Chapter

Completing Short Term Water Use Activity Details

4.7 Short-term Water Use

Access to divert, store and use surface water or groundwater for oil and gas activities is obtained through either a use approval or a water licence, issued under Section 10 or 9, respectively, of the Water Sustainability Act (WSA). Applicants applying for a use approval must complete a Short-term Water Use application in the Application Management System (AMS). A Short-term Water Use application is made up of two tabs: Short-term Use of Water Overview and Points of Diversion Details.

Applications for water licenses cannot be submitted through AMS. Information and guidance related to the water licence application process is available in the <u>Commission's Water Licence Application Manual</u>.

The Commission and FLNRORD co-manage water resources on the landbase. The Commission is responsible for any authorizations issued to oil and gas operators that are required to facilitate the carrying out of oil and gas activities. FLNRORD is responsible for authorizations issued to anyone other than an oil and gas operator, even if the authorization is associated with the carrying out of an oil and gas activity. The Commission's Water Sustainability Act Requirements for Accessing Water on Private Land document clarifies WSA authorization (both use approvals and water licenses) responsibilities for applicants in pursuit of WSA authorizations on private land, and which agency should receive the application.

This section includes an overview of short-term water use permitting, guidance regarding short-term water use planning and design, details related to short-term water use specific application requirements and detailed instructions for completing the data fields of a short-term water use application.

Please Note:

This manual is written as a whole and available to industry in sections to allow permit holders to access activity chapters. It is prudent of the permit holder to review the manual in its entirety and be aware of the content in other sections of the manual.

4.7.1 Short-term Water Use Defined

Short-term water use for oil and gas development is a type of related activity, as defined in OGAA. Through OGAA, the Commission is empowered to grant authorizations under specified provisions of the Water Sustainability Act.

In accordance with Section 24(3) of OGAA:

- The Commission may not grant an authorization to a person for a related activity unless the person holds, or has applied for, a permit for the oil and gas activity related to that activity.
- For short-term water use related to major projects, prior to application for an oil and gas activity related to the project, the Commission may grant authorizations without the existence of a primary oil and gas activity permit or application where it has delegated authorities to do so. Contact the Commission's Major Projects team for more information.

Applications for use approvals are submitted as either stand-alone, or in combination with primary activity applications. If applying for a stand-alone authorization, a cross-reference number for a related primary activity is required at the time of application in order to verify the applicant criterion is met. Short-term water use approvals are applied for as either stand-alone, or in combination with primary activity applications.

By regulation, short-term water use approvals may be issued for a term not exceeding 24 months. The expiration date is noted on the approval.

A use approval cannot be amended to extend the term beyond 24 months from issuance of the original authorization. Where short-term water use is required beyond the 24 months, applicants must submit a new application to the

Commission and are required to provide the previous Application Determination number, Short-Term Water Use activity identifier, or Legacy OGC Number in the details section of the point of diversion activity tabs.

If activities have not started by the end of the permit term, the authorization expires, and the applicant must re-apply to the Commission for a new use approval in order to use water.

4.7.2 Creating a Short-term Water Use Application

There is one type of short-term water use activity: Point of Diversion. Applicants select the short-term water use activity type in the "create application" screen of AMS.

Point of Diversion Application

A short-term water use approval is required for water withdrawals from predefined points of diversion (POD). Applications can be made for single or multiple points of diversion. Points of diversion include rivers/streams, lake/ponds, and water source dugouts.

Short-term Water Use Applications

A short-term water use approval is required for any water to be diverted, used, or stored for the purpose of an oil and gas activity. New short-term water use authorizations are also required to:

- Continue water use where a pre-existing use approval has expired.
- Divert, store or use water from a new diversion point.

Short-term Water Use Authorization Amendments

Approval of an authorization amendment is required before the associated use can be carried out. Amendments for short-term water use authorizations are required for:

Adding or changing diversion points.

- Changing the length of the approval (up to 24 months from the approval's effective date).
- Any other changes to permit provisions.

By regulation, increases to authorized volume withdrawals (daily or total) cannot be submitted as an amendment unless they were erroneously estimated. Changes in volume require a new short-term water use application to be submitted to the Commission.

When submitting amendments to a short-term water use approval, the following additional deliverables are required:

A letter explaining the amendment and why it is required.

Short-term Water Use Policy

The Commission's authorization of short-term water use approvals is consistent with the provisions of the <u>Water Sustainability Act</u>. The duration of a use approval cannot exceed 24 months. Upon the expiration of a use approval, subsequent applications for authorizations are reviewed and adjudicated as new applications.

In some instances, oil and gas operators require water licences issued by the Commission including:

- Where a company proposes to construct permanent water infrastructure (e.g., a pipeline) as part of its water supply strategy.
- Where a company requires assurance of long-term water access through the "first in time, first in right" principle of the <u>Water</u> Sustainability Act.
- When a company proposes to divert surface or groundwater into a structure that is a regulated dam under the Dam Safety Regulation.

Water Storage

Authorization is required for the storage of water diverted under a short-term water use approval. Storage is not currently available as an option in AMS, therefore, where the applicant is applying for a section 10 use approval and is

intending to store the water before and during use, the applicant is required to provide the following information pertaining to the storage:

- A table listing the location(s) of all water storage sites, with UTM coordinates and/or other location identifiers;
- A map depicting the location(s) of all water storage sites;
- Type of water storage (tank, c-ring, earthen excavation);
- The total volume of water to be stored;
- If water storage is on Crown land, the associated Crown land authorization for the freshwater storage site;
- If water storage is on private land, the name of the landowner and the PID of the private land;
- For all proposed water storage involving earthen excavations provide:
 - Total water storage volume (m³);
 - Maximum height of any berm or barrier above native ground elevation, if the excavation has a berm;
 - Maximum "live water storage" volume (m³), if the excavation has a berm or barrier. (Live storage is calculated as the volume of water stored above native ground elevation behind a berm or barrier);
 - If the water storage is associated with a water licence, the water licence number.

Under the Water Sustainability Act, the Commission cannot authorize in a use approval the storage by a Dam to which Part 2 of the Dam Safety Regulation applies (this is any water storage reservoir with live storage volume of 10,000 m³ or more). All storage of water in a Dam to which Part 2 of the Dam Safety Regulation applies must be authorized with a water licence.

In specific circumstances, the Commission may authorize a use approval from a regulated dam. Generally, this would be in cases where the water level needs to be lowered to facilitate dam remediation, or in the interest of public or environmental safety. Contact the appropriate Authorizations Manager to discuss specific circumstances related to use approvals and regulated dams.

Environmental Flow Assessment

The Commission applies environmental flow assessment and determination to decisions for short-term water use, consistent with Section 15 of the Water Sustainability Act. The environmental flow needs of any stream or aquifer where water is proposed to be withdrawn, as well as the environmental flow needs of any proximal stream or aquifer that is hydraulically connected to the primary source must be assessed. In situations where hydraulic data is available from the North East Water Tool, the North West Water Tool or the Omineca Water Tool, these tools can be utilized to assess the environmental flow needs of the primary source. If no data is available from these tools the environmental flow needs of the primary source as well as the environmental flow needs of any hydraulically connected streams or aquifers must be assessed by a qualified professional and a report submitted to the Commission with their short-term water use application.

For proposed water withdrawals from water storage sites or water source dugouts that are potentially hydraulically connected to any streams, lakes or W2 wetlands (e.g., within 50-100 metres) and where the applicant is proposing to withdraw more than 1 pit volume per year, the applicant must assess the hydrologic connectivity and determine whether a hydraulic connectivity exits and the extent of any hydraulic connection. Unless the applicant can demonstrate otherwise, the Commission will assume hydraulic connection to any waterbody within a reasonable (generally 50-100 metres) distance of the source. If hyrdaulically connected, the application must also include an assessment of the environmental flow needs of the proximal stream, lake or W2 wetland completed by a qualified professional.

If the application relates to water in an aquifer the applicant is required to provide the official names of each stream or other aquifers known to the applicant to be reasonably likely to be hydraulically connected to the source aquifer, or if there is no official name, a location description of each stream or aquifer.

Please be aware that the Water Sustainability Act gives the decision maker the discretion to request any additional information he or she may deem necessary for a determination to be made on the application.

Cancellation and Expiration to Short-term Water Use Approvals

If apermit holder decides not to use water from an active use approval, the permit holder must submit a letter requesting cancellation of the authorization to the Authorizations Manager of the Commission operational zone in which the POD is located. The cancellation request letter must clearly identify:

- Application Determination and Short-Term Water Use numbers.
- Point(s) of diversion.
- Whether or not any water withdrawal has occurred to date.

Water Source Details

Water source types must be identified when creating a short-term water use application. Applicants must determine and select the purpose, quantity, source of water and the works required.

The Water Sustainability Act vests "the water at any time in a stream" and the "percolation and flow of groundwater" to the Crown. Under the Water Sustainability Act, all groundwater is considered to be from an "aquifer".

Groundwater is defined as "water naturally occurring below the surface of the ground".

An aquifer is defined as:

- "(a) a geological formation,
- (b) a group of geological formations, or
- (c) a part of one or more geological formations
- that is groundwater bearing and capable of storing, transmitting and yielding groundwater."

Definitions for water source types include:

Lake/pond: a body of relatively still fresh water, localized in a basin.
 Lakes and ponds are contrasted with rivers or streams, which normally flow. There are no universally accepted criteria to distinguish ponds from

lakes, however, as general guidance; ponds can range in size from a few square metres to approximately two hectares, while lakes are generally larger than two hectares. Most lakes are filled and drained by rivers and streams. Ponds can include man-made features. Over time, some pits constructed originally as borrow pits can evolve to develop natural vegetation and habitat characteristics, and become classified as ponds. Lakes and ponds are both "streams" as defined in the Water Sustainability Act.

- River/stream: a natural watercourse of freshwater flowing towards an ocean/sea, lake or other river, sometimes flowing towards the ground and drying up prior to reaching another water body. Small rivers may also be called by several other names, including stream, creek, brook, rivulet, tributary, rill and "crick". A stream in this manual specifically refers to a stream as defined in the Water Sustainability Act, which includes: a lake, pond, river, creek, spring, ravine, gulch, wetland (swamp, marsh or fen) or glacier, whether or not usually containing water, including ice.
- Water source dugout: created when a pit or other earthen excavation is used as a source of water that has naturally accumulated water via snowmelt, rainfall, or groundwater inflow. The water in water source dugouts is predominantly sourced from the percolation and flow of groundwater, and the Commission administers water source dugouts as sourced via "aquifers" under the Water Sustainability Act.

4.7.3 Short-term Water Use Planning & Design

This section provides typical planning and design requirements, guidelines and considerations when planning and designing for short-term water use for an oil and gas activity application. The standards and guidelines presented here form a substantial basis for assembling an application. The Commission reviews the short-term water use application relative to the engineering and technical information provided in the Application Management System; therefore, applicants should review this section for an indication of any application requirements or attachments required in relation to the required components.

Regulatory Requirements

Short-term water use activities must comply with the requirements outlined in Water Sustainability Act and its regulations, including the Water Sustainability Regulation, the Groundwater Protection Regulation and the Dam Safety Regulation.

The Commission does not grant exemptions under the Water Sustainability Act. However, some relevant activities are exempted by regulation from requiring authorization under the Act to divert and use water. Specifically, the exemption for well drilling as it pertains to geotechnical investigations specified in Part 4 of the Water Sustainability Regulation. Under this Part, use approvals are not required for geotechnical or geophysical drillings as long as (among other restrictions as specified in this Part):

- The water diversion is done by or supervised by a professional engineer
 or professional geoscientist licensed or registered under the Engineers
 and Geoscientists Act, or a qualified well driller as per Section 7 (a) (1)
 of the Groundwater Protection Regulation, for geotechnical or
 geophysical exploration wells,
- The proponent does not divert water from any one location on a stream or aquifer for than 5 consecutive days,
- The proponent does not divert water from a stream or aquifer for more than 10 days in any calendar month,
- The proponent does not divert more than 10 m³ of water per day from a stream or aquifer,
- The proponent does not divert or use water from a wetland,
- The proponent does not divert or use water from a stream that is within the boundaries of a protected area,
- The proponent does not divert or use water from a stream, other than a lake, unless the width of the flowing water in the steam channel is at least 5m at surface level.
- The proponent does not divert or use water from a lake unless the surface area of the lake is at least one hectare.

Guidance Requirements

In addition to this Oil and Gas Activity Application Manual, short-term water use applicants should review the following:

- Environmental Protection Management Guideline.
- Wildlife Act requirements to leave muskrat and beaver houses and dens undisturbed.

Additionally, the following operational requirements must be planned for and met:

 End-of-pipe intakes must contain a screen with a mesh size not exceeding one-tenth of an inch. Additional information can be found in the <u>Department of Fisheries Freshwater Intake End-of-Pipe Fish Screen</u> <u>Guideline</u>.

Water Supply Verification (NorthEast, NorthWest and Omineca Water Tools)

When making an application for short-term use of water from specific points of diversion, applicants are required to indicate that sufficient water supply has been verified. Before submitting an application to the Commission, applicants are required to utilize the NorthWest Water Tool (NEWT), the NorthWest Water Tool (NWWT) or the Omineca Water Tool (OWT), as applicable, to assist in understanding the water supply within the watershed of the proposed water source and in determining whether water is likely to be available for permitting at the POD within the watershed of the proposed water source.

Reports generated from NEWT, NWWT, or OWT provide information on monthly runoff, environmental flow requirements, existing licenced or approved use, and potentially available water. Applicants are required to use the generated reports and submit these reports with all short-term water use applications for streams and lakes where data from these tools is available. If no data from these tools is available, the required hydrological data must be submitted by a qualified professional with the short-term water use application. The Commission's water information webpage provides detailed information on the use and limitations of NEWT. NEWT is not useful for estimating the annual or seasonal runoff into water source dugouts.

Where stream flow measurements exist, such as from the Water Survey of Canada or industry-specific measurement sites, applicants are encouraged to supplement the water tool analysis with data from these sources. In addition to the online Water Tools, the Commission makes available the Water Portal, which provides access to available hydrometric and climate data.

Water Sources with Water Allocation Restrictions

Some water sources (rivers, lakes, springs) in northeast BC are noted by the Ministry of Environment (MOE) and Ministry of Forests, Lands and Natural Resource Operations & Rural Development (FLNRORD) as having Water Allocation Restrictions. A Water Allocation Restrictions map layer is contained in the Commission's GIS coverage titled Areas Established by the Commission. Industry is advised when a Point of Diversion (POD) application is located within a source specified as having a Water Allocation Restriction via the Application Analysis Tool Report, or the SOE (Spatial Engine Overlay) Report. An applicant for sources specified as having a Water Allocation Restriction is required to submit additional information to support the application.

A Water Allocation Restriction alerts water users and Commission staff of current or potential water allocation concerns. This information is considered by the Commission, along with all other relevant information, when making short term water use decisions.

Three types of Water Allocation Restrictions are noted in the Commission's map coverage:

- Fully Recorded indicates that the source has water shortages and that water for further allocations may be limited, seasonally limited, or not available.
- Possible Water Shortages indicates that the stream is nearing the Fully Recorded stage and there is potential for periods of insufficient water availability.
- Office Reserve indicates that a specialized comment has been placed by MOE/FLNRORD on the source that must be taken into consideration for further water allocation decisions.

As per Section 12.1.b.iii (Application and Decision Maker Initiatives) and Section 15.1 and 15.2 (Environmental Flow Needs) of the Water Sustainability Act, the Commission requires that an application for water diversion from a source specified as having a Fully Recorded or Possible Water Shortage status include a hydrological report to support the application. The hydrological report will:

- Be produced by a qualified professional;
- Provide detailed information on daily, weekly, monthly, seasonal and annual runoff and discharge for the source, derived from analysis of long-term stream flow data associated with the source or from simulations based on long-term hydrology data;
- Document existing authorized water diversions on the source, and quantify the extent by which existing diversions affect daily, weekly, monthly, seasonal and annual discharge at the POD;
- Document fisheries utilization of the water source at and downstream of the POD, and the Environmental Flow Needs of the source to maintain fish resources, where the Water Allocation Restriction is associated with fisheries or environmental flows;
- Document community or domestic drinking water use and other licensed water diversions at and downstream of the POD, where the Water Allocation Restriction is associated with maintaining community or domestic drinking water supply or another existing licenced water use.
- Make recommendations for rates and thresholds of daily, weekly, monthly and seasonal water diversions based on the application of an accepted Environmental Flow Needs procedure such that the factors triggering the Water Allocation Restriction specification are addressed. The Commission is familiar with and supports the use of the Desktop Method for Establishing Environmental Flows in Alberta Rivers and Streams1.

Approvals for water diversion from sources specified as Fully Recorded or Possible Water Shortage will generally include special permit conditions, including:

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¹ A Desktop Method for Establishing Environmental Flows for Alberta Rivers and Streams, by A. Locke and A. Paul, Alberta Environment and Alberta Sustainable Resource Development, April 2011. http://aep.alberta.ca/water/programs-and-services/water-for-life/healthy-aquatic-ecosystems/documents/EstablishingEnvironmentalFlows-Apr2011.pdf

- Discharge monitoring before and during diversion (which can include Water Survey of Canada stations, if available);
- Specified Environmental Flow Needs thresholds linked to discharge monitoring, below which water diversion will not occur.

Authorizations for Crown Land Access and Associated Developments

A short-term water use approval alone does not grant any land tenure or access, only the use of water from the approved diversion point. Additional authorization under either the Land Act, Petroleum and Natural Gas Act, or Section 24 of the Water Sustainability Act may be required.

Applicants must determine if additional authorizations are required to support operations under the use approval. (For example, access to the water withdrawal point(s)). If the proposed activity, as described in the short-term water use application, requires primary or associated oil and gas activities (roads, water storage sites, pipelines and facilities) and/or the use of Crown land, applicants must apply to the Commission for permits related to these requirements. Applicants are encouraged to submit applications for all activities associated with a short-term water use application as a single multi-activity application in AMS.

Additional Requirements for Engaging Rights Holders

For the purposes of short-term water use applications, rights holders as defined in the Water Sustainability Act include: water licensees, applicants for water licences, use approval holders, short-term water use applicants, riparian owners, and owners whose property may be physically affected by the applicants' operations. Applicants will notify and engage with rights holders as defined in the Water Sustainability Act and provide a summary of that engagement with their application, using the Rights Holder Engagement Line List as detailed in Chapter 6.2 of this manual.

Surface Agreement for Activities on Private Land

Access to private land is not granted along with use approvals. Activities associated with a use approval, and to be carried out on private land, such as space for pumps or access roads, require a surface agreement with the land

owner. Surface agreements must be in place before applying to the Commission; however, the agreement is not required to be submitted with the application.

Authorizations for Temporary Water Lines or other Works under Section 24 of the Water Sustainability Act

Identify if any works, as defined in the Water Sustainability Act, are required for the water withdrawal. Where a temporary fresh water line is required, applicants should use existing rights-of-way and roads to the greatest extent possible. A Section 24 authorization may be issued for the following:

- A water line, where no cut is required.
- A water line on existing seismic lines, pipeline or road rights of way where no new cut is required.

Other Considerations for Temporary Water Lines:

 If a water line is located on Crown land where new cut is required, an associated oil and gas activity application is required. The Commission does not encourage additional cut for temporary water lines associated with short-term water use.

Withdrawal Volumes and the Commission Decision Framework

The Commission manages use approvals to protect fisheries or aquatic resources, and to protect the drinking water supply. There is considerable variability in the hydrology of water bodies across B.C., varying from east (drier) to west (wetter). There is also very strong seasonality of water supply, varying from high runoff rates during the spring snowmelt period (typically mid-April until late June), to low runoff rates during winter (typically mid-December until late March).

The volume of water requested through a use approval should be reasonable with respect to the associated activities. The short-term water use application should be consistent with the guidance detailed below on aspects of the decision-making framework used by the Commission to provide a basis for assessing

environmental flows needs associated with use approvals under Section 15 of the Water Sustainability Act.

If oil and gas activities cannot adhere to these water withdrawal guidance recommendations, a rationale and justification must be included in the permit application, along with the additional operational practices or mitigations that will be employed to prevent any adverse effect on the water supply in that watershed. Field-based monitoring evidence must clearly show sufficient inflow to a lake or discharge in a stream to support the requested water withdrawals for the specified time. Applicants require a qualified person to collect, interpret and provide support.

Guidance on water withdrawals are as follows:

- Winter Season Withdrawals in Northeast BC (December 15 March 31)
 Watersheds with drainage areas less than 500 square kilometres are likely to have zero or near zero discharge during most winters, and will not support water withdrawals.
- 2) Watersheds with drainage areas of 500 square kilometres or greater, the following risk-based framework is used to guide winter water withdrawals:
 - Percentage of winter discharge (Jan-Mar) in relation to mean annual discharge determines sensitivity.
 - Stream size is determined from mean annual discharge as in the table below. Small streams have mean annual discharge of less than 10 m³/s, and medium to large streams have mean annual discharge of 10 m³/s or greater.
 - Quantitative values on Mean Annual Discharge (MAD) and Jan-Mar winter discharge is obtained for all watersheds in northern BC from the NorthEast Water Tool (NEWT), NorthWest Water Tool (NWWT) or the Omineca Water Tool (OWT).
 - Small rivers and streams in northeast BC are subject to deep ice formation and very low flows during the winter period. In some cases, field evidence indicates there can be zero flow. The small quantities of liquid water remaining in small streams during winter can be critical to fish over-winter survival

- Inflow to most lakes in northeast B.C. during the winter period is usually zero or near-zero, due to prolonged and sustained temperatures below freezing, frozen ground conditions, and the accumulation of precipitation as snow. The maximum cumulative volume of water (for all use approvals and water licences) approved for withdrawal from lakes during the winter flow period is restricted to a 10 cm maximum drawdown as a function of the lake area, regardless of the watershed area for the lake. Examples are shown in Table 4.I and 4.J.
- The commission will evaluate application for winter withdrawals outside of Northeast BC on a case by case basis, taking into account the characteristics of the watershed and the amount of water requested
- 3) Water source dugouts: the water in water source dugouts is largely acquired through the percolation and flow of groundwater. Streams (including swamps, marshes and fens) proximal to water source dugouts (e.g. within 50 to 100 meters of any edge of a water source dugout) may have potential to be hydraulically connected to the dugout. As such, there is a requirement that short term use of water authorizations for water source dugouts consider the environmental flow needs of streams "reasonably likely" to be connected to the water source dugout. Where there are no environmental flow needs concerns relating to proximal streams with a water source dugout, there is no restriction on the water withdrawals. Where there are environmental flow needs concerns relating to proximal streams, the applicant must provide a mitigation strategy to address those concerns or verification that no hydraulic connectivity exists as prepared by a Qualified Professional.
- 4) If oil and gas activities cannot adhere to the above, the application must include field-based monitoring evidence collected and interpreted by a qualified person whichprovides clear support showing sufficient inflow to a lake or discharge in a stream during the winter period to support the requested water withdrawals.

Table 4.1

Sensitivity	Average Jan-Mar Discharge	Stream Size	MAD m³/s	Max Cumulative Winter Withdrawal
Low	>20% of MAD	Medium-Large	>10	15%
		Small	<10	15%
Sensitive	10-20% of MAD	Medium-Large	>10	15%
		Small	<10	10%
Very Sensitive	<10% of MAD	Medium-Large	≥10	10%
		Small	<10	5%

Table 4.J

Lake	Lake Area (hectares)	Lake Area (m²)	Maximum Drawdown (m)	Maximum Cumulative Volume for Approval (m³)
Lake 1	4.3	43,000	0.10	4,300
Lake 2	27.5	275,000	0.10	27,500
Lake 3	11.6	116,000	0.10	11,600
Lake 4	125.0	1,250,000	0.10	125,000

- 5) Open-Water Season Withdrawals (April 1 December 15)
 - Rivers and streams: The maximum volume of water approved for withdrawal from rivers and streams during the open-water season is guided by the water availability as calculated by NEWT, NWWT or OWT.
 - Lakes: the maximum volume of water approved for withdrawal from lakes during the open-water season is guided by the water

- availability as calculated by NEWT, NWWT or OWT, limited to the 10 cm maximum drawdown limit.
- Water source dugouts: there is no restriction on the water withdrawal from water source dugouts unless restrictions are required as a result of the environmental flow needs of hydraulically connected streams.

4.7.4 Short-term Water Use Specific Activity Requirements

This section outlines application requirements for short-term water use applications. Requirements are dependent on the characteristics of each short-term water use activity (i.e. each POD in the application) and are outlined in detail below. In most cases, the details are input into the short-term water use application tab, but may require the upload of additional attachments to support the details including:

- Lake/pond: supply/demand analysis.
- Stream/river: supply/demand analysis.
- Environmental flow assessment and mitigation.
- Mapping of hydraulically connected streams, lakes or wetlands.

Attachments must meet specific size and file formatting restrictions in order to be uploaded correctly, as defined in Section 5.8 of this manual.

Diversion Map

Diversion map illustrating in detail the location and extent of planned activities at an appropriate scale. The diversion map must be uploaded in the Maps and Plans tab of the Application Management System and clearly indicate:

- Map date.
- NTS and BCGS map sheet numbers indicated on a legend and on the maps.
- North arrow.

- Version number (for example, "Revision #1, Amendment #1").
- Any planned works associated with the proposed short-term use of water.

Water Supply / Demand Analysis

Water supply / demand analysis is required if the application is for stream as defined under the Water Sustainability Act, and contains withdrawals from a point-of-diversion (POD) greater than 200 m³/day, or for greater than 10,000 m³/year. Where more than one POD is being applied for, the thresholds apply to each POD individually. A water supply/demand analysis is not required for water source dugouts applications, except where they may be hydraulically connected to a stream.

The water supply demand analysis must include details on the hydrology of the stream from which the applicant is applying to withdraw water. This information can be provided via copies of the NEWT report, NWWT report, OWTreport or through hydrological data gathered by a qualified professional.

The applicant must provide details on their water demand and a rationale to support the volume of water requested. For example, if applying for water for well completion (which includes hydraulic fracturing), the applicant must specify the well pad(s) and well(s) anticipated to be completed, the volume of water required per well, the anticipated volume of flowback water and the volume of flowback water that is anticipated for reuse, etc.

The applicant must provide information on associated works or activities, such as water storage, water transportation methodology (pipeline, truck, etc.) and intake and pumping systems if applicable.

4.7.5 Additional Considerations for Short-term Water Use Activity

Post Approval Reporting

Companies holding use approvals are required to submit monthly water withdrawal data to the Commission on a quarterly basis. Water withdrawal data must be reported for each approved withdrawal location. Data must be submitted through esubmission. Short-term water use volumes are no longer be accepted via email. For information on eSubmission please refer to the eSubmission Portal User Guide on BCOGC website.

Data submitted quarterly is comprised of the total volume withdrawn each month (cubic metres). If no volume was withdrawn for a reporting period, or a part of a reporting period, a volume submission is still required. In this case, the volume withdrawn is "0m3". Reporting periods are listed in Table 4.K.

Table 4.K Submission Reporting Periods

Reporting Period	Report by Date
January – March	 April 25th
April – June	 July 25th
July – September	 October 25th
October – December	 January 25th

The Commission deems a failure to report as non-compliance and may take action depending on the severity of the infraction.

If a use approval has been cancelled, the permit holder is only responsible for reporting on water withdrawals occurring up to the cancellation date.

Compliance and Enforcement Related to Water Authorizations

Special conservation officer status allows the Commission to enforce specific sections of the Water Sustainability Act. Enforcement can include:

- Warnings.
- Prosecution (violation tickets or court appearance).
- Restriction of issuance of renewals and cancellation of existing permits.

Section 94 of the Water Sustainability Act states when and why an approval may be cancelled or suspended by the regulator. Cancellation or suspension by the Commission can occur when an operator fails to:

- Make beneficial use of the water.
- Construct within the timeframe.
- Pay rental/fees.
- Comply with an approval condition.
- Comply with the Water Sustainability Act.
- And/or other reasons as defined in Section 94 of the Water Sustainability Act.

4.7.6 Short-term Water Use Activity Submission: Data Field Completion

Table 4.L below provides detailed instructions for each of the data fields requiring input (not auto populated) within the Application Management System.

Please Note:

For stand-alone Water Sustainability Act authorizations, AMS does not populate a Rights Holder Engagement tab. However, rights holder engagement is required and the line list must be uploaded under the attachments tab in AMS.

Table 4.L: Application Instruction Table for the Short-term Water Use Tab

Label	Instructions
Short Term Water Use (P	OD) Overview
Has every point of diversion been verified to sustain water withdrawal?	A water supply/demand analysis is required for any short term water use application that contains a single point-of-diversion of 200 cubic metres per day or greater, or 10,000 cubic metres per year or greater. Water supply/demand analysis are not required for water withdrawals from water source dugouts.
Proposed Start Date	Enter the proposed start date for the project.
Proposed Completion Date	Enter the proposed completion date for the project.
Has previous approval been issued for the water withdrawal?	Indicate if the POD / requested withdrawal was included in a previous short term use of water approval.
Previous Short Term Water Use Number:	Enter the Commission number of the previous approval.
Lake/Pond Details	
Name	Name of water supply source or clear description.
Section 24 or Other Works Required Indicator	Indicate if a permit over Crown land (Water Sustainability Act Section 24) is required for temporary water line associated with this application.
Purpose	Select the primary purpose for which the withdrawn water will be used.
Surface Area <5ha Indicator	Indicate if the surface area of the water body is less than five hectares.
Average Depth	Indicate the average depth of the water body.
Surface Area on All Lakes	Indicate the surface area of the water body
Proposed Volume Per Day (m³)	Enter the proposed volume (m³) of water withdrawal per day.
Proposed Total Volume (m³)	Enter the proposed total volume (m³) of water withdrawal.

Stream/River Details		
Name	Name of water supply source or clear description	
Section 24 or Other Works Required Indicator	Indicate if a permit over Crown land (Water Sustainability Act Section 24) is required for temporary water line associated with this application.	
Purpose	Select the primary purpose for which the withdrawn water will be used.	
Date of Measurement	Select the date measurements were taken.	
Proposed Volume Per Day (m³)	Enter the proposed volume (m³) of water withdrawal per day.	
Proposed Total Volume (m³)	Enter the proposed total volume (m³) of water withdrawal.	
Water Source Dugout De	etails	
X-Reference Land Tenure File Number	Enter the land tenure file number for the tenured dugout.	
Are temporary works required for distribution of fresh water on Crown land?	Indicate if a Section 24 authorization or other works will be required for operation of the short term water use authorization.	
Volume of Water Source Dugout (m³).	Indicate the dugout's total volume including freeboard, not the volume to be withdrawn.	
Proposed total volume (m³)	Indicate the total volume (m³) of water being applied for.	
Year One Volume (m³)	Indicate the total volume requested for the first year of operations under the short term water use authorization.	
Year Two Volume (m³)	Indicate the total volume requested for the second year of operations under the short term water use authorization.	

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