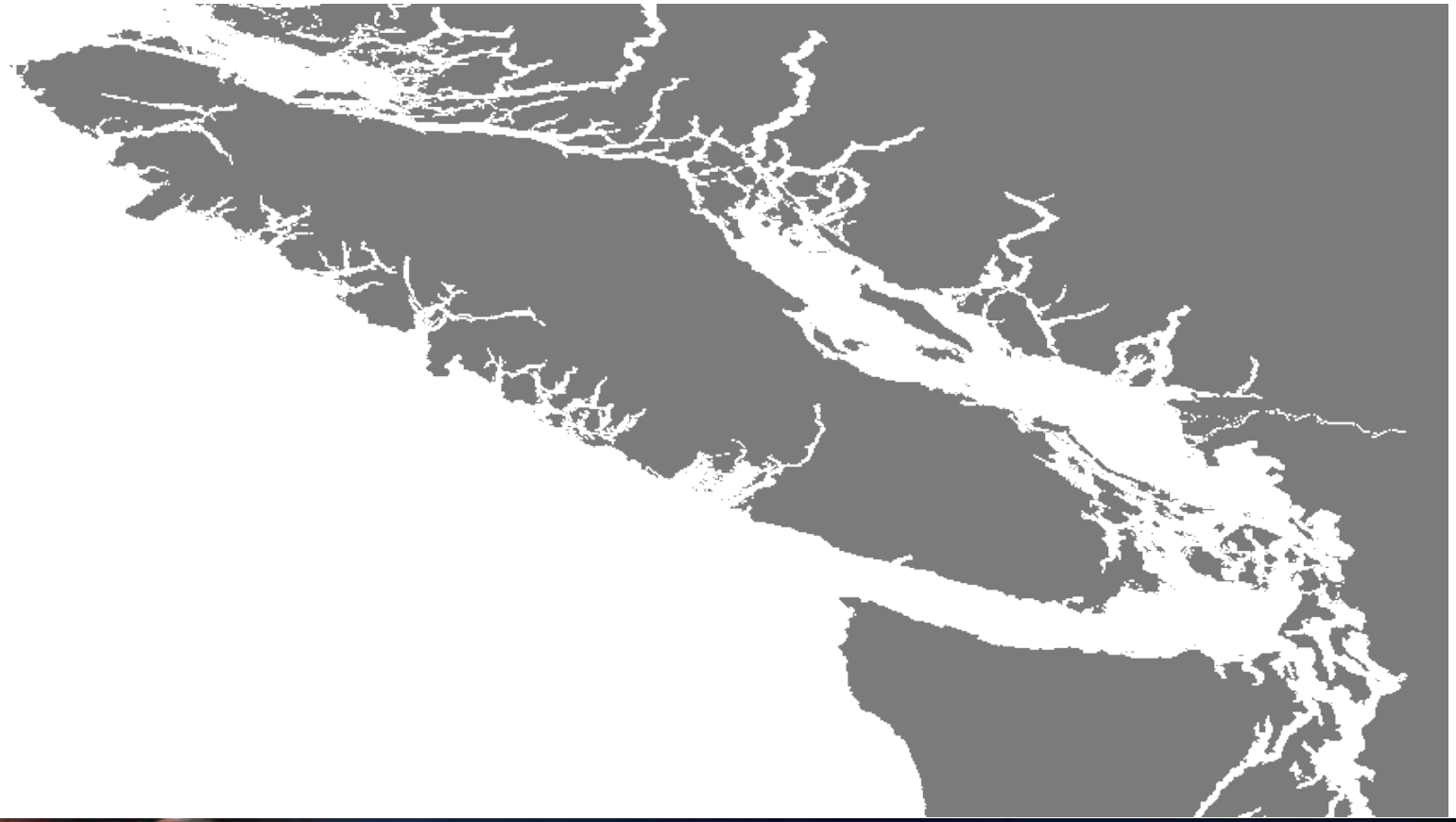
# 2010 Draft Salmon SC IFMP: Chum, Coho and Steelhead

FCHP Meeting

April 22, 2010

# Southern B.C. Chum Salmon



# Johnstone St Chum Mixed Stock Fishery Management Approach

- 20% fixed harvest rate management approach (effort based) since 2002
- PST agreement for no commercial fishery below 1m run size
- Commercial fisheries scheduled through October
- Area H troll demonstration fishery (effort based shares) again in 2009
- Only modest First Nations effort and catch
- Significant recreational fishery in lower Area 13

# Johnstone St Chum Test fishery

- Operated in Area 12 - Sept 21 to Oct 26
- 1 to 2 seine vessels fished/day, total of 45 test fishing days (boat days)
- Total chum retained – 1,007 (biological samples)
- Total of 60,265 chum released

# Commercial Chum Fisheries – Areas 14-19

- Fisheries are managed on a terminal abundance based approach
- Fisheries designed to target on specific surplus chum stocks and minimize encounters on stocks of concern
- In terminal areas for the Strait of Georgia target stocks include the Puntledge, Big Qualicum, Little Qualicum, Jervis Inlet streams, Nanaimo, Cowichan and Goldstream rivers

# First Nations & Recreational Chum Fisheries

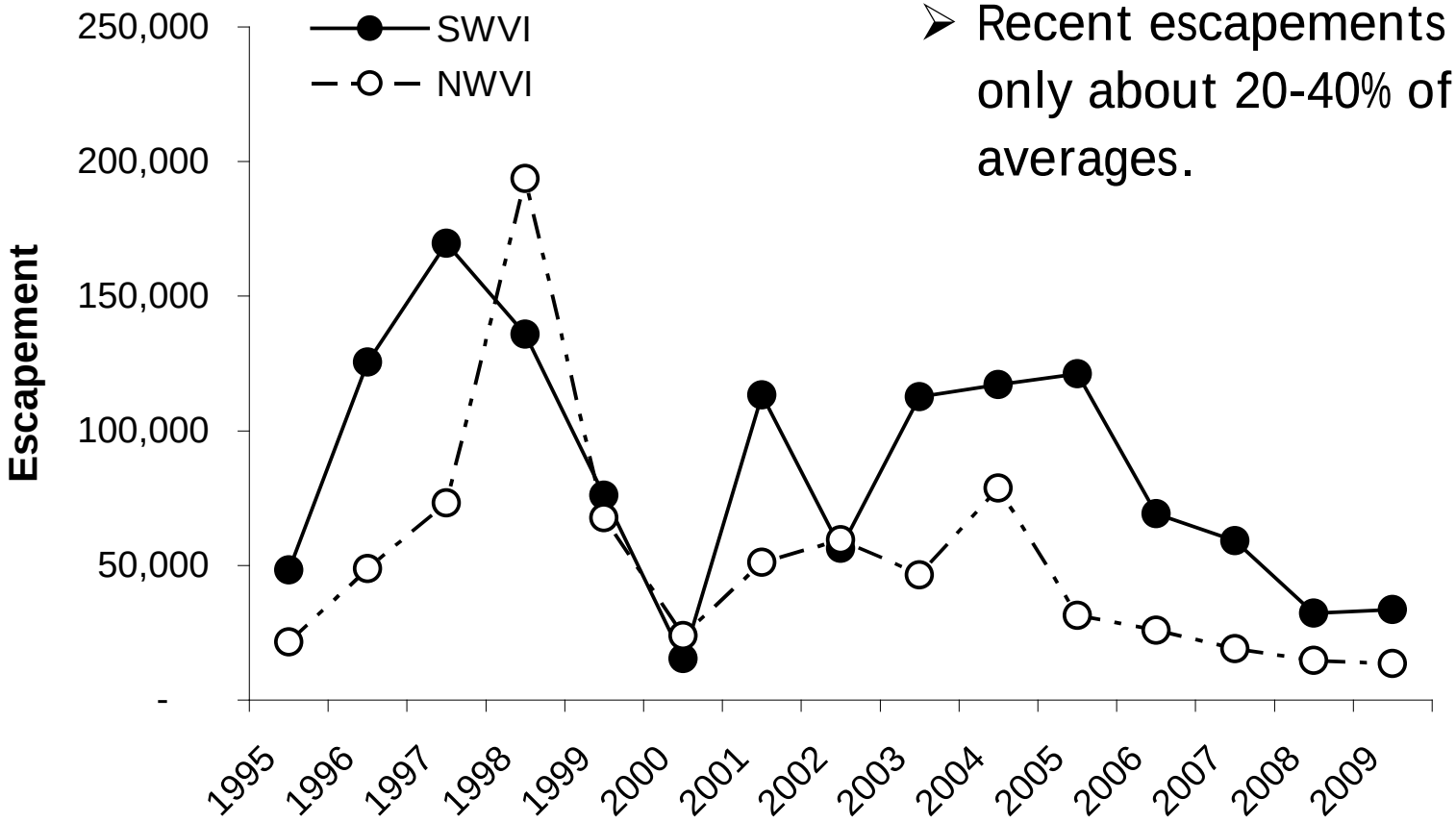
## First Nations

- FSC opportunities are available throughout the run
- The majority of FSC harvest is by seine gear

## Recreational

- Opportunities are at regular bag limits – 4 salmon per day with 8 possession limit
- Non-tidal harvest opportunities for chum on the Puntledge, Big Qualicum, Little Qualicum, Nanaimo and Cowichan Rivers.

# WCVI Chum Escapement Trend




- Recent escapements low: 2008 only about 20-40% of long term averages.

# WCVI Chum Management

- Commercial fisheries primarily target enhanced abundances at Nootka and Nitinat
- Nootka fishery managed by harvest rate based on effort
- Nitinat fishery managed based on escapement – 225k escapement goal
- Experimental low effort commercial fisheries in Barkley, Clayoquot, and Esperanza

# WCVI Chum Expectations

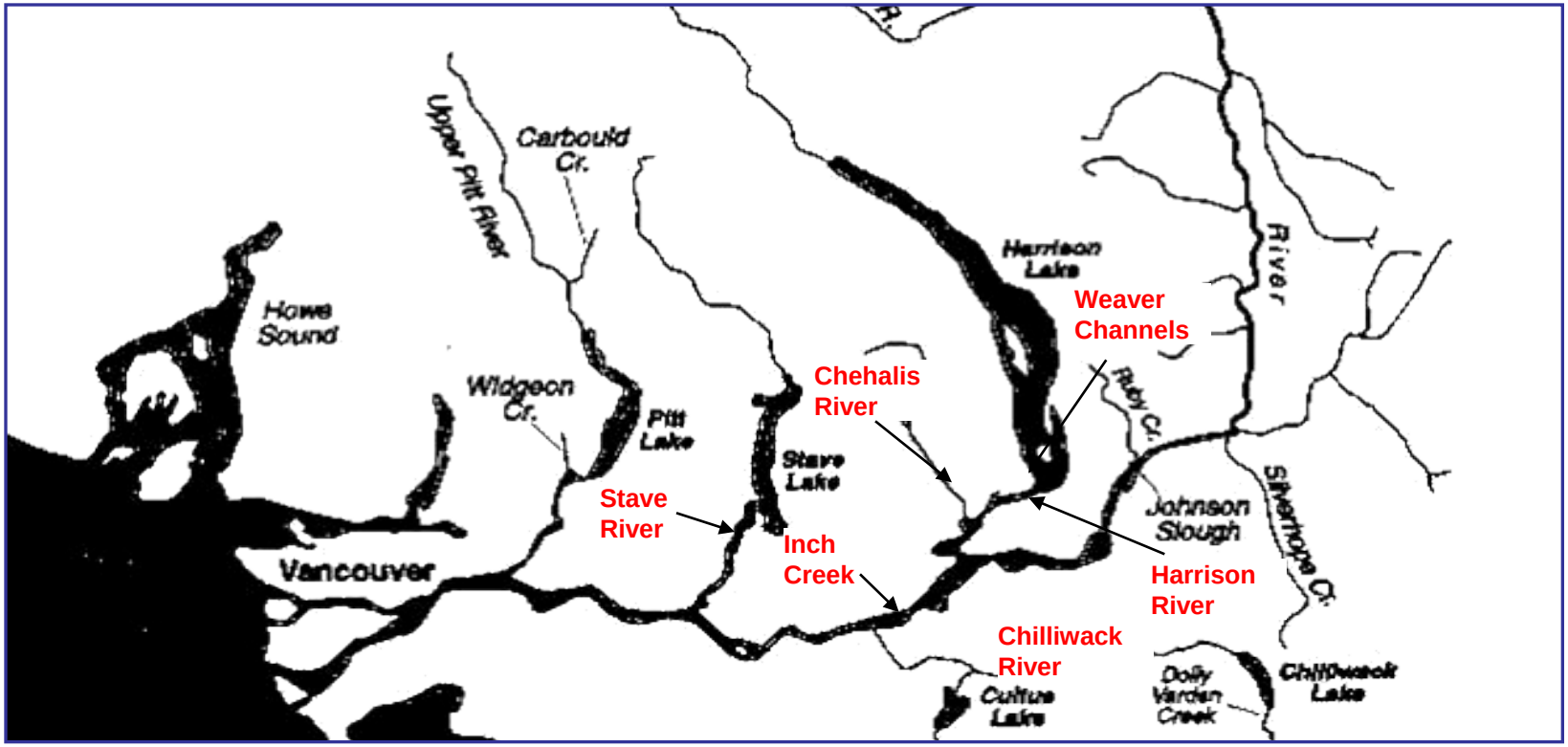
- Forecasts below escapement requirements
- FN and recreational opportunities expected
- Commercial fisheries in 2010 are contingent on observed abundances.

# Fraser River Chum Status

- Largest chum population in British Columbia (10 year avg esc. approx. 1.8 million) although recent trend is declining escapement (5 year avg esc. approx. 1.6 million)
- Return to the Fraser from September through November, with peak migration for recent years in mid/late-October
- Major spawning areas are below Hope (Harrison/Weaver/Chehalis, Chilliwack/Vedder, Stave)
- Enhancement via Weaver spawning channels, Inch Creek, Chilliwack, and Chehalis hatcheries (and several smaller projects)
- Last in-season estimate for terminal run-size was 1.725 million (based on Albion test fishery)
- Escapement estimates for 2009 are not available at this time

# 2009 Fraser River Stock Status – Chum

## Major Production Areas



# Fraser River Chum Escapement

| Fraser River Chum Escapement | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year(s) | Harrison River | Stave River | Chilliwack River | | Inch Creek | | Weaver | | Chehalis | | Extensive Surveys | Total |
| | escapement | escapement | swim-ins | in-river | swim-ins | in-river | swim-ins | in-river | swim-ins | in-river | | |
| 1953-1959 | 422,620 | 2,571 | 12,414 | | 1,393 | | 14,575 | | 62,338 | | - | **515,911** |
| 1960-1969 | 123,715 | 45,268 | 66,220 | | 2,080 | | 1,075 | | 53,955 | | - | **292,313** |
| 1970-1979 | 108,225 | 49,390 | 69,215 | | 4,215 | | 2,940 | | 41,040 | | - | **275,025** |
| 1980-1989 | 87,032 | 58,117 | 153,812 | | 11,100 | | 35,575 | | 24,916 | | - | **370,552** |
| 1990-1997 | 41,429 | 265,795 | 195,428 | | 14,027 | | 4,689 | | 20,643 | | - | **542,011** |
| 1998 | 2,291,151 | 500,000 | 45,367 | 368,287 | 27,507 | 14,892 | 35,590 | 2,500 | 75,748 | 200,000 | - | **3,561,042** |
| 1999 | 1,896,120 | 320,000 | 42,001 | 384,671 | 15,858 | 7,404 | 39,009 | 4,000 | 101,389 | 175,000 | - | **2,985,452** |
| 2000 | 425,236 | 105,000 | 11,595 | 93,824 | 5,240 | 4,362 | 6,286 | 3,600 | 17,833 | 27,000 | - | **699,976** |
| 2001 | 2,014,862 | 625,000 | 18,440 | 269,564 | 12,617 | 12,177 | 23,628 | 3,000 | 69,419 | 81,000 | 22,186 | **3,151,893** |
| 2002 | 1,458,066 | 475,000 | 15,755 | *199,970* | 13,424 | 12,593 | 8,568 | 2,023 | 31,221 | 30,045 | 55,630 | **2,302,295** |
| 2003 | 1,080,967 | 200,000 | 4,028 | *116,225* | 11,876 | 13,069 | 13,829 | 11,171 | 23,326 | 20,000 | - | **1,494,491** |
| 2004 | 1,756,873 | 440,000 | 9,585 | *222,296* | 20,757 | 12,019 | 23,455 | 10,000 | 55,298 | 45,000 | 120,991 | **2,716,274** |
| 2005 | 746,435 | 300,000 | 2,053 | *123,006* | 8,740 | 8,471 | 9,945 | 1,177 | 27,114 | 77,000 | 27,778 | **1,331,719** |
| 2006 | 1,286,856 | 320,000 | 3,791 | *171,634* | 15,933 | 13,463 | 13,834 | 1,500 | 73,618 | 27,000 | 43,825 | **1,971,454** |
| 2007 | 624,443 | 235,000 | 1,912 | *104,665* | 2,826 | 5,190 | 10,611 | 3,156 | 26,751 | 20,000 | 22,756 | **1,057,310** |
| 2008 | 601,000 | 190,000 | 4,910 | *92,679* | 6,172 | 5,454 | 14,523 | 2,098 | 30,223 | N/A | 47,506 | **994,565** |

*Note: all 2008 values are preliminary and are still under review.*

# Fraser R Chum Management

- Management based on in-season forecast of abundance from Albion TF
- Escapement goal 800k
- Commercial threshold 916k
- Fisheries constrained to protect steelhead and coho

# Fraser R Chum Expectation

- No formal preseason abundance forecast
- Outlook is for near target returns in 2010
- In-season forecast based on Albion test fishery

# South Coast Coho

- Interior Fraser, Georgia Strait and Lower Fraser coho continue to be stocks of concern or low abundance (Outlook Status 1/2)
- Plan for a similar management approach to recent years – Canadian fishery exploitation rates not to exceed 3%
- Window closure to protect coho starting in September. Selective fishing techniques required.
- Area G troll fishery request to retain wild and hatchery marked coho when abundance levels are high (to be reviewed by Dept.)

# Interior Fraser Steelhead

- The objective for Interior Fraser River Steelhead provided by the B.C. Ministry of the Environment is to protect 80% of the run with a 90% certainty in Fraser River commercial gill net fisheries. This objective does not apply to selective commercial fisheries (those using gear types other than gill nets) or fisheries conducted terminally on single stocks. In addition, other commercial south coast fisheries are to release to the water with the least possible harm all steelhead caught incidentally in fisheries targeting other species.

# Interior Fraser Steelhead

- DFO and MOE working on management framework which may include;
  - Shifting of timing of the fishery window to protect Deadman River.
  - Improving catch monitoring in marine areas and development of “stop light” criteria to govern fisheries in future years.
  - Size and timing of fishery window may vary in future years depending upon abundance of constituent stocks. If current freshwater and ocean conditions persist and result in reduced escapements then opportunities for non-selective fisheries will be curtailed.