Summary of Recent Changes to Preliminary Draft TMDL and Executive Summary Description

July 2, 2003

1. The entire TMDL is completed: TMDL, 7 Appendices and all figures.

Appendix A - Problem Assessment
Appendix B - Target Temperatures at each Target Site
Appendix C - List of Point Sources with Individual Permits
Appendix D - General Permits Discussion
Appendix E - Tributaries included in the TMDL Analysis
Appendix F - Individual Dam Impacts on Temperature
Appendix G - Temperature Differences between Successive Target Sites

2. The estimate of the impacts of individual dams was conducted by simulating removal of the individual dam from the impounded river and determining the difference between the resulting temperatures and the temperatures of the fully impounded river.

3. Changed the critical target site from River Mile 4 to River Mile 42. The allocations are established to ensure compliance with WQS at that site.

4. The allocations are seasonal to allign with the WQS.

February 5 - June 30: waters not impaired for Temperature, TMDL does not apply.
July 1 - October 31: allocations to meet natural temperature + 0.14 Deg C at River Mile 42.
November - February 4: allocations to meet natural temperature + 1.1 Deg C at River Mile 42.

5. WLAs were increased for 2 point sources (Boise Cascade, Wallula and WEYCO, Longview) and lowered for 1 (PGE Trojan) and 2 OR point sources were added (Umatilla STP and COE Bonneville).

6. Five dams were given LA that can be achieved by their current operations: Wells, Rocky Reach, Rock Island, Priest Rapids and The Dalles. This does result in very minor predicted exceedances of WQS (8 exceedances/year at The Dalles, maximum exceedance 0.04 Deg C). We proposed this approach and specifically requested public input on it.

7. In response to comments, we reviewed the data used to estimate model parameters affecting the heat budget. Based on a statistical comparison of simulated and observed temperatures, we concluded that the parameter estimates used in the model to develop the TMDL gave satisfactory results: results similar to those found in other applications of water temperature models.

8. The effects on simulated water temperatures in the Columbia River resulting from the withdrawal of 1000 cfs of water at approximately Columbia River Mile 292 were not sufficient to change the allocations of thermal energy in the TMDL.