

## Environment - Water Quality: Methylmercury

### What We Heard from Engagement

Will the operation of the Project result in the accumulation of methylmercury in the reservoir water?

### EIA Results - What Did We Find?

Mercury methylation is a chemical process that occurs in soil that is inundated by water. Flooded organic carbon in soil and vegetation decomposition results in microbial activity causing the methylation of inorganic mercury to methylmercury. Because vegetation and soil would be inundated, there is a potential for methylmercury to be retained in water as it is released back into Elbow River.

The estimated low and high methylmercury concentrations in all floods are below the *CCME Canadian Water Quality Guideline for the Protection of Aquatic Life*. The reservoir area is not predicted to continue to produce or release methylmercury after it is drained.

### Mitigation/Response

Following a flood that results in the diversion of water to the reservoir and prior to discharge from the reservoir, water samples will be collected at the low-level outlet channel and analyzed for a number of parameters including methylmercury.

**Estimated Reservoir Water Methylmercury Concentration and Reservoir Area Under Water During the Design Flood**

