Recreating Sustainable Fisheries in the Skeena Watershed

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Skeena Fisheries Commission

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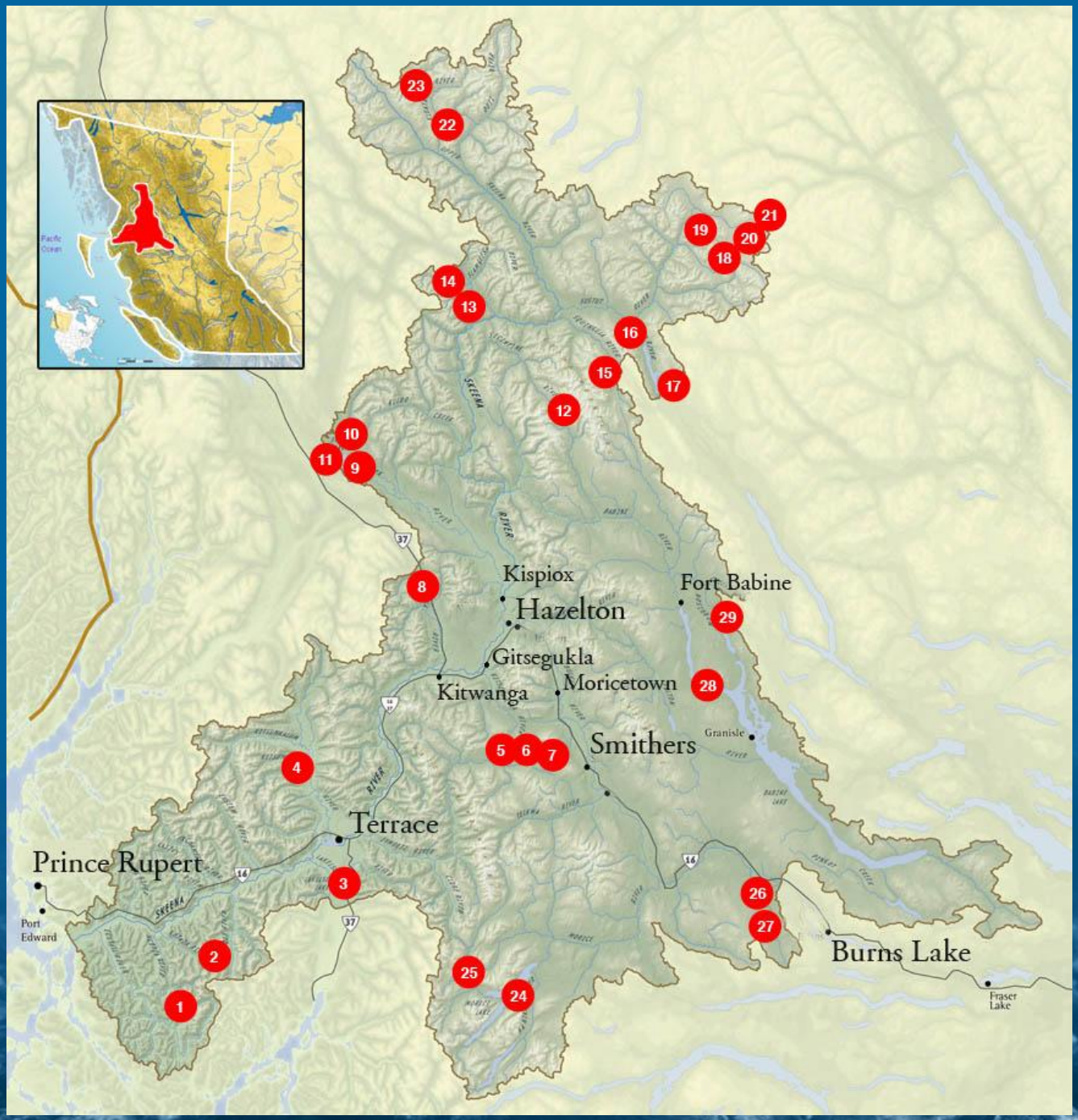
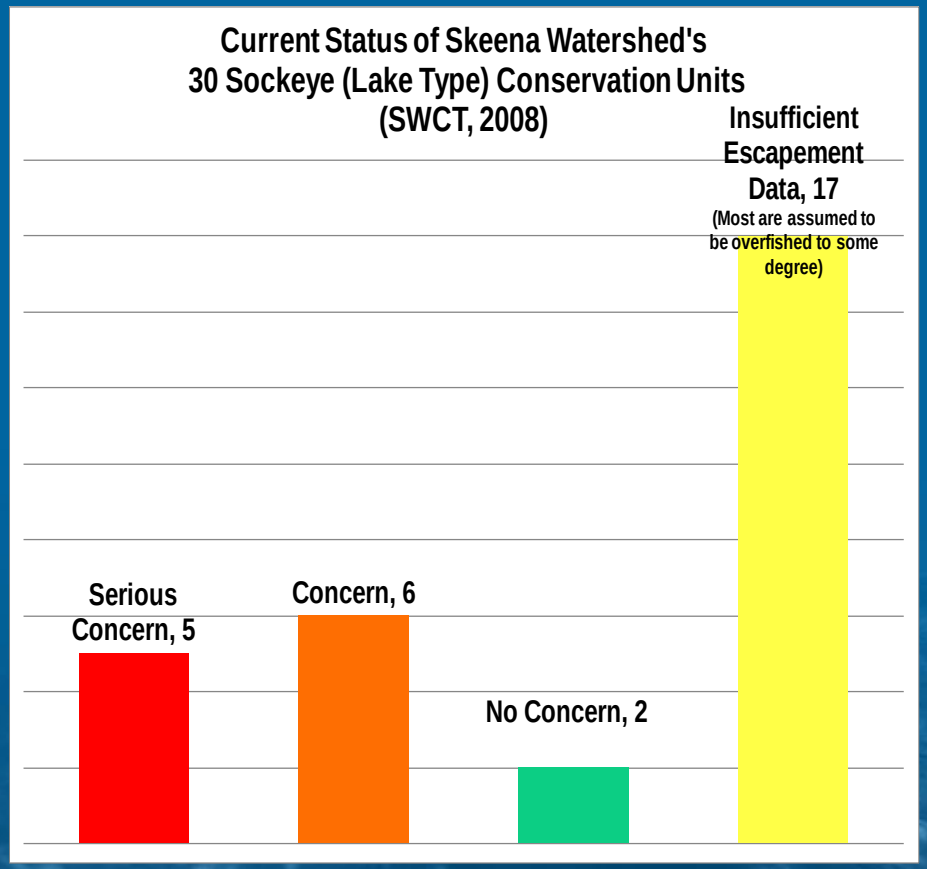
Skeena Sockeye Conservation Units

Map courtesy of Skeena Fisheries Commission

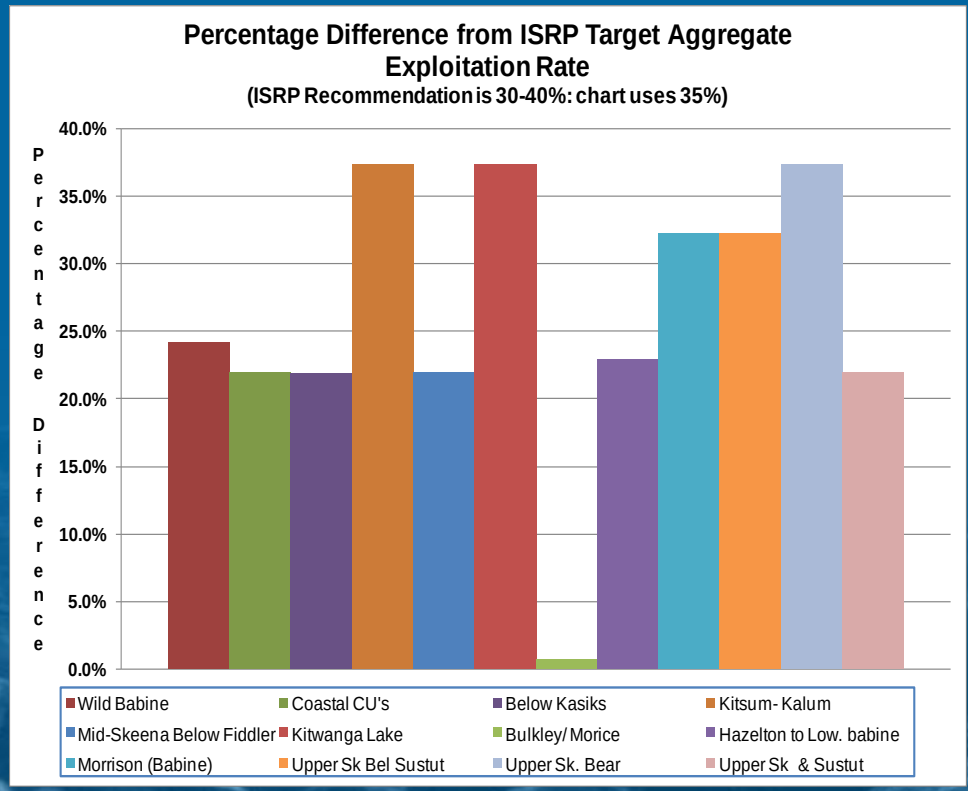


1. Johnston
2. Alastair
3. Lakelse
4. Kisumkalum
5. McDonnell
6. Dennis
7. Aldrich
8. Kitwanga
9. Stephens
10. Club
11. Swan
12. Sicintine
13. Slamgeesh
14. Damshilgwit
15. Motase
16. Bear
17. Azuklotz
18. Asitka
19. Sustut
20. Spawning
21. Johanson
22. Kluayaz
23. Kluatantan
24. Morice
25. Atna
26. Bulkley
27. Maxan
28. Babine
29. Morrison

Snapshot of Current Status of Skeena Sockeye Stocks



The X-axis represents the exploitation rate that the Independent Science Report stated would allow for the preservation (not rebuilding to allow for FN access, etc.) of depressed Skeena sockeye stocks. This graph shows that stocks such as Kitwanga have been exploited – on average - in excess of 135% of the recommended minimum rate since 1982.





First Management Era: 3,000 BC to 1877

Pictures courtesy of Allen Gottesfeld

- Skeena First Nations harvested salmon at relatively high harvest rates for at least 5,000 years.
- Archeologists and traditional FN history indicate that First Nation's population was limited by salmon abundance. FN's would have tended to fish to the sustainable limits of salmon populations in the areas where they lived.
- This means that at a time when a small village called Rome was being founded there was a sustainable fisheries management strategy in place in the Skeena.

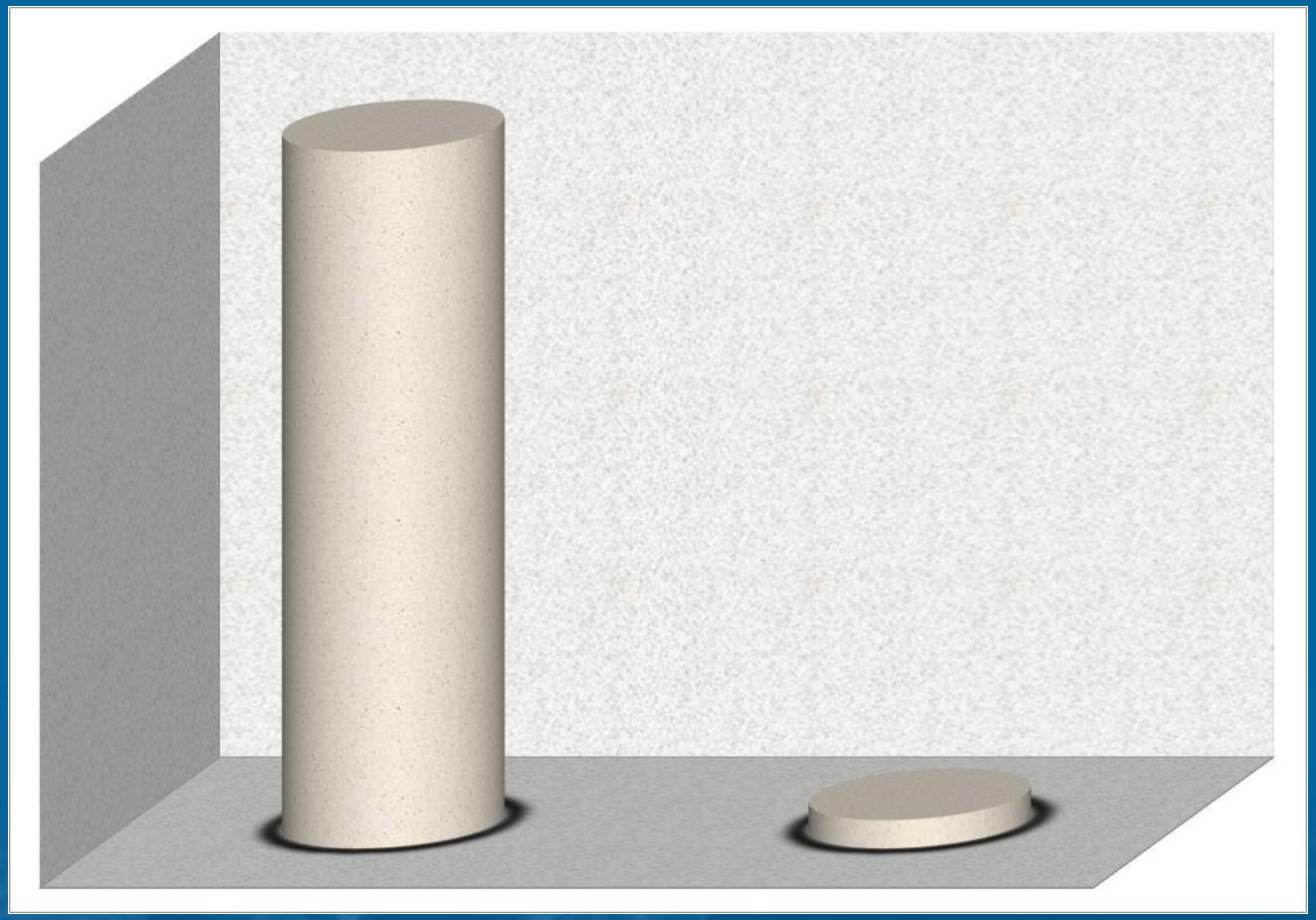
Robust design and construction would have prevented fish passage unless there was a management process that allowed for escapements

Pictures courtesy of Ken Rabnett and Allen Gottesfeld

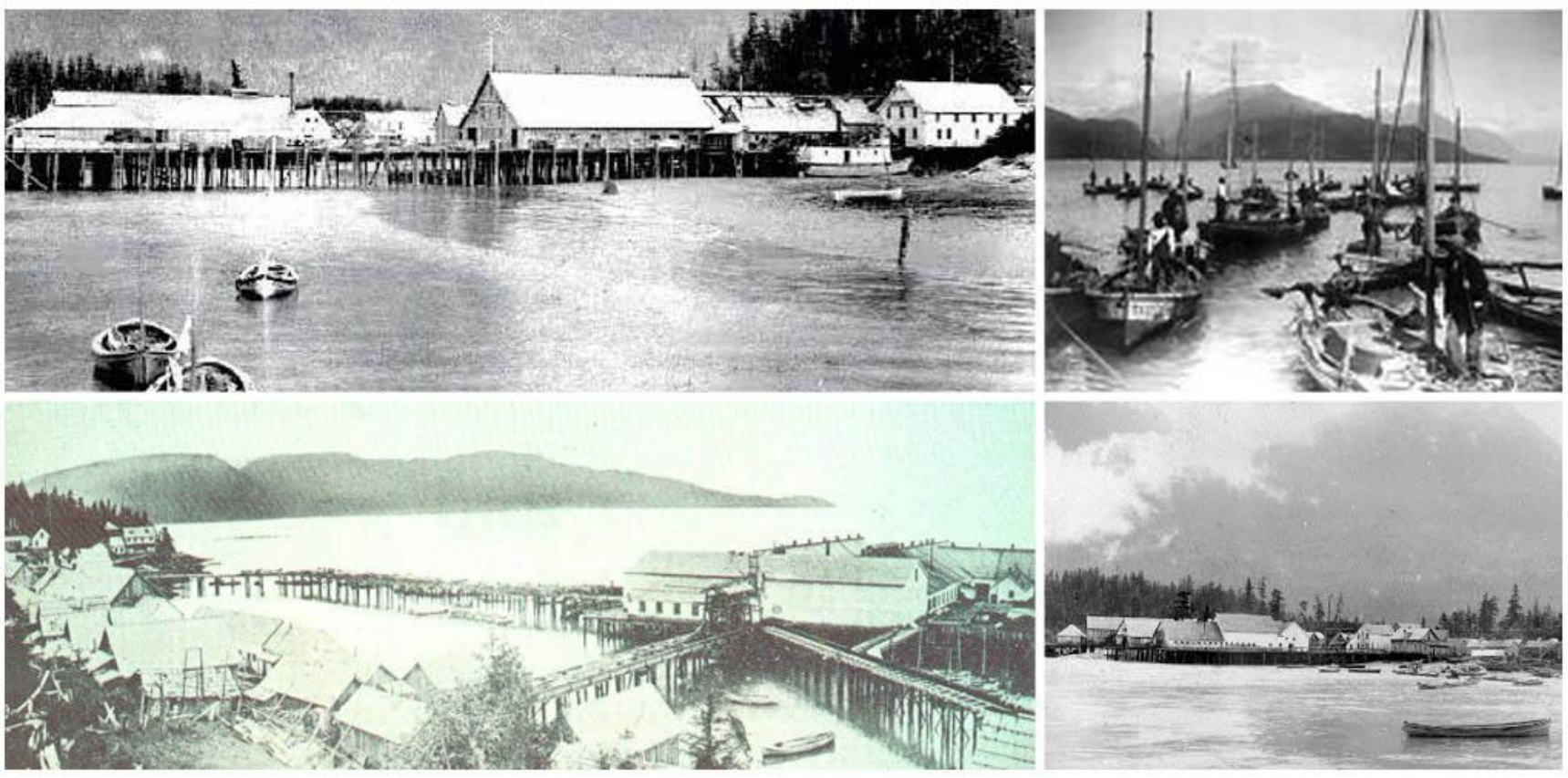
Babine Barricades were of the most *“formidable and imposing appearance… constructed of an immense quantity of materials, and on scientific principle… which not a single fish could get through.”* People were catching and processing some *“three quarter of a million fish”*

Hans Helgerson, Fishery officer 1906

(from Copes. 1995) Picture courtesy of Bill Spenst and the Lake Babine Nation

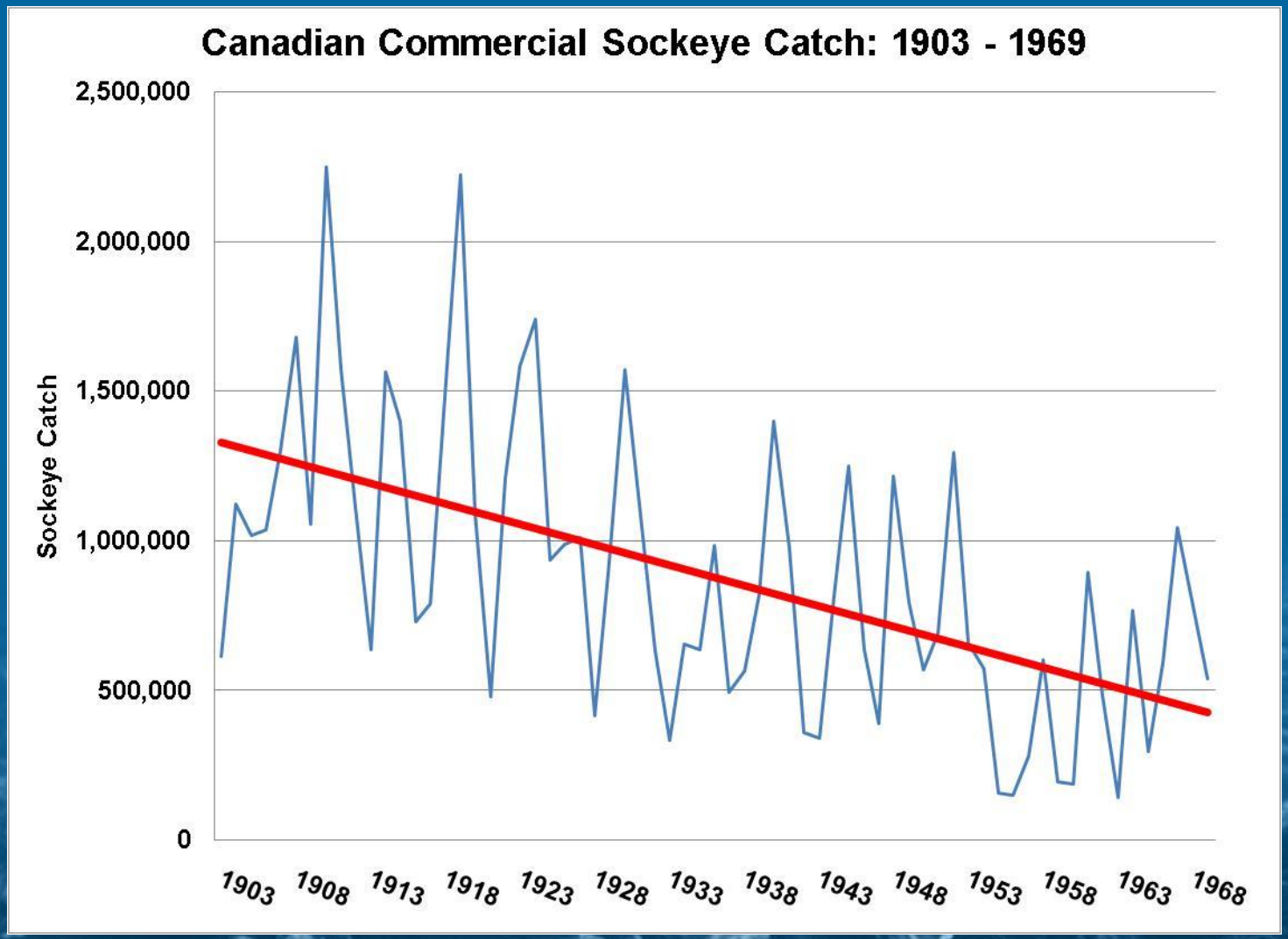


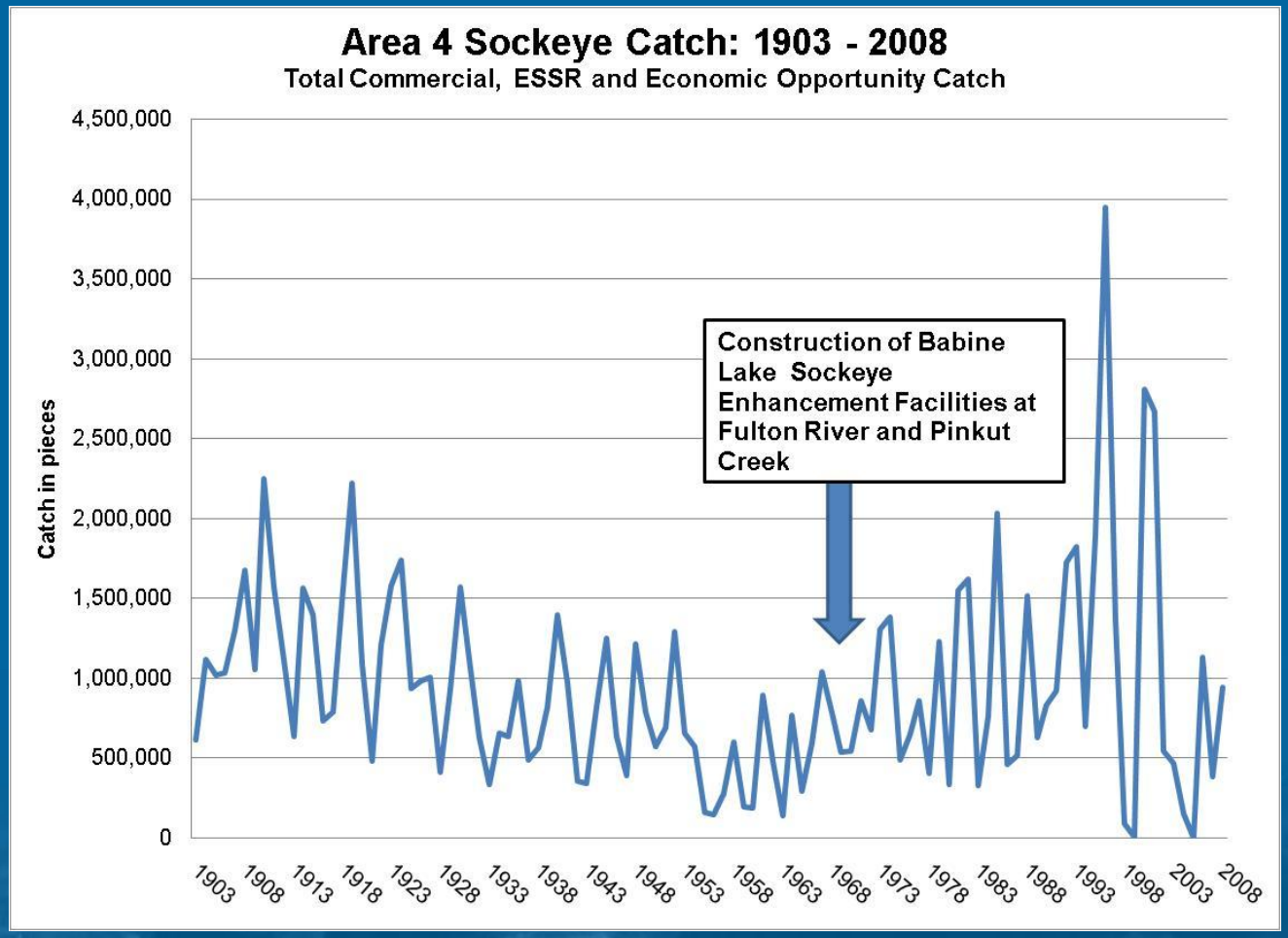
Relative Time Frames the two Management Strategies have been in existence and how long – in relative terms – it took modern management to replace a sustainable fishery which preserved biodiversity to one that has placed biodiversity at risk.



Fisheries prior to Enhancement: 1873 - 1970

Early Modern Management:
1883 - 1969

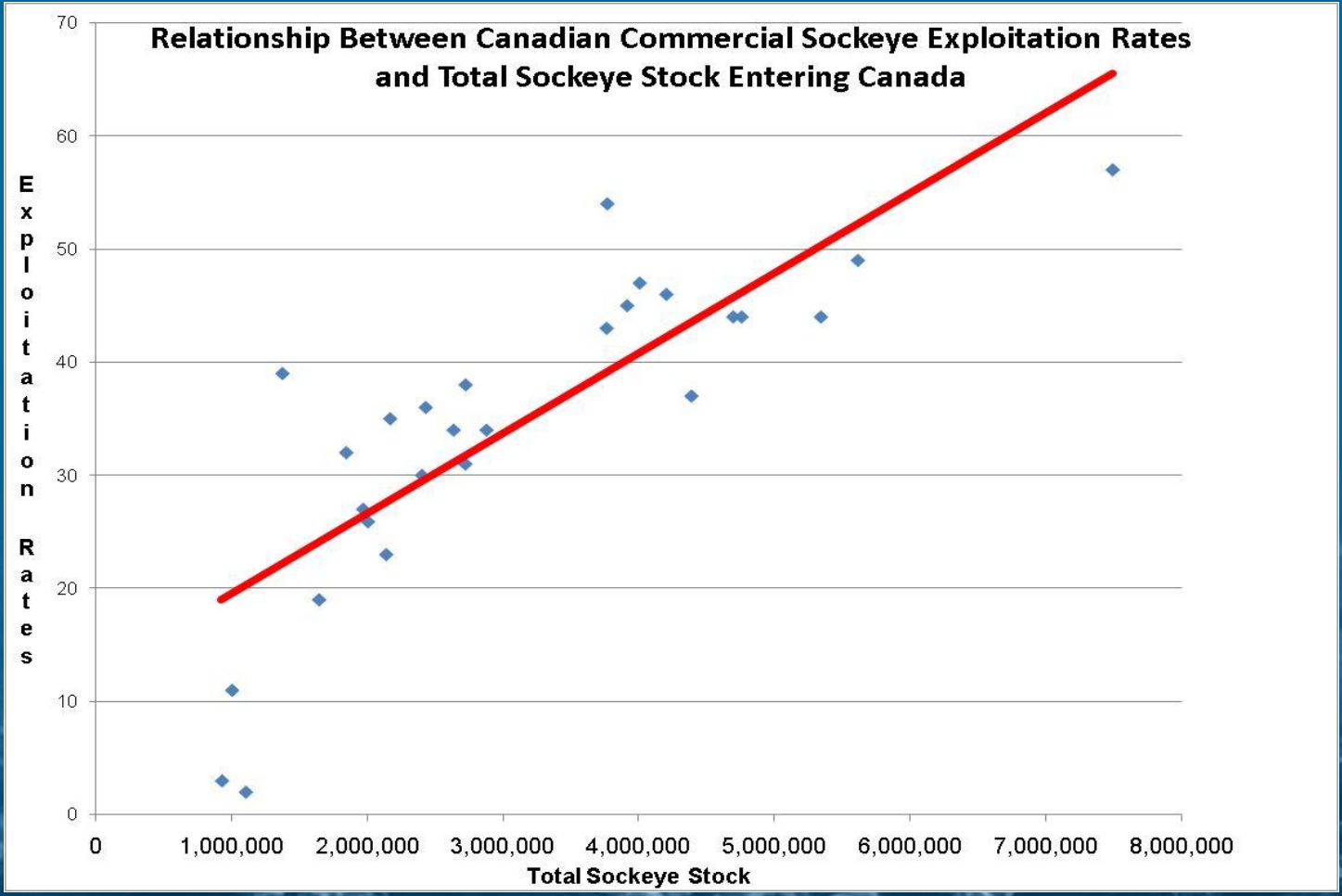




Modern Era Sockeye Management:

Attempting to manage a trade-off between maintaining economic benefits from a mixed stock fishery and protecting biodiversity

Although Exploitation Rates from 1982 – 2008 appear relatively constant; they disguise the trade-offs DFO has made between biodiversity and marine harvests. This graph illustrates management response to increasing aggregate abundance. Mixed stock harvests are allowed to increase even though it is understood that such increases will likely compromise biodiversity

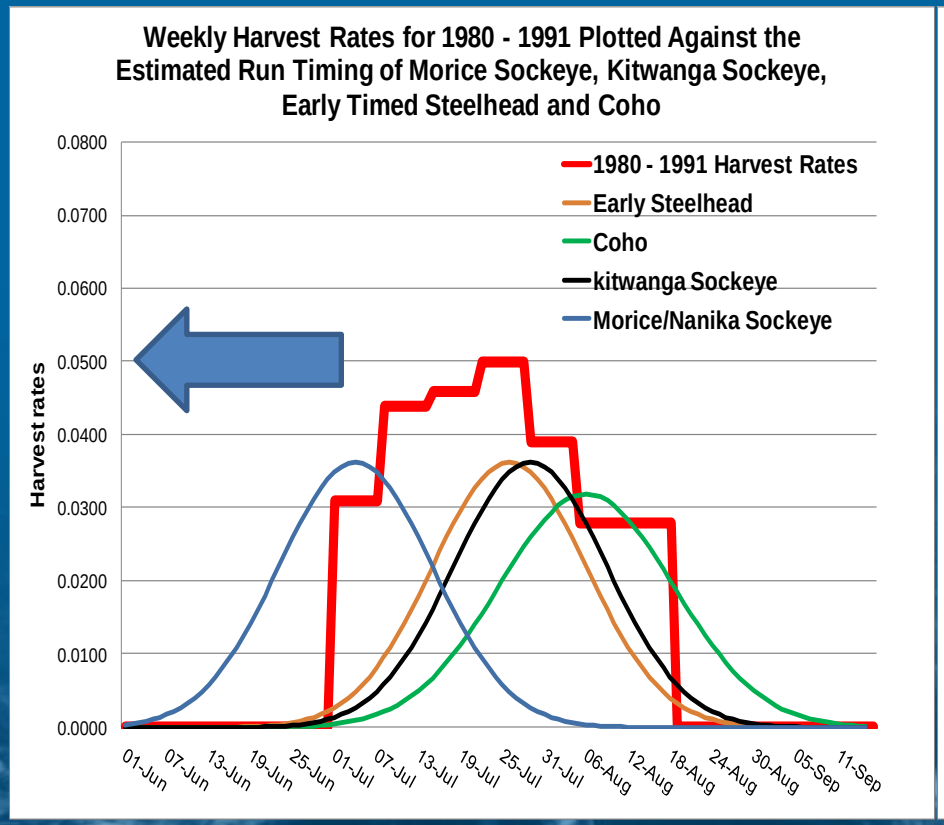


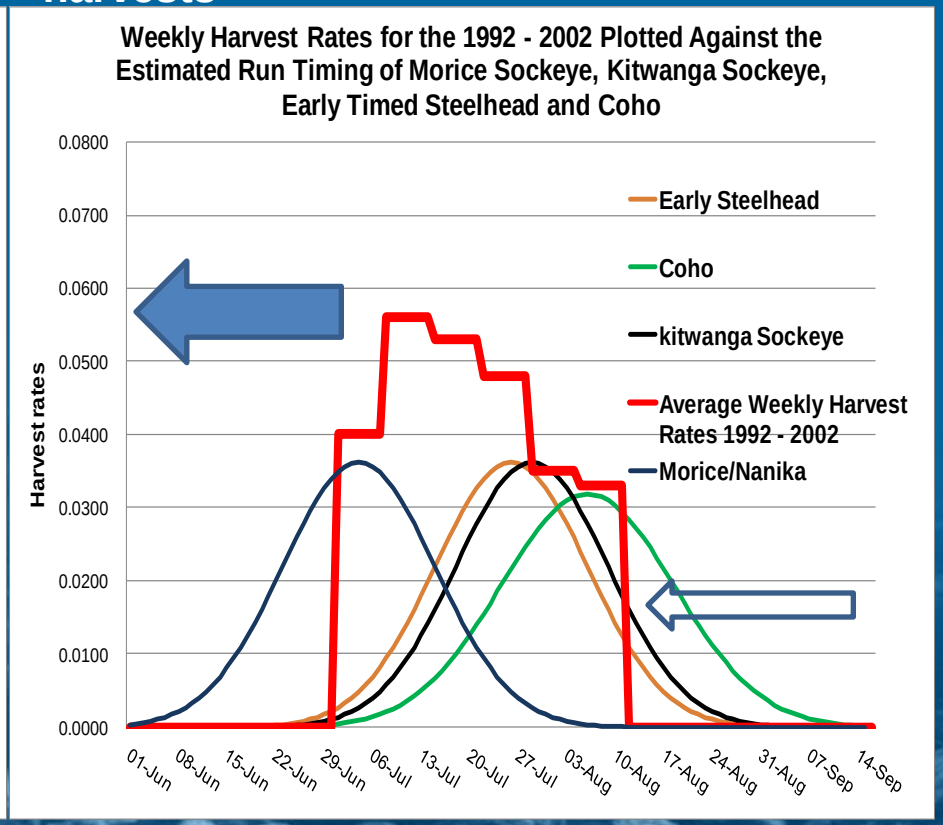
Managers have attempted to move mixed stock harvest impacts in a failed effort to maintain commercial efforts and protect biodiversity

1980 – 1991 Weekly Harvest Rates

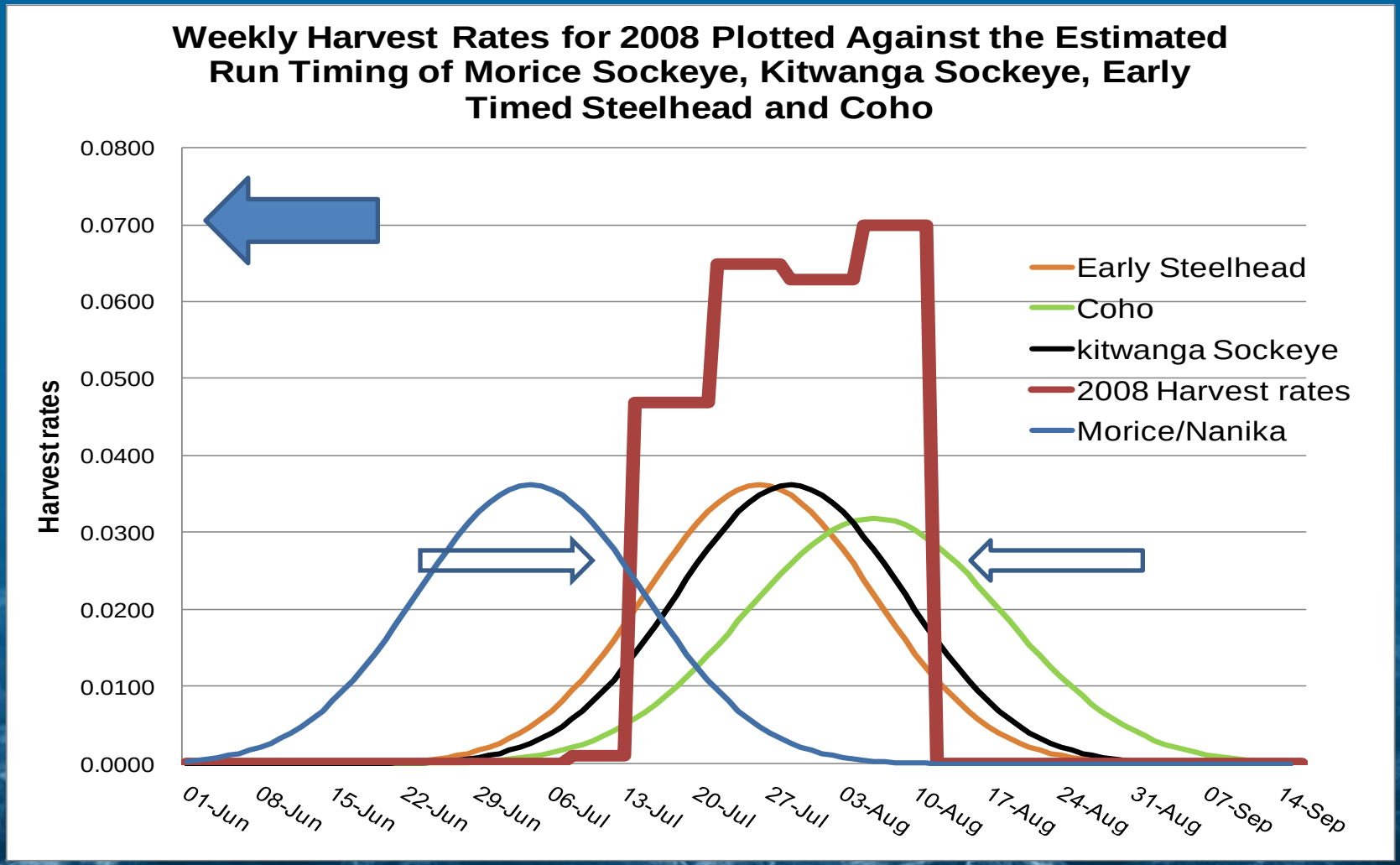
Plotted against the run timing of selected stocks of concern

Reducing harvest rates in August from 1992 – 2002 to protect coho and steelhead led to a decision to increase weekly harvest rates in July in an attempt to maintain mixed stock harvests





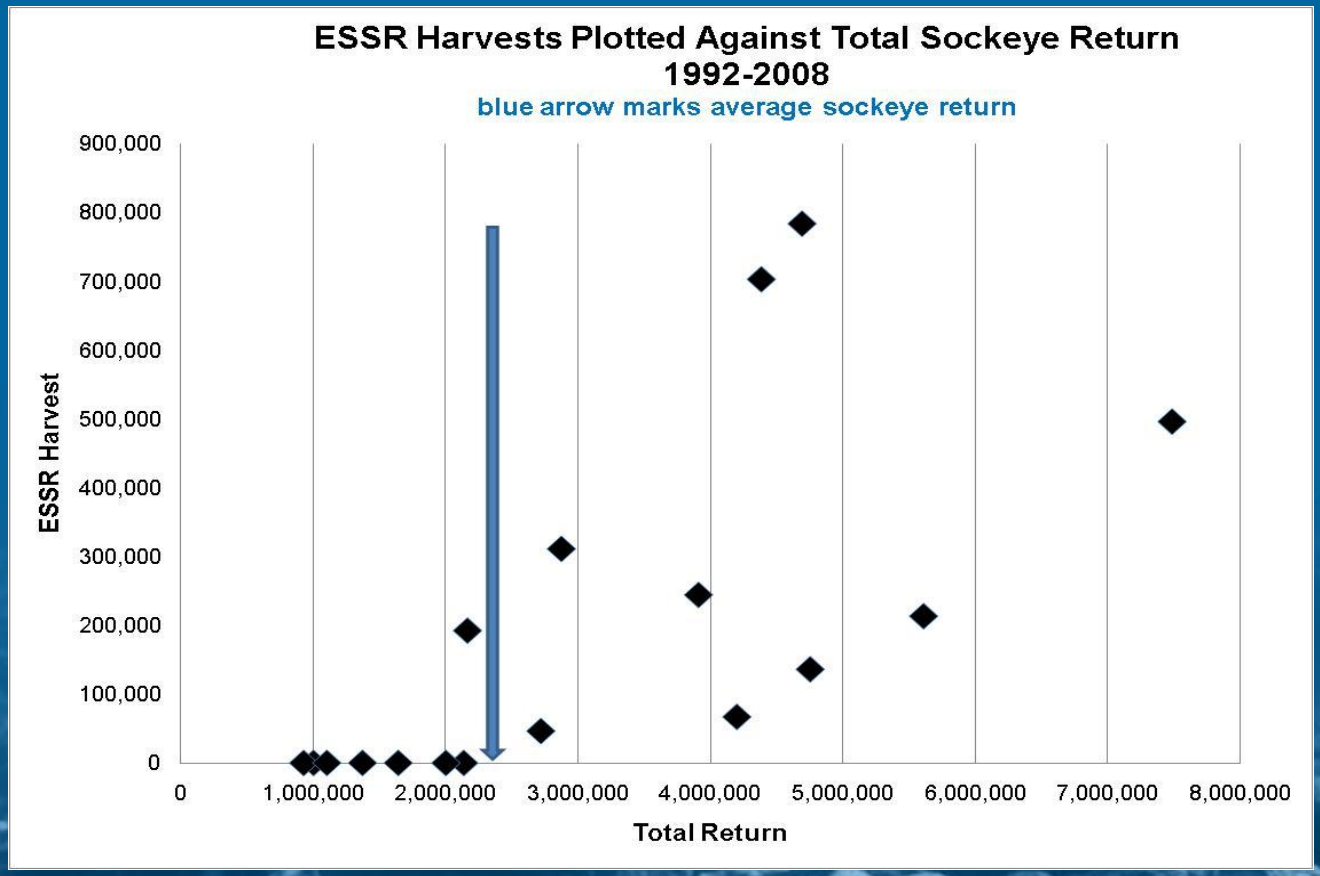
This resulted in increased impacts on Nanika sockeye – a critical food source for the Wet'suwet'en people. Managers responded by curtailing weekly harvest rates in the early period and maintaining the August restrictions. But in an effort to maintain mixed stock harvests significantly increased weekly harvest rates in the middle of the season – right on top of other less productive sockeye stocks.



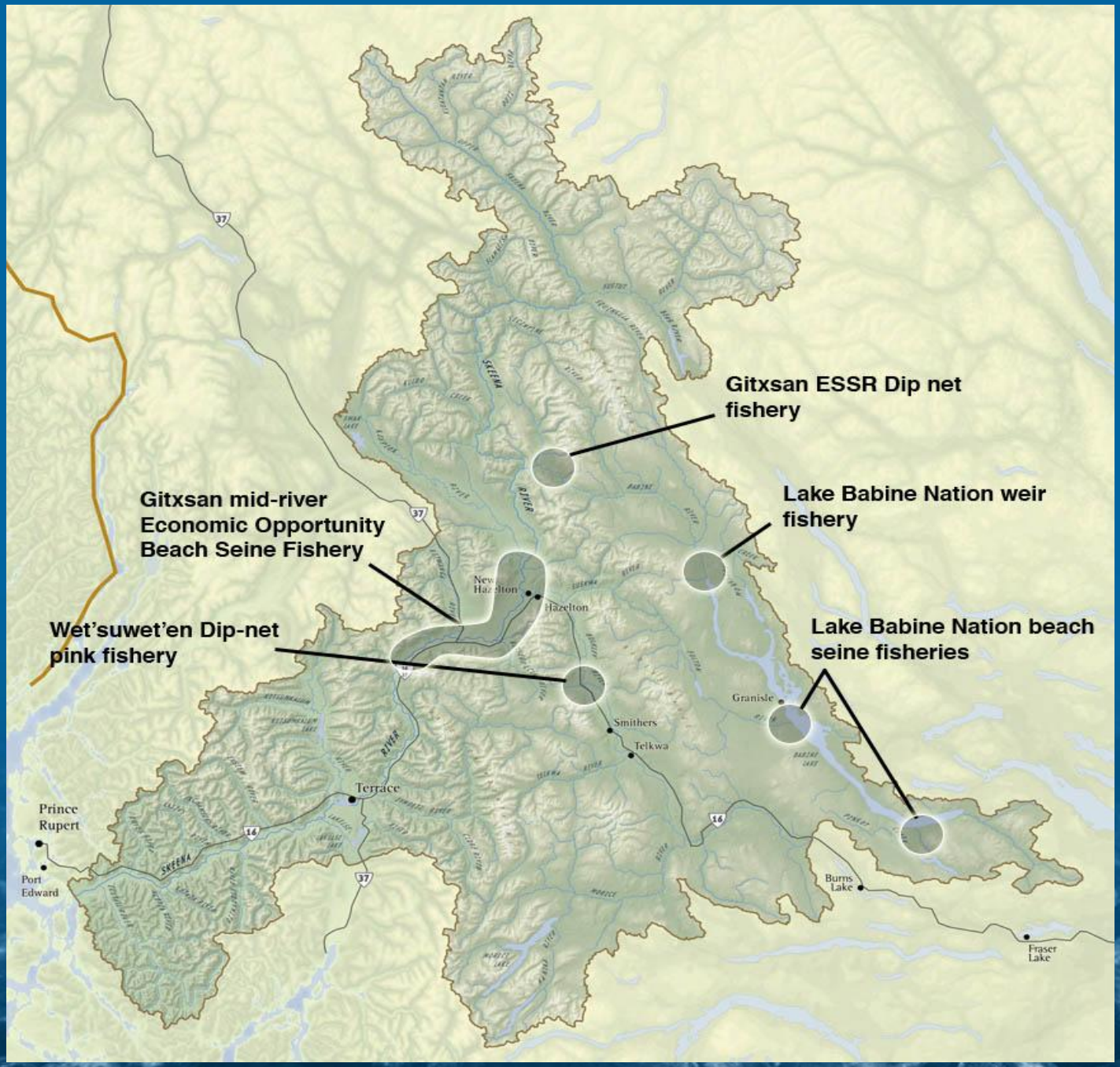
There is another way:

Looking back to move Forward

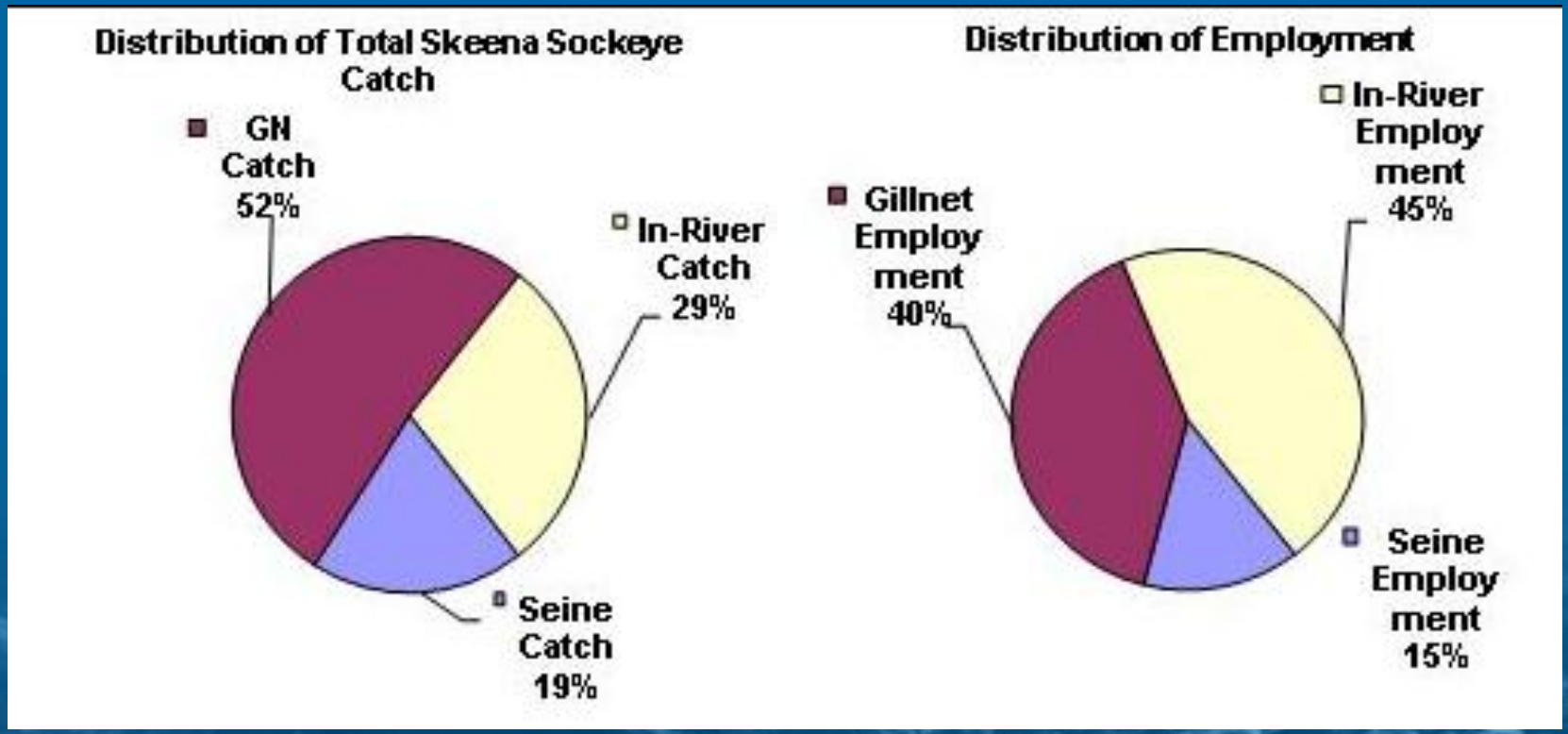
ESSR and Economic Opportunity Harvests totaled almost 3.4 million sockeye and 260,000 pink salmon between1992 and 2008. The problem is the inconsistency of supply as DFO typically only allows ESSR fisheries when sockeye returns well exceed the average (blue arrow)



Location of Selective Fisheries



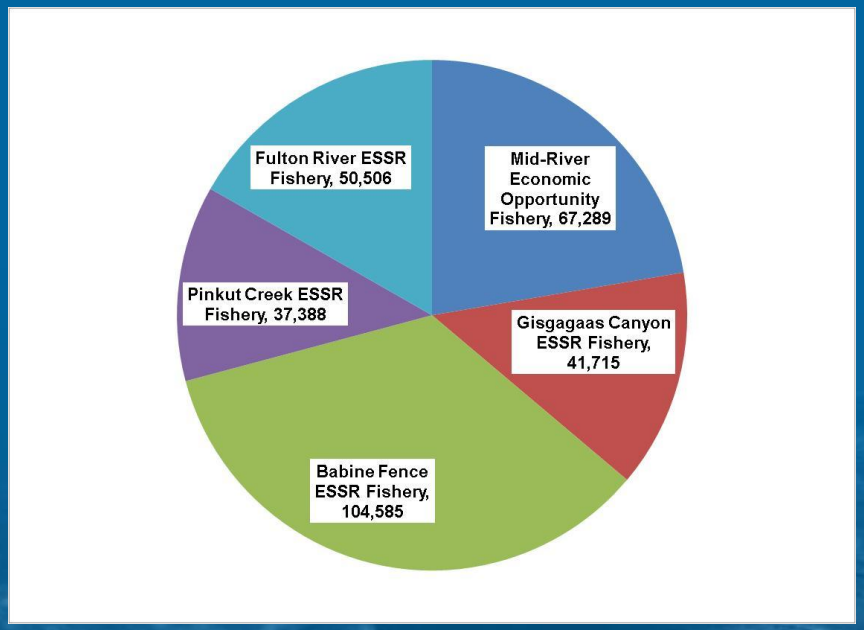
2008 Economic Opportunity and ESSR Fisheries

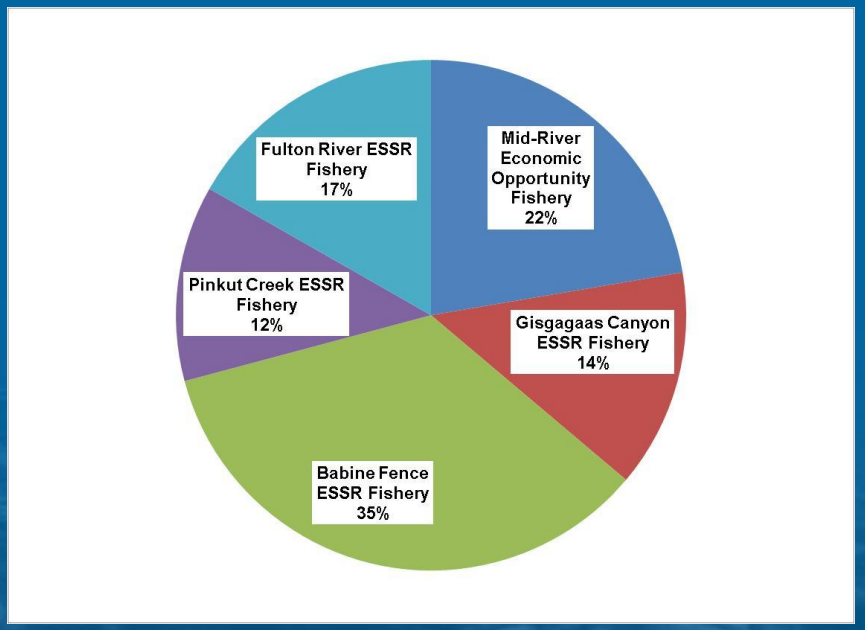


Name of Community	Total Population	Median Income (incl. transfers)	Employment Rate
Gitwangak	465	$11,392	33%
Gitsegukla	721	$7,030	24%
Gitanmaax	723	$13,579	34%
Kispiox	617	$11,104	31%
Moricetown	592	$14,400	45%
Lake Babine Nation	802	$10,134	32%
Average		**$11,273**	**33%**
BC Average		**$31,598**	**62%**

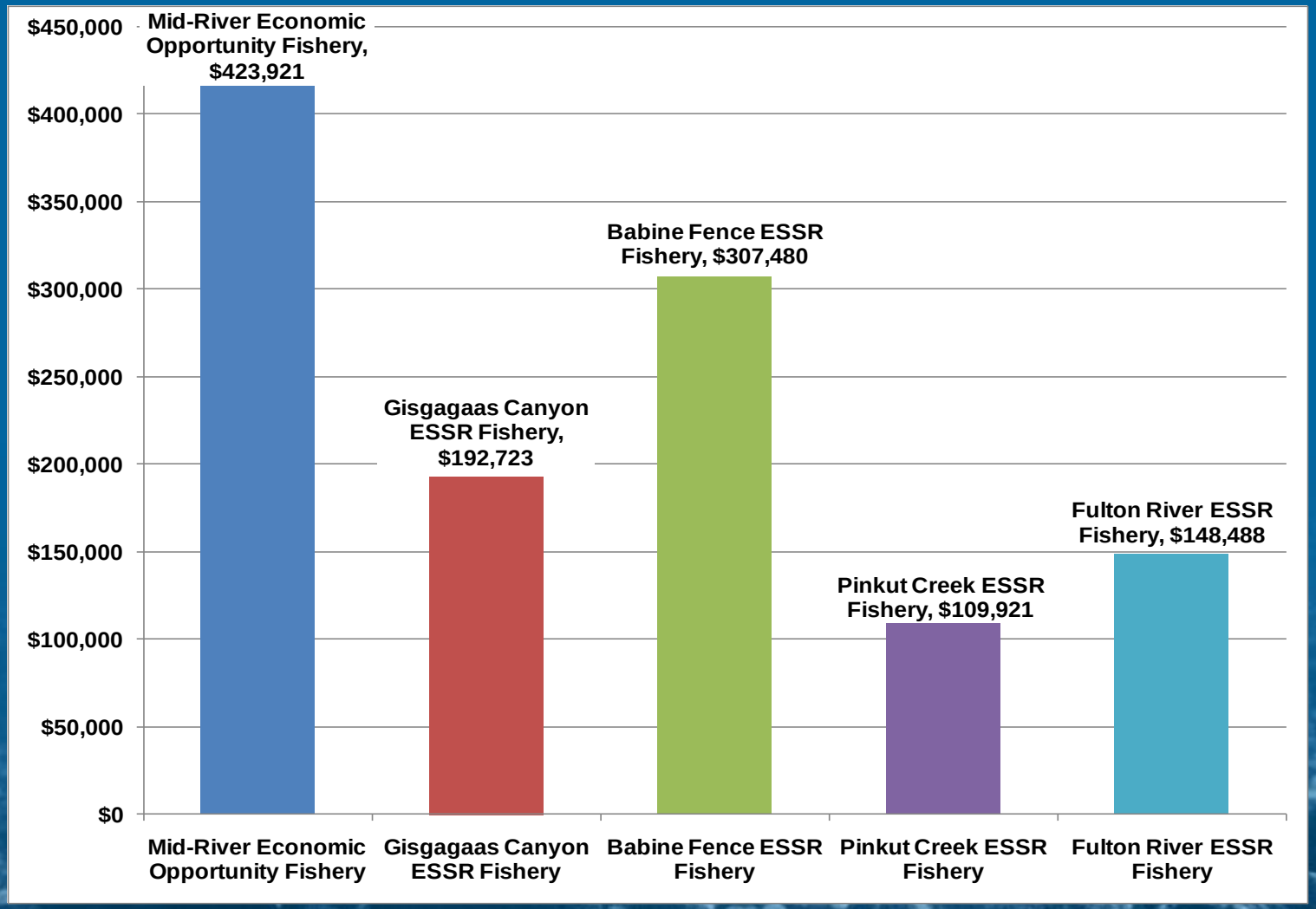
Community economic profiles. Selective Fisheries are important for struggling First Nations communities.

Distribution of 2008 Selective Fishery Catch





Total revenues for First Nations communities from the 2008 selective fishery totaled almost $1.2 million



The “New” Skeena Commercial Fishery Reconnects with the Past

- Conservation, biodiversity and ecological integrity is paramount in all management.
- Peer reviewed science and traditional ecological knowledge are incorporated in technical discussions
- Traditional Law influences fisheries management decisions

Mid-River Selective Beach Seine Fishery

Strengths

1. Excellent quality of fish
2. Ability to harvest allocation
3. Consistent access
4. Very Species Selective
5. Relatively easy logistics

Challenges

1. Mixed stock fishery
2. Access tied to commercial access. As commercial access declines so does Mid-River selective fisheries access.
3. Less harvest opportunities upstream of Kitwanga River

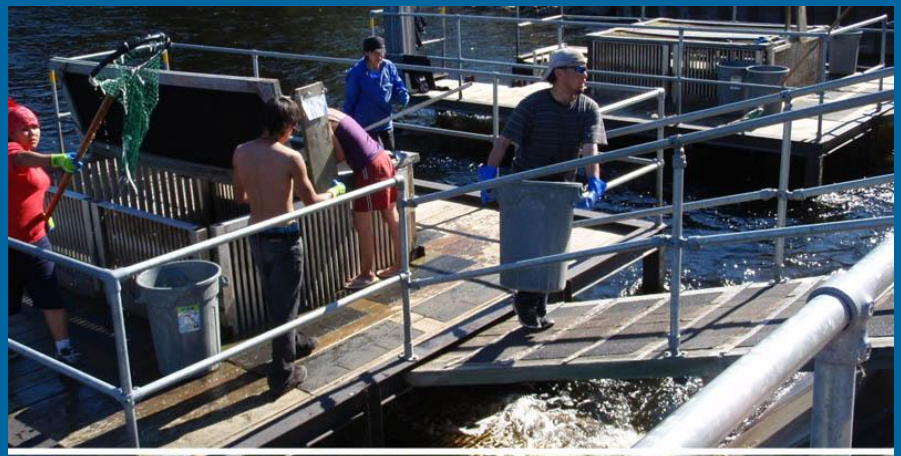
Gisgagaas Canyon Selective Dip-Net Fishery

Strengths

1. Good quality fish
2. Stock Selective
3. Slow Pace of fishery enhances fish quality
4. Bleeding program

Challenges

1. Need to improve catch rates to access entire allocation
2. Dependent on ESSR Allocation
3. Labour intensive transport up Canyon to ice and trucks
4. Better fish release methods required in some sites
5. Difficult access to fishery



Babine Fence Dip-Net Fishery

Strengths

1. Good fish quality
2. Reasonable roe maturity
3. Very stock selective
4. High rates of Harvest
5. Good infrastructure

Challenges

1. Long access road to fishery
2. Dependent on ESSR Allocation
3. Grizzly bears!

Babine Lake Fisheries

Strengths

1. Flesh quality acceptable for market but can decline late in run
2. Excellent roe maturity and quality
3. High harvest rates
4. Very stock selective

Challenges

1. Dependent on ESSR Allocation

Moricetown Pink Fishery

Strengths

1. Excellent direct access to market
2. Located at major tourist attraction
3. Good products
4. High prices for pinks. Relies on good prices instead of high volumes
5. Excellent roe maturity and quality
6. Reasonable harvest rates when pinks available
7. Long term successful fishery
8. Very species and stock selective

Challenges

1. Inconsistent access
2. Dependent on ESSR decisions
3. Can not make long term business decisions

The Skeena Watershed's First Nations have come together to collectively work on the challenges facing their fisheries. They have formed the Skeena Watershed Selective Harvester's Association (SWSHA). The SWSHA's mandate is to:

1. Improve SWSHA's access to sockeye. Each selective fishery must have an annual defined share of the Canadian commercial surplus of Skeena sockeye. This will allow SWSHA members to grow their businesses while increasing biodiversity in the Watershed

2. Certify all sockeye products as selectively harvested in "fair-trade" fisheries under the SkeenaWild Certification mark.

3. Develop additional value added opportunities either through marketing or product development

4. Identify opportunities where the SWSHA might invest in ice machines, totes, infrastructure or processing in order to return a greater share of the market value to local communities.

Thank you to the following for the pictures and maps in the presentation:

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And special thanks to the First Nations of the **Skeena Fisheries Commission** for their efforts over the past twenty years. Without it there would not be an inland selective fishery today.