

US Forest Service Comments
Packwood Lake Hydroelectric Project
Draft Study Plan – March 2004
Documentation of Existing Water Quality Conditions and their
Relationship to Project Operations
April 15, 2004

1.1 Study Purpose - We understand that this study is being conducted before the Pre-Application Document (PAD) to begin preparation of application for 401 certification. These comments are intended to ensure that the study results are also useful in assessing how the project affects National Forest resources and is consistent with Forest Plan direction.

4.1.1 Variables of Interest

Table 4-1 Chemical and Biological parameters.

Monitoring nutrient levels once per month may not be sufficient to characterize the variation of nutrient levels during the months of April – October. A weekly or bi-weekly frequency for the five nutrients may be sufficient to characterize the water quality during those months. Studies in the Bull Run watershed found nitrate levels to be twice as high during August through September as earlier in the year. This would suggest that more frequent sampling would be necessary.

4.1.3 Sampling Frequency

Page 13, First full paragraph. - Thermographs should be serviced more often in July and August to avoid loss of critical data due to the significant lowering of stream levels during this period.

Page 15 *Coliform* - Fecal coliform sampled during the first rains after the dry summer months would be more able to detect increases in fecal coliform resulting from dispersed recreational activities along the shoreline of Packwood Lake. Sources of fecal coliform along the shoreline of Packwood Lake could be assessed visually to augment information from water quality monitoring.

4.3 Project Effects on Water Quality

Page 22, Fifth complete paragraph.-Will aerial photos be analyzed to estimate canopy cover. The study plan says “Aerial photos can be used to estimate riparian canopy cover.”