



Water Sustainability Act Applications Support for Operators

March 1, 2016 (updated Nov. 28, 2016)

As per [INDB 2016-05](#), released on March 1, 2016 the Water Sustainability Act (WSA) is now in effect. This supplemental is a continuation of information provided in INDB 2016-05, and is intended to provide operators with an overview of new requirements and changes resulting from the implementation of the WSA and associated regulations.

Under the WSA, water in a stream, and the percolation and flow of groundwater, are vested to the Crown, regardless of land ownership. An authorization under the WSA is required to divert and use any water from a stream or from an aquifer. The BC Oil and Gas Commission (Commission) will receive, review and adjudicate short-term water use approval applications and water licence applications on both Crown land and private land, following the requirements of the WSA.

Commission Authority for Water Authorizations

Section 8 of the Oil and Gas Activities Act (OGAA) authorizes the Commission to issue short-term water use approvals, changes in and about a stream, and permits over Crown land (Sections 10, 11 & 24 of the WSA, respectively) for oil and gas related purposes.

Commission staff are designated as Regional Water Managers under the WSA, with authority to issue and administer water licences for the oil and gas sector.

Application Manuals and Application Forms

Short-term water use approvals (formerly Section 8 authorizations), are now Section 10 authorizations. The Short-Term Water Use Application Manual, the Water Licence Application Manual, and the Short-Term Use of Water Application Form have been revised and posted to the Commission's Water Authorization Documentation page at: <http://www.bcogc.ca/industry-zone/documentation/Water-Authorizations>.

Applications for water licences will no longer be accepted as a paper application. Water licence applications must now be submitted through an online application portal, at: <http://www.bcogc.ca/public-zone/water-information/water-licences>.

The following information provides details on application manuals and processes, and some key requirements of the WSA industry should understand.

Vesting of Water to the Crown

The WSA vests water in a stream, and the percolation and flow of groundwater to the Crown, using the following definitions:

Stream means:

- (a) a natural watercourse, including a natural glacier course, or a natural body of water, whether or not the stream channel of the stream has been modified, or

(b) a natural source of water supply, including, without limitation, a lake, pond, river, creek, spring, ravine, gulch, wetland or glacier, whether or not usually containing water, including ice, but does not include an aquifer.

Wetland means a swamp, marsh, fen or prescribed feature.

Groundwater means water naturally occurring below the surface of the ground.

Water Use Approvals (Short-Term)

The Commission authorizes short-term water use approvals for a maximum of two years, under Section 10 of the WSA, from the following water sources:

- Surface water (rivers, streams, lakes);
- Groundwater use (water source dugouts).

Application Fees

Application and water rental fees are exempted for applications and approvals administered by the Commission under Section 8 of OGAA.

Water Use Purpose

An application must specify the water use purpose for all short-term water use. Refer to the [Short-Term Water Use Application Manual](#) for details. Most applications will be for an “oil and gas purpose” as specified in the WSA. If water will be temporarily stored before use, such as in an earthen excavation, the applicant must also specify a “storage purpose”.

Land Owner Agreement

To access water from a stream or from a groundwater source located on private land, the applicant requires the approval of the private land owner.

Water Supply/Demand Analysis

A Water Supply/Demand Analysis is required for any short-term use of water application for:

- A river or lake source that contains a single point-of-diversion greater than 200 cubic metres, or greater than 10,000 cubic metres in total, or
- An aquifer source (water source dugout, water well) where it is reasonably likely that a stream (including a swamp, marsh or fen) is hydraulically connected to the aquifer.

Refer to Appendix E of the Short-Term Water Use Application Manual for details.

Environmental Flow Needs

Section 15 of the WSA requires the decision maker must consider the environmental flow needs (EFN) of a stream in deciding an application in relation to the stream, or an aquifer the decision maker considers is reasonably likely to be hydraulically connected to a stream. The Commission manages short-term water use approvals to protect fisheries or aquatic resources, and protect drinking water supply, and will apply EFN assessment to all decisions for short-term water use. Refer to Appendix F of the Short-Term Water Use Application Manual for details.

Water Sources

Surface Water: For most surface water applications, the Commission will utilize the NorthEast Water Tool (NEWT), and its companions – the NorthWest Water Tool and the Omineca Water Tool – to provide information to support EFN assessments. In some cases the Commission may require site specific hydrological monitoring information to support an application.

Water Source Dugouts / Other Aquifer Sources: The water in water source dugouts is largely acquired through the percolation and flow of groundwater. As such, there is a requirement that short-term water use authorizations for water source dugouts consider the EFN of streams “reasonably likely” to be connected to the water source dugout. Streams (which includes swamps, marshes and fens) proximal to water source dugouts may have potential to be hydraulically connected to the dugout. Where this is the case, the applicant is required to provide information in the application to the Commission to support the EFN assessment. The applicant is required to identify, map and classify all streams (including swamps, marshes and fens) located proximal to the water source dugout where it is reasonably likely the stream is hydraulically connected. Where there are no EFN concerns with a water source dugout, there is no restriction on the water withdrawal from water source dugouts. Where there are EFN concerns, the applicant must provide a mitigation strategy to address those concerns.

Rights Holder Notification and Engagement

With regard to decisions for short-term water use (s.10), changes in and about a stream (s.11) and water licence decisions, the WSA specifies the following rights holders:

- An authorization holder; (i.e., water licence or s.10 use approval);
- A change approval holder; (i.e., for changes in and about a stream);
- An applicant for an authorization or change approval;
- A riparian owner;
- A land owner whose land is likely to be physically affected if the application is granted.

Applicants are required to notify and engage with these rights holders where they exist in relation to an application, and to submit a Rights Holder Engagement Line List, as shown in Appendix A of the Crown Land Application Manual, at: <http://www.bcogc.ca/industry-zone/documentation/Crown-Land-Applications>.

These rights holders have right of objection and rights of appeal to the Environmental Appeal Board on authorization of short-term water use, authorizations for changes in and about a stream, and water licences.

Water Licences

[Water licence applications](#) are in three categories:

- Surface water (rivers, streams, lakes);
- Existing groundwater use (water source wells, water source dugouts);
- New groundwater use (water source wells, water source dugouts).

Water Licence Application Manual

A [Water Licence Application Manual](#) is available on the Commission website, providing detailed information to industry on the requirements for a water licence application. Requirements include:

- Submission of a Water Management Plan detailing water supply and water demand.

- Assessment of EFN for surface water sources, and for groundwater sources reasonably likely of being hydraulically connected to a stream.
- Notification and engagement with water rights holders.
- Hydrogeological testing and evaluation to support groundwater applications.

Water Sources

Surface Water: Surface water sources such as rivers, streams and lakes are eligible for water licensing.

Water Source Wells: Water Source Wells are defined in the Petroleum and Natural Gas Act as “a hole in the ground drilled to obtain water for the purpose of injecting water into an underground formation in connection with the production of petroleum or natural gas”. These include wells acquiring water for hydraulic fracturing and water floods for enhanced oil recovery. Water source wells require a well permit from the Commission. In addition, all water source wells **except those accessing deep groundwater**, as defined in Part 5 of the Water Sustainability Regulation, now require a water licence for the diversion and use of the groundwater. This includes existing water source wells as well as future applications. Deep groundwater is defined as:

- Deeper than 600 metres below ground surface, or
- Deeper than 300 metres if below the “base of fish scales” or older geological marker (this is an identifiable stratus that demarcates the boundary between the sedimentary rocks of the Lower Cretaceous Age from sedimentary rocks of the Upper Cretaceous Age).

Water Source Dugouts: Water Source Dugouts capture groundwater, and are eligible for water licensing as a groundwater source.

Environmental Flow Needs

Section 15 of the WSA requires the decision maker must consider the EFN of a stream in deciding an application in relation to the stream, or an aquifer the decision maker considers is reasonably likely to be hydraulically connected to a stream. Applicants are required to submit detailed information to support EFN determination. Refer to Appendix B, C and D of the Water Licence Application Manual for details.

Exemption of EFN

Under Section 55(4) of the Water Sustainability Regulation, decision makers are exempted from the requirement to consider the EFN for decisions associated with existing groundwater use in relation to a water licence application. These include Water Source Dugouts and Water Source Wells that have made beneficial use of water in the past three years.

Transition and Application Fees

The WSA allows for a 3-year phase-in for existing groundwater users to obtain a water licence and maintain a priority date based on the date of first use. Current usage may continue during the 3-year phase-in, ending Mar. 1, 2019.

Date of first use in relation to use of groundwater from an aquifer is defined in the WSA as the date from which groundwater from the aquifer has been used:

- (a) regularly and beneficially on an ongoing basis,
- (b) for the water use purpose, and

(c) on land, or for a mine or undertaking, to which, if the water use purpose were licensed, the licence would be appurtenant.

Application fees for existing groundwater users are waived for the first year after the WSA came into force, ending Mar. 1, 2017.

Applicants for new groundwater use, and for surface water use, are required to pay the full application fee immediately, at the time of application.

Water Sustainability Regulation

The Water Sustainability Regulation subsumes and replaces the former Water Regulation. Key points to note:

- Changes in and about a stream associated with an OGAA permit (pipelines, roads, wells, facilities, etc.) are exempted from the WSA, and an application under the WSA is not required. The OGAA permit will be conditioned accordingly.
- Part 8 of the Regulation allows a professional engineer or a qualified well driller, or a person supervised by either, to divert and use water for well drilling without a licence or an approval in a manner prescribed by the Regulation.
 - Can divert no more than 10 m³/day, for no more than five consecutive days, for no more than 10 days in a calendar month. Water cannot be diverted from a wetland, from a stream <5 m wide, from a lake <1 hectare, or from within a protected area (such as a park).
 - For oil and gas, this could be used for geotechnical exploration, for hydrogeological exploration, and possibly other types of well drilling.

Part 5 of the Regulation provides the definition of “deep groundwater”, and exempts the use of deep groundwater from authorization (licensing) requirements, subject to other requirements for deep groundwater use under Part 5.

Dams and the Dam Safety Regulation

Some earthen structures built by industry to store water acquired from a water licence may be classified as dams under the Dam Safety Regulation (DSR). A dam is “*a barrier constructed for the purpose of enabling the storage or diversion of water from a stream or an aquifer, or both*”.

- The Water Sustainability Regulation (s.3(2)) specifies that a dam, except for a minor dam, cannot be authorized for storage of water acquired from a short-term water use approval, unless the dam is authorized by a water licence. A minor dam has total storage of ≤10,000 m³ and a berm height of <7.5 metres.
- Structures that are storing produced water associated with oil and gas production are not dams under the WSA.
- The regulation applies to dams, except minor dams (unless the Comptroller or Water Manager order the regulation to be applied to a minor dam).
- The volumes listed above refer to live storage. This is the volume that is above grade and that would be released should there be a breach of the dam. On terrain of no slope, the volume below ground elevation and below the elevation of the base of the berm is not included in the storage volume calculation.
- If a structure (such as a borrow pit that has been modified by adding a berm, or a purpose-built water storage site) meets the definition of a dam, and an applicant wants to store water acquired from a stream or an aquifer, they will need to comply with the DSR. The Commission does not have a Dam Safety Officer, so

industry is advised to contact the Ministry of Forests, Lands and Natural Resource Operations.

Fees, Rentals and Charge Tariff Regulation

Application Fees and Water Rental Rates

Application and water rental fees are exempted for approvals issued by the Commission under sections 10 (short-term use approvals), 11 (changes in and about a stream) and 24 (permits over Crown land) of the WSA. Applicants for water licences must pay the required application fee at the time of application (except for the one-year phase-in period for existing groundwater users), and pay the specified water rental based on the water volume allocated. Application fees and rental rates are specified in the Fees, Rentals and Charge Tariff Regulation, and are summarized for some water use purposes pertaining to oil and gas development in the following table:

Should you have any questions regarding the information in this supplemental, please contact:

Purpose	Application Fee	Annual Water Rental Fee (per 1,000 m³)
Cooling	\$1,000	\$1.30
Work Camps (domestic use)	\$250	\$2.25
Fire Protection	\$1,000	\$200 (flat)
Oil and Gas (incl. hydraulic fracturing and oilfield injection)		
Less than 500 m ³ /day	\$1,000	\$2.25
500 – <5,000 m ³ /day	\$5,000	\$2.25
5,000 m ³ /day or greater	\$10,000	\$2.25
Well Drilling	\$1,000	\$2.25
Pressure Testing and Flushing	\$1,000	\$2.25
Road Maintenance	\$1,000	\$2.25
Storage		
Less than 30,000 m ³	\$250	\$0.02
30,000 – 1,250,000 m ³	\$500	\$0.02
1,250,000+ m ³	\$5,000	\$0.02

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