



CAPITOL LAKE — DESCHUTES ESTUARY

Long-Term Management Project Environmental Impact Statement

Meeting Notes Summary

Date: June 7, 2019

Time: 1 to 3 p.m.

Location: Jefferson Building

Topic: Technical Work Group Meeting

Meeting Participants

Work Group Members

- Eric Christensen, City of Olympia
- Matthew Curtis, Washington Department of Fish and Wildlife (WDFW)
- Lisa Dennis-Perez, LOTT Clean Water Alliance
- Joy Polston-Barnes, Washington Department of Natural Resources (WDNR)
- Dan Smith, City of Tumwater
- Scott Steltzner, Squaxin Island Tribe
- Leanne Weiss, Department of Ecology (Ecology)
- E. J. Zita, Port of Olympia

Department of Enterprise Services

- Kevin Dragon
- Carrie Martin

EIS Consultants/Facilitators

- Tessa Gardner-Brown, Floyd|Snider
- Jessi Massingale, Floyd|Snider
- Karmen Martin, ESA
- Younes Nouri, Moffatt & Nichol
- Ray Outlaw, EnviroIssues

Observers

- John DeMeyer, CLIPA/Olympia Yacht Club
- Amy Hatch-Winecka, WRIA 13
- Bob Holman, CLIPA
- Sue Patnude, DERT

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- Steve Shanewise, DELI
- Bill Yake

Meeting Notes Summary

Welcome and Introductions

Jessi Massingale welcomed attendees to the June 7, 2019 Technical Work Group (TWG) meeting. She noted a few members were unable to attend and Commissioner E.J. Zita was representing the Port.

Jessi introduced Karmen Martin, ESA and Younes Nouri, Moffatt & Nichol, who are part of the Environmental Impact Statement (EIS) Project Team.

She thanked the TWG members for the calls, meetings and data sharing over the past few months.

Community Sounding Board Update

Tessa Gardner-Brown provided a brief update on the June 5 Community Sounding Board (CSB) meeting. CSB members were asked to respond to four questions related to recreation.

1. How are you/your family using Capitol Lake and the surrounding parks (from Tumwater Falls to Priest Point Park)?
2. For those of you that used Capitol Lake in the past (before uses were restricted on the lake), how did you/your family use the lake then?
3. If the currently restricted water-based uses were restored under a long-term management option, would this change your use of waterbody?
4. If Capitol Lake was restored to an estuary or hybrid, shorelines would change (incl. vegetation, distance from trails to water, etc.). How would these changes affect your use of the project area?

Tessa explained the CSB is a structured way to receive feedback from the community and feed information into the EIS analysis. These questions will help establish and describe existing recreational uses within the project area to help understand how recreational uses were different in the past before active uses were restricted. This is important because one of the project goals is restoring active use. This was a two-hour discussion (breakouts and group discussion) that will be supplemented by conversations with the work groups and other survey work in the summer and fall.

Tessa briefly summarized CSB feedback regarding current and past use.

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Current

- Frequency ranged from never to moderately often
- Passive use, especially walking around the area and the use of parks continues
- Wildlife viewing generally and salmon viewing at Tumwater Falls and the fish ladder are important
- Budd Inlet and recreational boating

Past

- More frequent, different uses
- Boating and fishing activities within the resource

Across all alternatives there appears to be a shared interest in having the ability to ‘touch’ the water again. Most participants felt this would increase their use of the resource. In a lake scenario the lake would be used similar to the past when active use was permitted. In an estuary scenario there was interest in boardwalks and the ability to be out over and in close contact with the resource. The idea of a dynamic estuary system could encourage more active use. The Executive Work Group (EWG) was asked the same questions during their June 6 meeting.

Jessi will transmit meeting materials and a scheduling poll soon. She asked that the TWG consider these questions and provide feedback via email as recreational use is one of the project’s key goals.

Measurable Evaluation Process

Tessa provided an update on Measurable Evaluation Process activities occurring since the last meeting, referencing the flow chart that will guide alternatives development through preferred alternative selection. She reminded the TWG that Step 1 allows the EIS Project Team to look at the range of alternatives and concepts proposed over the years (including those submitted during the Scoping period) to ultimately develop optimized versions of each alternative (estuary, hybrid, lake). Those optimized versions then move forward into the technical evaluation and the EIS. The plan is to report out on the optimized alternatives later in 2019.

Tessa said the EIS Project team adopted a change recommended by the US Army Corps of Engineers (Corps), along with the CSB, that regulatory and technical feasibility be evaluated relative to other components.

She added that the plan is to describe what the alternatives look like to the TWG later this year when Step 1 is complete. She added that the EIS will include a no-action alternative as required by the State Environmental Policy Act (SEPA), which will serve as the baseline for evaluating all

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alternatives. The EIS Project Team is currently developing the assumptions around the no action alternative.

TWG question: No action in this case means a very dynamic system, how would you look at that?

The EIS will evaluate changes that would occur during the time horizon evaluated in the EIS. The analysis will not be static, for example, as it includes dam management activities in place or planned.

Third Party Review Update

Carrie provided an update on the third-party review process. The water quality methodology review is complete and the EIS project team is revising the document. Enterprise Services is finalizing the review process for hydrodynamics and sediment transport and economics that will occur in late June or early July. All three methodologies will be published on the project website when they are final. The reviewers will be re-engaged in 2020 when they are asked to review discipline reports. Carrie thanked the EWG members for their recommendations and helping with the selection process.

EIS Technical Analyses and Coordination Update

Field work update and Ecology coordination

The EIS Project Team worked closely with Ecology to collect water quality samples in May, while spill cleanup was ongoing. Ecology has agreed to collect Budd Inlet samples previously scheduled for 2020. The EIS project team will collect monthly water quality samples in Capitol lake (May - October) and Ecology will collect samples at a station in Budd Inlet (July – October).

TWG question: How will the EIS consider Total Maximum Daily Loads (TMDLs)?

The alternatives will include a description of their consistency with TMDLs to provide a foundation to understand how alternatives relate to TMDLs in the future. The preferred alternative will require additional quantitative work to understand its consistency with TMDLs, expected to occur as part of the subsequent design and permitting processes.

A new bathymetry survey is anticipated to be able to be conducted following Ecology spill cleanup work in July.

Methodology Review

Jessi reviewed the level of analysis ([see presentation](#)) needed to compare the alternatives in an EIS, noting limitations on the data needed. She explained the EIS analysis needs to be sufficiently detailed to:

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- Support a comparative evaluation of impacts between alternatives but it is not necessary to understand every detail
- Support the conclusions about proposed mitigation measures, i.e., would mitigation measure feasibly/adequately mitigate potential impacts?

SEPA notes that EISs should be concise, readable documents; "...an EIS is not required to include all information conceivably relevant to a proposal..." WAC 197-11-402(6).

The EIS analysis helps support permit review but often additional information will be required and developed during the design and permitting phase (e.g., an EIS evaluation of water quality may not be at a level sufficient to meet all of the requirements for obtaining a Clean Water Act 401 Certification for the selected project alternative).

Tessa explained that study areas vary by discipline, but the project area remains constrained by the area managed by Enterprise Services.

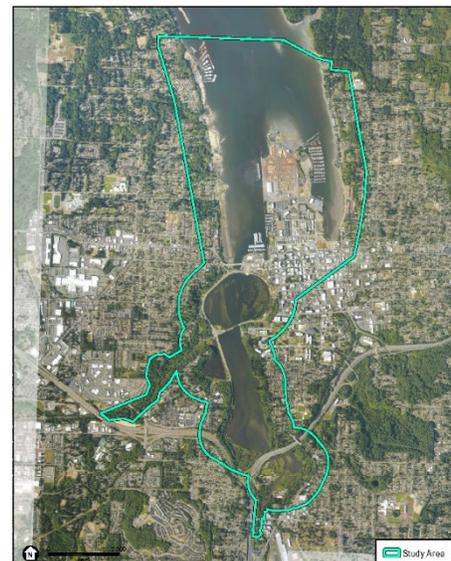
Wetlands and Vegetation Methodology

Karmen Martin described the study area boundaries for wetlands and vegetation (see map):

- City of Olympia (north)
- Approximately 1000 feet from the water's edge (Budd Inlet and Capitol Lake)
- Percival Creek up to Highway 101
- Deschutes River up to (and including) Tumwater Falls

She then explained the wetlands and vegetation analysis of existing conditions:

- Relies on existing data (GIS/mapping, literature, wetland inventories, etc.)
- Supplements existing data with site reconnaissance
- Categorizes/classifies wetlands and vegetation
- Results in an existing conditions map



The analysis will help compare alternatives to understand how potential changes in the system under each alternative could change wetland and vegetation community types.

The analysis will focus on changes in areas of wetlands, special aquatic habitats, and vegetation area and type. We will use topographic and bathymetry data, sediment modelling, tidal range information, assumptions on salinity levels, and other design information prepared by the engineering team.

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The short- and long-term changes (benefits and impacts) will be described. Impacts will be qualitatively assessed for their relative magnitude as positive, negative, or neutral.

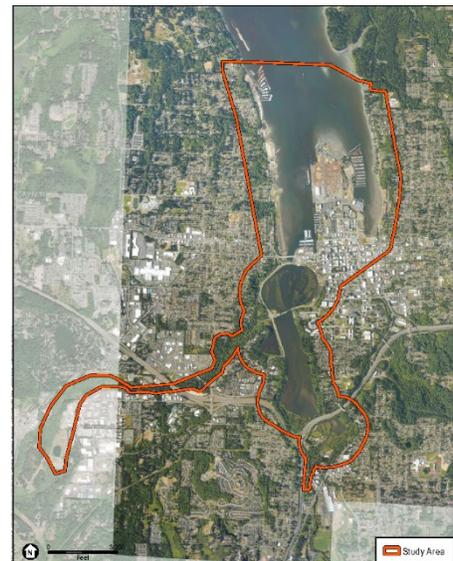
Jessi asked the TWG to provide feedback, as necessary, when the materials are sent via email and they have the opportunity to review in more detail.

Fish and Wildlife Methodology

Karmen said the fish and wildlife study area is the same as wetlands and vegetation except it includes Percival Creek up to Trospen Lake (see map).

The analysis of existing conditions will consider groups/species that occur in the study area with special attention on federally listed species and critical habitats. The work will be focused on a reasonable analysis that allows the EIS Project Team to identify probable significant impacts.

The fish and wildlife analysis will help to understand and compare the potential impacts and benefits of the proposed alternatives. This includes estimating the type, extent, and magnitude of habitat change relative to existing conditions and correlating those changes to the specific life histories and habitat requirements of the species and groups of species evaluated.



TWG question: Where did you land on invasive/nuisance species?

The EIS Project Team is developing a separate methodology focused on those species, including flora and fauna.

Tessa explained the development of methodologies is phased because they build upon each other. Additional methodologies will be shared as they are developed.

TWG question: Why have you eliminated Black Lake ditch and Black Lake which are more significant in terms of flow and basin size?

The methodologies are still under development and the boundaries may change based on feedback like this so please provide your thoughts and comments for our technical leads to review.

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Land Use, Shorelines, Recreation Methodology

The study area for land use, shorelines and recreation includes (see map):

- City of Olympia boundary including Priest Point Park (north)
- Around Budd inlet (water's edge)
- Capitol Lake approximately 1000 feet from the water's edge
- Deschutes River up to (and including) Tumwater Falls

The analysis begins with a good understanding of existing uses. Data sources include existing GIS data, policy and planning documents, and land and shoreline use regulations associated with the City of Olympia, City of Tumwater, Port of Olympia, and Thurston County. We will supplement this with data collected through a user survey of recreation use in the study area.

Evaluation of land and shoreline use impacts will focus on any changes in expected use patterns or intensity that might affect existing or planned land uses. This will be informed by the recreation and economics analyses.

Evaluation of recreation impacts will focus on changes to the types of recreation available and the quality of the experience. We plan to describe recreational uses that are likely to:

- Increase - those that are both desired by users and would be facilitated by an alternative
- Decrease - those that would be impeded or eliminated by an alternative
- Remain the same or similar to existing conditions - those that are both desired and would not be impeded

TWG question: Is there any reason not to keep the boundaries consistent throughout the analysis?

They are preliminary at this point, but we will follow-up with the technical leads to discuss that question in more detail.

Hydrodynamic and Sediment Transport Modeling



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Younes Nouri presented the hydrodynamic and sediment modeling methodology ([see presentation](#) for detailed methodology). He said the objective is to compare various alternatives quantitatively in terms of:

- Maximum water surface elevation/extent of inundation
- Sedimentation and erosion patterns and volumes

The challenges of this are:

- Different sizes of sediment
- Uncertainty in long-term morphology prediction
- Modeling two different systems (lake with control structure vs. estuary)
- Prediction for a system that does not exist

Fortunately, there is an immense amount of data available from previous studies and the EIS Project Team can leverage both lessons learned and findings. The US Geological Survey still has working models available and agreed to help if needed.

TWG question: Is this model producing point in time or time dependent outcomes?

The results are both temporal and spatial and will include maximums over time and time histories covering the entire modelling domain.

TWG question: Will you benchmark the model against past data?

Yes

Younes said the model will be built using Delft3D, developed by Deltares Inc. It is a state of the art, process-based, open source model. He described the model components and computational grid, noting the new model will range from 4 to 140 times higher spatial resolution compared to previous work.

Younes explained the EIS Project Team is developing conceptual dredge plans as part of the analysis. They are very important to the alternatives and in some cases unique to different alternatives.

TWG question: Are you considering Corps plans for dredging in Budd Inlet?

Jessi described that the Corps is an ad hoc member of the TWG and we have discussed with the Corps the importance of their ability to maintain the navigation channels and the Section 408 process. We are in close coordination with the Port and Corps. The EIS will be a little ahead of other Budd Inlet cleanup related sediment remedial action timelines but we hope to be able to understand what alternatives are on the table for the Port and Ecology.

Younes explained the calibration/validation process which includes matching model results with known historical conditions to help build confidence in model performance. He noted it is

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challenging that we do not have historical data to validate the hybrid/estuary scenario as these data/systems do not exist, but also described the calibration/validation approach for existing conditions. He added that previous modelling sets did not do calibration/validation because these systems do not exist either.

The results of the hydrodynamics model will include maximum water level, maximum depth-averaged velocity, and an extracted time series of water levels and velocities at observation points.

Younes then described how the sediment model will build upon the hydrodynamics work. The new model will test to see if there is any movement of gravel. He explained calibration will include work dating back to 2004.

TWG question: What is RSLR?

Relative sea level rise (relative to movement of the land) - this is assumed to be 2 feet considering Olympia and the Port's sea level rise report.

The results will include plots of cumulative erosion and deposition, sediment flux at selected cross sections and sediment volume changes inside the lake and other areas of interest (e.g. Port, marinas).

Younes explained several advantages to the proposed methodology:

- Modeling is performed for a higher number of river discharges
- Uses actual measured time series of river discharges and computes morphological changes in real time scale
- Steady-state simulations for construction of lookup tables are much easier to calibrate
- Provides similar benefits for speeding up model simulations as using morphological time scale factor (MORFAC)
- Hydrodynamics is not computed in real time scale, which speeds up morphological computation
- Several hydrographs can be simulated

Jessi reminded the TWG that all three methodologies undergoing third party review will be made publicly available on the project website and shared with work group members.

Upcoming TWG Meeting

Jessi explained the TWG was meeting a little early this time, considering summer schedules and the progress on methodologies. She explained the plan is to have a joint Executive and Funding and Governance Work Group meeting in September to bring forward options and approaches for funding and governance.

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She said the likely timeline for the next TWG meeting would be in November. The EIS Project Team would bring forward updates on data collection, methodologies, and optimized alternatives. Then the next meeting would occur in early 2020.

The TWG did not identify any dates to avoid for scheduling purposes and did not have morning or afternoon preference.

Jessi asked the TWG to send comments and questions as they reflect on today's presentations.

Round-Table Feedback

None

Public Comment

Question: Are you evaluating multiple scenarios for the estuary/hybrid with different size openings? What about at Marathon Park?

The EIS Project Team is thinking about the opening sizes and that is an ongoing discussion. This a question being answered through the Measurable Evaluation Process to identify the optimized alternatives.

Question: Are you considering state and federal lists for sensitive and endangered species?

Yes.

Question: Previous studies assumed a 500-foot opening in an estuary scenario and raised some questions about the velocity. Ecology has been working for a number of years on the TMDL using the GEMS model which had many small cells. They found it was necessary to combine cells to represent the conditions. Is the EIS Project Team consulting with Ecology?

Leanne Weiss explained Ecology is already working with the EIS Project Team but noted the models are very different and it may not be possible to use the same grids. Younes agreed and explained that part of developing a modeling grid is checking to make sure the cell size does not affect the results. Leanne clarified that Ecology did not change the model grid but did post processing that allows averaging after the fact; the model still runs on the finer scale.

Question: Is the current plan not to model water quality for these various options in the future? How will different alternatives affect water quality and how can predictions be accurate?

Tessa said that assumption is correct, and that final water quality methodology should answer some of those questions.

Adjourn

Jessi adjourned the meeting at 2:49 p.m.