# Foreshore Development Guide

## Nicola Lake

Prepared For:

Living Lakes Canada

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## Acknowledgements

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- Brian Holmes, Councillor, Upper Nicola Band
- Georgia Peck, BSc, FIMP Program Manager, Living Lakes Canada
- Alissa Cartwright, M. Phil, Indigenous Rights Research Manager, Kwusen Research and Media

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# 1 Introduction

In recent years, environmental impacts to lake shorelines (e.g., degraded habitat, recreational use conflicts, and water quality impacts) have prompted government agencies to initiate projects focused on increasing our understanding of lake shorelines to support evidence-based lake management strategies. For example, Upper Nicola Band (UNB) and Living Lakes Canada Society (LLC) have partnered with local, provincial, and federal governments to provide guidance on shoreline development that protects both ecological and cultural values. For Nicola Lake, the Local Indigenous Knowledge and Values Framework was co-developed by UNB and LLC to support the inclusion of Indigenous Knowledge in the Foreshore Integrated Management Planning (FIMP). This is a pilot project that aims for a broader application of Indigenous Knowledge for Nicola Lake FIMP guided by the foundational oral stories of the Four Food Chiefs. The guidelines presented in this document are founded on the concept that sustainable management is the shared responsibility of all stakeholders, including proponents, professionals, and all levels of government.

This Foreshore Development Guide (FDG) provides development planning guidelines, aimed at protecting sensitive fish and wildlife species and their habitats identified through the previous FIM and Foreshore Habitat Sensitivity Index (FHSI) analyses. The FDG is an initial tool used when planning for, prescribing, or reviewing riparian and shoreline alterations. Based on the environmental (species and habitat) values, the FDG identifies the levels of risk associated with shoreline alteration from various types of development activities. The risks identify the anticipated regulatory steps required to proceed with the project. The guidelines provide important information to support both the landowner in preparing foreshore work applications, and the government agencies during their review of the applications.

The FDG recommends areas to be conserved, where development may present very high or significant risk to high value species and their habitats that require shoreline areas to carry out their life cycle. These sensitive habitats may be protected by various means, including local government inclusion in local planning processes such as Official Community Plans (OCP) and bylaws. Additionally, the FDG describes how restoration opportunities should be sought to improve habitat previously disturbed, and to potentially aid in obtaining regulatory support for new proposed projects.

The 2023 Nicola Lake FDG seeks to provide planning guidelines to protect cultural values identified through the UNB Community Knowledge Keeper database and interviews with E lders and Knowledge Keepers. Indigenous Knowledge has been provided by UNB who have co-led this project alongside LLC. The goal of this project team is to inform an inclusive and holistic process for foreshore planning that places cultural and ecological integrity at the forefront of decision-making supported by relationships.

The FDG methods were first developed for Windermere Lake by the East Kootenay Integrated Lake Management Partnership (EKILMP et al. 2009). These original methods used the BC Ministry of Environment (BC MoE) document - High Value Habitat Maps and Associated Protocol for Works along the Foreshore of Large Lakes within the Okanagan (BC MoE 2008), and input from the various EKILMP members including: Fisheries and Oceans Canada (DFO), BC MoE, Regional District of East Kootenay (RDEK) and Wildsight. Additional lake projects followed and expanded on the initial EKILMP FDG. Notable lake projects included: Moyie Lake (Schleppe 2009), Tie Lake (McPherson et al. 2012) and Kootenay Lake (Kootenay Lake

Partnership 2019). With each iteration of these documents, the general process for developing a FDG was refined.

## 2 Important Contact Information

Proponents may use the contact information provided below when planning their proposed activities. Even with the use of this document, it is recommended that anyone who is planning work on Crown Land (such as the shoreline), first contact FrontCounterBC or retain the services of a Qualified Environmental Professional (QEP) who will contact FrontCounterBC on their behalf. Depending on the situation, FrontCounterBC will provide guidance on whether the proposed works are allowed or not allowed under the respective legislation. Similarly, works on private lands must also consider local government's requirements (e.g., permitting or notifications).

**FrontCounterBC -** *FrontCounterBC* should be contacted for any works planned on Crown Land, including work along the lake shoreline.
**Phone:** 1-877-855-3222
**Email:** FrontCounterBC@gov.bc.ca

**Regional District –** *Thompson-Nicola Regional District* should be contacted for any works planned on private land within the regional jurisdiction.
**Phone:** 250-377-8673
**Email:** admin@tnrd.ca

**First Nations –** The following should be contacted for any works that require First Nation engagement.
Upper Nicola Band
**Phone**: 250-350-3342
**Email:** communications@uppernicola.com

### 2.1 Indigenous Knowledge

The FIMP methods provide two potential pathways to incorporate Indigenous Knowledge, which are limited to ecological values (Schleppe et al. 2021). More guidance was deemed necessary to identify cultural and archeological values. A key component of the Nicola Lake FIMP was the co-development of the Local Indigenous Knowledge and Values Framework by UNB and LLC. This framework is guided by the Four Food Chiefs values and supports a holistic FIMP process that interweaves Indigenous Knowledge with western science.

A Cultural Overview Assessment (COA) for Nicola Lake was used to gather Indigenous Knowledge from the UNB Community Knowledge Keeper database, interviews with UNB community members, and field trips with Elders (Kwusen 2024). The knowledge shared by UNB community members during the interviews for this COA, as well as the knowledge shared by community members during previous studies, demonstrates that the entire Nicola Lake, including its foreshore, is a sacred and culturally significant place. Cultural Advisors emphasized that their spiritual and cultural connections to their lands, waters, and the non-human inhabitants of those lands and waters are not limited to one specific location. Rather, all places are sacred and cared for by the Syilx people.

# 3 FDG Process Overview

The FDG provides a step-wise process to help direct applicants through the initial planning stages for their proposed shoreline development, project or activity (Figure 1).

**Step 1**: Identify the fish, wildlife, and cultural values where the project is situated using the FDG map. The FDG map was prepared using the FHSI outputs, and depicts: a) values by segment, with different colours representing high to low values; b) where Zones of Sensitivity (ZOS) may be present. ZOS are areas with exceptionally high value, which should, if at all possible, be conserved according to local, provincial or federal plans or through private land agreements; and c) where Culturally Sensitive Area (CSA) may be present. CSAs are areas that have important sacred and spiritual values, where the First Nation must have an opportunity to review and authorize the proposed development in the early stages.

*For areas of greater risk, a very high level of detail is needed in order to submit an application that can be considered for regulatory review. In these cases, it should not be expected that because information is submitted that approvals are forthcoming.*

**Step 2:** Review the general recommendations for the applicable colour zone, ZOS, and CSAs to understand associated habitat and cultural sensitivity of the area, and risk anthropogenic disturbances pose.

**Step 3**: Use the Activity Risk Matrix (ARM) to identify the level of risk of the proposed project on the habitat. The risk is indicative of the acceptability of a project to regulators.

**Step 4**: Determine the necessary regulatory approvals/permits/authorizations/consultations (collectively ‘approvals’) that must be obtained. This final step is project dependent and depends on many factors and is subject to change based on government policy. Hence, only an overview is provided here, along with logistical considerations.

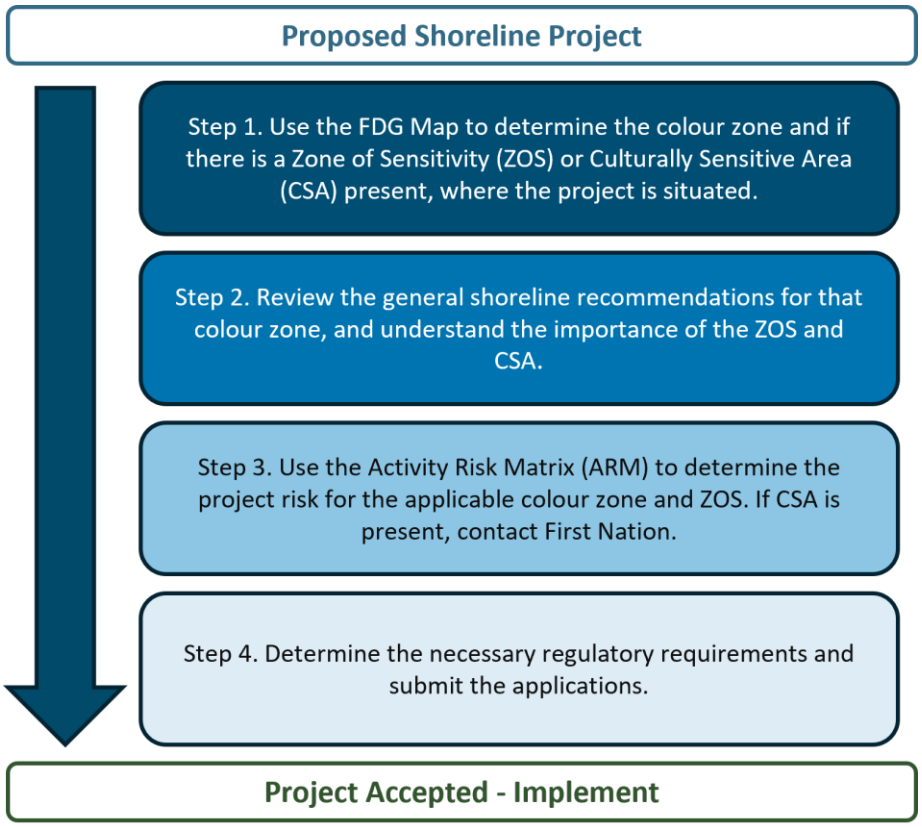



**Figure 1. Four steps when planning to develop or modify foreshore habitat (revised to include cultural values).**

### 3.1. Interpret the FDG Map

The key results of the FIM, FHSI, and COA are presented in tables and maps (Plewes et al. 2024). When planning foreshore development, the FDG map is the primary reference tool because it synthesizes the pertinent fish, wildlife, and cultural information into an easy to understand map (Appendix A). In the FDG map, the FHSI ecological rankings for each segment are depicted as one of four colour zones, ranging from very high to low value (Table 1).

**Table 1. FHSI ecological rank and ZOS colour scheme applied to the FDG map.**

| Value type | Rank/Sensitivity | Map Colour |
|---|---|---|
| Ecological Rank | Very High | Red |
| | High | Orange |
| | Moderate | Yellow |
| | Low | Grey |
| Zones of Sensitivity | Fisheries | Jade |
| | Wildlife | Lime Green |
| | Ecosystem/Habitat Feature | Dark Green |
| | Rare occurrences | Moderate Orange |
| | Vegetation | Blue |

The FDG map also depicts each ZOS in a specific colour scheme. Each ecological ZOS is presented as either a polygon, line, or point, and should include an outer buffer. This buffer accounts for unknowns of the ZOS full extent and protects the core ZOS from potential impacts from adjacent activities (Figure 2). Details on each ZOS, including how each was defined, and how the buffers were determined are presented in Section 5.2.

The CSAs are depicted on the FDG maps as polygons with grey cross-hatching. Like a ZOS, the CSA polygons highlight areas that are sensitive to development activities due to their important Traditional and cultural values.

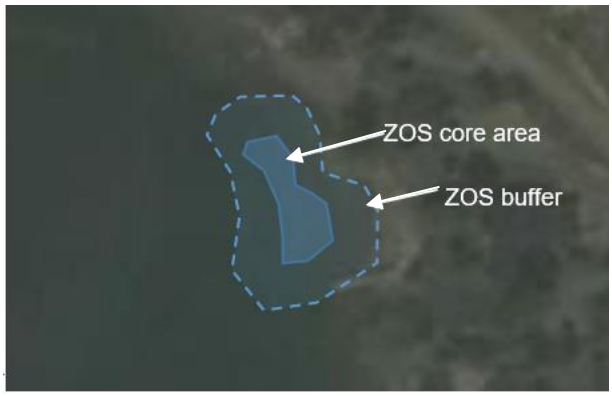



**Figure 2. Zone of Sensitivity with an appropriate buffer.**

## 4 Step 1. Locate Project Relative to Shoreline Colour Zones, Zones of Sensitivity, and Culturally Sensitive Areas

Use the FDG map to identify the values present along or within their proposed development area. Together, the FHSI colour zone and the ZOS mapped features provide a science-based tool to guide development planning. The mapped CSA identifies the areas that have the highest development risk for cultural values. Development or disturbance of any CSA may infringe on Indigenous values The fish and wildlife value/risk and subsequent regulatory review process are highest in red zones and areas with ZOS. Since these areas have the highest natural value and are at greatest risk to shoreline alteration, they require the highest level of on-going protection. The values/risk in the grey zones are lowest. Since there is already likely significant impact from development in grey zones, future development is less likely to cause negative impacts. The specific recommendations for each colour zone and ZOS are provided in the next section.

## 5 Step 2 – Review Colour Zone, ZOS, CSA, and Conservation Recommendations

For this step, review the recommendations for the respective colour zone, ZOS, and CSA that aligns with the proposed development. The summary tables below provide detail on the values present and identify how to potentially minimize impacts. Also, refer to the conservation recommendations to see how your project may align with an area that has been identified as a candidate for protection. Proposed development should adhere to these recommendations to reduce impacts on sensitive fish, wildlife, and cultural values. Opportunities for restoration or re-development should be explored in any zone where work is proposed.

## 5.1 Shoreline Colour Zone Recommendations

| Red Shoreline | |
|---|---|
| **Defined by:** | Very High FHSI ecological rank. |
| **FHSI summary:** | Red zones account for 4.8% of the total shoreline length of Nicola Lake. |
| **Sensitivity Summary:** | Red shoreline areas have been identified as essential for the long-term maintenance of fish and/or wildlife values through the FHSI Analysis. These shorelines are composed of stream mouths and wetlands that serve as important migration corridors and staging areas for fish species including Rainbow Trout, Mountain Whitefish, Kokanee, and other salmonids. The productive riparian areas also provide important wildlife corridors as well as cover, foraging, and breeding habitat for birds and other wildlife. Eagles, osprey, and herons utilize these productive riparian areas.<br><br>The shoreline rate of change was 0.08% per year from 2011 to 2023. These losses in natural shoreline were associated with single family and recreation developments. |
| **Recommendations:** | Due to their high value (sensitive communities present), Red shoreline areas are recommended to have limited development to promote conservation use (Section 5.3). Low impact water access recreation and Traditional uses are examples of acceptable activities, while permanent structures or alteration of habitats are not. Invasive aquatic plant removal is often acceptable, provided there is an approved aquatic plant removal program, including trained personnel, and appropriate permitting in place. Habitat restoration may be appropriate in these areas, where applicable. For example, riparian restoration works with appropriate First Nation consultation are recommended in the riparian areas of Moore and Stumplake creeks. The recommended restoration works include planting of native cottonwood trees, willow shrubs, and other native riparian vegetation, as well as the application of bio-engineering methods. |

| Orange Shoreline | |
|---|---|
| **Defined by:** | High FHSI ecological rank. |
| **FHSI summary:** | Orange zones account for 46.0 % of the total shoreline length of Nicola Lake. |
| **Sensitivity Summary:** | Orange shoreline segments have been identified as high value habitat areas for fish and/or wildlife. These areas are comprised of relatively natural undisturbed habitats and disturbed habitats that retain ecologically important features (e.g., stream mouth, wetlands, and emergent vegetation). These areas are sensitive to development and continue to provide important habitat functions but may be at risk from adjacent development pressures. |

| Orange Shoreline | |
|---|---|
| | The shoreline rate of change was 0.08% per year from 2011 to 2023. These losses in natural shoreline were associated with single family and recreation developments. |
| **Recommendations:** | Proponents should consider moving high risk activities to other areas if possible or pursuing activities that have lower associated risks. The lake environment can benefit from having orange shoreline areas set aside to contribute to the overall lake conservation area. The conservation recommendations in Section 5.3 focus on protecting orange shoreline areas with large CSAs. |

| Yellow Shoreline | |
|---|---|
| **Defined by:** | Medium FHSI ecological rank. |
| **FHSI summary:** | Yellow zones account for 44.7% of the total shoreline length of Nicola Lake. |
| **Sensitivity summary:** | These areas have experienced a moderate amount of development disturbance and pressures. Shorelines have been disturbed by single-family, rural, recreation, park, and transportation land uses. Although these areas have been impacted, they still include important habitat features such as emergent and submergent vegetation, wildlife trees, and grasslands.<br><br>The shoreline rate of change was 0.08% per year from 2011 to 2023. These losses in natural shoreline were associated with single family and recreation developments. |
| **Recommendations:** | Development along Yellow shoreline areas would likely result in less of an impact, than along Red or Orange areas. However, activities should incorporate protection of habitat features that remain, be well above the high-water mark, and/or be situated outside of the riparian area. Restoration may be an option in some areas that have experienced past developments. Development may proceed for low risk activities provided a Best Management Practice (BMP) or Regional Operating Statement (ROS) is available and followed (Appendix B). High risk activities without a BMP or ROS will require an environmental assessment from a QEP. Riparian restoration works with appropriate First Nation consultation are recommended in the riparian area of the Upper Nicola River (see FIMP report for more details). |

| Grey Shoreline | |
|---|---|
| **Defined by:** | Low FHSI Ecological Rank. |
| **FHSI summary:** | Grey zones account for 4.5% of the total shoreline length of Nicola Lake. |
| **Sensitivity summary:** | Grey shorelines have a lower ecological ranking. Shorelines have been heavily disturbed by landscaping and shoreline modification associated with single family and RV Park developments. However, they still may contain valuable habitats or CSAs requiring some protection. Their importance as corridors to neighboring high value areas should also be considered during development.<br><br>The shoreline rate of change was 0.08% per year from 2011 to 2023. These losses in natural shoreline were associated with single family and recreation developments. |
| **Recommendations:** | Human development has been concentrated in these areas and has resulted in disturbances to the natural fish and wildlife habitat. Important habitats do exist in degraded and developed areas, and at least minimal standards are required to protect fish and wildlife habitat in the grey zone areas. In keeping with the objective of concentrating development in areas that are already disturbed or of low value, new developments may be considered in these areas. Re-development will also be considered. Proposals should incorporate fish and wildlife habitat restoration or improvement features, where feasible and practicable. For example, a retaining wall redevelopment may be moved back from the HWM and/or incorporate re-vegetation or other fish and wildlife features in the design. Obtain advice from a QEP for habitat restoration techniques. The use of incentive-based restoration programs is encouraged for private land. |

## 5.2 Zones of Sensitivity Recommendations

A total of five types of ZOS were identified through the FHSI analysis. The ZOS and their corresponding buffers are identified on the FDG map. For this step, use the map and identify if the proposed development aligns with any of the mapped ZOS (use outer edge of buffer). Then refer to the corresponding ZOS summary table(s) below for general information on the values present and recommendations to reduce impacts.

| Fisheries – Stream Mouth | |
|---|---|
| **ZOS summary:** | Stream mouths were mapped as semi-circles for streams that had an observed inflow. The semi-circle had a 100 m radius from the stream mouth. These stream mouths surrounded the outlet of Upper Nicola River, Klup, Moore, Stumplake, and Quilchena creeks. A 30 m buffer was applied to the ZOS, around its full perimeter. This buffer was recommended to protect this sensitive littoral area from neighboring development risks. |

| Fisheries – Stream Mouth | |
|---|---|
| **Sensitivity summary:** | Stream mouths are an important source of clear, cool water, and nutrients to the foreshore influencing water quality and fish habitat: These stream mouths serve as cold-water refuge, migration corridors and/or spawning habitats for fish. |
| **Recommendations:** | These sensitive habitats are to be protected, with no permanent developments recommended both within and adjacent to the mapped polygon areas. A buffer of 30 m is recommended. |

| Wildlife – Riparian Area | |
|---|---|
| **ZOS summary:** | Riparian areas were mapped as polygons that were 30 m wide on each side of the Freshwater Atlas stream centerline. Only streams with an observed inflow into Nicola Lake were included. These riparian areas surrounded Upper Nicola River, Klup, Moore, Stumplake, and Quilchena creeks. An additional riparian area was mapped by drawing a polygon around a mature band of cottonwood vegetation using aerial imagery. A 5 m buffer was applied to the ZOS around its upland perimeter. This buffer was recommended to capture the uncertainty of centerline mapping. |
| **Sensitivity summary:** | Riparian communities benefit streams, lake shoreline, and water quality by providing shade, nutrients, and slope stabilization. Riparian communities also provide important structural and diverse habitats for wildlife, including cover, movement corridor, and foraging. |
| **Recommendations:** | These sensitive habitats are to be protected, with no permanent developments recommended both within and adjacent to the mapped polygon areas. A buffer of 5 m is recommended. |

| Ecosystem/Habitat Feature - Wetland | |
|---|---|
| **ZOS Summary:** | Wetland polygons were mapped by the amalgamation of marsh aquatic vegetation polygons from Patterson and Schleppe (2012) and Freshwater Atlas wetland polygons. |
| **Sensitivity summary:** | Wetlands are valuable ecosystems that provide habitat for terrestrial and aquatic species, improve lake water quality by filtering nutrients and pollutants, and provide flood mitigation. The wetted areas of wetlands provide breeding habitat for amphibians and invertebrates. |
| **Recommendations:** | These sensitive habitats are to be protected, with no permanent developments recommended both within and adjacent to the mapped polygon areas. A buffer of 30 m is recommended. |

| Rare or Endangered Species or Ecosystem - Mapped Ecosystem At Risk | |
|---|---|
| **ZOS summary:** | The mapped Ecosystem at Risk was based on the adjustment of a CDC red-listed occurrence polygon for the giant wildrye ecosystem. The occurrence polygon was adjusted based on aerial imagery and the FIM survey. |
| **Sensitivity summary:** | The giant wildrye ecosystem is a rare grassland community that only occurs at small seepage sites with alkaline soils. Cattle grazing and invasive plant species can disturb this sensitive grassland ecosystem. Grassland ecosystems provide important habitat and forage for many species-at-risk. |
| **Recommendations:** | These sensitive habitats are to be protected, with no permanent developments recommended both within and adjacent to the mapped polygon areas. A buffer of 5 m is recommended. |

| Vegetation – Emergent Vegetation | |
|---|---|
| **ZOS summary:** | Emergent Vegetation polygons from Patterson and Schleppe (2012) were updated during the 2023 FIM survey. |
| **Sensitivity summary:** | Emergent vegetation provides important habitat values for fish and wildlife. Emergent vegetation enhances the aquatic habitat by providing substrate stability, cover, and forage for fish. Waterfowl also use emergent vegetation as nesting and foraging habitat. |
| **Recommendations:** | These sensitive habitats are to be protected, with no permanent developments recommended both within and adjacent to the mapped polygon areas. A buffer of 20 m is recommended. |

### 5.3 Culturally Sensitive Areas Recommendations

Culturally Sensitive Areas (CSAs) are shoreline areas that contain important sacred and spiritual values that must be protected from further disturbance. To respect the highly sensitive nature of these areas, the specific locations and values will not be disclosed. The protection and cultural use of the CSAs is under the discretion of First Nations and should be in line with Article 12-1 of the United Nations Declaration on the Rights of Indigenous People (UNDRIP), which states:

*Indigenous peoples have the right to manifest, practice, develop and teach their spiritual and religious traditions, customs and ceremonies; the right to maintain, protect, and have access in privacy to their religious and cultural sites; the right to the use and control of their ceremonial objects; and the right to the repatriation of their human remains.* (UNDRIP, 2007)

If any portion of a proposed development overlaps with an identified CSA polygon, UNB must be contacted upon submission of the permitting application to the relevant regulator.

Development activities in the vicinity of CSA require UNB review of the proposed development to determine the level of risk to the CSA values.

## 5.4 Shoreline Conservation Recommendations

Conservation covenants should be established for CSAs that have small areas and are within private land parcels. These conservation covenants would allow First Nations access to these important areas. The following CSAs should be prioritized for conservation covenants:

- CSAs 3, 4, 5 and 18 (along Highway 5A); and
- CSA 17 (Moore and Stumplake Creek mouths).

Two conservation zones should be established on the western side of the lake by establishing an Indigenous Protected and Conserved Areas (IPCA) or Other Effective area-based Conservation Mechanism. These areas were ranked as High ecological value and are largely covered by CSAs. The two areas are described below:

- Area south of Monck Park (all of Segment 3 to 4); and
- Shoreline area from North of Beaver Point Estates including all of Segments 15, 16, and 17 to the northern extent of CSA 2.

# 6 Step 3. Refer to the Activity Risk Matrix (ARM) to Determine Project Risk.

This step involves using the ARM to determine what the predicted level of risk is for your specific proposed activity, given the shoreline colour zone and ZOS present. It is a well understood concept that the potential for negative environmental impacts are deemed greatest in areas where values and risk are highest (Figure 3; DFO 2006). In the ARM, each colour zone and activity combination has been rated as having a risk of either: Very High (VH), High (H), Moderate (M), or Low (L) (Appendix B). These risk ratings reflect the potential impacts on fish and wildlife, with a Very High risk posing the greatest potential concern, and the Low Risk a lower level of concern. The ARM also identifies that if a ZOS is present, the risk also increases.

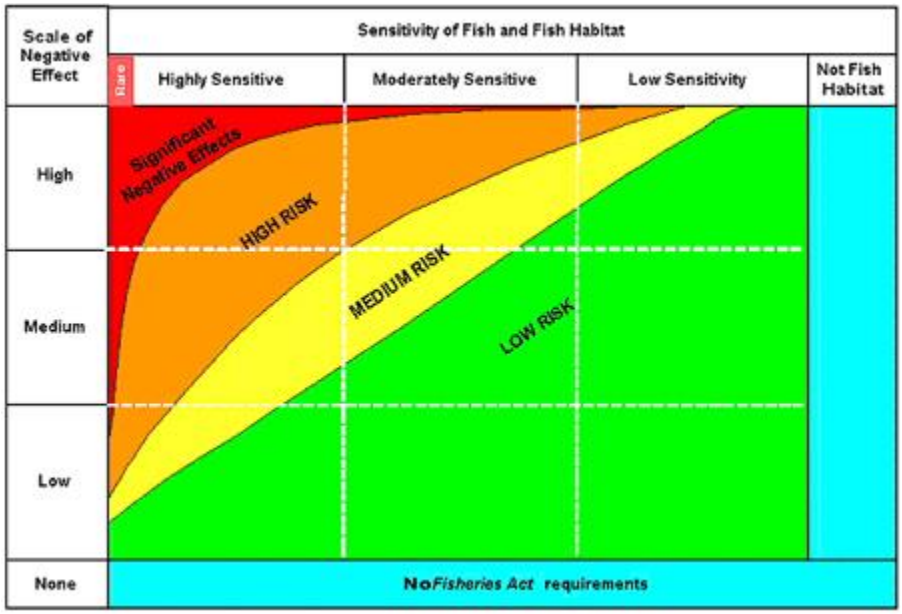



**Figure 3. How the potential for negative effects relates to sensitivity and risk (DFO 2006).**

## 6.1 Using the ARM

Clarifications for using the ARM are listed below:

1. If your activity is not listed, assume High Risk and contact FrontCounterBC and/or UNB for advice (see contact information Section 2).
2. Where several activities with differing risk ratings are proposed for a single Project, the cumulative risk may increase. Consequently, it is recommended to seek the advice of a QEP to determine if the higher of the two risk ratings effectively captures the cumulative risk, or if the highest risk rating should be used ([e.g., Very High]).
3. The ARM distinguishes between several activities above and below the present natural boundary (NB). The NB is the legal term BC Crown Land Branch uses to define the Crown Land property boundary along the shoreline. High Water Hark (HWM) is a similar standard term used by DFO when considering impacts to fish values. The NB and HWM are often located in the same location, but this can vary. Only a registered BC Legal Land Surveyor may determine the NB.
4. In some instances, the project may not seem to have a high degree of risk. However, the ARM also accounts for other accompanying impacts likely to occur once the

modification is in place. For instance, once a dock is in place, other likely associated impacts may include prop wash, boat maintenance, and boat traffic.

## 6.2 General Mitigation Hierarchy

The general principles of shoreline development are to design in such a way that there is "No Net Loss" in the quantity or quality of existing habitat. These principles are supported by federal and provincial policy[1,2] . In general, these principles are achieved through application of the following mitigation options: (1) avoidance of environmental impacts and associated components; (2) minimization of unavoidable impacts on environmental values and associated components; (3) restore on site environmental values and associated components, and, (4) offset impacts to environmental values of components for residual impacts that cannot be minimized.

## 6.3 Very High and High Risk Activities

Most in-stream works in Red and Orange shoreline zone areas are considered Very High and High Risk activities. All activities in a ZOS are considered Very High Risk. Development in these areas has the potential to cause long-term or irreparable disturbance to the highly sensitive/unique values present. The Very High Risk activities in particular, are known to have significant challenges related to providing adequate mitigation to address the loss of fish and/or wildlife habitat values. For example, the dredging activity is considered Very High Risk in all colour zones, since it results in a major disturbance to the substrate, aquatic vegetation that may be present, and has the potential for direct impacts on aquatic life, and processes (wave climate and sediment transport). There may also be indirect impacts, such as on water quality, if for example the dredge is to support a marina.

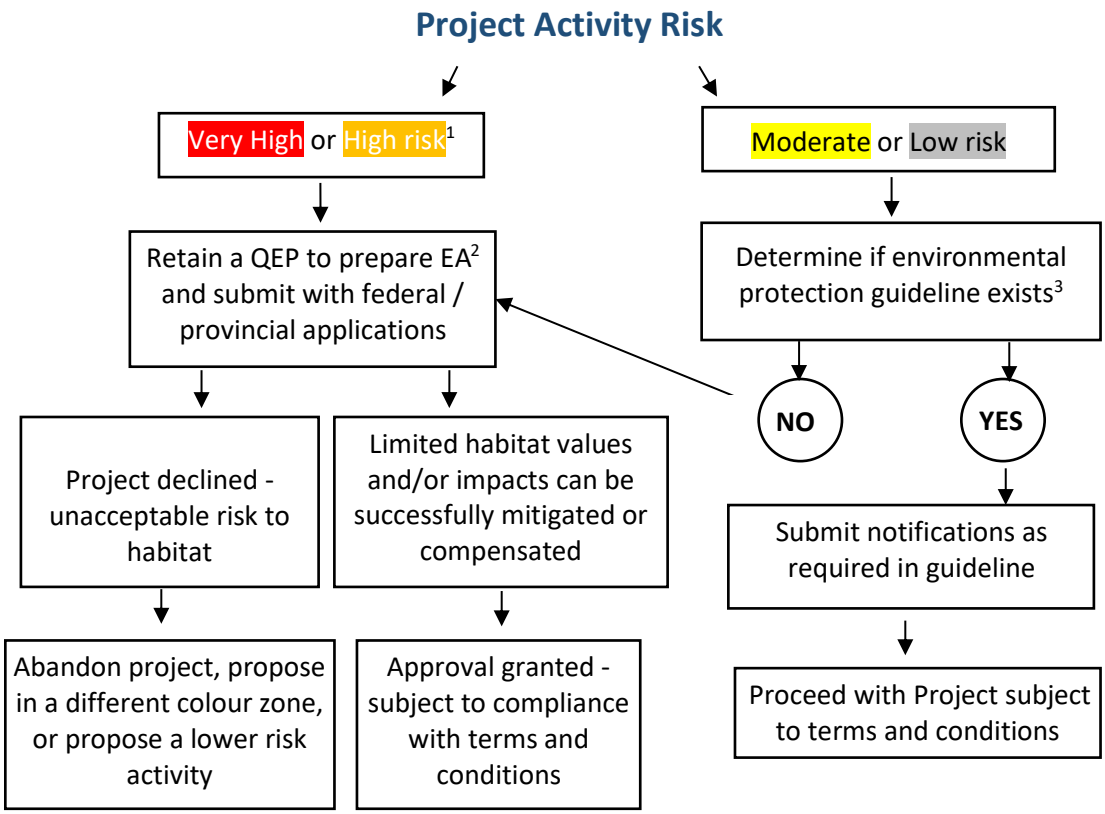
If your activity is identified as being Very High or High Risk, determine if you can modify the activity or location to reduce the risk. This may involve moving the project to a colour zone with less sensitive habitat, or selecting a lower risk activity (Figure 4). If reducing the risk is not possible by re-designing or re-locating the project, there is a high likelihood that a detailed environmental assessment would be required to support the project application. In these areas, the high risks may trigger a request for a Harmful Alteration, Disruption or Destruction of Fish Habitat (HADD) authorization under the federal *Fisheries Act*. If residual effects cannot be mitigated, compensation may be required. Acceptable mitigation and compensation measures would likely be very costly to implement. It is highly advised that a QEP be retained to assist with the project planning in all high and very high risk areas. A QEP should be knowledgeable about both the permitting and application process for proposed activities and will be able to provide guidance on potential environmental risks and impacts. A QEP would likely conduct an environmental assessment within the project area, confirm risks, and make recommendations to reduce impacts to aid in the regulatory permitting process. Applications for these types of developments may not be supported by regulators and may not be approved, even if extensive and detailed information is provided as part of a permitting process.

As an example, the type of information that might be required to support an application for a proposed project located in a sensitive area could include, a detailed erosion control plan that might require a BC Legal Land Surveyor to determine the location of NB and property

[1] DFO Projects Near Water website: https://dfo-mpo.gc.ca/pnw-ppe/index-eng.html

[2] BC Environmental Mitigation Policy website: https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/environmental-guidance-and-policy/environmental-mitigation-policy.

boundaries, a QEP to provide recommendations to mitigate construction works as part of an environmental assessment, or an engineer may be needed to provide a detailed design for submission of permits under regulatory processes.




[1] Very High or High Risk activities have the potential to raise significant concerns. These activities have great challenges related to providing adequate mitigation or compensation to address the loss of fish and/or wildlife habitat values, and could be costly to implement (may require compensation).

[2] Environmental Assessment

[3]BMP – Best Management Practice; ROS –Regional Operating Statement

**Figure 4. Typical Environmental Regulatory Review Decision-Making Process Moderate and Low Risk Activities.**

With appropriate design and planning, Moderate and Low Risk activities could be incorporated along the foreshore with fewer impacts on fish and wildlife habitat values. Where available, these activities should follow applicable Best Management Practices (BMP), Standards and Codes of Practice (collectively BMP; see next section). Where BMPs are not available, or a deviation from the BMP is proposed, a QEP should be retained to complete the application. The application will be reviewed by the applicable agencies.

## 7 Step 4 – Determine Regulatory Requirements and Submit Applications

The final step when planning a foreshore development project is to determine the regulatory requirements necessary for the project to proceed and to submit those applications. Regulatory applications are to be made to the federal, provincial, or local governments for necessary permits, authorizations, notifications, and reviews etc. Essentially any shoreline development will require the preparation of at least one regulatory application. The regulatory

application's acceptance will be required for the project to proceed legitimately. Commencing work without approval may be considered unlawful and result in infractions such as trespass. Work that has not been approved may also be subject to enforcement actions by the respective agencies and may require additional effort to mitigate any undesired environmental impacts that occurred. Alternatively, the project proponent could be required to remove all infrastructure and restore the area.

Typical regulatory requirements for each activity listed in the ARM are provided in Appendix C. As well, Provincial BMPs have been listed in Appendix D[3]. Although summarized here, the requirements at the time of planning the project will need to be confirmed, as regulatory changes might occur. Also, the DFO website should be reviewed for applicable Standards and Codes of Practice that may help guide planning and development[4]. Contact FrontCounterBC to determine which provincial permits, approvals or authorizations you need, or retain a QEP for guidance.

*This document does not provide a full summary of all potential requirements for a particular project. Proponents must ensure that they have adequately considered, consulted, and determined the necessary approvals required for a project to proceed prior to undertaking any works.*

## 7.1. Other Considerations to Facilitate Project Approvals

This FDG addresses both existing and proposed works. Sometimes there are concerns with the installation of past structures, including situations where the structures:

- Resulted in extensive impacts along the shoreline;
- Were installed without appropriate permits or approvals in place; and/or
- Were not compliant with standard BMPs.

If any of the above concerns are present on the property where work is planned, then follow these steps, so that new applications, or applications for maintenance or expansion on existing projects, can be reviewed more effectively:

1. Determine if the existing works are on private land, Crown Land, or IR land.
2. Determine if works are located in an Application Only Area/Reserve area established under the *Land Act*.
3. Determine if the works were authorized by the appropriate authority. If yes, skip to step 5.
4. Seek approval from the appropriate authority. Approval may or may not be granted depending on the situation. Previous projects installed without appropriate permits or approvals may be required to be removed as part of an application process.
5. Plan and update existing works to current Best Management Practices.

[3] A current list of provincial BMP s are available at: https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/best-management-practices

[4] DFO Project Near Water website: https://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html

6. Include other mitigation practices, such as landscape restoration (planting native riparian vegetation), substrate improvement (removing or mitigating existing groynes), and other habitat improvements.

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# Appendix A. Foreshore Guidance Document Map

## Appendix B. Activity Risk Matrix (Risk ratings: NA = Not Allowed, VH = Very High, H = High, M = Moderate, and L = Low)

| Activity[2] | Risk rating based on Ecological Ranking | | | | Risk rating if Zone of Sensitivity Present[2] |
|---|---|---|---|---|---|
| | Very High | High | Moderate | Low | |
| **Aquatic vegetation removal** | | | | | |
| Removing native aquatic vegetation by hand or mechanical cutting for swimming areas and private beach access | VH | VH | VH | VH | NA |
| Removing non-native/invasive aquatic vegetation by hand or mechanical cutting for swimming areas and private beach access | VH | VH | H | M | NA |
| **Dredging, infilling and beach creation** | | | | | |
| Dredging - new or expansion works, no current tenure | VH | VH | VH | VH | NA |
| Maintenance dredging - dredged in last 10 years, no increase in footprint below the NB[1], dredged material deposited on land, within existing tenure | VH | VH | VH | VH | NA |
| Lake infilling (e.g. extension of upland landscaping) | VH | VH | VH | VH | NA |
| Beach creation below the lake NB | VH | VH | VH | VH | NA |
| Foreshore sediment disturbance and removal of lakebed substrate (e.g., beach grooming) | VH | VH | H | M | NA |
| **Erosion control, foreshore sediment Control, foreshore disturbance or wave control structures** | | | | | |
| New groyne construction or increase in existing footprint | VH | VH | VH | VH | NA |
| Maintenance of existing groyne, no increase in existing footprint | M | M | L | L | NA |
| Erosion control (e.g. concrete, rip rap, vegetation, etc.) | VH | VH | H | M | NA |
| Infill breakwaters or boat basins | VH | VH | H | H | NA |
| Wave control structures (e.g., log booms) | VH | VH | H | M | NA |
| **Boat launches** | | | | | |
| Construction of new hard surface boat launch or repair/upgrade of existing hard surface boat launch without land tenure | VH | VH | VH | H | NA |

| Activity[2] | Risk rating based on Ecological Ranking | | | | Risk rating if Zone of Sensitivity Present[2] |
|---|---|---|---|---|---|
| | Very High | High | Moderate | Low | |
| Upgrade/repair of existing hard surface boat launch with land tenure and within existing footprint | VH | H | H | M | NA |
| Upgrade/repair of existing hard surface boat launch with land tenure and increasing size of the existing allowable footprint | VH | VH | H | M | NA |
| Construction of new boat rail launch or repair/upgrade of existing boat rail launch without land tenure | VH | H | M | L | NA |
| Upgrade/repair of existing boat rail launch with land tenure and within existing footprint | H | H | M | M | NA |
| **Buoys** | | | | | |
| Placement of up to 2 helical screw anchor mooring buoys for non-commercial use. Refer also to Transport Canada - Navigable Waters | VH | H | M | L | NA |
| Placement of up to 2 non-helical screw mooring buoys for non-commercial use. Refer also to Transport Canada - Navigable Waters | VH | H | H | M | NA |
| Placement mooring buoys for commercial use – refer to Marina Activities. | **Not Allowed** | | | | |
| **Docks, boathouses, pile supported structures, float home structures, and other - below NB** | | | | | |
| Docks - floating, pile supported or removable | VH | H | M | L | NA |
| Floating or lake access boat house, covered boat storage, or permanent non-moorage structures | VH | VH | VH | VH | NA |
| Land boat house - located on land with access directly to the water | VH | VH | VH | H | NA |
| Pumphouse | VH | VH | VH | H | NA |
| Boat lifts | VH | H | L | L | NA |
| Float homes and houseboats - refers to long term storage area. | VH | VH | VH | VH | NA |
| Float home/ houseboats - refers to short term mooring (in bays). | VH | H | M | L | NA |

| Activity[2] | Risk rating based on Ecological Ranking | | | | Risk rating if Zone of Sensitivity Present[2] |
|---|---|---|---|---|---|
| | Very High | High | Moderate | Low | |
| Submarine cables, including related land clearing and equipment access. | VH | VH | VH | H | NA |
| Submarine cables - no land clearing necessary. | L | L | L | L | NA |
| Overwater piled structure (e.g. building, deck, etc.) | VH | VH | VH | VH | NA |
| Elevated boardwalk over water | VH | H | H | H | NA |
| **Marinas** | | | | | |
| Private dock moorage = < 6 | VH | H | M | M | NA |
| Small Marina = 6 – 20 slips | **Not Allowed** | | | | |
| Marina Large = >20 slips | **Not Allowed** | | | | |
| **Water withdrawal, use or discharge** | | | | | |
| Waterline - directional drilling | M | M | M | M | NA |
| Waterline - open excavation | VH | VH | H | M | NA |
| Geothermal heating/cooling - commercial, industrial, strata or multi-family | VH | VH | VH | H | NA |
| Geothermal heating/cooling - single family residence | H | H | M | M | NA |
| Treated effluent discharge pipe | VH | VH | VH | VH | NA |
| Commercial water withdrawals (addressed through water licencing, with physical activities addressed elsewhere in this table) | - | - | - | - | NA |
| **Transition to private land from Crown Land** | | | | | |
| Application to purchase crown land (crown grant) | VH | H | M | L | NA |
| **Land development, on private land - above NB** | | | | | |
| Native vegetation modification/removal, including for: buildings (e.g., boathouses, covered boat storage, permanent non- moorage structures), beach creation, landscaping, and septic fields. | VH | VH | VH | H | NA |
| Non-native vegetation modification / removal, including for: buildings (see above), landscaping, beach creation, and septic fields. | VH | H | M | L | NA |
| Drilling and blasting | VH | VH | VH | H | NA |

[1]NB refers to present natural boundary. NB is the legal term BC Crown Land Branch uses to define the property boundary. Often NB and High Water Hark (HWM) are similar. Only a registered BC Legal Land Surveyor may determine NB.

[2]For all activities, if species or Critical Habitat listed under the Species at Risk Act are present, refer to DFO Projects Near Water Website for next steps (https://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html)

## Appendix C. Legal Requirements and Policy

The following provides a brief summary of environment related legislation that may be applicable to a proponent's project. While this list is fairly inclusive, other pieces of legislation may be applicable, and proponents are to ensure that they have identified all legislation that may apply to their project. The Federal Project Near Water website may be updated to reflect the integration of permitting under the *Species at Risk Act* and *Fisheries Act.* It is the proponents' responsibility to refer to the Projects Near Water website for any updates.

**Federal Acts:**

- *The Department of Environment Act*
- *Fisheries Act*
- *Species at Risk Act (SARA)*
- *Migratory Birds Convention Act*
- *Canada Wildlife Act*
- *Navigable Waters Protection Act*
- *Pesticides Act*
- *Canadian Environmental Assessment Act (CEAA)*
- *Indian Act*

**Federal Regulations:**

- *Canada Environmental Protection Act* Regulations
- *Migratory Birds Regulations*
- *Fisheries Act Regulations*
- *Wildlife Area Regulations*

**Provincial Acts:**

- *Water Sustainability Act*
- *Riparian Areas Protection Act*
- *Wildlife Act*
- *Land Act*
- *Weed Control Act*
- *Environmental Management Act* (Contaminated Sites Regulations)
- *Local Government Act*
- *Heritage Conservation Act*
- *Health Act (e.g., Sewerage System Regulation)*

**Local Government:**

- Development Permit Areas (DPAs)
- Subdivision Servicing Bylaw
- Official Community Plans
- Floodplain Management Bylaw
- Building Bylaw
- Zoning Bylaws

The Legal Requirements table, provided below (Table C1) identifies the main fish and wildlife habitat regulatory requirements for typical foreshore activities. These requirements involve three regulatory processes:

1. Obtaining a BC Crown Land tenure - to request permission for use of provincial Crown land.

2. Obtaining a BC *Water Sustainability Act* Section 11 notification or approval for making changes in and about a stream.
3. Obtaining necessary DFO acceptance through a Project Review. DFO staff will review the project plans to identify the potential risks of the project to the conservation and protection of fish and fish habitat. During the review, it will be determined if the project will: a) impact an aquatic species at risk, result in the death of fish and the harmful alternation, disruption or destruction of fish habitat, or need authorization under the *Fisheries Act*.
4. Proposed works within the local government DPA may trigger a permitting process under the provincial Riparian Areas Protection Regulation (RAPR).

Although potential regulatory requirements (e.g., permits) are listed, the requirements at the time of planning the project should be confirmed, as regulatory changes do occur. FrontCounterBC should be contacted to confirm these requirements.

The Legal Requirements table only provides direction related to protecting fish and wildlife habitat values, and as such, does not consider other development factors (such as erosion hazards, drinking water quality, or navigation considerations). Proposed works may be subject to requirements such as: local government zoning or permitting, BC *Water Sustainability Act* approvals or notifications (in addition to those noted above) and Water License applications, Heritage Conservation Act permits, Land Act permits, licenses or permissions for occupation of Crown Lands, or Navigable Waters Protection Act approvals. It remains the responsibility of the project proponent to verify this information and meet all regulatory requirements that may apply to their project.

**Table C1. Summary of typical legal environmental requirements for select development activities.**

| Activity[1] | Crown Land Tenure | BC Water Sustainability Act-Section 11[2] | Federal Fisheries Act Review[4] | Other |
|---|---|---|---|---|
| **Aquatic vegetation removal** | | | | |
| Removing native aquatic vegetation by hand or mechanical cutting for swimming areas and private beach access | N | Y | See DFO website | - |
| Removing non-native/invasive aquatic vegetation by hand or mechanical cutting for swimming areas and private beach access | N | Y | See DFO website | - |
| **Dredging, infilling and beach creation** | | | | |
| Dredging - new or expansion works, no current tenure | Y | Y | Y | - |
| Maintenance dredging - dredged in last 10 years, no increase in footprint below the NB[1], dredged material deposited on land, within existing tenure | N | Y | See DFO website, likely N | - |
| Lake infilling (e.g. extension of upland landscaping) | Y | Y | Y | - |
| Beach creation below the lake NB | Y[3] | Y | Y | - |
| Foreshore sediment disturbance and removal of lakebed substrate (e.g., beach grooming) | N | Y | See DFO website, likely Y | - |
| **Erosion control, foreshore sediment control, foreshore disturbance or wave control structures** | | | | |
| New groyne construction or increase in existing footprint | Y | Y | Y | - |
| Maintenance of existing groyne, no increase in existing footprint | N | Y | N | - |
| Erosion control (e.g. concrete, rip rap, vegetation, etc.) | N | Y | See DFO website | - |
| Infill breakwaters or boat basins | Y | Y | See DFO website | - |
| Wave control structures (e.g., log booms) | Y | Y | See DFO website | - |
| **Boat Launches** | | | | |
| Construction of new hard surface boat launch or repair/upgrade of existing hard surface boat launch without land tenure | Y | Y | See DFO website | Not allowed in Nicola Estates |
| Upgrade/repair of existing hard surface boat launch with land tenure and within existing footprint | N | Y | N | - |
| Upgrade/repair of existing hard surface boat launch with land tenure and increasing size of the existing allowable footprint | Y | Y | Y | - |
| Construction of new boat rail launch or repair/upgrade of existing boat rail launch without land tenure | Y | Y | See DFO website | - |

| Activity[1] | Crown Land Tenure | BC Water Sustainability Act-Section 11[2] | Federal Fisheries Act Review[4] | Other |
|---|---|---|---|---|
| Upgrade/repair of existing boat rail launch with land tenure and within existing footprint | N | Y | N | - |
| **Buoys** | | | | |
| Placement of up to 2 helical screw anchor mooring buoys for non-commercial use. | Y[3] | Y | N | Federal Navigable Waters Act |
| Placement of up to 2 non-helical screw mooring buoys for non-commercial use. | Y[3] | Y | N | Federal Navigable Waters Act |
| Placement mooring buoys for commercial use | Y | Y | N | |
| **Docks, boathouses, pile supported structures, float home structures, and other - below NB** | | | | |
| Docks - floating, pile supported or removable | Y[3] | Y | See DFO website | - |
| Floating or lake access boat house, covered boat storage, or permanent non-moorage structures | Y | Y | Y | - |
| Land boat house - located on land with access directly to the water | Y | Y | See DFO website | - |
| Pumphouse | Y | Y | Y | - |
| Boat lifts | Y[3] | Y | See DFO website | - |
| Float homes and house boats - refers to long term storage area. | Y | Y | Y | - |
| Float home/ house boats - refers to short term mooring (in bays). | Y | Y | See DFO website | - |
| Submarine cables, including related land clearing and equipment access. | N | Y | See DFO website | - |
| Submarine cables - no land clearing necessary. | N | Y | N | - |
| Overwater piled structure (e.g. building, deck, etc.) | Y | Y | See DFO website | - |
| Elevated boardwalk over water | Y | Y | See DFO website | - |
| **Marinas** | | | | |
| Private dock moorage = < 6 | Y[3] | Y | See DFO website | - |
| Small Marina = 6 – 20 slips | **Not Allowed** | | | |
| Marina Large = >20 slips | **Not Allowed** | | | |
| **Water withdrawal, use or discharge** | | | | |
| Waterline - directional drilling | N | Y | See DFO website | May require a Water License |
| Waterline - open excavation | N | Y | See DFO website | May require a Water License |
| Geothermal heating/cooling - commercial, industrial, strata or multi-family | Y[3] | Y | See DFO website | May require a Water License |
| Geothermal heating/cooling - single family residence | Y[3] | Y | See DFO website | May require a Water License |
| Treated effluent discharge pipe | Y[3] | Y | N | Environment Canada |
| Commercial water withdrawals | Y[3] | Y | See DFO website | Requires Water License |
| **Transition to private land from Crown Land** | | | | |
| Application to purchase crown land (crown grant) | Y | N | N | - |

| Activity[1] | Crown Land Tenure | BC Water Sustainability Act-Section 11[2] | Federal Fisheries Act Review[4] | Other |
|---|---|---|---|---|
| **Land development, on private land - above NB** | | | | |
| Native vegetation modification/removal, including for: buildings (e.g., boathouses, covered boat storage, permanent non- moorage structures), beach creation, landscaping, and septic fields. | N | Y[3] | See DFO website | If <30 m HWM, refer to Local Government |
| Non-native vegetation modification / removal, including for: buildings (see above), landscaping, beach creation, and septic fields. | N | Y[3] | See DFO website | If <30 m HWM, refer to Local Government |
| Drilling and blasting | N | Y | See DFO website | If <30 m NB, contact Local Government |

[1]NB refers to present natural boundary. NB is the legal term BC Crown Land Branch uses to define the property boundary. Often NB and High Water Hark (HWM) are similar. Only a registered BC Legal Land Surveyor may determine NB.

[2]BC Water Sustainability Act Approval or Notification.

[3]Although indicated as Yes, the requirement is structure/location dependent . Refer to FrontCounterBC.

[4]DFO Projects Near Water Website for next steps (https://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html). For all activities, if species or Critical Habitat listed under the Species at Risk Act are present, refer to this website.

# Appendix D. Best Management Practices

The BC Ministry of Environment (MOE 2019) defines best management practices (BMPs) as “guidelines that help development projects meet necessary legislation, regulations and policies. For example, legislation might dictate that projects cannot harm a stream, while best management practices provide practical methods to avoid harming a stream.”

The table below provides a summary of potentially applicable environmental and archaeological BMPs. This list is not exhaustive, other applicable BMPs may be available for a given project, and updates occur regularly. Thus, it is recommended that the website be accessed at the following link for a current updated list: https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/best-management-practices.

FrontCounterBC or a QEP should be contacted for more information on recent Provincial BMP s that may be specifically applicable to the Project. For Federal documents, the *Projects Near Water* website by Fisheries and Oceans Canada should also be referred to (https://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html ).

**Table D1. Summary of BMPs and guidelines that may be applicable to development in the Nicola Region.**

| Provincial BMPs | Target Area | Applicability | Web Link |
|---|---|---|---|
| Develop with Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia (2014) | Sensitive Species Terrestrial, Aquatic, Riparian | Works involving any form of land development. | https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/best-management-practices/develop-with-care |
| Guidelines for Amphibian and Reptile Conservation during Urban and Rural Land Development in British Columbia (2014) | Amphibians and Reptiles | Ecosystems comprised of aquatic habitats, rocky outcrops and forested areas. | https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/best-management-practices/herptilebmp_complete.pdf |
| Guidelines for Raptor Conservation during Urban and Rural Land Development in British Columbia (2013) | Raptors | Terrestrial ecosystems comprised of mature coniferous and mixed woodlands. | http://www.env.gov.bc.ca/wld/documents/bmp/raptor_conservation_guidelines_2013.pdf |
| Best Management Practices Guidelines for Bats during Urban and Rural Land Development in British Columbia in BC (2016) | Bats | Terrestrial ecosystems, insect rich riparian zones, as well as wetlands, forest edges and open woodland. | http://a100.gov.bc.ca/pub/eirs/viewDocumentDetail.do?fromStatic=true&repository=BDP&documentId=12460 |
| Standards and Best Practices for In-stream Works (2004) | Aquatic | Works undertaken in-stream. | http://www.env.gov.bc.ca/wld/documents/bmp/iswstdsbpsmarch2004.pdf |
| General BMPs and Standard Project Considerations | Aquatic | Any projects undertaken in and around a stream. | http://www.env.gov.bc.ca/wld/in-streamworks/generalBMPs.htm |
| Best Management Practices for Lakeshore Stabilization | Terrestrial, Aquatic | Bank stabilization works that could impact fish or wildlife habitat. | https://www.env.gov.bc.ca/wld/documents/bmp/BMPLakeshoreStabilization_WorkingDraft.pdf |
| Best Management Practices for Hazard Tree and Non-Hazard Tree Limbing, Topping or Removal (2009) | Terrestrial, Aquatic | Works involving tree removal. | https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/best-management-practices/hazardtree_26may_09.pdf |

| Provincial BMPs | Target Area | Applicability | Web Link |
|---|---|---|---|
| Aquatic Habitat Management (2020) | Aquatic | Provincial guidance for identifying, monitoring and maintaining aquatic habitats | https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/fish/aquatic-habitat-management |
| Best Management Practices for Boat Launch Construction & Maintenance on Lakes (2006) | Terrestrial, Aquatic | Boat Launch Construction & Maintenance on Lakes (Okanagan specific) | http://www.env.gov.bc.ca/okanagan/documents/BMPBoat_LaunchDraft.pdf |
| Best Management Practices for Small Boat Moorage on Lakes (2006) | Terrestrial, Aquatic | Small Boat Moorage on Lakes (Okanagan specific) | http://www.env.gov.bc.ca/okanagan/documents/BMPSmallBoatMoorage_WorkingDraft.pdf |
| Best Management Practices for Installation and Maintenance of Water Line Intakes (2006) | Aquatic | Installation and Maintenance of Water Line Intakes (Okanagan specific) | http://www.env.gov.bc.ca/okanagan/documents/BMPIntakes_WorkingDraft.pdf |
| Beaver Management Guidelines (2001) | Aquatic | Areas that support beaver communities. | http://www.env.gov.bc.ca/van-island/pa/pdf/Beaver-Guide.pdf |
| Tree replacement criteria (1996) | Terrestrial | Works involving tree removal and replacement. | http://www.env.gov.bc.ca/wld/documents/bmp/treereplcrit.pdf |
| _Thompson-Okanagan Regional General Terms and Conditions for Authorized Change Under Section 39(1) of the Water Sustainability Regulation (2024) | Aquatic | Changes in and around a stream of the kind listed in Part 3 of the *Water Sustainability Regulation.* | https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/wlrs_general_terms_and_conditions_-_thompson_okanagan.pdf |
| Thompson Okanagan Regional terms and Conditions for Authorize Change under Section 39(1)(d) of the Water Sustainability regulation for the construction, maintenance or removal of a pier or wharf (including docks) (2024) | Aquatic | Changes in and around a stream of the kind listed in Part 3 of the *Water Sustainability Regulation* | https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/wlrs_private_moorage_terms_and_conditions_-_thompson_okanagan.pdf |

| Provincial BMPs | Target Area | Applicability | Web Link |
|---|---|---|---|
| Thompson Okanagan Region Habitat Officer's terms and Conditions for Changes In and About a Stream: Beach Clean Up (Small Debris Removal by Hand) (2024) | Aquatic | Changes in and around a stream of the kind listed in Part 3 of the *Water Sustainability Regulation* | https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/beach_clean_up_small_debris_okanagan.pdf |
| Thompson Region Fisheries Timing Windows (2024) | Aquatic | Least-risk Instream Work Windows | https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/work_windows_thompson.pdf |
| Fish Habitat Rehabilitation Procedures (1997) | Aquatic | Works with an erosion and sediment risk near water. | https://www.for.gov.bc.ca/hfd/library/ffip/Slaney_PA1997_A.pdf |
| Guidelines for Wetland Protection and Conservation in British Columbia: Land Development (2009) | Wetlands | Wetland protection near development sites. | https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/best-management-practices/wetland_ways_ch_10_development.pdf |
| DFO Measures to Protect Fish and Fish Habitat | Aquatic | Guidance to comply with fish and fish habitat protection provisions of the *Fisheries Act* | https://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html |
| Heritage Conservation: A Community Guide | Archaeological | Guidance for the use of conservation tools and legislation to protect heritage areas | https://heritagebc.ca/wp-content/uploads/2017/10/heritage_conservation_community_guide-1.pdf |
| **Upper Nicola Band Guidelines** | **Target Area** | **Applicability** | **Web Link** |
| Upper Nicola Band Land Use Plans (2016) | Terrestrial | P rovides regulations in relation to the location, use, size, and siting of buildings and structures | https://uppernicola.com/wp-content/uploads/2021/04/2016-03-18-Land-Use-Plan.pdf |