

9.2-4 Matabitchuan Generating Station (Ontario Power Generation Inc.)

Issue Objective	Selected Option				
	Target/Existing Voluntary Constraint	Strategy	Benefits	Conflict or Concern	Rationale for Selection
<u>Fisheries:</u> -operate the dam to provide appropriate walleye habitat to maintain or improve its natural life cycle ustream (4.1.1)	-during walleye spawning a band of 274.60 - 275.33 m April 15 - June 15	-drawdown complete prior to freshet and dam closed off; fill rate dependant on spring runoff	-reservoir created more fish habitat	-none	Option 1 maintains appropriate fish habitat, no Option 2
-operate the dam to provide appropriate flow downstream of the spillway for fish spawning (4.1.2, 4.1.3, 4.1.4)	- spawning log installed by Apr 15 and removed at end of June	-spawning log installed by Apr 15 and removed at end of June	-provides water for fish spawn downstream of the dam	- power production (.7 cms spill for 45 days relates to 24 households for a year)	Option 1 maintains appropriate fish habitat, no Option 2
<u>Navigation:</u> -operate dam to maintain or improve navigability on Fourbass Lake (4.3.1)	- lake level maintained between 275.00 - 275.33 m Victoria Day weekend May to Thanksgiving weekend Oct	-maintain 275.00 to 275.33 m Victoria Day weekend in May and maintain until Thanksgiving weekend in October on a reasonable effort basis -educate the public to use website and infoline	-recreation -navigation -economics	-limits power production (148 households per year)	Option 1 maintains navigation, no Option 2
<u>Recreation:</u> -operate dam to maintain or improve recreation on Fourbass Lake (4.4.1)	-lake level maintained between 275.00 - 275.33 m Victoria Day weekend May to Thanksgiving weekend October	-maintain 275.00 to 275.33 m Victoria Day weekend in May and maintain until Thanksgiving weekend in October on a reasonable effort basis -educate the public to use website and infoline	-recreation -navigation -economics	-limits power production (148 households per year)	Option 1 maintains recreation, no Option 2
-operate dam to maintain or improve recreation below the dam (4.4.2)	- none				No options
<u>Flooding:</u> -operate dam so as to minimize the risk of damage due to flooding downstream (4.6.1)	-none				Option 1 mitigates flooding, no Option 2
<u>First Nations:</u> -No issue identified to date	-none				
<u>Cultural Heritage:</u> -No issue identified to date	-none				
<u>Erosion:</u> -operate dam to minimize erosion below Matabitchuan (4.5.1)					Option 1 mitigates erosion, no Option 2

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Wildlife: -operate dam to maintain or improve waterfowl habitat on Fourbass Lake (4.2.1)	-none				No options
-operate dam to maintain or improve wildlife habitat downstream of Matabitchuan dam (4.2.1)	-none				No options
Economics: -operate dam to maintain or improve sustainable economic opportunities below Matabitchuan dam (4.7.1)	-none				No options
Public Safety: -operate dam to maximize public safety	-normal operating range 273.20 - 275.33 m -ensure Public Awareness of facility operations.	-operate dam within the normal operating range on a reasonable effort basis -public waterway safety program is implemented -educate the public to use website and infoline	-contributes to public safety	-recreation -erosion	Option 1 maximizes public safety, no Option 2
Power Generation: -operate dam to maintain or improve power production	-normal operating range 273.20 - 275.33 m -absolute range 273.20 - 275.33 m -summer band 275.00 to 275.33 m Victoria Day weekend in May and maintain until Thanksgiving weekend in October -operate dam adhering to voluntary constraints on a reasonable effort basis	-operate dam adhering to voluntary constraints on a reasonable effort basis	-fisheries -navigation -recreation -flood mitigation -mitigation of erosion -public safety	-power production (148 households per year)	Option 1 selected: - Provides best balance between power generation, the environment and society

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Natural Flow Regime: -operate the generating station to reflect a natural flow regime - low flow	-normal operating range 273.20 - 275.33 m -absolute range 273.20 - 275.33 m -summer band 275.00 to 275.33 m Victoria Day weekend in May and maintain until Thanksgiving weekend in October -this regime results in a regulated 7 day average low flow -7Q2 - 0.3 cms -7Q10 - xx cms -7Q20 - xx cms	-operate dam adhering to voluntary constraints on a reasonable effort basis	-fisheries -navigation -recreation -flood mitigation -mitigation of erosion -public safety	- power production	Option 1 preferred since this facility generally generates at the rate of inflow and emulates natural flow regime
-operate the generating station to reflect a natural flow regime - Bankfull Flows	-normal operating range 273.20m - 275.33m -absolute range 273.20 - 275.33 m -summer band 275.00 to 275.33 m Victoria Day weekend in May and maintain until Thanksgiving weekend in October -the current operating regime results in a regulated bankfull flow of 34.0 - 37.0 cms.	-operate dam adhering to voluntary constraints on a reasonable effort basis	-fisheries -navigation -recreation -flood mitigation -mitigation of erosion -public safety	-power production	Option 1 preferred due to conflicts of Option 2
-operate the generating station to reflect a natural flow regime - Riparian Flows	-normal operating range 273.20 - 275.33 m -absolute range 273.20 - 275.33 m -summer band 275.00 to 275.33 m Victoria Day weekend in May and maintain until Thanksgiving weekend in October -the current operating regime results in a regulated riparian flow of 41.0 - 109.0 cms.	-operate dam adhering to voluntary constraints on a reasonable effort basis	-fisheries -navigation -recreation -flood mitigation -mitigation of erosion -public safety	-power production	Option 1 preferred due to conflicts of Option 2