

## **Summary of Materials and Request for Stakeholder and Community Input**

### **Capitol Lake Long-Term Management Planning**

#### **Phase I Implementation – June Meeting Series**

##### **NEW PROVISIO ELEMENT: IDENTIFICATION OF HYBRID OPTIONS**

Meetings to discuss Hybrid Options for the Long-Term Management of Capitol Lake will occur in June 2016. The materials to accompany these discussions describe the existing hybrid options and present a range of associated option components. A draft Purpose and Need statement has also been developed and incorporates the goals and objectives identified in previous meetings. The draft Purpose and Need statement will be one of the key tools used in the EIS process in Phase II to evaluate the consistency of the hybrid and other long-term management options against goals of the project.

##### **PREVIOUS PROVISIO ELEMENT: METHODOLOGY FOR BEST AVAILABLE SCIENCE**

The materials prepared to assist in the future evaluation of Best Available Science have been revised based on feedback from the Technical Committee, Executive Work Group, and the Community. These materials are now available for a “second touch” review.

##### **MATERIALS FOR REVIEW**

- Example purpose and need statements, and a draft purpose and need statement that reflects stakeholder-provided goals for the long-term management of Capitol Lake.
- Description of visual representation of existing hybrid options, along with a table to review a range of the hybrid option components.
- The selected methodology for identification of Best Available Science, an updated list of technical documents that could be reviewed as potential best available science for water quality and habitat in the Capitol Lake basin (as part of the EIS process in Phase II), and a summary sheet regarding peer review policy.

##### **QUESTIONS FOR MATERIAL REVIEW AND INPUT**

1. Are you aware of additional hybrid options that should be included for consideration next month (in addition to the review of the Managed Lake and Estuary)?
2. Does the draft Purpose and Need statement capture the primary project goals?

##### **DATES FOR COMMUNITY INPUT ON METHODOLOGY FOR BEST AVAILABLE SCIENCE**

Input can be provided at the Community meeting scheduled from 5:30 to 7:30 PM on June 29, 2016 at 1500 Jefferson St SE, Olympia, WA. Input on these materials and the questions above can also be submitted online from June 16, 2016 to June 30, 2106, at [www.des.wa.gov](http://www.des.wa.gov).



**Example Purpose and Need Statements**

A **Purpose and Need Statement** establishes the foundation of an Environmental Impact Statement (EIS) by providing a basis for the project and the criteria for which to compare identified alternatives. The example Purpose and Need statements provided below demonstrate the range of formats that a Purpose and Need statement may take, ranging in scope and detail, and varying from those with a singular goal to statements with secondary goals and benefits.

As part of a permit application, it is used to “describe the purpose of the project and why you want or need to perform it.”

<b>STRAIGHTFORWARD – DEVELOPMENT/INFRASTRUCTURE NEED</b>
<b>Pier 4 (Terminal 4) Phase 2 Reconfiguration Project</b>
The pier and berth will be configured to more efficiently accommodate larger ships. Additionally, it will serve to widen the Blair Waterway to allow for more efficient and safe operation of the waterway. This configuration includes cutting the existing slope back to allow the replacement Pier 4 to align with Pier 3. The toe of the slope will be deepened to -61.5 feet MLLW and backfilled to -56 feet MLLW for deep draft ships and will provide 100-foot-gage crane rails to support container cranes capable of loading ships that are 24-containers-wide.
<b>SR 520 Pontoon Construction Project</b>
The purpose of the Project is to accomplish the following: (1) expedite construction of the pontoons needed to replace the existing traffic capacity of the Evergreen Point Bridge if a catastrophic failure occurs, and (2) store these pontoons in case they are needed for catastrophic failure response or until they are incorporated into the SR 520 Program’s I-5 to Medina: Bridge Replacement and HOV Project.

<b>COLLABORATIVE REDEVELOPMENT PROJECT WITH SECONDARY GOALS</b>
<b>2015 North Lead Rail Improvements Project</b>
<b><i>-Lists primary purpose of project, and other or additional project goals and notes that it is a collaborative project between property owner and site operator.</i></b>
The current rail configuration in the corridor allows for only one train arrival or departure at any given time. The end goal of the project is to allow for the simultaneous arrival and departure of trains in and out of the corridor or the simultaneous arrival or departure of two trains. This goal will be met with the 5 track configuration proposed in the North Lead Rail Project.
Other project goals include:
<ul style="list-style-type: none"> <li>• Provide infrastructure that allows the Port and TR to manage impacts that may arise from regional and national rail network issues.</li> <li>• Keep intermodal terminals fluid and increase the capacity for Inland Point Intermodal (IPI) business with availability of infrastructure, crews, cars, and engines.</li> <li>• Build infrastructure around peak demand.</li> <li>• Minimize work events/movements for rail, increase efficiency and speed of movements.</li> </ul>

- Provide consistent, reliable rail service and improvements to network reliability and maximization of Class 1 railroad Union Pacific Railroad (UPRR)/Burlington Northern Santa Fe (BNSF) infrastructure and assets in the Pacific Northwest corridor.
- Provide infrastructure that provides a buffer against capacity constraints on the Class 1 network including infrastructure, crews, cars, and engines.
- Reduce the amount of time trains spend occupying at-grade crossings.

The project is a collaborative effort between the Port and TR. The Port owns the property on which the current rail corridor is located. TR is the control operator for nearly all rail movements in the Port, and a portion of the rail improvements are located within the Tacoma Rail Yard, which is situated between Milwaukee Way and Port of Tacoma Road.

**PRIMARY PROJECT PURPOSE COUPLED WITH SYSTEM-WIDE ECOLOGICAL BENEFITS**

**Lora Lake Remedial Action and Wetland Rehabilitation Project**

*-Describes primary purpose of addressing contaminated soils and sediments, includes opportunity to mitigate construction impacts and provide system-wide (wetland) ecological benefits originating from stakeholder and resource agency input.*

The purpose of the remedial action selected by Ecology is to address chemical contamination in soil at the former Lora Lake Apartments site, sediments within Lora Lake, and shallow soils along Des Moines Memorial Drive that may adversely affect human health and the environment. The remedial action meets the minimum requirements for a cleanup action under MTCA because it is protective of human health and the environment, complies with cleanup standards, complies with applicable state and federal laws, and provides for compliance monitoring. The remedial action implements a permanent solution to the maximum extent practicable, provides for a reasonable restoration time frame, and has incorporated consideration of public concerns.

Excavating the contaminated upland soils and placing the carbon-amended sand cap will achieve the goals of the Cleanup Action Plan and the Consent Decree, while the additional fill and wetland rehabilitation actions will mitigate temporary construction impacts to the Lora Lake wetland complex and provide an overall net benefit to Miller Creek.

During project development, stakeholders concluded rehabilitating wetlands in the Lora Lake Parcel could achieve significant functional lifts in the wetland system, and Miller Creek and its floodplain. Currently, Lora Lake is a source of warm water discharge to Miller Creek. Filling the lake to establish a scrub-shrub plant community would rehabilitate the system by re-establishing the conditions that existed before the lake was mined for peat. The wetland rehabilitation will remove the source of warm water discharge to Miller Creek and improve water quality. Resource agencies, including the Corps of Engineers and Ecology, indicated that they prefer these elements of the project be included as part of the cleanup to address a broad set of ecological (non-MTCA) objectives beyond just the site cleanup.

**South Bay Restoration Project**

The SBSP Restoration Project Goal and Objectives were developed by the PMT with input from the Stakeholder Forum, Science Team, and Regulatory and Trustee Agency Group. The overarching Project goal and six Project Objectives within the SBSP Restoration Project Area, as adopted by the SBSP Restoration Project Stakeholder Forum on February 18, 2004, are as follows:

The overarching Project Goal is the restoration and enhancement of wetlands in South San Francisco Bay while providing for flood management and wildlife-oriented public access and recreation.

Objectives include:

- Create, restore, or enhance habitats of sufficient size, function, and appropriate structure to:
  - Promote restoration of native special-status plants and animals that depend on South San Francisco Bay habitat for all or part of their life cycles.
  - Maintain current migratory bird species that utilize existing salt ponds and associated structures such as levees.
  - Support increased abundance and diversity of native species in various South San Francisco Bay aquatic and terrestrial ecosystem components, including plants, invertebrates, fish, mammals, birds, reptiles and amphibians.
- Maintain or improve existing levels of flood protection in the South Bay Area.
- Provide public access and recreational opportunities compatible with wildlife and habitat goals.
- Protect or improve existing levels of water and sediment quality in the South Bay, and take into account ecological risks caused by restoration.
- Implement design and management measures to maintain or improve current levels of vector management, control predation on special status species, and manage the spread of non-native invasive species.
- Protect the services provided by existing infrastructure (e.g., power lines, railroads).

The SBSP Restoration Project is needed to address the following:

- Historic losses of tidal marsh ecosystems and habitats in San Francisco Bay and concomitant declines in populations of endangered species (e.g., clapper rail, salt marsh harvest mouse);
- Increasing salinity and declining ecological value in several of the ponds within the Project Area;
- Long-term deterioration of non-certifiable levees (for FEMA purposes) within the Project Area, which could lead to levee breaches and flooding;
- Long-term tidal flood protection; and
- Limited opportunities in South San Francisco Bay for wildlife-oriented recreation.

*Below is a draft Purpose and Need Statement prepared as part of this Phase I process. Reaching broad agreement on a Purpose and Need Statement could provide the foundation for a future Environmental Impact Statement (Phase II), the process used to compare and select a long-term management option.*

## **Capitol Lake Long-Term Management Project: Draft Purpose and Need Statement**

The purpose of the Capitol Lake Long-Term Management Project is to improve water quality and manage invasive species, which would restore and enhance community use of the resource. The work proposed as part of this project is needed to comply with water quality standards and improve impaired ecological functions of the Capitol Lake basin, which currently result in access restrictions.

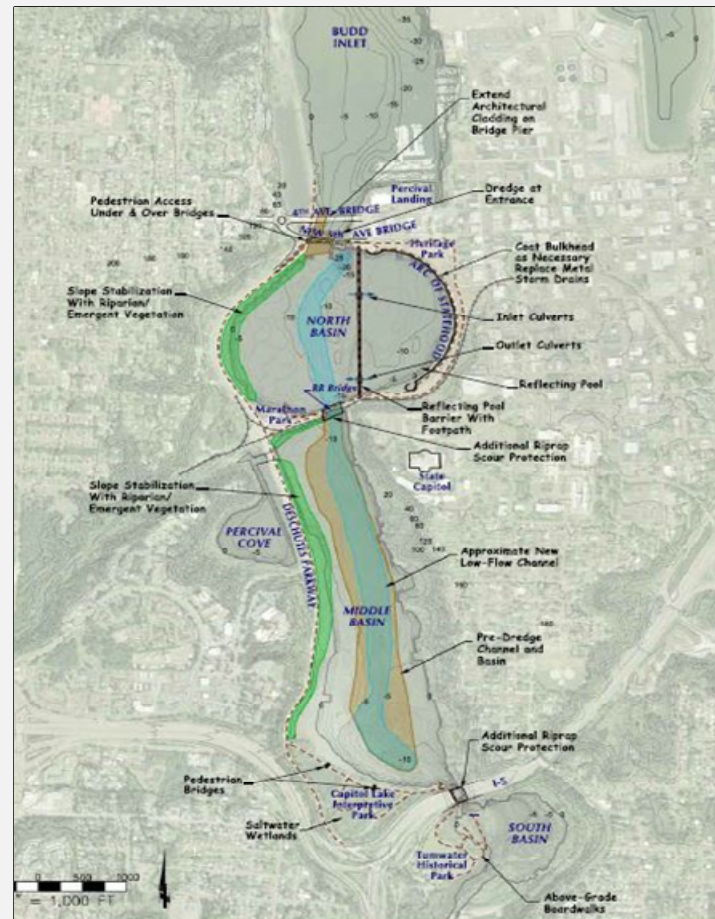
The Capitol Lake basin and its watershed have long-standing history as a regional resource, with active use and importance predating Capitol Lake. Since its construction in 1951, the area around Capitol Lake has supported community events such as the annual Capital Lakefair, organized marathons, and various other gatherings. The trail system and nearby parks provide continued passive recreational opportunities that maintain the lake's edge as an important recreational center and a valued amenity in the Olympia and Tumwater area. With its central location, the area holds historical and personal significance for many people. There continues to be a high value on the visual and scenic qualities of Capitol Lake, which were a primary component of the original design.

Although the upland area remains vibrant, community use of the water has been restricted for more than 30 years due to the degraded water quality and ecological functions. The lake was closed to swimming in 1985 due to high bacteria levels. Water draw-down and back-flushing to control algal blooms and freshwater plant growth continued annually until 1999 and caused temporary impacts to other recreational uses, such as boating and fishing. The presence of invasive species resulted in official closure to all public uses in 2009. Use of the waterbody continues to be restricted today.

The Washington State Department of Enterprise Services, in collaboration with a variety of other stakeholders, is seeking to restore community use of this resource by selecting and implementing a long-term management option that would address the existing water quality impairments. Water quality must be improved to meet federal law and state water quality standards, and to restore recreational uses and aquatic life, which are protected under these regulations. Improving water quality and managing invasive species would support the ecological goal of enhancing fish and wildlife habitat. The project would additionally include elements to manage sediment within the Capitol Lake basin and in adjacent Budd Inlet, which would be compatible with the efforts to improve water quality and restore recreation, and to reflect a sustainable watershed approach. Collectively, this work would be consistent with the on-going state-led initiatives to restore the Puget Sound.

## Hybrid Option: Dual Basin

**Description:** Restoration of full tidal hydrology through construction of a 500-foot opening at the current Fifth Avenue dam. Provides a split basin design, which includes a saltwater reflecting pool created by constructing a sheet pile retaining wall at the center line. A free flowing estuary would be restored to the west of the retaining wall and throughout the middle and south basins.



**Source:** Herrera Environmental Consultants. 2009. *Capitol Lake Alternatives Analysis—Final Report*. Prepared for the Washington Department of General Administration and Capitol Lake Adaptive Management Plan Steering Committee. 30 July.

## Hybrid Option: Dual Estuary/Lake Idea (DELI)

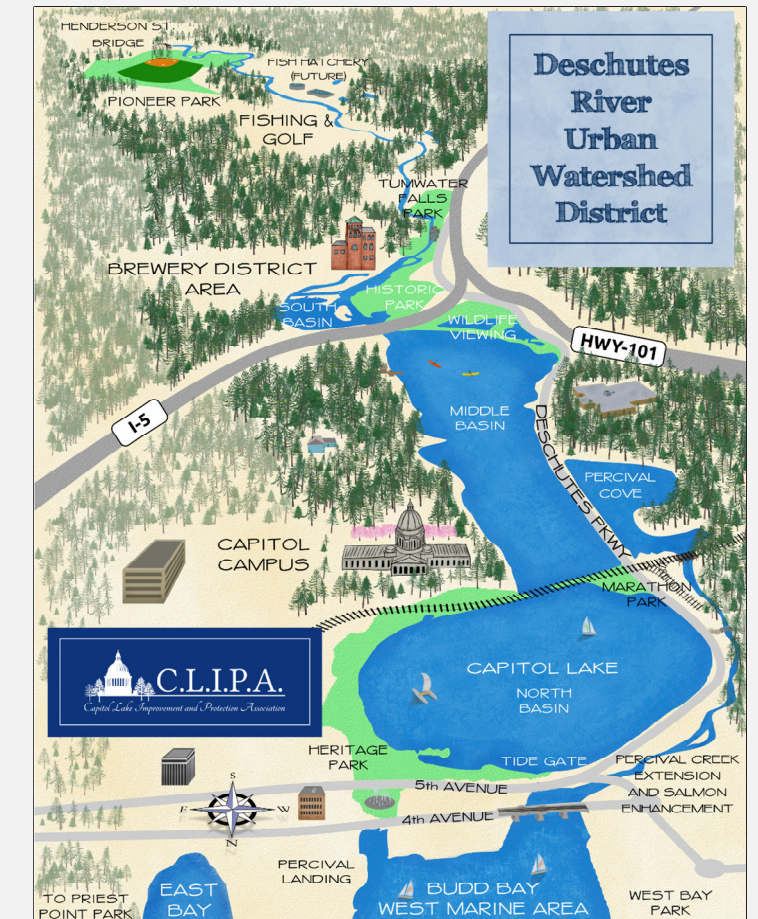
**Description:** Restoration of a tidal estuary throughout the south and middle basins, and in the western half of the north basin. The existing Fifth Avenue dam would be removed and a hydrologically isolated and groundwater-fed freshwater lake would be created by constructing a rock containment wall.



**Source:** Shanewise, Steve. 2016. *Dual Estuary/Lake Idea; A Plan to Fix Capitol Lake*. 28 January.

## Hybrid Option: Percival Creek Rechanneling

**Description:** Retains existing Capitol Lake, but constructs a new streambed west of Deschutes Parkway to rechannel and enhance Percival Creek.



**Source:** 2015. Capitol Lake Improvement and Protection Association (CLIPA). *Percival Creek Rechanneling: A Salmon Habitat Restoration Project for the Deschutes Urban Watershed*. 18 November.

### Notes:

- A conceptual hybrid option entitled "Capitol Lagoon" has been proposed and includes brackish-lake management, modeled after a typical coastal lagoon, which would have saltwater input. This idea remains at a conceptual level without additional design components, aside from lowering of the dam in the winter, but is noted here as an additional hybrid option.
- A conceptual hybrid option similar to the Dual Basin and the "DELI" options was proposed by another private citizen, including a reconstructed Fifth Avenue Bridge, freshwater lake with swimming area, and a wall with pedestrian path between the restored estuary. Due to the similarities of this option and "DELI," and because additional design components were not provided, it is not included in this figure, but noted here.
- A proposal for nutrient harvesting has been submitted and could be included as a component of the long-term management options to address existing water quality impairments in Capitol Lake and Budd Inlet.

Key Option Components	Dual Basin	Dual Estuary/Lake Idea (DELI)	Percival Creek Rechanneling
<b>Fish and Wildlife Habitat and Ecosystem Functions</b>			
Removal of Noxious Weeds and Milfoil, Nuisance Species Management	●	?	—
New Streambed West of the Deschutes Parkway between Budd Inlet and Percival Cove	—	—	●
Containment of New Zealand Mudsail	—	—	●
Net Benefit to Ecosystem Functions from Project, Eliminating Mitigation Required by Construction and Operation Impacts	●/?	●/?	—/?
<b>Maintaining a Historic Reflecting Pool</b>			
Maintains a Reflecting Pool at the North End of the Basin	● 39-acre saltwater reflecting pool in north basin	● 48-acre freshwater reflecting pool in north basin	● Maintains existing reflecting pool
Construction of New Pedestrian Trails around the Historic Reflecting Pool	●	●	—
Installation of New Infrastructure to Maintain a Reflecting Pool	● Sheet pile retaining wall, allowing saltwater input	● Rock containment wall with piped groundwater input	—
Potential Introduction of Pleasure Craft to Reflecting Pool <sup>1</sup>	●/?	●/?	●/?
<b>Initial, Continued, and Adaptive Management Strategies<sup>2,3</sup></b>			
Initial Project Dredging	● 330,000 CY, 1 season	● Assuming settling area dredge	● 875,000 CY, 2 seasons
Maintenance Dredging within the Lake Basins	—	●/?	● 220,000 CY, every 8 to 9 yrs
Initial 3-Year Dredging outside of the Lake (e.g., Budd Inlet, Marinas, Port)	● 120,000 CY, 3-yr initial dredging	●/?	—
Maintenance Dredging outside of the Lake (e.g., Budd Inlet, Marinas, Port)	● 400,000 CY, every 10 yrs	●	—
Beneficial reuse of Dredged Sediments within Capitol Lake for Habitat Enhancement/Creation	● Approx. 5-acre marsh habitat	—	—
Upland Disposal of Dredged Sediments	● 15,000 CY, initial dredging	● Initial and reoccurring dredging	● 875,000 CY, initial and reoccurring dredging
Stabilization of Deschutes Parkway via Rock Buttress	●	●	—
New Fifth Avenue Bridge with a 500-foot Span or Elevated Roadway to Allow Free Tidal Flow	●	●	—
Realignment and Protection of Existing Stormwater Outfalls and Modifications to Existing Structures (Bridge Scour Protection, etc.)	●	●/?	—
Two Newly Constructed Small Bridges over the New Streambed	—	—	●
Stormwater Conveyance System Improvements and Heritage Park Berm Enhancement <sup>4</sup>	●/?	●/?	●/?
Construction Access and Staging Area for Initial and Reoccurring Dredging	?	?	?

This figure presents a range of components associated with hybrid options for the long-term management of Capitol Lake. With the exception of the Dual Basin, the presented hybrid options have not been developed to a conceptual design level that would allow a complete review of option components, and the options would not be advanced further until the future planning phases. Therefore, data gaps are known to exist, and it is expected that some of the components included here may be subject to change as part of the design process (if the option is evaluated in a future EIS Process a part of Phase II). The information included on this figure has not been modified from the proposal provided by the proponent or from the *Final Deschutes Estuary Feasibility Study* (for the Dual Basin), but has been summarized to fit this presentation format. The two potential option components that have been added for discussion are noted on the figure. Without design and additional technical evaluation, the Department of Enterprise Services cannot confirm the accuracy, feasibility, and validity of the information.

- Legend**
- Project element not included in the hybrid option
  - Project element is included in the hybrid option
  - ? Unknown if the project element is included in the hybrid option and additional information is needed

- Notes:**
1. The use of boats or kayaks within the reflecting pool could be added to the hybrid options if the option and its layout would provide the ability to enforce and monitor decontamination in a controlled area. This is added for discussion.
  2. It is assumed that the Percival Creek Rechanneling incorporates the "Managed Lake" option as described in the 2007 CLAMP Alternative Analysis, and the proposed creek rechanneling effort is in addition to those option components.
  3. Dredge volumes and frequencies associated with the Dual Basin option are the estimated mean values from the *Deschutes Estuary Feasibility Study Phase 3 Report* (Moffat Nichol 2007).
  4. Stormwater conveyance system improvements and enhancement of the Heritage Park berm are presented as potential design elements of any option to address the project goals of managing flood risk and sea level rise and are based on the evaluation and recommendation included in the *Capitol Lake Alternative Analysis* (Herrera 2009). These design elements are applied to all options, although the difference in flood elevations between options is nominal. This is added for discussion.



Capitol Lake Long-Term Management Planning  
 Department of Enterprise Services  
 Olympia, Washington

Hybrid Option Components that Address Proviso Directives