

## Article\_XX. Water Quality Management Plan

Chelan PUD shall implement a Water Quality Management Plan to address potential ongoing Project effects on water quality, as described in Chapter 2 of the Comprehensive Plan, which is incorporated herein by reference. Specifically:

(a) **Total dissolved gas (TDG) management.** Chelan PUD shall implement the following measures to address potential ongoing Project-related impacts to water quality and aquatic life, if any, resulting from TDG produced during spill at the Project, as described in section 4.1 of Chapter 2 of the Comprehensive Plan.

(1) **TDG monitoring.** Chelan PUD shall maintain two fixed monitoring stations at Rocky Reach Dam to monitor TDG levels in the forebay and downstream of the Project, as required by WDOE for compliance monitoring in the 401 certification, for the term of the New License and any subsequent annual licenses or until such monitoring is no longer required by WDOE.

(2) **Gas bubble trauma (GBT) monitoring.** Chelan PUD shall [consolidate and report results of salmon GBT monitoring as specified in section 4.1.5.1 of Chapter 2 in the Comprehensive Plan and](#) implement a resident fish and macroinvertebrate monitoring program for GBT, as described in section 4.1.4.5 of Chapter 2 of the Comprehensive Plan during the adaptive management compliance schedule prescribed in the 401 Water Quality Certification.

(3) **Measures to meet TDG numeric criteria.** Chelan PUD shall implement the following measures in an effort to continue meeting the numeric criteria for TDG:

(A) **Fish passage spill management.** Chelan PUD shall manage spill levels provided for fish passage in an effort to continue meeting TDG numeric criteria, using the Operational Plan for TDG, as described in section [4.1.1](#) of Chapter 2 of the Comprehensive Plan;

(B) **Fish passage spill reduction.** Chelan PUD shall continue to develop and implement measures to reduce spill for fish passage (e.g. such as increased efficiency of the juvenile bypass system), as described in section 4.1.4.1 in Chapter 2 of the Comprehensive Plan; and

(C) **Operations [to meet TDG numeric criteria during high flows \(April – August fish passage season\) and September – March non-fish passage season.](#)** Chelan PUD shall manage Project [operations such as spill configuration and powerhouse operation](#) in an effort to continue meeting TDG numeric criteria during high flow periods [\(April – August\) and minimize spill, to the extent reasonable and feasible, from September 1 through March 31,](#) as described in sections 4.1.4.2 and 4.1.4.3 in Chapter 2 of the Comprehensive Plan.

(4) **Confirmation of TDG Compliance.** Within the first 10 years of the New License, Chelan PUD, in consultation with WDOE, shall use the results of (a)(1) to confirm that TDG standards have been met. If TDG compliance has been accomplished, then Chelan PUD shall continue those measures that are necessary to maintain compliance.

(5) **Actions if TDG Compliance Not Met.**

(A) If TDG numeric criteria have not been met and GBT monitoring shows that aquatic life has been adversely affected by TDG resulting from spill at the Project, then Chelan PUD shall assist WDOE in evaluating whether additional TDG abatement measures are necessary to protect aquatic life, as described in section 4.1.4.4 of Chapter 2 of the Comprehensive Plan.

(B) If WDOE determines that aquatic life has not been adversely affected by TDG resulting from spill at the Project, but non-compliance with numeric criteria for TDG exists, **WDOE intends to initiate a process** [\[WDOE to review\]](#) to modify the applicable standards through rulemaking or such alternative process as may otherwise be authorized under applicable federal and state law.

(C) If WDOE determines that aquatic life has been adversely affected by TDG resulting from spill at the Project and Chelan PUD has undertaken all known, reasonable, and feasible measures to reduce TDG, consistent with supporting, protecting, and maintaining the designated and existing beneficial uses, **WDOE intends to initiate a process** [\[WDOE to review\]](#) to modify the applicable water quality standards to eliminate any non-compliance with such standards.

(b) **Water temperature management.**

(1) **Confirmation of water temperature compliance.** Chelan PUD shall monitor and report water temperatures to WDOE in conjunction with [Chelan PUD's](#) TDG monitoring program.

(2) **Water temperature TMDL implementation.** Chelan PUD shall participate in regional water temperature management activities, including [Columbia River Temperature](#) TDML implementation, by providing the water temperature monitoring in (b)(1) above and by making the CE-QUAL-W2 model developed for the Project available to WDOE and EPA.

(3) **Tributary water temperature improvement.** Chelan PUD shall participate in tributary restoration [and water quality planning \(e.g. through Washington State 2514 watershed planning\)](#) and [tributary TMDL implementation planning for the Wenatchee and Entiat rivers.](#) Chelan PUD shall, [through its representative on the HCP Tributary Committee, assure](#) that opportunities [are considered](#) to improve water temperature in these tributaries as an adjunct to HCP tributary habitat projects, as described in section 4.2 of Chapter 2 of the Comprehensive Plan.

(c) **Project operations coordination to support beneficial uses.** Chelan PUD shall continue to operate the Project under the Mid Columbia Hourly Coordination Agreement, or its successors, to maintain operations beneficial to aquatic resources, recreation and aesthetics, and provide useable storage when needed to supplement flows, as provided in the Hanford Reach Fall Chinook Protection Agreement.

(d) **Spill Prevention Countermeasure and Control Plan (SPCC plan).** Chelan PUD shall operate the Project in accordance with the SPCC Plan, which shall be updated and revised periodically as described in section 2.6.2 of Chapter 2 of the Comprehensive Plan.