

2.5

Water Supply (WAC 463-42-165)

WAC 463-42-165 PROPOSAL — WATER SUPPLY.

The applicant shall describe the location and type of water intakes and associated facilities.

[Statutory Authority: RCW 80.50.040(1) and chapter 80.50 RCW.

81-21-006 (Order 81-5), §463-42-165, filed 10/8/81. Formerly WAC 463-42-400.]

2.5 WATER SUPPLY SYSTEM (WAC 463-42-165)

2.5.1 PROCESS WATER SUPPLY

Process water will be supplied from the existing Ranney wells and transported through the existing supply water line (see Figure 2.5-1). The Ranney wells are located on the southern bank of the Chehalis River, approximately 4 miles downriver of the plant site near the river's confluence with Elizabeth Creek. The wells penetrate to a depth of approximately 120 feet into the alluvial aquifer associated with the Chehalis River. The Ranney wells obtain approximately 88 percent of their water from the Chehalis River via drawdown, with the remaining 12 percent drawn from groundwater in the surrounding river alluvium. Groundwater availability in river alluvium of the Chehalis River valley from each Ranney well is as high as 40 cfs (18,000 gpm). Additional information on water quality and quantity associated with the Ranney wells is presented in Section 3.3 – Water, WAC 463-42-322, and Appendix B.

Water from the Ranney wells will be transported to the Satsop CT Project plant site via the existing supply water line and the existing discharge (blowdown) line. A connection between the supply water line and the blowdown line will be made in the vicinity of the WNP-5 cooling tower. At the Satsop CT Project plant site, a pipe will be connected to the blowdown line to transport process supply water to the project. Detailed design, location, and connection information on the Ranney wells and on the existing distribution system to be used to supply water to the Satsop CT Project is presented in the WPPSS application for a Site Certification Agreement (SCA), in the SCA issued by EFSEC, in documents subsequently submitted to EFSEC, and in the WPPSS Environmental Report - Operating Licensing Stage (WPPSS 1982) and Final Safety Analysis Report (WPPSS 1984).

As part of this application, the Certificate Holder is requesting an amendment to the existing SCA to allow the Phase II project to use 9.5 cfs of the Public Development Authority's (PDA's) existing permitted water right.

2.5.2 POTABLE WATER SUPPLY

Water for potable uses at the proposed project will be supplied by the Satsop Development Park's raw water well. The raw water well is located at the confluence of the Satsop and Chehalis Rivers, and the distribution pipeline extends to a water storage tank located adjacent to the northeastern corner of the plant site. The Certificate Holder will construct pipeline connections from this distribution system to the power plants.

The well extends to a depth of 80 feet in the shallow sand and gravel aquifer in the area extending north of the Chehalis River and east of the Satsop River. Detailed design, location, and construction information on the raw water well and the associated water distribution system is

presented in the WPPSS application for the SCA, the SCA issued by EFSEC, and documents subsequently submitted to EFSEC.

Anticipated potable and service water demand for the Phase II is approximately 50 gpm maximum, and will average less than 20 gpm. Water supplied by the Satsop Development Park is chlorinated, and if needed, additional treatment will be made prior to delivery to Phase II.

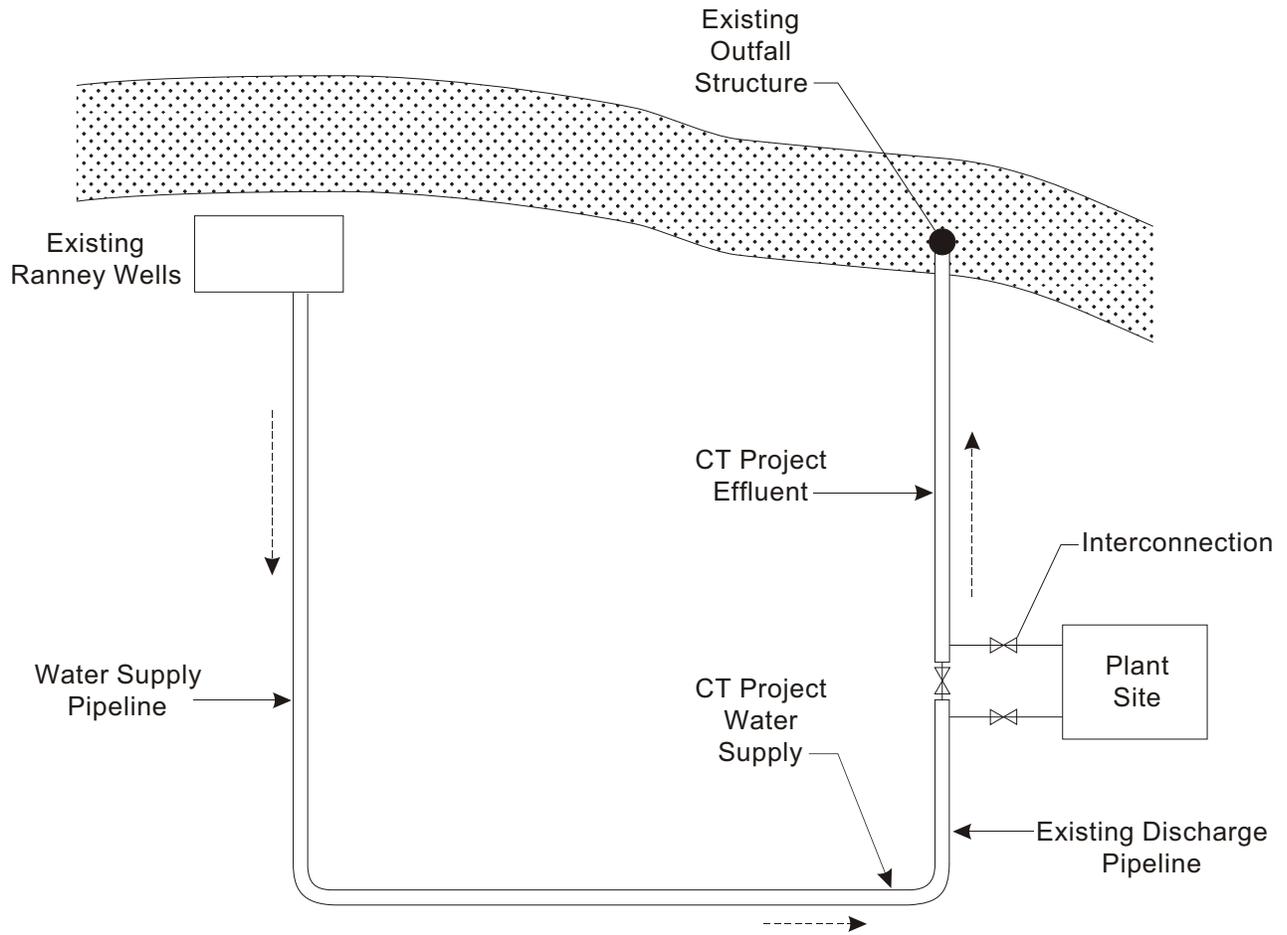


Figure 2.5-1
**Process Water
Conceptual Flow Diagram**