

Ecology Northwest Regional Office

M E M O R A N D U M

February 16, 1969

TO: Roy Bishop

FROM: Jerry Liszak *JL*

SUBJECT: Progress Report for Initial Investigation -  
White River Fish Hatchery

About <sup>5 1/2</sup> 26 miles upstream of the site is the U.S. Corps of Engineers Mud Mountain Dam for flood control. Water flow in the White River entering the site averages 1,450 cfs of which about 950 cfs is diverted into the Lake Tapps flume to run the Darringer Turbines off the Lake Tapps reservoir. This diversion was made in 1910 by Puget Power and Light Co. The remaining 500 cfs run over and through the dam on site. Phase I of the hatchery will use 5 cfs and phase II in a few years will require 10 cfs.

Three production wells were installed and a long term constant-rate pump test was performed on their combined yield. The combined pumping rate was 2.9 cfs. After three to four days a recharge boundary (the White River) was encountered. After five weeks steady state water levels were reached with the 2.9 cfs pumping rate. It should be noted that changes in static water levels occurred which were directly related to changes in river stage. This is understandable since the aquifer has a limited areal extent limited by adjacent mudflows, and in being fluvial deposits in hydraulic continuity with the White River. It would be prudent to monitor water levels at the site during periods of low river flow with a pump test to determine the effect of reduced recharge to the aquifer on well yields. The three wells encountered two aquifers as follows:

TW-2	32 ft. thick sand aquifer
TW-3	20 ft. thick gravel and cobble aquifer
TW-4	11 ft. gravel/cobble 7 ft. sand (both of the above two aquifers)

A fourth well was installed with the hope to increase total output to 5 cfs. A pump test is currently in progress on all four wells. This total combined output is about 3.7 cfs. Golder Associates plan to discontinue this pump test next week and then decide where to drill one or two more wells.

JL:cw