

Cedar River - Lake Washington Salmon Recovery Speakers Panel

Discussion Questions

April 25, 2017 7PM- 9PM Maplewood Greens Golf Course

Speaker Panel, Presentation Order:

- 1. Dan Lantz
- 2. Casey Clark
- 3. Aaron Bosworth
- 4. Scott Stolnack

QUESTIONS:

Climate Change / Warm Water

An impact of climate change on Lake Washington and Cedar River salmon has been the warm water at the Ship Canal. Warm water continues to harm migrating salmonids as they attempt to pass through, coming in and out of the Lake Washington and into the Puget Sound. They are subject to warm water related stress and disease, and predation. We have a few questions related to this topic for the panel speakers.

- How much of a problem is climate change to salmon in the watershed and what are we doing about it?
- Is anyone considering barging salmon from the locks into the lake? Is this even feasible and how much would this cost?
- Could and would it be feasible to breed Lake Washington salmonids to be more adaptable to warming temperatures?

Ocean Conditions

• Is there information about how ocean conditions are affecting Cedar River salmon recovery efforts?

Predation

 What are the impacts of predation on our salmon runs? How is climate change affecting predation on salmon in the watershed?

Salmon Recovery Speakers Panel Discussion Panel

Salmon Recovery / Recovery Planning / Investments Cost Benefits

There has been a salmon recovery plan in place for the Cedar River Lake Washington watershed since 2005. Prior to that the Cedar River Council has been involved and has advocated for salmon recovery efforts for over 20 years as result of the Cedar River Basin Plan which has been in place since 1998.

- Can each speaker give their perspective on what factors are contributing to the depressing numbers for Chinook and Sockeye in the Cedar River? What are the limiting factors affecting salmon recovery and are our current efforts having any affect?
- What is the status of our salmon recovery efforts and are they effective? Also, would it be fair to say that salmon recovery efforts may have stagnated?
- What seems to be the greatest impediment to recovery at this time?
- We have put a lot of time, money and effort into habitat recovery, which seems to have been productive, but what should be the focus over the next phase/term of recovery? Will the salmon recovery plan update provide greater assurance of recovery in terms of #s of fish?
- Will the salmon recovery plan update address strategies to deal with climate change impacts?

Sockeye Production of Riverbend Project - Cavanaugh Pond.

KC is currently designing a habitat restoration and flood hazard reduction project at Riverbend. As part of that effort, the team is proposing to setback existing flood protection facilities and partially filling Cavanaugh Pond (an abandoned gravel pit) so the bottom elevation more closely matches the river elevations in this reach. By doing so, the protected sockeye spawning area within Cavanaugh Pond would be modified and some amount of river water would be routed through the reconfigured pond.

 How or will the new proposed project design provide flood damage protection in the Cavanaugh Pond for the sockeye redds? Please explain, how your design elements choices for Cavanaugh Pond are being considered.

Other:

• There is structure anchored in the river under the I-405 Bridge in Renton. Can someone tell us what that structure is and what is its purpose? (WDFW)



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WDFW

I would like someone from WDFW to explain the purpose of the structure anchored under the I-405 Bridge in Renton. It's been there for several years. Is it a fish trap?

Climate Change / Warm Water / Ship Canal / Impact to Salmon

This has been raised this before, if the temps in the Ship Canal are the problem, and the Muckleshoot's control the choke point at the locks, can we barge salmon from the locks to the lake? And at what cost? Not a wonderful option, but better than extinction in a world needing Climate adaptation.

- Good point about climate change. If we're going to keep seeing warm water temperatures in the ship canal in the summer then maybe we should breed in some warm water adaptation from Klamath River salmon which are warm water adapted.
- Can the salmon runs on the Cedar remain sustainable with the expected summer water temperatures in the ship canal and with the current level of predation in Lake Washington? What other factors could be improved to make sustainable runs more likely?

"With warming water temperatures would it be wise or feasible to breed in genetic strains of salmon that are warm water adapted to strengthen our native runs?" Tom

Seems the perfect storm working against salmon recovery continues to blow: less than
perfect management decisions, including those dealing with harvest, and natural and
artificial production of salmon; and negative natural conditions in Puget Sound and the
Pacific Ocean, as well a global warming affects. Do not forget predation of juvenile
salmon in Lake Washington system and unusual pre-spawn adult mortality linked to
elevated temperatures in the Lake Washington Ship Canal.

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Salmon Recovery / Recovery Planning / Investments Cost Benefits / Climate Change

Timing and effort is very relevant. My general concern is, given the status of our recovery efforts (things seem to have stagnated), are our current plans still considered effective? Will the update(s) provide greater assurance of recovery in terms of #s of fish? What seems to be the greatest impediment to recovery at this time? We have put a lot of time, money and effort into habitat recovery, which seems to have been productive, but what should be the focus over the next phase/term of recovery? With dwindling federal support, prioritization of effort is critical. I would also like an assessment of Climate Change on our recovery efforts, and if it is a CURRENT hindrance to further recovery, what are the adaptation strategies we should consider to enhance recovery? We need to keep giving these fish a chance to survive!!

Salmon Recovery Limiting Factors in the Cedar River

I would like to hear each panel member give their perspective on what factors are depressing the numbers for Chinook and Sockeye on the Cedar. A large amount of effort is being used to maximize rearing habitat and I do not know if that is the limiting factor?

Sockeye Production of Riverbend Project - Cavanaugh Pond.

Here are few more questions for the fish "experts:" Will the Riverbend project produce a significant increase in the natural spawning of sockeye salmon in the Cavanaugh Pond area over spawning experienced during the last several years? If so, why? Will the increased spawning translate into greater yield of sockeye fry? It is possible that by reducing the natural protection provided by the left bank dike that flows in the new side channel created through Cavanaugh Ponds will exceed 2,200 c.f.s. (threshold of sockeye redd damage) during significant Cedar River flood events. Currently, this area is free from redd damaging flows up to a 50 year event

Ocean Conditions and Predation in Lake Washington

Is there information on Ocean Conditions for salmon, and how they affect recovery in the Cedar?

Is there new information on predation of salmon in Lake Washington?