



Land Use Operational Policy Waterpower

NAME OF POLICY:	Waterpower
APPLICATION:	Applies to all waterpower project uses of Crown upland and aquatic land.
ISSUANCE:	Assistant Deputy Minister; Rural Development, Lands and Innovation
IMPLEMENTATION:	Ministry of Forests, Lands, Natural Resource Operations and Rural Development
REFERENCES:	<i>Land Act</i> (Ch. 245, R.S.B.C. 1996) <i>Water Sustainability Act</i> (Ch. 15, S.B.C., 2014)
RELATIONSHIP TO PREVIOUS POLICY:	This policy replaces the previous Waterpower policy dated December 1, 2011. As previously noted this policy incorporates elements of Industrial - General and Utilities policies.

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1. POLICY APPLICATION

This Waterpower policy applies to the disposition of Crown land for the various components of a waterpower project including: the powerhouse, the penstock, intake(s) or dam(s) and any tunnels or channels, the transmission line, and road, as well as other associated land uses such as quarries, construction and spoil areas, staging areas and communication sites.

The Ministry of Forests, Lands, Natural Resource Operations and Rural Development is the lead agency for the regulatory review of waterpower project proposals on Crown land. However, projects that exceed the Environmental Assessment Office (EAO) Energy Project threshold will require EAO review.

Waterpower Project applications received by the province must outline both the Crown land and water requirements of the project. Land tenure applications will only be processed in conjunction with an application for a water licence, or with proof of an existing or pending water licence pertaining to the project.

2. PRINCIPLES AND GOALS

For information on Crown land allocation principles see [Crown Land Allocation Principles](#).

Further information on the regulatory process for Clean Energy Production (CEP) or Clean Energy project proposals can be found in the proponent guidebook [Clean Energy Production in BC: An Inter-agency Guidebook](#).

3. DEFINITIONS AND ABBREVIATIONS

For a glossary of definitions and abbreviations see [Glossary and Abbreviations](#).

4. APPLICANT ELIGIBILITY

For standard policy information on eligibility see [Eligibility and Restrictions](#).

5. FORM OF LAND ALLOCATION

For standard policy information on forms of allocation see [Form of Crown Land Allocation](#).

For other potential improvements associated with a Waterpower Project including transmission lines, roads, quarries, communication sites etc., reference is made to other appropriate pre-existing land use policies. For all improvements, particular tenure types are available at each stage of the project.

Refer to Appendix 1 for a summary of the forms and terms of Crown land allocation available for waterpower operations.

5.1 Project Monitoring and Investigation Phase

5.1.1 Investigative Licence

A *Land Act* Section 11 investigative licence of occupation is the form of tenure provided to authorize initial investigation of Crown land to determine site placement of waterpower project components. **Investigative licences can be issued for areas not exceeding**

5000 ha. The term for an investigative licence is up to five (5) years with the possibility of a one-time replacement.

An Investigative Plan must accompany the project application and include sufficient information to allow staff to assess that the site is being used diligently for the purposes of developing a waterpower project. The plan details should outline testing equipment locations and construction schedules for equipment as well as timing for the collection of monitoring data, and other information reasonably required by the Authorizing Agency. If the equipment is not used diligently, a subsequent tenure may not be granted.

5.2 Project Development and Operation Phase

This phase involves the construction, testing and operation of the waterpower project and all associated structures and improvements, such as transmission lines and roads. Listed below are the required project land-uses and the associated tenure types that are available for each land use. See Section 8.4.2 for diligent use requirements associated with this phase.

The Authorizing Agency will review on the ground progress on a regular basis to ensure that the land is being used in the manner consistent with the timelines and schedules outlined in the Development Plan for the site.

Electricity Purchase Agreement (EPA)

Proponents who have an existing Electricity Purchase Agreement (EPA) at this stage of development may apply for Crown land tenures that contain a tenure term with a coincident end date as that of their EPA. For proponents who do not have an existing EPA, Crown land tenure terms are available for terms up to 10 years. If a proponent obtains an EPA within the non EPA 10-year term period, the proponent at any time within this 10-year period may replace their Crown land tenures with the coincident end date of their EPA. Standard tenure replacement charges will apply.

For projects **without** an existing EPA and during the term of the tenure, the tenure-holder will be required to annually demonstrate due diligence in the pursuit of an electricity purchase agreement, participation in any standing offer program, or similar opportunity. The Development Plan must detail these actions, which will remain in full force and effect in subsequent tenures.

For projects **with** an existing EPA, the term of the multi tenure instrument (MTI) will be the same as the term of the EPA and will have the same expiry date. The MTI will also require that the Improvements be constructed by the commercial operation date within the EPA. The Development Plan must detail these dates and actions, which will remain in full force and effect in subsequent tenures

5.2.1 Type and Term of Tenure(s) for Projects

Once the proponent has made application for a waterpower project the form of tenure issued at this stage is the multi tenure instrument (MTI).

5.2.2 Multi Tenure Instrument

The Multi Tenure Instrument is the preferred tenure document for clean energy project development and operation. It is issued initially with minimal Crown land rights associated with investigation of the site and leads to the ability of the proponent to obtain further land and water rights for project construction and development activities.

To ensure that reasonable time is provided for the proponent to acquire an electricity purchase agreement or equivalent, the initial term of the investigative licence is up to five years with a one-time replacement.

At such time as the project is built and becomes operational, subsequent Crown land rights may be added or dropped as required to meet the needs of the individual Development Plan. The types of Crown land rights available during the development and operational phase are detailed below.

General Area – Licence of Occupation

A licence of occupation may be issued over a broad polygon-shaped area to allow for the construction and operation of improvements for those projects which do not have an existing electricity purchase agreement. The identification of Crown land should account for not only the footprint of all improvements (powerhouse, penstock, intakes, etc.) but also the space required to locate and install improvements during the construction phase. A staging area is generally required and should be identified and included in the licence of occupation area.

The tenure holder may also request that separate tenures be issued for various improvements, as per the following sections. This request may be submitted at any time during the term of the general area licence. If multiple tenures are requested, the general area licence should be amended to exclude these areas. The remainder of the general area licence will provide flexibility for alterations to the locations of the improvements during construction. Deviation from existing leases or statutory rights-of-way will require submission of an application for additional tenures for the new area(s) or for amendment to the existing tenure(s).

Upon completion of construction, the tenure area may be reduced to eliminate additional land required during construction to ultimately reflect only that land required for project operation.

Powerhouse Site – Licence of Occupation

A licence of occupation may be provided for the powerhouse site.

Powerhouse Site – Lease

A lease may be issued for the powerhouse site. A legal survey will be required at the applicant's expense to define the tenured area.

Linear Components – Licences of Occupation

Licences of occupation may be provided for linear components such as the penstock, with or without the intake.

Linear Components – Rights-of-way

Statutory rights-of-way may be provided for linear components such as the penstock with or without the intake.

Intake Structure – Licence of Occupation

A licence of occupation may be provided for the intake site if not already included with the tenure for the penstock.

Intake Structure – Lease

A lease may be provided for the intake site if not already included with the tenure for the penstock.

Road – Licence of Occupation

A licence of occupation is the tenure available for road purposes within a waterpower project. The licence will also require that the Improvements be constructed by the commercial operation date within the EPA.

Road – Statutory Right-of-Way

A statutory right of way or an “interim licence of occupation leading to a statutory right of way” may be issued.

[See Roadways Policy.](#)

Road – Special Use Permit (*Forest Practices Code Act*)

Rather than apply for any of the *Land Act* instruments described above for roads located within the Provincial Forest, the applicant may choose to apply for a Special Use Permit, which is issued in accordance with the *Forest Practices Code Act*, and subject to the requirements of the *Forest and Range Practices Act*.

Quarry – Licence of Occupation

If applicable, a licence of occupation for aggregate and quarry purposes may be required, in addition to a general area licence of occupation. Tenure terms will be consistent with direction given in the Aggregate and Quarry Materials policy.

Gravel use will be subject to royalty payments in the following circumstances:

- i) gravel removed from a quarry;
- ii) gravel used in the production of concrete; and
- iii) gravel moved from its original position and used in another location of the tenure area.

Gravel use will not be subject to royalty payments in the following circumstances:

- i) gravel used to build and maintain public roads; and
- ii) gravel located immediately beneath the tenured area of the intake, penstock, powerhouse, not used in concrete production and ultimately used in the same position (i.e. penstock bedding).

[See Aggregate and Quarry Materials Policy.](#)

Communications Site – Licence of Occupation

If applicable, a licence of occupation for communication site purposes will be required in addition to a general area licence of occupation.

[See Communications Sites Policy.](#)

Site Decommissioning

The site must be decommissioned by the tenure holder as per the terms and conditions of the tenure document. The length of time required to complete the decommissioning will be project specific.

6. PRICING POLICY

For information on pricing see the [Pricing Policy](#).

For information on application and service fees see the [Crown Land Fees Procedure](#).

7. ALLOCATION PROCESSES

For detailed standard information on allocation processes see [Allocation Procedures - Applications](#).

Additional and special requirements for waterpower allocations are:

7.1 Applications

New and replacement tenures are normally offered in response to individual applications.

7.2 Application Package

A complete application package will include all the material defined in the Application Checklist.

7.2.1 Application Acceptance

Investigative Plan

A completed Investigative Plan is required as part of the application process for the investigative phase. The Investigative Plan can form the framework of the more complete Development Plan which is to be submitted at the time of project application. The requirements of the Investigative Plan are located on the website [Land Uses - Waterpower](#).

Development Plan (DPIR)

A completed Development Plan (see Section 8.4.1) will be required as part of the application process.

A Clean Energy Development Plan includes information on project construction, operation, monitoring, and decommissioning. It describes the environmental and socio-economic details of the project and ways that impacts will be avoided or mitigated. The Development Plan provides critical information to assess the proposed project and determine whether authorizations will be issued under the relevant legislations.

The DPIR is available for download from the Waterpower web pages:

[Land Uses - Waterpower](#).

Waterpower Projects should be accepted and entered into Tantalus as a single application using the Waterpower Project “Purpose” and “Sub-purpose” codes (as opposed to an individual application for each project component). The various components can be provided separate file numbers at a later date, when required, i.e. upon completion of construction and prior to survey. [Clean Energy Production in BC: An Inter-agency Guidebook](#) provides guidance for the application process.

7.2.2 Referrals

Applications for investigative authorizations are referred and notice of the application will be provided to the EAO and BC Hydro to enable a coordinated approach to Waterpower Project power management, including (if available) information respecting suitability of the site/area for waterpower development purposes. Applications for investigative authorizations are to be advertised.

All other applications for tenure will be referred to key agencies and groups as deemed appropriate.

7.2.3 Environmental Tenure Provisions and Schedules

Tenure terms and conditions may be selected from standard tenure document template provisions or in some cases they may be drafted to address specific issues identified through the processing of an application. For more details see the [Tenure Administration Procedure](#).

7.2.4 Remote Community or Small Scale Project

Applications which would provide power to a community without access to the provincial electricity grid and small scale projects are not normally subject to competitive processes. Please see the Community and Institutional Land Use Policy for further information.

7.3 Direct Sale

The site occupied by the powerhouse may be considered for fee simple disposition. Fee simple disposition may be made where a lot is either registered in a *Land Title Act* subdivision plan; or a *Land Act* survey for the parcel complies with approving officer subdivision requirements (title to be raised on issuance of Crown grant). Fee simple disposition constitutes permanent allocation of Crown land. A legal survey will be required at the applicant's expense to define the sale area.

Fee Simple dispositions will be priced at the appraised land value based on comparable industrial markets, payable at the time of disposition.

8. TENURE ADMINISTRATION

For standard tenure administration information see the [Tenure Administration Procedure](#).

Additional and special requirements for waterpower allocations are:

8.1 Insurance

A minimum of \$2 million in liability insurance is required for all phases of a waterpower project.

8.2 SecurityFinancial Guarantee

All waterpower project tenure holders are required to provide an appropriate security guarantee to the province in the event the Crown is forced to assume the cost of site clean-up in the case of de-commissioning or abandonment.

8.3 Assignment and Sub-Tenuring

8.3.1 Investigative tenures

Assignment is allowed with an Investigative licence.

8.3.2 Development and Operation Phase

Assignment may occur at the development and operation phase subject to the following considerations.

- that the Authorizing Agency must have written support from power purchasers (BC Hydro and others) that they support the assignment and are prepared to deal with the new owner;
- written proof that Environmental Assessment Certificate or other required government approvals be transferred or otherwise provided to the assignee;

8.4 Monitoring and Enforcement

8.4.1 Investigative Plan, Development Plan and Development Plan Amendments

All proponents will be required to prepare an Investigative Plan and a more comprehensive Development Plan that is approved by the Authorizing Agency. An investigative and subsequent Development Plan is part of the tenure agreement. Failure to comply with an approved Investigative or Development Plan is an event of default which if not addressed, may lead to termination of the tenure agreement. An Investigative and subsequent Development Plan is one of the principle ways in which the Authorizing Agency assesses diligent use.

Further information on the structure and content of the Investigative Plan is found on the [Land Uses - Waterpower](#) page.

More information about the Development Plan is contained in the [Clean Energy Production in B.C.: An Inter-agency Guidebook for Proponents](#) and the DPIR – the Development Plan Information Requirements, also located on the Land Uses - Waterpower page.

<https://www2.gov.bc.ca/gov/content/industry/crown-land-water/crown-land/crown-land-uses/clean-energy/waterpower>

For waterpower, the Development Plan will include details such as the location of Improvements, particulars of construction, schedule of construction, production phase-in, installed turbine capacity; targeted long term production levels, environmental management strategies, site security, public access and safety, reclamation and decommissioning strategies and any other matters as reasonably requested by the Authorizing Agency.

Once each stage of the Development Plan is approved by the Authorizing Agency, the tenure holder must comply with the Plan. The tenure holder must advise the Authorizing Agency of any extraordinary events that may affect their ability to comply with the Development Plan. A tenure holder may request an amendment to the Development Plan that the Authorizing Agency must consider, but not necessarily approve. Examples of amendments that are anticipated include but are not limited to: changes to tenure boundaries, expansion or reduction in area, change in timing of construction and development, tenure term or tenure purpose, a significant alteration of site improvements and or layout of structure on the tenure area are proposed, for example, adding structures to the site not approved in the current plan.

The Authorizing Agency may request, from time to time, amendments to the Development Plan where in the reasonable opinion of the Authorizing Agency, such amendments are required for environmental, safety, land-use or other similar reasons in the public interest.

The Authorizing Agency, from time to time, may request a consolidation of the amendments to the Development Plan.

8.4.2 Diligent Use

All proponents who have acquired a Crown land tenure must demonstrate diligent use of the tenured area. The Authorizing Agency may assess diligent use at any time. The onus is on the proponent to produce verifiable evidence, satisfactory to the Authorizing Agency, that diligent use is being maintained. Diligent use is measured against the obligations set out in the Investigative Plan and each of the stages of the Development Plan as described in section 8.4.1 including but not necessarily limited to meeting construction schedules or energy production targets.

The Authorizing Agency is under no obligation to extend or replace a tenure where the proponent has not demonstrated, to the satisfaction of the Authorizing Agency, that they have met the diligent use requirements set out in this policy and this may, in longer term tenures, require adjustments to Development Plans, including tenure area, or in extremely serious breaches of performance, initiate procedures to terminate the tenure agreement.

Diligent Use Requirements for Investigation

Diligent use at this stage may also include, for example, the finalization of approvals from the EAO, expenditures for field work, and obtaining financing and reaching agreement with a purchaser for energy produced by the project. Examples of field work that may meet diligent use requirements include; reconnaissance level biophysical and archaeological surveys; road access and land use surveys; geological and terrain surveys; First Nations considerations; and public consultation. The intent of diligent use requirements at this stage is to ensure that project proceeds to development in a timely fashion. Some examples of field work types and expenditure levels are attached as Appendix 2 to this policy.

A subsequent investigative licence may be offered, at the discretion of the Authorizing Agency, to proponents holding sites where diligent use has not been achieved because of factors outside of the proponent's control or where further investigative work is required. The Investigative plan will be updated by the proponent to reflect the changes and diligent use will be required going forward otherwise the term will expire with no replacement.

NOTE: Diligent use requirements for replacement tenures will be waived for investigative tenure holders who have held an investigative tenure for 5 or more years and provide a written statement that further diligent use activity is not required to move to a project application. Continuation of practice will be reviewed in 2021.

It is the investigative tenure holders' responsibility to demonstrate that the investigative tenure area has been held for 5 or more years and diligent use applied in each of the 5 years.

Diligent Use Requirements for Project Development and Operation

This phase occurs during the term of a 10-year multi tenure instrument for a project without an existing EPA or similar, and prior to the commercial operation date of a project with an EPA. During this period construction schedules for roads, powerhouse structures, power lines and other infrastructure, completion of legal surveys, expected power production levels and other requirements articulated in the Development Plan must be substantially on target. The Regional Executive Director may adjust targets on a case by case basis based on extenuating circumstances.

Following construction of the improvements or a particular phase of the development, the site must continue to be used as per the Development Plan. If the characteristics of the site preclude achievement of production levels specified in the Development Plan after the project development phase, the Authorizing Agency should consider whether or not the matter can be best dealt with by an amendment to the Development Plan. Rent, based on land area under tenure will in all cases be payable. In cases involving serious breaches of performance the Province may need to consider initiating termination procedures for the waterpower tenure.

8.5 Other Land Use

The Authorizing Agency may issue tenure to other applicants for non-waterpower land-use within the investigative area. Upon receipt of the non-waterpower application, the Authorizing Agency would normally notify and request comments from the waterpower tenure holder to determine compatibility.

The Authorizing Agency may issue tenures to other applicants for non-waterpower uses within any areas tenured for waterpower purposes under a Licence of Occupation or Statutory Right of Way, subject to the specific language in tenure documents.

9. VARIANCE

Variances to this policy must be completed in accordance with the [Policy Variance Procedure](#).

APPENDIX 1. Summary Table of Waterpower Tenure Type and Terms

Tenure Type	Term of Tenure	
	Without EPA	With EPA
Investigative Licence	5 year term	5 year term
Multi Tenure Instrument	10 years	Expiry coincident with EPA expiry
General Area - Licence of Occupation	10 year term	Expiry coincident with EPA expiry, construction completed by COD
Powerhouse Site – Licence of Occupation	10 years	Expiry coincident with EPA expiry, construction completed by COD
Powerhouse Site – Lease	10 years	Expiry coincident with EPA expiry, construction completed by COD
Powerhouse Site – Sale	N/A	N/A
Linear Components – Licence of Occupation	10 years	Expiry coincident with EPA expiry, construction completed by COD
Linear Components – SRW	N/A	Expiry coincident with EPA expiry, construction completed by COD
Transmission Line – Licence of Occupation	10 years	Expiry coincident with EPA expiry, construction completed by COD
Transmission Line – SRW	N/A	Expiry coincident with EPA expiry, construction completed by COD
Roads	10 years	Expiry coincident with EPA expiry, construction completed by COD
Quarries	10 years	Expiry coincident with EPA expiry, construction completed by COD
Communication Sites	10 years	Expiry coincident with EPA expiry, construction completed by COD

APPENDIX 2. Diligent Use Examples

Water quality and quantity data collection

Data collection to meet water licencing requirements.

Reconnaissance-level Biophysical and Archaeological Surveys

Surveys would be conducted within the investigative licence boundary and additionally adjacent to the site. These investigations would be designed to gain a better understanding of the local biophysical/cultural setting, including habitat and species presence. Investigations may focus on determining the presence of a “key feature” at the site – such as a rare or listed species, sensitive habitat, or an archaeological resource. The intention would be to evaluate the potential for significant environmental effects to this key feature in order to determine whether the key feature represents a fatal flaw for the project.

Road Access and Land Use Survey

Road surveys could be conducted by a professional road design engineer or specialist that would involve a compilation of road access information and land use, particularly relating to resource roads and the limiting factors for waterpower development (such as load limitations on bridges, present or existing forestry activities, etc). This survey would be appropriate where road access constraints (and access constraints for installation of transmission lines) may affect the feasibility of the project. The intention would be to determine whether site access is sufficient for the project.

Geology and Terrain Assessment

Assessments could be conducted that would include a transect being walked within the investigative boundary in order to assess terrain suitability within the site by investigating factors such as existing and potential landslides, karst potential, depth to bedrock, and geotechnical suitability for roads and turbine foundations. The intention would be to determine whether these factors represent a critical flaw in the project.

First Nations Considerations

Building relationships with First Nations, as below with Public Consultation, as well as negotiations and consultations with First Nations chiefs, council, community members, and other bodies, can require significant resources. In most cases the intention would be to develop a Protocol Agreement between a Proponent and the First Nation(s) in question.

Public Consultation

Public consultation and community relationship-building are necessary to determine acceptance of a project in a region and to identify ways community members would like to be involved in future project planning and development. Distributing accurate and adequate information is an essential step in ensuring that residents and stakeholders have the resources they need in order to provide input on a proposed waterpower

project in their community. Consultation could be conducted via public meetings or open houses, printed material, smaller visits or stakeholder meetings, or other media.

FIGURE 1.

