

Yukon Water Board

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Information Sheet for a Power Undertaking requiring a Type B Water Use Licence

IMPORTANT INFORMATION:

The *Yukon Environmental and Socio-economic Assessment Act* (“YESAA”) came into full effect on November 28, 2005. Your project will require an assessment under that *Act*.

Briefly, this is the process: You must apply to YESAB. Their website is www.yesab.ca. YESAB will do an assessment of your project and send an Evaluation Report to Government. Government will consider the Evaluation Report and issue a Decision Document. Government will send you a copy of the Decision Document.

The YESAB office will contact you when they begin their assessment and they will tell you their understanding of the scope of the project. Please review this information carefully and contact them immediately if there are any errors – this is an important step that can help you avoid delays.

As soon as we receive your water use application, we will send you a “Project Confirmation” form. Keep the form until you receive your Decision Document, then fill in the form and send it back to us. In the meantime, we will be reviewing your information and may contact you for clarification.

This is very important: Your water use application cannot be adequate until you send us the completed project confirmation form - and you cannot complete the project confirmation form until Government issues a Decision Document. A YESAB evaluation report is NOT a Decision Document.

After YESAA, and after we receive your project confirmation form, we will finish reviewing your water use application to ensure adequate information, and then we will advertise it. You will receive a copy of any interventions that we receive, and you are encouraged to respond. Then, the Water Board will consider your application, the interventions, your responses to interventions and the YESAA Decision Document, and decide on a licence.

If the Board approves a Water Use Licence, the conditions included in that licence may differ significantly from your application. Please review any licence and relevant reasons for decision.

Copies of the *Waters Act* or *Waters Regulation* are available from our office at 867 456-3980 or our website www.yukonwaterboard.ca.

Please complete the application in ink. Do not put any information on the back of any page. Water board staff will be happy to assist you with the completion of this form. Please contact our office to arrange a time. We do ask, though, that you first fill out whatever information you can.

Complete the sections that are applicable to your operation and put N/A where a section is not applicable.

CHECKLIST

A checklist has been included below to assist you in submitting a complete application. A complete application for a water use licence for a power undertaking must include at a minimum, but is not necessarily limited to, the following:

- _____ Completed YWB Project Confirmation Form.

- _____ Completed Information Sheet for a Power Undertaking for new or renewal applications only. If you are applying to amend an existing licence, you are required to provide a letter indicating precisely the nature of the requested amendment, the licence sections in which amendment is requested, the proposed amendment wording and the rationale for the amendment.

- _____ Completed Schedule 4 Application form.
 - If more than one party is applying for the water use licence, please specify a contact person and complete contact details. Clearly indicate the name(s) of the person(s)/company that you wish to include in the water licence.
 - If someone is acting as an agent for your application, please specify the name, mailing address, phone and fax number on this form where requested.
 - Please note that the applicant must sign this form, not the agent.

- _____ Completed Officers of the Company/Corporation form. If you are applying on behalf of a company, corporation or non-profit organization, please read this form. Complete the form if it is applicable and provide the required proof indicated on that form. Please note that when listing the officers of the company, you are expected to list for example, the president, vice-president, secretary or the principles of the company. Do not use this list to provide the names of project managers, etc.

- _____ Completed Environmental Health form. Indicate on this form whether your project includes a drinking water source, a camp and/or a deposit of waste, or not.

- _____ Application fee of \$30.00 and first year water use deposit in Canadian funds. You can contact our office to determine the fees payable and to arrange for payment. Payment can be made using VISA (in person or by phone), DEBIT card, cheque or money order. If you are paying by cheque or money order, please make it payable to the Territorial Treasurer.

- _____ Refer to Section 8 of the *Waters Regulation* or contact the YWB office for the calculation of water use fees. To determine which Class of power applies to your proposed undertaking, refer to Schedule 2 of the *Waters Regulation*.

- _____ You must provide a 1:50,000 scale topographical map, or part of the map. The map must clearly indicate, at a minimum, the following details:
 - the scale,
 - map sheet number, and
 - the project location.In addition to the 1:50,000 scale map, you may provide additional maps at various scales if those maps will provide additional information or clarification for the YWB. All additional maps must indicate the minimum information that is required for the 1:50,000 scale map.

- _____ In addition to the information requested in this form, please refer to Section 5 of the *Waters Regulation* to ensure that your application contains the information required by the Regulation.
- _____ If you are attaching any supporting reports/documents as part of your application, you are required to include in the applicable sections of the Information Sheet the details where the relevant information can be found (i.e page #, section#, paragraph#).
- _____ If more than one activity or facility is proposed that requires a water use licence (e.g. multiple water sources, waste deposits, structures, crossings, etc.), the required information must be presented for each activity or facility.
- _____ **Geotextile** - if any aspect of the project requires the use of geotextile, provide the technical specifications for the material proposed and the location, extent and placement method for the material.
- _____ **Rip Rap**- if any aspect of the project requires the use of rip rap (erosion protection), provide information regarding the minimum and maximum sizes of the material and the gradation between those limits. Indicate the quantity of each type of rip rap to be used, the type of material and its source. Note that rip rap must be hard, dense, angular, non acid-generating quarry stone or boulders, free of seams, cracks, structural defects and contaminants, freeze-thaw resistant, non-slaking and free of fine-grained materials including silt and sand. If erosion protection other than rip rap (e.g. gabions) is proposed, provide similar information for that material.

A. GENERAL INFORMATION

1. Name of Applicant: _____
2. Name of Watercourse(s): _____
3. Tributary of: _____
4. a) National Topographical System (“NTS”) 1:50,000 scale Map Sheet Number(s):

- b) Indicate your project location on a 1:50,000 topographical map, or part thereof. Please ensure that the map sheet number and scale are clearly indicated along with the location of North.

5. Provide map co-ordinates for the project. If the project covers an area, provide the co-ordinates for a box that includes the entire project as well as the co-ordinates of the center of the project area.

Minimum Latitude ___E ___' ___" Maximum Latitude ___E ___' ___"

Minimum Longitude ___E ___' ___" Maximum Longitude ___E ___' ___"

Centre Latitude ___E ___' ___" Centre Longitude ___E ___' ___"

UTM Coordinates _____E _____N

6. Nearest Community: _____

7. Name of Highway and Kilometre Location: _____

8. In which First Nation Traditional Territory (or Territories) is your project located?

9. Is your project located on or near First Nation Settlement Land or will water flowing from your project flow on or adjacent to First Nation Settlement Land? Yes ___ No ___

If you answered yes, provide details and attach a map showing the Settlement Lands in relation to your project.

10. Have you contacted the First Nation(s) regarding your project? Yes ___ No ___

If so, provide details.

11. If the location of your undertaking is near Settlement Land, provide the distance (in metres) to the nearest boundary for the Settlement Land. _____m.

12. Are there any existing licences or pre-existing applicants whose use of water may be affected by your project? If so, provide information about who they are and any contacts that you have made with them.

13. Are you the registered owner of the property where the project will be located? Yes___ No__

If you answered no, please provide a copy of a document which bears:

- the applicants signature(s) and the signature(s) of the registered owner(s) of the property, and
- a list identifying the properties that are subject to the agreement, and
- agreement to enter the property and to use the property for the activities described in this water use application, and

-the agreement should also indicate the duration that the agreement is in effect.

If you are not the registered owner of the property, this document must be provided as part of your water use application, otherwise your application will be delayed.

14. Are there any other surface water or groundwater users that may be affected by your project?

Yes___ No__

If “Yes”, identify the other users and describe how they will or may be affected.

15. What lands, other than those controlled by the applicant, are affected by the water use (this may include set-back strips between titled or leased land and a watercourse)?

16. If you indicated that other lands may be affected by the water use, what arrangements have been made for the use of such lands?

17. Provide a brief explanation of the alternative methods or locations that you considered in order to carry out the project you are proposing.

B. PROJECT DESCRIPTION

18. Provide a general description of the power project (i.e., use of waterfall or rapids; head development with dam; use of natural gradient, etc.)

19. Will your facility be operational year round? Yes ___ No ___

If “No”, please indicate which months of the year it will be in operation:

20. Indicate the proposed schedule of construction for this project.

21. List the equipment to be used and the proposed use for the equipment during construction.

22. Describe the maximum capacity of the plant: _____ kW
23. What is the minimum flow required for the plant: _____ m³ per second
24. Is this flow available year round? Yes ___ No ___
25. Provide a sketch of the general layout, including but not limited to the following items:
(please check mark those that apply to your project)
- bridges/culverts
 - watercourses, indicate direction of flow
 - levee strips
 - areas requiring erosion protection
 - water storage facilities
 - fuel storage
 - diversions
 - dams/spillways/dikes/
 - power lines/equipment/powerhouse
 - fish screens
 - excess water disposal areas
26. For all water uses, provide the following streamflow data in cubic metres per second for all watercourses included in your application:
- a) mean annual flow,
 - b) mean seasonal flow,
 - c) minimum summer flow,
 - d) minimum annual flow,
 - e) mean annual flood,
 - f) maximum summer flood,
 - g) mean summer flood.

C. USES

27. Does your project include direct **Water Use**? Yes ___ No ___

If “Yes”, attach the following information for each source from which you propose to obtain water:

- a) the maximum acquisition rate in cubic metres per day and cubic metres per year (this should be the same amount shown on the Schedule 4 Application,
- b) a description of the location of the water source(s). **If the source is groundwater, attach well logs** (well logs must be provided as part of your water use application, otherwise your application will be delayed),
- c) the basic water flow, in cubic metres, required for the proposed facility,

- d) a description of the location of the water source(s),
- e) the location and design of any water storage facility, if applicable, and the water storage volume in cubic metres,
28. Is the flow available year round? Yes____ No____
- If “No”, please provide more detail: _____
29. Does the project include construction of a **Watercourse Crossing**? Yes____ No____
If “Yes”, provide the following information for each crossing:
- a) a description of the type of crossing.
- b) an explanation of why the crossing is required.
- c) the following information for the crossing location:
- i) the design flood flow in cubic metres per second and its return period,
- ii) an explanation of the rationale for the selected design flood flow and its return period,
- iii) a description of the streambed material, streambank material and streambank vegetation,
- iv) a description of proposed sediment control measures,
- v) design drawings in plan and profile, **drawn to scale** (indicate the scale used),
- vi) a description of the construction methods, equipment to be used, schedule, quality assurance/quality control measures, and inspection and maintenance procedures and schedule proposed to be used,
- vii) indicate if the crossing is seasonal or temporary and describe when and how the crossing will be removed.
30. Will a temporary detour road be required, that includes a temporary crossing?
Yes____ No____
31. If a temporary detour road is required:
- a) the location for the proposed detour road,
- b) any watercourse crossings to be constructed to facilitate the detour road, and
- c) the type of crossing will be constructed (i.e. culvert, bridge).
32. Does the project include **Watercourse Training**? Yes____ No____
(includes channel and/or bank alterations, watercourse infilling, spurs, docks, culverts, erosion control, rip-rap, etc.)
- If “Yes”, provide the information required in the Checklist also attach the following information for all components of the proposed watercourse training:
- a) a description of the type of watercourse training proposed,
- b) an explanation of why the training is required, and

- c) the following information for the watercourse training location(s):
- i) the design flood flow in cubic metres per second and its return period,
 - ii) an explanation of the rationale for the selected design flood flow and its return period,
 - iii) a description of the streambed material, streambank material, and streambank vegetation,
 - iv) a description of the source, minimum to maximum size, and composition of any material to be used for the training and the quantity of material to be either placed into or removed from the watercourse,
 - v) a description of proposed sediment control measures,
 - vi) design drawings in plan and profile **drawn to scale** (indicate the scale used),
 - vii) a description of the construction methods, equipment to be used, schedule, quality and assurance/quality control measures, and inspection and maintenance procedures schedule proposed to be used.

33. Provide a description of plans to mitigate any damage to plant cover and surface soil.

34. Does the project include **Diversions**? Yes____ No____
(includes dikes and other structures relating to the diversion)

If “Yes”, attach the following information for each diversion and related structure:

- a) a description of the proposed diversion or structure,
- b) an explanation of the reason for the diversion or structure,
- c) the length and gradient of the existing channel and of the proposed diversion,
- d) the design flood flow in cubic metres per second and its return period,
- e) the mean seasonal flow in cubic metres per second,
- f) an explanation of the rationale for the selected design flood flow and its return period,
- g) design drawings in plan and profile **drawn to scale** (indicate the scale used),
- h) a description of the construction methods, equipment to be used, schedule, quality assurance/quality control measures, and inspection and maintenance procedures and schedule proposed to be used.

35. Does the project include **Dams, Spillways, Berms, Cofferdams or Dikes**? Yes____ No____

If “Yes”, attach the following information for each structure:

- a) a description of the structure and its purpose.
- b) a description of the site conditions, including the location, topography, geologic and hydrologic characteristics, permafrost conditions, and soil and rock conditions (provide test pit/drill hole logs and laboratory test results), upstream and downstream slopes of the watercourse.
- c) a description of the type and composition of the material to be used in the construction of each structure.

- d) design drawings in plan and profile showing all relevant features of the structure(s), including length, height, elevations, spillway designs, canals, pipes and any other outlet works, overflow structures and an indication of the scale used on each drawing. For the construction of any structure built across a watercourse, you are required to provide dimensions that are measured at the bottom and top of the structure, from shore to shore and include this information within the design drawings.
 - e) a description of the construction methods, equipment to be used, schedule, quality assurance/quality control measures, and inspection and maintenance procedures and schedule proposed to be used.
 - f) in the case of a dam, details of the design parameters, including seismic design criteria and a description of the intake structure.
 - g) in the case of a spillway, details of the hydraulic design parameters, including the maximum flood that the structure is designed to pass safely.
 - h) if the structure creates a reservoir in a natural watercourse, attach drawings of the reservoir in plan and profile and show representative cross sections. The plan and profile should include the following information:
 - i) identify the size of the drainage basin upstream of the reservoir
 - ii) provide a topographic plan showing the drainage area boundary
 - iii) indicate the number of hectares to be flooded
 - iv) indicate the surface area of the reservoir at full supply level
 - v) the total storage capacity of the reservoir, and
 - vi) details of any shoreline protection proposed.
 - i) if the watercourse is a fish bearing stream, indicate how fish passage will be ensured.
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36. Please indicate if the structure(s) proposed will be:

- permanent,
- temporary (used for a short period of time and then permanently decommissioned), or
- seasonal (to be constructed and decommissioned on an ongoing seasonal basis).

37. Indicate the type of **Penstock** that will be constructed: Conduit ___ Open Canal ___

- a) Attach a scale drawing, in plan and profile, showing how water will be delivered from the intake to the powerhouse.
- b) Provide a description of the construction methods and materials to be used.

38. Does the project include a **Powerhouse Structure**? Yes ___ No ___

If “Yes”, provide the following information:

- a) attach a detailed design drawings, in plan and profile, that is drawn to scale (with the scale indicated) of the powerhouse structure including the tailrace channel design.
- b) indicate the location of the powerhouse, in relation to other proposed structures, and
- c) provide the specification(s) of the power equipment to be used.

39. **Power Lines:**

- a) Provide details of the installation of the power lines, indicating the location of the power lines on a site map.
- b) Provide the proximity of the power lines to the nearest watercourse(s). _____ m.

40. Does the project include a **Flood Control Structure**? Yes ___ No ___

If “Yes”, attach the following information for the structure:

- a) the reason for the flood control structure.
- b) a description of how the structure will provide the necessary protection against flood flows.
- c) provide the flood return interval for which this structure is designed. (i.e. 2, 5, 10, 20, 50, etc. years) and include rationale to support the interval that is used, and
- d) attach a scaled drawing in plan and profile of the flood control structure and include all dimensions of the structure.

41. Does the project include the **Deposit of Solid or Liquid Waste**? Yes ___ No ___

(Note: This includes all wastes as defined in Section 1 of the *Waters Act* that have the potential to alter or degrade surface water and/or groundwater. Wastes include, but are not limited to, discharges from construction sites, explosives residues, debris, domestic sewage, whether treated or not, and **sediment disturbance or inputs to a watercourse.**)

If “Yes”, attach the following information for each waste:

- a) the type and quantity of waste proposed to be deposited and the reason for the deposit.
- b) in the case of a liquid waste, the concentration of the waste proposed to be deposited.
- c) in the case of a solid waste, the geochemical characteristics of the waste.
- d) the location, rate, timing, frequency and duration of the deposit.

- e) the baseline surface and groundwater quality at the location of the proposed discharge.
- f) the potential qualitative and quantitative effects that the deposit may have on any watercourse and/or surface water and/or groundwater.
- g) the proposed methods for collecting, storing, treating and discharging the waste, and the volumes of any waste storage systems.
- h) a description of the construction methods, equipment to be used, schedule, quality assurance/quality control measures, and inspection and maintenance procedures and schedule proposed to be used for any waste treatment/storage/discharge facilities.
- i) a description and justification of the standards proposed to be applied to any discharges of waste to the receiving environment.

D. PETROLEUM PRODUCTS/HAZARDOUS MATERIALS

42. Does the project include the Handling or Storage of Petroleum Products or Hazardous Materials?
Yes____ No____

If “Yes” please provide the following information:

- a) a description of the type of petroleum products and/or hazardous materials to be used, and
- b) material safety data sheets for all petroleum products and/or hazardous materials to be used, and
- c) a plan that describes the procedures to be taken for the safe handling, storage, and disposal of petroleum products and/or hazardous materials used to carry out this project.

E. EMERGENCY RESPONSE

43. Provide an emergency/spill response plan that includes mechanisms and processes for addressing potential or actual failures of structures, equipment and material storage, and programs for providing appropriate training to workers. A general guideline for developing a plan that is specific to your project has been included in the application package. The plan should include at a minimum, but is not limited to:
- a) a description of equipment to be kept available for spill response or other emergency and its location, and a description of proposed training programs for workers, and
 - b) a contingency plan outlining procedures that will be implemented for the containment and clean-up of a spill event. A guideline outlining the information that is typically included in a Spill Contingency Plan has been included as part of the application package to provide you with assistance in developing a plan that is specific to your project.

44. Are you proposing to use heavy equipment as part of your proposed undertaking? (i.e. backhoe, dozer, etc) Yes____ No____
45. If you answered Yes to #44, will each piece of equipment be equipped with a spill kit?
Yes____ No____

F. USE OF PESTICIDES, FERTILIZER, HERBICIDES, FUNGICIDES

46. Please indicate if you will be using any of the following:
- Pesticide Fertilizer Herbicide Fungicide
47. Provide the following information for the pesticides, fertilizer, herbicides and/or fungicides that you propose to use:
- a) a list of the type or brand name(s):

- b) the quantity to be applied, per hectare:

- c) the method of application:

- d) the purpose for using this product:

- e) the minimum distance of application from the nearest watercourse:

- f) pesticide licence number (if required):

G. PROJECT EFFECTS

48. Will there be any potential impacts to traditional uses and water rights of a First Nation as described in Section 14.8.0, or of a Yukon Indian Person as described in Section 14.9.0 of the Umbrella Final Agreement? Yes____ No____

If “Yes”, provide a detailed explanation of the potential impacts and what mitigative measures have been included in the project design.

49. Provide a detailed description of any potential impacts to water quality, quantity, rate of flow including seasonal rate of flow, and any mitigative measures that have been incorporated into the project design.

50. Provide an explanation of how any existing water use licensees or pre-existing applicants, whose use of water may be affected by your project, have been considered and what mitigative measures have been included in the project design.

51. Provide a description of any potential impacts to fish and/or fish habitat. (Indirect effects could include project effects, water quality or aquatic organisms. Direct effects could include degradation or alteration of fish habitat.)

52. Provide a description of plans to mitigate any effects on fish resources.

53. Provide a description of plans for replacement of any fish habitat lost due to the project and provide a schedule for the proposed works.

54. Provide a description of wildlife uses in the project area including sport hunting, subsistence hunting, trapping, and non-consumptive uses.

55. Provide a description of plans to mitigate any effects on wildlife resources due to the project.

56. Provide a description of plans to mitigate any damage to plant cover and surface soil.

57. Are there any trapline concession holders in the area of your project? Yes ____ No ____

If YES, provide information about who they are, what contacts that you have made with them, how they have been considered in the project development, and what mitigative measures have been included in the project design.

58. Are there any outfitters in the area of your project? Yes ____ No ____

If YES, provide information about who they are, what contacts that you have made with them, how they have been considered in the project development, and what mitigative measures have been included in the project design.

H. MONITORING AND INSPECTION PLANS

59. Provide a detailed description of the methods, procedures, standards, systems, networks and schedules proposed to be used to monitor and inspect the performance of the project during:

- a) the life of the project,
- b) temporary closure of the project, and
- c) permanent closure (up until the proposed expiry date of the water use licence).

I. DECOMMISSIONING PLANS

Note: You must provide plans for the abandonment, or any temporary closing, of the proposed undertaking, even if the project is intended to be permanent and is not expected to be decommissioned.

60. What is the expected life of the project?

61. Provide a detailed description of decommissioning measures to be taken when the project is either temporarily closed or permanently abandoned and describe how project equipment and construction materials will be removed and the site reclaimed.

62. Provide a description of proposed monitoring and inspection procedures to be followed during either temporary closure or permanent abandonment.

OFFICERS OF THE COMPANY/CORPORATION

This page must only be completed if the applicant is a corporation, limited company, or other business entity. Non profit organizations should provide proof that they are a registered society or organization in the Yukon.

Before issuing a water licence in the name of a corporation, limited company or other business entity, the Yukon Water Board will require that the following declaration be completed:

I, _____ certify that (name of business entity) _____ is incorporated or registered pursuant to the *Business Corporations Act* of the Yukon Territory or is registered in the province of _____.

The officers of the company are:

Name (Please Print):

Title

Signature

Title

 Date

Please Note: If the above information is not completed, the Board will consider the application to be in the name of the individual who signed the Schedule IV Application.

In addition to this declaration, proof that the business entity is allowed to do business in the Yukon is required. Please attach an annual return, Form 1-04, or certificate of Registration.