1949 - 1951

Construction of Capitol Lake

1971 - 1999

Summer lake drawdown and marine saltwater backflushing is conducted to control algal blooms and freshwater plant growth in

Capitol Lake

1985

Chronic water quality issues cause permanent closure of public swim area

1986

Last dredge event in **Capitol Lake**

1997

Capitol Lake Adaptive Management Plan (CLAMP) Steering

Committee is formed (Squaxin Island Tribe, Washington State Department of Ecology [Ecology], Washington Department of Fish and Wildlife, Washington State Department of Natural Resources, Washington State Department of General Administration [now Department of Enterprise Services (DES)], City of Olympia, City of Tumwater, Thurston County, Port of Olympia)

Ecology includes Capitol Lake on the Clean Water Act Section 303(d) list of impaired waters for fecal coliform bacteria and total phosphorus

Final Programmatic EIS -**Capitol Lake Adaptive Management**

- Provides initial evaluation of five action alternatives:
 - Lake/River Wetland without Trap
- Lake/River Wetland with Trap
- Lake
- Estuary
- Combined Lake/Estuary

2002

Capitol Lake Adaptive Management Plan: 2003 to 2013

- o Provides the following objectives:
- Complete an estuary feasibility study
- Complete the development of Heritage Park
- Expand the use of public space around Capitol Lake
- Develop a flood hazard management strategy
- Rehabilitate the fish ladder in the Capitol Lake dam
- Relocate the Percival Cove fish rearing operation
- Improve lake edges to be fish-, wildlife-, and people-friendly
- Maintain less than 100 resident Canada geese on Capitol Lake
- Improve water quality in Capitol Lake to meet State standards • Eliminate the Purple loosestrife and Eurasian watermilfoil
- Develop a comprehensive sediment management strategy

Ecology classifies Capitol Lake as a Category 4c impaired water body for the invasive exotic species (Eurasian watermilfoil)

An herbicide (triclopyr) is applied to Capitol Lake as part of a research effort intended to control Eurasian watermilfoil

The Washington State Legislature authorizes

Management Planning with advisory entities

DES to engage in Capitol Lake Long-Term

Identify and summarize best available

Identify adaptive management strategies

Identify cost estimates for construction

Identify the range of public support for or

Identify one or more conceptual option

governance of a future management plan

for long-term shared funding and

and a proactive approach to public

science for water quality

and maintenance

Identify multiple hybrid options

concerns about each option



Legend

Notable event that affects the existing conditions of Capitol Lake



Key document that provides goals and objectives for long-term management of Capitol Lake



2016

engagement:

Changed condition that impacts the evaluation of long-term management options



management process

Summary of public preferences in associated

input on goals and Figures 2a and 2b







Dredge event in Capitol Lake

Final Environmental Impact Statement (EIS) - Capitol Lake **Restoration and Recreational Plan**

o Proposes the goal of regular maintenance dredging in the South and Middle Basins

1996

Permitting efforts for construction of Heritage Park begin and highlight the need for an adaptive management process

Capitol Lake Adaptive Management Plan: 1999 to 2001

- Promotes the following goals:
- Strengthen campus design
- Improve existing infrastructure
- Provide unrestricted fish access
- Reduce flooding and erosion
- Expand recreation opportunities
- Manage sediment
- Improve water quality
- Improve fish and wildlife habitat
- Reduce invasive species

Long-Term Management Alternatives Analysis and Recommendation from CLAMP

freeze occur to reduce or eradicate the mudsnail

- o Focuses on the following goals:
- Environment: Water Quality, Plants and Animals, Sediment Management
- Economy: Infrastructure, Downtown Flood Risk, Long-Term Cost
- People: Public Recreation, Cultural and Spiritual Values

Presence of invasive New Zealand mudsnail causes permanent

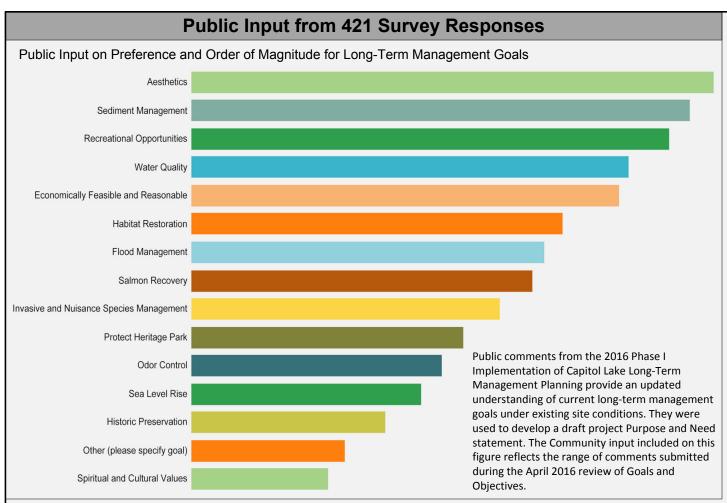
closure of Capitol Lake to all public uses; winter lake drawdown and

- o Provides the following objectives:
 - Recognize the placement of the lake within the larger watershed
 - Address the need for long-term solutions that are economically durable
 - Acknowledge community interests through collaborative approaches
 - Protect fish passage for the Deschutes River
 - Develop a cost-sharing structure between stakeholders and beneficiaries
 - Develop a sediment management strategy for the lake basin



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

Figure 1 **Timeline of Events Related to Capitol Lake and Evolution of Goals and Objectives**



Aesthetics

- o "The lake has been a beautiful asset and icon of our City, we should do everything possible to preserve it!"
- "When I select Aesthetics, please note that I find a natural estuary to be aesthetically pleasing."

Sediment Management

- "Lower Budd Inlet would be ruined if the dam/bridge were to be removed. Currently it allows for great boating and other recreational water uses, and is a terrific stage for all of our local events at Percival Landing."
- "Capitol Lake has been getting worse and worse for over 30 years now. And sediment management will continue to become more difficult and costly with the addition of the zebra snail (the contaminated sediment can't go just anywhere!! We don't want to spread the problem)."

Recreational Opportunities

- "Maintain as existing and develop to allow more community use. Row boats, kayaks, small sailing vessels, paddle boards etc., with the required shoreline infrastructure are part of my vision with the NYC Central Park lake, Green Lake (Seattle), and others as models."
- o "A combination of restoration of habitat and estuary with preservation of public use, walking trails, park, etc."

Water Quality

- o "I cannot stress how important proper dredging is (to early 1900's datum), and how that will enhance water quality..."
- "The importance of the estuary for improved water quality, as explained by the Department of Ecology, should be a priority for the on-going discussions."

Economically Feasible and Reasonable

- "Sustainable long-term in terms of maintenance. This specifically relates to economically reasonable."
- o "I believe creating a mud flat will decrease, not increase, the number of visitors to the downtown area."
- "I would love to see Olympia follow in Vancouver, Canada's footsteps, and make a living estuary part of the draw to our town, incorporating good ecological management, beauty, and recreational opportunities into a tourist draw that will bring money and acclaim to our community."

Habitat Restoration

- o "There are hundreds, if not thousands of these trees in the north basin, the middle basin at the Capitol Lake Interpretive Center, and especially the south basin, which is dominated by alder forests standing in fresh water. The best wildlife habitat at Tumwater Historical Park is freshwater-inundated forest at the north end of the park. These habitats come alive every spring with nesting neotropical migrant bird species hunting, catching, and eating freshwater aquatic insects that hatch out of the lake, and feeding them to their young."
- o "Habitat restoration = functional estuary. Return the estuary to its original, natural state (or as close as possible) so that it can perform all the other roles on the list."

Flood Management

- o "Please remember what Capitol Lake was built for flood control and as a reflective pond for the State Capitol."
- "I would like to further support the estuary option, this is our only option for habitat restoration and flood prevention."

Salmon Recovery

- o "One must remember there was no natural Salmon run in the Deschutes river because of the Falls."
- "The importance of estuarine rearing habitat for non-natal salmonids from other Puget Sound rivers using the estuary. The
 importance of rearing habitat for natal salmonids (Percival Creek and Deschutes naturalized/hatchery populations) using the estuary."

Invasive and Nuisance Species Management

o "Restoration of the estuary with natural daily tidal exchanges will remove or eliminate the invasive species."

Protect Heritage Park

- "Maintain Capitol Lake and Heritage Park as attractive places for people to exercise and enjoy being outside right in downtown Olympia."
- o "I would like to see the idea of expanding the park around the downtown Olympian estuary."

Odor Control

- o "The DES goals need to include the long-term management of this beautiful Capitol Lake and not allow it to become a smelly mudflat that no one could enjoy."
- o "Capitol Lake smells. Capitol Lake is a waste dump. It is awful. We need salt water influx every day to keep it clean."

Sea Level Rise

o "The regulating dam has been used by DES many times to prevent flooding when there are 'king tides' and heavy run off conditions. Without the regulating dam, the two would meet and inundate downtown. This will only get worse with sea level rise."

Historic Preservation

o "Our capital and the grounds that surround it are unique and very special. The dome is the 4th highest masonic dome in the world. The surrounding grounds were designed by the leading landscape designer of all time. The lake was specifically included in the landscape design much like the ponds and lakes found in the landscape design at our Nation's capital."

Spiritual and Cultural Values

o "We as a society need to return to our roots as it concerns our lands, waters, and air, for without them we are a doomed species and so are many other species! It's not our right to let precious ecosystems, such as Capitol Lake and the connected area's she flows through to become non-usable due to Man's interference and non-caring attitudes for profit and other worldly endeavors that put our ecosystems at risk!"



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

Figure 2c.
Community Input on the 2016 Capitol Lake
Long-Term Management Planning

