

August 26, 2021

Comments on the Capitol Lake - Deschutes Estuary DEIS from the Deschutes Estuary Restoration Team

To Whom It May Concern:

The Deschutes Estuary Restoration Team (DERT) submits the following comments on the Draft Environmental Impact Statement for eventual selection of an alternative to existing conditions at the mouth of the Deschutes River in Washington State.

The Draft Environmental Impact Statement or DEIS does not identify a "preferred" alternative, but instead analyzes three options: (a) The "Estuary" alternative, with restoration of the Deschutes River and Estuary by removing the dam; (b) the "Managed Lake" alternative, keeping the dam and Capitol Lake with ongoing dredging and other maintenance costs like have been incurred since the dam was built in 1951; and (c) a "Hybrid" alternative, which would eliminate the existing dam, allow the Deschutes River to flow freely, but add a smaller saltwater "basin" with a half-mile long wall (another dam of sorts) in the general vicinity of the current Capitol Lake.

This study and analysis follow the prior Capitol Lake Adaptive Management Plan (CLAMP) process that, in 2009 recommended restoring the Deschutes River and Estuary, based on an extensive analysis of the environmental conditions and needs of the estuary, whether an estuary was a “feasible” management option and examined the significant costs of maintaining Capitol Lake. The State of Washington’s General Administration Department (now Department of Enterprise Services) basically ignored the recommendation to restore the estuary. The Deschutes Estuary Restoration Team or DERT was created to ensure further work was done on the estuary option and has advocated ever since for restoration of the Deschutes River and Estuary.

DERT supports removal of the dam, and restoration of the free-flowing Deschutes River, and the Deschutes Estuary. DERT agrees with some of the major conclusions in the DEIS. Most notably:

- The Estuary option clearly is the best option for restoring the ecology of the area, which has been significantly degraded since the dam was built in 1951. Multiple species of birds, fish and animals, as well as plant life, would benefit.
- The Estuary option is the least expensive of the options, and the perpetuation of Capitol Lake is the most expensive. The DEIS estimates that, over 30 years, the Estuary alternative would cost $336 M, while the Managed Lake alternative would cost $607M If the planning horizon was expanded to 50-70 years, there would be an even bigger gap between the Estuary alternative and the much costlier Managed Lake option.
- The Estuary option would also significantly improve water quality conditions in Budd Inlet, which will not only benefit fish and wildlife, but will also reduce LOTT's future costs regarding regional wastewater discharges into Budd Inlet. If LOTT's costs are reduced, ratepayers would not suffer the consequences of increased rates.
- The Estuary option would almost certainly eliminate--or at least significantly reduce--the invasive species that caused Capitol Lake to be closed to all recreational use decades ago. The Managed Lake alternative would almost certainly have to continue the costly battle with these species, which has in the past included applying chemicals to Capitol Lake. Relying on the use of toxic chemicals to maintain public waters is a very poor choice compared to the sustainable alternative of an estuary.
- DERT strongly supports the formation of a Deschutes Watershed Council. While the details of purpose, membership and funding for such a group remain to be worked out, we believe the goal of a healthy watershed meeting multiple needs cannot be achieved without a watershed-based approach that incorporates multiple interests including government, tribal, community, business and environmental.

Here are the specific overall concerns DERT has with the DEIS, and actions taken to complete this first analysis:

PROCESS DEFICIENCIES

DES and the consultant team responsible for authoring the DEIS apparently did not speak with many state and local agencies with extensive knowledge of conditions in the Lake and Estuary and/or include their views. It apparently does not include:

- the water quality modeling done by the Department of Ecology for Budd Inlet;
- WDFW information and conclusions on fish and wildlife species; or
- a discussion and findings on archeological issues with the relevant state agency.

Instead, the apparent approach by DES is to develop its own data, or use other data, and then expect the relevant agencies to respond to the DEIS. This is a highly inefficient and unprofessional approach to the study.

DES and the consultant team apparently did not speak with any staff at the Squaxin Tribe, despite its extensive Natural Resource professional staff, and its historic use of the Deschutes River and Estuary. In particular, the DEIS Executive Summary does not make mention of the traditional Steh-Chass, the indigenous name for the lower Deschutes River and Estuary. Nor does it mention the Steh-Chass cultural and historic significance. Instead, it refers to the 70-year-old dam as if it has cultural and historic significance. This seems to be either a gross oversight or misleading discussion.

SELECTIVE DATA USE AND APPARENT BIASES

There seems to be a significant picking and choosing of data to support an apparent outcome. For instance, in the water quality analysis, the DEIS notes that Thurston County had ongoing water quality data from 2004-2014, but for purposes of the DEIS, only water quality data from 2010 to 2014 was used because there was a "trend" in that five-year period. This does not seem to be a proper way to use this data and undermines any conclusions the DEIS draws from it. The DEIS should explicitly state what factors have been considered in determining that a shorter period of data is appropriate for this analysis

There are questionable comparisons between the existing Capitol Lake and other bodies of water. For instance, the DEIS notes (almost parenthetically) that, because of the amount of sediment in the "Lake," and its short retention time, it is no longer actually a lake from a regulatory perspective, and is subject to water quality standards for rivers, which formed the basis of the water quality analysis. Yet the DEIS then compares the water quality in Capitol "Lake" with water quality in naturally occurring lakes in the area--without acknowledging that the comparison is legally not valid, nor that the water quality in Capitol "Lake" benefits from having a freshwater river flowing into and out of it constantly, which most other "real" lakes do not have. Similarly, the water quality is compared with other "inlets" in the South Sound, even though none of them have a freshwater river flowing into them (which would improve the other inlets' water quality).

The Executive Summary also states that water quality standards might be met in a reflecting pool--why even say this, if there is an even possibility that those same standards would not be met?

The DEIS highlights items for no apparent purpose. For instance, it calls out the potential impact on the local bat population if the Deschutes River Estuary were restored but does not point out the benefits to the populations of other species with restoration. This is inappropriate.

The Executive Summary also highlights aquatic plant life as an impact from the existing dam to the ecology of the estuary and does not discuss undesirable changes in other ecosystem functions that have been generated by the dam/lake (e.g., sediment transport, marshes, estuarine species) and should be highlighted in the analysis.

OPINIONS RATHER THAN DATA ANALYSIS

The characterization of some of the DEIS's conclusions are not objective. For example, it states that water quality in the Lake is not as bad as some people think it is. That is not a scientific statement. Instead, it seems intended to promote the Managed Lake alternative. The DEIS could just as accurately have said “despite the constant inflow of a freshwater river, Capitol Lake has for a long period of time failed to meet water quality standards and is unlikely to do so under current conditions." Why one and not the other?

OMISSIONS FROM THE ANALYSIS

The DEIS does not seem to fully address potential climate change effects. For instance, in analyzing impacts from different tidal events, it does not consider what would happen at extreme high tides, which will become more likely under nearly all scenarios. And it simply relies on the City of Olympia's analysis of climate change and impacts, without noting that the City's analysis is a very conservative one--i.e., does not have strategies if assumptions prove to underestimate the impacts.

The native coho salmon run in Percival Creek has been well documented and should be noted. In addition, prior to the construction of the 5th Ave. dam, fly fishing in the estuary for salmon and trout was very common, and was cause for opposition to the dam by recreational fishing interests.

More weight needs to be given to the economic, educational, and aesthetic benefits of estuary restoration including recreation of all kinds: birding, boating, paddling, fishing, education, nature walks. And of the course the intrinsic value of the estuarine environment - habitat, fish, ecosystem benefits, tidal flow and more.

Increased tourism is a significant impact. Please review the visitor numbers for Nisqually before and after the restoration began. Evaluate the benefits to local economies.

Estuarine habitat restoration will provide volunteer and public engagement/involvement opportunities for the region and the state. Restoration can provide seasonal and long-term jobs as well as with the youth job corps, Vista, and Earth Corps, for example.

Job opportunities will also be created during the construction phase of estuary restoration. New jobs would be created downtown as businesses benefit from increased tourism and local access to the flowing river from Budd Inlet.

RELIANCE ON SPECULATIVE ACTS

The DEIS repeatedly refers to a "Des Chutes Basin Project Historic District," and feature it heavily in discussions of cultural resource impacts analysis for each option. There is a lack of attention in the DEIS given to Tribal cultural resources such as the Steh-Chass, the indigenous name for the lower Deschutes River and estuary, the effect being to privilege recent white

people landscape architecture and infrastructure over millennia of Indigenous cultural landscapes.

Archaeologists and local history scholars are unfamiliar with any area called the “Des Chutes Basin” either as a district or as a cohesive "basin project". There are no references to it in state or local records and/or historic registers. According to the Deputy Director at the Washington Department of Archaeology and Historic Preservation, there is no such thing. In his words:

> “We are unaware of any proposed historic district and haven’t had any conversations with DES or any project proponents about such a designation (to my knowledge). At this point, I would say that a potential historic district designation has not been vetted by us, so I’m not sure what it includes or could include.”

In addition, the DEIS discusses the potential for designating the Fifth Avenue Dam as an historic structure and identifies that as a consideration for maintaining Capitol Lake. To the best of our knowledge, no entity has applied for, or suggested such a designation, simply because the dam has been there for 70 years and has little architectural significance. To suggest that this be a factor in the analysis is particularly bizarre when compared with the absence of any analysis of the historical value of the submerged lands to the Squaxin Island Tribe. The purpose of the DEIS should not be to conjure speculative arguments in favor of maintaining the lake. The DEIS must include a review of the degradation of the historic sites, and the damage to the cultural and spiritual significance to the Squaxin Island Tribe.

EXECUTIVE SUMMARY

There is a frequent disconnect between statements made in the Executive Summary and the actual content of the substantive chapters in the DEIS. These are errors of both omission and emphasis. We will point out some examples below. The final DEIS Executive Summary should be more accurate and unbiased in its statements.

Comments on substantive elements/chapters in the DEIS that are referred to in the Executive Summary should also be considered as comments on those more detailed portions of the relevant chapters/sections of the full DEIS.

Project Area and Planning Horizon

DERT would like a more thorough explanation of the project area being considered. Why does the area include West Bay, but not East Bay and the entire Budd Inlet? Clearly the entire area of Budd Inlet would be affected by the various alternatives. For instance, modeling by the WA Dept. of Ecology shows that 50% of the problem associated with low dissolved oxygen in Budd Inlet is contributed by the dam at the mouth of the Deschutes River to contain the lake. If the dam was removed and tidal flow re-established, it would benefit water quality throughout the inlet as well as reducing LOTT’s future wastewater discharge issues and potentially save ratepayers significant money.

Planning Horizon: Why 30 years? The DEIS alternatives analysis is based on a 30-year planning horizon. DERT questions why 30 years and why not a longer – or even infinite – horizon. The dam has been in place for 70 years. The current lease between DNR and DES is for 30 years, expiring in 2028. It should be noted that the cost differential between alternatives would be even more pronounced with a longer planning horizon.

Dredging

Table ES-1 (p. 8): The summary of the alternatives should make clear that the amount of maintenance dredging under the Managed Lake alternative is significantly higher than under the other alternatives. In fact, the table should use the term "spot dredging" for the Estuary and Hybrid alternatives, as the main body of the DEIS says. As currently written, it appears that the amount of dredging is the same in all three alternatives, but occurs with more frequency in the latter two, which is not correct.

Table ES-1 (p. 8): Make it clear that the Habitat Enhancement Plan would not require the intensive invasive species management that the Managed Lake alternative would.

What happens to the New Zealand Mud Snail eradication process if dredged material is used to build habitat islands? Are we just moving them from one place to another? Please explain using science or note if the statement is based on best professional judgement.

In the figure ES6 (p. 27), the term “maintenance dredging” should be replaced with the term “spot dredging,” which is used in the full text. Otherwise, readers might assume that the scope and extent of the “maintenance dredging” under the Estuary Alternative would be similar to that under the Managed Lake alternative, or even more, since the DEIS states that the “maintenance dredging” under the Estuary Alternative (and Hybrid Alternative) would occur every 5-6 years, as opposed to the predicted every twenty-year interval for the Managed Lake.

Water Quality Conditions

Stratification (p. 12): The DEIS must provide information as to the rate at which the Deschutes River "flows through" Capitol Lake, and how that rate has changed over time.

There is also a question as to whether, because of sedimentation and reduced retention time, Capitol Lake meets the definition of a "lake" under Clean Water Act standards and criteria. If it does not and cannot meet CWA standards – why even bother with this process? Just remove the dam and let the estuary heal.

In the generalizations regarding stratification of lakes, the DEIS must provide comparisons with other lakes that have freshwater rivers (by definition) flowing into them for an accurate comparison of conditions.

Please delete the phrase "Despite what has been perceived to be worsening conditions in Capitol Lake..." (Executive Summary p. 12). This is someone's opinion, and not relevant to an objective statement of water quality condition, which the DEIS states that it is supposed to be.

Please delete the last paragraph on the Executive Summary p. 12 (see quotes). It seems to be simply a paid advertisement for the Managed Lake alternative. If in fact the water quality conditions in the lake are improving, an appropriate statement in the DEIS would be some reference to cause and effect, rather than promotion of one of the alternatives over the others. This paragraph is very unprofessional.

> *"The interrelationship among all of the factors affecting the Capitol Lake aquatic ecosystem is important to consider in evaluating the water resources throughout the ecosystem. Perceptions of poor water quality and worsening conditions in Capitol Lake are likely based on historical impairments, the continued impacted aesthetics from aquatic plant growth, and the ongoing restrictions on recreational use, rather than on the water chemistry. These improving water quality trends reduce the level of management that would be needed under a Managed Lake Alternative to meet lake management objectives."*

If in fact water quality trends are improving, the data for that statement should be shown and the causes identified. What has changed in the last several years to bring about any changes in water quality?

Please delete the following sentence: " These low dissolved oxygen concentrations are typical of the long narrow inlets that comprise much of South Puget Sound." (p. 13) If you were just describing Budd Inlet, the statement might be relevant. However, Capitol Lake is a dammed river at its mouth and despite being constantly delivered a flow of freshwater, it has water quality characteristics of water bodies without the same significant freshwater inflow.

Figure ES.6 (p 27) should say that removal of the dam "would" improve water quality, instead of "may."

Please explain why, in examining long term water quality trends in Capitol Lake, the DEIS ultimately only used data collected between 2010 and 2014--i.e., ignored a lengthy historic record, and excluding more recent data. See Section 3.3.3.1.

Please explain the significance of the cessation of discharges from the Olympia brewery, and how water quality has changed up until the current date.

In our research with the WA Dept. of Ecology and LOTT we have discovered the following information about discharges from the Olympia brewery and other sources:

- The Olympia brewery discharged industrial wastewater directly to the estuary and later to the lake dating from the brewery's original construction in 1896 until 1954, when the brewery began discharging through the City of Olympia sewer lines to the City's new municipal wastewater treatment plant (constructed in the early 1950s).
- Although the industrial wastewater from the brewing process was thereafter treated by the city and discharged to Budd Inlet, the brewery continued to discharge non-contact

heated cooling water to the lake. Both discharges of course came to an end when the brewery permanently closed in July 2003.

- The lengthy history of the brewery discharges together with direct discharges to the estuary of municipal sewage, industrial discharges from historic lumber mills and other businesses, stormwater from the city streets and buildings and direct sewage discharges from houses and other buildings constructed over the water in “Little Hollywood” prior to the construction of the 5th avenue dam and prior to the city municipal sewage treatment plant and stormwater collection systems all contributed to the poor quality of the estuarine waters and tide flats before construction of the 5th avenue dam created the lake. But they are all gone now except for an ever-decreasing number of stormwater outfalls.

The oft stated claim by some that returning the lake to an estuary will be a return to the conditions of the first half of the 1900’s (with smelly mudflats) is an absolutely untrue and misleading statement and should be called out as such. Closure of the brewery and advances in environmental laws and programs coupled with advances in collecting and treating water pollution sources ensures that conditions in the future in a restored estuary will be vastly improved compared to earlier pre-dam conditions with unregulated and uncontrolled pollution sources. The mudflats at low tide in a restored Deschutes Estuary will in most respects be similar or the same as found in other local inlets such as Totten and Eld inlets – relatively clean and healthy.

The DEIS notes (Section 3.3.3.1) that the applicable water quality standards for Capitol Lake, at the present time, are those for rivers, because the Lake no longer retains water for at least 15 days, which would be required to meet the definition of a "lake." It goes on to state that if Capitol Lake were in fact a "lake," it would fail to meet other water quality standards, including those for phosphorus. Please explain whether, under the "Managed Lake" alternative, the lake would have to meet these additional standards, and whether that would add to the costs of this alternative. (p. 13)

Please explain why the "modest improvements" to dissolved oxygen in Budd Inlet (p. 13) are likely to be significantly higher under Ecology models. Please ensure that the additional costs to LOTT to address the dissolved oxygen issues in Budd Inlet caused under the Managed Lake alternative are included in the economic analyses. The DEIS appears to limit its evaluation of water quality conditions to the nearby West Bay area while excluding impacts to East Bay, which is the area most affected by the dam.

Support for Ecological functions (p 16 ff)

- Please explain how the proposed placement of "construction" sediment along the shorelines would comply with current (2013) Ecology standards for sediment management. During the Key Findings presentation/briefing, the DES team simply stated that the same thing had been allowed when the lake was last dredged in 1986; Washington State's standards have been revised at least twice since 1986 and sediment and shoreline management programs have also been updated. In recent decades the

filling of wetlands and marine water areas to create uplands has been largely prohibited and at the very least subject to very stringent conditions if allowed.

- Explain how the Managed Lake alternative would "best support" (p.17) the "foraging base" for bats. Please quantify (vis a vis the Managed Lake option) the "severe" impacts to the bat population that the other alternatives would create. Also consider, over the life of the project, the impacts to the bat population from other factors (e.g., the deteriorating/disintegrating roosting habitat for the bat colony currently residing at Woodard Bay). Please explain why the bat colony merits specific mention here, whereas the major beneficial effects on other species from the Estuary Alternative (e.g., shoreline birds) are not mentioned with the same specificity. Is there some particular significance to the bats?

- Bats are well-known to forage above, along and near estuarine and riverine areas including other estuaries and inlets in our county. Is there something specific about this bat colony that precludes them from such foraging? Or is their current foraging at the lake merely a preference versus a condition for survival? The benefits to the ecology from restoration of tidal estuaries are well written (p. 17) and needs to be emphasized. The benefits to spawning salmon are acknowledged (p. 17). The statement regarding no native species in the Deschutes River because of the Falls should be modified to reflect Tribal legend that there were salmon in the river until an earthquake created the Falls and made passage possible. There are working fish ladders leading up to the reconstructed hatchery above the lower Falls. However, the dam creates a block for salmon returning to the hatchery and hungry seals feast on returning salmon by the dozen. The seals even follow the salmon through the fish ladder and up the river.

- Studies of tagged juvenile salmon by the WDFW and Squaxin Island Tribe have shown that juvenile salmon produced in rivers to the north frequently turn south when they enter Puget Sound. However, the lack of estuarine habitat in the South Sound compared to historic occurrence is a major factor in their poor rate of success.
- Estuaries can sequester carbon in the deep mud and in salt marsh vegetation. They can help mitigate flooding as they expand across river mouths. Please go to Restore America's Estuaries (estuaries.org) to learn more about Blue Carbon and the benefits of restored estuaries to mitigate climate change.
- There also seems to be no mention in the Executive Summary of the benefit to orcas from the healthier salmon populations, which is of course a high priority for this Governor and for the entire Puget Sound (it is mentioned in Chapter 5 of the DEIS).

Recreation (p 17 ff)

The Executive Summary should include a complete summary of the dates of closures on the Lake (e.g., swimming and boating), and not just the last one in 2009. The Lake has been "closed" for a long time. Swimming will never be a viable recreational asset under most alternatives.

The boating "alternatives" (p. 18) needs to mention that under the Managed Lake alternative, there would be no boating access from Budd Inlet into the Lake because of the continued existence of the Fifth Avenue Dam. A more accurate statement would be that boating in the Managed Lake Alternative would be limited to whatever boats could be launched south of the Dam, but under the Estuary Alternative there would be passage for boats (including sailboats) from Budd Inlet up to the bottom of the canyon depending on tidal cycles. The DEIS says that there would only be sailing under the Lake and Hybrid alternatives; that seems clearly not to be true, since there is sailing right now on tidal waters north of the Dam. In fact, removal of the dam and restoration of the river would likely increase sailing, which would be an economic benefit to the area generally, and possibly to the Port of Olympia and other marina facilities.

Discuss more thoroughly the additional recreational benefits of a restored estuary, i.e., bird watching, boardwalks, the remaining trail around the estuarine shoreline, etc.

Planning and Cost Estimates (p. 20ff)

There should be an explanation of why the State of Washington is assumed to bear 100% of the ongoing costs under the Managed Lake alternative, whereas under the other two alternatives the assumption is that there would be some local portion of the necessary funding.

The DEIS should also discuss that under the existing lease between DES and DNR, which expires in 2028, DES is responsible for paying the costs of any remediation necessary in Capitol Lake. This would include any contamination deposited in or on the tidelines, and any other remediation ~~of~~ or mitigation because of failure to meet applicable laws, standards, or regulations, including water quality standards. This obligation of DES would apply to all three alternatives.

The DEIS, in its discussion of economic impacts, does not recognize the potential flooding of downtown under the Managed Lake alternative, due to climate change and sea level rise. The City of Olympia has already recognized that it would also need to increase Heritage Park elevations to prevent flooding even with the dam in place.

Ecology/EPA work on Deschutes River/Budd Inlet TMDL (p 22)

A more accurate description of the TMDL process for the Deschutes River, be that EPA approved in part, and disapproved in part, the TMDL issued by Ecology. After litigation was filed, EPA promulgated a TMDL in 2020 for the disapproved portions and took comments until October 2020 on its revisions. After considering those comments, EPA promulgated a final TMDL in August 2021.

Ecology published its technical report on water quality findings for the entire watershed, including Budd Inlet, in 2012. Ecology separated Budd Inlet from the scope of the Deschutes TMDL in deference to the DEIS process being led by DES. Its website does not show any date as a target for completing the Budd Inlet TMDL.

Climate Change and Olympia's Sea Level Rise Response Plan (p. 23)

The Intergovernmental Panel on Climate Change (IPCC) recently released its latest update and forecasts on climate change and its impacts worldwide. As is usually the case, the latest iteration documents how climate change is occurring more rapidly than had been forecast, with its impacts accelerating. Please discuss how the conclusions of the latest IPCC report relate to the DEIS' assumptions about tidal conditions and floodwaters in the Project Area. Do the effects (e.g., additional risk of downtown flooding) weigh in favor of one alternative or the other?

Air Quality

The summary (p. 32) states that the impacts and benefits for both the Estuary and Hybrid Alternatives are the same. In fact, the Estuary Alternative provides higher levels of sequestration of greenhouse gases, and the Hybrid Alternative would produce more greenhouse gas emissions during construction (as outlined in Chapter 5).

Construction Impacts

The DEIS states in the summary that the Fifth Avenue Bridge would be fully closed for four to five years under the Estuary Alternative. Please provide the basis for this estimate, a comparison with the construction/schedule closure for the recent replacement of the Fourth Avenue Bridge, and options for use of a temporary bridge.

The Value of Estuaries (Ecosystem Services)

What is the economic value of a restored estuary? There needs to be a more thorough analysis done to show how estuaries boost local economies. Hundreds of thousands of visitors to estuaries around the nation create substantial revenue to local businesses and organizations. One nearby example is Vancouver B.C. Another is the large increase in visitors to the Nisqually Estuary during and after its restoration.

Estuaries provide much needed habitat for species of all kinds. When the Deschutes Estuary is restored, it will give both juvenile and adult salmon a much better chance of survival. Southern Resident Orca Whales depend on Chinook salmon to survive – and the SROs are dwindling in numbers along with Chinook. Sea birds depend on estuaries for food and reproduction. Pinnipeds venture into estuaries for food. And the "mudflats" visible at low tide are teeming with life.

Connecting people with a restored Deschutes Estuary, a state treasure, will provide citizens with the opportunity to experience the estuarine environment and associated health benefits of experiencing nature. It is proven to be true: spending time in nature has a significant impact on human health and well-being. It lifts our spirits!

TABLE ES.2: Please note that all the above comments, and requested changes, apply to the summary of benefits, and impacts of the various alternatives in Table ES.2

CHAPTER ONE

1-5: The draft EIS states that the current lease between DES and DNR for the aquatic lands under Capitol Lake expires in 2028 but may be renewed for an additional 20 years. It also states that the management of the Estuary could be transferred from DES to a different authority. As noted above, DES is not entitled to renew the lease in 2028, because it has allowed the deposition of contaminants, and is and has been in violation of water quality standards. In addition, if the lease is not renewed, DES is responsible for removing any "improvements" made to the underlying lands, including the Fifth Avenue Dam. And DES is responsible for paying for all of this. It appears from the lease that the authority for what to do with the aquatic lands resides with DNR, not with DES. Please also describe what the scope of management would be for a restored estuary on lands managed by DNR. Please describe the relationship of any new organization as well with the Deschutes Watershed Council, which the recently completed Deschutes Watershed Restoration and Enhancement Committee unanimously recommended be established and DERT wholeheartedly supports.

1-20: Evidently the criteria for selecting the preferred alternative were developed and chosen by DES, with "input" from members of the various committees established by DES to provide assistance in developing the DEIS. DES should make a concerted effort to involve those committees in the next step of the process, particularly after DES and its consultants have completed revisions to the DEIS. As DES knows, DERT has been involved as an organization since 2009 in efforts to remove the Fifth Avenue Dam and restore the flowing Deschutes River and Estuary. At this point our only participation in the EIS process has been as a member of the Community Sounding Board. We believe DES must pay particular attention to the input from that group.

CHAPTER TWO

Table 2.1.1: As noted above, please explain why a 30-year planning horizon was chosen, since clearly some facilities in the alternatives would have a longer life. And as we have pointed out, if the Managed Lake were truly to be dredged on a 20-year interval, adding a second cycle of dredging (i.e., a 40-year planning horizon) would substantially add to the costs of the Managed Lake alternative.

Tidal conditions (p. 2-9): Does the simulation of tidal conditions, and inundation patterns, reflect existing forecasts of sea level rise? Or the most recent IPCC report?

As noted above, the DEIS does not appear to consider the regulatory feasibility of sediment deposition, given the current state approach to sediment management. The DEIS states (p. 2-19) that the relevant agencies have said that existing sediments with their invasive species could be deposited along the banks of the Deschutes River. Have they said that in writing?

Table 2.3.2: The table describes the anticipated dredging schedule for the Olympia Yacht Club and other private marinas, the Port of Olympia, and the navigation channel. Please provide a comparison with their existing dredging schedule so that we may know how much of an

increase in dredging frequency would occur. For current dredging at those sites, please also state how the dredging is paid for, particularly the common navigation channel. Please also state how any maintenance dredging in the Managed Lake alternative would be paid for. The DEIS should note that there is no other comparable situation in our state where a state funded, constructed, and maintained dam and resulting lake is relied on to reduce and subsidize the dredging costs for private marinas and public ports.

Please explain the statement on p. 2-28 that the existence of dense aquatic vegetation in Capitol Lake does not indicate that water quality in Capitol Lake is "bad." What does it indicate? Does it indicate that water quality standards are not being met? Please explain the costs of mechanical harvesting under the adaptive management plan proposed under the Managed Lake alternative. Please also state whether that alternative assumes a periodic or frequent application of chemicals to the water to control the vegetative growth. If so, what effect would those chemicals have on other forms of life (e.g., birds and fish).

Please acknowledge that the statement (on 2-29) that there would only be "minor to moderate" improvements in water quality in Budd Inlet under the Estuary Alternative is inconsistent with Ecology's determinations that the existing dam causes 50% of the pollution in Budd Inlet, and that there would be significant improvements to water quality in Budd Inlet if the dam were removed.

Please describe the rationale for removing the existing Fifth Avenue Bridge under the Estuary Alternative, and the size of the proposed replacement bridge (p. 2-48). In particular, are the additional features (e.g., pedestrian bridge) fairly allocated to restoration of the estuary, or simply an upgrade to the existing Fifth Avenue Bridge?

CHAPTER THREE

Section 3.0 – Hydrodynamics

Figure 3.1.1 (p. 3-3) does not apparently reflect the extreme tidal events under a king tide. The narrative refers to the 5th Avenue dam controlling the water levels in the lake. While this is what one would expect – it is not true in winter, during a King tide event when inlet waters pour over the dam into what would be the mouth of the river. The heightened tides and marine water flow back into the river, an event due to climate change and sea level rise. If the dam were to stay in place – wouldn't it have to be higher? How could a complete restructuring of the dam be permitted?

3.1 – This section speaks for climate change as if it is something that will happen in the future. It is happening now. Study on the impacts of climate change under current conditions – a real assessment in present time – is needed.

3.2 – Please describe the benefit of estuary restoration to navigation. When the dam is removed, recreational vessels will be able to enter the river from the estuary – an opportunity that doesn't exist with the dam in place.

3.2 – The Olympia Yacht Club is not a public moorage facility – it is a private, member only club.

Figure 3.2.3 (p. 3-12) does not include any sediment data before 1998. Does that data exist? How about sediment deposition before the dam was constructed in 1951?

Thank you for the dredging frequency information on pp 3-14 to 3-15. Is there information on frequency of dredging since the construction of the dam in 1951? Before construction? The Olympia Yacht Club has been in its current location since roughly 1906.

Exhibit 3.27 does not appear to include either West Bay or East Bay.

Cultural Resources (Section 3.9)

The DEIS repeatedly refers to a "Des Chutes Basin Project Historic District," and features it heavily in discussions of cultural resource impacts analysis for each alternative. There is minimal attention given to Tribal cultural resources such as the Steh-Chass, the indigenous name for the lower Deschutes River and estuary, the effect being to privilege recent white people landscape architecture and infrastructure over millennia of Indigenous cultural landscapes. In fact, there are not references to the Steh-Chass in the Executive Summary.

Archaeologists and local history scholars are unfamiliar with any area called the “Des Chutes Basin” either as a district or as a cohesive "basin project". There are no references to it in state or local records and/or historic registers. According to the Deputy Director at the Washington Department of Archaeology and Historic Preservation, there is no such thing. In his words:

> “We are unaware of any proposed historic district and haven’t had any conversations with DES or any project proponents about such a designation (to my knowledge). At this point, I would say that a potential historic district designation has not been vetted by us, so I’m not sure what it includes or could include.”

The DEIS must evaluate the degradation of the historic sites, and the damage to the cultural and spiritual significance to the Squaxin Island Tribe.

In addition, the discussion of cultural resources does not reflect any more recent pre-Lake historical and cultural resources adversely affected (and probably intentionally so) by the construction of the Fifth Avenue Dam and creation of Capitol Lake. These include Little Hollywood, the Chinese Community, and other water-related and -dependent commercial and industrial enterprises that existed before 1951. All of these have significance to the history of the area. One need only look at the historic photos of this area to see the complexity and abundance of these activities, which have little to no recognition at the present, and apparently would not in the future under the alternatives described--particularly under the Managed Lake alternative. As we see increased new construction in downtown Olympia, these historic and cultural sites continue to be obliterated, but should be recognized and preserved to the extent possible.

CHAPTER FOUR--WATER QUALITY

On p. 4-94, the DEIS states that the Estuary Alternative is less consistent than other alternatives with long-term reductions in greenhouse gas emissions. This seems inaccurate and inconsistent with other statements that the Estuary Alternative has the least greenhouse gas emissions associated with construction and operation.

On p. 4-101, the statement that all alternatives are consistent with the City's Shorelines Management Program is inconsistent with other statements (e.g., on p. 4-104) that the Managed Lake alternative would be inconsistent with restoration of the estuary, and that the Estuary and Hybrid Alternatives would be most consistent with the SMP.

On p. 4-174, the DEIS acknowledges the significant costs likely to be incurred by LOTT under the Managed Lake alternative to meet more stringent discharge standards for stormwater and wastewater. Please request from LOTT and include any planning level costs that they have developed under this scenario and impacts to LOTT ratepayers in Thurston County.

Although the DEIS states that recent data show an improving trend in some water quality conditions, there is no statement as to why this might be. We fully supported the effort to develop TMDLs for the Deschutes River and Capitol Lake, but we are not aware of any significant effort by the State or by local governments or other entities to implement the approved TMDLs to such an extent that any actual change in water quality would be expected to occur. Most of the impacts to water quality in this basin (in addition to the dam) are the result of upstream nonpoint source pollution activities which are primarily subject only to voluntary improvement programs, with some exception for forestry in the upper reaches of the basin. Other than some improvements in stormwater controls by the cities and county, we are not aware of any regulatory changes to point source pollution sources that would have caused an improvement in water quality in recent years.

The reduction in DIN within the lake compared to the Deschutes River does not indicate that removal of the dam will increase nitrogen loading to Budd Inlet. Plant and algae within the lake uptake nitrogen within the lake as they grow and increase in number, and later decompose and release that same nitrogen to the inlet. The statement in the DEIS appears to assume that that nitrogen is somehow lost or removed with the dam in place, which of course is not the case, although the timing of the release to marine waters may vary. In addition, carbon uptake and release also play a large role in depletion of Budd Inlet dissolved oxygen. Please refer to the WA Dept. of Ecology TMDL and technical reports for a discussion of these.

The DEIS states that water quality in the lake in spring and fall months is improved compared to the rest of the year. Although not stated, this is likely due to increased inflow from the Deschutes River during high flow events during those time periods. In recent years rainfall during our summer months has been decreasing while air temperatures have increased. The DEIS should review and summarize rainfall, streamflow and air and water temperature records.

Please see our comments above on previous sources of point source pollution under "water quality conditions". It is very clear that the historical sources of human and industrial pollution to the estuary and to the lake were very large and were largely untreated until the 1950s. Water quality in the estuary from about 1896 until 1954 was undoubtedly very poor due primarily to those untreated point source discharges along with unrestrained logging and other activities within the basin. Subsequently point sources to the lake were greatly diminished with the passage and implementation of the federal Clean Water Act and State Water Pollution Control Act but have not been totally eliminated – there are still some relatively smaller point sources in the basin, these are primarily construction and stormwater related, although the City of Olympia has made efforts to remove and redirect some stormwater outfalls from the lake to Budd Inlet. Old stormwater outfalls to the lake still exist and are difficult to treat to reduce pollution without extensive reconstruction and installation of treatment modules at a high expense.

"Good water quality" consists of more than just a lack of chemicals in the water and appropriate levels of oxygen, pH and temperature that will sustain aquatic life. Under our state's water quality laws and standards any addition of deleterious materials in the natural waters of the state can constitute a water quality violation. We urge DES not to discount the terrible effects of excessive algae and aquatic plant growth within the lake to both wildlife and humans.

With increasing temperatures due to climate change and increasing nutrients due to population growth entering both our fresh waters and marine waters, the occurrence of algae blooms and excessive plant growth is ever increasing. This leads to increases in both adverse physical and chemical effects. While many people are concerned with the purported loss of an aesthetic view of the Capitol if the estuary is restored, few seem to regard the current awful conditions of algae and plant growth and decay within the lake with the same level of concern. Modeling by the WA Dept. of Ecology has shown that no amount of dredging to deeper depths within the current lake will overcome the sources of nutrient pollutants causing these cycles of growth and decay. However, restoring the estuary will greatly diminish those cycles within the estuary and lead to improved water quality in Budd Inlet.

Many lake management districts exist in our state mainly to remove excessive plant growth in the lakes caused by over enrichment of nutrients. While such removal can result in a temporary depletion of the plants, these efforts are in fact never ending and do not treat the root cause. Removal of the plants is not a solution to the problem – reducing the sources of the pollution and the causes of the plant growth will result in a more sustainable, long-term solution. Restoring the estuary is the largest part of that sustainable, long-term solution in this case, coupled with implementation of the Deschutes River TMDLs.

CHAPTER FIVE--SHORT-TERM IMPACTS AND MITIGATION

In general, many statements in this section need to be reviewed by relevant state agencies for their respective jurisdictional issues, particularly the Washington Department of Fish and Wildlife and the Department of Ecology.

Section 5.9.2.1--Archeological Resources

While the statements may be true regarding recorded archeological sites, the DEIS should at least recognize the need to consult with the Squaxin Tribe, and the State Department of Archeology and Historic Preservation, throughout the entire project process.

CHAPTER SIX--CUMULATIVE EFFECTS

Table 6.5.1 should note that the Deschutes River TMDL has been completed by USEPA.

Table 6.5.1 should include implementation of the Deschutes Watershed Restoration and Enhancement plan, completed in April 2021, with a list of projects in Thurston County to offset future exempt wells, and to restore degraded habitat in the Deschutes Watershed. Part of the implementation will include creation of the Deschutes Watershed Council. The hope is that the Council will be authorized and funded in 2022.

On p. 6-16, why is the bat colony singled out for potential adverse impacts, and yet there is no discussion of beneficial effects on other bird species.

CHAPTER SEVEN--PLANNING LEVEL COSTS

DERT's sole comment on this chapter, not having been a member of the Funding and Governance Committee, is that the costs for moving forward should be calculated from the *status quo ante*--more specifically, the state of the river and the estuary before the 1951 construction of the dam that interfered with the natural conditions and processes. That interference has now been compounded into problems that have reached a point that they must be addressed. However, those who benefit from a restoration to natural conditions now should not be required to pay for the future costs of those who have benefited from the unnatural conditions for the past 70 years.

There should also be significant evaluation of the role of the federal government in helping with restoration costs.

Thank you for the opportunity to comment. DERT will continue to watch and participate in this process throughout work on the Final Environmental Impact Statement.

David Monthie
Dave Peeler
Sue Patnude
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