Q1 Please provide your contact information:

Answered: 7 Skipped: 0

Answer Choices	Responses	
Name:	100.00%	7
Email address:	100.00%	7
Phone number:	100.00%	7

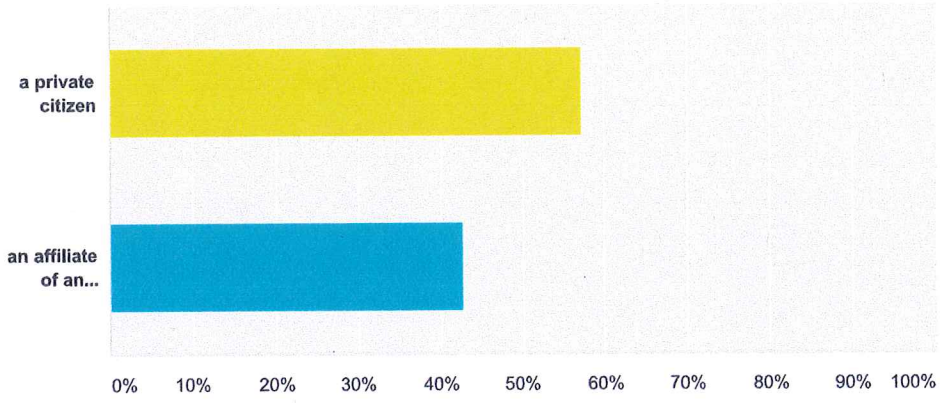
#	Name:	Date
1	Dave Peeler	10/5/2016 12:27 PM
2	V beekmann	10/4/2016 6:18 PM
3	Sue Patnude	10/4/2016 8:25 AM
4	Greg Schundler	10/3/2016 2:35 PM
5	James Gadbaw	9/30/2016 4:43 AM
6	Emmett O'Connell	9/28/2016 9:14 AM
7	Jim Erskine	9/26/2016 3:29 PM

#	Email address:	Date
1	davepeeler@	10/5/2016 12:27 PM
2	jinnybeek@	10/4/2016 6:18 PM
3	suepatnude@	10/4/2016 8:25 AM
4	gregschundler@	10/3/2016 2:35 PM
5	jgadbaw1@	9/30/2016 4:43 AM
6	emmettoconnell@	9/28/2016 9:14 AM
7	jim.erskine@	9/26/2016 3:29 PM

#	Phone number:	Date
1		10/5/2016 12:27 PM
2		10/4/2016 6:18 PM
3		10/4/2016 8:25 AM
4		10/3/2016 2:35 PM
5		9/30/2016 4:43 AM
6		9/28/2016 9:14 AM
7		9/26/2016 3:29 PM

Q2 Are you attending as:

Answered: 7 Skipped: 0



Answer Choices	Responses	
a private citizen	57.14%	4
an affiliate of an organization	42.86%	3
Total		7

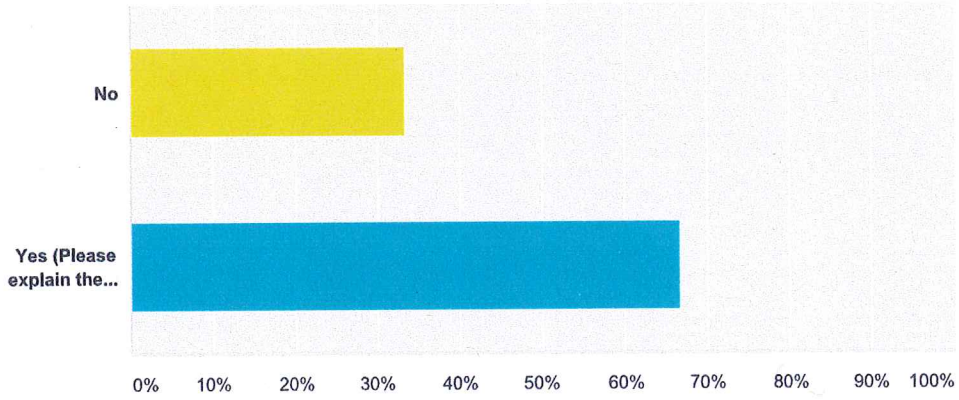
Q3 What organization are you affiliated with?

Answered: 3 Skipped: 4

#	Responses	Date
1	Deschutes Estuary Restoration Team	10/5/2016 12:27 PM
2	DERT	10/4/2016 8:25 AM
3	DES	9/26/2016 3:30 PM

Q4 Would you like to see the relative range of costs for any additional components related to construction or maintenance of the long-term management options?

Answered: 6 Skipped: 1

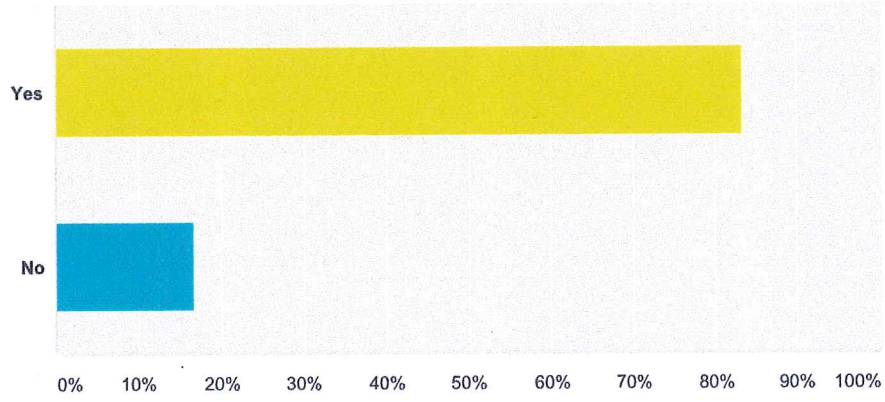


Answer Choices	Responses	
No	33.33%	2
Yes (Please explain the additional component(s) you are interested in.)	66.67%	4
Total		6

#	Yes (Please explain the additional component(s) you are interested in.)	Date
1	Some dredging could occur in the middle and south basins as well as the north basin, especially if sediment control and retention structures are placed in those areas. Also, upstream erosion control activities such as riparian restoration are not only possible but already planned by the county and the tribe. While these are not strictly part of the "lake or estuary" proposal they could definitely have an impact on the amount and need for downstream dredging.	10/5/2016 12:35 PM
2	Sediment management, construction costs, economic impact on local community	10/4/2016 6:20 PM
3	Important would also be to understand the range of potential local, state, and federal funding burdens	10/3/2016 2:36 PM
4	I would like more information about the 2012 CORPS study included in the discussion.	9/30/2016 4:45 AM

Q5 Do you support the next step of the long-term management planning process, which is to complete an Environmental Impact Statement (EIS) and select a long-term management option during Phase II?

Answered: 6 Skipped: 1



Answer Choices	Responses	
Yes	83.33%	5
No	16.67%	1
Total		6

#	Please share any additional comments with regard to next steps.	Date
1	As was mentioned at the last Executive Committee work group meeting, there are ecosystem costs and benefits associated with each of the alternatives that are not included in the current cost comparison. Those should be addressed in the EIS. In addition, Ecology's "Capitol Lake & Budd Inlet TMDL" identifies actions that will be needed to meet water quality standards under the federal Clean Water Act and state Water Pollution Control Act. That study and water cleanup plan should also be addressed in the EIS.	10/5/2016 12:35 PM
2	Information is not yet adequate	10/4/2016 6:20 PM
3	An Environmental Impact Statement would best be performed for an estuary option as it may inform key design aspects of any alternative between a managed lake and the estuary. It is a purer data point.	10/3/2016 2:36 PM

Martin, Carrie R. (DES)

From: Desdra Dawning <desdradawning@ >
Sent: Thursday, August 04, 2016 12:22 PM
To: DES Capitol Lake
Subject: Capitol/Lake & Estuary

Greetings, I see I am too late to do the survey, but I wanted to give you my statement that, after looking over the available materials, I am very much in favor of the possibility offered by the dual plan to open up the estuary while also creating a smaller, but more alive and sustainable lake for public use. I will plan to attend your public comment meeting in October. Thank you for all of your efforts to clean up the lake and restore the estuary!

Sincerely,
Desdra Dawning

Olympia, WA

To see Void vast infinite
look out the window
into the blue sky

Allen Ginsberg

Martin, Carrie R. (DES)

From: missvickim <missvickim@ >
Sent: Wednesday, August 10, 2016 7:30 PM
To: DES Capitol Lake
Subject: Vote for DELI

Hello, I am a registered voter in the City of Olympia. I want to to voice my support of the DELI proposal for Capitol Lake. It makes the best sense support those who want a lake, an estuary, and for everyone to feel heard and supported.

Thank you,
Vicki Martin

Olympia, WA, 98502

Martin, Carrie R. (DES)

From:	Dennis Burke <dab@ >
Sent:	Thursday, August 25, 2016 4:02 PM
To:	Martin, Carrie R. (DES)
Cc:	Dennis Burke
Subject:	Suggestions for Capitol Lake Long Term Planning
Attachments:	Reducing Phosphorus to Curb Lake Eutrophication is a Success.pdf; Total Value of Phosphorus Recovery.pdf; Burke Experience (3 page Sum).pdf

Dear Ms. Martin,

After reviewing the Capital Lake long term management planning presentations delivered over the past several months I believe it is important for you to consider the following suggestions for solving the water quality issues.

The Washington State Department of Ecology (DOE) established that the growth of phytoplankton in Capitol Lake was caused by nutrients that have accumulated in the Lake's sediments and discharged from the Deschutes River basin throughout the year. The subsequent death and decay of the phytoplankton produces low dissolved oxygen conditions in the lower Puget Sound. An analysis of the DOE reports supports the conclusion that nutrients, specifically phosphorous embodied in the phytoplankton, are the primary constituents responsible for degrading the water quality or DO standards of lower Puget Sound.

Attached is a recent paper entitled *"Reducing Phosphorus to Curb Lake Eutrophication is a Success"*. The paper describes the roll of phosphorus in the growth of phytoplankton and the eutrophication of lakes. Although it is clear that excess nutrient are the primary reason for the violation of the water quality standards in Puget Sound and Capitol Lake, there is no mention of the word ***nutrient, nutrients, phosphorous, or nitrogen,*** in the *"Purpose and Needs Statement"*. I suggest that you identify "**nutrients**" as the source of the Capitol Lake problem in the Purpose and Needs Statement. Resolution of the water quality problems would therefore require the reduction of nutrients delivered to Capitol Lake and Budd Inlet. I've also attached a paper on the benefits of recovering phosphorus which normally has a high cost. The title of that paper is *"Total Value of Phosphorus Recovery"*.

In the hopes of identifying a significant hybrid option I previously presented several papers that identified a profitable, as opposed to expensive, option to solve the Capitol Lake problem while recovering the nutrients. That document *"Opportunities Created by Engineered Solutions to the Capitol Lake/Budd Inlet 303 d Water Quality Dilemma* may be found under the Department of Enterprise Services Capital Lake web page "Community Submitted Options for Long-Term Management http://des.wa.gov/SiteCollectionDocuments/About/CapitolLake/2016- A separate paper "An Engineered Plan to Solve the Capitol Lake / Budd Inlet Water Quality Deficiencies" is also presented at the same location. Unfortunately the concept of nutrient harvesting has been relegated to a table entitled "Potential Components of Conceptual Long-Term Management Options" with the stated caveat "that the Department of Enterprise Services cannot confirm the accuracy, feasibility, and validity of this information and the conclusions without design and/or additional technical evaluation. The net effect is to completely negate nutrient harvesting as a solution to the problem thereby overlooking the fact that more information was presented in the nutrient harvesting proposal than was presented for most of the other plan options.

Over the past several months I have offered to present the nutrient harvesting plan to the Technical Committee and/or Executive Committee but was not afforded the opportunity. As a professional engineer with over 50 years of water and wastewater experience the detailed "nutrient harvesting" proposal previously presented should meet the selected "best available science" criteria. I previously sent a brief description of my professional experience. I have attached it again to this communication. I remain open to answer any questions regarding the potential benefits of nutrient harvesting such that the option will be considered *technically valid* and not shuffled out of sight. It is an economical solution to the Capitol Lake problems, the solution to toxic algae growth and proliferation, and the solution to nutrient enrichment throughout Puget Sound.

Thank you for your consideration,

Dennis A. Burke P.E.

Carrie Martin

Washington State Department of Enterprise Services

This letter is in response to your call for public comments on the presentation by Floyd Snider to the Capitol Lake/Deschutes Estuary Executive Work Group meeting of September 30, 2016.

First, I would like to express my full support for the proposal and comments that are also being submitted on this same topic by the Capitol Lake Improvement and Protection Association (CLIPA). CLIPA's proposal is based on the cumulative work of local scientists, engineers, financial analysts, water resource professionals and community leaders; and these ideas are supported by a majority of community members based on polling by several candidates for public office in the local area.

My comments address two major areas of concern with the current Floyd Snider/DES approach to evaluating the various alternatives for long-term management of the Capitol Lake Basin. My 40 years of experience in Chemical and Environmental Engineering, Project Management and my work in both the private and public sectors (LOTT Alliance) provide a basis for these comments.

My first concern relates to the 50 year timeline used to evaluate the relative costs of the various alternatives. Making predictions for even a few years is risky, but attempting to assign costs for 30 to 50 years in the future is almost certainly going to be in error. (As an aside, when I began my career 50 years ago, four function calculators were brand new, typewriters and carbon paper were the norm and phones had rotary dials and cords!) New and changing technology, population changes, environmental issues including sea level rise, are but a few of the factors that will dramatically change the landscape over these extended periods of time. I recognize that we must make an attempt to consider the longer term impacts of the various alternatives, but I would suggest that you look at the more immediate costs, say for the first 10 years, and then look at projections for the next ten years to provide a longer term look at the potential impacts.

It's important to remember that the CLAMP studies got their name from the Capitol Lake ADAPTIVE MANAGEMENT Plan. This adaptive management concept is key to understanding that changes will occur and we must and will adapt in ways that minimize costs and impacts in the future. As an example, your estimates include hundreds of millions of dollars for sediment dredging and disposal in the latter stages of the 50 year project. But, we will most certainly find adaptive ways to deal with sediment as a resource with beneficial value. Likewise, plant harvesting could also become a resource, while further improving water quality in Budd Inlet.

My second concern is the absence of any recognition of the time value of money in your analysis. This creates at least two major problems. First, using the ten year old CLAMP data without adjusting for inflation provides misleading absolute numbers for the various project alternatives. For example, using a common three and one-half percent annual increase understates the cost by over forty percent. Perhaps this error can be forgiven for the sake of simplicity if we're only doing a comparative analysis,

but it does provide a misleading picture at best and could be more significant if there are differential inflation factors for the various alternatives.

However, of even more significance is the lack of discounting future costs to reflect the time value of money. It is simply absurd to equate a dollar spent fifty years from now with a current dollar spent. This approach completely swamps the current costs, making the alternatives with high up-front infrastructure costs appear more favorable relative to the alternatives with higher latter costs.

Thus, combining my two concerns, we have an analysis that ignores this communities' ability to adapt to changing conditions with new technology to minimize costs, and overstates these long term inflated costs by at least a factor of 5 times by ignoring inflation.

Now, I understand the pressures on Floyd Snider and DES to meet the Proviso requirements, and I recognize that at this late date it may be difficult to make the adjustments I suggest. However, I would remind you that several months have been spent wordsmithing a one page Purpose and Needs Statement by Floyd Snider, the Executive Committee and the Technical Committee; and several additional months have been spent discussing the details of how to limit best available science by a technical group which has not allowed community input. These are perhaps worthy topics on which to spend your time and resources, but not at the expense of ignoring the common-sense issues of adaptive management and time value of money in evaluating the alternatives.

I urge you to consider adjusting your analysis for these issues, along with the incorporation of the CLIPA proposal mentioned earlier, as you move toward the final draft of the existing and new Long-Term Management Options and Relative Cost Comparison.

Thank you for your consideration of these comments.

Robert Holman

October 4, 2016

Martin, Carrie R. (DES)

From: Robert Wubbena <rwubbena@ >
Sent: Wednesday, October 05, 2016 3:46 PM
To: Liu, Chris (DES); Martin, Carrie R. (DES); Jessi Massingale
Cc: Jack Havens; Denis Curry; Dave Schaffert; V ZvirzdysFarlar; Andy Hobbs
Subject: Fwd: Draft "Benefits Comparison: Estuary vs Community Managed Lake

Director Chris Liu, Carrie Martin & Jessie Massingale

Your September 22, 2016 public information document provides a "Comparative Benefits" of your five Options. We have repeated your Estuary write up and added the Benefits for the Community Managed Lake Proposal.
This should be used along with the revised Community Managed Lake Option in lieu of your "Managed Lake Sub Option" you presented for CLIPA's input. The following is the corrected information.

CONCEPTUAL LONG-TERM MANAGEMENT OPTION

A) Improve and Support Water Quality

1) RESTORED ESTUARY: Supports goals of achieving water quality standards, now marine standards under an estuary system; improves dissolved oxygen conditions in Budd Inlet

2) COMMUNITY MANAGED LAKE; Supports goals of achieving water quality standards, both in Lake fresh water & marine waters by managing Lake as a "natural treatment system" for trapping contaminants flowing into the Lake from the upper watershed. This helps raise DO in Budd Inlet bottom waters. Retains Lake/Tumwater Falls super saturated dissolved oxygen levels for Lake ecosystem species.

B) Improve and Support Sustainable Ecosystem Function

1) ESTUARY; Restore 100% of the Capitol Lake basin to tidal estuary;restore plants and animals that thrive in marine, estuarine waters; restore native organisms in sediments that serve as the basis of the marine food chain.

2) COMMUNITY MANAGED LAKE; Maintains & expands fresh/marsh water habitat ecosystem and fisheries and food production for out migrating salmon from upper watershed commercial salmon production. Links natural urban ecosystem of people, freshwater aquatic species, and marine water life cycles for a healthy ecosystem,education and recreation program in the middle of 285,000 community members.

C) Improve and Support Fish and Wildlife Habitat.

1) ESTUARY; Restores 260 acres of inter-tidal nursery areas for juvenile salmon;reestablishes 6.5 miles of marine shoreline;increases salt marsh habitat (WRIA 13 habitat limiting factors).

2) COMMUNITY MANAGED LAKE; Retains & upgrades 260 acres of fresh water marsh and habitat to support existing large Brown Bat population, ducks, species of of conservation concern (Olympic Mud minnow, freshwater mussels) and and endangered fresh water fishery . Restores Percival Creek as the only productive natural salmon stream in Deschutes watershed. South and Middle Basins become wildlife reserves in an urban environment.

D) Control Invasive Species

1) ESTUARY; Includes efforts to eradicate NZMS, reduces or eliminates freshwater invasive species due to introduction of tidal flows.

2) COMMUNITY MANAGED LAKE; Prevents range extensions of marine invasive species. (Prevents introducing NZMS to Puget Sound) Includes sediment drying bed to minimize spread of NZMS by reuse of sediment for beneficial use. Continue elimination of invasive species as done in other parts of State.

E) Improve and Support Sediment Management

1) ESTUARY; Proposes sediment management upstream in the watershed, with mechanism to capture sediment n the estuary and deflected westward below the current dam and bridges.

2) COMMUNITY MANAGED LAKE. Same pre-dredge as Estuary and then optimize upper watershed sediment transport reduction. North basin managed for optimum sediment capture/fixed hydraulic dredge to transport material to State drying area to the West, and then truck, rail or barge for reuse or disposal. Minimal post dredging required from contaminated marine water sediment buildup from Estuary program. Avoids high velocity (rip tides) twice per day through narrowed routes of proposed estuary design.

F) Manage Flood Risk

1) ESTUARY; Improve storm water conveyance system and enhancement of the Heritage Park berm; promotes management through restoration of natural systems; eliminates required management of the existing 5th Ave dam during major storm events.

2) COMMUNITY MANAGED LAKE; Improve storm water conveyance to retain more storm water in upper watershed. Retain Lake's present ability to react as a controllable flood management system during period when high tides, Deschutes Flood stage and sea waterrise coincide. Retains flood waters in marine zone.

G) Improve and Support Recreational Opportunities

1) ESTUARY; Maintain passive activities that exist above the tide line (walking,bird watching, bicycling, picnicking, etc) enhance water-related activities (kayaking swimming, etc)by eliminating invasive species; restore natural beaches (beach combing etc)

2) COMMUNITY MANAGED LAKE; Retains & enhances all in water and adjacent area fresh and marine water recreation from Tumwater Falls to Priest Point Park including kayaking through fresh water marshes, bird, duck & Brown Bat watching in Lake/marsh; return Lake swimming and small boat recreation in North Basin. Protects recreational and tourism boating in Budd Inlet.

H) Improve and Support Aesthetics and Visual Quality

1) ESTUARY. The Capitol would be reflected 75% of the time with restored tidal flow; enhances aesthetics by eliminating algal mats that currently form during the summer months;introduces dynamic visual change with estuary conditions.

2) COMMUNITY MANAGED LAKE. The Capitol will be reflected 100% of the time during days and nights. No floating plants/algal with proper maintenance.
North basin pristine swimming lake at all times except when it is functioning to prevent flooding of downtown. Swimming beach & kids sailing in North Basin; wildlife habitat watching by boat and on shore in Mid and South Basin. Avoids exposed estuarine mud flats 78 % of daylight hours in summer..

I) Support and Maintain Historical and Cultural Resources

1) ESTUARY. Restores historical Deschutes Estuary; supports salmon habitat; restores historical Tribal values; supports treaty rights; could provide restored shellfish habitat that could be used similar to historical and cultural harvesting; restores water access to brewery.

2) COMMUNITY MANAGED LAKE. Retains historical water access to Brewery via boats even at low tides. Provides for six cultural and historical sites to develop for community education, use and spiritual purposes, if desired. Only natural salmon stream opened up for tribal treaty and cultural use. .

J) Avoid Negative Impacts and Maximize Economic Benefits

1) ESTUARY; Implements the long term management plan that was determined to be the lowest cost by CLAMP; enhances an outdoor recreation site for public use and potential increased tourism, Increases potential for federal matching grant funds

2) COMMUNITY MANAGED LAKE; Retains the lowest cost capital & operational plan for the urban watershed and the Capitol Lake Basin, less than 25% of the cost of the Estuary Option. The project can be constructed in phases, maximizing the use of State and Federal funds and local financing..
Protects and enhances the economic vitality of Downtown Olympia and over 100 years of waterfront investments.

K) Minimize Long Term Costs

1) ESTUARY; Off-sets the initial construction cost by reducing on-going costs in later years for dam maintenance and continued maintenance dredging; designs with nature to reduce costs.

2) COMMUNITY MANAGED LAKE; Avoids loss of 100 years of investment on Downtown Businesses with recent year's $80 million in investments, lower initial costs and less annual dredging costs than Estuary, greater flood and sea water rise protection at a lower cost. Avoids costs of protecting Lake shoreline and bridges from twice a day tidal salt water flows on urban infrastructure.

POTENTIAL COMPONENTS OF CONCEPTUAL LOG-TERM MANAGEMENT OPTIONS--ADDITIONAL TO THE TEN LISTED IN DES Documents dated September 22, 2016 draft.

1) Percival Cove and Creek Extension to return area to natural salmon habitat use is available to all options. Route for salmon can be via extended creek or via shortcut through bridge in Deschutes Parkway.

2) Eliminate sources of contaminants in upper watershed (failing septic tanks, farm and forest run off, untreated storm water
discharges) will reduce the impacts on Lake and Budd Inlet.

3) Aeration system in Swan Town area to improve water quality coming from Moxlie Creek drainage.

3) Ensure Fish Hatchery Proposed for Pioneer Park will have no contaminant discharges that create water quality problems downstream.

4) Manage the Deschutes Urban Watershed as an integrated ecosystem from Pioneer Park to Priest Point Park.

--
Bob Wubbena

Olympia WA

rwubbena@

Martin, Carrie R. (DES)

From: Robert Wubbena <rwubbena@ >
Sent: Wednesday, October 05, 2016 4:09 PM
To: Liu, Chris (DES); Martin, Carrie R. (DES); Jessi Massingale
Cc: Jack Havens; Denis Curry; Dave Schaffert; V ZvirzdysFarlar; Andy Hobbs
Subject: Fwd: Draft Response---Managed Lake/Community Proposal
Attachments: IMG.jpg

Director Chris Liu, Carrie Martin and Jessie Massingale

In our previous email to you we said that your draft documents miss represented the "Managed Lake Modifications Proposed by CLIPA" Our many reports and documents emailed to you in late May presented substantial recommendations that were not incorporated into your recent documents.

Prior to your September 22, 2016 Working Documents, we did not have the questions, formats or example approach to help format our information into your new analysis and summaries.
We now have your draft documents to guide our response.and more fully understand your specific needs for clarity of our information.

Also many other groups from the Community have begun to provide input into our reviews and recommendations for the Executive Work Group.
Therefore, the following and future input on the Long Term Management Options will be referred to as the "MANAGED LAKE/COMMUNITY OPTION".
The CLIPA reports and analysis will be integrated into the Community Option as a contrast to the CLAMP Managed Lake Option..

Also it appears that alternatives that are being seriously considered fall into two basic categories---LEAVE TIDE GATE & CONNECTED FISH LADDER as a part of the Long Term Management Plan and the other option being the REMOVAL OF THE TIDE GATE AND FISH LADDER/RESTORED ESTUARY.
All hybrids presented in your working draft then becomes a sub option of one of these two primary plans.

REVIEW & RESPONSE TO DES/FLOYD SNIDER SEPTEMBER 22, 2016 WORKING DRAFT.

Please understand that our following response is directed only at the Restored Estuary and a comparative presentation for the Managed Lake/Community Proposal as prepared by CLIPA and other Community leaders. The two Hybrid Options and the CLAMP Managed Lake are not being addressed in this review.

The first challenge the Community has with your Working Document is that the Bar Charts have no documentation or criteria provided as a base of comparison. Only by the verbal reports at the Executive Work Group by Jessi and in conversations with Carrie, were we able to sort out the probable baseline to establish your Bar Charts. We have stated what we now interpret as your "summary of CLAMP's 2006/2009 Report Data as the Base for the Restored Estuary" We specify what we have used based on your verbal reports. If these statements are incorrect, please provide a written revision to your Bar Charts with referenced data.

We also had to interpret your footnotes along with your verbal reports to establish some logic to your Baseline Bar Chart---which is the Restored Estuary Chart. We documented what we believe you mean by your summary. Please clarify if we miss understood your analysis.

The only fixed base cost that can be tracked with some credible sources of information is the CLAMP Cost estimate for the 5th Avenue Dam Removal/Bridge Construction Costs. According to CLAMP, This totals about $40 million. We have used this as our "scale on the Bar Chart" to be able to interpret all of the other elements that are more subject to volume, timing and unit quantity variability. So for your Charts on a standard size copy, 5/16 of one inch equals about $40 m or $ 8 m for each 1/16 of an inch.. All other costs and colors are relative per the verbal presentation. Your actual scale would be appreciated.
Since this is 2006 and ten years old, the associated inflation and cost of money makes this all relative to current day costs. The cost can be 100% more or 50% less and the relationship stays essentially the same--until someone has to pay for it.

A)-----RESTORED ESTUARY BAR CHART COLOR CODE BASELINE FROM CLAMP.

1) Initial Lake Channel Pre-dredge. We believe DES is saying that this option will only include a pre dredge of the Lake and it will cost about $32 m. They are saying that even though the sediment that is being "flushed through the Lake since 2000 due to the lack of maintenance dredging, that this option will NOT include any clean up sediment building up in Budd Inlet".

2) Infrastructure Modifications due to 5th Ave Dam Removal/Bridge Construction will cost $40 m. This does not include the change over of the stormwater systems designed for freshwater environment or Railroad Bridge changes. It will be a 500 foot opening plus wing walls.

3) Scour Protection for the I-5 Bridge, the shores to protect against the daily tidal changes and the flood stages of the Deschutes, plus the footings of the 4th Avenue Bridge. DES cost as estimated by CLAMP at about $32 m.

4) Mitigation for Construction Impacts--2% of above ($104 m) or $2.08 m.

5) Maintenance Dredge (Post Dredge) over 50 years. Based on the verbal report, Floyd Snider assumed this to be about $296 m with no time value of money considered.

6) Mitigation for Maintenance Dredging Impacts. Currently such impacts are imposed by regulatory agencies on projects in navigable waters. Therefore the 8 % that Floyd Snider placed on the other options should be placed on this option as well or $32 m.

RESTORED ESTUARY BAR CHART BASELINE COSTS FOR ALL OPTIONS USING DES COST ESTIMATES = $466. MILLION FOR THE ESTUARY, ASSUMING THE COST IS BASE ON CLAMP"S 2009 REPORT...

B)----MANAGED LAKE/COMMUNITY PROPOSAL BASED ON CLIPA AND OTHER COMMUNITY FINANCED STUDIES PUBLICLY AVAILABLE TO EVERYONE.

THE Community's proposal for a Managed Lake discarded the CLAMP Managed Lake summary presented by Floyd Snider five years ago. It is unrealistic and a poor design proposal by CLAMP. The primary problem with the CLAMP proposal is that they specified a minus 13 foot depth dredge for both the Mid and North Basin which creates operational and practical problems that add no value to the system yet add substantial costs.
The Lake has never been this deep and there is no technical justification for such a design. The Community Rejects the CLAMP Managed Lake design.

The Community Managed Lake Option takes a very simple and pragmatic approach based on the extensive water quality, operational, and environmental analysis completed by the State, by Dr Milne, and by many other Community Professionals with extensive experience.

The Community Proposal is 1) Retain the Tide Gate and both fish ladders at the Tide Gate and adjacent to Tumwater Falls; 2) Complete the same pre dredging as proposed by the Estuary Restoration Option in the South, Mid, and North Basins of the Lake. If the Community does not require dredging and clean up in Budd Inlet , then neither option is assigned a clean up/pre-dredge in Budd Inlet; 3) Post Dredging in the North Basin is the primary sediment control program for the Urban Watershed. Strategic Clean up dredging will occur in the Mid Basin and in Budd Inlet to ensure that the recreational, commercial, and community uses for the open waters for boating will be available. However, only major Post Dredging will be done in the North Basin. A permanent dredging system would be set up for the North Basin to enable the movement of the "de watered sediment to existing State land west of the Lake. This system will enable on site drying to destroy NZMS.
Hauling via rail, truck or barging is available, depending on the final program. This cost will now be in the "low unit cost bracket" and not the "high unit cost bracket" that the Post Dredging by the Estuary Option will be when the initial Budd Bay Dredging Clean up occurs every five years.

MANAGED LAKE/COMMUNITY BAR CHART REVISED USING DES/FLOYD SNIDER METHODOLOGY AND CRITERIA.

1) Initial Lake Channel Pre-dredge. Use the same cost DES estimated for the Estuary or $32 m. Both options have the same objective.
This is why the State should initiate a "Maintenance Dredge in 2017.
Both Options are calling for the same Pre Dredge. There is no reason the Community should continue to suffer through the "neglected Lake maintenance by the State and the City" when both options are calling for the same sediment clean up out of the Lake.

2) Infrastructure Modification. The Community Managed Lake Option will require only about $1 m in upgrades to the 5th Avenue Dam and no changes to the existing bridges and stormwater system except for the Cities and the State to eliminate their current untreated storm water discharges into the Lake. The Estuary Option should require this also. This $1 m cost is in contrast to the Estuary Option cost of $40 m in 2006 dollars.

3) Scour Protection. The Community Proposal for a Managed Lake does not require new or additional scour protection. The Estuary Cost for Scour Protection is $65 m.

4) Construction Mitigation Cost at 2%. For the Community Proposal this is 2% time $1 m or $20,000. The Estuary cost for construction mitigation is $2.08 m.

5) Post Maintenance Dredge for the Community Managed Lake Option is required only for the North Basin plus some spot dredging for the mid basin and Budd Inlet. This is a difficult amount to estimate, but we know it is most likely about 1/3 the amount estimated by CLAMP. This would provide for a 50 year Post Dredge cost of about $110 m for the Community Proposal, if the special fixed dredging and drying beds were not available. We have reduced the cost to about half or $55 m over 50 years in contrast to the Estuary requiring upland disposal for their Budd Inlet Post Dredging that will be required if the Community wants to "retain a Boating Waterfront" for recreational, commercial and community/business use of the open waterfront benefits. This $55 m Lake costs contrasts with the Estuary Post Dredge cost of $296 m

6) Mitigation for Maintenance Impacts of 8% times $90.m = $7.2 m.

7) Percival Cove/Creek Salmon Enhancement. The Percival Cove with either the Percival Creek extension to Budd Inlet or the shortcut to the Lake via the bridge under the Deschutes Parkway would return the Percival Creek Natural Salmon Run to the Community under both options.
So we did not add it to the Community Option until more information on how DES and the Executive Work Group is going to evaluate updated information for the project. Currently they are still using 2006/2009 data without incorporating new study data and findings presented via the many reports.

MANAGED LAKE OPTION AS PROPOSED BY THE COMMUNITY IS $97.3 M USING THE DES APPROACH AS COMPARED TO THE ESTUARY OPTION USING THE DES/FLOYD SNIDER BAR CHART SUMMARY OF $466. MILLION.

C) SEE ATTACHED BAR CHART PRESENTATION BY DES. PLEASE REPLACE THE MANAGED LAKE/COMMUNITY PROPOSAL DEVELOPED JOINTLY WITH CLIPA.

D) WE WILL ALSO SEND THE COMMUNITY'S PROPOSED EDITS OF THE "BENEFITS OF THE MANAGED LAKE/COMMUNITY PROPOSAL" IN THE SAME FORMAT THAT DES/FLOYD SNIDER PRESENTED THEIR FINDINGS FROM THE CLAMP STUDIES. WE UPDATED THE COMMUNITY PROPOSAL AND REPEATED THE ESTUARY INFORMATION TO MAKE IT EASY FOR THE PUBLIC TO COMPARE THE TWO PRIMARY OPTIONS----WITH THE TIDE GATE AND WITHOUT THE TIDE GATE.

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