Measures to Adequately Manage and Conserve Aquatic Resources in the Cariboo Region
- Fisheries and Oceans Canada (DFO) Area 28 of the Fisheries and Oceans Timing Window to conduct projects in or around water

INDUSTRY RESOURCES

- Best Management Practices for Pile Driving and Related Operations, B.C. Marine and Pile Driving Contractors Association 2003

FEDERAL RESOURCES

- DFO Land Development Guidelines for the Protection of Aquatic Habitat (1993)
- DFO Freshwater Intake End-of-Pipe Fish Screen Guideline