Approved Work Practices

FOR BOAT LAUNCH CONSTRUCTION AND MAINTENANCE IN BC HYDRO MANAGED FRESHWATER SYSTEMS

Canada

BRITISH COLUMBIA

BC hydro

FOR GENERATIONS

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Foreword

BC Hydro recognizes the importance of protecting aquatic, marine and riparian ecosystems from adverse impacts related to the development and operation of their facilities, and is committed to ensuring the long-term sustainability of these critical habitats. The following document, called the Approved Work Practices for Boat Launch Construction and Maintenance in BC Hydro Managed Freshwater Systems (AWPBL), was developed to ensure the protection and sustainability of the freshwater habitats associated with boat launch facilities, while simultaneously streamlining the necessary regulatory agency activities related to these developments. The AWPBL, originally titled Approved Work Practices for Boat Launches in Freshwater Reservoirs and Associated Waterways, represents a component (Appendix E) of the Protocol Agreement for Maintenance Work In and Around Water between BC Hydro, the Province of B.C. and Fisheries and Oceans Canada. The original title was modified to more accurately represent the current scope and intent of the document. Specifically, the AWPBL describes the work practices and regulatory processes associated with construction, reconfiguration, maintenance, and decommissioning of boat launch sites located within water systems managed by BC Hydro in the province of British Columbia.

The main agreements of the AWPBL are that:

- **BC Hydro agrees to apply the work practices as described in this document while constructing, reconfiguring, maintaining, and decommissioning boat launches in freshwater environments; and,**

- **The Fisheries Protection Program - Fisheries and Oceans Canada (DFO) and the Government of B.C. agree that work done according to the AWPBL constitutes accepted practice that is in accordance with the regulations of the *Fisheries Act* and *Water Act*, respectively; and that approvals and notifications for work compliant with the AWPBL will be provided as per conditions outlined in this agreement. The schedule of approvals and notifications for the included works is summarized in the following table, as per the process described in this document:**

Boat Launch Works		Approvals and Notifications Schedule	
		DFO	Province of B.C.
New Construction or Changed Footprint under Order by the Comptroller of Water Rights		Not required[a]	45-Day Approval[b]
Works within an Existing Footprint		Not required	10 Days
Emergency Works[c]	Type 1	Not required	< 10 Days
	Type 2	Not required	10 Days

[a] Notification to (or authorization by) DFO is not required for works that meet the criteria of the AWPBL.

[b] The approval will be valid for up to 5 years following initiation of the project, as described in Section 4.1 of this AWP, for works that are a part of the original design.

[c] Type 1 = Requires immediate attention; Type 2 = Requires attention in the near future.

- **Work proposed which is not fully consistent with the AWPBL may be subject to review and may require further Federal and Provincial notifications or permitting.**

- **This document applies to the construction, reconfiguration, maintenance, or decommissioning of boat launches owned or managed by BC Hydro only.**

Signatories[1]:

May 21/14

Edie Thome
Director
Environmental Risk Management
BC Hydro

Date

for

June 5, 2014

Tom Ethier
Assistant Deputy Minister
Resource Stewardship Division
Ministry of Forests, Lands and Natural Resource Operations

Date

[1]. Consistent with the Working in and Around Water Protocol Agreement, the Department of Fisheries and Oceans (DFO) will continue to support the development and implementation of BC Hydro AWP's but will not be a signatory on the final version. BC Hydro has received written endorsement from DFO supporting this AWP (2014).

1.0 Rationale

1.1 BC Hydro Requirements

BC Hydro has committed to the development and maintenance of boat launches in several areas of British Columbia. The construction of new boat launches, and the reconfiguration, maintenance or decommissioning of existing launches are part of work ordered by the Comptroller of Water Rights (CWR) within some of BC Hydro's water licenses (under clauses (j), (m), or (o) according to the license) and under certain Water Use Plans (WUPs) signed by BC Hydro and the regulatory agencies. Currently, 23 Water Use Plans have been completed and are being implemented by BC Hydro across the Province of BC. As a part of the WUP process, BC Hydro consulted with government agencies, First Nations, local governments, non-governmental organizations, and the public as per the *Water Use Planning Guidelines* developed by the BC government. The consultative process provided the means for receiving input, communicating information, and generating feedback about potential boat launch works from First Nations and stakeholder groups representing an array of interests. Proposed boat launch plans that have been developed under a water license requirement (i.e., clauses (j), (m), or (o) of specific licenses) have also undergone extensive impact assessment, design and consultative processes. Where required, individual groups (e.g., local governments, First Nations, etc.) are consulted directly to provide input on the siting, design, and user requirements for specific boat launch developments. As an integral part of this ongoing direct consultation, BC Hydro will ensure that it has engaged with the relevant First Nations at the earliest possible stage, on a site-specific basis, to address any potential adverse impacts to aboriginal rights and interests in connection with these proposed activities.

BC Hydro recognizes that construction of a new boat launch on a new site without an Order from the CWR, or under CWR water license requirements, does not qualify as an authorized boat launch activity under this AWP. For these types of developments, BC Hydro would endeavor to follow the normal permitting and authorization process. If an Approval is required, an application package will be submitted to the FrontCounter BC office located nearest to the proposed work. For routine maintenance works, a notification form and supporting documentation will be submitted by fax or email to the nearest regional Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) office. This AWP does not release BC Hydro from the responsibility of obtaining any other permits or approvals that may be required under provincial (e.g., *Land Act*, *Wildlife Act*), or federal legislation (e.g., *Species at Risk Act*, *Navigable Waters Protection Act*) that may apply to the work being carried out in relation to an AWP. For projects involving new construction or change of boat launch footprint, an application for an approval under the Navigable Waters Protection Act for applicable waterways will be submitted to Transport Canada.

1.2 Regulatory Agency Requirements

DFO is the regulatory body responsible for the protection of fish and fish habitat across Canada. According to the terms of the federal *Fisheries Act*: No person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery (Section 35 (1)), and no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish (Section 36 (3)), unless the activity has been authorized by the DFO Minister (Section 36 (5.2)).

The Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) regulates changes in and about a stream under Section 9 of the *Water Act* to protect values, resources and legal rights associated with waterbodies in British Columbia. Part 7 of the *Water Act* regulation ensures that water quality, fish and wildlife habitat, and the rights of licensed water users are not compromised. Section 44 identifies specific activities that may be carried out under the approval and notification processes. Approved Work Practices (AWPs) do not release BC Hydro from the responsibility of obtaining the necessary land tenure, permits or approvals that are required under provincial and federal legislation applicable to the work being carried out. If the conditions of this AWP cannot be followed, BC Hydro will follow the conventional approval/notification procedures for all applicable regulating bodies.

1.3 Strategic Intent between Signatory Partners

The intent of this AWPBL is to streamline federal and provincial regulatory review for boat launch works to be implemented by BC Hydro, and outline conditions and measures required for BC Hydro to comply with provincial and federal legislation. It will allow BC Hydro to proceed with construction, reconfiguration, maintenance, or decommissioning of boat launch sites without the requirement for formal review or authorization by the Province of B.C. or DFO, respectively, provided the conditions defined in the AWPBL are met. Notification procedures for each scope of work are outlined in Section 4.1.

DFO and the Province of B.C. acknowledge that the footprint of boat launches below the High Water Mark (HWM) of BC Hydro managed watercourses, where an approved Water Use Plan (WUP) is in place, has already been accounted for and authorized under the WUP's, such that further compensation will not be necessary or warranted. During the WUP process, each boat launch proposal was developed based on considerations provided by community stakeholders, First Nations, and DFO and provincial government representatives. BC Hydro, the Province of B.C. and DFO also agree that through the WUP process, an appropriate level of consultation and review by stakeholders and First Nations has been completed for the development of this AWPBL. This AWPBL details agreed upon mitigation for appropriate siting, installation and maintenance of BC Hydro boat launches and associated infrastructure.

This AWP will allow BC Hydro to meet federal legislative requirements for the prevention of serious harm to fish and fish habitats under the *Fisheries Act* and provincial requirements under the *Water Act*. The rationale to support this approach is based on the following principles:

- BC Hydro is conducting activities within managed watersheds following an approved WUP and will endeavor to undertake work according to the work practices described in this AWP;
- The Regulatory Partners (i.e., DFO and MFLNRO) agree that work done according to these work practices constitute accepted practice and does not require approval or notifications in addition to those outlined in Section 4.1. Work proposed that is not fully consistent with the AWPBL may be subject to further review and may require approvals, acceptance of notification or authorization.
- MFLNRO acknowledges that the scope of activities described in the AWPBL represent a low risk for impacts to fish species under provincial management (consistent with provincial fisheries management objectives)
- DFO agrees that works carried out as described herein and, in compliance with the conditions of the AWPBL will not result in serious harm to fish if undertaken in accordance with this document.
- This approach is consistent with the Water Regulation, Sections 42 and 44.
- BC Hydro will employ Qualified Environmental Professionals (QEPs – defined in Section 4.0) to ensure the conditions and measures of the AWPBL are adhered to and implemented effectively.
- BC Hydro will provide regional MFLNRO staff with project documentation according to the notification requirements in Section 4.1 of the AWPBL, referencing the proposed work including a Section 9 approval file number and/or the water license file number, as applicable, and demonstrating that all activities are consistent with this AWP.

Consistent with the Protocol Agreement for Work In and Around Water, BC Hydro, DFO and MFLNRO agree to review the results of the AWPBL at an annual Governance Management Committee meeting, to assess compliance and effectiveness in achieving the regulatory requirements related to the *Fisheries Act* and *Water Act*, and the workability of the approved practices for accomplishing the required works by BC Hydro. This meeting will also provide the context to consider any adjustments to the AWP that may be necessary to ensure compliance and effective implementation.

2.0 Background

BC Hydro currently operates and maintains boat launches and related infrastructure within managed reservoirs and in riverine systems associated with dams throughout the province. Certain BC Hydro water licenses require the provision of public access to waterways. Boat launches are necessary to facilitate aquatic recreational opportunities for the public and, in some contexts, serve as important access points for remote communities. In addition, BC Hydro requires boat launches to (i) conduct dam and facility safety inspections and maintenance; (ii) respond to emergencies; and (iii) facilitate fish/aquatic monitoring studies and physical works projects. Boat launch infrastructure includes one or many of the following features:

- Launch ramp (gravel or concrete)
- Rip rap armour to protect ramp from scour
- Wharf or floating dock/walkway
- Floating or rip rap breakwater
- Piles
- Anchors
- Upland facilities (parking/kiosks/toilets)
- Vehicle Turnaround Area

Works or activities for boat launch and boat launch infrastructure covered under the AWPBL includes:

1. Building of a new launch on a pre-existing launch site, expansion of the launch footprint on a pre-existing launch site and ancillary infrastructure if authorized under a WUP.
2. Building of a new launch on a new site, including associated infrastructure, if authorized by an Order from the CWR or under a CWR water license requirement (i.e., clause (j), (m), or (o)).
3. Necessary maintenance to ensure safe and reliable use of boat launches and associated infrastructure including but not limited to:
    - Ramp repair (e.g. repair of concrete slabs or precast concrete, gravel ramp re-grading/fill);
    - Repair of scour protection (e.g. repositioning or replacement of rip rap protection);
    - Breakwater repair (e.g. replacement or repositioning of rip rap, reparation of anchors for floating breakwaters);
    - Pile replacement or addition of piles;
    - Removal of substrate and debris accumulation from ramp during low water;
    - Removal and management of vegetation for safe, reliable operation of the boat launch and ancillary infrastructure;
    - Upkeep and replacement of ancillary structures as needed (e.g. painting wharfs, replacing signage, replacing worn or unsafe dock, etc.).
4. Decommissioning of launch infrastructure that is unsafe or being replaced by new infrastructure.
5. Emergency maintenance due to unforeseen events that compromise the integrity or safe use of the launch facility

3.0 Potential Impacts of Boat Launch Development and Maintenance

It is recognized that nearshore areas associated with boat launch sites can be important habitats for a variety of fish and other aquatic species. Works activities at boat launch sites have the potential to negatively impact aquatic species and their habitats if approved practices are not appropriately implemented.

Potential impacts to fish and fish habitat associated with work at boat launch sites include:

- "Serious harm" to fish due to improper infrastructure siting or works practices. This includes critical (e.g., spawning) habitats, habitats for *Species at Risk Act* (SARA)-listed species, and riparian habitats.
- Impacts to water quality and instream habitat from suspension of sediments due to upland erosion, improper removal of riparian vegetation, or the removal and placement of structures in the water;
- Compromised water quality due to pouring or resurfacing of launches with alkaline materials (e.g., cement, mortar, grout); and
- Contamination of water by oil and grease spills from vehicles or machinery.

The work practices described in this document follow established protocols and Best Management Practices (referenced in Appendix B), such that negative impacts to fish and fish habitat can be avoided or mitigated. By following the conditions and measures outlined in the AWPBL, boat launch projects will comply with the fish and habitat protection provisions of the *Fisheries Act* and the *Water Act*.

4.0 Planning and Preparation

4.1 Approvals and Notification

As per the Protocol Agreement for Working In and Around Water, work done according to the AWPs constitutes an accepted practice by DFO or MFLNRO and is not subject to approvals or authorizations in addition to those outlined below. The regulatory agencies will be notified of the work, either by submission of an Application Package (to MFLNRO) or blanket notification of planned projects at the annual Governance Management Committee meeting (to DFO) including confirmation that the work will be conducted in accordance with this AWP. There will be three notification or approval decision tracks based on whether or not the footprint of a launch will be changed, and whether the required works constitute Emergency Works as defined in the British Columbia *Water Act*.

A list of currently proposed boat launch works is provided in Appendix C. The type of work required or anticipated at each location is also provided.

New Launches or changed footprint under Order by the CWR

Where a new launch along with associated infrastructure is planned on a new site, or if there is a reconfiguration of an existing launch or infrastructure that expands or changes the original footprint of the launch site (including decommissioning), and the work is under order of the CWR or the requirements of a BC Hydro water license, the following notification procedure shall apply:

- Notification to **DFO** will not be required as long as works are completed according to the approved work practices described and referenced in this document. Blanket notification of boat launch works planned for the coming year will occur at the annual Governance Management Committee meeting.

- **MFLNRO** will be notified of the work by submission of an application for an approval under Section 9 of the *Water Act* at least **45 days** prior to work commencement. An application for land tenure under the *Land Act* will also be submitted.

BC Hydro or its representative will be responsible for completion of all information within the application/notification forms (e.g. location of work, proposed timing, land tenure, area of disturbance etc.). In addition to completed forms the following information will be supplied to MFLNRO:

1. Confirmation that the work will be conducted in accordance with the AWPBL
2. A project specific Environmental Management Plan (EMP) as per Section 4.3.
3. Design drawings completed by a professional engineer if any erosion protection (e.g. rip rap placement for breakwater or ramp protection), or new ramp construction/additions are planned

With the goal of reducing environmental risk, it is BC Hydro's intention to complete construction works when reservoir or river levels are at their lowest, whenever possible, and in accordance with applicable work windows. To achieve this, it may be necessary to complete some aspects of the boat launch design (e.g., the lowest elevational extent of the boat ramp) in subsequent years when conditions are more suitable due to system operating constraints and natural hydrologic cycles that can vary from year to year. Under the AWPBL, works that are a part of the original design that are delayed to subsequent years will be included under the same approval for up to 5 years following initiation of the project. In such cases, the nearest regional MFLNRO office will be notified **10 days** prior to the re-commencement of the work.

Works within an existing footprint

Where there will not be any change to the existing footprint of the launch or launch infrastructure (e.g., maintenance activities), the following notification procedure shall apply:

- **MFLNRO** will be notified by submission of the notification package to the nearest regional MFLNRO office by mail, fax, or email, **10 days** before commencement of the work. Notification to **DFO** will not be required as long as works are completed according to the approved work practices described and referenced in this document.

BC Hydro or its representative will be responsible for completion of all information within the notification forms (e.g. location of work, proposed timing, and description of the boat launch maintenance, reconfiguration, or decommissioning activities). In addition to completed notification forms, the following information will be supplied to MFLNRO:

1. Confirmation that the work will be conducted in accordance with the AWPBL
2. A project specific Environmental Management Plan (EMP) as per Section 4.3.

Emergency Works

Works required at a boat launch facility due to an unforeseen event or circumstance that compromises the safety or integrity of the site such that the safe use or operation of the launch may be compromised, would be considered Emergency Works and should be confirmed by a QEP[2]. As per the B.C. Ministry of Environment *Specific Standards and Best Practices: Emergency works* according to the British Columbia *Water Act* Regulation (Subsections 44 (o & p)), the Emergency Works will be classified as either Type 1 (emergencies requiring immediate attention) or Type 2 (emergencies requiring attention in the near

[2] Qualified Environmental Professional: an applied scientist or technologist specializing in a relevant applied science or technology and who, through demonstrated suitable education, experience, accreditation and knowledge relevant to the particular matter, may be reasonably relied on to provide advice within their area of expertise, and who, in British Columbia is registered with their appropriate professional organization, and acting under that association's Code of Ethics and subject to disciplinary action by that association (DFO Habitat Management Program, Pacific Region).

future). For **Type 1** Emergency works, given the unplanned nature and immediate risk associated with these circumstances, notification to the regional MFLNRO office will be made as immediately as possible before the start of necessary remediation works. For **Type 2** Emergency Works, notification will be submitted **10 days** before commencement of the work. Type 1 Emergency works will only be conducted for applicable work at sites that are required transportation routes; for all other boat launches, facility access will be restricted and Type 2 notification procedures will be applied.

Notification for Emergency Works will include the location and description of the site, nature of the emergency and degree of risk to public safety, justification for the start of works outside of the usual notification period (when necessary), and confirmation that the work will be completed in accordance with the AWPBL.

Non-Compliance Review Process

If any conditions or measures of this AWPBL cannot be met, BC Hydro will consult appropriately trained environmental professionals or external QEPs to determine if the project is likely to cause serious harm to fish and require a *Fisheries Act Authorization*. If not, work may proceed without further notification to DFO. If so, BC Hydro or their representative will submit a Request for Review or Request for Authorization form, and associated information, to DFO through their centralized triage email: ReferralsPacific@dfo-mpo.gc.ca . In addition, BC Hydro will contact regional MFLNRO habitat management staff to detail the nature of the expected non-compliance, expected impact to the associated aquatic environment and any proposed mitigation. MFLNRO will then provide a decision within **10 days** as to whether the project must go through the standard approval process, or to proceed under the AWPBL with the agreed upon exception detailed in the notification as per above.

4.2 Siting and Design for New Launches or Changed Footprint

The need for public boating access on waterways associated with BC Hydro facilities was determined through stakeholder engagement within the WUP process and, in many cases, is a requirement to provide access to the reservoirs that BC Hydro manages. The scope of boat launch design (size, type and location) is further determined based on seasonal usage, population size of local communities, type and size of watercraft to be supported, and distance to other boat launch sites. A boat launch may be built to a higher standard if there are concerns, documented by a qualified engineer, that identify issues related to public or worker safety or structural stability.

Design and location are critical to ensure compliance with legislation and minimize impacts to the environment. In order to determine a site that best meets the requirements of the *Fisheries Act* and *Water Act*, a comprehensive site assessment will be completed in advance of boat launch works at prospective locations. The site assessment will include, but not be limited to, a review of the best available information on existing habitats, use by aquatic and wildlife species, and the potential presence of species at risk in the vicinity of the proposed site. Depending on the extent and level of detail of information available for this review, a site visit and assessment by a QEP may also be required.

Critical Instream and *Species at Risk Act* (SARA) habitats

As identified in the site assessment, the following habitats **will be avoided** and no new work may be conducted in, or immediately adjacent to, these areas:

(a) Critical Habitat; an area that is important for sustaining a subsistence, commercial, or recreational fishery, or species at risk, because of its relative rareness, productivity, and sensitivity (e.g., spawning habitat) as per the DFO *Habitat Conservation and Protection Guidelines*, 2nd ed. (1998). All activities in these areas represent a moderate to high risk of negatively impacting fish and fish habitat.

(b) SARA Critical Habitat: habitat that is necessary for the survival or recovery of SARA-listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species (as defined in the SARA legislation). These habitats may be an identified

spawning grounds and nursery, rearing, food supply, migration and any other areas on which the species depend directly or indirectly in order to carry out their life processes . As per Section 58(1) of the legislation, it is illegal to destroy any part of the critical habitat of SARA-listed species.

Works that impact Critical Habitats or SARA Critical Habitats are considered a non-compliance of the AWPBL. For further information or clarification on these classifications consult the DFO Fisheries Protection Program, the SARA website, or contact the regional MFLNRO office nearest to the proposed project site.

Riparian Habitat

Project siting must attempt to design and locate new boat launch facilities to avoid vegetation disturbance within 15 meters horizontal distance from the HWM. If riparian vegetation removal is necessary, justification for the removal is required in the EMP, documenting why alternate siting was not feasible and how the proposed design minimizes vegetation disturbance or removal to the greatest extent possible. In such a case, the vegetation removal will not be considered a non-compliance of the AWPBL as long as it is conducted according to the procedures described in BC Hydro's *Working in and around water field guide*, and the mitigation procedures outlined in Section 5.0 are followed.

In addition to instream and riparian habitat conditions, additional factors will be considered in siting and designing a new boat launch, or altering the footprint of an existing launch. The provincial DRAFT *Best Management Practices* (BMP) *for Boat Launch Construction and Maintenance on Lakes* (2006) outlines important considerations for boat launch siting and works planning. These considerations will be explicitly addressed in the siting assessment completed by a QEP and documented in the EMP. To avoid potential environmental impacts associated with boat launch works, the project siting assessment and design must account for:

- local shoreline and stream mouth accretion/erosion dynamics, including local water currents and associated patterns of sediment transport and deposition;
- potential impacts on existing shoreline or channel morphology;
- current and historical water levels during the proposed season(s) of use;
- existing or potential fish and wildlife use of associated aquatic and riparian habitats;
- potential disturbance to fish and wildlife use from machinery or other equipment, if required for project works;
- the ability to access, repair, and maintain the works with minimal impact;
- potential erosion or suspension of sediments resulting from proposed works;
- potential introduction of invasive plants, and the potential impact of any control measures that may be required;
- potential for storm water and contaminated runoff from parking areas reaching the waterbody;
- the footprint of the boat launch works below the water level at the time of construction, and associated foreshore disturbance;
- fish habitats, including: holding and spawning areas for adult fish, dispersal and rearing areas for juvenile fish, and areas supporting known SARA-listed species;
- effects of boat wakes on adjacent shoreline areas and the potential for sediment or debris accumulation on the ramp;
- the type and nature of works required for the boat launch construction or maintenance based on site characteristics, so that high impact activities such as dredging, blasting and/or placement of fill below the high water mark can be minimized or avoided;

- the area potentially disturbed by construction activities with the intention of preserving riparian vegetation and shoreline structures (e.g., existing rocks and logs in the aquatic environment provide important forms of cover for fish and should not be disturbed (to the extent possible) or used as building materials); and,
- the type and numbers of equipment required for site development and maintenance.

Design and location are critical to ensuring compliance with legislation and minimizing impacts to the environment. In recognition of the considerations listed above, best efforts will be made to incorporate the following measures into the boat launch siting and design criteria:

- Boat launches constructed on a new site within reservoir contexts will be located at least 100 meters from a fish bearing tributary stream (as determined in a mapping review or by a QEP);
- The drivable surface of new boat launches or launch reconfigurations will be designed to accommodate use by typical boat trailers and tow vehicles anticipated at the site;
- Clearing or management of riparian vegetation will be limited to areas that are directly required for boat launch access and road right-of-way, and to meet operational and/or safety requirements;
- Adequate upland space for development of vehicle turn-around, parking areas, and associated infrastructure outside of the riparian zone will be incorporated into the site design;
- Signage designating appropriate use of the boat launch site and identification of sensitive habitats (if any occur in close proximity to the boat launch area) will be incorporated into the site design.

In cases where the above criteria cannot be met, the launch design should be reviewed by a QEP and may need to be submitted for review by DFO and regional MFLNRO habitat management staff before work activities can commence (see Non-Compliance Review Process in Section 4.1).

4.3 Environmental Management Plan

Based on the site assessment and project scoping, all boat launch projects will have a site-specific Environmental Management Plan (EMP) prepared by a QEP. The EMP will be submitted with the application/notification to MFLNRO and included with contract documents. The EMP will be reviewed with all construction staff prior to initiation of work and be on site at all times for review and consultation. The following components will be provided as a part of the EMP (as appropriate to the work):

- Justification for the work;
- Siting assessment detailing considerations in Section 4.2;
- Project specifications and design drawings as necessary, including projected water elevations for the site;
- Location (including UTM coordinates) and timing of the work;
- Best Management Practices and mitigation as outlined herein based on the site assessment;
- Site-specific mitigation measures as assessed by the QEP (e.g., spill prevention, detail on sediment isolation in the water column, fish salvage procedures, etc.);
- Mitigation strategies for use of machinery below the HWM (e.g., working in the dry);
- Site-specific erosion control measures
- Photographs of the site documenting all work zones (upland and below HWM);
- Regulatory, emergency and project contacts;
- Site safety and emergency response plans;

- Site restoration, remediation (e.g. replanting plan), and monitoring requirements as per the regulations and assessment by the QEP; and,
- Environmental Orientation Record forms to be completed as a part of the pre-job meeting and for all new crew members as they arrive on site.

The BC Hydro Project Manager or delegate, the environmental monitor, and the primary contractor will ensure all appropriate project personnel review and confirm their understanding of the project EMP, the AWPBL, and their roles and responsibilities in environmental protection. An Environmental Orientation Record (EOR) will be completed and all crew members will be required to sign-off on it, indicating their understanding and acceptance of the EMP before commencing work at the site. Criteria to protect fish and fish habitats established in the Generation Operating Orders (GOO) and WUPs (e.g., flow ramping protocols) for the BC Hydro facilities associated with the boat launch works will be observed during all activities covered under the AWPBL. When required, environmental monitoring crews will be deployed to conduct fish salvage operations.

5.0 Operational Mitigation Measures

5.1 General – applicable to all work activities

The following descriptions are considered basic reference information only. For comprehensive information, refer to the applicable Acts and Best Management Practices documents provided in Appendix B, as well as the project-specific EMP.

All onsite personnel must:

- Understand the environmental sensitivities (e.g., applicable work windows, fish habitats, potential heritage sites) and work-related risks associated with the project area;
- Be trained on the content and application of measures outlined in the AWPBL and project-specific EMP, and follow spill prevention and response procedures described therein;
- Be equipped with sufficient spill response supplies [see Sec. 9.3 of MOE's *A Field Guide to Fuel Handling, Transportation and Storage*]; and,
- Know where spill response supplies are located.

For construction, redevelopment, or maintenance works, only those activities specifically required to meet design specifications will be undertaken below the HWM. Whenever possible and in accordance with applicable work windows, schedule project work to occur in the dry when reservoir or river levels are at their lowest. Ensure sediment and spill control measures are implemented and monitored for effectiveness. Upon completion of construction activities, all work areas that will become inundated under normal reservoir operations or river levels must be left in a condition (e.g., without depressions or 'pot holes') that will minimize the incidence of fry entrapment or fish stranding when water levels recede.

Riparian Vegetation

The riparian zone is defined as the interface between the land and a stream or lake. Riparian zones occur in many forms including grasslands, woodlands, wetlands, or can even be non-vegetative. Riparian vegetation management may be necessary for site access and public safety; work must be done such that impacts to riparian habitats are minimized (e.g., according to BC Hydro's *Working in and around water field guide*). All riparian zones that will be affected by the work will be clearly identified in the field before work commences (e.g., with flagging) and documented in the EMP. If the site assessment determines that a riparian habitat may be compromised as a result of the vegetation management requirements for the works at a boat launch site, the requirements and specifications for seeding and replanting will be detailed in the EMP and follow the specifications according to BC Hydro's *Riparian Planting Standard* and MOE's tree replacement guidelines.

Construction Materials

Inert materials, untreated wood, or treated wood that meets current standards (see MFLNRO's *Guidelines for Use of Treated Wood In and Around Aquatic Environments and Disposal of Treated Wood*) are to be used to prevent the introduction and deposition of deleterious substances, either directly or indirectly, into the water body. Before construction materials delivered from off-site can be used, sediments, surface chemicals, or other deleterious substances must first be removed, contained, and properly disposed of. Only clean material may be deposited below the full supply level or HWM.

Waste Management

Prevent construction waste from entering the waterbody. Any waste materials stockpiled on site must be stored in a location that will not impact the riparian zone or the area below the HWM. For comprehensive descriptions of waste management procedures and standards regarding the disposal of construction waste, including dredge and excavation spoil, refer to the *Environmental Management Act*, the BC Hydro Solid Waste Generation & Disposal Environmental Practice (EP), and the Materials-Equipment – Solid Waste Environmental Best Management Practices (EBMP).

Hazardous waste or contaminated soil may require site specific treatment and must comply with the BC Hazardous Waste Regulations, or the BC Contaminated Sites Regulations, and other applicable regulations of the provincial *Environmental Management Act*. Contaminated materials may not be disposed in a landfill without prior approval by MFLNRO and the landfill operator. Obtain documentation from the landfill operator confirming appropriate disposal of contaminated waste materials. For reference, file copies of the manifests in the BC Hydro project records.

Machinery

(a) Operate machinery, including vehicles and hand tools, in a way that minimizes disturbance to the aquatic and riparian ecosystems. Operate heavy machinery in the dry, and adhere to local/regional timing windows to the extent practicable. Restore banks to original condition if any disturbance occurs.

(b) Machinery that arrives on site must be clean, well maintained, and free of fluid, oil, and grease leaks, road salts, invasive species and noxious weeds. Regularly inspect for worn hoses and fittings and replace as necessary.

(c) Washing, refueling and servicing of machinery must be performed at least 30 meters away from a waterbody. Fuel and other supplies for machinery must be stored within containment at least 30 meters away from a waterbody to prevent any deleterious substance from entering the water. Refer to MOE's *A Field Guide to Fuel Handling, Transportation & Storage* for fuel storage containment.

(d) Place spill response supplies in accessible areas in close proximity to onsite petroleum filled equipment. Keep an emergency spill kit, specific to the type of equipment in use, onboard each operating machine in case of fluid leaks or spills. Refer to the *Oil and Chemical Spill Emergency Response Plan* and *Emergency Spill Response Kit Contents* in Appendix 2 of the EMP.

Concrete Works

Works involving the use of uncured concrete must conform to the MOE *Best Management Practices for Boat Launch Construction and Maintenance on Lakes*, and as outlined below:

(a) Ensure that all works involving the use of concrete, cement, mortars and other Portland cement or lime-containing construction materials will not deposit, directly or indirectly, sediments, debris, concrete, concrete fines, wash or contact water into or about any water body. Concrete materials cast in place must remain inside sealed formed structures. Concrete leachate is alkaline and highly toxic to fish and other aquatic life. Pre-cast materials pose less of a risk to the environment.

(b) A CO2 tank with regulator, hose and gas diffuser must be readily available during concrete work to neutralize pH levels should a spill occur, and staff must be trained in its use.

(c) Ensure appropriate containment options are established for the wash-down water from concrete delivery trucks, concrete pumping equipment and other tools and equipment.

(d) Report immediately any spills of sediments, debris, concrete fines, wash or contact water of reportable quantities to the Provincial Emergency Program (PEP) at **1-800-663-3456**. Implement emergency mitigation and clean-up measures (such as use of CO2 and immediate removal of the material).

(e) Completely isolate all concrete work from entering into any waterbody or drainage system.

(f) Monitor the pH frequently in the water body immediately downstream of the isolated worksite until the works are completed. Emergency measures must be implemented if downstream pH has changed more than 1.0 pH unit, measured to an accuracy of +/- 0.2 pH units from the background level or is recorded to be below 6.0 or above 9.0 pH units.

(g) Prevent any water that contacts uncured or partly cured concrete (during activities like exposed aggregate wash-off, wet curing or equipment washing) from directly or indirectly entering any waterbody or drainage system.

(h) Isolate and hold any water that contacts uncured or partly cured concrete until the pH is between 6.5 and 8.0 pH units and the turbidity is less than 25 nephelometric turbidity units (NTU), measured to an accuracy of +/- 2 NTU.

5.2 New Construction and Reconfiguration

In addition to the general mitigation procedures described in Section 5.1, the following procedures specific to new construction and changed footprint must be observed:

- Construct and prepare as much of the structure as possible in a contained, dry upland site and adhere to applicable timing windows (referenced in Appendix A of this AWP) when planning work.
- Pre-cast concrete planks are recommended for construction of the portion of hard surface boat ramps below the HWM. The use of precast planks reduces the potential for exposure of aquatic areas to concrete leachate or concrete spills.
- If pile driving is required, preferentially use non-concussion (e.g., auger) techniques to minimize vibrational impacts to in-gravel fish eggs, alevins and other aquatic organisms. As pile driving can be potentially harmful to fish and fish habitat, adhere to the Operational Best Practices and timing windows for pile driving operations as described in the regional *Best Management Practices for Small Boat Moorage on Lakes*. Install caps or cones on steel piles to prevent wildlife use.
- Keep clearing and plant removal to a minimum. Disturbed areas must be remediated by planting and seeding with native trees, shrubs or grasses (according to the specifications in BC Hydro's *Riparian Planting Standard* and MOE's tree replacement guidelines), and cover affected areas with mulch to prevent erosion and promote seed germination, if necessary as determined in the EMP. If it is too late in the growing season, stabilize the site and re-vegetate the following spring.
- Materials from the shoreline, below the full supply level or HWM will not be used in the launch construction. Materials such as rocks or logs that need to be moved to build the launch should

be relocated to areas with similar habitat conditions. The removal or repositioning of such materials must use techniques that minimize substrate disturbance.

- Install proven sediment and erosion control measures prior to the construction of the boat launch to prevent the introduction of sediments into the water body. The recommendations for sediment and erosion control outlined in the *Land Development Guidelines for the Protection of Aquatic Habitat* (Chilibeck et al., 1992) must be followed. Regular inspections of the control measures will be performed during the construction phase and repairs will be made if any issues are discovered. Any fish or wildlife inadvertently trapped within the sediment and erosion control measures or work area will be relocated.

Summary of DO's and DON'Ts for NEW CONSTRUCTION/RECONFIGURATION of Boat Launches:

DO…	DO NOT…
• Use a QEP to ensure adherence to the AWPBL. • Prepare an Environmental Management Plan (EMP) specific to the project and site. • Avoid using heavy machinery during wet or rainy periods. • Install effective sediment and erosion control measures prior to the construction and maintain throughout construction. • Install floating dock for boat launches sited in important habitat. • Use inert materials to avoid the introduction of deleterious substances into the water body. • Construct and prepare as much of the structure as possible in a contained, dry upland site. • Relocate fish or wildlife inadvertently trapped within the work area. • Inspect work site including sediment and erosion control measures, site safety, and machinery regularly during the construction phase. • Introduce only clean materials below the full supply level or HWM.	• Plan construction work outside the fisheries work window without consulting the regional MFLNRO office or DFO Pacific Regional HQ. • Locate boat launch infrastructure over or immediately adjacent to known spawning habitats, or within 100 m of a fish-bearing tributary stream. • Operate equipment at the worksite that has not been inspected for leaks, worn hoses, road salts, noxious weeds, etc. • Position heavy equipment or machinery (i.e., tracks or wheels) in the water. • Work without an Emergency Spill Response Plan and appropriately stocked spill kits. • Use materials from the shoreline, below the full supply level or HWM, to build the launch. • Leave any temporary sediment and erosion control measures (e.g. silt fences) in place after construction is completed. • Stockpile construction waste within the riparian zone. • Allow waste materials or other deleterious substances to enter the waterbody.

5.3 Maintenance of Boat Launches with No Change to Existing Footprint

In addition to the general mitigation procedures described in Section 5.1, the following procedures specific to maintenance of boat launches with no change to existing footprint must be observed:

- Schedule work activities to coincide with periods of low reservoir elevation or stream flows. If resurfacing or patching is part of the planned maintenance activities, confirm project scheduling with BC Hydro Operations Planning Engineer during the planning phase to ensure that works can be completed in the dry. Appropriate mitigation measures (as per Section 5.1) must be in place whenever uncured concrete or grout products are used.
- Operate machinery, including vehicles and hand tools, in a way that minimizes disturbance to the aquatic and riparian ecosystems. Operate heavy machinery above the full supply level or HWM to the extent practicable. Restore banks to original condition if any disturbance occurs.
- Deleterious substances such as uncured concrete, grout, paint, sediment and preservatives must be prevented from entering the water body. Install sediment control measures to prevent fine sediments and debris from entering the waterbody.

Summary of DO's and DON'Ts for MAINTENANCE of Boat Launches:

DO…	DO NOT…
• Schedule work activities to occur during periods of low reservoir elevation/stream flows. • Use a QEP to ensure adherence to AWPBL. • Prepare an Environmental Management Plan (EMP) specific to the project and site. • Install effective sediment and erosion control measures prior to commencement of the maintenance activities and maintain through to completion of project works. • Follow EBMPs for Managing Riparian Vegetation (e.g., BC Hydro's *Working In and Around Water – Field Guide*). • Use inert and clean materials to avoid the introduction of deleterious substances into the waterbody. • Inspect the work site including sediment and erosion control measures, site safety, and machinery regularly throughout the work.	• Plan maintenance work outside the fisheries work window without consulting the regional MFLNRO office or DFO Pacific Regional HQ. • Work without sediment controls. • Work without an Emergency Spill Response Plan and appropriately stocked spill kits. • Operate equipment at the worksite that has not been inspected for leaks, worn hoses, road salts, noxious weeds, etc. • Position heavy equipment or machinery (i.e., tracks or wheels) in the water. • Leave any temporary sediment and erosion control measures (e.g. silt fences) in place after maintenance activities are complete. • Stockpile waste materials within the riparian zone. • Allow waste materials or other deleterious substances to enter the waterbody.

5.4 Decommissioning and Removal of Existing Boat Launch Structures

Removal of existing boat launches must be completed in a manner that prevents "serious harm" to fish and their habitats or the introduction of deleterious substances into the watercourse including, but not limited to, foreshore disturbance and/or generation of suspended sediments. Sites may require rehabilitation to provide for long-term habitat restoration and to eliminate any substrate irregularities (e.g., depressions or 'pot holes') that may result in fish stranding. Construction waste must not be deposited or stored within foreshore or riparian areas. A QEP must be engaged to ensure that the removal works are undertaken in a manner that minimizes impact and ensures that the area is appropriately remediated.

6.0 Monitoring

The environmental monitoring role for all construction, reconfiguration, maintenance, and decommissioning activities will be served by a QEP. The BC Hydro Environmental Task Manager will determine what monitoring and/or assessment will occur during construction, based on the environmental sensitivities of the various activities. Monitoring and/or assessment protocols will be documented in the EMP and included in the notification package to MFLNRO. The results of monitoring will be filed and made available upon request of DFO or MFLNRO.

Depending on the type of works planned, the monitoring and assessment activities may encompass:

- Water quality effects, (e.g., pH, temperature, turbidity, conductivity);
- Full time on-site monitoring for any and all works conducted in water;
- Fish salvage operations;
- Any works involving uncured concrete;
- Physical works with the potential to cause impacts to fish and fish habitat (e.g., siting, machine use, riparian impacts);
- Mitigation and/or remediation effectiveness; and,
- Bank and upland conditions.

The *Canadian Environmental Quality Guidelines* provide information on water, soil, sediment and tissue. For specific sediment related water quality information refer to Table 1 in the MOE's *Ambient Water Quality Guidelines for Turbidity, Suspended and Benthic Sediments*. For additional information on water quality substance concentrations refer to the *B.C. Approved Water Quality Guidelines*.

All new hard surface construction (e.g., new launches, expansions, turnarounds) require inspection plans at all stages of construction (pre, during and post). The inspections must include the monitoring of mitigation effectiveness and remediation measures, which will be documented in the environmental monitoring report including photo documentation. Determination of the frequency and requirements of monitoring must be in consideration of the following:

- Condition of the bank (e.g., erosion at top of slope);
- Changes to water depth and velocity;
- Vegetation condition and percent vegetative cover;
- Soil type and condition;
- Stability of vehicle, public and wildlife access routes;
- Sediment abatement; and,
- Habitat use.

Any subsequent remediation measures taken must also be prescribed in the EMP and documented in the environmental monitoring report. For works under the EMP, an Environmental Monitor (EM) will be provided or independently contracted by BC Hydro and will be present at the work site for all environmentally sensitive aspects of the work, including but not limited to:

- Pre-job and tailboard meetings with the contractor(s) doing the work;
- An assessment of the conditions at the site prior to the start of work;
- Key construction or maintenance activities as outlined above; and,
- Final inspection of works prior to machinery departing the project site.

The EM will be responsible for recording and filing daily inspection reports from every site visit. These reports will be submitted to the Environmental Task Manager and key BC Hydro and construction personnel (as noted in the project-specific EMP). The daily inspection reports will detail the conditions at the work site, identify any items requiring attention (subsequent reports will note how and when the items were dealt with), and document communications with personnel at the site. The EM will be responsible for obtaining any sampling permits necessary for performing inspection work. The EM will also complete a written report following completion of the project works that includes the following:

- Detailed accounts of the completion of works with milestone events;
- Confirmation of the use of standards and recommended best practices, or supported alternatives through a QEP's signed and sealed technical rationale;
- Confirmation of the consistency of the completed works with the notification submitted;
- Any fish and wildlife protection mitigation difficulties encountered, and how those difficulties were managed; and,
- Any other environmental issues and how they were mitigated.

Copies of this report will be provided to BC Hydro, retained by the EM, and available to the regulatory agencies upon request.

7.0 Accidental Spill/Release Management & Reporting

Information regarding spill reporting and comprehensive actions required for spill response can be located on the BC Hydro website as well as the *Spill Reporting Regulation* (BC Reg. 263/90). Basic reference information is as follows:

- As per the *Fisheries Act*, *all* spills of fuel, oil, lubricants or any other deleterious substances, *of any amount*, to a waterbody, including ditches, ravines or storm water systems, or to riparian habitat are reportable. Contact the Provincial Emergency Program (PEP) at **1-800-663-3456** as required under the *Deposit Out of the Normal Course of Events Notification Regulations*.
- In the event of accidental spill or release of a deleterious substance immediately implement the BC Hydro spill response procedures in Appendix 2 of the EMP. Notify and report to the BC Hydro designate who will contact BC Hydro managers and external agencies as appropriate, *including* the nearest regional MFLNRO office and the DFO Observe, Record, Report Line at **1-800-465-4336**. Ensure clean-up measures are applied so as not to result in further release or dispersal of deleterious substances. Complete a BC Hydro Environmental Incident Report. This information is summarized on the BC Hydro spill response card.

All environmental incidents (as defined in the project-specific EMP) shall be reported to the BC Hydro Construction Officer and the Environmental Monitor as soon as possible so that they can proceed with the appropriate notifications of BC Hydro personnel and external agencies. Depending on the nature of the incident, reporting to the agencies should include the nearest regional MFLNRO office and DFO's Observe, Record, Report Line (**1-800-465-4336**). Indication that the work is under an AWP must be noted as a part of the report. Prompt reporting is essential so that site management can ensure that incidents are handled appropriately. Environmental incident reporting will follow the procedures documented in the EMP.

8.0 Appendices

8.1 Appendix A – Regional Timing Windows

- Freshwater Environment (Refer to links below for detailed information):
  - Cariboo Region: www.env.gov.bc.ca/wsd/regions/car/wateract/terms_conditions_car.pdf
  - Kootenay Region: www.env.gov.bc.ca/wsd/regions/kor/wateract/least_risk_kor.pdf
  - Lower Mainland Region: www.env.gov.bc.ca/wsd/regions/sry/wateract/work_windows_sry.pdf
  - Okanagan Region: www.env.gov.bc.ca/wsd/regions/okr/wateract/workwindows.html
  - Omineca Region: www.env.gov.bc.ca/wsd/regions/omr/wateract/omineca_water_act_terms_conditions.pdf
  - Peace Region: www.env.gov.bc.ca/wsd/regions/nor/wateract/terms_conditions_per.pdf
  - Skeena Region: www.env.gov.bc.ca/wsd/regions/ske/wateract/work_windows_measures_030205.pdf
  - Thompson Region: www.env.gov.bc.ca/wsd/regions/thr/wateract/work_windows_jan17_2007.pdf
  - Vancouver Island Region: www.env.gov.bc.ca/wsd/regions/vir/wateract/terms_conditions_vir.pdf
- Bird nesting and amphibian windows - With exceptions due to elevation and spring weather, the nesting period for birds south of Prince George is approximately 1 April to 15 July. For the lower Mainland, it is approximately 15 March to 15 August.
- Amphibian breeding typically occurs from 1 March to 15 July. For further information on amphibians and reptiles visit: www.env.gov.bc.ca/wld/documents/bmp/HerptileBMP_complete.pdf

8.2 Appendix B – Relevant Information Documents and Important Links

Acts and Legislation

- *Fisheries Act* (Can.)
- *Water Act* (BC)
- *Species at Risk Act* (Can.)
- *Wildlife Act* (BC)
- *Navigable Waters Protection Act* (Can.)
- *Environmental Management Act* (BC)
- *Environmental Management Act* – Contaminated Sites Regulation (BC)
- *Environmental Management Act* – Hazardous Waste Regulation (BC)
- *Environmental Management Act* – Spill Reporting Regulation (BC)
- BC Hydro Environmental Legislation Act Summaries intranet webpage

Best Management Practices and Guidelines

- A User's Guide to Working in and Around Water (BC)
- Approved Water Quality Guidelines (BC)

- BC Ministry of Forests, Lands and Natural Resource Operations. Fish-Stream Crossing Guidebook. Revised Edition, September 2012.
- BC Ministry of Environment. Best Management Practices for Amphibians and Reptiles in Urban and Rural Environments in British Columbia
- BC Ministry of Environment. Develop With Care. Environmental Guidelines for Urban and Rural Land Development in British Columbia
- BC Ministry of Environment. Terms and Conditions for Changes In and About a Stream Specified by Ministry of Environment (MOE) Habitat Officers, Kootenay Region (Region 4)
- Guidelines and Best Management Practices (BC): http://www.env.gov.bc.ca/wld/BMP/bmpintro.html
- MFLNRO's Guidelines for Use of Treated Wood In and Around Aquatic Environments, 2013 (BC)
- MOE's A Field Guide to Fuel Handling, Transportation & Storage (BC)
- MOE's Ambient Water Quality Guidelines for Turbidity, Suspended and Benthic Sediments (BC)
- MOE's Best Management Practices for Boat Launch Construction and Maintenance on Lakes, 2006 (BC)
- MOE's Best Management Practices for Small Boat Moorage on Lakes, 2006 (BC)
- MOE's Riparian Restoration Guidelines, 2008 (BC)
- MOE's Specific Standards and Best Practices: Emergency Works (BC)
- MOE's Standards and Best Practices for Instream Works (BC): http://www.env.gov.bc.ca/wld/documents/bmp/iswstdsbpsmarch2004.pdf
- MOE's Tree Replacement Guidelines, 1996 (BC)
- Water Use Planning Guidelines (BC)
- Canadian Environmental Quality Guidelines (Can.)
- DFO's Habitat Conservation and Protection Guidelines, 2nd Ed., 1998 (Can.)
- DFO's Land Development Guidelines for the Protection of Aquatic Habitat, 1992 (Can.)
- Guidelines to Protect Fish and Fish Habitat from Treated Wood Used in Aquatic Environments in the Pacific Region, Canadian Technical Report of Fisheries and Aquatic Sciences 2314. (Can.)
- BC Hydro's Approved Work Practice for Riparian Vegetation (BC Hydro): http://w3/fs/areas/transveg/vegetation/pdfs/AWPRV.pdf
- BC Hydro's Emergency Spill Response Kit Contents checklist
- BC Hydro's Environmental Best Management Practices intranet webpage
- BC Hydro's Environmental Practices intranet webpage
- BC Hydro's Fuel - Handling, Spill and Disposal Environmental Practices
- BC Hydro's Materials/Equipment – Solid Waste Environmental Best Management Practices
- BC Hydro's Oil and Chemical Spill Emergency Response Plan
- BC Hydro's Riparian Planting Standard
- BC Hydro's Solid Waste Generation and Disposal Environmental Practice
- BC Hydro's Working in and around water – field guide

Other Relevant Information

- Protocol Agreement for Maintenance Work In and Around Water Associated with BC Hydro Transmission and Distribution Infrastructure

- BC Hydro's MSDS, TDG and Health Canada's WHMIS intranet webpages

8.3 Appendix C – List of Ordered Boat Launches Currently Included Under this AWP

Region	Waterbody	Site	Works Required	Origin[a]
Columbia/Kootenay	Kinbasket Reservoir	Bush Harbour	New Construction	WUP and WLR
		Valemount	New Construction	WUP and WLR
	Arrow Reservoir	Anderson Point (Renata)	New Construction	WUP
		Edgewood	Changed Footprint – Ramp Extension	WUP and WLR
		Fauquier	Changed Footprint – Ramp Extension	WUP and WLR
		Burton	New Construction – New Ramp	WUP and WLR
		MacDonald Creek Park	Changed Footprint – Ramp Extension	WUP and WLR
		Nakusp	New Construction – New Ramp	WLR
		Shelter Bay	Maintenance	WLR
	Duncan Reservoir	Glacier Creek	Changed Footprint – Ramp Extension	WUP and WLR
Peace/Williston	Williston Reservoir	Dunlevy	New Construction	WUP and WLR[b]
		Alexander Mackenzie Landing	New Construction	WUP
		Ingenika (Billy's Bay)	New Construction	WUP and WLR[b]
	Dinosaur Reservoir	Hudson's Hope Park (Dinosaur)	New Construction	WUP and WLR
	Peace River	Blackfoot Park	New Construction	WUP
		Taylor	New Construction	WUP

[a] WUP = Water Use Plan; WLR = Water License Requirement

[b] The Water Use Plan requires a feasibility study for the ramps at Dunlevy and Ingenika on Williston Reservoir. Any direction given by the Comptroller to construct a ramp on Williston Reservoir is a licence requirement. As of May 2013 a decision had not yet been made on these ramps. Once BC Hydro is ordered to construct these ramps they will become a water licence requirement.

Note: The list of proposed boat launch works provided in the above table is not comprehensive. BC Hydro will endeavor to provide the regulatory agencies with an annual workplan that documents all the proposed boat launch works for the coming year.