3.0 Summary

As described in the Introduction, the purpose of this report is not to provide a technical review of the background reports aimed at evaluating Capitol Lake management alternatives, or to further analyze the information presented in those reports. Instead, its purpose is to provide a concise summary of the information provided in the background reports, as it pertains to each of the selected topics. The text provided for each topic concludes with a brief comparative analysis of the key differences between alternatives. Therefore, the purpose of this Summary section is not to re-summarize all of the differences among the alternatives but to present the key findings for each topic as viewed by the CLAMP Steering Committee.

Although four alternatives were carried through this analysis, ultimately the differences to be considered are those between the Managed Lake and Estuary Alternatives. At the scale of analysis conducted here, there were no major differences between the Estuary and Dual-basin Estuary Alternative. Inclusion of the Status Quo Alternative was used to provide perspective and to more clearly document the impacts of choosing to do nothing, rather than to present an alternative to be seriously considered. Therefore, this summary is focused on the general comparison of a managed lake and an estuary condition.

The following briefly describes the general perspectives discussed during the CLAMP meetings for each of the eight topics.

Sediment: Due to the many uncertainties and the inherent complexity of the sediment management issue, the majority of the technical studies prepared to support the comparison of alternatives, focused on this topic. Regardless of which management alternative is selected, a long term program for sediment management that involves dredging and disposal will be required. However, in almost all aspects of sediment management, the Estuary Alternatives were considered to have less impact than the Managed Lake Alternative. There is less sediment removed (both initially and over the long term) and generally removal and disposal is less expensive under the Estuary Alternatives. The Estuary Alternatives will result in a greater accumulation of sediments in the Port of Olympia and the marinas located in the Percival Landing area. There were also predicted changes in dredging frequency. The long term dredging frequency was estimated at every 10 years for the Managed Lake Alternative and every 5 years for the Estuary Alternatives.

Plants and Animals: The plant, animal, and fish species supported will depend on whether the basin supports freshwater or marine water species. In general, the species supported or not supported by the alternatives are commonly occurring. CLAMP members agreed there appeared to be an advantage to salmon under the estuary alternatives, based on improved water quality and migration corridor improvements.

Water Quality: Water quality was the analysis topic that all CLAMP members agreed was a very high priority. In their discussion of this topic, the overarching message was that improving water quality to meet State standards would continue to be a focus no matter which management alternative is selected. The water quality variable most directly impacted by the selection of alternatives, was dissolved oxygen. Water quality violations related to dissolved oxygen are predicted to occur whether the system is managed as a lake or as an estuary. Under the estuary alternatives there would be an improvement in terms of the extent and duration of these violations. A large portion of the West Bay area extending out to Butler Cove, as well as the entire existing lake basin area would no longer exhibit significant dissolved oxygen water quality standards violations. The improvement to the West Bay area is especially important because this area is critical to salmon migration. To prevent dissolved oxygen violations in Southern Budd Inlet other initiatives must be taken in the upstream watershed and/or in the Inlet itself. A multi-organization group, the "Deschutes Water Clean-up Initiative" will be addressing this issue.

Infrastructure: There are no historic or highly valued structures affected by the different management alternatives, therefore, the most significant impact of infrastructure needs are related to cost. The Estuary Alternatives would require more infrastructure changes to protect structures from saltwater and tidal action, but the cost for this is secondary in comparison to sediment management costs associated with either the Lake or Estuary alternatives.

Downtown Flood-Risk: The differences in flood-risk between the lake and estuary management alternatives were not considered to be significant at existing sea levels. Limited flooding of areas outside of downtown Olympia would occur more frequently under the estuary alternatives, particularly as associated with predictions of sea level rise, However, at higher sea levels, the flood-risk to downtown associated with flooding from the Deschutes River or Capitol Lake are over-shadowed by predicted flooding from Budd Inlet.

Long-term Cost: There are high economic costs associated with implementing either a lake or the estuary alternatives. For the estuary alternatives there are infrastructure costs associated with removing the dam and re-building or stabilizing roadways that are not shared by the lake alternative. However, these costs are small in comparison to the costs associated with dredging. The total cost for implementing the Managed Lake Alternative was estimated to be nearly 70 percent higher than the cost for implementing the Estuary Alternatives.

Cultural and Spiritual Resources: There were different perspectives and values voiced among groups and individuals included in the surveys. Ultimately, one set of values is no more important, or most strongly held, or most reflective of the community. The common thread among the perspectives was that all groups and

individuals placed a high value on a landscape that included water. This shared value exists whether the water is a lake or an estuary.

Public Recreation: The area near and surrounding Capitol Lake is an important, well-used, regional, recreational hub. Differences in the specific type of recreational activities were identified, as were differences in timing and opportunity for those activities. Overall, recreational activities will be supported, and supported well, under all of the management alternatives.