

Appendix A - Risk Matrix/Management Table

2019/20 – 2021/22 Service Plan

Risk Area	Issue/Impact/Potential Magnitude	How Columbia Power plans to manage the risk area
Staff Retention	<p>Inability to attract, retain or sufficiently train qualified individuals impacts day to day operations of the facilities.</p>	<ul style="list-style-type: none"> • Columbia Power maintains strong asset management practices and an effective working relationship with FortisBC Pacific Holdings Inc. staff to ensure power facility assets continue to function at a high level of reliability, maximizing revenues to its joint venture partner (the Trust), and to the Province. • Columbia Power maintains effective communications with the Trust and the Province to demonstrate its value as an expert facility operator which provides local employment, reliable performance, and maximizes investment returns. • Columbia Power has established human resources strategies including: competitive compensation and benefits plans; a performance management program; and training and development opportunities to retain key staff. • Columbia Power is actively engaged in succession planning to ensure the organization can effectively transition in the event there are changes to the existing executive leadership team.
Plant Reliability	<p>Plant reliability significantly impacts net earnings available for dividend distribution to the Owners. Unanticipated operational impacts and maintenance costs will decrease net earnings.</p> <p>An increase in unplanned outages of 1 % would decrease revenues in 2018/19 by (\$689,000) at Arrow Lakes Generating Station (ALH) and (\$334,000) at Brilliant Expansion Generating Station (BRX).</p>	<ul style="list-style-type: none"> • Plant outage risk for the Brilliant Generating Station is transferred to FortisBC as the power purchaser/plant operator. • ALH and BRX plant management, operations and maintenance is performed under long-term contract with FortisBC Pacific Holdings Inc. with oversight and controls performed by Columbia Power. • ALH and BRX reliability risks are identified through monitoring programs and annual planned inspections. Non-routine and capital projects are developed and implemented to effectively mitigate the risks. • All power projects carry business interruption, property and liability insurance, subject to deductibles, including a 30-day waiting period for business interruption. • Columbia Power and FortisBC are working collaboratively toward continuous improvement in plant operations and maintenance. • An Asset Management Policy and Strategic Asset Management Plan have been developed to reduce risk and provide employees with clear guidance on Corporate objectives and how they impact plant reliability success.

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<p>Reliance on Single Contractor</p>	<p>FortisBC and related non-regulated FortisBC Pacific Holdings Inc. are service providers for Brilliant Power Corporation, Brilliant Expansion Power Corporation and Arrow Lakes Power Corporation. Their parent, Fortis Inc. is also the majority partner in the Waneta Expansion Limited Partnership. Columbia Power and Columbia Basin Trust, as co-owners of BPC, BEPC and ALPC and minority partners in WELP are reliant on Fortis companies for providing services and supplying the labour force for all their power investments. Labour disruptions may impact costs.</p>	<ul style="list-style-type: none"> • Columbia Power is enhancing its asset management process and management systems to ensure that plant operations and maintenance are performed effectively and the risks to the Owners are adequately managed. • Columbia Power assesses risks to operation of the facilities due to potential labour disruptions as required and undertakes initiatives to mitigate those specific risks. • Columbia Power actively participates on management and operating committees for the facilities.
<p>Species at Risk Act (SARA) Implementation</p>	<p>White Sturgeon are a SARA listed species. White Sturgeon can be impacted by hydroelectric facility operations. Operational prohibitions or critical habitat protection under SARA for White Sturgeon, and other listed or potentially listed species, could significantly impact plant operations and revenues due to fines, increased operating costs, and the loss of operating permits, or the inability to obtain future project permits.</p>	<ul style="list-style-type: none"> • Columbia Power continues to work with the Department of Fisheries and Oceans (DFO) and other hydro facility owners on sturgeon permitting solutions for hydro facilities. • A Sturgeon Conservation Agreement with DFO is in progress. • Columbia Power participates in white sturgeon recovery planning to manage the impact of recovery planning on facility operations. • Columbia Power proactively installed sturgeon exclusion gates at Waneta. The gates are intended to exclude sturgeon from the draft tubes. • Columbia Power conducts studies to understand the impacts of facility operations on other listed or potentially listed species and their habitat.
<p>Invasive Species – Zebra/ Quagga Mussels (ZQM)</p>	<p>Colonization of the Columbia River Basin by ZQM could impact all submerged components and water conduits of the generation facilities. Mitigation could range from hundreds of thousands to over a million dollars per facility.</p>	<ul style="list-style-type: none"> • Columbia Power funds monitoring programs in the Columbia Basin aimed at early detection. • Columbia Power supports mobile boat inspection/wash stations to prevent/control the invasion of ZQM into the Columbia River Basin. • Columbia Power is developing ZQM Action Plans for each facility. These plans will help Columbia Power prepare for managing ZQM should they arrive in our waters.

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Regulatory Risk	Regulatory and/or legislative changes have the potential to significantly impact Columbia Power's assets by causing increased operating costs, and possible fines and legal costs.	<ul style="list-style-type: none">• Columbia Power monitors regulatory and legislative developments, proactively intervenes in regulatory proceedings as required to protect its interests and provides input into the development of legislation relevant to Columbia Power's interests.