(1.41 to 1.34 days per year) in frequency of channel forming or flushing flows. The Application also states that there would be an additional loss of 197 m^2 (0.1%) of wetted area which supports aquatic invertebrate habitat.

The proposed change in the maximum diversion flow rate would result in an increase volume of water entering the river from the tailrace when compared to downstream flow from the diversion reach. The potential effect of this flow difference is potential fish attraction to the tailrace and stalling of upstream migration through the diversion reach.

The increase in the maximum diversion flow rate would have a minor affect on the ramping regime of the Project. Ramping rates are the flow rates of water diverted from the river and have the potential to affect fish and habitat in the diversion reach and downstream of the project primarily through dewatering habitat and stranding fish. The Proposed amendment would increase the flow ramping duration by one hour and overlap the timing of coho salmon fry emergence in April. During periods of spill, the amended diversion flow rate may also alter the stage change rate (rate of change in water depth) in the diversion reach.

Mitigation measures and Certificate Commitments

Key EAO considerations in assessing potential effects of the amendment included the proposed timing of the maximum diversion flow rate increase, the instream flow requirement (IFR) of the Project, and potential changes in the flow regime of the river.

EAO understands that the Proponent proposes the timing of the maximum diversion flow rate increase to occur between October 16 through June 15, based on discussions with fisheries staff from FLNR and MOE, because this period is outside of the key growing and migration periods for summer steelhead and early run coho salmon. The Application states that the IFR as listed in the Certificate Table of Commitments (Commitment #15) would not change under the proposed amendment. The IFR are minimum flows that must be maintained within the Kokish River during Project operations to protect fish and aquatic habitat.

The Proponent has proposed that the existing mitigation measures and commitments of the Certificate would apply to the proposed amendment and that no new mitigation would be required. A central issue that was raised during the Public Comment Period and by the Working Group is the uncertainty of how the Project may affect fish and fish habitat (including change in the invertebrate community) once it is operating and the monitoring of any potential effects. Certificate Condition #11 requires the Proponent to develop an Operational Environmental Management Plan that will be reviewed and approved by DFO and FLNR including:

- Compliance monitoring to ensure the Project complies with the conditions of the Water licence and *Fisheries Act* Authorization;
- Effectiveness monitoring to measure the success of mitigation and compensations measures implemented to minimize or offset environmental impacts; and