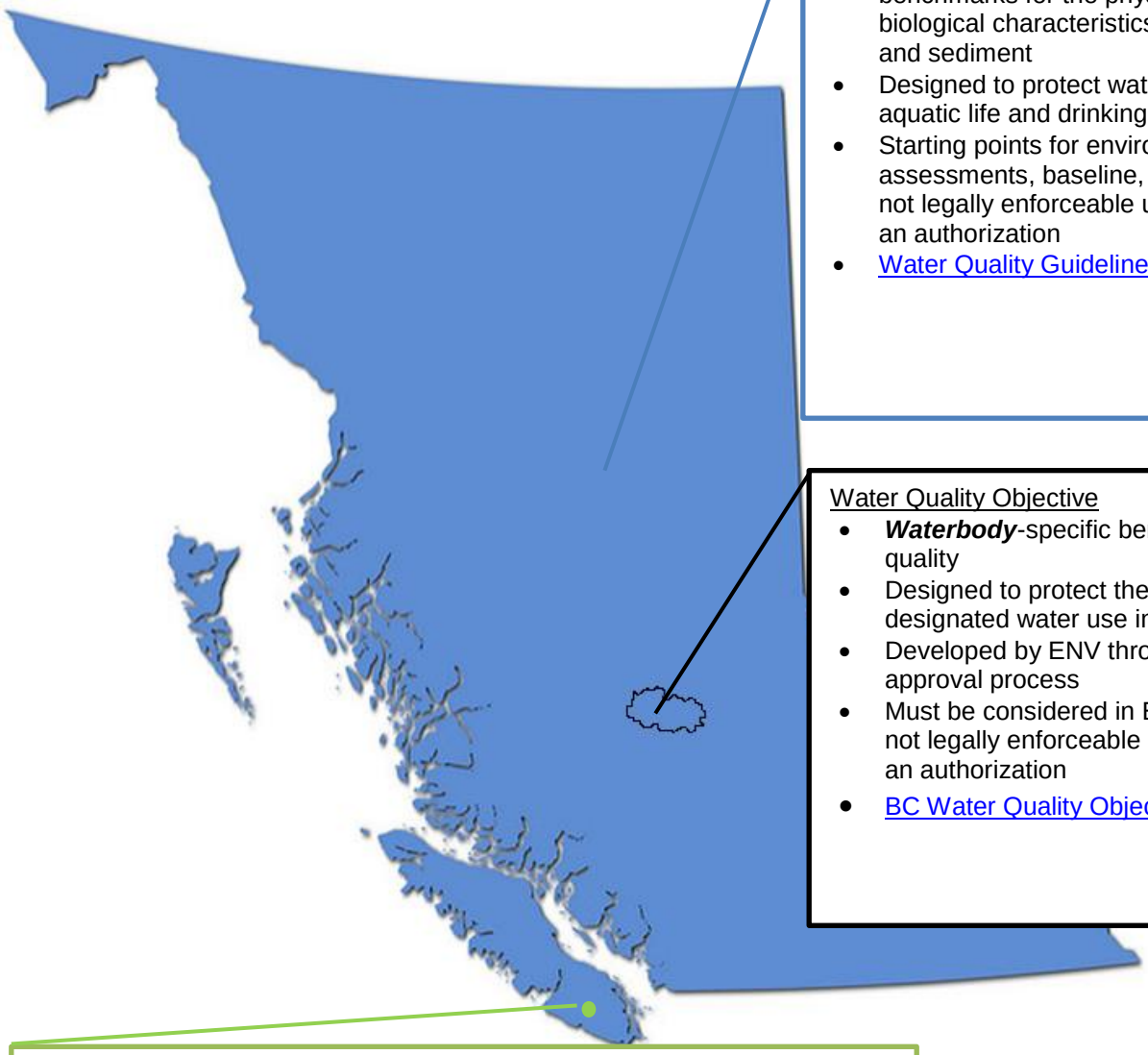
Ministry of Environment and Climate Change Strategy

FACT SHEET
WATER QUALITY MANAGEMENT

April 2018

Water Quality Guidelines (WQGs), Water Quality Objectives (WQOs), and Science-Based Environmental Benchmarks (SBEBs) are all tools that can be used to inform Ministry of Environment and Climate Change Strategy (ENV) waste discharge authorizations under the *Environmental Management Act* (EMA) to manage the release of substances into the environment.



Water Quality Guidelines

- ***Provincial*** science-based water quality benchmarks for the physical, chemical, and biological characteristics of water, biota, and sediment
- Designed to protect water uses including aquatic life and drinking water.
- Starting points for environmental impact assessments, baseline, permitting, etc, but not legally enforceable unless specified in an authorization
- Water Quality Guidelines

Water Quality Objective

- ***Waterbody***-specific benchmarks for water quality
- Designed to protect the most sensitive designated water use in that waterbody
- Developed by ENV through formal approval process
- Must be considered in EMA decisions but not legally enforceable unless specified in an authorization
- BC Water Quality Objectives

Science Based Environmental Benchmark

- Applies to a ***specific site and permit***
- To protect most sensitive freshwater aquatic life receptor ***present at the site*** (though all water uses must be protected) after BAT and BMPs are applied
- Technical Guidance 8: Framework for Development and Use of Freshwater Science-Based Environmental Benchmarks for Mines

Other terms:

BAT – best achievable technology - must be applied before developing SBEBs; unrelated to WQG or WQO
Best Available Technology Fact Sheet

BMP – best management practices. Must be used before developing SBEBs, unrelated to WQG or WQO

CCME – Canadian Council of Ministers of the Environment. CCME sets out Canadian Environmental Quality Guidelines that may be adopted as BC working WQGs, where approved WQGs for BC have not yet been developed.

CSR – Contaminated Sites Regulation. Includes numerical standards for soil, water, sediments and vapour. When setting discharge limits and managing emissions on a site, care must be taken to not create a contaminated site (a site exceeding the numerical standards in the CSR). Contaminated Sites Regulation webpage

Note that mine sites have particular considerations relative to the CSR, as outlined in Fact Sheet 12: Highlights for the Mining Industry. Contaminated Sites Regulation and Mines - Fact Sheet