

modifies the permit to reflect additional discharge of pollutants, a permitted facility could be violating its permit.

### **A. Technology-based effluent limits**

Effluent limitation guidelines have not yet been developed by the EPA for hydroelectric generating facility discharges. The facility does not treat wastewater.

Ecology must ensure that facilities provide all known, available, and reasonable methods of prevention, control, and treatment (AKART) when it issues a permit.

### **B. Surface water quality-based effluent limits**

Water Quality-Based Effluent Limits for Wanapum Dam include Oil and Grease, pH, and **heat load**.

The Washington State surface water quality standards ([chapter 173-201A WAC](#)) are designed to protect existing water quality and preserve the beneficial uses of Washington's surface waters. Waste discharge permits must include conditions that ensure the discharge will meet the surface water quality standards ([WAC 173-201A-510](#)).

#### **Numerical criteria for the protection of aquatic life and recreation**

Numerical water quality criteria are listed in the water quality standards for surface waters ([chapter 173-201A WAC](#)). They specify the maximum levels of pollutants allowed in receiving water to protect aquatic life and recreation in and on the water. Ecology uses numerical criteria along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limits, the discharge must meet the water quality-based limits.

#### **Numerical criteria for the protection of human health**

In 1992, U.S. EPA published 91 numeric water quality criteria for the protection of human health that are applicable to dischargers in Washington State in its National Toxics Rule 40 CFR 131.36 (EPA, 1992). Ecology submitted a standards revision for 192 new human health criteria for 97 pollutants to EPA on August 1, 2016. In accordance with requirements of [CWA section 303\(c\) \(2\) \(B\)](#), EPA finalized 144 new and revised Washington specific human health criteria for priority pollutants, to apply to waters under Washington's jurisdiction. EPA approved 45 human health criteria as submitted by Washington. The EPA took no action on Ecology submitted criteria for

**Table 10 - Recreational Uses and Associated Criteria**

Recreational Use	Criteria
Primary Contact Recreation	Fecal coliform organism levels must not exceed a geometric mean value of 100 colonies /100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 200 colonies /100 mL.

- The water supply uses are domestic, agricultural, industrial, and stock watering.
- The miscellaneous freshwater uses are wildlife habitat, harvesting, commerce and navigation, boating, and aesthetics.

**A. Water quality impairments**

The Columbia River, near and downstream from the Wanapum Dam, is listed on the current 303(d) for impairment. The river is impaired (Category 5) for the following parameters: temperature, 4,4'-DDD, 4,4'-DDE, and PCBs.

The Columbia River has a TMDL for Total Dissolved Gas and temperature, which is a Category 4a listing. A category 4a listing means an EPA-approved TMDL plan is in place and implemented.

**Table 11 - Water Quality Impairments**

<u>Listing ID</u>	<u>Parameter</u>	<u>Medium</u>	<u>Category</u>
40945	Temperature	Water	4a
51661	4,4'-DDD	Tissue	5
51722	4,4'-DDE	Tissue	5
52658	Polychlorinated Biphenyls (PCBs)	Tissue	5
36391	Total Dissolved Gas	Water	4a

**B. Total Maximum Daily Load (TMDL)**

The Columbia River is on the State’s current 303(d) list as impaired for temperature.

The Federal Clean Water Act specifies that when a water body is impaired, a Total Maximum Daily Load (TMDL) study must be conducted to restore the waterbody’s function. A Total Maximum Daily Load specifies the maximum amount of a pollutant that a waterbody can receive and still meet applicable Water Quality Standards.