

AMISK

HYDROELECTRIC PROJECT



Amisk Hydroelectric Project Update

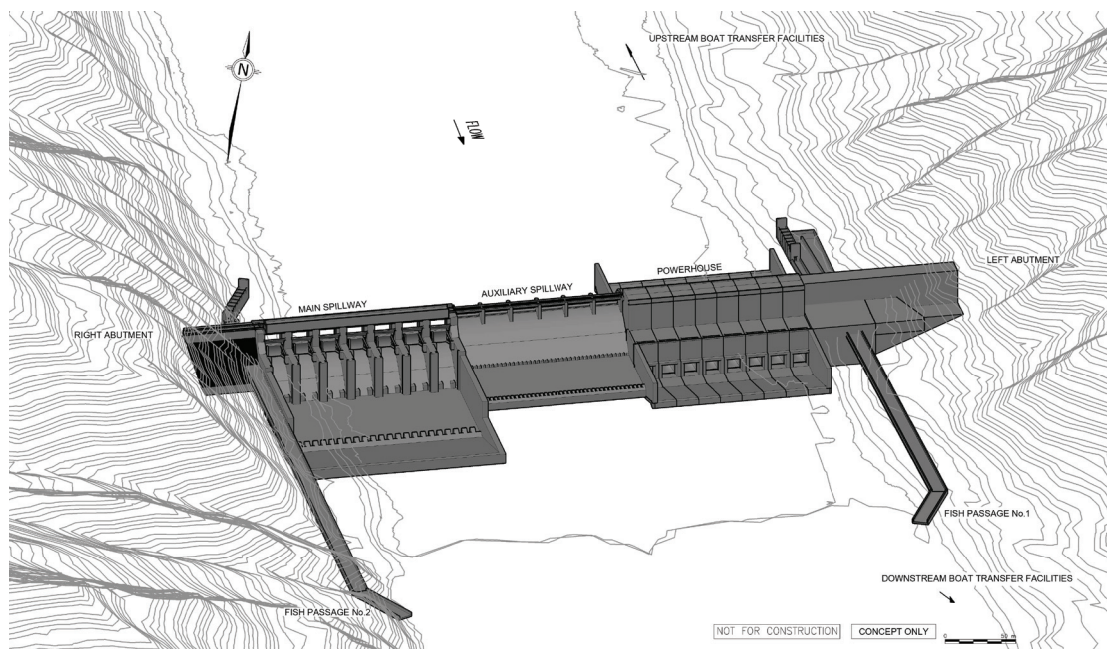
AHP Development Corporation (AHP) is providing an update on the Amisk Hydroelectric Project (“Amisk”/the “Project”). Amisk is a proposed run-of-river hydroelectric project, with an estimated maximum generating capacity of 370 MW on the Peace River in northwestern Alberta, 15 km upstream of the Dunvegan Bridge. The Project would generate approximately 2,588 GWh per year of renewable electricity, which is enough power supply for roughly 359,000 homes while producing minimal greenhouse gas emissions, in comparison to fossil fuels. The Project will result in significant revenue and jobs for the region and the province, while the resulting headpond will allow for an expansion in the type and quality of the recreational opportunities in the area.

The Need for Clean Energy

The Alberta government has announced that under their Climate Leadership Plan, emissions from all coal-fired generation in the province will be eliminated by 2030. The government also announced that two-thirds of the existing 6,300 MW of coal-fired generation will be replaced with renewable generation. Most renewable generation options, such as wind and solar, are intermittent sources of electricity that are not reliable at all times of day. Amisk is the only large-scale hydroelectric project currently planned for Alberta. Given the flow regime of the Peace River, the Project will generate a dependable volume of electricity for the province.

Project Updates

Updated Diagram of the Headworks



(Refer to Glossary for definitions/functions)

Based on study results, Project team evaluations and input from stakeholders, some key Project information that was released in 2015 has been updated. Updates relate largely to a potential increase of the full supply level by up to 7 metres above what was originally presented. This potential increase is being evaluated to maximize the use of the available hydrological resources without significantly changing the design of the dam structures. These updates are as follows:

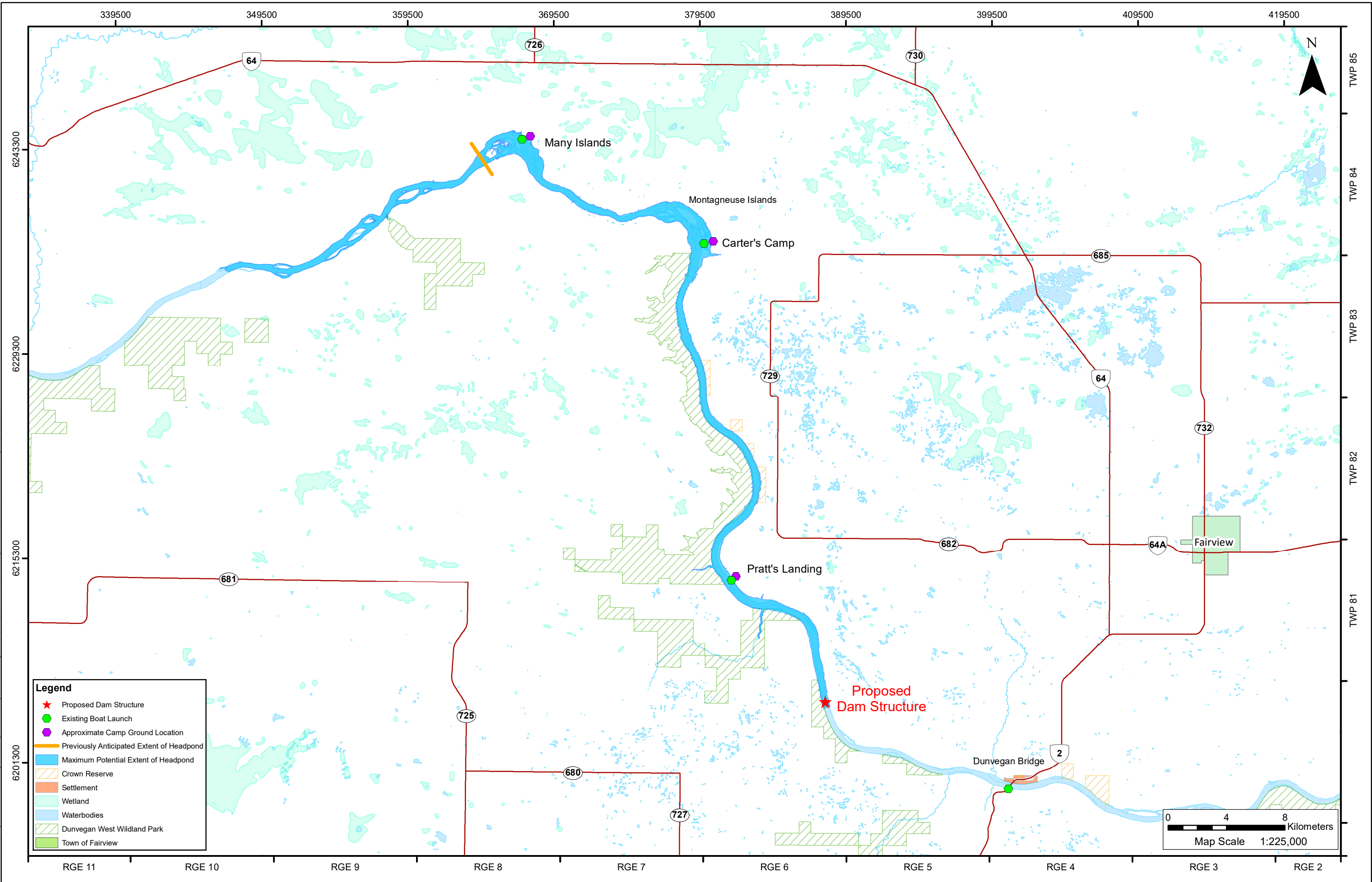
Update	2016 Information	2015 Information
Increase in Water Level at the Headworks	Currently estimated to be a maximum of 24 m.	Originally estimated to be 17 m.
Extent of Headpond	Approximately 77 km upstream and will inundate 1,625 ha of Peace River valley banks.	Approximately 50 km upstream and will inundate 800 ha of Peace River valley banks.
Dunvegan West Wildland Provincial Park	Headworks and resulting headpond will directly impact approximately 485 ha of the Park.	Headworks and resulting headpond will directly impact approximately 295 ha of the Park
Proposed Headworks Location	14-25-80-6W6 (NE bank) and extends into 16-26-80-6W6 (SW bank). (200 metres downstream of originally proposed location due to more favourable engineering conditions)	4-36-80-6W6 (NE bank) and 1-35-84-6W6 (SW bank).
Anticipated Submission of EIA	2019	2016

Potential Impacts

The Project location was selected, in part, due to the existing topography which limits environmental and social impacts. The high, steep banks of the Peace River make the Project layout more efficient and help contain the extent of flooding. As with any project of this magnitude, there are both positive and negative potential impacts that will coincide with the construction and operation phases of the hydroelectric dam and its related infrastructure. To date, portions of field programs have been performed in order to gather baseline data with additional information scheduled to be gathered in 2017 to complete the study. The current understanding of areas of potential impacts are outlined below.

Potential Impacts	Construction	Operation
Soil erosion, soil quality and quantity	◆	◆
Forestry land capability from Project inundation and infrastructure and agricultural land capability from Project infrastructure (i.e., access roads, electrical transmission lines, etc.)	◆	◆
Wildlife, wildlife habitat, changes to wildlife movement patterns, and to local biodiversity	◆	◆
Fish, fish habitat and fish movement	◆	◆
Old growth forest, rare plants and rare ecological communities, plants used for traditional use, wetlands, productive forest resources, and riparian communities	◆	◆
Traffic, noise, dust and exhaust emissions	◆	
Boat passage at headworks location during construction period due to safety concerns (5 years)	◆	
Groundwater (aggregate pit opening)	◆	
Methylmercury levels	◆	◆
Visual Aesthetics	◆	◆
Land use activities (hunting, trapping, camping, boat launches, ATVing)	◆	
Sediment and nutrient concentrations in headpond	◆	◆
Formation of the ice downstream		◆
Legend: 'Construction' includes construction of headworks, access roads, construction camp, electrical transmission line and switchyard, and/or aggregate pits, and inundation of the headpond 'Operations' includes power generation, access road use, transmission line operation		

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AHP also anticipates the following projected impacts to parks and campgrounds:

Campgrounds

AHP anticipates that the existing recreation areas at Many Islands and at the Carter's Camp campground will be inundated but could be moved to a nearby location higher up the bank close to the new river's edge. Pratt's Landing will be inundated and will not have an option to be moved due to the steep terrain. AHP is currently evaluating options for new recreation areas on both sides of the river, both



upstream and downstream of the headworks. AHP has committed to putting in place equal or improved campground opportunities before the Project becomes operational.

Dunvegan West Wildland Park

The Dunvegan West Wildland Provincial Park (the "Park") area impacted by the Project may need to be re-designated for other land use purposes through an Order-in-Council. AHP intends to compensate for any lands withdrawn from the 21,000 ha Park. It is estimated that approximately 485 ha of the Park will be directly impacted from the Project's headpond, headworks and access roads. AHP continues to work with the Government of Alberta to achieve a win-win scenario for both the Project and for the Wildland Park conservation.

Mitigation

To reduce the severity, of potential impacts, mitigation measures will be proposed by AHP as part of the Environmental Impact Assessment Report (EIA). The following mitigation measures are being considered: changes to Project design and construction practices, establishing spatial and temporal buffers, implementing construction and operational management plans, specialized training of workers, implementing compensation and offset plans, comprehensive environmental monitoring, and/or specific reclamation activities. AHP will continue to evaluate mitigation measures as part of the EIA.

Regulatory Process

One EIA report will be submitted to both federal and provincial regulatory authorities that will examine the environmental, social and economic impacts of the Project, describe their significance, identify any residual impacts, and provide management plans to mitigate these impacts.

A Joint Review Panel will be appointed by both the federal and provincial governments. This review process will include hearings to allow public participation. Should the Project be approved, additional regulatory applications will be made to various municipal, provincial, and federal agencies prior to commencement of construction.



Field Studies

AHP has performed partial baseline studies for the following aspects to be incorporated into the environmental impact assessment: air quality and noise, hydrogeology, hydrology, surface water quality, ice regime, river morphology and sediment transport, fish and fish habitat, geotechnical, terrain and soil, vegetation, wetlands, wildlife, biodiversity, transportation, historical resources, socio-economic, land use, human health, public safety, and traditional land use. Field studies are not planned for 2016, but are anticipated to continue in 2017.

Schedule/Timelines

AHP is continuing baseline and preliminary engineering studies to form the basis for an EIA that meets Alberta Environment and Parks (AEP) and Canadian Environmental Assessment Agency (CEAA) requirements. Both the Provincial Terms of Reference and the Federal Environmental Impact Statement Guidelines are available on the Project website (www.amiskhydro.com). AHP expects to submit its EIA regulatory application in 2019. Following the completion of the regulatory approval process and final design, construction could commence in 2021 with a construction time frame of approximately 5 years.

Consultation in relation to the EIA will continue through its development, submission, and review stages. Communication will be ongoing for the remainder of the Project's life-cycle.

Glossary

Baseline Studies – Studies done at a preliminary stage to gather current conditions prior to further examination.

Boat Transfer Facility - The system to facilitate moving boats around the headworks by a land portage vehicle. The final design is still being determined.

Dewatering – A term used in the Navigation Protection Act to describe drying up a navigable water.

Fish Passage - Made up of fishways, fish-friendly turbines, and/or fish ramps that will facilitate fish passage. The final design is still being determined.

Full Supply Level - This is the maximum normal operating level of the surface water in the head pond. The Full Supply Level in turn affects the overall area of the head pond.

Gated Spillway - Will control the headpond levels and the passage of river flows through the Project.

Headpond - A slower and deeper section of water situated upstream, and created by the presence, of the hydroelectric facility.

Headworks - The physical structures of the Project in the river including the dam structure, powerhouse, and spillways.

Hydroelectric Power - Electricity produced from the energy found in falling or fast-flowing water.

Hydrology - The study of the occurrence, distribution, movement, and properties of water on and below the Earth's surface and in the atmosphere.

Hydrogeology – The study of subsurface water including the geology of water-bearing rocks, the chemistry, physics, and movement of groundwater, and the principles governing groundwater movement.

Overflow Spillway - An outlet for overflow of the headpond during flood or loss-of-power scenarios.

Powerhouse - The structures, machinery, and associated equipment needed for generating electric energy within a hydroelectric dam.

Review Panel - A panel created by the Minister of the Environment (Minister) to review the EIA if the Minister is of the opinion that a project is in the public interest.

Run-of-River - A term used to describe hydroelectric facilities that do not have significant long-term storage (i.e. less than 48 hour retention time).

Sedimentation - Occurs when particles in water settle and come to rest against a barrier.

Switchyard - Also called switching station; is a substation without transformers, operating only at a single voltage level and located just before the transmission line.

Contact Us

If you have questions or would like to learn more about the Project, AHP encourages you to contact us at 1-844-287-1529 or at info@amiskhydro.com. Additionally, you can visit the Project website at www.amiskhydro.com.

