Snake River Passage: Lessons Learned with Different Approaches

Future of our Salmon Conference
Technical Workshop
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Tribal ceded lands relative to existing habitat
Snake Basin Reality

Eight dams

• Multiple Juvenile Passage Actions
  ✔ Juvenile bypass systems with turbine screens
  ✔ Transportation
  ✔ Removable Spillway Weirs (RSWs)
  ✔ Spill
  ✔ Avian preclusion wires
  ✔ Flow augmentation
  ✔ Cold water releases

• Adult Passage Actions
  ✔ Fish ladders
All Snake River Salmon and Steelhead populations
ESA Listed … or extirpated

- 32 spring/summer Chinook populations (Clearwater extirpated/reintroduced)
- 1 fall Chinook population
- 24 steelhead populations
- 1 sockeye population
- Coho – extirpated/reintroduced
- Lamprey – life support
The Fish are Barely Replacing Themselves – With Passage

Not Helping

• 50+% mortality migrating down the Snake and Columbia (with spillway weirs, spill and transport)
• Heavy bird predation
• Extremely variable and important ocean conditions

Helping

• Extremely variable and important ocean conditions
• Funding - The largest mitigation program - ever – is implementing lots of restoration actions
• Habitat – Broad areas of the Snake are roadless or wilderness
Wilderness/Roadless Areas

Legend:
- Dam
- Stream
- Hatchery
- Weirs

Map showing the Wilderness/Roadless Areas with specific subbasins and streams.
Harvest really only occurs on hatchery supplemented stocks or hatchery returns – and that, only recently
Salmon Fishing in 1990s

- North Fork = 179
- SFSR = 5
- Rapid River = 523
- Lookingglass Cr. = 32
- Clear Creek = 41
Salmon Fishing in 2000s

- North Fork = 768
- SFSR = 443
- Rapid River = 3,229
- Lookingglass Cr. = 22
- Clear Creek = 311
- Imnaha = 404
- Lostine = 69
Our actions are having some effect…
Our actions are having some effect

Spring Chinook over LGD 1983 - 2013
Our actions are having some effect

Summer Chinook over LGD 1983 - 2013

Number of fish

Years

1983 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013
Our actions are having some effect

Fall Chinook over LGD 1983 - 2013

Number of Fish

Years

0 10,000 20,000 30,000 40,000 50,000 60,000
1983 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013
Our actions are having some affect

Coho over LGD 1983 - 2013

Number of Fish

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<th>1983</th>
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4/2/14
Our actions are having some effect

Steelhead over LGD 1983 - 2013

- Number of Fish
- Years
- 0, 100,000, 200,000, 300,000, 400,000
Our actions are having some effect

Sockeye over LGD 1983 - 2013

Number of Fish

Days

1983 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013
But these are largely hatchery supplemented populations or returns to hatchery racks
What are the lessons learned?

- Do what you can for habitat – it is a very good thing to do; especially considering how poorly its been treated and how little resources there are to fix it.

- Insure that migration conditions are as good as possible – go to court; advocate for breaching dams (they weren’t here first).
What are the lessons learned?

- If you want fish back that can support any semblance of traditional use, you are going to have to produce them in hatcheries.
- When you use hatcheries – try to avoid dealing with the Endangered Species Act.
- When you use hatcheries – try to get their funding hardwired.
  – “As long as the dams are there, the hatcheries will be there”.

4/2/14
What are the lessons learned?

• The fish will pass through other tribal countries in which there is also a profound unmet debt.

• It will be a long haul, but we can and do take advantage of the cards we are dealt.
Fish and Fishing are a Necessary Part of Restoring Balance