ESCAPEMENT SUMMARY ATTACHMENT (1999)

Toboggan Coho (839)

Estimate of spawners u/s of fence -   7,372 coho were sampled at the fence, of which 2.700 were tagged, and we carried out a Petersen estimate of spawners upstream by doing five walks of the entire spawning area from October 6th to November 2nd. We estimated the total spawning stock above the fence at approximately 7,600 (M=2,538, C=7,758, R=2,594).

Estimate of spawners d/s of fence -   based on 17.6% estimate of stock proportions below fence, this was also as a result of the five walks of the entire spawning area.

Estimate of angler catch of coho -   based on harvest (6) and of catch and release mortalities of five percent (25) indicated by a creel survey funded by Fisheries Renewal BC in 1999.

Estimate of native catch of coho -   based on tagging mortalities associated with coho tagging study at Moricetown, funded by DFO (4,200 tagged x 0.25 Toboggan stock component x 0.05 mortality rate) indicates 53 mortalities of Toboggan coho.

ESCAPEMENT SUMMARY FORM

TOTAL RETURNS TO RIVER FOR : 1999 Toboggan Creek 839 Coho Summer-run

	Unknown Adults	Males	Females	Total Adults	Jacks	Immatures
FISH REMOVED FROM THE SYSTEM						
Number of fish taken for brood stock		35	16	51		
Number of fish given to natives (not including brood stock carcasses)				0		
Number of fish sold for surplus (not including brood stock carcasses)				0		
Number of mortalities and/or fish used for other purposes				0		
TOTAL NATURAL SPAWNING POPULATION ABOVE FENCE						
Number sampled for marks and released		4,229	3,092	7,321		
Number counted but NOT sampled for marks				0		
Additional fish estimated to pass above fence (during periods when fence not operated etc.)		132	96	228		
+ Total Hatchery staff estimate of above fence spawners	0	4,361	3,188	7,549	0	0
Other Branch / Agency estimate of above fence spawners				0		
TOTAL NATURAL SPAWNING POPULATION BELOW FENCE						
Number sampled for marks and released				0		
Number counted but NOT sampled for marks	1,658			1,658		
Additional fish estimated below fence				0		
+ Total Hatchery staff estimate of below fence spawners	0	939	685	1,624	0	0
Other Branch / Agency estimate of below fence spawners				0		
ESTIMATED FRESH WATER SPORT FISHERY (IF APPLICABLE)						
+ Total Hatchery staff estimate of sport fishery		18	13	31		
Other Branch / Agency estimate of sport fishery				0		
ESTIMATED NATIVE FISHERY (IF APPLICABLE)						
+ Total Hatchery staff estimate of native fishery		31	22	53		
Other Branch / Agency estimate of native fishery				0		

INDICATE METHODS USED TO ESTIMATE POPULATION.

    (IF COMMENTS ARE REQUIRED, PLEASE USE REVERSE)

X Fence, Fishway, flashboard or tower (Continuous Count- 24 hrs /day)

   Fence, fishway, flashboard or tower (Interpolated Count < 24hrs / day)

X Petersen estimate

   Index by Redd count, peak count, dead pitch, floats, helicopter, etc.

X Visual estimate from brood stock collection, walks or spotchecks, etc.

X X Other method - Use reverse or space below to describe.

PLEASE STAPLE   COMPLETE FOR EACH STOCK

Prepared: 09-Mar-00

SAMPLING INFORMATION FOR :   1999   Toboggan Creek   Coho   Summer-run   Page 2

SAMPLE: 839

- ☐ Hatchery Swim-Ins
- ☐ Channel Dead Pitch
- ☒ Live +
- ☐ Dead −   ☐ Salt Water
              ☐ Estuary
              ☒ Fresh Water
                   + ☐ Lake
                   + ☒ River
                        + ☐ Above Fence
                        + ☐ Below Fence
                        + ☒ At Fence
                             + ☐ Total Count
                             + ☒ Partial Count

	Unknown Adults	Males	Females	Total Adults	Jacks	Immatures
NUMBER OF FISH COUNTED (at trap or fence if appropriate)		4,264	3,108	7,372		
NUMBER OF FISH EXAMINED FOR MARKS		4,264	3,108	7,372		
NUMBER OF C.W.T. MARKS FOUND		1,416	899	2,315		
NUMBER OF other MARKS FOUND		16	12	28		
NUMBER OF HEADS REMOVED FOR TAG DECODING		29	25	54		
NUMBER OF HEADS DISSECTED FOR TAGS		29	25	54		
NUMBER OF LOST OR MISSING HEADS		0	0	0		

  (recorded as NO-DATA by the Head Lab)

IF ANGLING OR NETTING, ARE LIVE FISH RETURNED TO THE RIVER SAMPLED FOR MARKS BEFORE RELEASE

YES ☐   NO ☐

IF YES, ARE RELEASED FISH MARKED TO PREVENT DOUBLE COUNTING?

(If released fish are not marked, describe the method used to obtain   YES ☐   NO ☐
a representative mark rate. Use reverse if necessary.)

ARE RECAPTURES A SIGNIFICANT PORTION OF FISH EXAMINED FOR MARKS?

YES ☐   NO ☐

NUMBER OF ADIPOSE CLIPS RECORDED AS:

		Unknown Adults	Males	Females	Total Adults	Jacks	Immatures
No data	500000				0		
Cut short	600000				0		
Unreadable	700000				0		
No pin	800000		0	1	1		
Lost pin	900000				0		
Subtotal		0	0	1	1	0	0

ESCAPEMENT SUMMARY FORM

SAMPLING INFORMATION FOR : 1999   Toboggan Creek   Coho   Summer-run

SAMPLE: 839

	Hatchery Swim-Ins
	Channel Dead Pitch
X	Live ---+
	Dead ------

	Salt Water
	Estuary
X	Fresh Water

```
+---  [   ] Lake
+---  [ X ] River
        +---  [ X ] Above Fence
        +---  [   ] Below Fence
        +---  [   ] At Fence
                +---  [   ] Total Count
                +---  [ X ] Partial Count
```

Number of CWT's recorded as:

CWT	Unknown Adults	Males	Females	Total Adults	Jacks	Immatures
18-24-12		2	0	2		
18-24-13		3	0	3		
18-24-14		3	1	4		
18-24-15		7	9	16		
18-24-16		9	6	15		
18-24-17		5	8	13		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
Subtotal	0	29	24	53	0	0

CWT	Unknown Adults	Males	Females	Total Adults	Jacks	Immatures
No Pin		0	1	1		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
				0		
Subtotal	0	0	1	1	0	0
Total	0	29	25	54	0	0