

Table of TAMM Spreadsheet Contents (Can return here with "Control + m" when ma

1	Table 1: Description of fishery regulations & summary of Chinook catch
ER ESC Overview	Impact summary for ESA-listed stocks (total, SUS, and SUS PT ERs; natu
LimitingStkComplete mod	Detailed (fishery-by-fishery) impact distribution for constraining stocks
SPS Abundance Iterations	Complete this worksheet to properly adjust SPS abundances based on s
Input Page	Location where (1) Stock, (2) Net Fishery, and (3) Sport Fishery are ente
TAMI	TAMM user Inputs transferred from TAMM to FRAM
TAMX	FRAM outputs transferred from FRAM to TAMM
2A CU&M	Disaggregated stock impacts (FRAM stock split into TAMM stocks) by FF
2A Cmrkd	Similar to 2A_CU&M but for MARKED only
2A CUnmrkd	Similar to 2A_CU&M but for UNMARKED only
2A CU&M H+N	Similar to 2A_CU&M, but now includes missing hatchery components fr
2A CU&M Hatchery	Similar to 2A_CU&M, but only includes hatchery components for TAMM
2A CU&M N	Similar to 2A_CU&M, but only includes natural components for TAMM
2D F	Total AEQ Mortalities and Landed Catch for MARKED and UnMARKED s
2D Fmrkd	Total AEQ Mortalities and Landed Catch for MARKED stocks by fishery,
2D FUNmrkd	Total AEQ Mortalities and Landed Catch for UNMARKED stocks by fishe
3	Table 3: Approximate allocation accounting
5	Table 5: Summary of exploitation rates by fishery aggregate
5 U&M	Table 5: Summary of exploitation rates by fishery aggregate
5Unmrkd	Table 5: Summary of exploitation rates by fishery aggregate, UNMARKE
6	Table 6: Chinook ERs and mortality distribution by fishery aggregate (M
6 U&M	Table 6: Chinook ERs and mortality distribution by fishery aggregate
6 Nats	Table 6: Chinook ERs and mortality distribution by fishery aggregate, N/
6Unmrkd	Table 6: Chinook ERs and mortality distribution by fishery aggregate
Sk	Skagit sp, su/fa impact calculations/summaries
Skmrkd	Skagit-MARKED sp, su/fa impact calculations/summaries
SkUnmrkd	Skagit-UNMARKED sp, su/fa impact calculations/summaries
StSn	Stillaguamish-Snohomish impact calculations/summaries
StSnmrkd	Stillaguamish-Snohomish-MARKED sp, su/fa impact calculations/summa
StSnUnmrkd	Stillaguamish-Snohomish-UNMARKED sp, su/fa impact calculations/sun
HdC	Hood Canal impact calculations/summaries
HdCmrkd	Hood Canal-MARKED sp, su/fa impact calculations/summaries
HdCUnmrkd	Hood Canal -UNMARKED sp, su/fa impact calculations/summaries
SPS	South & Mid Puget Sound impact calculations/summaries
SPSmrkd	South & Mid Puget Sound-MARKED sp, su/fa impact calculations/summa
SPSUnmrkd	South & Mid Puget Sound -UNMARKED sp, su/fa impact calculations/su
NS	Nooksack-Samish sp, fa impact calculations/summaries
NSmrkd	Nooksack-Samish sp, fa-MARKED sp, su/fa impact calculations/summar
NSUnmrkd	Nooksack-Samish sp, fa -UNMARKED sp, su/fa impact calculations/sumi
JDF	Juan de Fuca tribs impact calculations/summaries
JDFmrkd	Juan de Fuca tribs-MARKED sp, su/fa impact calculations/summaries
JDFUnmrkd	Juan de Fuca tribs -UNMARKED sp, su/fa impact calculations/summarie

[Cat&Esc](#)

[nt&t](#)

[WildDist](#)

[ERcalc](#)

[scratch](#)

[Guts](#)

[SportMatrix](#)

[Documentation](#)

[RunLog](#)

All-stocks summary of escapement projections relative to goals, plus mi

Treaty and non-treaty allocation summary by Puget Sound managemen

Fishery-aggregate impact distribution and sharing summary for hatcher

Approximate flow of information/calculations from FRAM output and T

Empty worksheet for random calculations

The Guts sheet, which contains run details that are referenced elsewhe

Regulation summary for Puget Sound marine sport by fishery and mode

This tab documents functionality changes/updates to the TAMM

This tab documents run specific (input related) changes to specific mod

cross enabled)

1 quotas/targets

al escapements); aka "Table 2"

stock-specific catches in the SPS terminal net fisheries

red for TAMM stocks

RAM fishery and TAMM freshwater fishery for MARKED & UNMARKED fish; built off of 2D_Fmrk

or Skagit and Stilly/Sno

1 stocks

stocks; generally computed as difference between 2A_CU&M H+N and 2A_CU&M Hatchery

stocks by fishery, less freshwater fishery impacts

less freshwater fishery impacts

ry, less freshwater fishery impacts

.D Only

ARKED + UNMARKED, HATCH. + NAT.)

NATURAL ONLY

aries

naries

aries

mmaries

ies

maries

s

miscellaneous fishery catch summaries
unit aggregates
natural and natural-only stocks
AMM stock/fishery inputs to bottom-line ER projections

re in the TAMM
time periods

el runs

d, 2D_Funmrkd and stock worksheets

TABLE 1: DESCRIPTION OF FISHERY REGULATIONS AND SUMMARY OF CHINOOK CATCH TARGET: =====

TABLE 1

Run Number: **SLC-Chin3721_Final**

Version: 2.21Dec15

04/16/21

Run Description: SLC-Chin3721_Final

12:03 PM

Impacts are expressed as total fishery-related mortality, which includes landed catch, non-retention mortality, and other fishery-related mortality; not to be used for allocation computations.

Fishery	Fishery-related Mortality	Fishery Description and/or Comments:
---------	---------------------------	--------------------------------------

CANADIAN (B.C.) FISHERIES:

WCVI Troll/Sport	143,346	2021 TACs from calibration 2104; WCVI sport ISBM 2-yr post-season avg
Area 20 Net	64	2 yr post-season average
Georgia St./JDF Troll	0	2 yr post-season average
Georgia St./JDF Sport	89,125	2 yr post-season average

SOUTH OF CAPE FALCON:

April PFMC Preseason Report

Final 2021 PFMC Chinook; Chin3721

NORTH OF CAPE FALCON OCEAN:

Treaty Ocean Troll:	44,104	Chinook TAC: 40,000
NT Ocean Troll	43,251	Chinook TAC: 30,750
NT Ocean Sport	30,577	Chinook TAC: 27,250
NT NOF Impacts:	73,828	

Non-Treaty Quota Total 58,000
Treaty Quota Total 40,000

4B Add-on

Canadian License catch Buoy 10 >>>> Included with Area 4 (For Areas 4 and 4B) see In-River models

PUGET SOUND SPORT & TROLL:

Treaty Strait&Winter Trol	4,553	Winter Troll: 2000 Summer Troll: 721
---------------------------	-------	---

Puget Sound Sport (landed + non-retention mortality):

Area 5	12,827	Area 5	5/1-6/30 clsd; 7/1-8/15, bag 2, ch MSF & co MSF, cm NR, ch 22" min size; 8/16-9/30, bag 2, co MSF, cm & ch NR; 10/1-2/29 clsd; 3/1-4/30 bag
Area 6	6,269	Area 6	5/1-6/30 clsd; 7/1-8/15 bag 2, co MSF, ch MSF expt ch NR East of Ediz, cm NR, ch 22" min size, see LOAF for additional spatial closures within 8/16-9/30 bag 2, co MSF ch NR, 10/1-5/14 clsd Area 6D recreational, 5/1-9/30 clsd; 10/1-10/31 bag 2, hat co only; 11/1-5/14 clsd
Area 7	2,435	Area 7	5/1-6/30 clsd; 7/1-7/31, bag 2, ch MSF, co , ch 22" min size, B'Bay & Samish Bay clsd; Rosario closure in effect 8/1-8/15 bag 2, ch NR; 8/16-8/31, bag 2, ch MSF; 9/1-9/30, bag 2, ch NR; see LOAF for spatial closures within area 7 during this time period; Bellingham Bay 8/16-9/30, bag 4, 2 ch, co, ch 22" min size; 10/1-5/14 clsd 5/1/21-5/14/22 clsd
Areas 8-1,2 8D	671	Area 8-1	5/1-7/31 clsd; 8/1-9/19 bag 2, co MSF, ch NR, cm NR 9/20-5/14 clsd Area 8-2 5/1-8/13 clsd; 8/14-9/19 bag 2, ch NR, cm NR, co MSF; 9/20-5/14 clsd 9/11-9/26 Saturday & Sunday only, bag 2, ch 22" min size, 2 pole option, clsd east of Mission Pt./Hermosa Pt. line, open only in Tulalip Special A Area 8D 9/28-5/14 clsd
Area 9	8,350	Area 9	5/1-7/15 clsd; 7/16-8/15, bag 2, ch MSF, co MSF, cm NR, ch 22" min size, south and west of line from Foulweather Bluff to Olele open to shoreli 8/16-9/30 bag 2, co MSF, cm & ch NR 10/1-5/14 clsd Edmonds PR recreational - Yr-round: bag 2, 1 ch, cm NR, ch 22" min size 5/1-7/15 closed; 7/16-8/15 bag 2, ch MSF, co MSF, cm NR; 8/16-9/30 bag 2, co MSF, ch NR, cm NR 10/1-5/14 clsd
Ar 10, 10A, 10E	9,216	Area 10	Elliot Bay - Clsd 7/1-8/31, except 8/6-8/9 (12:00pm) bag 2, cm NR; additional salmon fishing ISU dependent; Shilshole Bay - clsd to salmon 7/1-8 Sinc SAF - 7/16-9/30, bag 3, 2 pole option, ch & co MSF, cm NR from 8/1-9/15, ch 22" min size; Piers (except Sinclair Inlet Piers) Yr-round: bag 2, 1 ch, cm NR, ch 22" min size; 5/1-6/15 clsd; 6/16-7/15 bag 2, ch NR, cm NR; Commencement Bay closed to salmon through 7/31 9/1-10/31 bag 2, ch NR, cm NR; 11/1-12/31 clsd 1/1-3/31 bag 2, ch MSF, cm NR; 4/1-5/14 clsd
Area 11	4,859	Area 11	5/1-6/15 clsd; 6/16-9/30 bag 2, 2 pole option, ch MSF, co MSF, ch 22" min size; 10/1-10/31 bag 2, 2 pole option, ch NR, co MSF, ch 20" min size 11/1-12/31 bag 2, 2 pole option, ch MSF, co MSF, ch 22" min size; 1/1-5/14 clsd Minter Creek mouth - clsd 4/16-8/31; Lower Budd Inlet - clsd 7/16-10/31; Fox Island Pr - Yr-Round: bag 2, 1 ch, ch 22" min size
Area 13	3,115	Area 13	5/1/21-5/14/2022 bag 2, ch 22" min size; 7/1-9/30 ch 20" min size, co MSF, cm NR
Area 12	2,888	Area 12	No. Ayock - 5/1-7/10 clsd; 7/11-9/30, bag 4, ch & cm NR, see LOAF for additional spatial closures within No. Ayock; 10/1-11/30, bag-4, 2 ch MSF So. Ayock - 5/1-6/30 clsd; 7/1-9/30, bag 4, 2 pole option, 2 ch MSF, cm NR; 10/1-11/30, bag 4, 2 ch MSF, ch 22" min size, cm NR through 10/15; Hoodsport - Same as A12 except from 7/1-11/30, bag 4, 2 pole option from 7/1-10/31, ch MSF, cm NR from 7/1-10/15, no min size

PUGET SOUND NET:	JUL-SEP	Oct-Apr	TOTAL
JDF Net (4B/5/6C/6)	0	0	0
Treaty	108	20	128
SJI Net (7/7A) NT	3,584	170	3,754
Treaty	4,717	30	4,747
B6/9Net NT			
Treaty	500	11	511

2021 Total Mortality (Fraser Panel and other)

JDF Chinook: Trty (GN): wb 6/21 through wb 8/16, Set Gillnet Only, 7 days/wk
JDF Sockeye: Trty (GN): wb 7/26 through wb 9/13, Schedule TBD by Fraser Panel
JDF Coho: Trty (GN): end of Fraser Panel control through wb 10/4, 6 days/wk
JDF Chum: Trty (GN): wb 10/11 through wb 11/8, 6 days/wk
SJI Coho: Ntry (RN): Open 7 d/wk from end of Fraser Panel control thru chum mgmt. period of Wk. 45 beginning 11/1. MSF Coho (UM Coho 500 Cap wk 38-40) and MSF Chinook thru Wk 40 beginning 9/1
Trty (RN): 7 days/wk beginning at end of Fraser Panel management through wk 46 (wb 11/8); wild ch NR before 9/30, ch NR after 9/30; cm NR through 9/30, cm retention after 9/30.
SJI Sockeye/Pink: Ntrty (GN/PS/RN): Ntrty (GN/PS/RN): Schedule TBD by Fraser Panel, modeled as weeks 31-37: 1-3-1-2-2-2-0, PS: Coho, chum & chinook NR. RN: Coho & chinook (chinook 300 cap).
Trty (GN/PS/RN): Schedule TBD by Fraser Panel, modeled as: wk 31 (wb 7/26) thru wk 38 (wb 9/13). RN: wild co, wild ch, and cm NR; may retain marked Chinook through 9/30.
SJI Chum: Ntry (GN/PS/RN): Opens Wk. 41 beginning 10/4, PS & GN schedule to be determined with co-mgr. modeled wks 41-45, 4-7-7-7-7, PS co&ch NR, RN: 7 days/wk with release requirements per co
Trty (GN/PS/RN): Schedule TBD by co-managers, modeled as: wk 41 (wb 10/4) - wk 46 (wb 11/8). RN: 7 days/wk with release requirements per coho fishery.

Stock	Management Criteria			Model Prediction			
	Abundance Tier	ER Ceiling	ER Type	Escapement	Total ER	SUS ER	PT-SUS ER
Spring/Early:							
Nooksack - Total		10.5%	SUS		32.5%	<u>10.5%</u>	4.4%
North/Middle Fork	< LAT			154			
South Fork	> LAT			310			
Skagit - Total	> LAT	10.3%	SUS	1,442	22.5%	<u>10.3%</u>	4.1%
Upper Sauk	> LAT			871			
Upper Cascade	< LAT			141			
Suiattle	> LAT			431			
White	> UMT	22.0%	SUS	2,281	21.3%	<u>16.6%</u>	4.5%
Dungeness	> LAT	10.0%	SUS	699	14.4%	<u>3.6%</u>	3.6%
Summer/Fall:							
Skagit - Total	< LAT	17.0%	SUS	8,837	38.9%	<u>17.0%</u>	4.0%
Upper Skagit	> LAT			6,587			
Sauk	> LAT			400			
Lower Skagit	> LAT			1,420			
Stillaguamish - Total	900-1200	22.0%	Total	990			
Unmarked ER		8.0%	UM SUS		<u>18.1%</u>	<u>7.4%</u>	4.3%
Marked ER		12.0%	M SUS		23.1%	<u>11.0%</u>	8.0%
Snohomish - Total	< LAT	19.0%	Total	2,936	<u>16.7%</u>	<u>6.3%</u>	4.9%
Skykomish		8.0%	SUS	1,876			
Snoqualmie				1,060			
Lake WA (Cedar R.)	> UMT	13.0%	PT-SUS	778	34.1%	23.6%	<u>11.5%</u>
Green	> UB	13.0%	PT-SUS	3,741	54.7%	44.1%	<u>11.5%</u>
				6,347			
Puyallup	> UMT	13.0%	PT-SUS	2,536	47.3%	36.8%	<u>11.5%</u>
				4,136			
Nisqually	> LAT	47%	Total	8,047	<u>47.7%</u>	41.4%	16.0%
Western Strait-Hoko	> UMT	10%	SUS	1,054	21.6%	<u>2.0%</u>	2.0%
Elwha	> LAT	10%	SUS	4,089	14.3%	<u>3.8%</u>	3.8%
Mid-Hood Canal	< LAT	TBD	PT-SUS	18	22.6%	14.4%	<u>12.1%</u>
Skokomish	> UMT	50%	Total	3,787	<u>49.2%</u>	41.0%	12.7%
				17,956			

Council Fisheries	
SPRING	2.0%
FALL	5.0%

Model Run: SLC-Chin3721_Final
Run Date & Time: 04/16/21 12:03

SRFI =	50.3%	(70% Ceiling)
Lower Col Nat Tule ER =	38.0%	(38% Ceiling)

Nooksack	LAT	UMT	CERC (SUS)	CERC 1 in 5	
				Exception (SUS)	ERC (Total)
MU				10.5%	13.5%
NF/MF		400	1,000		N/A
SF		200	500		

NOTES:
Thresholds are now all NOR based
NO ERC established by co-managers

Skagit Spring	PI	LAT	UMT	CERC (SUS)	ERC	
					(SUS)	(Total)
MU		470	823	2,000	10.3%	37.5%
Upper Sauk			130			
Upper Cascade			170			
Suiattle			170			

NOTES:
Thresholds are now all NOR based
CERC reduced from 18% SUS to 10.3 SUS

White River Spring	LAT	UMT	CERC (SUS)	ERC	
				(SUS)	(Total)
MU		400	1000	15.0%	22.0%

Dungeness	LAT	UMT	CERC (SUS)	ERC	
				(SUS)	(Total)
MU		500	925	6.0%	10.0%

Skagit S/F	PI	LAT	UMT	CERC-Even (SUS)	CERC-Odd (SUS)	ERC-Total	
						(Total)	(Total)
MU		4,800	9,100	14,500	15.0%	17.0%	48.0%
Upper Skagit			2,200				
Sauk			400				
Lower Skagit			900				

NOTES:
Thresholds are now all NOR based

Stillaguamish	Forecasted TRS	Total UM ERC	SUS U M ERC		SUS M ERC
			SUS	U M ERC	
MU	900	22.0%		8.0%	12.0%
	1,000	22.0%		8.0%	12.2%
	1,100	22.0%		8.0%	12.4%
	1,200	22.0%		10.0%	14.8%
	1,300	22.0%		11.0%	16.2%
	1,400	22.0%		12.0%	17.6%
	1,500	22.0%		13.0%	NA

NOTES:
ERC reduced from 24% total to 22% Total

* TRS metric is in total return (NOR+HOR)

** If forecasted TRS is below 900, 24% ERC will be maintained, but co-managers will discuss other management criteria during pre-season

Snohomish	LB	LAT	UMT	ERC	
				(SUS)	(Total)
MU			3250	4900	19.0%
Skykomish		1745	2015	3600	
Snoqualmie		700	1132	1300	
CERC (SUS)			8.0%	9.0%	10.0%

NOTES:
LAT levels have been revised; still NOR based.
ER Obj. are now SUS based, as far as I understand.

* Escapement metric is NOR fish only

** CERC designates an allowable SUS rate only if Northern rates exceed the ERC - CERC.

Mid Puget Sound	LAT	MSY	UMT	Upper Bound	< LAT ER (SUS)	<UMT-1 ER (SUS)	<UMT-2 ER (PT-SUS)	>UMT-2 ER (PT-SUS)	ER
Lake Washington		200	282	500	NA	0.12	0.18	0.12	0.13
Green		802	2003	3800	6000	0.12	0.18	0.12	0.13
Puyallup		468	1170	1300	NA	0.15	0.3	0.12	0.13

NOTES:
MSY and LAT estimates revised.

Nisqually	LAT	UMT	CERC (SUS)	ERC	
				(SUS)	(Total)
MU		6300	NA	See Comment	47.0%

NOTES:
LAT revised.

Hoko	LAT	UMT	CERC (SUS)	ERC	
				(SUS)	(Total)
MU		500	1050	6.0%	10.0%

Elwha	LB	LAT	UMT	CERC (SUS)	ERC	
					(SUS)	(Total)
MU		1000	1500	4340	6.0%	10.0%

NOTES:
UMT Revised.

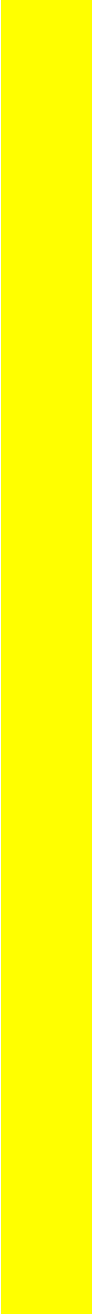
Mid-Hood Canal	LAT	UMT	CERC (PT-SUS)	ERC	
				(PT-SUS)	(PT-SUS)
MU		400	750	TBD	TBD

Skokomish	LAT-Nat	LAT-Hat	UMT	CERC (PT-SUS)	ERC	
					(PT-SUS)	(Total)
Spring	NA	NA	NA	NA	NA	
Summer/Fall		800	500	3650	12.0%	50.0%

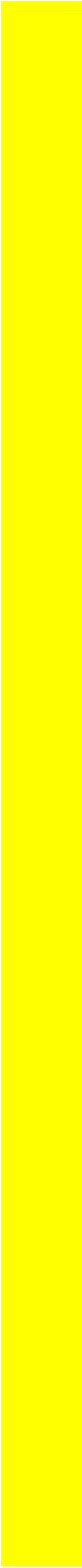
Vertical text on the left side of the page, likely a page number or reference code, oriented vertically.

The image displays a large, complex data table with multiple columns and rows. The table is organized into several distinct sections, each with a different background color: pink, purple, green, yellow, and orange. Each section contains numerous columns of data, with some cells containing small bar charts or icons. The data appears to be organized into groups, with each group having a unique color scheme. The overall layout is dense and structured, typical of a detailed data report or spreadsheet.

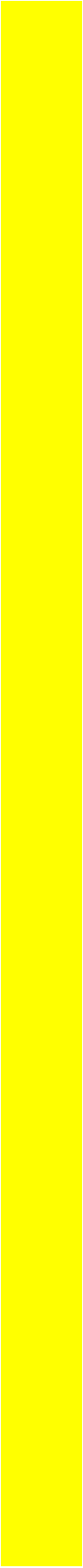
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000



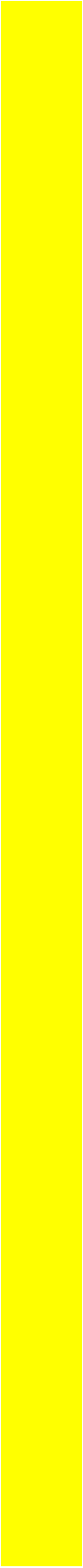
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000



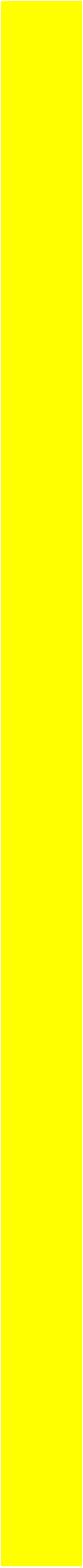
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000



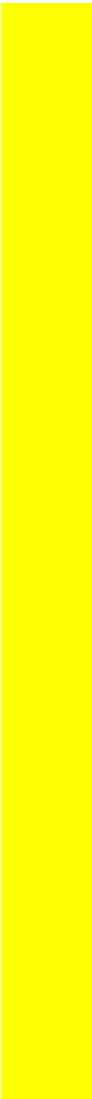
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000



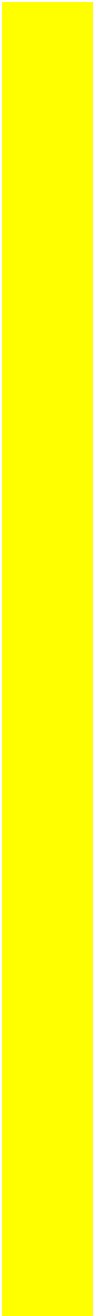
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

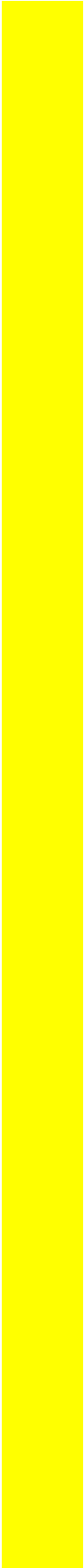


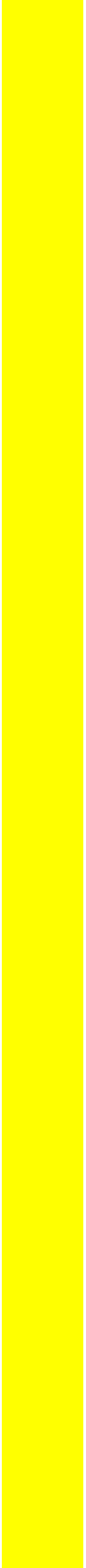
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

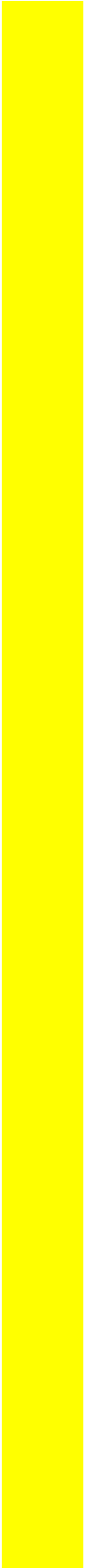


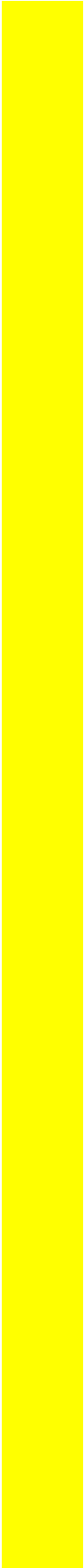
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	
Population	1000000	1050000	1100000	1150000	1200000	1250000	1300000	1350000	1400000	1450000	1500000	1550000	1600000	1650000	1700000	1750000	1800000	1850000	1900000	1950000	2000000	2050000	2100000	2150000	2200000	2250000	2300000	2350000	2400000	2450000	2500000	2550000	2600000	2650000	2700000	2750000	2800000	2850000	2900000	2950000	3000000	3050000	3100000	3150000	3200000	3250000	3300000	3350000	3400000	3450000	3500000	3550000	3600000	3650000	3700000	3750000	3800000	3850000	3900000	3950000	4000000	4050000	4100000	4150000	4200000	4250000	4300000	4350000	4400000	4450000	4500000	4550000	4600000	4650000	4700000	4750000	4800000	4850000	4900000	4950000	5000000										
GDP	100000000000	110000000000	120000000000	130000000000	140000000000	150000000000	160000000000	170000000000	180000000000	190000000000	200000000000	210000000000	220000000000	230000000000	240000000000	250000000000	260000000000	270000000000	280000000000	290000000000	300000000000	310000000000	320000000000	330000000000	340000000000	350000000000	360000000000	370000000000	380000000000	390000000000	400000000000	410000000000	420000000000	430000000000	440000000000	450000000000	460000000000	470000000000	480000000000	490000000000	500000000000	510000000000	520000000000	530000000000	540000000000	550000000000	560000000000	570000000000	580000000000	590000000000	600000000000	610000000000	620000000000	630000000000	640000000000	650000000000	660000000000	670000000000	680000000000	690000000000	700000000000	710000000000	720000000000	730000000000	740000000000	750000000000	760000000000	770000000000	780000000000	790000000000	800000000000	810000000000	820000000000	830000000000	840000000000	850000000000	860000000000	870000000000	880000000000	890000000000	900000000000	910000000000	920000000000	930000000000	940000000000	950000000000	960000000000	970000000000	980000000000	990000000000	1000000000000
Per Capita Income	10000	10500	11000	11500	12000	12500	13000	13500	14000	14500	15000	15500	16000	16500	17000	17500	18000	18500	19000	19500	20000	20500	21000	21500	22000	22500	23000	23500	24000	24500	25000	25500	26000	26500	27000	27500	28000	28500	29000	29500	30000	30500	31000	31500	32000	32500	33000	33500	34000	34500	35000	35500	36000	36500	37000	37500	38000	38500	39000	39500	40000	40500	41000	41500	42000	42500	43000	43500	44000	44500	45000	45500	46000	46500	47000	47500	48000	48500	49000	49500	50000										

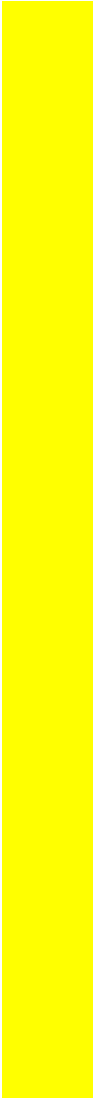












The purpose of these iterations is to account for the mixed stock nature of terminal net fisheries and correctly apportion the catch amongst the abundance inputs for SPS stocks in the 'Input Page'

Rationale:

Since the model determines the stock composition of catch in these fisheries and there is no original inputs are derived under the assumption that 100% of the Chinook caught in 13A belong to the Deschutes stock. This provides a starting point for allocation. However, since the stock composition of the catch is a function of the proportional abundances of each stock, there is an iterative nature to the process.

Instructions for completing these iterations:

1. Paste values of initial abundance inputs from cells K62:N70 of the 'Input Page' into the cells
2. Copy and paste the values of the cells in columns F:I of the "Iteration 1" table below (this table)
3. Copy the values from columns B:E of the "Iteration 1" table below and paste (the values not)
4. Repeat steps 2-3 above with the "Iteration 2" table below.
5. Continue the iterations until convergence is reached (this will be apparent when none of the

Original Values

Stock	HM	HU	NM	NU	13+ to redistribute		13A to re
					M	UM	M
Carr Inlet/Minter Hatchery	7511	69	0	0	0	0	1,602
Natural	0	0	0	0	0	0	0
Chambers Creek Hatchery	680	5	0	0	0	0	0
Nisqually River Hatchery	12731	1156	0	0	0	0	0
Natural	0	0	0	911	0	0	0
McAllister Creek Hatchery	368	3	0	0	0	0	0
Natural	0	0	0	0	0	0	0
Deschutes/Cap. Lake Hatchery	5847	104	0	0	1,129	20	0
Misc 13D-K & Coulter Ck Hat	0	0	0	0	0	0	0



Iteration 1

Stock	HM	HU	NM	NU	13+ to redistribute		13A to re
					M	UM	M
Carr Inlet/Minter Hatchery	7,490	68	0	0	143	1	1,438
Natural	0	0	0	0	0	0	0
Chambers Creek Hatchery	715	5	0	0	30	0	5
Nisqually River Hatchery	12,903	1,171	0	0	75	7	97
Natural	0	0	0	923	0	5	0
McAllister Creek Hatchery	379	3	0	0	8	0	3
Natural	0	0	0	0	0	0	0
Deschutes/Cap. Lake Hatchery	5,627	100	0	0	865	15	45
Misc 13D-K & Coulter Ck Hat	0	0	0	0	0	0	0



Iteration 2

13+ to redistribute 13A to re

Stock	HM	HU	NM	NU	M	UM	M
Carr Inlet/Minter Hatchery	7,494	68	0	0	147	1	1,438
Natural	0	0	0	0	0	0	0
Chambers Creek Hatchery	718	5	0	0	33	0	5
Nisqually River Hatchery	12,908	1,171	0	0	78	7	99
Natural	0	0	0	923	0	5	0
McAllister Creek Hatchery	379	3	0	0	8	0	3
Natural	0	0	0	0	0	0	0
Deschutes/Cap. Lake Hatchery	5,616	99	0	0	856	15	43
Misc 13D-K & Coulter Ck Hat	0	0	0	0	0	0	0

Iteration 3

13+ to redistribute 13A to re

Stock	HM	HU	NM	NU	M	UM	M
Carr Inlet/Minter Hatchery	7,494	68	0	0	147	1	1,438
Natural	0	0	0	0	0	0	0
Chambers Creek Hatchery	718	5	0	0	33	0	5
Nisqually River Hatchery	12,908	1,171	0	0	78	7	99
Natural	0	0	0	923	0	5	0
McAllister Creek Hatchery	379	3	0	0	8	0	3
Natural	0	0	0	0	0	0	0
Deschutes/Cap. Lake Hatchery	5,616	99	0	0	855	15	43
Misc 13D-K & Coulter Ck Hat	0	0	0	0	0	0	0

Iteration 4

13+ to redistribute 13A to re

Stock	HM	HU	NM	NU	M	UM	M
Carr Inlet/Minter Hatchery	7,494	68	0	0	147	1	1,438
Natural	0	0	0	0	0	0	0
Chambers Creek Hatchery	718	5	0	0	33	0	5
Nisqually River Hatchery	12,908	1,171	0	0	78	7	99
Natural	0	0	0	923	0	5	0
McAllister Creek Hatchery	379	3	0	0	8	0	3
Natural	0	0	0	0	0	0	0
Deschutes/Cap. Lake Hatchery	5,616	99	0	0	855	14	43
Misc 13D-K & Coulter Ck Hat	0	0	0	0	0	0	0

Iteration 5

Stock	HM	HU	NM	NU	13+ to redistribute		13A to re
					M	UM	M
Carr Inlet/Minter Hatchery	7,494	68	0	0	147	1	1,438
Natural	0	0	0	0	0	0	0
Chambers Creek Hatchery	718	5	0	0	33	0	5
Nisqually River Hatchery	12,908	1,171	0	0	78	7	99
Natural	0	0	0	923	0	5	0
McAllister Creek Hatchery	379	3	0	0	8	0	3
Natural	0	0	0	0	0	0	0
Deschutes/Cap. Lake Hatchery	5,616	99	0	0	855	14	43
Misc 13D-K & Coulter Ck Hat	0	0	0	0	0	0	0



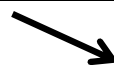
Iteration 6

Stock	HM	HU	NM	NU	13+ to redistribute		13A to re
					M	UM	M
Carr Inlet/Minter Hatchery	7,494	68	0	0	147	1	1,438
Natural	0	0	0	0	0	0	0
Chambers Creek Hatchery	718	5	0	0	33	0	5
Nisqually River Hatchery	12,908	1,171	0	0	78	7	99
Natural	0	0	0	923	0	5	0
McAllister Creek Hatchery	379	3	0	0	8	0	3
Natural	0	0	0	0	0	0	0
Deschutes/Cap. Lake Hatchery	5,616	99	0	0	855	14	43
Misc 13D-K & Coulter Ck Hat	0	0	0	0	0	0	0



Iteration 7

Stock	HM	HU	NM	NU	13+ to redistribute		13A to re
					M	UM	M
Carr Inlet/Minter Hatchery	7,494	68	0	0	147	1	1,438
Natural	0	0	0	0	0	0	0
Chambers Creek Hatchery	718	5	0	0	33	0	5
Nisqually River Hatchery	12,908	1,171	0	0	78	7	99
Natural	0	0	0	923	0	5	0
McAllister Creek Hatchery	379	3	0	0	8	0	3
Natural	0	0	0	0	0	0	0
Deschutes/Cap. Lake Hatchery	5,616	99	0	0	855	14	43
Misc 13D-K & Coulter Ck Hat	0	0	0	0	0	0	0



Iteration 8

Stock	HM	HU	NM	NU	13+ to redistribute		13A to re
					M	UM	M

Carr Inlet/Minter Hatchery	7,494	68	0	0	147	1	1,438
Natural	0	0	0	0	0	0	0
Chambers Creek Hatchery	718	5	0	0	33	0	5
Nisqually River Hatchery	12,908	1,171	0	0	78	7	99
Natural	0	0	0	923	0	5	0
McAllister Creek Hatchery	379	3	0	0	8	0	3
Natural	0	0	0	0	0	0	0
Deschutes/Cap. Lake Hatchery	5,616	99	0	0	855	14	43
Misc 13D-K & Coulter Ck Hat	0	0	0	0	0	0	0



Iteration 9

13+ to redistribute

13A to re

Stock	HM	HU	NM	NU	M	UM	M
Carr Inlet/Minter Hatchery	7,494	68	0	0	147	1	1,438
Natural	0	0	0	0	0	0	0
Chambers Creek Hatchery	718	5	0	0	33	0	5
Nisqually River Hatchery	12,908	1,171	0	0	78	7	99
Natural	0	0	0	923	0	5	0
McAllister Creek Hatchery	379	3	0	0	8	0	3
Natural	0	0	0	0	0	0	0
Deschutes/Cap. Lake Hatchery	5,616	99	0	0	855	14	43
Misc 13D-K & Coulter Ck Hat	0	0	0	0	0	0	0

es in areas 13A and 13+ and to

!

way to know this before running the model,
 g to the Minter stock, and 100% of the
 ating the total catch into individual stocks.
 of SPS stocks, and the abundances of
 arriving at the correct stock abundance inputs.

s in columns B:E in the "Original Values" section below.
 rns the values static rather than referncing the SPS D tables.
 t the formulae) them into cells K62:N70 of the 'Input Page'.

s values are highlighted red in columns K:N of the current iteration).

distribute

UM
15
0
0
0
0
0
0
0
0
0

distribute

UM	Ratio of abundances from last iteration			
13	1.00	0.99	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.05	1.05	1.00	1.00
9	1.01	1.01	1.00	1.00
7	1.00	1.00	1.00	1.01
0	1.03	1.03	1.00	1.00
0	1.00	1.00	1.00	1.00
1	0.96	0.96	1.00	1.00
0	1.00	1.00	1.00	1.00

distribute

UM	Ratio of abundances from last iteration			
13	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
9	1.00	1.00	1.00	1.00
7	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
1	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00

distribute

UM	Ratio of abundances from last iteration			
13	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
9	1.00	1.00	1.00	1.00
7	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
1	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00

distribute

UM	Ratio of abundances from last iteration			
12	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
9	1.00	1.00	1.00	1.00
7	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
1	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00

distribute

UM	Ratio of abundances from last iteration			
12	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
9	1.00	1.00	1.00	1.00
7	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
1	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00

distribute

UM	Ratio of abundances from last iteration			
12	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
9	1.00	1.00	1.00	1.00
7	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
1	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00

distribute

UM	Ratio of abundances from last iteration			
12	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
9	1.00	1.00	1.00	1.00
7	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
1	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00

distribute

UM	Ratio of abundances from last iteration			
----	---	--	--	--

12	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
9	1.00	1.00	1.00	1.00
7	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
1	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00

distribute

UM	Ratio of abundances from last iteration			
12	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
9	1.00	1.00	1.00	1.00
7	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00
1	1.00	1.00	1.00	1.00
0	1.00	1.00	1.00	1.00

Skagit Stock Data														
Stk Name	% Stock of Mrkd Agg. of UnMrkd Agg.		% Hatchery			Esc. Goal		Updated	Source/ Comment	Forecast Workup				
	of Mrkd Agg.	of UnMrkd Agg.	of Mrkd	of UnMrkd	% Natural	Hat	Nat			Hatchery Mrkd	Hatchery UnMrkd	Natural Mrkd	Natural UnMrkd	Stock
Spring			100%	42.26%	29.84%			DD,OM,DA; MB; 3.3.2021	2474	1139	0	1556	Spring	
S/F Fing			100%	0.03%	94.90%			DD,OM,DA; MB; 3.3.2021	522	3	0	9949	S/F Fing	
S/F Year			0%	0.00%	100%			DD,OM,DA; MB; 3.3.2021	0	0	0	512	S/F Year	
S/F Nat							14500						S/F Nat	
Spring % nat May-June FW(sockeye)	0.0696	Ratio New/Old	0.2333					PK						
Stock	% of Wild Run	Crit Esc												
Upper Skagit Summer	78.7%	2200	% of H Esc	1.00				DD,OM,DA; MB; 3.3.2021						
Lower Sauk Summer	4.8%	400						DD,OM,DA; MB; 3.3.2021						
Lower Skagit Fall	16.5%	900						DD,OM,DA; MB; 3.3.2021						
Upper Sauk Spring	59.9%	130						DD,OM,DA; MB; 3.3.2021						
Suittie Spring	29.6%	170						DD,OM,DA; MB; 3.3.2021						
Upper Cascade Spring	10.5%	170						DD,OM,DA; MB; 3.3.2021						
% UM in Spr MSF as % of Total UM	48.3%													

Stillaguamish/Snohomish Stock Data														
Stk Name	% Stock of Mrkd Agg. of UnMrkd Agg.		% Hatchery			Esc. Goal		Updated	Source/ Comment	Forecast Workup				
	of Mrkd Agg.	of UnMrkd Agg.	of Mrkd	of UnMrkd	% Natural	Hat	Nat			Hatchery Mrkd	Hatchery UnMrkd	Natural Mrkd	Natural UnMrkd	Stock
Snohomish S/F Fing			100%	24.01%	38%	na	na	DD,OM,DA; MB; 3.3.2021	3151	798	0	2525	Snohomish S/F Fing	
Snohomish S/F Year			100%	2.22%	14%	na	na	DD,OM,DA; MB; 3.3.2021	2093	9	0	397	Snohomish S/F Year	
Stilly S/F			100%	2%	35.0%	na	na	DD,OM,DA; MB; 3.3.2021	581	6	0	325	Stilly S/F	
Tulalip Hatchery			100%	100.00%		na	na	DD,OM,DA; MB; 3.3.2021	5400	360	0	0	Tulalip	
Snohomish S/F							3,200							
Sky nat of Sno Yr18 Fing1 nat ??	63.9%							DD,OM,DA; MB; 3.3.2021						
ppn SF Stilly Nat of Stilly NF+SF Tot	NA							DD,OM,DA; MB; C 3.3.2021						

Hood Canal Stock Data														
Stk Name	% Stock of Mrkd Agg. of UnMrkd Agg.		% Hatchery			Esc. Goal		Updated	Source/ Comment	Forecast Workup				
	of Mrkd Agg.	of UnMrkd Agg.	of Mrkd	of UnMrkd	% Natural	Hat	Nat			Hatchery Mrkd	Hatchery UnMrkd	Natural Mrkd	Natural UnMrkd	Stock
Area 12B tribs natural	0.00000	0.00447	0%	0.00%			400			0	0	0	18	Area 12B tribs nat
Hoodsport hat Fing	0.53200	0.01607	100%	100.00%			1850		DD,OM,DA; MB; 3.3.2021	33578	66	0	0	Hoodsport hatch
Hoodsport hat Year	1.00000	1.00000	100%	100.00%					DD,OM,DA; MB; 3.3.2021	1442	0	0	0	
Enetal hatchery	0.00000	0.00000	0%	0%			0		DD,OM,DA; MB; 3.3.2021					Enetal hatchery
Skokomish R. natural	0.00000	0.06739	0%	0.00%			1650		DD,OM,DA; MB; 3.3.2021	0	0	0	278	Skokomish R. nat
Skokomish R. hatchery	0.46329	0.90723	100%	100.00%			2250		DD,OM,DA; MB; 3.3.2021	29241	3745	0	0	Skokomish R. hat
Area 12C-D tribs natural	0.00472	0.00484	0%	0.00%			n/a		DD,OM,DA; MB; 3.3.2021	0	0	298	20	Area 12C-D tribs

South Puget Sound Stock Data															
Stk Name	% Stock		PPN of Mrkd Yrl		Esc. Goal		Updated	Source/ Comment	PSF + Sport	Hatchery Mrkd	Hatchery UnMrkd	Natural Mrkd	Natural UnMrkd	UW ACC ESC	
	of Mrkd Agg.	of UnMrkd Agg.	of Mrkd	of UnMrkd	Hat	Nat									
Grovers Ck. Hat. - 10	2.60%	8.50%	0.0%	0.0%	1750		DD;OM;DA; MB; CH; MN	3.3.2021			1142	1023	0	0	0
Lk. Washington Hatchery	8.12%	0.82%	0.0%	0.0%	2288		DD;OM;DA; MB; CH; MN	3.3.2021			3565	99	0	0	0
Lk Washington Natural	0.00%	6.20%	0.0%	0.0%		1680	DD;OM;DA; MB; CH; MN	3.3.2021			0	0	0	746	0
Sammamish Nat. (Bear/Cottage/Issaquah)	0.00%		0.0%	0.0%			DD;OM;DA; MB; CH; MN	3.3.2021			0	0	0	88	0
Duwamish-Green Hatchery	37.22%	29.82%	100.0%	100.0%	4452		DD;OM;DA; MB; CH; MN	3.3.2021			16825	3593	0	0	0
Natural	0.00%	32.81%	0.0%	0.0%		5800	DD;OM;DA; MB; CH; MN	3.3.2021			0	0	0	3949	0
Gorst Creek Hat. - 10E	15.52%	6.96%	0.0%	0.0%	0		DD;OM;DA; MB; CH; MN	3.3.2021			6814	838	0	0	0
Puyallup River Hatchery	36.54%	3.26%	0.0%	0.0%	1200		DD;OM;DA; MB; CH; MN	3.3.2021			16045	392	0	0	0
Natural	0.00%	11.62%	0.0%	0.0%		1250	DD;OM;DA; MB; CH; MN	3.3.2021			0	0	0	1398	0
Carr Inlet/Minter Hatchery	27.64%	2.99%	0.0%	0.0%	2800		DD;OM;DA; MB; CH; MN	3.3.2021			7,494	68	0	0	0
Natural	0.00%	0.00%	0.0%	0.0%		0	DD;OM;DA; MB; CH; MN	3.3.2021			0	0	0	0	0
Chambers Creek Hatchery	2.65%	0.23%	0.0%	0.0%	500		DD;OM;DA; MB; CH; MN	3.3.2021			718	5	0	0	0
Nisqually River Hatchery	47.60%	51.61%	0.0%	0.0%	2700		DD;OM;DA; MB; CH; MN	3.3.2021			12,908	1,171	0	0	0
Natural	0.00%	40.67%	0.0%	0.0%		1200	DD;OM;DA; MB; CH; MN	3.3.2021			0	0	0	923	0
McAllister Creek Hatchery	1.40%	0.14%	0.0%	0.0%	na		DD;OM;DA; MB; CH; MN	3.3.2021			379	3	0	0	0
Natural	0.00%	0.00%	0.0%	0.0%		na	DD;OM;DA; MB; CH; MN	3.3.2021			0	0	0	0	0
Deschutes/Cap. Lake Hatchery	20.71%	4.37%	0.0%	0.0%	3000		DD;OM;DA; MB; CH; MN	3.3.2021			5,616	99	0	0	0
Misc 13D-K & Coulter Ck Hat	0.00%	0.00%	0.0%	0.0%	700		DD;OM;DA; MB; CH; MN	3.3.2021			0	0	0	0	0
White River Wild							DD;OM;DA; MB; CH; MN	3.3.2021			0	0	0	2623	0
White River Hatchery							DD;OM;DA; MB; CH; MN	3.3.2021			0	1302	0	0	0

Nooksack/Samish Stock Data														
Stk Name	% Stock		% Hatchery		% Natural	Esc. Goal		Updated	Source/ Comment	Hatchery Mrkd	Hatchery UnMrkd	Natural Mrkd	Natural UnMrkd	Stock
	of Mrkd Agg.	of UnMrkd Agg.	of Mrkd	of UnMrkd		Hat	Nat							
Nooksack Early Hat.+Nat			100%	89.74%		2000	2000	DD;OM;DA; MB; CH; MN	3.3.2021	10074	4584	0	517	Early Hat.+Nat
7E Glenwood hatchery	3.1%	0.0%	100%	0.00%		250		DD;OM;DA; MB; CH; MN	3.3.2021	612	0	0	0	7E hatchery
Nooksack R. hatchery	0.0%	0.0%				na		DD;OM;DA; MB; CH; MN	3.3.2021					Nook hat
Nooksack R. natural	0.0%	0.0%				na		DD;OM;DA; MB; CH; MN	3.3.2021					Nook hat
Lummi Bay hatchery	0.6%	0.0%				na		DD;OM;DA; MB; CH; MN	3.3.2021	117	0	0	0	Lummi hat
Samish R. hatchery	96.3%	100.0%	100%	100.00%		5150		DD;OM;DA; MB; CH; MN	3.3.2021	19209	86	0	0	Samish hat
Samish R. natural	0.0%	0.0%						DD;OM;DA; MB; CH; MN	3.3.2021	0	0	0	0	Samish nat

Strait of Juan de Fuca Stock Data														
Stk Name	% Stock		% Hatchery		% Natural	Esc. Goal		Updated	Source/ Comment	Hatchery Mrkd	Hatchery UnMrkd	Natural Mrkd	Natural UnMrkd	Stock
	of Mrkd Agg.	of UnMrkd Agg.	of Mrkd	of UnMrkd		Hat	Nat							
Dungeness	0	14.6%	0%	0.00%			925	DD;OM;DA; MB; CH; MN	3.3.2021	0	0	0	704	Dungeness
Elwha	1	85.4%	0%	0.00%			2400	DD;OM;DA; MB; CH; MN	3.3.2021	0	0	685	4115	Elwha
Hoko			100%	0.00%			200	DD;OM;DA; MB; CH; MN	3.3.2021	438	0	0	676	Hoko
Dungeness % pre-spawn mortality			3.6%	Randy Cooper 11/23/20										
Elwha % pre-spawn mortality			0.0%	Randy Cooper 11/23/20										

2014 NOF Chinook TAMM

Skagit Net							
Fishery / Item	Value	Parameter Type	May-Jun	Proportions: Jul-Sep	Oct-Apr	Updated	Fishery Description
Treaty	Marine SprChin	% TAA or Catch	0.001154				
S/F ChinDirected Marine	0.0000	<<< %TAA		100%	0%	PK 4/13/2021	Spring Chinook: Swinomish wks 18-19: 4.4. USIT no fishery. No S/F directed fisheries.
Sockeye Directed Marine	0.0003	<<< %TAA	In Jul-Sep->	100%	0%	PK 3/5/2021	Swin wks 27-28: 2.2. USIT No fishery scheduled
Pink Directed Marine	0.0036	<<< %TAA	In Jul-Sep->	100%	0%	PK 4/13/2021	Swin wks 35-37: 1.5,2. USIT no fishery
COHO Directed Marine	0.0002	<<< %TAA	In Jul-Sep->	49%	51%	PK 3/5/2021	Swin wks 39-40: 1.5,1.5. USIT no fishery.
CHUM Directed Marine	0.0000	<<< %TAA or c	In Jul-Sep->	0%	100%	PK 3/5/2021	No fisheries for Swin or USIT
Steelhead Directed Marine	0.0000	<<< %TAA or c	In Jul-Sep->	0%	100%	PK 3/5/2021	No fisheries for Swin or USIT
Bay, Jetty & Brown's Pt Test Fishery, PSC Res	0.0000	Catch	In Jul-Sep->	0%	100%	PK 3/5/2021	WK 44-45 Bay and Jetty chum tests 1.1.
T FW Chinook Directed	0.0000	<<<% ETRS or	0.1809	Spr HR	<<<% ETRS	PK 4/13/2021	Spring Chinook: Swinomish wks 18-9: 4.4. 1281
T FW C&S	0.0000	<<< Catch	34	Spr Catch		PK 4/15/2021	Total Swin/USIT C&S target zero during summer/fall chinook timing and 34 during spring chinook timing (10W + 24H)
T FW Sockeye Directed	0.0055	<<< %ETRS	-	-	-	PK 3/23/2021	Swin wks 27-28: 2.2. Swin 780/D (Baker) wks 28,29 (contingency): 1.1. SSIT: no 78C fishery. USIT wks 28-29: 0.208, 0.208. USIT 100 C&S sockeye.
T FW Pink Directed	0.1043	<<<% ETRS or	-	-	-	PK 4/13/2021	Swin wks 35-37: 1.5,2. SSIT no 78C fishery. USIT wks 36-38: 1.5,2.167,2.167 (USIT chinook non-retention wks 37-38)
T Swin. Channel	0.0000	<<< %ETRS	-	-	-	PK 3/5/2021	N/A
T FW Coho Directed	0.0058	<<< %ETRS	-	-	-	PK 4/13/2021	Swin wks 39-40: 1.5,1.5. SSIT: no 78C fisheries. USIT wks 41-43: 0.333,0.333,0.333 (USIT chinook non-retention)
T FW Chum Directed	0.0000	<<< %ETRS	-	-	-	PK 3/5/2021	No fisheries for Swin, SSIT, or USIT
T FW Steelhead Directed	0.0000	<<< %ETRS	-	-	-	PK 3/5/2021	No fisheries for Swin, SSIT, or USIT during S/F chinook manage
RIVER TEST FISHERY	409	<<<catch (Don	9.1%	%SPR (Don't e	-	PK 3/5/2021	Wks 19-45 Blakes (chinook wks 19-35, sockeye wks 24-29; col
Non-Treaty							
Pink Directed Marine	0.0000	<<< %TAA	In Jul-Sep->	0%	0%	MB 3/1/19	closed
CHUM Directed Marine	0.0000	<<<% TAA or c	In Jul-Sep->	0%	0%	MB 3/1/19	closed
Stillaguamish/Snohomish Net							
Fishery / Item	Value	Parameter Type	May-Jun	Proportions: Jul-Sep	Oct-Apr	Updated	Fishery Description
CHINOOK FISHERY	100	<<< catch	0%	100%	0%	DH-02/23/21	DH: C&S mid. Aug. on Res.
BA COHO EVALUATION AND BA PINK FISHERY	0.0193	<<< %TAA	0%	100%	0%	DH-03/24/21	BA Tutalip Comm (based on 2011-19 odd-years), wk 32-36 (5 d/wk)
BA COHO DIRECTED	0.000244	<<<%TAA or C	0%	100%	0%	DH-04/12/21	BA Tutalip Comm (based on 2011-19), cw 37-39 (3 d/wk), 40-42 (1 d/wk)
BA CHUM & STEELHEAD FISHERY	0.0000	<<<%TAA or c	0%	0%	100%	DH-02/23/21	Closed for Chum
BA TEST FISHERY	0.0000	<<< %TAA	0%	0%	0%	DH-02/23/21	Closed for Chum
T STILLY R. CHINOOK	21	<<<catch	-	-	-	XO 4/15/21	5/1 - 8/15; Up to 7 days per week; max catch is 21
T STILLY R. PINK	0.0013	<<<catch	-	-	-	XO 2.12.21	8/1 - 8/31; up to 7 days per week; max catch is 400 Pink
T STILLY R. COHO	0.0021	<<<catch	-	-	-	XO 2.12.21	9/1 - 10/31; Up to 5 days per week;
T STILLY R. CHUM	0.0000	<<<catch	-	-	-	XO 2.12.21	11/1-12/5; Up to 3 days per week; max catch of 300
T SNOHOMISH R. COMM	0.0000	<<<catch	-	-	-	DH-02/23/21	
SNOHOMISH RIVER TEST	0.0000	<<<catch	-	-	-	DH-02/23/21	
Area 8D Treaty and Non-Treaty							
Trty: AREA 8D NET MAY-JUN	0.0000	Catch				DH-02/23/21	combined with next time step as done in 2019
Trty: AREA 8D NET JUL-SEP	0.8818	<<< .99 flag fo	-	-	-	DH-02/23/21	based on 2014-2019 rates
Trty: AREA 8D NET OCT-DEC	0	<<<catch	-	-	-	DH-02/23/21	No catch in this period
NT: AREA 8D NET JUL-SEP	2	<<<catch	-	-	-	KA-01/18/21	Wk 39-45, GN 5 days/week, PS 1 day/week; Wk 46-48, GN 3days/week, PS 1 day/week
NT: AREA 8D Sport JUL-SEP	495.0000	<<< .99 flag fo	-	-	-	KS 3/12/21	5 year average with 2-pole adjustment
NT: AREA 8D NET OCT-DEC	1	<<<catch	-	-	-	KA 2/22/21	Wk 39-45, GN 5 days/week, PS 1 day/week; Wk 46-48, GN 3days/week, PS 1 day/week
NT: May-Jun 8A Catch	0.0000	<<<catch				KA 2/22/21	closed
NT: 8A PINK FISHERY	0	<<< %TAA	0%	0%	0%	KA 2/22/21	closed
NT: 8A COHO DIRECTED	0.0000	<<< %TAA	0%	0%	0%	KA 2/22/21	closed
NT: 8A CHUM	0.0000	<<< %TAA or c	0%	0%	0%	KA 2/22/21	closed

2014 NOF Chinook TAMM

Hood Canal Net												
Fishery / Item	Value	Parameter Type	May-Jun	Proportions: Jul-Sep	Oct-Apr	Updated	Fishery Description					
Treaty												
MARINE TOTAL w/o Hdsp H.	0.0951	<<<TAACH or C	0%	100%	0%	CG 2/17/2021	12-12B: Closed, 12C: GN 85 wb 7/18 - wb 7/18					
MARINE COHO	0.0004	<<<TAACH or C	0%	22%	78%	CG 2/17/2021	12: GN 5 d/wk 9/25-10/11 (BS may start 9/25)					
MARINE CHUM TOTAL	0.0000	<<<TAACH or C	0%	0%	0%	CG 2/17/2021	12: 10/10 - 11/20 7 d/wk; 12B: 10/17-11/2					
Trty SKOK R (82G) CHINOOK	0.2655	<<<ETRS or C	-	-	-	CG 2/17/2021	wb 8/1 - wb 8/22 (GN: 3 d/wk) CLOSED AFTER AUGUST 26					
Trty SKOK R (82G) COHO	0.0006	<<<ETRS or C	-	-	-	CG 2/17/2021	wb 10/03 - 10/30 (7 d/wk)					
Trty SKOK R (82G) CHUM	0.0000	<<<ETRS or C	-	-	-	CG 2/17/2021	wb 10/31-11/27, 7d/wk					
Trty QUILCENE R (82F)		<<<TAACH or C	-	-	-	CG 2/17/2021						
Trty 9A, 12A CHINOOK		<<<TAACH or C	***BOTH must be same input type (rate or catch)				CG 2/17/2021					
Trty 9A, 12A COHO	0.0022	<<<TAACH or C	0%	60%	40%	CG 2/17/2021	9A: 8/08-10/30 7d/wk; 12A: BS 5 d/wk 8/2					
Trty 9A, 12A CHUM	0.0000	<<<TAACH or C	0%	0%	100%	CG 2/17/2021	9A: 10/31-11/20 7d/wk					
Hoodsport Hatchery Seine	0.3840	<<<ETRS or C	-	-	-	CG 3/25/2021	wb 7/18 - 9/16 1 d/wk (possible inseason adjustment); and wb 10/10 - 11/18 1 d/wk (possible inseason adjustment)					
Non-Treaty												
MARINE CHINOOK	1711	<<<TAACH or C	0%	100%	0%	GM/DD/DA	proposed Treaty NOA troll, quota 1500 + 24					
MARINE COHO	0.0000	<<<TAACH or C	0%	0%	0%	KA2/22/21	closed					
MARINE CHUM TOTAL	72.8906	<<<TAACH or C	0%	0%	100%	KA2/22/21	confirmed in 12B/12B - 02/16/2021_KA					
9A, 12A COHO	3	<<<TAACH or C	0%	80%	20%	KA 2/22/21	9A Wk 34-44: 5d/ff GN 7d/wk, 12A Wk 34-44: 5d/ff					
9A, 12A CHUM	0.0000	<<<TAACH or C	0%	0%	0%	KA 02/18/21	closed					
Hoodsport Hatchery Seine	5000	<<<TAACH or CATCH	-	-	-	WEB 4/1/2021	1 day a week schedule					
South Puget Sound Net												
Fishery / Item	Value	Parameter Type	May-Jun	Proportions: Jul-Sep	Oct-Apr	Updated	Fishery Description					
Treaty												
WHITE R SPR Trty Jul-Sep:	0	<<<catch or hr	-	-	-	8/5/2008	NOTE: Harvest Rate will be applied to White R Sp Chin run entering 13A = TRS OBSOLETE!!					
11A and Puyallup R Net	0.0115	<<<catch or hr	-	-	-	BP 2/24/2021	BP: Puyallup net average harvest rate on White River spring chinook fingerlings					
C&S in White River	0.1215	<<< May-Sep %	-	-	-	BP 2/24/2021	BP: placoholder value, awaiting FRAM ETRS value					
Treaty and Non-Treaty												
Area 10/11 NTrty	-	catch by time	0	164	174	KA 3/18/21	10B11, PinksA10_2v2_03182021_KA-stn					
Area 10/11 Trty	-	catch by time	0	130	10	CS 4/12/2021	CS/60/CP/DH: 5-YR AVG catch (16'-20' = 5) comm: Pink Fishery Impacts (PUY-50/SUG+TUL-75); Jul-Sept.; Oct-Apr (minimum of 10)					
Area 9/10 test (Apple+other)	-	catch by time	0	21	135	Jul-Sep: CS/JO coho gillnet test, wks 37-39, 1 day/wk, 3 sites recent 10-year avg (04-'11 + 13-'14; 21); Oct-Apr: JO/CS/8P chum purse seine test (ACP), 1 vessel, wks 41-46, 1 day/wk, 5-Yr AVG (16'-20' = 5); + A9 chum DNA research.						
Area 10A NTrty	-	catch by time	0	-88	0	DD: 3/2/2018	Modeled in FRAM					
Area 10A Trty	-	catch by time	0	972	1	JIS/MGM/CS/JO 2/26/21	2 nights directed fishery (with possibility of 3rd depending on ISU) + recent 4 year average					
Area 10A TEST/C & S	-	catch by time	0	528	0	JIS/MGM/CS/JO 2/26/21	4 year average from recent test fisheries + 300 MIT C&S					
Area 10E NTrty	-	catch by time	0	-88	0	DD: 3/2/2018	Modeled in FRAM					
Area 10E Trty	-	catch by time	0	0.49	0	CS/JO 2/25/2021	4-YR (17'-20') avg rate on ETRS					
Deep SPS NTrty (13,13D-K)	-	catch by time	0	0	0	KA 2/18/21	closed					
Deep SPS Trty (13,13D-K)	-	catch by time	0	1346	0	JCP 02/08/2021 recent 2 YR	Recent 2 Year (2019-2020) average catch					
Area 13A NTrty	-	catch by time	0	0	0	KA 2/18/21	closed					
Area 13A Trty	-	catch by time	0	1930	21	BP 2/24/2021	BP: recent-year (2016-2020) harvest rate on Minter ETRS, applied to 2021 Minter fork					
Treaty Freshwater May-Dec												
Lk. Wash (10F,G,C,D)	610	<<<catch or ra	-	-	-	JIS/MGM/CS/JO 2/26/21	4 year average incidentals; 300 MIT C&S + 50 SUG C&S + 50 incidental for a potential sockeye fishery					
Lake Sammamish (10D)	0	<<<catch or rate relative to ETRS	-	-	-	JIS/MGM/CS/JO 2/26/21	No anticipated fishery					
Duwamish/Green (80B)	8333	<<<catch or ra	-	-	-	JIS/MGM/CS/JO 2/26/21	2 nights directed fishery (with possibility of 3rd depending on ISU) + recent 4 year average pink/coho/chum fisheries					
Puyallup (81B + 11A)	0.29844	<<<catch or ra	-	-	-	CP 3/16/2021	6 hrs Wk 33 (2015-2020 Avg); 6 hrs Wk 34 (2018-2020 Avg) Wks 37-42 1,2,2,2,2 (2014-2020 excluding 2016 in AVG.)					
Puyallup (81B) C&S	62	<<<catch or rate relative to ETRS	-	-	-	CP 3/16/2021	67 Total C&S - 62 Falls & 5 Springers (2010-2014 & 2019 Avg.)					
Nisqually (83D) Net Fishery	0.00000	<<<catch or rate relative to ETRS-ET Marine Catch-FW sport	-	-	-	CS 4/3/2021	CS Gill net 2 days a week 92-96. Coho direct 4% stray rate from hatchery to spgs					
Nisqually (83D) tangle net MSF	0	< enc tot or rate relative to ETR	0.45	<-Rel Mort		CS 2/2/2021	CS: None planned in 2021					
Nisqually (83D) experimental	0	<<<Exploitation Rate	0.05	<-Rel Mort		CS 2/2/2021	CS: This section not used 2021 (moving away from the 2% ER)					
Nisqually (83D) experimental total encounter	150	< encounters	0	1.00	<-Rel Mort	CS 4/15/2021	CS: 150 PLEASE DO NOT INPUT UNTIL PFMIC 2 FINAL HOUR. experimental fishery					
McAllister (83F)	0.77	<<<catch or ra	-	-	-	CS 2/2/2021	CS: up to 5 days a wk, wks 31-wk 41 freshwater courses of McAllister Creek. Two year average HR on adults was 77% (does not include sport catch in HR calc)					
Minter Cr.	0	<<<catch or ra	-	-	-	BP: 2/27/2020	closed					
Chambers (13C & 83H)	0.657402886	<<<catch or ra	-	-	-	BP: 2/24/2021	BP: recent-year average (2014,2015,2017,2018,2020) harvest rate on Chambers Bay ETRS					
MSF Parameters for SPS Fisheries--Change to yes/no and update parameters as needed.												
							MSF	ppn M rel	ppn UM ret	RM	Other Mort	
								no	0.13	0.02	0.1	0.05
								no	0.13	0.08	0.1	0.05
								yes	0.13	0.02	0.1	0.05
								no	0.13	0.08	0.1	0.05
								no	0.0001	0.0001	0.05	0.02
								no	0.0001	0.0001	0.05	0.02
								no	0.0001	0.0001	0.05	0.02
								no	0.0001	0.0001	0.05	0.02
Decomposition of Nisqually												
								NS GN				
								NS GN				607.38
								MSF TN				0.00000
								Exp. MSF				0.00000
								BS MSF				20.19412
								Total				627.571
								Check >>>				627.571
								Tot FW Hat Mo				4831.806

Nooksack/Samish Net														
Fishery / Item	Value	Parameter Type	May-Jun	Proportions: Jul-Sep	Oct-Apr	Updated	Fishery Description	Lummi & Nooksack MSF Tangle Net Parameters			Lummi & N			
Treaty								Release Mortality Rates			MSF Total Catch			
NOOKSACK EARLY: MSF release mortality										Lummi	Nooksack	Weighted Rate	Tot. Enc.	1839
May-July C&S	286	<<< catch or rate	-	-	-	BS 3/16/2021	Nooksack	0.30	0.20	0.30	2785	MSF NOR Mort		
May-Jul MSF tangle C&S	97	<<<NOR encounters total (calculation here, entry to right)	-	-	-	BS 3/16/2021	Lummi	Lum. NOR Enc	Nook. NOR Enc		29.1	MSF NOR Mort		
JUL-SEP Ntrty	-88	<<< catch or rate	-	-	-	8/5/2008	87.88-92.93 avg CWT; 2.5/PS	97	0	1.00	<<<ppn Lummi	Total MSF Encour		
JUL-SEP Trty	-88	<<< catch or rate	-	-	-	3/10/2017	DD: Phone call with BAK, using last year's value, SUBJECT TO C	0.10	<<<ppn total (NS+MSF) UM mort of NOR origin			2785		
Rate applies to the stock-specific "terminal run size" of Nooksack Early Chinook, that is, the rate applies to the "run of Nooksack Early Chinook entering areas 7B,C,D". Fixed catches are Nooksack Early ONLY!														
NOOKSACK SUMMER/FALL: "Rate" is %TAA Nooksack-Samish Aggregate Summer/Fall chinook.													Total Catch (MSF ar	
MAY-JUN Trty	0	<<< catch	-	-	-	BS 3/16/2021						2125		
JUL-SEP Ntrty	0.12815	<<< rate or cat	-	-	-	KA 4/15/2021	WK 34-35: GN 3.3; PS 1.2; WK 36-39: GN 5.5,5.7; PS 1.3,3.7; W					UM Hatche		
JUL-SEP Trty	0.2729	<<< rate or cat	-	-	-	BS 3/16/2021						254		
OCT-APR Ntrty	13	<<< catch	-	-	-	KA 3/19/2021	WK 34-35: GN 4.4; PS 1.1; WK 36-39: GN 5.5,5.7; PS 1.3,3.7; WK 40-43 PS&GN 7 days/week, WK 44-50 GN 2.2,2.2,2.2 PS 1.1,1.1,1.1							
OCT-APR Trty	16,000	<<< catch	-	-	-	BS 3/16/2021								
Trty FW Net	1777.00	<<< %ETRS or	-	-	-	BS 3/16/2021								
Equitable Adjustment Due Trty:		<<< Value	-	-	-									
NOOKSACK RIVER EXTREME TERMINAL FISHERY IMPACTS:														
T NOOKS R FW NET	NA	Computed	0.1000	<<< ppn NOOKSACK EARLY		11/23/2009	Marine rate includes FW NET				29.10000000			
AREA 7E EXTREME TERMINAL FISHERY IMPACTS:														
Trty	0					2/25/2019	BAK: not fished							
Ntrty	0					KA/2/18/2021	closed							
Strait of Juan de Fuca Net														
Fishery / Item	Value	Parameter Type	May-Jun	Proportions: Jul-Sep	Oct-Apr	Updated	Fishery Description							
Dungeness Bay treaty net	0	Catch				AB: 2/17/21	Coho GN 7 days/week from Sept 21st to end of October/early Nov.							
Dungeness Bay non-treaty net	0	Catch				KA 02/18/2021	KA: WK 38-44: c&NR SKGN 2.5-5.5-5-5-5							
Elwha Treaty Terminal Catch		Catch												
Elwha C&S	0	Catch				LA 2/24/21								
Elwha test/commercial	0	Catch				LA 2/24/22								
Western Strait + Hoko terminal catch	0	Catch				HL: 2/26/2020								
Western Strait + Hoko Ext Terminal Net	0	Catch				HL: 2/26/2020								

Skagit Sport										May Spring Chinook Fishery							
Stream	Catch	Misc. Inputs			Updated	Fishery Description					Natural Encounters	1.95					
Skagit Coho Sport	20.03	PPN SPRING>>>>>			0.0000	AIH8 4/13/2021	pink fishery from 8/14-8/31; coho + pink 9/1-10/15; impacts added together				Natural Retained	0.00					
Skagit Spr MSF UM Encounters	297	UMret	0		AF 3/16/21	6/1-7/15, 4 hatchery chinook, only 2 adults. Hwy 530 to Cascade River Rd. & Cascade River Rockport Cascade Rd to mouth					Natural Released	0.19					
Skagit Spr MSF M Encounters	511	Mrel	0.0707		AF 3/16/21	3 yr release/retention/encounter rate					Hatchery Encounter	26.05					
Skagit Spring MSF (May) Encounters	28	UM ret	0.00	M Rel	0.00	AF 3/16/21	5/1-5/31, Gilligan Creek to Memorial Highway Bridge at Mount Vernon, daily limit 2 ad clipped Chinook				Hatchery Mrkd Enc	17.94					
Skagit Sockeye Sport	0	<<Sp HR or catch	Su/Fa HR or ca	0	AF 3/16/21	closed	(pete converted encounter rate to harvest rate based on 0.10 HKM)				Hatchery UM Enc	8.11					
8-1 Marine Sport Savings											Hatchery Mrkd Mor	17.94					
											Hatchery UM Mort	0.81					
Stillaguamish/Snohomish Sport																	
Stream	Catch	Misc. Inputs			Updated	Fishery Description											
Tulalip Bay Recreational	NA	See Input_Harvest under 8D for % 8D catch that is SAF Sport															
Stillaguamish R.	1.00				PV 4/15/2021	represents non-salmon season	Catch	Yes									
Snohomish R.	37				PV 4/12/2021	Snohomish pink/coho impacts (8/22 to 9/30)											
8-2 Marine Sport Savings																	
UM Skykomish MSF % ETRS UM Sky OR UM 8	285	UMret	0.0186		PV 3/16/2021	5/29-7/31, 4 hatchery chinook, only 2 adults; encounter rate from creel											
M Skykomish MSF % ETRS M Sky OR M Enc S	558	Mrel	0.0197		PV 3/16/2021	5/29-7/31, 4 hatchery chinook, only 2 adults; encounter rate from creel											
Hood Canal Sport																	
Stream	Catch	Selective	Misc. Inputs	Mrel	UMret	Updated	Fishery Description										
Skok Enc Or EncRate (if rate use %ETRS)	0.00	yes		0.0000	0.0000	MD 2/24/21											
Misc. 12B Tribs	0					MD 2/24/21											
Misc. 12C/D Tribs	0					MD 2/24/21											
Quilcene Sport Catch	0					MD 2/24/21											
South Puget Sound Sport																	
Stream	Catch	Misc. Inputs			Updated	Fishery Description											
Lake Washington	3				AB 2/25/2021	9/16-10/31, 4 coho only, open only N. of 520. No impacts reserved for sockeye fishery. 3 is an estimate based on 2016 creel data, for which there was an estimated 26.6 Chinook encounters in the coho fishery.											
Lake Sammamish	1				AB 2/25/2021	10/1-11/30, 4 coho only; CRC avg October + November Chinook catch from when the fishery was open to Chin retention (2010-2014; 11.8 Chinook) * release mortality											
Duwamish-Green R.	526				AB 2/25/2021	Avg of 2017 & 2019 CRC estimate of adults + 10% of released fish based on proportions of kept/released observed in creel											
Puyallup R. and Carbon R	0	PPN SPRING>>>>>			0	TLS/L: 2/27/2018											
Puyallup Encounters Marked	1487	Mrel	0.1589		GM.TLS: 2/22/21	8/15-12/31, 6 salmon, 2 adults, release chum and wild adult chinook											
Puyallup Encounters Unmarked	126	UMret	0.045		GM.TLS: 2/22/21	8/15-12/31, 6 salmon, 2 adults, release chum and wild adult chinook											
Carbon Encounters Marked	1062	Mrel	0.338		GM.TLS: 2/22/21	9/1-11/30, 6 salmon, 2 adults, release chum and wild adult chinook, avg encounters											
Carbon Encounters Unmarked	90	UMret	0.0325	Mrel	UMret	GM.TLS: 2/22/21	9/1-11/30, 6 salmon, 2 adults, release chum	M Enc	2802	UM Enc	472.8	MR	0.9	M Dead	1624.4	UM Dead	56.6
Nisqually R. M Enc or HR	0.21447	MSF Yes/No?	Yes	0.4671	0.0219	GM 4/9/21	7/1-11/15 6 salmon, 2 adults, release wild										
Nisqually R. UM Enc or HR	0.23259	% Um Sport Encs that are NOR		0.4886		GM 4/9/21											
McAllister Cr.	47				GM 2/22/21	7/1-11/30, 6 salmon, 2 adults; CRC harvest estimate from 2018											
Minter Cr.	1970				GM.TLS: 2/22/21	Open Sept. 15 - Dec. 15 Daily limit 6. 2 Adults. Release wild adult Chinook and wild adult coho. Encounters based			98%		XXXXX	PM: 2% reduction in					
Chambers Creek:	34				GM 2/22/2021	10 yr CRC avg: 7/1-11/15, 6 salmon, 4 adults, release wild coho											
Deschutes/Capitol Lake	7				GM 2/22/2021	recent 5yr CRC avg: 7/1-10/15, 6 salmon, 2 adults, release coho											
Kennedy/Johns/Misc "13B"	0				GM 2/22/2021	10/1-11/30, 6 salmon, 2 adults, release wild coho; CRC avg (no recent Chinook catch in these rivers, despite being open to Chinook fishing)											
Nooksack/Samish Sport																	
Stream	Catch	Misc. Inputs			Updated	Fishery Description											
Samish/Whatcom sport	4617				JK/AF 3/16/2021	initial											
Nooksack River incidental catch	0	PPN EARLY>>>>>			0.0000	DD: 3/2/2018	Accounted for in the cell below.										
Nooksack River Selective Encounters or HR	70	Mrel	0.2942	UMret	0.0452	JK/AF 3/21/2021	expansion from estimated non-selective hvst via CRC 5yr avg	NF Enc Total	893	NF Unmarked Enc	23	NF Unmarked hatch	3	NF Marked Enc	870		
NF Nooksack Selective NOR Encounters	20	Mrel	0.08850901	UMret	0.00	DD 4/15/2021	TBD										
Strait of Juan de Fuca Sport																	
Fishery / Item	Value	Parameter Type	Updated	Fishery Description													
Dungeness expected catch sport:	0	Catch			JW 2/24/21												
Elwha expected catch sport	0	Catch			JW 2/24/21												
Western Strait + Hoko sport	0	Catch			JW 2/24/21												

TAMI: Terminal Area Management Module CHINOOK FRAM Inputs # SLC-Chin3 ===== TAMI
 FRAM Run Number SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM

MAKE SURE NONE OF THE VALUES HAVE MORE THAN 4 DECIMALS OR CKT-TAMI WILL NOT TRANSCR

Parameters for Input to FRAM:	Parameter:\1	MAY-JUN	JUL-SEP	OCT-APR	NT=FWSPT T =TEST	MAR SPT	%FWNETESC RATE	EQADJ		
7B,C,D NTrty	T-R-T	0.0000	0.1282	13	4668	0	0.0000	0.0000	0	1
7B,C,D Trty	T-R-T	0.0000	0	16						2
Skagit Bay (8) NTrty	R-R-T	0.0000	0.0000	0.0000	20	0				3
Skagit Bay (8) Trty	R-R-T	0.0000	0.0040	1.1977						4
Area 8A NTrty	T-R-T	0.0000	0	0.0000	38	0				5
Area 8A Trty	T-R-T	0.0000	447	0						6
Area 8D NTrty	T-TorR-T	0.0000	2.0000	1.0000						7
Area 8D Trty	T-R-T	0.0000	0.8818	0						8
HdCnl NTrty	T-R-T	0.0000	1711	73	0					9
HdCnl Trty	T-R-T	0.0000	6669	54						10
Area 10/11 NTrty	T-T-T	0.0000	175	241	2046					11
Area 10/11 Trty	T-T-T	0.0000	141	78						12
Area 10A NTrty	T-T-T	0.0000	-88	0.0000	526					13
Area 10A Trty	T-T-T	0.0000	1500	1						14
Area 10E NTrty	T-T-T	0.0000	-88	0.0000	0.0000					15
Area 10E Trty	T-T-T	0.0000	3770	0.0000						16
Deep SPS NTrty	T-T-T	0.0000	0	0.0000	1769					17
Deep SPS Trty	T-T-T	0.0000	1346	0						18
Area 13A NTrty	T-T-T	0.0000	0.0000	0.0000	1970.0000					19
Area 13A Trty	T-T-T	0.0000	1930	21						20
NookErly NTrty	0-R-0	0.0000	-88.0000	0.0000						21
NookErly Trty	T-R-0	0.0000	-88.0000	0.0000						22
WRSpCk NTrty	0-R-0	0.0000	0.0000	0.0000						23
WRSpCk Trty	0-R-0	0.0000	0.0000	0.0000						24
Upper % SPS Yearl	R	0.0000								25

Parameter Codes: T=Target; R=Harvest Rate; S=Use sharing computations if value = 1
 Note: For Nook Na Ck: 7B,C,D JUL-SEP inputs are harvest rate on Nooksack Native Chinook (%TRSNookNa)
 For 7B,C,D row: Rate is %TAABham; if value = 1, use sharing formula to compute JUL-SEP catches.
 Area 8 Trty Row: Last value is Expected Area 8 Test catch.
 Area 8 harvest rates are % of S/F TAA entering area 8.
 Area 8A harvest rates are % of S/F TAA entering Area 8A.
 Area 8D harvest rates are % of S/F TAA entering Area 8A.
 NookErly inputs are either expected catch or harvest rate on White R. Springs (%ETRSWRSP)

^ 12/9/2021 +

58; NT10-11Net	0	0	0	0
59; Tr10-11Net	0	0	0	0
60; A 10A Sprt	0	0	0	0
61; Tr 10A Net	0	0	0	0
62; A 10E Sprt	0	0	0	0
63; Tr 10E Net	0	0	0	0
64; A 12 Sport	0	0	0	0
65; NT HC Net	0	0	0	0
66; Tr HC Net	0	0	0	0
67; A 13 Sport	0	0	0	0
68; NT SPS Net	0	0	0	0
69; Tr SPS Net	0	0	0	0
70; NT 13A Net	0	0	0	0
71; Tr 13A Net	0	0	0	0
72; FW Sport	0	0	0	0
73; FW Net	0	0	0	0

17.Elwha/Dungeness Tributaries Fall

1; SEAK Troll	2	29	22	53
2; SEAK Net	0	7	0	7
3; SEAK Sport	0	1	0	1
4; N/C BC Net	0	13	0	13
5; WCVI Net	0	2	0	2
6; GeoSr Net	0	0	0	0
7; BC JDF Net	0	0	0	0
8; BCOuSport	1	37	0	38
9; N/C BC Trl	0	0	0	0
10; WCVI Troll	2	89	0	92
11; WCVI Sport	28	232	28	288
12; GeoS Troll	0	0	0	0
13-15; JS/GS/JDF Sport	19	43	28	90
16; NT 3-4 Trl	2	0	0	2
17; Tr 3-4 Trl	42	4	27	73
18; Ar 3-4 Spt	0	10	0	10
19; NoWACsNet	0	0	0	0
20; NT 2 Troll	0	0	0	0
21; Tr 2 Troll	0	0	0	0
22; Ar 2 Sport	2	0	0	2
23; NT GHb Net	0	0	0	0
24; Tr GHb Net	0	0	0	0
25; WillapaNet	0	0	0	0
26; NT 1 Troll	0	0	0	0
27; Ar 1 Sport	0	0	0	0
28; ColRvr Net	0	0	0	0
29; Buoy10 Spt	0	0	0	0
30; Cen OR Trl	0	0	0	0
31; Cen OR Spt	0	0	0	0
32; KMZ Troll	0	0	0	0
33; KMZ Sport	0	0	0	0
34; So Cal Trl	0	0	0	0
35; So Cal Spt	0	0	0	0
36; Ar 7 Sport	0	5	0	5
37; NT 7:ANet	0	0	0	0
38; Tr 7:ANet	0	0	0	0
39; NT 7BCDNet	0	0	0	0
40; Tr 7BCDNet	0	0	0	0
41; Tr JDF Trl	0	2	0	2
42; Ar 5 Sport	0	11	25	36
43; NT JDF Net	0	0	0	0
44; Tr JDF Net	0	2	0	2
45; Ar 8-1 Spt	0	0	0	0
46; NT SkagNet	0	0	0	0
47; Tr SkagNet	0	0	0	0
48; Area8D Spt	0	0	0	0
49; NT StSnNet	0	0	0	0
50; Tr StSnNet	0	9	0	9
51; NT TulaNet	0	0	0	0
52; Tr TulaNet	0	0	0	0
53; Ar 9 Sport	0	20	0	20
54; Ar 6 Sport	0	14	0	14
55; Tr 6B-9Net	0	1	0	1

666fc767ba1c430ebd58b3fe17abf0a3 12/9/2021

TABLE 2C: SOUTH PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT SUMMARY HIGHLIGHTS

Estimated fishery impacts from regulations described by FRAM model run # SLC-Chin372 Version: 2.21Dec15

Run Description: SLC-Chin3721_Final

TABLE 2C

12/09/21

10:42 AM

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations. Treaty/non-treaty splits and some SPS stock breakouts are NOT based on CWT recovery data.

FISHERY	----- AEQ Total May-April Fishery-Related Mortality (Natural & Hatchery) -----								
	Misc 10 & 10E	Lake Wash.	Green River	Puyallup River	Carr Inlet	Chambers	Nisq. River	McAll. Creek	Deschutes & 13D-K
Alaska	16	7	39	29	7	1	14	0.4	6
Canada	1,348	605	3,258	2,460	707	68	1,373	35.8	534
S. Of Falcon Ocean	11	5	25	20	18	2	34	0.9	13
N.Fl.c. Ocean Troll:									
NTrty	172	77	412	315	93	9	181	4.7	71
Trty	419	188	1,010	767	515	49	1,007	26.0	389
Ntrty N.Fl.c. Ocean & Buoy10 Spt	132	59	317	241	106	10	206	5.4	80
Pgt Snd Trty Troll	94	42	229	170	74	7	148	3.7	56
Pgt Snd 6 Sport	255	114	547	501	102	10	181	5.1	76
Pgt Snd 5 Sport	263	118	587	504	207	20	384	10.5	156
Pgt Snd 7 Sport	47	21	102	92	52	5	95	2.7	39
Pgt Snd 8-13 Sport	989	443	2,178	1,916	1,540	148	2,810	77.9	1,158
Out-of-Region net:									
NTrty	3	1	6	5	3	0	6	0.0	2
Trty	55	25	134	100	38	4	75	0.0	29
Local Terminal Net: (&/or SAF sport)									
NTrty	342	14	168	36	19	2	37	0.1	14
Trty	3,826	60	995	101	1,661	43	304	0.0	951
Freshwater Sport:									
NTrty	na	4	515	2,043	1,970	34	1,681	5.1	7
Trty	na	610	8,162	5,391	0	481	5,077	293.2	0
Freshwater Test	na	na	na	na	na	na	na	na	na
Total Marine Catch	7,970	1,780	10,007	7,258	5,141	377	6,855	173.1	3,573
Extr. Term. Catch	0	614	8,677	7,433	1,970	515	6,758	298	7
TOTAL CATCH	7,970	2,394	18,684	14,691	7,111	892	13,613	471	3,580
Escapement (from TAMMs)	5,711	3,750	14,106	10,422	4,038	174	8,047	33.5	4,827
TOTAL ABUNDANCE	13,681	6,144	32,790	25,114	11,150	1,066	21,661	504.9	8,406
Total Exploitation	58.25%	38.97%	56.98%	58.50%	63.78%	83.68%	62.85%	0.9	42.58%
Exploitation in Southern U.S. Fisl	48.28%	29.00%	46.92%	48.59%	57.37%	77.26%	56.44%	86.21%	36.17%

"Out-of-Region" net includes traditional Puget Sound preterminal net and "nonlocal terminal net" such as Bellingham Bay and Coastal/Col. R.

"Local Term." means: AREAS 10/11, 10A, 10E, 13A, 13+, and may include NT SAF fisheries, if so modeled.

"Freshwater" means: no FW, Wash. & Sai, Green R., Puy. R., Minter Ck., 13C+Ch Ck., Nisq. R., McA. Ck., Misc. tribs

Extreme Terminal" for NTrty includes freshwater sport; SAF catches in extreme terminal marine areas are shown under NT local terminal net.

Note: Within-South-Puget-Sound stock breakouts are based on CWT recoveries for areas 10A, 10E, 13A fingerlings, PSF proportions for area 13+, UW Acc, and yearlings. Refer to Tables 14D and 14F.

Ntrty TM	1,957	856	4,311	5,172	4,008	229	5,434	107	1,540
Trty TM	4,394	925	10,529	6,529	2,287	585	6,612	323	1,424

666fc767ba1c430ebd58b3fe17abf0a3 12/9/2021

TABLE 2C: SOUTH PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT SUMMARY HIGHLIGHTS

TABLE 2C

Estimated fishery impacts from regulations described by FRAM model run # SLC-Chin372 Version: 2.21Dec15

12/09/21

Run Description: SLC-Chin3721_Final

10:42 AM

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations.

Treaty/non-treaty splits and some SPS stock breakouts are NOT based on CWT recovery data.

MARKED ONLY

----- AEQ Total May-April Fishery-Related Mortality (Natural & Hatchery) -----

FISHERY	Misc 10 & 10E	Lake Wash.	Green River	Puyallup River	Carr Inlet	Cham- bers	Nisq. River	McAll. Creek	Deschutes & 13D-K
Alaska	13	6	27	27	7	1	13	0	5
Canada	1,103	494	2,266	2,224	702	67	1,209	36	526
S. Of Falcon Ocean	9	4	18	18	18	2	30	1	13
N.Fl.c. Ocean Troll: NTrty	142	64	291	286	93	9	160	5	70
Trty	345	155	708	696	510	49	879	26	383
Ntrty N.Fl.c. Ocean & Buoy10 Spt	108	49	223	219	105	10	181	5	79
Pgt Snd Trty Troll	76	34	155	152	73	7	125	4	55
Pgt Snd 6 Sport	243	109	499	490	102	10	175	5	76
Pgt Snd 5 Sport	239	107	490	481	206	20	355	10	154
Pgt Snd 7 Sport	44	20	91	89	52	5	90	3	39
Pgt Snd 8-13 Sport	915	410	1,880	1,845	1,535	147	2,643	78	1,150
Out-of-Region net: NTrty	2	1	4	4	3	0	5	0	2
Trty	45	20	92	90	37	4	65	2	28
Local Terminal Net: NTrty	332	11	116	33	19	2	32	1	14
(&/or SAF sport) Trty	3,398	49	687	91	1,647	43	263	14	935
Freshwater Sport: NTrty	na	3	352	2,013	1,953	34	1,624	47	7
Freshwater Net: Trty	na	496	5,584	4,864	0	478	4,450	293	na
Freshwater Test	na	na	na	na	na	na	na	na	na
Total Marine Catch	7,014	1,531	7,548	6,746	5,108	375	6,225	189	3,529
Extr. Term. Catch	0	499	5,936	6,877	1,953	512	6,074	340	7
TOTAL CATCH	7,014	2,030	13,484	13,623	7,061	887	12,299	528	3,536
Escapement (from TAMMs)	4,319	3,048	9,797	9,233	4,003	173	6,738	31	4,746
TOTAL ABUNDANCE	11,333	5,078	23,281	22,856	11,065	1,059	19,037	559	8,282
Total Exploitation	61.89%	39.98%	57.92%	59.60%	63.82%	83.70%	64.61%	94.53%	42.69%
Exploitation in Southern U.S. Fisl	52.04%	30.14%	48.07%	49.76%	57.41%	77.28%	58.19%	88.11%	36.28%

^ 12/9/2021 +

TABLE 2C: SOUTH PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT SUMMARY HIGHLIGHTS

Estimated fishery impacts from regulations described by FRAM model run # SLC-Chin3721 Version: 2.21Dec15
 Run Description: SLC-Chin3721_Final

TABLE 2C
 12/09/21
 10:42 AM

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations. Treaty/non-treaty splits and some SPS stock breakouts are NOT based on CWT recovery data.

UNMARKED ONLY

----- AEQ Total May-April Fishery-Related Mortality (Natural & Hatchery) -----

FISHERY	Misc 10 & 10E	Lake Wash.	Green River	Puyallup River	Carr Inlet	Chambers	Nisq. River	McAll. Creek	Deschutes & 13D-K
Alaska	3	1.34	12	3	0	0	2	0	0
Canada	245	111.22	992	236	5	0	164	0	8
S. Of Falcon Ocean	2	0.80	7	2	0	0	3	0	0
N.Flc. Ocean Troll: NTrty	30	13.57	121	29	1	0	21	0	1
Trty	74	33.81	302	72	4	0	128	0	6
Ntrty N.Flc. Ocean & Buoy10 Spi	23	10.52	94	22	1	0	25	0	1
Pgt Snd Trty Troll	18	8.24	74	17	1	0	22	0	1
Pgt Snd 6 Sport	12	5.40	48	11	0	0	6	0	0
Pgt Snd 5 Sport	24	10.88	97	23	1	0	29	0	1
Pgt Snd 7 Sport	3	1.21	11	3	0	0	5	0	0
Pgt Snd 8-13 Sport	74	33.44	298	71	5	0	167	0	8
Out-of-Region net: NTrty	0	0.22	2	0	0	0	1	0	0
Trty	10	4.65	41	10	0	0	11	0	1
Local Terminal Net: NTrty	10	2.46	52	4	0	0	5	0	0
(&/or SAF sport) Trty	428	11.36	308	10	14	0	41	0	16
Freshwater Sport: NTrty	na	0.56	163	29	17	0	57	0	0
Freshwater Net: Trty	na	114.18	2,578	527	0	3	628	0	na
Freshwater Test	na	na	na	na	na	na	na	na	na
Total Marine Catch	956	249	2,459	512	33	2	630	1	44
Extr. Term. Catch	0	115	2,741	556	17	4	684	0	0
TOTAL CATCH	956	364	5,200	1,068	50	5	1,314	1	44
Escapement (from TAMMs)	1,392	702	4,310	1,190	35	1	1,309	3	80
TOTAL ABUNDANCE	2,348	1,066	9,510	2,258	85	7	2,623	4	124
Total Exploitation	40.73%	34.14%	54.68%	47.32%	59.15%	81.59%	50.10%	25.20%	35.30%
Exploitation in Southern U.S. Fis	30.17%	23.58%	44.12%	36.76%	52.86%	75.29%	43.80%	18.90%	29.00%
0	0	1,830	831	7,410	1,760	66	5	2,040	3
97									

"Out-of-Region" net includes traditional Puget Sound preterminal net and "nonlocal terminal net" such as Bellingham Bay and Coastal/Col. R.

"Local Term." means: AREAS 10/11, 10A, 10E, 13A, 13+, and may include NT SAF fisheries, if so modeled.

"Freshwater" means: no FW ash., no Lk. S Green R. Puy. R. Minter Ck. 13C+Ch Ck Nisq. R. McA. Ck. Misc. tribs Extreme Terminal" for NTrty includes freshwater sport ; SAF catches in extreme terminal marine areas are shown under NT local terminal net.

Note: Within-South-Puget-Sound stock breakouts are based on CWT recoveries for areas 10A, 10E, 13A fingerlings, PSF proportions for area 13+, UW Acc, and yearlings. Refer to Tables 14D and 14F.

SUS NT ER	0.076	0.074	0.094	0.086	0.299	0.136	0.122	0.100	0.101
SUS T ER	0.226	0.162	0.347	0.282	0.229	0.617	0.316	0.089	0.189

SLC-Chin3721_Final

Allocation Unit & Stock (stk specific AEQ preterm+term)	AEQ Mortality SUS	
	Nontreaty	Treaty
Nooksack/Samish	10,465	11,177
Skagit	1,419	3,382
Stilly-Snoh	4,866	7,416
So. Puget Sound	25,457	34,219
Hood Canal	21,194	30,479
Str. Juan de Fuca	156	111
Total	63,557	86,784

42%

Allocation Unit & Stock (preterm AEQ+term all stk TM)	AEQ Mortality SUS	
	Nontreaty	Treaty
Nooksack/Samish	11,531	13,210
Skagit	1,419	3,382
Stilly-Snoh	4,866	7,526
So. Puget Sound	25,776	35,226
Hood Canal	21,305	30,665
Str. Juan de Fuca	156.34	111
Total	65,053	90,121

42%

Run Description: SLC-Chin3721_Final 10:42 AM

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations. Treaty/non-treaty splits and some SPS stock breakouts are NOT based on CWT recovery data.

FISHERY	----- AEQ Total May-April Fishery-Related Mortality (Hatchery Only) -----									
	Misc 10 & 10E	Lake Wash.	Green River	Puyallup River	Carr Inlet	Chambers	Nisq. River	McAll. Creek	Deschutes & 13D-K	
Alaska	16	6	33	27	7	1	13	0	6	
Canada	1,348	507	2,738	2,276	707	68	1,301	36	534	
S. Of Falcon Ocean	11	4	22	18	18	2	32	1	13	
N.Fic. Ocean Troll:										
NTrty	172	65	349	292	93	9	171	5	71	
Trty	419	159	852	711	515	49	951	26	389	
Ntrty N.Fic. Ocean & Buoy10 Sp	132	50	267	224	106	10	195	5	80	
Pgt Snd Trty Troll	94	35	190	156	74	7	138	4	56	
Pgt Snd 6 Sport	255	109	522	492	102	10	178	5	76	
Pgt Snd 5 Sport	263	108	536	486	207	20	371	10	156	
Pgt Snd 7 Sport	47	20	96	90	52	5	93	3	39	
Pgt Snd 8-13 Sport	989	414	2,022	1,861	1,540	148	2,737	78	1,158	
Out-of-Region net:										
NTrty	3	1	5	4	24	0	5	0	2	
Trty	55	21	112	93	38	4	71	2	29	
Local Terminal Net:										
(&/or SAF sport) NTrty	342	12	141	34	19	2	35	1	14	
Trty	3,826	50	833	93	1,661	43	286	14	951	
Freshwater Sport:										
NTrty	na	4	430	2,020	1,970	34	1,653	47	7	
Trty	na	509	6,811	4,979	0	481	4,832	293	0	
Freshwater Test	na	na	na	na	na	na	na	na	na	
Total Marine Catch	7,970	1,560	8,719	6,858	5,163	377	6,577	190	3,573	
Extr. Term. Catch	0	513	7,241	6,999	1,970	515	6,485	340	7	
TOTAL CATCH	7,970	2,073	15,959	13,857	7,133	892	13,062	529	3,580	
Escapement (from TAMMs)	5,711	3,130	11,849	9,493	4,038	174	7,442	33	4,827	
TOTAL ABUNDANCE	13,681	5,203	27,808	23,350	11,171	1,066	20,504	563	8,406	
Total Exploitation	58.25%	39.84%	57.39%	59.34%	63.85%	83.68%	63.70%	94.05%	42.58%	
Exploitation in Southern U.S. Fis	48.28%	29.98%	47.43%	49.48%	57.45%	77.26%	57.29%	87.64%	36.17%	
0	0	9,879	3,704	20,063	16,619	7,688	735	14,248	388	5,799
"Out-of-Region" net includes traditional Puget Sound preterminal net and "nonlocal terminal net" such as Bellingham Bay and Coastal/Col. R.										
"Local Term." means: AREAS 10/11, 10A, 10E, 13A, 13+, and may include NT SAF fisheries, if so modeled.										
"Freshwater" means: no FW, Wash. & Sa Green R. Puy. R. Minter Ck. 13C+Ch Ck Nisq. R. McA. Ck. Misc. tribs										
Extreme Terminal" for NTrty includes freshwater sport ; SAF catches in extreme terminal marine areas are shown under NT local terminal net.										
Note: Within-South-Puget-Sound stock breakouts are based on CWT recoveries for areas 10A, 10E, 13A fingerlings, PSF proportions for area 13+, UW Acc, and yearlings. Refer to Tables 14D and 14F.										
	Ntrty TM	2,212	787	4,390	5,521	4,132	239	5,471	155	1,616
	Trty TM	4,394	773	8,798	6,032	2,287	585	6,277	339	1,424
So U.S. preterminal	0.1782	0.1894	0.1789	0.1896	0.2478	0.2468	0.2410	0.2467	0.2460	
SUS Ocean Only ER	0.053	0.054	0.053	0.065	0.066	0.066	0.066	0.066	0.066	
NT SUS Ocn	0.023	0.023	0.023	0.019	0.019	0.019	0.019	0.019	0.019	
T SUS Ocn	0.030	0.031	0.030	0.046	0.046	0.046	0.046	0.046	0.046	
PS Preterminal Net	0.004	0.004	0.004	0.006	0.006	0.004	0.004	0.004	0.004	
Nontreaty TM	1,957	677	3,868	5,029	4,030	229	5,293	150	1,540	
Treaty TM	4,394	773	8,798	6,032	2,287	585	6,277	339	1,424	

666fc767ba1c430ebd58b3fe17abf0a3 12/9/2021

TABLE 2C: SOUTH PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT SUMMARY HIGH | ===== **TABLE 2C**

Estimated fishery impacts from regulations described by FRAM mor SLC-Chin3 Version: 2.21Dec15 12/09/21

Run Descr SLC-Chin3721_Final

10:42 AM

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations.

Treaty/non-treaty splits and some SPS stock breakouts are NOT based on CWT recovery data.

----- AEQ Total May-April Fishery-Related Mortality (Natural & Hatchery) -----									
FISHERY	Misc 10 & 10E	Lake Wash.	Green River	Puyallup River	Carr Inlet	Cham- bers	Nisq. River	McAll. Creek	Deschutes & 13D-K
Alaska	0	1	6	2	0	0	1	0	0
Canada	0	98	520	184	0	0	72	0	0
S. Of Falcon Ocean	0	1	4	1	0	0	1	0	0
N.Fl.c. Oce NTrty	0	12	63	22	0	0	9	0	0
Trty	0	30	158	56	0	0	56	0	0
Ntrty N.Fl.c. Ocean & E	0	9	49	17	0	0	11	0	0
Pgt Snd Trty Troll	0	7	39	14	0	0	10	0	0
Pgt Snd 6 Sport	0	5	25	9	0	0	3	0	0
Pgt Snd 5 Sport	0	10	51	18	0	0	13	0	0
Pgt Snd 7 Sport	0	1	6	2	0	0	2	0	0
Pgt Snd 8-13 Sport	0	30	156	55	0	0	74	0	0
Out-of-Reg NTrty	0	0	1	0	(22)	0	0	0	0
Trty	0	4	22	8	0	0	5	0	0
Local Terr NTrty	0	2	27	3	0	0	2	0	0
(&/or SAF :Trty	0	10	161	8	0	0	18	0	0
Freshwater NTrty	0	0	85	23	0	0	28	0	0
Freshwater Trty	0	101	1,351	412	0	0	246	0	0
Freshwater Test	0	na	na	na	na	na	na	na	na
Total Marine Catch	0	220	1,288	400	(22)	0	278	0	0
Extr. Term. Catch	0	101	1,436	435	0	0	273	0	0
TOTAL CATCH	0	321	2,725	834	(22)	0	551	0	0
Escapement (from TA	0	620	2,258	929	0	0	605	0	0
TOTAL ABUNDANCE	0	941	4,982	1,764	(22)	0	1,156	0	0
Total Exploitation	0.00%	34.14%	54.69%	47.32%	0.00%	0.00%	47.67%	0.00%	0.00%
Exploitation in Southe	0.00%	23.58%	44.13%	36.76%	100.00%	#DIV/0!	41.37%	#DIV/0!	#DIV/0!

TABLE 2D: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - TOTAL AEQ FISHERY-RELATED MORTALITY STOCK-SPECIFIC

FRAM Run Number: SLC-Chin3721_Final		Version: 2.21Dec15														
Run Description: SLC-Chin3721_Final		Tamm: #REF!														
Total May-April AEQ Fishery- Fishery Aggregate	TruetoModel Total	NkSF 1	NkErly 2	SkSF0 3	SkSF1 4	Skag S/ 0+1 total	Skag SF0 Natural	Skag SF1 Natural	Skag S/F 0+1 Nat	SkSP 5	SkSP Natural	SnSF0 6	SnSF1 7	Sno S/F 0+1 total	Sn SF 0 Natural	
1-3. Alaska	243,551	41	625	695	31	726	661	31	692	24	6	20	13	33	7	
4-13. Canada	410,261	2,150	8,226	2,338	104	2,442	2,215	104	2,319	939	221	743	427	1,170	270	
28-33. S. Of Falcon Ocean:	146,745	16	0	0	0	0	0	0	0	0	0	0	0	0	0	
14,18,24. NTrty N.Falc. Ocean	43,251	464	56	23	1	23	21	1	22	0	0	36	11	47	13	
15,19. Trty N.Falc. Ocean Troll	44,104	1,153	681	96	3	99	92	3	95	81	20	79	59	138	29	
16,20,25,27. NTrty N.Flc. Ocea	30,577	191	127	58	2	60	54	2	56	5	1	12	11	23	4	
39. Pgt Snd Trty Troll	4,553	101	187	49	1	50	47	1	48	46	10	49	8	56	18	
34. Pgt Snd 5 Sport	12,827	361	501	34	1	35	30	1	31	126	12	113	26	139	18	
40 Pgt Snd 7 Sport	2,435	339	66	72	2	73	59	2	60	15	2	27	9	36	5	
43,46,51,54,61,64. Pgt Snd 8-1	28,572	307	86	60	1	62	51	1	52	102	11	91	203	294	20	
21,23,26. NTrty Non-Pgt Snd N	6,276	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17,22. Trty Non-Pgt Snd Net	939	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41. JDF NTrty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42. JDF Trty	128	4	2	1	0	1	0	0	0	1	0	3	0	3	1	
35. SJI NTrty	3,754	204	0	0	0	0	0	0	0	10	1	0	0	0	0	
36. SJI Trty	4,747	133	0	0	0	0	0	0	0	8	2	0	0	0	0	
52. Pgt Snd 6 Sport	6,269	293	19	59	1	61	44	1	45	25	2	14	13	27	2	
53. 6B/9 Trty	511	12	3	8	0	8	7	0	8	2	1	4	7	11	1	
37. B'ham NTrty:	3,020	1,955	0	50	2	52	47	2	48	8	2	0	2	2	0	
38. B'ham Trty:	6,357	4,304	21	45	1	46	42	1	44	44	10	0	0	0	0	
44. 8 NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45. 8 Trty:	45	0	0	38	1	40	36	1	37	11.2	3	0	0	0	0	
47. 8A NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
48. 8A Trty:	456	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
49. 8D NTrty:	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50. 8D Trty:	5,638	0	0	0	0	0	0	0	0	0	0	24	13	37	9	
62. Hood Canal NTrty:	1,870	0	0	0	0	0	0	0	0	0	0	1	0	1	0	
63. Hood Canal Trty:	6,858	1	0	0	0	0	0	0	0	0	0	1	0	1	0	
55. 10/11 NTrty:	424	4	0	1	0	1	1	0	1	10	2	1	6	8	1	
56. 10/11 Trty:	222	2	0	1	0	1	1	0	1	3	1	1	3	4	0	
57. 10A NTrty:	203	3	0	0	0	0	0	0	0	0	0	2	0	2	1	
58. 10A Trty:	1,531	14	0	0	0	0	0	0	0	0	0	19	0	19	7	
59. 10E NTrty:	326	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
60. 10E Trty:	3,845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
65. 13+ NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
66. 13+ Trty:	1,373	5	0	0	0	0	0	0	0	0	0	0	0	0	0	
67. 13A Ntrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
68. 13A Trty:	1,990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Out-of-Region net. NTrty 12/9/2021 +	15,877	210	0	51	2	53	48	2	49	27	5	5	8	13	2	

Out-of-Region net: Trty	34,641	170	5	54	2	56	51	2	53	59	13	28	11	38	10
<small>Computed as total net minus Local, from below)</small>															
Local Term. Mar. Net: NTrty		1,955	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Term Mar. Net: Trty		4,304	21	38	1	40	36	1	37	11	3	24	13	37	9
<small>Local fishery is -->>>>>>>></small>		Bham	Bham	8	8					8		8A,8D	8A,8D		

=====

Note: table 14D corrected 29Sep98; fisheries were in incorrect order (Hood Canal was labeled as 10/11, 10/11 as 10A, 10A as 10E, 10E as Hood Canal)

1,074,180	18,696	10,626	3,772	157	3,930	3,542	157	3,699	1,558	328	1,295	844	2,139	429
2,507,867	28,130	1,218	6,656	1,316	7,972	6,482	1,316	7,798	1,110	541	3,362	3,827	7,189	1,223
641864	25886	127	203	0	203	0	0	0	493	0	1500	1894	3394	1.5E-06
1866002	2247	1094	6453	1319	7772	6289.55	1319	7608.55	624	541.211	1865	1940	3805	1223.48
2507866	28133	1221	6656	1319	7975	6289.55	1319	7608.55	1117	541.21	3365	3834	7199	1223.48

^ 12/9/2021 +

TABLE 2D														TABLE 2E: CHINOOK FISHERY IMPACTS		
12/09/21														FRAM Run Number:		
10:42 AM														Run Description:		
SN SF 1	Sno S/F	StSF	Tula	USPS0	UWAcc0	DSPSO	SPS1	WRSC	HCSF0	HCSF1	HC S/F	a/Dungness	Hoko	LANDED CATCH ("AAP" fo	Time	
Natural	0+1 Nat	8	9	10	11	12	13	14	15	16	F+Y	17	18	Fishery Aggregate	Step	
2	9	13	123	92	0	28	0	10	359	0	359	70	110	1-3. Alaska	May-April	
87	357	121	4,951	7,672	0	2,718	57	195	6,888	285	7,174	600	154	4-13. Canada	May-April	
0	0	0	0	60	0	67	3	0	176	3	179	0	0	28-33. S. Of Falcon Ocean:	May-April	
1	15	0	0	976	0	358	13	2	1,330	0	1,330	2	9	14,18,24. NTrty N.Falc. Ocea	May-April	
11	40	10	734	2,385	0	1,986	27	54	3,578	119	3,697	53	9	15,19. Trty N.Falc. Ocean Trc	May-April	
5	9	3	142	748	0	408	9	18	1,006	13	1,019	15	3	16,20,25,27. NTrty N.Flc. Oc	May-April	
3	21	11	219	534	0	288	3	9	329	50	379	34	1	39. Pgt Snd Trty Troll	May-April	
3	21	14	754	1,472	0	777	8	16	1,974	76	2,050	50	5	34,40. Pgt Snd 5,6,7 Sport &	May-April	
1	6	13	231	262	0	195	10	3	399	0	399	8	0	43,46,51,54,61,64. Pgt Snd 8-13 Sport		
20	41	23	2,003	5,527	0	5,733	394	71	7,140	856	7,996	43	0			
0	0	0	0	0	0	0	1	0	19	0	19	0	0	21,23,26. NTrty Non-Pgt Snd	May-April	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	17,22. Trty Non-Pgt Snd Net	May-April	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	41. JDF NTrty	Jul-Sep ONLY	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	42. JDF Trty	Jul-Sep ONLY	
0	1	0	12	24	0	8	0	0	19	0	20	2	0	35. SJI NTrty	Jul-Sep ONLY	
0	0	0	0	0	0	0	0	2	0	22	22	0	0	36. SJI Trty	Jul-Sep ONLY	
0	0	0	0	0	0	0	0	3	0	15	15	0	0	52. Pgt Snd 6 Sport	Jul-Sep ONLY	
0	2	3	418	1,417	0	374	24	0	2,416	38	2,454	21	0	53. 6B/9 Trty	Jul-Sep ONLY	
1	3	0	10	139	0	95	5	0	126	25	151	2	0			
1	1	0	0	0	0	8	0	0	0	0	0	0	0	37. B'ham NTrty:	Jul-Sep ONLY	
0	0	0	157	0	0	42	0	0	50	0	50	0	0	38. B'ham Trty:	Jul-Sep ONLY	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	44. 8 NTrty:	May-Sep	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	45. 8 Trty:	May-Sep	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	47. 8A NTrty:	Jul-Sep ONLY	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	48. 8A Trty:	Jul-Sep ONLY	
0	0	2	348	96	0	0	0	0	0	0	0	11	0	49. 8D NTrty:	Jul-Dec	
0	0	0	3	0	0	0	0	0	0	0	0	0	0	50. 8D Trty:	Jul-Dec	
2	11	8	5,589	4	0	0	0	0	0	0	0	0	0	62. Hood Canal NTrty:	Jul-Sep ONLY	
0	0	0	0	15	0	3	0	0	1,756	78	1,834	0	0	63. Hood Canal Trty:	Jul-Sep ONLY	
0	0	0	0	52	0	2	0	0	6,523	253	6,776	0	0	55. 10/11 NTrty:	Jul-Sep ONLY	
3	3	0	70	105	0	54	5	10	79	12	91	0	0	56. 10/11 Trty:	Jul-Sep ONLY	
1	2	0	22	69	0	38	3	3	41	7	48	0	0	57. 10A NTrty:	Jul-Sep ONLY	
0	1	0	0	135	0	17	4	0	14	2	16	0	0	58. 10A Trty:	Jul-Sep ONLY	
0	7	0	0	1,037	0	136	31	3	109	24	133	0	0	59. 10E NTrty:	Jul-Sep ONLY	
0	0	0	0	320	0	2	0	0	3	0	3	0	0	60. 10E Trty:	Jul-Sep ONLY	
0	0	0	0	3,788	0	20	1	0	37	0	37	0	0	65. 13+ NTrty:	Jul-Sep ONLY	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	66. 13+ Trty:	Jul-Sep ONLY	
0	0	0	0	2	0	1,149	26	0	151	0	151	0	0	67. 13A Ntrty:	Jul-Sep ONLY	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	68. 13A Trty:	Jul-Sep ONLY	
0	0	0	0	85	0	1,630	16	0	251	1	253	0	0			
4	12/9/2021	5	70	15	0	11	2	12	115	36	151	0	0	Out-of-Region net: NTrty		
														Out-of-Region net: Trty		

2	13	1	201	314	0	147	5	9	786	72	858	15	0	see total mortality table for computations	
0	0	0	3	560	0	73	9	0	1,756	78	1,834	na	na	Local Term. Mar. Net: NTrty	
2	11	9	5,937	4,981	0	2,973	78	0	6,523	253	6,776	na	na	Local Term Mar. Net: Trty	
8A,8D		8A,8D	011,10A,10E,13,13011,10A,10E,13,13011,10A,10E,13,13011,10A,10E,13,13					13A	HdCnl	HdCnl	none	none	=====		
149	579	232	21,997	32,886	0	19,340	735	421	43,954	2,319	46,274	925	291	0	0
1,586	2,809	381	21,422	54,729	1,524	36,170	4,399	230	16,539	104	16,643	1,730			
1.9E-06	3.4E-06	62	4489	34735	1522	32171	4372	0	3951	59	4010	160			
1589.26	2812.74	320	16935	19984	3	4005	34	233	12589	45	12634	1572			
1589.26	2812.74	382	21424	54719	1525	36176	4406	233	16540	104	16644	1732			
ETRS-Local Net							422								

^ 12/9/2021 +

SUMMARY - HIGHLIGHTS - LANDED CATCH STOCK-SPECIFIC IMPACTS

SLC-Chin3721_Final

SLC-Chin3721_Final

TruetoModel Total	NkSF 1	NkEry 2	SkSF0 3	SkSF1 4	Skag S/F F+Y	SkSP 5	SnSF0 6	SnSF1 7	Sno S/F F+Y	StSF 8	Tula 9
158,098	0	193	668	30	698	6	8	1	9	3	3
265,803	9	2,786	2,224	102	2,326	401	364	92	456	40	294
92,701	0	0	0	0	0	0	0	0	0	0	0
16,420	2	10	18	1	19	0	15	1	17	0	0
33,000	758	620	111	3	114	93	105	40	145	17	772
13,823	1	43	53	2	54	2	6	6	12	1	10
20,820	1,230	604	53	1	54	94	87	54	140	17	892
139	0	2	7	0	7	2	3	1	4	0	28
955	0	0	0	0	0	0	0	0	0	0	0
678	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
48	1	1	1	0	1	1	2	0	2	0	3
3,011	6	0	0	0	0	3	0	0	0	0	0
4,308	2	0	0	0	0	4	0	0	0	0	0
14	0	0	2	0	2	0	0	0	0	0	0
87	0	1	8	0	8	1	2	1	3	0	1
952	17	0	46	2	47	3	0	1	1	0	0
1,646	29	7	42	1	43	17	0	0	0	0	9
0	0	0	0	0	0	0	0	0	0	0	0
39	0	0	35	1	36	3	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	1	20
32	0	0	0	0	0	0	1	0	1	0	495
5,527	0	0	0	0	0	0	24	13	36	7	5,480
174	1	0	0	0	0	0	1	0	1	0	0
465	1	0	0	0	0	0	1	0	1	0	0
236	4	0	1	0	1	7	1	3	3	0	86
93	1	0	1	0	1	2	1	1	2	0	28
38	0	0	0	0	0	0	1	0	1	0	0
387	0	0	0	0	0	0	9	0	9	0	0
1	0	0	0	0	0	0	0	0	0	0	0
792	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
169	0	0	0	0	0	0	0	0	0	0	0
5,399	11	0	47	2	48	12	2	4	6	0	86
14,392	4	2	51	2	53	25	14	3	16	0	41

^ 12/9/2021 +

17	0	0	0	0	0	1	0	1	0	495
29	7	35	1	36	3	24	13	36	8	5,500

=====

640,385	2,122	4,277	3,399	150	3,548	677	671	233	903	96	14,243
---------	-------	-------	-------	-----	-------	-----	-----	-----	-----	----	--------

^ 12/9/2021 +

Version: 2.21Dec15
Tamm: #REF!

TABLE 2E
12/09/21
10:42 AM

TABLE 2F: CHINOOK FISHERY IMP
SOUTH PUGET SOUND - FRAM STC

USPS0	UWAcc0	DSPS0	SPS1	WRSC	HCSF0	HCSF1	HC S/F	W/Dungeness	Hoko	Total May
10	11	12	13	14	15	16	F+Y	17	18 Fishery Aggregate	USPS0
17	0	1	0	5	15	0	15	53	57	Stock Breakout USPS 0s
1,615	0	168	0	211	407	0	407	555	90	SPS Table 14E UWAcc
10	0	3	0	0	8	0	8	0	0	Used for all fish DSPS 0s
172	0	19	0	1	64	0	64	1	5	SPS 1s
1,931	0	1,647	15	56	2,662	139	2,801	64	7	
150	0	27	0	20	60	0	60	13	2	1-3. Alaska
2,302	0	2,066	28	9	3,637	171	3,807	37	4	4-13. Canada
22	0	7	0	4	9	0	9	2	0	28-33. S. Of Falcon Ocean:
										14,18,24. NTrty N.Falc. Oce
										15,19. Trty N.Falc. Ocean T
										16,20,25,27. NTrty N.Flc. O
										39. Pgt Snd Trty Troll
										34. Pgt Snd 5 Sport
										40 Pgt Snd 7 Sport
										43,46,51,54,61,64. Pgt Snd
										Pgt Snd 8.1/8.2 Sport
										Pgt Snd 8D Sport
										Pgt Snd 9 Sport
										Pgt Snd 10 Sport
										Pgt Snd 11 Sport
										Pgt Snd 12 Sport
										Pgt Snd 13 Sport
										21,23,26. NTrty Non-Pgt Sn
										17,22. Trty Non-Pgt Snd Ne
										41. JDF NTrty
										42. JDF Trty
										35. SJI NTrty
										36. SJI Trty
										52. Pgt Snd 6 Sport
										53. 6B/9 Trty
										7. B'ham NTrty:
										38. B'ham Trty:
										44. 8 NTrty:
										45. 8 Trty:
										47. 8A NTrty:
										48. 8A Trty:
										49. 8D NTrty:
										50. 8D Trty:
										od Canal NTrty:
										od Canal Trty:

^ 12/9/2021 +

66	0	16	2	0	146	15	161	na	na	55. 10/11 NTrty:	105
1,040	0	234	2	3	427	11	438	na	na	56. 10/11 Trty:	69
Stocks:										EXTREME TERMINAL NET ----- pe	
										Incl. NT sport if modeled in I	USPS0 10
8,594	0	4,479	53	327	8,258	380	8,638	751	165	Fingerling 10A	11.6%
										UWAcc 10A	
										Yearling 10A	
										Fingerling 10E	7.8%
										UWAcc 10E	
										Yearling 10E	
										Fingerling 13+	0.0%
										UWAcc 13+	
										Yearling 13+	
										Fingerling 13A	0.0%
										UWAcc 13A	
										Yearling 13A	
										57. 10A NTrty: fing only	135
										58. 10A Trty: fing only	1,037
										59. 10E NTrty: fing only	320
										60. 10E Trty: fing only	3,788
										65. 13+ NTrty: fing only	0
										66. 13+ Trty: fing only	2
										67. 13A NTrty: fing only	0
										68. 13A Trty: fing only	85
										RECAPITULATION FOR NELOCAL =	
										Out-of-Region net: NTrty	15
										Out-of-Region net: Trty	314
										(Out-of-Region computed as total net minus Local, from below)	
										Local Term. Mar. Net: NTrty	560
										Local Term Mar. Net: Trty	4,981
										Local fishery is --->>>>>>>>	10/11,10A,10E,13,1:
										0	27174
											34268
										North	7,763
										NT	11,038
										Total	27,015

^ 12/9/2021 +

FACTS SUMMARY - TOTAL MORTALITY STOCK-SPECIFIC IMPACTS APPORTIONED TO SOUTH SOUND STOCKS
 STOCK APPORTIONMENTS FROM TABLES 14E AND 14F

=====

April AEQ Fishery-Related Mortality

UWAcc0	DSPS0	SPS1	Grovers	Lk. Wa	Lk. Wa	Green	Green	Area 10E	Puyallup	Puyallup	Minter	Carr Inlet	Chambers	Nisqually
11	12	13	Misc 10	Hatchery	Natural	Hatchery	Natural	Gorst	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery
0	28	0	4	6	1	33	6	13	27	2	7	0	1	13
0	2,718	57	293	507	98	2,738	520	1,055	2,276	184	707	0	68	1,301
0	67	3	2	4	1	22	4	8	18	1	18	0	2	32
0	358	13	37	65	12	349	63	135	292	22	93	0	9	171
0	1,986	27	90	159	30	852	158	329	711	56	515	0	49	951
0	408	9	28	50	9	267	49	103	224	17	106	0	10	195
0	288	3	21	35	7	190	39	73	156	14	74	0	7	138
0	777	8	47	108	10	536	51	215	486	18	207	0	20	371
0	195	10	8	20	1	96	6	39	90	2	52	0	5	93
0	5,733	394	172	414	30	2,022	156	817	1,861	55	1,540	0	148	2,737
0	4	0	0	0	0	2	0	1	1	0	1	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2,145	82	47	121	6	581	34	237	543	12	567	0	54	1,025
0	1,210	153	88	200	18	992	96	398	898	34	329	0	31	577
0	1,340	80	27	70	4	336	19	137	315	7	364	0	35	639
0	4	0	1	1	0	6	0	3	6	0	1	0	0	2
0	1,030	78	9	22	1	104	6	43	98	2	279	0	27	491
0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	8	0	1	2	0	8	2	3	7	1	2	0	0	4
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	374	24	41	109	5	522	25	213	492	9	102	0	10	178
0	95	5	5	9	2	49	9	19	41	3	24	0	2	45
0	8	0	0	0	0	0	0	0	0	0	2	0	0	4
0	42	0	0	0	0	0	0	0	0	0	11	0	1	20
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	4	6	1	34	7	13	28	2	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
0	3	0	1	1	0	5	1	2	4	0	1	0	0	2
0	2	0	2	3	1	19	4	7	15	1	1	0	0	1

12/9/2021 +

0	54	5	4	7	1	37	7	14	31	3	14	0	1	26
0	38	3	3	5	1	25	5	9	20	2	10	0	1	18

Percent NT of stock-specific catc APPORTIONMENT OF EXTREME TERMINAL "NET", from Table 14H (same method as Table 14F except applied to time steps 3 & 4 total mortalit
 UWAcc0 11 DSPOS0 12 SPS1 Grovers 13 Misc 10 Lk. Wa Hatchery Lk. Wa Natural Green Hatchery Green Natural Area 10E Gorst Puyallup Hatchery Puyallup Natural Minter Hatchery Carr Inlet Natural Chambers Hatchery Nisqually Hatchery

0.0%	11.6%		9	33	7	894	173	30	25	2	39	0	4	73
			0	44	0	0	0	0	0	0	0	0	0	0
		10.5%	0	0	0	35	0	0	0	0	0	0	0	0
0.0%	7.8%		48	10	2	1	0	4,046	0	0	6	0	1	11
			0	359	0	0	0	0	0	0	0	0	0	0
		7.5%	0	0	0	1	0	0	0	0	0	0	0	0
0.0%	0.0%		0	0	0	1	0	0	1	0	148	0	33	85
			0	450	0	0	0	0	0	0	0	0	0	0
		0.0%	0	0	0	26	0	0	0	0	0	0	0	0
0.0%	0.0%		1	7	1	16	3	3	50	4	1,463	0	6	108
			0	29	0	0	0	0	0	0	0	0	0	0
		0.0%	0	0	0	16	0	0	0	0	0	0	0	0

0	18	4	1	4	1	103	20	4	3	0	5	0	0	8
0	135	31	8	29	6	791	153	27	22	2	35	0	3	65
0	2	0	3	1	0	0	0	317	0	0	0	0	0	1
0	21	1	46	9	2	1	0	3,729	0	0	5	0	1	10
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1,149	26	0	0	0	1	0	0	1	0	148	0	33	85
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1,630	16	1	7	1	16	3	3	50	4	1,463	0	6	108

I,10A,10E,13,13A

0	11	2	1	1	0	5	1	2	4	0	3	0	0	5
0	147	5	12	21	4	112	22	43	93	8	38	0	4	71

0	73	9	8	12	2	141	27	335	34	3	19	0	2	35
0	2,973	78	57	50	10	833	161	3,769	93	8	1,661	0	43	286

10/11,10A,10E,13,1: 10/11,10A,10E,13,13A 10/11,10A,10E,13 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A

0	18914	957	935	1924	240	9828	1268	3886	8643	449	5025	0	481	9037
1387	28945	3575	1568	6426	464	6465	9611	5497	2909	1327	4124	0	2175	13366

0	2,746	57	297	513	99	2,771	526	1,068	2,303	186	715	0	68	1,314
0	7,996	472	344	783	69	3,960	383	1,868	3,502	129	2,140	0	205	3,818
0	16,136	642	821	1,560	220	8,719	1,288	7,149	6,858	400	5,141	0	377	6,577

^ 12/9/2021 +

=====
 Version: 2.21Dec15
 Tamm: #REF!

=====
TABLE 2F
 12/09/21
 10:42 AM

Nisqually McAllister McAllister Deschutes Misc 13D-K
 Natural Hatchery Natural Hatchery Natural

1	0	0	6	0
72	36	0	534	0
1	1	0	13	0
9	5	0	71	0
56	26	0	389	0
11	5	0	80	0
10	4	0	56	0
13	10	0	156	0
2	3	0	39	0
74	78	0	1,158	0
0	0	0	1	0
0	0	0	0	0
42	29	0	427	0
10	17	0	247	0
11	18	0	273	0
0	0	0	1	0
10	14	0	209	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	2	0
0	0	0	0	0
0	0	0	0	0
3	5	0	76	0
3	1	0	18	0

0	0	0	1	0
2	1	0	8	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0

12/9/2021

2	1	0	10	0
1	0	0	7	0

y)
 Nisqually Natural McAllister Hatchery McAllister Natural Deschutes Hatchery Misc 13D-K Natural

5	2	0	30	0.0
0	0	0	0	0
0	0	0	0	0
1	0	0	4	0
0	0	0	0	0
0	0	0	0	0
5	8	0	870	0
0	0	0	0	0
0	0	0	0	0
7	3	0	44	0
0	0	0	0	0
0	0	0	0	0

1	0	0	3	0
4	2	0	26	0
0	0	0	0	0
1	0	0	4	0
0	0	0	0	0
5	8	0	870	0
0	0	0	0	0
7	3	0	44	0

157	153
1,204	1,172
322	322
3,809	3,808
0	0
1,178	1,152
0	0
1,732	1,715

0	0	0	2	0
5	2	0	29	0

2	1	0	14	0
18	14	0	951	0

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A
 =====

334	254	0	3783	0
1888	0	0	7207	185

73	36	0	539	0
116	108	0	1,609	0
278	190	0	3,573	0

^ 12/9/2021 +

TABLE 2D: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - TOTAL AEQ FISHERY-RELATED MORTALITY STOCK-SF =====

FRAM Run Number: SLC-Chin3721_Final Version: 2.21Dec15
 Run Description: SLC-Chin3721_Final Tamm: #REF!

Total May-April AEQ	ruetoMod	NkSF	NkErly	SkSF0	SkSF1	Skag S/F	Skag SF0	Skag SF1	Skag S/F	SkSP	SkSP	SnSF0	SnSF1	Sno S/F	Sn SF 0
MARKED ONLY	Total	1	2	3	4	0+1 total	Natural	Natural	0+1 Nat	5	Natural	6	7	0+1 total	Natural
1-3. Alaska	56,029	41	418	34	0	34	0	0	0	14	0	10	11	21	0
4-13. Canada	108,488	2,141	5,493	123	0	123	0	0	0	556	0	387	338	726	0
28-33. S. Of Falcon Or	36,541	16	0	0	0	0	0	0	0	0	0	0	0	0	0
14,18,24. NTrty N.Falc	19,357	462	38	2	0	2	0	0	0	0	0	18	10	28	0
15,19. Trty N.Falc. Ocr	21,348	1,148	456	5	0	5	0	0	0	47	0	41	48	89	0
16,20,25,27. NTrty N.F	14,964	191	85	4	0	4	0	0	0	3	0	6	6	12	0
39. Pgt Snd Trty Troll	2,828	101	125	2	0	2	0	0	0	30	0	25	4	30	0
34. Pgt Snd 5 Sport	9,321	361	403	5	0	5	0	0	0	106	0	89	23	112	0
40 Pgt Snd 7 Sport	1,858	339	53	13	0	13	0	0	0	12	0	20	8	28	0
43,46,51,54,61,64. Pgt	26,494	307	66	9	0	9	0	0	0	83	0	64	183	247	0
21,23,26. NTrty Non-P	5,276	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17,22. Trty Non-Pgt S	241	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41. JDF NTrty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42. JDF Trty	84	4	2	0	0	0	0	0	0	1	0	1	0	2	0
35. SJI NTrty	569	204	0	0	0	0	0	0	0	8	0	0	0	0	0
36. SJI Trty	371	132	0	0	0	0	0	0	0	5	0	0	0	0	0
52. Pgt Snd 6 Sport	5,845	293	17	16	0	16	0	0	0	21	0	12	13	24	0
53. 6B/9 Trty	428	12	2	0	0	0	0	0	0	1	0	2	6	8	0
37. B'ham NTrty:	2,055	1,947	0	3	0	3	0	0	0	5	0	0	1	1	0
38. B'ham Trty:	4,704	4,286	14	2	0	2	0	0	0	27	0	0	0	0	0
44. 8 NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45. 8 Trty:	5	0	0	2	0	2	0	0	0	6	0	0	0	0	0
47. 8A NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48. 8A Trty:	405	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49. 8D NTrty:	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50. 8D Trty:	5,314	0	0	0	0	0	0	0	0	0	0	12	11	23	0
62. Hood Canal NTrty:	1,754	1	0	0	0	0	0	0	0	0	0	1	0	1	0
63. Hood Canal Trty:	6,432	1	0	0	0	0	0	0	0	0	0	0	0	0	0
55. 10/11 NTrty:	345	4	0	0	0	0	0	0	0	6	0	1	4	4	0
56. 10/11 Trty:	179	2	0	0	0	0	0	0	0	2	0	1	2	3	0
57. 10A NTrty:	146	2	0	0	0	0	0	0	0	0	0	1	0	1	0
58. 10A Trty:	1,136	14	0	0	0	0	0	0	0	0	0	10	0	10	0
59. 10E NTrty:	293	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60. 10E Trty:	3,038	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65. 13+ NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66. 13+ Trty:	1,269	5	0	0	0	0	0	0	0	0	0	0	0	0	0
67. 13A Ntrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68. 13A Trty:	1,835	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out-of-Region net. NTI	10,442	211	0	3	0	3	0	0	0	18	0	2	4	7	0

12/9/2021 +

Out-of-Region net: Trty	25,440	169	3	3	0	3	0	0	0	36	0	14	8	22	0
<small>total net minus Local, from below)</small>															
Local Term. Mar. Net: NTrty	1,947	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Term Mar. Net: Trty	4,286	14	2	0	2	0	0	0	0	6	0	12	11	23	0
Local fishery is -->>>>>>>>	Bham	Bham	8	8					8		8A,8D		8A,8D		

=====

Note: table 14D corrected 29Sep98; fisheries were in incorrect order (Hood Canal was labeled as 10/11, 10/11 as 10A, 10A as 10E, 10E as Hood Canal)

374,835	18,624	7,187	230	0	230	0	0	0	990	0	730	691	1,421	0
641,867	25,886	126	205	0	205	0	0	0	491	0	1,495	1,893	3,388	0

^ 12/9/2021 +

SN SF 1	Sno S/F	StSF	Tula	USPS0	UWAcc0	DSPS0	SPS1	WRSC	HCSF0	HCSF1	HC S/F
Natural	0+1 Nat	8	9	10	11	12	13	14	15	16	F+Y
0	0	9	117	73	0	26	0	0	338	0	338
0	0	83	4,679	6,087	0	2,540	56	0	6,475	285	6,761
0	0	0	0	49	0	64	3	0	165	3	168
0	0	0	0	783	0	336	13	0	1,251	0	1,251
0	0	7	693	1,904	0	1,847	27	0	3,369	119	3,488
0	0	2	133	598	0	380	9	0	944	13	957
0	0	8	206	417	0	263	3	0	307	50	357
0	0	11	732	1,317	0	745	8	0	1,942	76	2,019
0	0	11	229	244	0	189	10	0	390	0	390
0	0	18	1,917	5,050	0	5,553	392	0	6,988	856	7,843
0	0	0	0	0	0	0	1	0	18	0	18
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	11	19	0	7	0	0	18	0	18
0	0	0	0	0	0	0	0	0	0	22	22
0	0	0	0	0	0	0	0	0	0	15	15
0	0	3	411	1,340	0	368	24	0	2,375	38	2,413
0	0	0	10	110	0	88	5	0	118	25	144
0	0	0	0	0	0	7	0	0	0	0	0
0	0	0	148	0	0	38	0	0	47	0	47
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	327	75	0	0	0	0	0	0	0
0	0	0	3	0	0	0	0	0	0	0	0
0	0	5	5,283	3	0	0	0	0	0	0	0
0	0	0	0	12	0	3	0	0	1,647	78	1,725
0	0	0	0	41	0	2	0	0	6,120	253	6,373
0	0	0	66	82	0	50	5	0	73	12	85
0	0	0	21	54	0	35	3	0	39	7	45
0	0	0	0	95	0	16	4	0	13	2	15
0	0	0	0	730	0	125	31	0	103	24	127
0	0	0	0	315	0	2	0	0	3	0	3
0	0	0	0	3,366	0	19	1	0	35	0	35
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	2	0	1,121	26	0	141	0	141
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	72	0	1,601	16	0	235	1	237
0	0	0	66	12	0	10	2	0	107	36	143

^ 12/9/2021 +

0	0	1	189	247	0	136	5	0	736	72	808
0	0	0	3	492	0	68	9	0	1,647	78	1,725
0	0	6	5,611	4,224	0	2,901	77	0	6,120	253	6,373
		8A,8D	8A,8D	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	13A	HdCnl	HdCnl	
=====											
0	0	166	20,854	27,814	0	18,540	731	0	41,766	2,319	44,085
0	0	62	4,486	34,742	1,521	32,169	4,368	0	3,951	59	4,010

^ 12/9/2021 +

TABLE 2D
12/09/21
10:42 AM

TABLE 2E: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - LANDED CA

FRAM Run Number: SLC-Chin3721_Final
Run Description: SLC-Chin3721_Final

Dungeness	Hoko	LANDED CATCH ("	Time	TruetoMode	NkSF	NkErly	SkSF0	SkSF1	Skag S/	SkSP	SnSF0	SnSF1	Sno S/F	StSF	Tula	USPS0	JWAcc0
17	18		Step	Total	1	2	3	4	F+Y	5	6	7	F+Y	8	9	10	11
9	49	1-3. Alaska	May-April	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	62	4-13. Canada	May-April	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	28-33. S. Of Falcon	May-April	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	14,18,24. NTrty N.F.	May-April	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	3	15,19. Trty N.Falc. C	May-April	12,286	753	382	6	0	6	56	63	28	91	13	727	1,431	0
2	1	16,20,25,27. NTrty N	May-April	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	39. Pgt Snd Trty Tro	May-April	19,885	1,229	561	7	0	7	77	63	51	114	14	882	2,203	0
14	3	34,40. Pgt Snd 5,6,7	May-April	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	43,46,51,54,61,64. Pgt Snd 8-13 Sport															
9	0																
0	0	21,23,26. NTrty Non	May-April	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	17,22. Trty Non-Pgt	May-April	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	41. JDF NTrty	Jul-Sep O	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	42. JDF Trty	Jul-Sep O	12	1	0	0	0	0	0	0	0	0	0	2	4	0
0	0	35. SJI NTrty	Jul-Sep O	13	6	0	0	0	0	0	0	0	0	0	0	0	0
0	0	36. SJI Trty	Jul-Sep O	2	1	0	0	0	0	0	0	0	0	0	0	0	0
0	0	52. Pgt Snd 6 Sport	Jul-Sep O	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	53. 6B/9 Trty	Jul-Sep O	8	0	0	0	0	0	0	0	0	0	0	0	2	0
0	0																
0	0	37. B'ham NTrty	Jul-Sep O	10	9	0	0	0	0	0	0	0	0	0	0	0	0
0	0	38. B'ham Trty	Jul-Sep O	13	12	0	0	0	0	0	0	0	0	0	0	0	0
0	0	44. 8 NTrty	May-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	45. 8 Trty	May-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	47. 8A NTrty	Jul-Sep O	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	48. 8A Trty	Jul-Sep O	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	49. 8D NTrty	Jul-Dec	4	0	0	0	0	0	0	0	0	0	0	468	0	0
0	0	50. 8D Trty	Jul-Dec	5,209	0	0	0	0	0	0	12	11	22	5	5,180	3	0
0	0	1. Hood Canal NTrty	Jul-Sep O	68	1	0	0	0	0	0	1	0	1	0	0	2	0
0	0	3. Hood Canal Trty	Jul-Sep O	50	1	0	0	0	0	0	1	0	1	0	0	1	0
0	0	55. 10/11 NTrty	Jul-Sep O	200	4	0	0	0	0	6	0	2	2	0	86	30	0
0	0	56. 10/11 Trty	Jul-Sep O	64	1	0	0	0	0	2	0	1	1	0	28	10	0
0	0	57. 10A NTrty	Jul-Sep O	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	58. 10A Trty	Jul-Sep O	1	0	0	0	0	0	0	0	0	0	0	0	1	0
0	0	59. 10E NTrty	Jul-Sep O	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	60. 10E Trty	Jul-Sep O	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	65. 13+ NTrty	Jul-Sep O	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	66. 13+ Trty	Jul-Sep O	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	67. 13A NTrty	Jul-Sep O	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	68. 13A Trty	Jul-Sep O	19	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0																
0	0	Out-of-Region net: NTrty		294	11	0	0	0	0	7	1	2	3	0	86	2	0
0	0	Out-of-Region net: Trty		5,380	4	1	0	0	0	3	1	1	2	0	31	9	0

^ 12/9/2021 +

2	0	ortality table for computations															
		Local Term. Mar. Net: NTTrty	9	0	0	0	0	0	0	0	0	0	468	30	0		
na	na	Local Term Mar. Net: Trty	12	0	0	0	0	0	12	11	22	5	5,180	11	0		
na	na																
none	none	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
			43,520	2,052	945	12	0	12	152	153	106	259	37	13,138	3,737	0	
135	122																
157																	

^ 12/9/2021 +

=====
 Version: 2.21Dec15
 Tamm: #REF!

TABLE 2E
 12/09/21
 10:42 AM

TABLE 2F: CHINOOK FISHERY IMPACTS SUMMARY - TOTAL MORTALITY STOCK-SPECIFIC
 SOUTH PUGET SOUND - FRAM STOCK APPORTIONMENTS FROM TABLES 14E AND 14F

=====							Total May-April AEQ Fishery-Related Mortality							
DSPS0	SPS1	WRSC	HCSF0	HCSF1	HC S/F	Dungeness	Hoko	USPS0	UWAcc0	DSPS0	SPS1 Grovers	Lk. Wa		
12	13	14	15	16	F+Y	17	18	10	11	12	13 Misc 10	Hatchery		
0	0	0	0	0	0	0	0	Stock Break USPS 0s				0.026014	0.081190	
0	0	0	0	0	0	0	0	SPS Table UWAcc						
0	0	0	0	0	0	0	0	Used for all DSPS 0s						
0	0	0	0	0	0	0	0	SPS 1s						
1,503	15	0	2,446	139	2,585	11	1							
0	0	0	0	0	0	0	0	1-3. Alaska	73	0	26	0	2	6
2,047	28	0	3,616	171	3,786	11	3	4-13. Canada	6,087	0	2,540	56	158	494
0	0	0	0	0	0	0	0	28-33. S. Of Falcon Oce	49	0	64	3	1	4
							0	14,18,24. NTrty N.Falc.	783	0	336	13	20	64
							0	15,19. Trty N.Falc. Oce	1,904	0	1,847	27	50	155
							0	16,20,25,27. NTrty N.Flc	598	0	380	9	16	49
							0	39. Pgt Snd Trty Troll	417	0	263	3	11	34
							0	34. Pgt Snd 5 Sport	1,317	0	745	8	34	107
							0	40 Pgt Snd 7 Sport	244	0	189	10	6	20
							0	43,46,51,54,61,64. Pgt S	5050	0	5553	392	131	410
							0	Pgt Snd 8.1/8.2 Sport	3.3529672	0	3	0	0	0
							0	Pgt Snd 8D Sport	0.638307	0	0	0	0	0
							0	Pgt Snd 9 Sport	1477.7908	0	2,041	81	38	120
							0	Pgt Snd 10 Sport	2431.3187	0	1,186	153	63	197
							0	Pgt Snd 11 Sport	855.97548	0	1,313	80	22	69
							0	Pgt Snd 12 Sport	15.75872	0	4	0	0	1
							0	Pgt Snd 13 Sport	265.46195	0	1,005	78	7	22
							0	21,23,26. NTrty Non-Pgt	0	0	0	1	0	0
							0	17,22. Trty Non-Pgt Snd	0	0	0	0	0	0
							0	41. JDF NTrty	0	0	0	0	0	0
							0	42. JDF Trty	19	0	7	0	0	2
4	1	0	45	15	60	0	0	35. SJI NTrty	0	0	0	0	0	0
3	0	0	34	11	45	0	0	36. SJI Trty	0	0	0	0	0	0
11	2	0	49	7	56	0	0	52. Pgt Snd 6 Sport	1,340	0	368	24	35	109
4	1	0	16	2	18	0	0	53. 6B/9 Trty	110	0	88	5	3	9
0	0	0	0	0	0	0	0	ham NTrty:	0	0	7	0	0	0
0	0	0	0	0	0	0	0	3ham Trty:	0	0	38	0	0	0
0	0	0	0	0	0	0	0	44. 8 NTrty:	0	0	0	0	0	0
0	0	0	0	0	0	0	0	45. 8 Trty:	0	0	0	0	0	0
0	0	0	0	0	0	0	0	7. 8A NTrty:	0	0	0	0	0	0
0	0	0	0	0	0	0	0	18. 8A Trty:	75	0	0	2	6	6
16	0	0	2	0	2	0	0	3. 8D NTrty:	0	0	0	0	0	0
							0	50. 8D Trty:	3	0	0	0	0	0
4	1	0	49	7	56	0	0	Canal NTrty:	12	0	3	0	0	1
5	0	0	24	2	26	0	0	Canal Trty:	41	0	2	0	1	3

12/9/2021 +

11	2	0	45	15	60	na	55. 10/11 NTrty:	82	0	50	5	2	7
20	1	0	34	11	45	na	na 10/11 Trty:	54	0	35	3	1	4
Stocks:							EXTREME TERMINAL I ----- percent NT of stock-specific catch ----- APPORTIONMENT OF EX						
=====							Incl. NT sport if model ec	USPS0	UWAcc0	DSPS0	SPS1	Grovers	Lk. Wa
=====								10	11	12	13	Misc 10	Hatchery
3,630	51	0	6,367	380	6,747	22	4						
							Fingerling 10A	11.6%		11.6%		5	32
							UWAcc 10A		0.0%			0	0
							Yearling 10A				10.5%	0	0
							Fingerling 10E	8.6%		8.1%		27	10
							UWAcc 10E		0.0%			0	0
							Yearling 10E				7.5%	0	0
							Fingerling 13+	0.0%		0.0%		0	0
							UWAcc 13+		0.0%			0	0
							Yearling 13+				0.0%	0	0
							Fingerling 13A	0.0%		0.0%		0	7
							UWAcc 13A		0.0%			0	0
							Yearling 13A				0.0%	0	0
							57. 10A NTrty: fang only	95	0	16	4	1	4
							58. 10A Trty: fang only	730	0	125	31	4	29
							59. 10E NTrty: fang only	315	0	2	0	2	1
							60. 10E Trty: fang only	3,366	0	19	1	25	9
							65. 13+ NTrty: fang only	0	0	0	0	0	0
							66. 13+ Trty: fang only	2	0	1,121	26	0	0
							67. 13A NTrty: fang only	0	0	0	0	0	0
							68. 13A Trty: fang only	72	0	1,601	16	0	7
							RECAPITULATION FOFLOCAL = 1,10A,10E,13,13A						
							Out-of-Region net: NTrty	12	0	10	2	0	1
							Out-of-Region net: Trty	247	0	136	5	6	20
						(Out-of-Region computed as total net minus Local, from below)							
							Local Term. Mar. Net: N	492	0	68	9	5	11
							Local Term Mar. Net: Tr	4,224	0	2,901	77	31	49
						Local fishery is ----->>>>>>>							
							=====	=====	=====	=====	=====	=====	=====
							10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A
							32,864	0	24,092	1,123	681	2,022	

^ 12/9/2021 +

IMPACTS APPORTIONED TO SOUTH SOUND STOCKS

=====

Version: 2.21Dec15

Tamm: #REF!

	=SPSUnmrkd!BL14	=SPSUnmrkd!BL16	=SPSUnmrkd!BL20										=S
Lk. Wa	Green	Green	Area 10E	Puyallup	Puyallup	Minter	Carr Inlet	Chambers	Nisqually	Nisqually	McAllister	McAllister	
Natural	Hatchery	Natural	Gorst	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery	Natural	Hatchery	Natural	

0.000000	0.372206	0.000000	0.155179	0.365411	0.000000							
----------	----------	----------	----------	----------	----------	--	--	--	--	--	--	--

0.276388	0.000000	0.026493	0.476034	0.000000	0.013980	0.000000
----------	----------	----------	----------	----------	----------	----------

0	27	0	11	27	0	7	0	1	13	0	0	0
0	2,266	0	945	2,224	0	702	0	67	1,209	0	36	0
0	18	0	8	18	0	18	0	2	30	0	1	0
0	291	0	121	286	0	93	0	9	160	0	5	0
0	708	0	295	696	0	510	0	49	879	0	26	0
0	223	0	93	219	0	105	0	10	181	0	5	0
0	155	0	65	152	0	73	0	7	125	0	4	0
0	490	0	204	481	0	206	0	20	355	0	10	0
0	91	0	38	89	0	52	0	5	90	0	3	0
0	1,880	0	784	1,845	0	1,535	0	147	2,643	0	78	0
0	1	0	1	1	0	1	0	0	2	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	550	0	229	540	0	564	0	54	972	0	29	0
0	905	0	377	888	0	328	0	31	565	0	17	0
0	319	0	133	313	0	363	0	35	625	0	18	0
0	6	0	2	6	0	1	0	0	2	0	0	0
0	99	0	41	97	0	278	0	27	478	0	14	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.000000000000	0.000000000000
0	0	0	0	0	0	0	0	0	0	0	0	0
0	7	0	3	7	0	2	0	0	3	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	499	0	208	490	0	102	0	10	175	0	5	0
0	41	0	17	40	0	24	0	2	42	0	1	0
0	0	0	0	0	0	2	0	0	3	0	0	0
0	0	0	0	0	0	11	0	1	18	0	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	28	0	12	27	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	1	0	0	0	0	0	0	0	0
0	4	0	2	4	0	1	0	0	1	0	0	0
0	15	0	6	15	0	1	0	0	1	0	0	0

12/9/2021

0	31	0	13	30	0	14	0	1	24	0	1	0
0	20	0	8	20	0	10	0	1	17	0	0	0

TREME TERMINAL "NET", from Table 14H (same method as Table 14F except applied to time steps 3 & 4 total mortality)

Lk. Wa	Green Hatchery	Green Natural	Area 10E Gorst	Puyallup Hatchery	Puyallup Natural	Minter Hatchery	Carr Inlet Natural	Chambers Hatchery	Nisqually Hatchery	Nisqually Natural	McAllister Hatchery	McAllister Natural
0	737	0	27	24	0	39	0	4	67	0	2	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	35	0	0	0	0	0	0	0	0	0	0	0
0	1	0	3,643	0	0	6	0	1	10	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	1	0	147	0	33	78	0	8	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	26	0	0	0	0	0	0	0	0	0	0	0
0	13	0	3	49	0	1,450	0	6	99	0	3	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	16	0	0	0	0	0	0	0	0	0	0	0
0	85	0	3	3	0	4	0	0	8	0	0	0
0	652	0	24	21	0	34	0	3	59	0	2	0
0	0	0	312	0	0	0	0	0	1	0	0	0
0	1	0	3,331	0	0	5	0	1	9	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	1	0	147	0	33	78	0	8	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	13	0	3	49	0	1,450	0	6	99	0	3	0
0	4	0	2	4	0	3	0	0	4,691	0	0	0
0	92	0	38	90	0	37	0	4	65	0	2	0
0	116	0	327	33	0	18.65	0	2	32	0	1	0
0	687	0	3,367	91	0	1,647	0	43	263	0	14	0
10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A
0	10,327	0	11,025	8,810	0	8,349	0	571	9,233	0	283	0

^ 12/9/2021 +

===== **TABLE 2F**

12/09/21
10:42 AM

PSUnmrkd!BL27
Deschutes Misc 13D-K
Hatchery Natural

0.207105 0.000000

5	0
526	0
13	0
70	0
383	0
79	0
55	0
154	0
39	0
1,150	0
1	0
0	0
423	0
246	0
272	0
1	0
208	0
0	0
0	0
0	0
1	0
0	0
0	0
76	0
18	0
1	0
8	0
0	0
0	0
0	0
0	0
0	0
0	0
1	0
0	0
^ 12/9/2021 +	0

10	0
7	0

Deschutes Hatchery	Misc 13D-K Natural

29	0
0	0
0	0
4	0
0	0
0	0
855	0
0	0
0	0
43	0
0	0
0	0

3	0
26	0
0	0
4	0
0	0
855	0
0	0
43	0

2	0
28	0
14	0
935	0
10/11,10A,10E,13,13A	10/11,10A,10E,13,13A
=====	=====
5,659	0

^ 12/9/2021 +

TABLE 2D: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - TOTAL AEQ FISHERY-RELATED MORTALITY S

FRAM Run Number: SLC-Chin3721_Final		Version: 2.21Dec15																
Run Description: SLC-Chin3721_Final		Tamm: #REF!																
Total May-April AEQ Fis	TruetoModel	NkSF	NkErly	SkSF0	SkSF1	Skag S/F	Skag SF0	Skag SF1	Skag S/F	SkSP	SkSP	SnSF0	SnSF1	Sno S/F	Sn SF 0	SN SF 1	Sno S/F	Hatchery
UNMARKED ONLY	Total	1	2	3	4	0+1 total	Natural	Natural	0+1 Nat	5	Natural	6	7	0+1 total	Natural	Natural	0+1 Nat	inohomis
1-3. Alaska	187,522	0	207	661	31	692	661	31	692	10	6	10	2	11	7	2	9	2
4-13. Canada	301,774	9	2,733	2,215	104	2,319	2,215	104	2,319	383	221	356	89	444	270	87	357	87
28-33. S. Of Falcon Ocea	110,204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14,18,24. NTrty N.Falc. C	23,894	2	19	21	1	22	21	1	22	0	0	18	1	19	13	1	15	4
15,19. Trty N.Falc. Ocea	22,756	5	225	92	3	95	92	3	95	34	20	38	11	49	29	11	40	9
16,20,25,27. NTrty N.Flc.	15,613	1	42	54	2	56	54	2	56	2	1	6	5	11	4	5	9	1
39. Pgt Snd Trty Troll	1,724	0	62	47	1	48	47	1	48	17	10	23	3	27	18	3	21	6
34. Pgt Snd 5 Sport	3,506	0	98	30	1	31	30	1	31	21	12	24	3	27	18	3	21	6
40 Pgt Snd 7 Sport	578	0	13	59	2	60	59	2	60	3	2	7	1	8	5	1	6	2
43,46,51,54,61,64. Pgt S	2,078	1	21	51	1	52	51	1	52	19	11	27	21	48	20	20	41	7
21,23,26. NTrty Non-Pgt	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17,22. Trty Non-Pgt Snd	698	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41. JDF NTrty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42. JDF Trty	44	0	1	0	0	0	0	0	0	0	0	1	0	2	1	0	1	0
35. SJI NTrty	3,185	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0
36. SJI Trty	4,376	1	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0
52. Pgt Snd 6 Sport	424	0	2	44	1	45	44	1	45	4	2	2	0	2	2	0	2	1
53. 6B/9 Trty	83	0	1	7	0	8	7	0	8	1	1	2	1	3	1	1	3	0
37. B'ham NTrty:	965	8	0	47	2	48	47	2	48	3	2	0	1	1	0	1	1	0
38. B'ham Trty:	1,654	18	7	42	1	44	42	1	44	17	10	0	0	0	0	0	0	0
44. 8 NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45. 8 Trty:	40	0	0	36	1	37	36	1	37	6	3	0	0	0	0	0	0	0
47. 8A NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48. 8A Trty:	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49. 8D NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50. 8D Trty:	324	0	0	0	0	0	0	0	0	0	0	12	2	14	9	2	11	3
62. Hood Canal NTrty:	117	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
63. Hood Canal Trty:	426	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55. 10/11 NTrty:	79	0	0	1	0	1	1	0	1	4	2	1	3	3	1	3	3	0
56. 10/11 Trty:	43	0	0	1	0	1	1	0	1	1	1	1	1	2	0	1	2	0
57. 10A NTrty:	57	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0
58. 10A Trty:	395	0	0	0	0	0	0	0	0	0	0	9	0	9	7	0	7	2
59. 10E NTrty:	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60. 10E Trty:	807	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65. 13+ NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66. 13+ Trty:	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67. 13A NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68. 13A Trty:	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out-of-Region net. NTrty	5,435	0	0	48	2	49	48	2	49	9	5	2	4	6	2	4	5	1

Out-of-Region net: Trty	9,201	1	2	51	2	53	51	2	53	23	13	13	3	16	10	2	13	3
as total net minus Local, from below)																		
Local Term. Mar. Net: NTrty		8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Term Mar. Net: Trty		18	7	36	1	37	36	1	37	6	3	12	2	14	9	2	11	3
Local fishery is ---->>>>>>>>>>		Bham	Bham	8	8				8		8A,8D	8A,8D						

=====

Note: table 14D corrected 29Sep98; fisheries were in incorrect order (Hood Canal was labeled as 10/11, 10/11 as 10A, 10A as 10E, 10E as Hood Canal)

=====

699,345	73	3,439	3,543	157	3,700	3,542	157	3,699	568	328	565	153	718	429	149	579
1,866,000	2,246	1,092	6,451	1,316	7,767	6,288	1,316	7,604	624	541	1,867	1,934	3,801	1,223	1,586	2,809

^ 12/9/2021 +

TABLE 2D
12/09/21
10:42 AM

TABLE 2E: CHINOC
FRAM Run Number:
Run Description:

Hatchery	StSF	Tula	USPS0	UWAcc0	DSPS0	SPS1	WRSC	HCSF0	HCSF1	HC S/F	Dungeness	Hoko	LANDED	Time
inohomis	8	9	10	11	12	13	14	15	16	F+Y	17	18	UNMARK	Step
	4	6	19	0	2	0	10	21	0	21	61	60	1-3. Alask	May-April
	38	271	1,584	0	177	0	195	413	0	413	523	92	4-13. Can	May-April
0.0%	0	0	11	0	4	0	0	11	0	11	0	0	28-33. S.	May-April
0.4%	0	0	193	0	23	0	2	79	0	79	2	6	14,18,24.	May-April
	3	41	482	0	139	0	54	209	0	209	46	6	15,19. Trty	May-April
0.2%	1	9	150	0	28	0	18	62	0	62	13	2	16,20,25,2	May-April
	3	12	117	0	24	0	9	22	0	22	30	0	39. Pgt Sn	May-April
0.6%	3	22	155	0	32	0	16	32	0	32	36	2	34,40. Pgt	May-April
0.2%	2	2	17	0	5	0	3	8	0	8	5	0		43,46,51,5
0.7%	4	86	476	0	181	1	71	152	0	152	34	0		
													21,23,26.	May-April
0.0%	0	0	0	0	0	0	0	1	0	1	0	0	17,22. Trt	May-April
	0	0	0	0	0	0	0	0	0	0	0	0	41. JDF N	Jul-Sep O
0.0%	0	0	0	0	0	0	0	0	0	0	0	0	42. JDF T	Jul-Sep O
	0	1	5	0	1	0	0	1	0	1	2	0	35. SJI NT	Jul-Sep O
0.0%	0	0	0	0	0	0	2	0	0	0	0	0	36. SJI Trt	Jul-Sep O
	0	0	0	0	0	0	3	0	0	0	0	0	52. Pgt Sn	Jul-Sep O
0.1%	0	7	77	0	6	0	0	41	0	41	14	0	53. 6B/9 T	Jul-Sep O
	0	1	29	0	7	0	0	7	0	7	1	0		
													37. B'ham N	Trty: Jul-Sep O
0.0%	0	0	0	0	1	0	0	0	0	0	0	0	ham Trty:	Jul-Sep O
	0	9	0	0	4	0	0	4	0	4	0	0	4. 8 NTrty:	May-Sep
	0	0	0	0	0	0	0	0	0	0	0	0	15. 8 Trty:	May-Sep
	0	0	0	0	0	0	0	0	0	0	0	0	8A NTrty:	Jul-Sep O
	0	0	0	0	0	0	0	0	0	0	0	0	1. 8A Trty:	Jul-Sep O
	1	20	21	0	0	0	0	0	0	0	9	0	8D NTrty:	Jul-Dec
	0	0	0	0	0	0	0	0	0	0	0	0	0. 8D Trty:	Jul-Dec
	3	306	1	0	0	0	0	0	0	0	0	0	anal NTrty:	Jul-Sep O
	0	0	3	0	0	0	0	109	0	109	0	0	anal Trty:	Jul-Sep O
	0	0	11	0	0	0	0	403	0	403	0	0	1/11 NTrty:	Jul-Sep O
	0	4	22	0	4	0	10	5	0	5	0	0	0/11 Trty:	Jul-Sep O
	0	1	15	0	3	0	3	3	0	3	0	0	10A NTrty:	Jul-Sep O
	0	0	40	0	1	0	0.28	1	0	1	0	0	. 10A Trty:	Jul-Sep O
	0	0	307	0	10	0	2.76	6	0	6	0	0	10E NTrty:	Jul-Sep O
	0	0	6	0	0	0	0.00	0	0	0	0	0	. 10E Trty:	Jul-Sep O
	0	0	421	0	2	0	0.00	2	0	2	0	0	13+ NTrty:	Jul-Sep O
	0	0	0	0	0	0	0.00	0	0	0	0	0	. 13+ Trty:	Jul-Sep O
	0	0	1	0	28	0	0.00	10	0	10	0	0	13A Ntrty:	Jul-Sep O
	0	0	0	0	0	0	0.00	0	0	0	0	0	. 13A Trty:	Jul-Sep O
	0	0	13	0	29	0	0.00	16	0	16	0	0		
0.1%	0	4	3	0	1	0	12	8	0	8	0	0	Out-of-Region net:	N
12/9/2021	0												Out-of-Region net:	Tr

BA,8D	BA,8D	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	13A	HdCnl	HdCnl		none	none	=====	=====
0	12	66	0	12	0	9	49	0	49	13	0	ir computations	Local Term. Mar. Net
0	0	68	0	6	0	0.00	109	0	109	na	na	Local Term Mar. Net:	
3	327	757	0	72	1	0.00	403	0	403	na	na		
66	1,143	5,072	0	800	4	421	2,189	0	2,189	791	169		
319	16,932	19,987	3	4,001	31	230	12,588	45	12,633	1,573			

2.2%

^ 12/9/2021 +

JK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - LANDED CAT

SLC-Chin3721_Final
 SLC-Chin3721_Final

Version:
 Tamm:

TruetoModel	NkSF	NkErly	SkSF0	SkSF1	Skag S/F	SkSP	SnSF0	SnSF1	Sno S/F	StSF	Tula	USPS0	UWAcc0	DSPS0	SPS1	WRSC
Total	1	2	3	4	F+Y	5	6	7	F+Y	8	9	10	11	12	13	14
158,098	0	193	668	30	698	6	8	1	9	3	3	17	0	1	0	5
265,803	9	2,786	2,224	102	2,326	401	364	92	456	40	294	1,615	0	168	0	211
92,701	0	0	0	0	0	0	0	0	0	0	0	10	0	3	0	0
16,420	2	10	18	1	19	0	15	1	17	0	0	172	0	19	0	1
20,713	5	238	105	3	109	38	41	12	54	3	45	501	0	144	0	56
13,823	1	43	53	2	54	2	6	6	12	1	10	150	0	27	0	20
935	0	43	46	1	48	16	23	3	26	3	10	98	0	19	0	9
139	0	2	7	0	7	2	3	1	4	0	28	22	0	7	0	4
4,61,64. Pgt Snd 8-13 Sport																
955	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
678	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	0	1	1	0	1	0	1	0	2	0	1	5	0	1	0	0
2,998	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
4,305	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
14	0	0	2	0	2	0	0	0	0	0	0	3	0	0	0	0
79	0	1	8	0	8	1	2	1	3	0	1	30	0	7	0	0
943	8	0	46	2	47	3	0	1	1	0	0	0	0	1	0	0
1,634	18	7	42	1	43	17	0	0	0	0	9	0	0	4	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	0	0	35	1	36	2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	1	20	20	0	0	0	0
29	0	0	0	0	0	0	1	0	1	0	27	0	0	0	0	0
318	0	0	0	0	0	0	12	2	14	3	300	1	0	0	0	0
106	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
414	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
36	0	0	1	0	1	0	1	1	1	0	0	15	0	3	0	0
29	0	0	1	0	1	0	1	0	1	0	0	12	0	3	0	0
38	0	0	0	0	0	0	1	0	1	0	0	21	0	1	0	0
387	0	0	0	0	0	0	9	0	9	0	0	212	0	9	0	3
1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
792	0	0	0	0	0	0	0	0	0	0	0	788	0	2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0	0	0	83	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	17	0	118	0	0
5,105	0	0	47	2	48	6	2	2	3	0	0	3	0	1	0	3
9,012	1	2	51	2	53	22	13	2	15	0	10	67	0	12	0	4
^ 12/9/2021 +																

NTTrty	8	0	0	0	0	0	1	0	1	0	27	36	0	4	0	0	
Trty	18	7	35	1	36	2	12	2	14	3	320	1,029	0	214	1	3	
																Stocks:	
	596,865	70	3,332	3,386	150	3,536	525	517	127	644	58	1,105	4,857	0	849	2	327

^ 12/9/2021 +

=====
2.21Dec15
#REF!

TABLE 2E
12/09/21
10:42 AM

TABLE 2F: CHINOOK FISHERY IMPACTS SUMMARY - TOTAL MORTALITY STOCK-SPECIFIC IMPACTS APPORTIONMENT
SOUTH PUGET SOUND - FRAM STOCK APPORTIONMENTS FROM TABLES 14E AND 14F

=SPSUnmrkd!B

=====				Total May-April AEQ Fishery-Related Mortality										
HCSF0	HCSF1	HC S/F	a/Dungness	Hoko	UNMARKED ONLY	USPS0	UWAcc0	DSPS0	SPS1	Grovers	Lk. Wa	Lk. Wa	Green	
15	16	F+Y	17	18	Fishery Aggregate	10	11	12	13	Misc 10	Hatchery	Natural	Hatchery	
15	0	15	53	57	Stock Breakou	USPS 0s					0.085041	0.008226	0.061985	0.298230
407	0	407	555	90	SPS Table 14	UWAcc								
8	0	8	0	0	Used for all fis	DSPS 0s								
64	0	64	1	5		SPS 1s								
216	0	216	53	6										
60	0	60	13	2	1-3. Alaska	19	0	2	0	2	0	1	6	
21	0	21	26	0	4-13. Canada	1,584	0	177	0	135	13	98	472	
9	0	9	2	0	28-33. S. Of Falcon Ocean	11	0	4	0	1	0	1	3	
					14,18,24. NTrty N.Falc. Oc	193	0	23	0	16	2	12	58	
					15,19. Trty N.Falc. Ocean	482	0	139	0	41	4	30	144	
1	0	1	0	0	16,20,25,27. NTrty N.Flc. C	150	0	28	0	13	1	9	45	
0	0	0	0	0	39. Pgt Snd Trty Troll	117	0	24	0	10	1	7	35	
0	0	0	0	0	34. Pgt Snd 5 Sport	155	0	32	0	13	1	10	46	
1	0	1	2	0	40 Pgt Snd 7 Sport	17	0	5	0	1	0	1	5	
0	0	0	0	0	43,46,51,54,61,64. Pgt Snd	476	0	181	1	41	3.92	29.52	142	
0	0	0	0	0	Pgt Snd 8.1/8.2 Sport	0.8514027	0	0	0	0	0	0	0	
1	0	1	0	0	Pgt Snd 8D Sport	0.1811789	0	0	0	0	0	0	0	
8	0	8	1	0	Pgt Snd 9 Sport	103.70929	0	104	0	9	1	6	31	
					Pgt Snd 10 Sport	291.98384	0	24	1	25	2	18	87	
0	0	0	0	0	Pgt Snd 11 Sport	59.331823	0	28	0	5	0	4	18	
4	0	4	0	0	Pgt Snd 12 Sport	1.2348448	0	0	0	0	0	0	0	
0	0	0	0	0	Pgt Snd 13 Sport	19.019109	0	25	0	2	0	1	6	
0	0	0	0	0	21,23,26. NTrty Non-Pgt S	0	0	0	0	0	0	0	0	
0	0	0	9	0	17,22. Trty Non-Pgt Snd N	0	0	0	0	0	0	0	0	
0	0	0	0	0	41. JDF NTrty	0	0	0	0	0	0	0	0	
0	0	0	0	0	42. JDF Trty	5	0	1	0	0	0	0	2	
101	0	101	0	0	35. SJI NTrty	0	0	0	0	0	0	0	0	
393	0	393	0	0	36. SJI Trty	0	0	0	0	0	0	0	0	
2	0	2	0	0	52. Pgt Snd 6 Sport	77	0	6	0	7	1	5	23	
2	0	2	0	0	53. 6B/9 Trty	29	0	7	0	2	0	2	9	
1	0	1	0	0										
6	0	6	0	0	. B'ham NTrty:	0	0	1	0	0	0	0	0	
0	0	0	0	0	3. B'ham Trty:	0	0	4	0	0	0	0	0	
2	0	2	0	0	44. 8 NTrty:	0	0	0	0	0	0	0	0	
0	0	0	0	0	45. 8 Trty:	0	0	0	0	0	0	0	0	
9	0	9	0	0	47. 8A NTrty:	0	0	0	0	0	0	0	0	
0	0	0	0	0	48. 8A Trty:	21	0	0	2	0	0	1	6	
16	0	16	0	0	49. 8D NTrty:	0	0	0	0	0	0	0	0	
					50. 8D Trty:	1	0	0	0	0	0	0	0	
4	0	4	0	0	J Canal NTrty:	3	0	0	0	0	0	0	1	
48	0	48	13	0	J Canal Trty:	11	0	0	0	1	0	1	3	

^ 12/9/2021 +

ED TO SOUTH SOUND STOCKS

TABLE 2F

													Version: 2.21Dec15	12/09/21
													Tamm: #REF!	10:42 AM
													=SPSUnmrkd!BL20	=SPSUnmrkd!BL27
Green	Area 10E	Puyallup	Puyallup	Minter	Carr Inlet	Chambers	Nisqually	Nisqually	McAllister	McAllister	Deschutes	Misc 13D-K		
Natural	Gorst	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural		
L14	=SPSUnmrkd!BL16													
0.328147	0.069640	0.032571	0.116160											
				0.029879	0.000000	0.002322	0.516075	0.406700	0.001360	0.000000	0.043664	0.000000		
6	1	1	2	0	0	0	1	1	0	0	0	0	0	0
520	110	52	184	5	0	0	91	72	0	0	8	0	0	0
4	1	0	1	0	0	0	2	1	0	0	0	0	0	0
63	13	6	22	1	0	0	12	9	0	0	1	0	0	0
158	34	16	56	4	0	0	72	56	0	0	6	0	0	0
49	10	5	17	1	0	0	14	11	0	0	1	0	0	0
39	8	4	14	1	0	0	12	10	0	0	1	0	0	0
51	11	5	18	1	0	0	16	13	0	0	1	0	0	0
6	1	1	2	0	0	0	3	2	0	0	0	0	0	0
156	33	16	55	5	0	0	93	74	0	0	8	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	7	3	12	3	0	0	54	42	0	0	5	0	0	0
96	20	10	34	1	0	0	12	10	0	0	1	0	0	0
19	4	2	7	1	0	0	14	11	0	0	1	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	1	1	2	1	0	0	13	10	0	0	1	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	1	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	5	3	9	0	0	0	3	3	0	0	0	0	0	0
9	2	1	3	0	0	0	4	3	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	2	2	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	1	1	2	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	12/9/2021	1	+	0	1	0	0	0	0	0	0	0	0	0

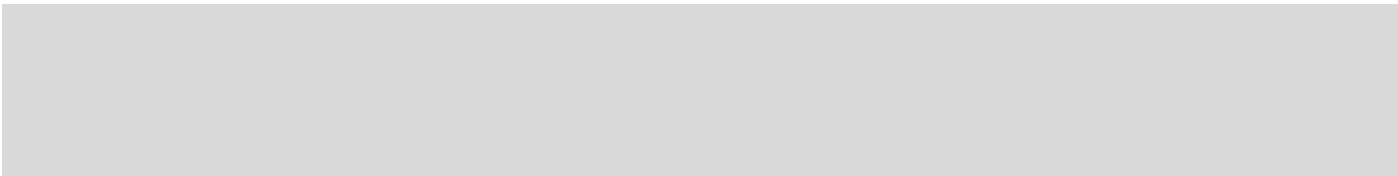
7	2	1	3	0	0	0	2	2	0	0	0	0
5	1	0	2	0	0	0	2	1	0	0	0	0

NET*, from Table 14H (same method as Table 14F except applied to time steps 3 & 4 total mortality)

Green Natural	Area 10E Gorst	Puyallup Hatchery	Puyallup Natural	Minter Hatchery	Carr Inlet Natural	Chambers Hatchery	Nisqually Hatchery	Nisqually Natural	McAllister Hatchery	McAllister Natural	Deschutes Hatchery	Misc 13D-K Natural
173	3	1	2	0	0	0	6	5	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	403	0	0	0	0	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	0	0	0	0	0	0	0
0	0	0	0	1	0	0	7	5	0	0	14	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	1	4	13	0	0	9	7	0	0	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	1	1	0	0	0	0
153	3	1	2	0	0	0	5	4	0	0	0	0
0	5	0	0	0	0	0	0	0	0	0	0	0
0	398	0	0	0	0	0	1	1	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	1	0	0	7	5	0	0	14	0
0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	1	4	13	0	0	9	7	0	0	1	0
1	0	0	0	0	0	0	0.493	0	0	0	0	0
22	5	2	8	0	0	0	6	5	0	0	1	0
27	7	1	3	0.17	0	0	3	2	0	0	0	0
161	402	2	8	14	0	0	23	18	0	0	16	0

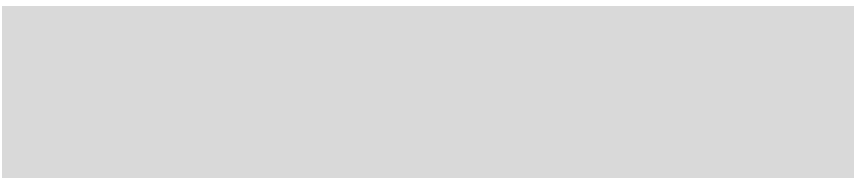
10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A

^ 12/9/2021 +



^ 12/9/2021 +

^ 12/9/2021 +



^ 12/9/2021 +

TABLE 3A: APPROXIMATE CHINOOK ALLOCATION UNIT ACCOUNTING - Total AEQ Fishery-Related Mortality
 FRAM Run Number: SLC-Chin3721_Final Version: 2.21Dec15
 Run Description: SLC-Chin3721_Final

TABLE 3A
 12/09/21
 10:42 AM

Catches expressed as TOTAL AEQ FISHERY-RELATED MORTALITY, including landed catch, non-retention mortality, and other fishery-related mortality, except where noted; ADJUSTED FOR ADULT EQUIVALENCE! \1
 ALLOCATION UNITS AGGREGATE SPRING/NATIVE AND SUMMER/FALL FOR EACH REGION, per PSSMP.

FISHERY	NOOKSACK-SAMISH		SKAGIT		STILLAG-SNOHOMISH		SOUTH SOUND		HOOD CANAL		JUAN DE FUCA TRIBS	
	Treaty	NonTrty	Treaty	NonTrty	Treaty	NonTrty	Treaty	NonTrty	Treaty	NonTrty	Treaty	NonTrty
US OCEAN CATCHES:												
S of Falcon Tr & Sp	na	16	N/A	0	N/A	0	N/A	128	N/A	179	N/A	0
N of Falcon Troll	1,835	521	180	23	882	47	4,425	1,337	3,697	1,330	62	12
N of Falcon Sport	na	318	N/A	65	N/A	168	N/A	1,174	N/A	1,019	N/A	17
PUGET SND CATCHES:												
Pgt Snd Troll	288	na	97	N/A	286	N/A	831	N/A	379	N/A	35	N/A
Pgt Snd Mar. Sport	na	1,256	N/A	325	N/A	3,228	N/A	14,055	N/A	10,046	N/A	99
Freshwater Sport \3	na	4,668	N/A	20	N/A	610	N/A	6,312	N/A	0	N/A	n/a
JDF Net	6	0	2	0	15	0	32	0	20	0	2	0
SJI Net	133	204	8	10	0	0	3	2	15	22	0	0
Area 6B/9 Net	15	312	10	85	22	447	238	1,815	151	2,454	2	21
Local Terminal Net-All Stks \4	1,654	965	40	0	375	0	(430)	953	117	58	0	n/a
Freshwater Net\5	4,554	na	2,735	na	24	na	20,128	na	19,464	na	0	n/a
SUM of ACCTG incl. SoF \1:	8,485	8,260	3,072	528	1,603	4,500	25,227	25,775	23,842	15,109	101	148
Imbalance (T-NT)	225		2,543		(2,897)		(548)		8,733		(47)	
SUM of ACCTG excl. SoF \2:	8,485	8,244	3,072	528	1,603	4,500	25,227	25,647	23,842	14,930	101	148
Imbalance (T-NT)	241		2,543		(2,897)		(420)		8,912		(47)	

\1 Numbers approximate U.S. v. Washington Allocation balancing, but do not precisely represent total allocatable impacts. At issue is the interpretation of the phrase "...fish within the regulatory jurisdiction of Washington which, absent harvest en route, would be available for harvest at the treaty tribes' usual and accustomed fishing places." 384 F. Supp. 312 (1974)[38]. Accounted for in Table 3A figures are "adult equivalence" adjustments for natural mortality, and "direct fishery-related wastage, such as hooking mortality and net dropout" ("Order on Certain Questions...", 4/13/76).

"direct fishery-related wastage, such as hooking mortality and net dropout" ("Order on Certain Questions...", 4/13/76).

Missing are adjustments for "allocation equivalent," which account for transfers to non-allocatable (i.e. Canadian) fisheries. AS SUCH THIS ALLOCATION ACCOUNTING IS NOT AGREED AMONG THE PARTIES! Also note that this allocation accounting method may not match evolving ideas, however it roughly follows the last "agreed" method. South of Falcon catches are included per policy agreement.

\2 South of Falcon catches are excluded.

\3 Freshwater Sport catch includes extreme terminal Special Area Fishery catch as noted in TAMMs. Landed catch only.

\4 Terminal marine net catches are Total AEQ Fishery-Related Mortality taken from FRAM local fishery catches, all stocks, all time-steps. Freshwater net catches represented "landed" catch summed over all systems and run timings (spring/ native & S/F) for the region. Test catches are excluded from allocation accounting, where differentiated from commercial harvest. Terminal marine area catches outside the Adult Accounting Period HAVE BEEN AEQ ADJUSTED in this accounting.

\5 Skagit treaty freshwater net totals include test fishery catches. 21.7% of freshwater net catches of Skagit summer/falls, and 100% of freshwater

^ 12/9/2021 +

net catches of Skagit springs, occur in test fisheries

=====

^ 12/9/2021 +

TABLE 3B: APPROXIMATE CHINOOK ALLOCATION UNIT ACCOUNTING - Landed Catch
 FRAM Run Number: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final

Version: 2.21Dec15
 Tamm: #REF!
 TABLE 3B
 12/09/21
 10:42 AM

Catches expressed as LANDED CATCH ONLY!!! NOT ADJUSTED FOR ADULT EQUIVALENCE! \1
 ALLOCATION UNITS AGGREGATE SPRING/NATIVE AND SUMMER/FALL FOR EACH REGION, per PSSMP.

FISHERY	NOOKSACK-SAMISH		SKAGIT		STILLAG.-SNOHOMISH		SOUTH SOUND		HOOD CANAL	
	TREATY	NON-TRTY	TREATY	NON-TRTY	TREATY	NON-TRTY	TREATY	NON-TRTY	TREATY	NON-TRTY
US OCEAN CATCHES:										
S of Falcon Tr & Sp	N/A	0	N/A	0	N/A	0	N/A	14	N/A	8
N of Falcon Troll	1,378	12	207	19	934	17	3,649	193	2,801	64
N of Falcon Sport	N/A	44	N/A	56	N/A	23	N/A	196	N/A	60
PUGET SND CATCHES:										
Pgt Snd Troll	1,834	N/A	148	N/A	1,049	N/A	4,405	N/A	3,807	N/A
Pgt Snd Mar. Sport	N/A	2	N/A	9	N/A	33	N/A	33	N/A	9
Freshwater Sport \3	N/A	4,668	N/A	20	N/A	610	N/A	6,312	N/A	0
JDF Net \4	2	0	1	0	5	0	11	0	4	0
SJI Net \4	2	6	4	3	0	0	4	3	0	0
Area 6B/9 Net \4	1	0	9	3	5	0	41	4	11	1
Local Terminal Net-All Stks \5	1,637	946	39	0	367	0	115	552	111	2
Freshwater Net \5	4,554	na	2,735	na	24	na	20,128	na	19,464	na
SUM of ACCTG incl. SoF \1:	9,408	5,679	3,144	109	2,385	682	28,354	7,306	26,198	144
Imbalance (T-NT)	3,730		3,035		1,702		21,049		26,054	
SUM of ACCTG excl. SoF \2:	9,408	5,678	3,144	109	2,385	682	28,354	7,292	26,198	136
Imbalance (T-NT)	3,730		3,035		1,702		21,062		26,062	

- \1 This table is provided at the request of Puget Sound harvest managers. Accounting in this table does not represent, in any way, U.S. v. Washington allocation accounting. This row DOES include South of Cape Falcon catches.
- \2 This row excludes South of Falcon catches.
- \3 Freshwater Sport catch includes extreme terminal Special Area Fishery catch as noted in TAMMs. Landed catch only.
- \4 Preterminal net catches are time step 3 (Jul-Sep = AAP) landed catches only.
- \5 Terminal marine net catches are landed catches only, taken from FRAM local fishery landed catches, all stocks, all time-steps. Freshwater net catches are summed over all systems and run timings (spring/native and S/F) for the region. Test catches are excluded from allocation accounting, where differentiated from commercial harvest.

^ 12/9/2021 +

TABLE 3C: PROPORTION OF CHINOOK TOTAL AEQ FISHERY-RELATED MORTALITY \1 \2
 FRAM Run Number: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final
 Proportions EXCLUDE South of Cape Falcon catches!!!

=====
 Version: 2.21Dec15
 Tamm: #REF!

=====
 TABLE 3C
 12/09/21
 10:42 AM

ALLOCATION UNITS AGGREGATE SPRING/NATIVE AND SUMMER/FALL FOR EACH REGION, per PSSMP.

FISHERY	NOOKSACK-SAMISH		SKAGIT		STILLAG-SNOHOMISH		SOUTH SOUND		HOOD CANAL		JUAN DE FUCA TRIBS	
	Treaty	NonTrty	Treaty	NonTrty	Treaty	NonTrty	Treaty	NonTrty	Treaty	NonTrty	Treaty	NonTrty
US OCEAN CATCHES:												
S of Falcon Tr & Sp	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.5%	0.0%	0.0%
N of Falcon Troll	11.0%	3.1%	5.0%	0.6%	14.4%	0.8%	8.7%	2.6%	9.5%	3.4%	25.0%	4.7%
N of Falcon Sport	0.0%	1.9%	0.0%	1.8%	0.0%	2.7%	0.0%	2.3%	0.0%	2.6%	0.0%	6.9%
PUGET SND CATCHES:												
Pgt Snd Troll	1.7%	0.0%	2.7%	0.0%	4.7%	0.0%	1.6%	0.0%	1.0%	0.0%	13.9%	0.0%
Pgt Snd Mar. Sport	0.0%	7.5%	0.0%	9.0%	0.0%	52.9%	0.0%	27.6%	0.0%	25.9%	0.0%	39.6%
Freshwater Sport \3	0.0%	27.9%	0.0%	0.6%	0.0%	10.0%	0.0%	12.4%	0.0%	0.0%	0.0%	0.0%
JDF Net	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.1%	0.0%	0.1%	0.0%	1.0%	0.0%
SJI Net	0.8%	1.2%	0.2%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Area 6B/9 Net	0.1%	1.9%	0.3%	2.4%	0.4%	7.3%	0.5%	3.6%	0.4%	6.3%	0.6%	8.3%
Local Terminal Net-All Stks \4	9.9%	5.8%	1.1%	0.0%	6.1%	0.0%	-0.8%	1.9%	0.3%	0.2%	0.0%	0.0%
Freshwater Net	27.2%	0.0%	76.0%	0.0%	0.4%	0.0%	39.6%	0.0%	50.2%	0.0%	0.0%	0.0%
SUM of ACCTG excl. SoF \2:												
Percent above or below 50%	50.7%	49.3%	85.3%	14.7%	26.3%	73.7%	49.6%	50.4%	61.5%	38.5%	40.5%	59.5%
	0.7%	-0.7%	35.3%	-35.3%	-23.7%	23.7%	-0.4%	0.4%	11.5%	-11.5%	-9.5%	9.5%

- \1 Percents are shown for demonstrative purposes only!! Single-year FRAM results should NOT be used for allocation accounting!
- \2 South of Falcon catches are excluded.
- \3 Freshwater Sport catch includes extreme terminal Special Area Fishery catch as noted in TAMMs. Landed catch only.
- \4 Terminal marine net catches are Total AEQ Fishery-Related Mortality taken from FRAM local fishery catches, all stocks, all time-steps. Freshwater net catches represented "landed" catch summed over all systems and run timings (spring/ native & S/F) for the region. Test catches are excluded from allocation accounting, where differentiated from commercial harvest. Terminal marine area catches outside the Adult Accounting Period HAVE BEEN AEQ ADJUSTED in this accounting.

Note: For Juan de Fuca Tributaries, not all terminal and extreme terminal fishery impacts are properly accounted for.

^ 12/9/2021 +

=====

^ 12/9/2021 +

TABLE 5B: SOUTH PUGET SOUND DETAIL - SUMMARY OF CHINOOK EXPLOITATION RATES BY FISHERY AGGR.

TABLE 5B

Predicted Exploitation Rates for Adult Equivalent (AEQ) Fishery-Related Mortality - SOUTH PUGET SOUND DETAIL

12/09/21

FRAM Run Number: SLC-Chin3721_Final

Version: 2.21Dec15

10:42 AM

Run Description: SLC-Chin3721_Final

Tamm: #REF!

STOCK-> FISHERY AGGREGATE:	Misc 10 & 10E	Lake Wash.	Green River	Puyallup River	Carr Inlet	Cham- bers	Nisq. River	McAll. Creek	Deschutes & 13D-K
PREDICTED EXPLOITATION RATE	0.5825	0.3897	0.5706	0.5850	0.6378	0.8368	0.6285	0.3369	0.4258
Alaska	0.0012	0.0012	0.0012	0.0012	0.0007	0.0007	0.0007	0.0007	0.0007
Canada	0.0985	0.0985	0.0994	0.0980	0.0634	0.0635	0.0634	0.0635	0.0635
S. Of Falcon Ocean	0.0008	0.0008	0.0008	0.0008	0.0016	0.0016	0.0016	0.0016	0.0016
NOF Ocean Troll:									
Ntrty	0.0126	0.0126	0.0126	0.0125	0.0084	0.0084	0.0083	0.0084	0.0084
Trty	0.0307	0.0307	0.0308	0.0305	0.0462	0.0462	0.0465	0.0462	0.0462
Ntrty NOF Ocean & Buoy10 Spt	0.0096	0.0096	0.0097	0.0096	0.0095	0.0095	0.0095	0.0095	0.0095
Pgt Snd Trty Troll	0.0068	0.0068	0.0070	0.0068	0.0066	0.0066	0.0068	0.0066	0.0066
Pgt Snd 5 Sport	0.0192	0.0192	0.0179	0.0201	0.0186	0.0186	0.0177	0.0186	0.0185
Pgt Snd 7 Sport	0.0034	0.0034	0.0031	0.0037	0.0047	0.0047	0.0044	0.0047	0.0047
Pgt Snd 8-13 Sport	0.0723	0.0722	0.0664	0.0763	0.1381	0.1384	0.1297	0.1383	0.1377
Out-of-Region net:									
Ntrty	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0003	0.0002	0.0002
Trty	0.0040	0.0040	0.0041	0.0040	0.0034	0.0034	0.0035	0.0034	0.0034
Local Terminal Net									
Ntrty	0.0250	0.0022	0.0051	0.0015	0.0017	0.0017	0.0017	0.0017	0.0017
Trty	0.2796	0.0098	0.0303	0.0040	0.1490	0.0407	0.0140	0.0243	0.1131
Freshwater Sport									
Ntrty	0.0000	0.0007	0.0158	0.0813	0.1767	0.0319	0.0776	0.0000	0.0008
Freshwater Net									
Trty	0.0000	0.0993	0.2497	0.2147	0.0000	0.4516	0.2344	0.0000	0.0000

Note: "Out-of-Region" means all net fishery catches outside the local "region of origin", including pre-terminal and nonlocal terminal.

"Local Term." means: AREAS 10/11, 10A, 10E, 13A, 13+, and may include NT SAF fisheries, if so modeled.

Note: Within-South-Puget-Sound stock breakouts are based on CWT recoveries for areas 10A, 10E, 13A fingerlings, PSF proportions for area 13+,

UW Acc, and yearlings. Refer to Tables 14D, 14F, 14H.

\1 The Exploitation Rate "Benchmark" for these stocks/fisheries is:

1989-1993 average expl. rates (3/99 calibration), indexed to 1998 pre-season projected exploitation rate

^ 12/9/2021 +

TABLE 5B: SOUTH PUGET SOUND DETAIL - SUMMARY OF CHINOOK EXPLOITATION RATES BY FISHERY AGGR.

TABLE 5B

Predicted Exploitation Rates for Adult Equivalent (AEQ) Fishery-Related Mortality - SOUTH PUGET SOUND DETAIL

12/09/21

FRAM Run Number: SLC-Chin3721_Final

Version: 2.21Dec15 10:42 AM

Run Description: SLC-Chin3721_Final

Tamm: #REF!

STOCK-> FISHERY AGGREGATE:	Misc 10 & 10E	Lake Wash.	Green River	Puyallup River	Carr Inlet	Cham- bers	Nisq. River	McAll. Creek	Deschutes & 13D-K
PREDICTED EXPLOITATION RATE	0.5825	0.3897	0.5698	0.5850	0.6378	0.8368	0.6285	0.9337	0.4258
Alaska	0.0012	0.0012	0.0012	0.0012	0.0007	0.0007	0.0007	0.0007	0.0007
Canada	0.0985	0.0985	0.0994	0.0980	0.0634	0.0635	0.0634	0.0708	0.0635
S. Of Falcon Ocean	0.0008	0.0008	0.0008	0.0008	0.0016	0.0016	0.0016	0.0018	0.0016
NOF Ocean Troll:									
Ntrty	0.0126	0.0126	0.0126	0.0125	0.0084	0.0084	0.0083	0.0094	0.0084
Trty	0.0307	0.0307	0.0308	0.0305	0.0462	0.0462	0.0465	0.0515	0.0462
Ntrty NOF Ocean & Buoy10 Spt	0.0096	0.0096	0.0097	0.0096	0.0095	0.0095	0.0095	0.0106	0.0095
Pgt Snd Trty Troll	0.0068	0.0068	0.0070	0.0068	0.0066	0.0066	0.0068	0.0074	0.0066
Pgt Snd 6 Sport	0.0186	0.0186	0.0167	0.0200	0.0091	0.0091	0.0083	0.0102	0.0091
Pgt Snd 5 Sport	0.0192	0.0192	0.0179	0.0201	0.0186	0.0186	0.0177	0.0207	0.0185
Pgt Snd 7 Sport	0.0034	0.0034	0.0031	0.0037	0.0047	0.0047	0.0044	0.0053	0.0047
Pgt Snd 8-13 Sport	0.0723	0.0722	0.0664	0.0763	0.1381	0.1384	0.1297	0.1542	0.1377
Out-of-Region net:									
Ntrty	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0003	0.0000	0.0002
Trty	0.0040	0.0040	0.0041	0.0040	0.0034	0.0034	0.0035	0.0000	0.0034
Local Terminal Net									
Ntrty	0.0250	0.0022	0.0051	0.0015	0.0017	0.0017	0.0017	0.0002	0.0017
Trty	0.2796	0.0098	0.0303	0.0040	0.1490	0.0407	0.0140	0.0000	0.1131
Freshwater Sport									
Ntrty	0.0000	0.0007	0.0157	0.0813	0.1767	0.0319	0.0776	0.0102	0.0008
Freshwater Net									
Trty	0.0000	0.0993	0.2489	0.2147	0.0000	0.4516	0.2344	0.5807	0.0000
Freshwater Test									
Trty	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note: "Out-of-Region" means all net fishery 33% 48% 31% 46% 64% 29% 46% 26%

"Local Term." means: AREAS 10/11, 10A, 10E, 13A, 13+, and may include NT SAF fisheries, if so modeled.

Note: Within-South-Puget-Sound stock breakouts are based on CWT recoveries for areas 10A, 10E, 13A fingerlings, PSF proportions for area 13+, UW Acc, and yearlings. Refer to Tables 14D, 14F, 14H.

\1 The Exploitation Rate "Benchmark" for these stocks/fisheries is: 1989-1993 average expl. rates (3/99 calibration), indexed to 1998 preseason projected

^ 12/9/2021 +

TABLE 5B: SOUTH PUGET SOUND DETAIL - SUMMARY OF CHINOOK EXPLOITATION RATES BY FISHERY AGGR.

TABLE 5B

Predicted Exploitation Rates for Adult Equivalent (AEQ) Fishery-Related Mortality - SOUTH PUGET SOUND DETAIL

12/09/21

FRAM Run Number: SLC-Chin3721_Final

Version: 2.21Dec15

10:42 AM

Run Description: SLC-Chin3721_Final

Tamm: #REF!

STOCK->		Misc 10 & 10E	Lake Wash.	Green River	Puyallup River	Carr Inlet	Chambers	Nisq. River	McAll. Creek	Deschutes & 13D-K
FISHERY AGGREGATE:										
PREDICTED EXPLOITATION RATE		0.407	0.341	0.547	0.473	0.592	0.816	0.501	0.252	0.353
Alaska		0.0013	0.0013	0.0013	0.0013	0.0006	0.0006	0.0006	0.0006	0.0006
Canada		0.1043	0.1043	0.1043	0.1043	0.0623	0.0624	0.0624	0.0624	0.0624
S. Of Falcon Ocean		0.0007	0.0007	0.0007	0.0007	0.0013	0.0013	0.0013	0.0013	0.0013
NOF Ocean Troll:	Ntrty	0.0127	0.0127	0.0127	0.0127	0.0079	0.0079	0.0079	0.0079	0.0079
	Trty	0.0317	0.0317	0.0317	0.0317	0.0488	0.0488	0.0488	0.0488	0.0488
Ntrty NOF Ocean & Buoy10 Spt		0.0099	0.0099	0.0099	0.0099	0.0097	0.0097	0.0097	0.0097	0.0097
Pgt Snd Trty Troll		0.0077	0.0077	0.0077	0.0077	0.0085	0.0085	0.0085	0.0085	0.0085
Pgt Snd 6 Sport		0.0051	0.0051	0.0051	0.0051	0.0022	0.0022	0.0022	0.0022	0.0022
Pgt Snd 5 Sport		0.0102	0.0102	0.0102	0.0102	0.0111	0.0111	0.0111	0.0111	0.0111
Pgt Snd 7 Sport		0.0011	0.0011	0.0011	0.0011	0.0019	0.0019	0.0019	0.0019	0.0019
Pgt Snd 8-13 Sport		0.0314	0.0314	0.0314	0.0314	0.0635	0.0636	0.0636	0.0636	0.0636
Out-of-Region net:	Ntrty	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0003
	Trty	0.0044	0.0044	0.0044	0.0044	0.0041	0.0041	0.0041	0.0041	0.0041
Local Terminal Net	Ntrty	0.0042	0.0023	0.0055	0.0016	0.0020	0.0020	0.0020	0.0020	0.0020
	Trty	0.1823	0.0107	0.0324	0.0044	0.1680	0.0460	0.0157	0.0275	0.1275
Freshwater Sport	Ntrty	0.0000	0.0005	0.0171	0.0130	0.1993	0.0360	0.0216	0.0000	0.0009
Freshwater Net	Trty	0.0000	0.1071	0.2711	0.2335	0.0000	0.5094	0.2392	0.0000	0.0000
Freshwater Test		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note: "Out-of-Region" means all net fishery catches outside the local "region of origin", including pre-terminal and nonlocal terminal.

"Local Term." means: AREAS 10/11, 10A, 10E, 13A, 13+, and may include NT SAF fisheries, if so modeled.

Note: Within-South-Puget-Sound stock breakouts are based on CWT recoveries for areas 10A, 10E, 13A fingerlings, PSF proportions for area 13+,

UW Acc, and yearlings. Refer to Tables 14D, 14F, 14H.

\1 The Exploitation Rate "Benchmark" for these stocks/fisheries is: 1989-1993 average expl. rates (3/99 calibration), indexed to 1998 pre-season projected e

^ 12/9/2021 +

**TABLE 6D. Guidelines And Predicted Exploitation Rates For SOUTH PUGET SOUND Chinook Stocks
And Proportion of the total AEQ Mortality Occurring in Each Fishery Aggregate.**

TABLE 6D
12/09/21
10:42 AM

FRAM Run Number: SLC-Chin3721_Final
Run Description: SLC-Chin3721_Final

Version: 2.21Dec15

STOCK->		MISC. 10 & 10E Summer/Fall		CARR INLET Summer/Fall		CHAMBERS BAY Summer/Fall		McALLISTER CREEK Summer/Fall		DESCHUTES & 13D-K Summer/Fall	
		#REF!		#REF!		#REF!		#REF!		#REF!	
Predicted Expl Rate - All Fisheries		58%		64%		84%		34%		43%	
Predicted Expl Rate - Southern U.S. Fisheries		46%		56%		76%		26%		35%	
FISHERY AGGREGATE:		% MORT	ExplRate	% MORT	ExplRate	% MORT	ExplRate	% MORT	ExplRate	% MORT	ExplRate
Alaska		0.2%	0%	0.1%	0%	0.1%	0%	0.2%	0%	0.2%	0%
Canada		16.9%	10%	9.9%	6%	7.6%	6%	18.9%	6%	14.9%	6%
S. Of Falcon Ocean		0.1%	0%	0.2%	0%	0.2%	0%	0.5%	0%	0.4%	0%
NOF Ocean Troll:	Nontreaty	2.2%	1%	1.3%	1%	1.0%	1%	2.5%	1%	2.0%	1%
	Treaty	5.3%	3%	7.2%	5%	5.5%	5%	13.7%	5%	10.9%	5%
Ntrty NOF Ocean & Buoy10 Spt		1.7%	1%	1.5%	1%	1.1%	1%	2.8%	1%	2.2%	1%
Pgt Snd Trty Troll		1.2%	1%	1.0%	1%	0.8%	1%	2.0%	1%	1.6%	1%
Pgt Snd 5 Sport		3.3%	2%	2.9%	2%	2.2%	2%	5.5%	2%	4.3%	2%
Pgt Snd 7 Sport		0.6%	0%	0.7%	0%	0.6%	0%	1.4%	0%	1.1%	0%
Pgt Snd 8-13 Sport		12.4%	7%	21.7%	14%	16.5%	14%	41.1%	14%	32.3%	14%
Out-of-Region \1 Net:	Nontreaty	0.0%	0%	0.0%	0%	0.0%	0%	0.1%	0%	0.1%	0%
	Treaty	0.7%	0%	0.5%	0%	0.4%	0%	1.0%	0%	0.8%	0%
Local Terminal \2 Net:	Nontreaty	4.3%	3%	0.3%	0%	0.2%	0%	0.5%	0%	0.4%	0%
	Treaty	48.0%	28%	23.4%	15%	4.9%	4%	7.2%	2%	26.6%	11%
Freshwater Sport:		0.0%	0%	27.7%	18%	3.8%	3%	0.0%	0%	0.2%	0%
Freshwater Net:		0.0%	0%	0.0%	0%	54.0%	45%	0.0%	0%	0.0%	0%

This table presents the proportion (in percent) of the total (landed + nonlanded) mortality for this stock occurring in the indicated fishery.

"Exploitation Rate" refers to the proportion of the population (defined as the sum of AEQ fishery-related mortality plus spawning escapement) killed in the specified fishery or groups of fisheries.

"AEQ" = "Adult Equivalent": figures are adjusted so they are comparable across age classes, and represent fish that would have contributed to escapement if they had not been caught

\1 "Out-of-Region" means all net fishery catches outside the local "region of origin", including pre-terminal and nonlocal terminal.

\2 "Local Term." means: AREAS 10/11, 10A, 10E, 13A, 13+, and may include NT SAF fisheries, if so modeled.

Note: Within-South-Puget-Sound stock breakouts are based on CWT recoveries for areas 10A, 10E, 13A fingerlings, PSF proportions for area 13+,

UW Acc, and yearlings. Refer to Tables 14D, 14F, & 14H.

^ 12/9/2021 +

**TABLE 6D. Guidelines And Predicted Exploitation Rates For SOUTH PUGET SOUND Chinook Stocks
And Proportion of the total AEQ Mortality Occurring in Each Fishery Aggregate.**

TABLE 6D
12/09/21
10:42 AM

FRAM Run Number:
Run Description:

SLC-Chin3721_Final
SLC-Chin3721_Final

Version: 2.21Dec15

STOCK->		MISC. 10 & 10E Summer/Fall		CARR INLET Summer/Fall		CHAMBERS BAY Summer/Fall		McALLISTER CREEK Summer/Fall		DESCHUTES & 13D-K Summer/Fall	
		#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	
Predicted Expl Rate - All Fisheries		58.3%	63.8%	83.7%	93.4%	42.6%					
Predicted Expl Rate - Southern U.S. Fisheries		48.3%	57.4%	77.3%	86.2%	36.2%					
FISHERY AGGREGATE:		% MORT	ExplRate	% MORT	ExplRate	% MORT	ExplRate	% MORT	ExplRate	% MORT	ExplRate
Alaska		0.2%	0%	0.1%	0%	0.1%	0%	0.1%	0%	0.2%	0%
Canada		16.9%	10%	9.9%	6%	7.6%	6%	7.6%	7%	14.9%	6%
S. Of Falcon Ocean		0.1%	0%	0.2%	0%	0.2%	0%	0.2%	0%	0.4%	0%
NOF Ocean Troll:	Nontreaty	2.2%	1%	1.3%	1%	1.0%	1%	1.0%	1%	2.0%	1%
	Treaty	5.3%	3%	7.2%	5%	5.5%	5%	5.5%	5%	10.9%	5%
Ntrty NOF Ocean & Buoy10 Spt		1.7%	1%	1.5%	1%	1.1%	1%	1.1%	1%	2.2%	1%
Pgt Snd Trty Troll		1.2%	1%	1.0%	1%	0.8%	1%	0.8%	1%	1.6%	1%
Pgt Snd 6 Sport		3.2%	2%	1.4%	1%	1.1%	1%	1.1%	1%	2.1%	1%
Pgt Snd 5 Sport		3.3%	2%	2.9%	2%	2.2%	2%	2.2%	2%	4.3%	2%
Pgt Snd 7 Sport		0.6%	0%	0.7%	0%	0.6%	0%	0.6%	1%	1.1%	0%
Pgt Snd 8-13 Sport		12.4%	7%	21.7%	14%	16.5%	14%	16.5%	15%	32.3%	14%
Out-of-Region \1 Net:	Nontreaty	0.0%	0%	0.0%	0%	0.0%	0%	0.0%	0%	0.1%	0%
	Treaty	0.7%	0%	0.5%	0%	0.4%	0%	0.0%	0%	0.8%	0%
Local Terminal \2 Net:	Nontreaty	4.3%	3%	0.3%	0%	0.2%	0%	0.0%	0%	0.4%	0%
	Treaty	48.0%	28%	23.4%	15%	4.9%	4%	0.0%	0%	26.6%	11%
Freshwater Sport:		0.0%	0%	27.7%	18%	3.8%	3%	1.1%	1%	0.2%	0%
Freshwater Net:		0.0%	0%	0.0%	0%	54.0%	45%	62.2%	58%	0.0%	0%
Freshwater Test		0.0%	0%	0.0%	0%	0.0%	0%	0.0%	0%	0.0%	0%

This table presents the proportion (in percent) of the total (landed + nonlanded) mortality for this stock occurring in the indicated fishery.

"Exploitation Rate" refers to the proportion of the population (defined as the sum of AEQ fishery-related mortality plus spawning escapement) killed in the specified fishery or groups of fisheries.

"AEQ" = "Adult Equivalent": figures are adjusted so they are comparable across age classes, and represent fish that would have contributed to escapement if they had not been caught

\1 "Out-of-Region" means all net fishery catches outside the local "region of origin", including pre-terminal and nonlocal terminal.

\2 "Local Term." means: AREAS 10/11, 10A, 10E, 13A, 13+, and may include NT SAF fisheries, if so modeled.

Note: Within-South-Puget-Sound stock breakouts are based on CWT recoveries for areas 10A, 10E, 13A fingerlings, PSF proportions for area 13+,

UW Acc, and yearlings. Refer to Tables 14D, 14F, & 14H.

^ 12/9/2021 +

**TABLE 6D. Guidelines And Predicted Exploitation Rates For SOUTH PUGET SOUND Chinook Stocks
And Proportion of the total AEQ Mortality Occurring in Each Fishery Aggregate.**

TABLE 6D
12/09/21

FRAM Run Number:
Run Description:

SLC-Chin3721_Final
SLC-Chin3721_Final

Version: 2.21Dec15

10:42 AM

STOCK->		MISC. 10 & 10E Summer/Fall		CARR INLET Summer/Fall		CHAMBERS BAY Summer/Fall		McALLISTER CREEK Summer/Fall		DESCHUTES & 13D-K Summer/Fall	
Predicted ER - All Fisheries		40.7%		59.2%		81.6%		25.2%		35.3%	
Predicted ER - So. U.S. Fisheries		30.2%		52.9%		75.3%		18.9%		29.0%	
Predicted ER - Preterm So. U.S. Fisheries		11.5%		15.9%		16.0%		16.0%		16.0%	
FISHERY AGGREGATE:		% MORT	ExplRate	% MORT	ExplRate	% MORT	ExplRate	% MORT	ExplRate	% MORT	ExplRate
Alaska		0%	0.1%	0%	0.1%	0%	0.1%	0%	0.1%	0%	0.1%
Canada		26%	10.4%	11%	6.2%	8%	6.2%	25%	6.2%	18%	6.2%
S. Of Falcon Ocean		0%	0.1%	0%	0.1%	0%	0.1%	1%	0.1%	0%	0.1%
NOF Ocean Troll:	Nontreaty	3%	1.3%	1%	0.8%	1%	0.8%	3%	0.8%	2%	0.8%
	Treaty	8%	3.2%	8%	4.9%	6%	4.9%	19%	4.9%	14%	4.9%
Ntrty NOF Ocean & Buoy10 Spt		2%	1.0%	2%	1.0%	1%	1.0%	4%	1.0%	3%	1.0%
Pgt Snd Trty Troll		2%	0.8%	1%	0.8%	1%	0.9%	3%	0.9%	2%	0.9%
Pgt Snd 6 Sport		1%	0.5%	0%	0.2%	0%	0.2%	1%	0.2%	1%	0.2%
Pgt Snd 5 Sport		3%	1.0%	2%	1.1%	1%	1.1%	4%	1.1%	3%	1.1%
Pgt Snd 7 Sport		0%	0.1%	0%	0.2%	0%	0.2%	1%	0.2%	1%	0.2%
Pgt Snd 8-13 Sport		8%	3.1%	11%	6.4%	8%	6.4%	25%	6.4%	18%	6.4%
Out-of-Region \1 Net:	Nontreaty	0%	0.0%	0%	0.0%	0%	0.0%	0%	0.0%	0%	0.0%
	Treaty	1%	0.4%	1%	0.4%	1%	0.4%	2%	0.4%	1%	0.4%
Local Terminal \2 Net:	Nontreaty	1%	0.4%	0%	0.2%	0%	0.2%	1%	0.2%	1%	0.2%
	Treaty	45%	18.2%	28%	16.8%	6%	4.6%	11%	2.7%	36%	12.8%
Freshwater Sport:		0%	0.0%	34%	19.9%	4%	3.6%	0%	0.0%	0%	0.1%
Freshwater Net:		0%	0.0%	0%	0.0%	62%	50.9%	0%	0.0%	0%	0.0%
Freshwater Test		0%	0.0%	0%	0.0%	0%	0.0%	0%	0.0%	0%	0.0%

666fc767ba1c430ebd58b3fe17abf0a3 12/9/2021

**TABLE 6D. Guidelines And Predicted Exploitation Rates For SOUTH PUGET SOUND Chinook Stocks
And Proportion of the total AEQ Mortality Occurring in Each Fishery Aggregate.**

TABLE 6D
12/09/21
10:42 AM

FRAM Run Number:
Run Description:

SLC-Chin3721_Final
SLC-Chin3721_Final

Version: 2.21Dec15

STOCK->		MISC. 10 & 10E Summer/Fall		CARR INLET Summer/Fall		CHAMBERS BAY Summer/Fall		McALLISTER CREEK Summer/Fall		DESCHUTES & 13D-K Summer/Fall	
		#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	
Predicted Expl Rate - All Fisheries		40.7%	59.2%	81.6%	25.2%	35.3%					
Predicted Expl Rate - Southern U.S. Fisheries		30.2%	52.9%	75.3%	18.9%	29.0%					
FISHERY AGGREGATE:		% MORT	ExplRate	% MORT	ExplRate	% MORT	ExplRate	% MORT	ExplRate	% MORT	ExplRate
Alaska		0.3%	0%	0.1%	0%	0.1%	0%	0.2%	0%	0.2%	0%
Canada		25.6%	10%	10.5%	6%	7.6%	6%	24.7%	6%	17.7%	6%
S. Of Falcon Ocean		0.2%	0%	0.2%	0%	0.2%	0%	0.5%	0%	0.4%	0%
NOF Ocean Troll:	Nontreaty	3.1%	1%	1.3%	1%	1.0%	1%	3.2%	1%	2.3%	1%
	Treaty	7.8%	3%	8.2%	5%	6.0%	5%	19.4%	5%	13.8%	5%
Ntrty NOF Ocean & Buoy10 Spt		2.4%	1%	1.6%	1%	1.2%	1%	3.9%	1%	2.8%	1%
		0.0%		0.0%		0.0%		0.0%		0.0%	
Pgt Snd Trty Troll		1.9%	1%	1.4%	1%	1.0%	1%	3.4%	1%	2.4%	1%
Pgt Snd 6 Sport		1.2%	1%	0.4%	0%	0.3%	0%	0.9%	0%	0.6%	0%
Pgt Snd 5 Sport		2.5%	1%	1.9%	1%	1.4%	1%	4.4%	1%	3.1%	1%
Pgt Snd 7 Sport		0.3%	0%	0.3%	0%	0.2%	0%	0.7%	0%	0.5%	0%
Pgt Snd 8-13 Sport		7.7%	3%	10.7%	6%	7.8%	6%	25.2%	6%	18.0%	6%
Out-of-Region \1 Net:	Nontreaty	0.1%	0%	0.1%	0%	0.0%	0%	0.1%	0%	0.1%	0%
	Treaty	1.1%	0%	0.7%	0%	0.5%	0%	1.6%	0%	1.2%	0%
Local Terminal \2 Net:	Nontreaty	1.0%	0%	0.3%	0%	0.2%	0%	0.8%	0%	0.6%	0%
	Treaty	44.8%	18%	28.4%	17%	5.6%	5%	10.9%	3%	36.1%	13%
Freshwater Sport:		0.0%	0%	33.7%	20%	4.4%	4%	0.0%	0%	0.3%	0%
Freshwater Net:		0.0%	0%	0.0%	0%	62.4%	51%	0.0%	0%	0.0%	0%
Freshwater Test		0.0%	0%	0.0%	0%	0.0%	0%	0.0%	0%	0.0%	0%

This table presents the proportion (in percent) of the total (landed + nonlanded) mortality for this stock occurring in the indicated fishery.

"Exploitation Rate" refers to the proportion of the population (defined as the sum of AEQ fishery-related mortality plus spawning escapement) killed in the specified fishery or groups of fisheries.

"AEQ" = "Adult Equivalent": figures are adjusted so they are comparable across age classes, and represent fish that would have contributed to escapement if they had not been caught

\1 "Out-of-Region" means all net fishery catches outside the local "region of origin", including pre-terminal and nonlocal terminal.

\2 "Local Term." means: AREAS 10/11, 10A, 10E, 13A, 13+, and may include NT SAF fisheries, if so modeled.

Note: Within-South-Puget-Sound stock breakouts are based on CWT recoveries for areas 10A, 10E, 13A fingerlings, PSF proportions for area 13+,

UW Acc, and yearlings. Refer to Tables 14D, 14F, & 14H.

^ 12/9/2021 +

TABLE 8: RECAPITULATION OF PUGET SOUND CHINOOK RUN SIZES AND ESCAPEMENT

=====
 Version: 2.21Dec15
 TABLE 8
 12/09/21
 10:42 AM

FRAM Run Number: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final

LANDED CATCH ONLY! Stock	Run Entrng Ar 4B(Net)	Run Entering Area = TAA	TRS (Stock)	Extr. Term. Run Size	Expected Escape- ment	Remarks
Nooksack Early	na	na	#REF!	#REF!	11,272	Uses FRAM Area 9 Stock Comp. Sum of 0s and 1s Sum of below From Status Report table
Nooksack Summer/Fall	#REF!	7B #REF!	#REF!	#REF!	7,188	
Skagit Spring	na	na	#REF!	#REF!	3,357	
Skagit S/F 0s+1s	#REF!	8 #REF!	#REF!	#REF!	8,837	
Stilly-Sno-Tulalip:	#REF!	8A #REF!	#REF!	#REF!	10,732	
Stillaguamish S/F	na	na	#REF!	#REF!	906	
Snohomish S/F	na	na	#REF!	#REF!	9,035	
Tulalip S/F	na	na	#REF!	#REF!	791	
SPS Aggregate S/F N&H:	#REF!	10 #REF!		#REF!		
Green R. N&H			na			
Lake Washington N&H			na			
Grovers & Ea. Kitsap H			na			
Puyallup R. N&H			na			
Carr Inlet N&H			na			
Chambers Bay H			na			
Nisqually N&H			na			
McAllister N&H			na			
Deep SPS H			na			
White R. Sp. 0's	na	na	3,940	3,940	#REF!	
Hood Canal S/F N&H	#REF!	12 #REF!	#REF!	#REF!	35,996	
JDF Tribs S/F N&H	#REF!	na	na	#REF!	6,511	

TABLE 10: PRE-TERMINAL NET FISHERY CHINOOK STOCK COMPOSITION =====
 FRAM Run Number: SLC-Chin3721_Final Version: 2.21Dec15
 Run Description: SLC-Chin3721_Final 12/09/21 10:42 AM

===== JUL-SEP LANDED CATCH ONL =====	=====	=====	=====	=====	=====	=====	=====	=====	=====
	NOOKSAM Na&S/F	SKAGIT SP&S/F	ST-SNO S/F	SSND SP&S/F	HC S/F	STRAIT S/F	PgtSnd Total	All Other Stocks	TOTAL CATCH
JDF NTrty	0	0	0	0	0	0	0	0	0
JDF Trty	2	1	5	11	4	2	25	23	48
SJI NTrty	6	3	0	3	0	0	12	2,998	3,011
SJI Trty	2	4	0	4	0	0	10	4,298	4,308
Pgt Snd 6 Sport	0	3	0	4	1	0	9	5	14
6B/9 Trty	1	9	5	41	11	1	68	19	87
PPN of Total JDF	0.0358	0.0234	0.0974	0.2288	0.0884	0.0434	0.5173		
PPN of Total SJI	0.0011	0.0009	0.0000	0.0010	0.0000	0.0000	0.0030		
PPN of Pgt Snd JDF	0.0691	0.0452	0.1884	0.4424	0.1709	0.0840	1.0000		
PPN of Pgt Snd SJI	0.3599	0.2965	0.0000	0.3420	0.0017	0.0000	1.0000		

===== TOTAL AEQ FISHERY-RELATED MORTALITY (ALL TIME STEP) =====

	NOOKSAM Na&S/F	SKAGIT SP&S/F	ST-SNO S/F	SSND SP&S/F	HC S/F	STRAIT S/F	PgtSnd Total	All Other Stocks	TOTAL CATCH
JDF NTrty	0	0	0	0	0	0	0	0	0
JDF Trty	6	2	15	32	20	2	76	52	128
SJI NTrty	204	10	0	2	22	0	238	3,516	3,754
SJI Trty	133	8	0	3	15	0	159	4,588	4,747
Pgt Snd 6 Sport	312	85	447	1,815	2,454	21	5,134	1,135	6,269
6B/9 Trty	15	10	22	238	151	2	438	73	511
PPN of Total JDF	0.0467	0.0130	0.1165	0.2485	0.1527	0.0187	0.5961		
PPN of Total SJI	0.0396	0.0021	0.0000	0.0006	0.0043	0.0000	0.0467		
PPN of Pgt Snd JDF	0.0784	0.0217	0.1955	0.4168	0.2562	0.0314	1.0000		
PPN of Pgt Snd SJI	0.8498	0.0453	0.0000	0.0125	0.0925	0.0000	1.0000		

^ 12/9/2021 +

TABLE 10B: PRE-TERMINAL NET FISHERY CHINOOK STOCK COMPOSITION ===== TABLE 10
 FRAM Run Number: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM

===== JUL-SEP LANDED CATCH of NATURALS ONLY =====

	NOOKSAM Na&S/F	SKAGIT SP&S/F	ST-SNO S/F	SSND SP&S/F	HC S/F	STRAIT S/F	PgtSnd Total	All Other Stocks	TOTAL CATCH
JDF NTrty	0	0	0	#REF!	#REF!	0	#REF!	#REF!	0
JDF Trty	1	1	1	#REF!	#REF!	2	#REF!	#REF!	48
SJI NTrty	0	1	0	#REF!	#REF!	0	#REF!	#REF!	3,011
SJI Trty	0	1	0	#REF!	#REF!	0	#REF!	#REF!	4,308
PPN of Total JDF	0.0219	0.0150	0.0136	#REF!	#REF!	0.0490	#REF!		
PPN of Total SJI	0.0000	0.0003	0.0000	#REF!	#REF!	0.0000	#REF!		
PPN of Pgt Snd JDF	0.0424	0.0289	0.0262	#REF!	#REF!	0.0947	#REF!		
PPN of Pgt Snd SJI	0.0000	0.0885	0.0000	#REF!	#REF!	0.0000	#REF!		

===== TOTAL AEQ FISHERY-RELATED MORTALITY OF NATURALS (ALL TIME STEI) =====

	NOOKSAM Na&S/F	SKAGIT SP&S/F	ST-SNO S/F	SSND SP&S/F	HC S/F	STRAIT S/F	PgtSnd Total	All Other Stocks	TOTAL CATCH
JDF NTrty	0	0	0	#REF!	#REF!	0	#REF!	#REF!	0
JDF Trty	2	1	1	#REF!	#REF!	3	#REF!	#REF!	128
SJI NTrty	0	0	0	#REF!	#REF!	0	#REF!	#REF!	3,754
SJI Trty	0	1	0	#REF!	#REF!	0	#REF!	#REF!	4,747
PPN of Total JDF	0.0190	0.0045	0.0105	#REF!	#REF!	0.0211	#REF!		
PPN of Total SJI	0.0000	0.0001	0.0000	#REF!	#REF!	0.0000	#REF!		
PPN of Pgt Snd JDF	0.0318	0.0075	0.0176	#REF!	#REF!	0.0354	#REF!		
PPN of Pgt Snd SJI	0.0000	0.0023	0.0000	#REF!	#REF!	0.0000	#REF!		

^ 12/9/2021 +

TABLE 15-A>>> NOOKSACK-SAMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK SLC-Chin37===== TABLE 15A

Provides Nooksack Extreme Terminal catches and Nooksack Early chinook escapement

FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM

Nooksack-Samish Summer/Fall Chinook TA/								
	23,008	Run entering 7B,C,D (all stocks, landed catch)						Err Chk:
	14,874	=(TAMX!\$B\$7+TAMX!G7)						
AREA 7B,C,D CATCH:	May-Jun	Jul-Sep	Oct-Dec	TOTAL	AAP	TOTAL	TAMM-FRAM	
Nontreaty Predicted Catch ALL STOCKS	na	2,948	13	2,961	2,948	952	1,996	
Treaty Predicted Catch ALL STOCKS	0	6,279	16	6,295	6,279	1,646	4,632	
Nontreaty Predicted Catch, Nooksack Native	na	#####	na	#####	#####	0	(1,308,912)	
Treaty Predicted Catch, Nooksack Native	286	#####	na	#####	#####	7	(1,308,919)	

NOOKSACK-SAMISH SUMMER/FALL CHINOOK SHARING

Expected Escapement 7,188 0.3124 Expected Escapement calculated in Table 14-D; rate xfers to TAMI
 approx."50:50 Share" 11,862 = (4brs + sum(sport,troll,non-landed)-esc goal)/2

>>> All catch in this block refers to AEQ Fishery-Related Mortality, net catch includes NDO.

FISHERY	TREATY	NON-TRTY	
S of Falcon Troll	NA	16	TotAEQFRM from FRAM
S of Falcon Sport	NA	0	TotAEQFRM from FRAM
N of Falcon Troll	1,228	464	TotAEQFRM from FRAM
N of Falcon Sport	NA	191	TOTAEQFRM from FRAM; incl. Buoy 10
Pgt Snd Troll	27	NA	TotAEQFRM from FRAM
Pgt Snd Mar. Sport	NA	1,301	TotAEQFRM from FRAM
Freshwater Sport	NA	4,668	#REF!
"4B run size"	23,017	= TAA + preterm net	
SJI Net	2	6	AAP Landed Catch from FRAM (via Table 2E)
JDF Net	1	0	AAP Landed Catch from FRAM (via Table 2E)
Area 6B/9 Net	0	0	AAP Landed Catch from FRAM (via Table 2E)
Term. Area Abundance	23,008	from FRAM	
Terminal Net Share	10,605	5,215	= share-priors-preterm
Equitable Adj.	0	0	From Table 15B
Adj. Term Net Share	10,605	5,215	Term Net Share + Equitable Adjustment
N Freshwater or Catch	1777.00	NA	From Table 15B
Marine Harvest	8,828	5,215	14,043 Marine
May-Jun Lnded Hrv	0	na	No AEQ Factor is applied in TAMM; AEQ is applied in FRAM
Jul-Sep Lnded Hrv	8,812	5,202	Will not match FRAM catch because AEQ not applied to My-Jn/Oct-Dc catch
Oct-Dec Lnded Hrv	16	13	No AEQ Factor is applied in TAMM; AEQ is applied in FRAM
Frshwtr Harvest	1,777	0	(Proportion Treaty Terminal Harvestable)
^ 12/9/2021 +			18,845,065 FW

 Summer/Fall chinook computations: Refer to Table 15B for method used (in FRAM) to predict B'ham fishery catches.
 Choices are: catch, %TAA, sharing. TAMM & FRAM catches are shown at top, sharing (based on this FRAM run) is shown above.
 Catches shown at top may, or may not, match the "terminal net share" figures shown in the sharing block,
 depending upon whether the "sharing" method was chosen (would be lucky to match perfectly, in any case).
 =====

NOOKSACK EARLY CHINOOK:

Nooksack Early Chinook "TRS": 4924 Run of Nook Early Ck entering areas 7B,C,D (landed catch)

EXTREME TERMINAL IMPACTS 8	ETRS	Trty (mayjune)	Mar Spt	Ntrty	TOTAL	Nooksack Early Chinook Esc.	
NOOKSACK Early CHINOOK:	Age (3-5)	FW Net**	Savings	FW Spt	ET Catch	Total	NOR
EXTR TERM RUN SIZE (age 3-5)	14,853	2,777	0	803	3,581	11,272	464

 Early chinook FW Net: Expected Nooksack River catch * PPN Nook Early, from Table 15B
 Note: FWNET catches used for this computation may not match the FWNET catch computed in the 11,272 384
 Marine Area 7 Sport Savings: Expected savings input in Table B is added to TAA in FRAM.
 Early Chinook Area 7 sport Savings: Computed savings on Nooksack Early Chinook ONLY! From table 15B.
 Freshwater Sport catch of Nook Early Chinook computed in table 15B.
 Early Chinook escapement computation: ETRS Nooksack Early (age3-5) - FWNET + MAR SPT SAVINGS - FWSPT
 =====

** Includes freshwater tangle net MSF

TABLE 15-B >>> NOOKSACK-SAMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK
 AREA 7B,C,D AND NOOKSACK RIVER FISHERY INPUTS and TAMI PREPARATION

SLC-Chin37===== TABLE 15B
 12/09/21
 Version 2.21Dec15 10:42 AM

FRAM Run: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final

INPUT TABLE FOR EARLY CHINOOK CATCH OR HRV RATE:

"Rate" is on Nooksack Early chinook ONLY!!!		Source: -----	0 -----
MAY-JUN Trty	286 <<< catch or rate	Nooksack	
JUL-SEP Ntrty	-88 <<< catch or rate	87,88,92,93 avg CWT,JS 3/95	
JUL-SEP Trty	-88 <<< catch or rate	DD: Phone call with BAK, using last year's value, SUBJECT TO CH	

Rate applies to the stock-specific "terminal run size" of Nooksack Early Chinook, that is, the rate applies to the "run of Nooksack Early Chinook entering areas 7B,C,D". Fixed catches are Nooksack Early ONLY!

INPUT TABLE FOR SUMMER/FALL CATCH, HRV RATE or SHARES:

"Rate" is %TAA Nooksack-Samish Aggregate Summer/Fall chinook.		Fishery Description: -----	
MAY-JUN Trty	0 <<< catch	Nooksack	
JUL-SEP Ntrty	0.12815 <<< rate, "1", or catch ("1" means "compute shar	Wk 34-35: GN 3,3; PS 1,2; Wk 36-39: GN 5,5,5,7; PS 1,3,3,7; Wk 4	
JUL-SEP Trty	0.2729 <<< rate, "1", or catch ("1" means "compute shar	0	
OCT-DEC Ntrty	13 <<< catch	Wk 34-35: GN 4,4; PS 1,1; Wk 36-39: GN 5,5,5,7; PS 1,3,3,7; Wk 4	
OCT-DEC Trty	16 <<< catch	0	

Catch refers to total all-stocks catch in the B'ham (areas 7B,C,D) fisheries;
 Rate is %TAA "Nooksack-Samish Summer/Fall chinook aggregate", Run of all stocks entering areas 7B,C,D.
 If "1" is entered in Jul-Sep cells, the TAMM and FRAM sharing computations are evoked, yielding terminal marine net shares for treaty and nontreaty; this assumes catch will equal share.

ADDITIONAL INPUT FOR SUMMER/FALL CHINOOK, including for shares computation:

Ntrty Area 7 Marine Spt Savings:	0 <<< Catch	Source: -----	
Ntrty Nooksack & Samish FW Spt Projection:	4,668 <<< Catch	#REF!	
Ntrty Area 7E Exterme Terminal:	0 <<< Catch	0.0000	
Trty PPN Freshwater or FW Catch:	1777 <<< Rate or Catch	0.0000	
Trty Area 7E Exterme Terminal:	0	#REF!	
Nooksack-Samish Fall Chinook Escapement Rat	0.3124328 <<< Value	From status report, Table 15D	
Equitable Adjustment Due Trty:	0 <<< Value		

NOOKSACK RIVER EXTREME TERMINAL FISHERY IMPACTS:

Fishery	Proj. Catch	Parameter Type	PPN Early	#REF! Fishery Description
T NOOKS R FW NET	0	Computed	0.1000	Marine rate includes FW NET; wks 32-37 3d/wk
NT Ar7 Sport Savings	0	From above	0.1000	Product yields savings on Nooksack Early!!!!
NT NOOKSACK R. RECR.	0		0.0000	#REF!

^ 12/9/2021 +

T FW Net: Expands Bham Trty Jul-Sep catch (marine) to total, and computes FW, using %FW from above.

T FW Net: % Early = 1994 August catch/ 1994 total; Assume all Age 3-5

T FW Net is: (JUL-SEP Marine Catch/(1-ppn fw net))* PPN fw net ; ELSE IS 0 if hvr rate available above.

NOTE: Jul-Sep Hvr rate is FW and marine combined; If hvr rate on Early Ck is available, "0" is entered in FW NET.

FWSPT: 45% age 2 (90-92 avg)

===15B=====15B=====15B===== ===15B=====15B=====15B=====15B===== ===15B=====15B===== ===15B=====

Dependents of Cell INPUT_Harvest:C113

Current file

NS:P8: +INPUT_Harvest:C113

NS:Y10: +P8

TAMI:C29: +NS:Y10

NS:D14: @IF(P8<1,P8*\$STRSNKER,P8)

NS:G14: +D14+E14+F14

Chronology:C213: +INPUT_Harvest:C113

^ 12/9/2021 +

TABLE 15-C >>> NOOKSACK-SAMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK TABLE 15C
 Bellingham Marine (Areas 7B,7C,7D) data prepared for FRAM

FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM

=====

NOOKSACK Early CHINOOK:

PASS TO TAMI: MAY-JUN JUL-SEP OCT-DEC Notes:

	MAY-JUN	JUL-SEP	OCT-DEC	Notes:
NTTrty Bham TAMI input	na	-88		na If JUL-SEP is rate; then its a hrtrate on Earlies only
Trty Bham TAMI input	286	-88		na Rate is applied to NkEarlyCk TRS, or Catch

NOTE: Jul-Sep Hrvrate is FW and marine combined; If hrtrate on Early Ck is available, "0" is entered in FW NET.

NOOKSACK SUMMER/FALL CHINOOK:

PASS TO TAMI: MAY-JUN JUL-SEP OCT-DEC Notes:

	MAY-JUN	JUL-SEP	OCT-DEC	Notes:
NTTrty Bham TAMI input	na	0.12815		13 If JUL-SEP is <1 (rate); then its a hrtrate on TAABham
Trty Bham TAMI input	0	0.2729		16 If JUL-SEP =1 then compute shares; >1 = target catch

I0 -43 PS&G SUPPLEMENTAL INFORMATION:

PASS TO TAMI: FWSPT MAR SPT %FWNET ESC RATE EQADJ Notes:

	FWSPT	MAR SPT	%FWNET	ESC RATE	EQADJ	Notes:
ADD'L Bham TAMI input	4668.2836	0	1777	0.3124328	0	Nontreaty Row

====15C=====15C==== 15C=====15C=====15C=====15C=====15C=====15C=====15C=====15C=====

TABLE 15-D >> NOOKSACK-SAM
 NOOKSACK-SAMISH REGION S

FRAM Run:
 Run Description:

NOT READY FO

Total
 Pgt Snd
 Run Size
 Production Unit

NOOKSACK EARLY CHINOOK:

Nooksack Early chinook na

NOOKSACK-SAMISH-EASTSO

---- EastSound / 7E ----
 Glenwood Springs Ha 609

---- Nooksack/Samish ----

Nooksack River Hatchery 0
 Natural 0

Lummi Bay Hatchery 116

Samish R. Hatchery 19,225
 Natural 0

Subtotal Natural 0
 Subtotal Hatchery 19,341

Total Nooks-Samish only 19,341

GRAND TOTAL incl. 19,951

- Procedure: (TLS 95102:
 1. Total Preterminal Harvest and T
 2. Terminal harvest is computed u
 3. Expected escapement is compu
 ==15D=== ==15D===

^ 12/9/2021 +

WISH << TERMINAL AREA MANAGEMENT MODULE - CHINOOK
 TATUS REPORT TABLE Version 2.21Dec15
 SLC-Chin3721_Final
 SLC-Chin3721_Final

TABLE 15D
 12/09/21
 10:42 AM

IR USI

Expected Pre-term Harvest	Terminal Area Abu.	Tamx Terminal Harvest	Post-Season Exterm Term Harvest	Expected Escapmnt	Escapmnt Goal	NookSam Breakout Proportn	NS+7E Breakout Proportn	Original PSF	Terminal Hrv Rate
2	na	7	na	11,272	4000			15,175	

IND SUMMER/FALL CHINOOK:

0	609	191	0	418	250	na	0.0305471	612	0.0000	
0	0	0	0	0	na	0	0	0	0.7418	
0	0	0	0	0	na	0	0	0	0.7418	
0	116	86			30	na	0.0060181	0.0058342	117	0.7418
8	19,216	6,031	6445	6,740	5,150	0.9939819	0.9636187	19,295	0.7418	
0	0	0			0	na	0	0	0	0.7418
0	0	0			0		0.0000	0.0000		
9	19,333	6,117			6,770	5,150	1.0000	0.9695		
9	19,333	6,117			6,770	5,150	1.0000	0.9695	20,024	
9	19,942	6,258			7,188	5,400				

5)
 Terminal Area Abundance are provided from FRAM; apportioned by PSF %, INCLUDING 7E.
 using the expected terminal (hatchery aggregate) harvest rate. Total Hatchery Esc Goal/TAA
 rted: TAA - terminal harvest. Expected Escapement is used to define "rate" (Esc/TAA) for Table 15B & A.
 ===15D=====15D=====15D=====15D=====15D=====15D=====15D=====15D=====15D=====15D=====15D=====

TABLE 15-A>>> NOOKSACK-SAMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK SLC-Chin37===== TABLE 15A
 Provides Nooksack Extreme Terminal catches and Nooksack Early chinook escapement

FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM

Nooksack-Samish Summer/Fall Chinook T/ UNMARKED ONLY							
2,635 Run entering 7B,C,D (all stocks, landed catch)							
AREA 7B,C,D CATCH:	May-Jun	TAMM Jul-Sep	Oct-Dec	TOTAL	AAP	AAP FRAM TOTAL	Err Chk: TAMM-FRAM
Nontreaty Predicted Catch ALL STOCKS	na	338	1	339	338	943	(605)
Treaty Predicted Catch ALL STOCKS	0	719	2	721	719	1,634	(915)
Nontreaty Predicted Catch, Nooksack Native	na	(433,312)	na	(433,312)	(433,312)	0	(433,312)
Treaty Predicted Catch, Nooksack Native	95	(433,312)	na	(433,217)	(433,312)	7	(433,319)

NOOKSACK-SAMISH SUMMER/FALL CHINOOK SHARING

Expected Escapement 30 0.0115 Expected Escapement calculated in Table 14-D; rate xfers to TAMI
 approx."50:50 Share" 1,318 = (4brs + sum(sport,troll,non-landed)-esc goal)/2
 >>> All catch in this block refers to AEQ Fishery-Related Mortality, net catch includes NDO.

FISHERY	TREATY	NON-TRTY	
S of Falcon Troll	NA	0	TotAEQFRM from FRAM
S of Falcon Sport	NA	0	TotAEQFRM from FRAM
N of Falcon Troll	5	2	TotAEQFRM from FRAM
N of Falcon Sport	NA	1	TOTAEQFRM from FRAM; incl. Buoy 10
Pgt Snd Troll	0	NA	TotAEQFRM from FRAM
Pgt Snd Mar. Sport	NA	2	TotAEQFRM from FRAM
Freshwater Sport	NA	20	#REF!

"4B run size"	2,636	= TAA + preterm net	

SJI Net	1	0 AAP Landed Catch from FRAM (via Table 2E)	
JDF Net	0	0 AAP Landed Catch from FRAM (via Table 2E)	
Area 6B/9 Net	0	0 AAP Landed Catch from FRAM (via Table 2E)	

Term. Area Abundance	2,635	from FRAM	

Terminal Net Share	1,312	1,293	= share-priors-preterm
Equitable Adj.	0	0	From Table 15B
Adj. Term Net Share	1,312	1,293	Term Net Share + Equitable Adjustment
Freshwater or Catch	7,4788	NA	From Table 15B
Marine Harvest	1,304	1,293	2,597 Marine
May-Jun Lnded Hrv	0	na No AEQ Factor is applied in TAMM; AEQ is applied in FRAM	
Jul-Sep Lnded Hrv	1,303	1,291 Will not match FRAM catch because AEQ not applied to My-Jn/Oct-Dc catch	
Oct-Dec Lnded Hrv	2	1.48883 No AEQ Factor is applied in TAMM; AEQ is applied in FRAM	
Frshwtr Harvest	7	0 (Proportion Treaty Terminal Harvestable)	
^ 12/9/2021 +			

 Summer/Fall chinook computations: Refer to Table 15B for method used (in FRAM) to predict B'ham fishery catches.
 Choices are: catch, %TAA, sharing. TAMM & FRAM catches are shown at top, sharing (based on this FRAM run) is shown above.
 Catches shown at top may, or may not, match the "terminal net share" figures shown in the sharing block,
 depending upon whether the "sharing" method was chosen (would be lucky to match perfectly, in any case).
 =====

NOOKSACK EARLY CHINOOK: 0
 Nooksack Early Chinook "TRS": 0.7
 4924 Run of Nook Early Ck entering areas 7B,C,D (landed catch)

EXTREME TERMINAL IMPACTS NOOKSACK Early CHINOOK:	ETRS Age (3-5)	Trty FW Net**	Mar Spt Savings	Ntrty FW Spt	TOTAL ET Catch	Nooksack Early Chinook Spawning Escapement	Ntrty NF Sport Nat	Ntrty NF Sport UM Hat
EXTR TERM RUN SIZE (age 3-5)	4,917	381	0	2	383	4,534	464	2.0000 0.275

Early chinook FW Net: Expected Nooksack River catch * PPN Nook Early, from Table 15B
 Note: FWNET catches used for this computation may not match the FWNET catch computed in the "sharing" block. 460
 Marine Area 7 Sport Savings: Expected savings input in Table B is added to TAA in FRAM.
 Early Chinook Area 7 sport Savings: Computed savings on Nooksack Early Chinook ONLY! From table 15B.
 Freshwater Sport catch of Nook Early Chinook computed in table 15B.
 Early Chinook escapement computation: ETRS Nooksack Early (age3-5) - FWNET + MAR SPT SAVINGS - FWSPT

 ** Includes freshwater tangle net MSF
 1406262
 83.746999

^ 12/9/2021 +

TABLE 15-B >>> NOOKSACK-SAMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK
 AREA 7B,C,D AND NOOKSACK RIVER FISHERY INPUTS and TAMI PREPARATION

SLC-Chin37===== TABLE 15B
 12/09/21
 Version 2.21Dec15 10:42 AM

FRAM Run: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final

INPUT TABLE FOR EARLY CHINOOK CATCH OR HRV RATE:

"Rate" is on Nooksack Early chinook ONLY!!! Source: ----- 0 -----
 MAY-JUN Trty 286 <<< catch or rate Nooksack
 JUL-SEP Ntrty -88 <<< catch or rate 87,88,92,93 avg CWT,JS 3/95
 JUL-SEP Trty -88 <<< catch or rate DD: Phone call with BAK, using last year's value, SUBJECT TO CHAN

Rate applies to the stock-specific "terminal run size" of Nooksack Early Chinook, that is, the rate
 applies to the "run of Nooksack Early Chinook entering areas 7B,C,D". Fixed catches are Nooksack Early ONLY!

INPUT TABLE FOR SUMMER/FALL CATCH, HRV RATE or SHARES:

"Rate" is %TAA Nooksack-Samish Aggregate Summer/Fall chinook. Fishery Description: -----
 MAY-JUN Trty 0 <<< catch Nooksack
 JUL-SEP Ntrty 0.12815 <<< rate, "1", or catch ("1" means "compute shar Wk 34-35: GN 3,3; PS 1,2; Wk 36-39: GN 5,5,5,7; PS 1,3,3,7; Wk 40 -
 JUL-SEP Trty 0.2729 <<< rate, "1", or catch ("1" means "compute shar 0
 OCT-DEC Ntrty 1.48882997 <<< catch Wk 34-35: GN 4,4; PS 1,1; Wk 36-39: GN 5,5,5,7; PS 1,3,3,7; Wk 40 -
 OCT-DEC Trty 2 <<< catch 0

Catch refers to total all-stocks catch in the B'ham (areas 7B,C,D) fisheries;
 Rate is %TAA "Nooksack-Samish Summer/Fall chinook aggregate", Run of all stocks entering areas 7B,C,D.
 If "1" is entered in Jul-Sep cells, the TAMM and FRAM sharing computations are evoked, yielding terminal marine net

MAY-JUN Trty	
JUL-SEP Ntrty	
JUL-SEP Trty	
Samish/Whatcom sport	20
Nooksack River Selective	0.04301047

Source: -----
 Ntrty Area 7 Marine Spt Savings: 0 <<< Catch #REF!
 Ntrty Nooksack & Samish FWSpt Projection: 20 <<< Catch #REF!
 Ntrty Area 7E Exterme Terminal: 0 <<< Catch 0.0000
 Trty PPN Freshwater or FW Catch: 7.479 <<< Rate or Catch 0.0000
 Trty Area 7E Exterme Terminal: 0 #REF!
 Nooksack-Samish Fall Chinook Escapement Rat 0.01150483 <<< Value From status report, Table 15D
 Equitable Adjustment Due Trty: 0 <<< Value

NOOKSACK RIVER EXTREME TERMINAL FISHERY IMPACTS:

Fishery	Proj. Catch	Parameter Type	PPN Early	#REF! Fishery Description
T NOOKS R FW NET	0.00	Computed	0.1000	Marine rate includes FW NET; wks 32-37 3d/wk
NT Ar7 Sport Savings	0	From above	0.1000	Product yields savings on Nooksack Early!!!!
NT NOOKSACK R. RECR.	0		0.0000	#REF!

^ 12/9/2021 +

T FW Net: Expands Bham Trty Jul-Sep catch (marine) to total, and computes FW, using %FW from above.

T FW Net: % Early = 1994 August catch/ 1994 total; Assume all Age 3-5

T FW Net is: (JUL-SEP Marine Catch/(1-ppn fw net))* PPN fw net ; ELSE IS 0 if hvr rate available above.

NOTE: Jul-Sep Hvr rate is FW and marine combined; If hvr rate on Early Ck is available, "0" is entered in FW NET.

FWSPT: 45% age 2 (90-92 avg)

===15B=====15B=====15B===== ===15B=====15B=====15B=====15B===== ===15B=====15B=====15B===== ===15B=====

Dependents of Cell INPUT_Harvest:C113

Current file

NS:P8: +INPUT_Harvest:C113

NS:Y10: +P8

TAMI:C29: +NS:Y10

NS:D14: @IF(P8<1,P8*\$STRSNKER,P8)

NS:G14: +D14+E14+F14

Chronology:C213: +INPUT_Harvest:C113

^ 12/9/2021 +

TABLE 15-C >>> NOOKSACK-SAMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK TABLE 15C
 Bellingham Marine (Areas 7B,7C,7D) data prepared for FRAM

FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM

=====

NOOKSACK Early CHINOOK:

PASS TO TAMI: MAY-JUN JUL-SEP OCT-DEC Notes:

IGE

 NTTrty Bham TAMI input na -88 na If JUL-SEP is rate; then its a hrtrate on Earlies only
 Trty Bham TAMI input 286 -88 na Rate is applied to NkEarlyCk TRS

NOTE: Jul-Sep Hrvrate is FW and marine combined; If hrtrate on Early Ck is available, "0" is enterd in FW NET.

NOOKSACK SUMMER/FALL CHINOOK:

PASS TO TAMI: MAY-JUN JUL-SEP OCT-DEC Notes:

 NTTrty Bham TAMI input na 0.12815 1.48883 If JUL-SEP is <1 (rate); then its a hrtrate on TAABham
 Trty Bham TAMI input 0 0.2729 1.8324061 If JUL-SEP =1 then compute shares; >1 = target catch

43 PS&GN 7 days/week

SUPPLEMENTAL INFORMATION:

PASS TO TAMI: FWSPT MAR SPT %FWNET ESC RATE EQADJ Notes:

43 PS&GN 7 days/week

 ADD'L Bham TAMI input 20.208261 0 7.4788477 0.0115048 0 Nontreaty Row

====15C=====15C=== ===15C=====15C=====15C=====15C=====15C=====15C=====15C===

^ 12/9/2021 +

^ 12/9/2021 +

TABLE 15-D >> NOOKSACK-SAMISH << TERMINAL AREA MANAGEMENT MODULE - CHINOOK
 NOOKSACK-SAMISH REGION STATUS REPORT TABLE Version 2.21Dec15
 FRAM Run: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final

TABLE 15D
 12/09/21
 10:42 AM

NOT READY FOR USE!!!

Production Unit	Total Pgt Snd Run Size	Expected Pre-term Harvest	Terminal Area Abu.	Tamx Terminal Harvest	Post-Season Extern Term Harvest	Expected Escapmnt	Escapmnt Goal	NookSam Breakout Proportn	NS+7E Breakout Proportn	Original PSF	Terminal Hrv Rate
NOOKSACK EARLY CHINOOK:											
Nooksack Early chinook	na	2	na	7	na	4,534				5,101	
NOOKSACK-SAMISH-EASTSOUND SUMMER/FALL CHINOOK:											
---- EastSound / 7E ----											
Glenwood Springs Hatchery	0	0	0	0	0	0	1	na	0	0	0.0000
---- Nooksack/Samish ----											
Nooksack River Hatchery	0	0	0	0	0	0	na	0	0	0	0.7420
Natural	0	0	0	0	0	0	na	0	0	0	0.7420
Lummi Bay Hatchery	0	0	0	0	0	0	na	0	0	0	0.7420
Samish R. Hatchery	93	9	84	26	28	30	22	1	1	86	0.7420
Natural	0	0	0	0	0	0	na	0	0	0	0.7420
Subtotal Natural	0	0	0	0	0	0	0	0.0000	0.0000		
Subtotal Hatchery	93	9	84	26	28	30	22	1.0000	1.0000		
Total Nooks-Samish only	93	9	84	26	28	30	22	1.0000	1.0000	86	
GRAND TOTAL incl. 7E	93	9	84	26	28	30	23		1		

Procedure: (TLS 951025)

1. Total Preterminal Harvest and Terminal Area Abundance are provided from FRAM; apportioned by PSF %, INCLUDING 7E.
2. Terminal harvest is computed using the expected terminal (hatchery aggregate) harvest rate. Total Hatchery Esc Goal/TAA
3. Expected escapement is computed: TAA - terminal harvest. Expected Escapement is used to define "rate" (Esc/TAA) for Table 15B & A.

TABLE 15-A>>> NOOKSACK-SAMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK SLC-Chin37===== TABLE 15A
 Provides Nooksack Extreme Terminal catches and Nooksack Early chinook escapement

FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM

=====

Nooksack-Samish Summer/Fall Chinook TAA: 20,373 Run entering 7B,C,D (all stocks, landed catch)
MARKED ONLY

AREA 7B,C,D CATCH:	May-Jun	TAMM Jul-Sep	Oct-Dec	TOTAL	AAP	AAP FRAM TOTAL	Err Chk: TAMM-FRAM
Nontreaty Predicted Catch ALL STOCKS	na	2,611	12	2,622	2,611	10	2,601
Treaty Predicted Catch ALL STOCKS	0	5,560	14	5,574	5,560	13	5,547
Nontreaty Predicted Catch, Nooksack Native	na	(875,600)	na	(875,600)	(875,600)	0	(875,600)
Treaty Predicted Catch, Nooksack Native	191	(875,600)	na	(875,409)	(875,600)	0	(875,600)

=====

NOOKSACK-SAMISH SUMMER/FALL CHINOOK SHARING

Expected Escapement approx."50:50 Share"	7,158	2,7166	Expected Escapement calculated in Table 14-D; rate xfers to TAMI = (4brs + sum(sport,troll,non-landed)-esc goal)/2				
>>> All catch in this block refers to AEQ Fishery-Related Mortality, net catch includes NDO.							
FISHERY	TREATY	NON-TRTY					
S of Falcon Troll	NA	16	TotAEQFRM from FRAM				
S of Falcon Sport	NA	0	TotAEQFRM from FRAM				
N of Falcon Troll	1,222	462	TotAEQFRM from FRAM				
N of Falcon Sport	NA	191	TOTAEQFRM from FRAM; incl. Buoy 10				+IF('Input Page!B214<1,TAMX!17*!r
Pgt Snd Troll	27	NA	TotAEQFRM from FRAM				
Pgt Snd Mar. Sport	NA	1,299	TotAEQFRM from FRAM				
Freshwater Sport	NA	4,648	#REF!				
"4B run size"	20,381	= TAA + preterm net					
SJI Net	1	6	AAP Landed Catch from FRAM (via Table 2E)				
JDF Net	1	0	AAP Landed Catch from FRAM (via Table 2E)				
Area 6B/9 Net	0	0	AAP Landed Catch from FRAM (via Table 2E)				
Term. Area Abundance	20,373	from FRAM				T+NT TERM HRV	
Terminal Net Share	9,293	3,922	= share-priors-preterm			13,215 Total	
Equitable Adj.	0	0	From Table 15B				
Adj. Term Net Share	9,293	3,922	Term Net Share + Equitable Adjustment			13,215 Adj	
PPN Freshwater or Catch	1769.5212	NA	From Table 15B				
Marine Harvest	7,524	3,922	11,445 Marine				
May-Jun Lnded Hrv	0	na	No AEQ Factor is applied in TAMM; AEQ is applied in FRAM				
Jul-Sep Lnded Hrv	7,509	3,910	Will not match FRAM catch because AEQ not applied to My-Jn/Oct-Dc catch				
Oct-Dec Lnded Hrv	14	11.51117	No AEQ Factor is applied in TAMM; AEQ is applied in FRAM				
Frshwtr Harvest	1,770	0	(Proportion Treaty Terminal Harvestable)				##### FW
^ 12/9/2021 +							

 Summer/Fall chinook computations: Refer to Table 15B for method used (in FRAM) to predict B'ham fishery catches.
 Choices are: catch, %TAA, sharing. TAMM & FRAM catches are shown at top, sharing (based on this FRAM run) is shown above.
 Catches shown at top may, or may not, match the "terminal net share" figures shown in the sharing block,
 depending upon whether the "sharing" method was chosen (would be lucky to match perfectly, in any case).
 =====

NOOKSACK EARLY CHINOOK:

Nooksack Early Chinook "TRS": 4924 Run of Nook Early Ck entering areas 7B,C,D (landed catch)

EXTREME TERMINAL IMPACTS & ESC	ETRS	Trty FW Net**	Mar Spt Savings	Ntrty FW Spt	TOTAL ET Catch	Nooksack Early Chinook Spawning Escapement	Ntrty NF Sport Nat	Ntrty NF Sport M Hat
NOOKSACK Early CHINOOK:	Age (3-5)							
EXTR TERM RUN SIZE (age 3-5)	9,936	2,397	0	801	3,198	6,738	0	801

Early chinook FW Net: Expected Nooksack River catch * PPN Nook Early, from Table 15B
 Note: FWNET catches used for this computation may not match the FWNET catch computed in the "sharing" block.
 Marine Area 7 Sport Savings: Expected savings input in Table B is added to TAA in FRAM.
 Early Chinook Area 7 sport Savings: Computed savings on Nooksack Early Chinook ONLY! From table 15B.
 Freshwater Sport catch of Nook Early Chinook computed in table 15B.
 Early Chinook escapement computation: ETRS Nooksack Early (age3-5) - FWNET + MAR SPT SAVINGS - FWSPT
 =====

** Includes freshwater tangle net MSF

TABLE 15-B >>> NOOKSACK-SAMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHIN SLC-Chin37===== TABLE 15B
 AREA 7B,C,D AND NOOKSACK RIVER FISHERY INPUTS and TAMI PREPARATION 12/09/21

FRAM Run: SLC-Chin3721_Final Version 2.21Dec15 10:42 AM
 Run Description: SLC-Chin3721_Final

INPUT TABLE FOR EARLY CHINOOK CATCH OR HRVRATE:

"Rate" is on Nooksack Early chinook ONLY!!! Source: ---- 0 -----
 MAY-JUN Trty 286 <<< catch or rate Nooksack
 JUL-SEP Ntrty -88 <<< catch or rate 87,88,92,93 avg CWT,JS 3/95
 JUL-SEP Trty -88 <<< catch or rate DD: Phone call with BAK, using last year's value, SUBJECT TO CHANGE

Rate applies to the stock-specific "terminal run size" of Nooksack Early Chinook, that is, the rate applies to the "run of Nooksack Early Chinook entering areas 7B,C,D". Fixed catches are Nooksack Early ONLY!

deleted value that was here 0.668952535

INPUT TABLE FOR SUMMER/FALL CATCH, HRVRATE or SHARES:

"Rate" is %TAA Nooksack-Samish Aggregate Summer/Fall chinook. Fishery Description: -----
 MAY-JUN Trty 0 <<< catch Nooksack
 JUL-SEP Ntrty 0.12815 <<< rate, "1", or catch ("1" means "compute shar Wk 34-35: GN 3,3; PS 1,2; Wk 36-39: GN 5,5,5,7; PS 1,3,3,7; Wk 40 -43 P
 JUL-SEP Trty 0.2729 <<< rate, "1", or catch ("1" means "compute shar 0
 OCT-DEC Ntrty 11.51117003 <<< catch Wk 34-35: GN 4,4; PS 1,1; Wk 36-39: GN 5,5,5,7; PS 1,3,3,7; Wk 40 -43 P
 OCT-DEC Trty 14 <<< catch 0

Catch refers to total all-stocks catch in the B'ham (areas 7B,C,D) fisheries;
 Rate is %TAA "Nooksack-Samish Summer/Fall chinook aggregate", Run of all stocks entering areas 7B,C,D.
 If "1" is entered in Jul-Sep cells, the TAMM and FRAM sharing computations are evoked, yielding terminal marine net shares for treaty and nontreaty; this assumes catch will equal share.

Samish/Whatcom sport	4597		
Nooksack River Selective	51		
Ntrty Area 7 Marine Spt Savings:	0	<<< Catch	Source: ----
Ntrty Nooksack & Samish FWSpt	4,648	<<< Catch	#REF!
Ntrty Area 7E Exterme Terminal:	0	<<< Catch	#REF!
Freshwater Net:	1769.5212	<<< Catch	0.0000
Trty Area 7E Exterme Terminal:	0		0.0000
Nooksack-Samish Fall Chinook E	0.35135415	<<< Value	#REF!
Equitable Adjustment Due Trty:	0	<<< Value	From status report, Table 15D

NOOKSACK RIVER EXTREME TERMINAL FISHERY IMPACTS:

Fishery	Proj. Catch	Parameter Type	PPN Early	#REF! Fishery Description
T NOOKS R FW NET	0	Computed	0.1000	Marine rate includes FW NET; wks 32-37 3d/wk
NT Ar7 Sport Savings	0	From above	0.1000	Product yields savings on Nooksack Early!!!!
NT NOOKSACK R. RECR.	0		0.0000	#REF!

^ 12/9/2021 +

T FW Net: Expands Bham Trty Jul-Sep catch (marine) to total, and computes FW, using %FW from above.

T FW Net: % Early = 1994 August catch/ 1994 total; Assume all Age 3-5

T FW Net is: (JUL-SEP Marine Catch/(1-ppn fw net))* PPN fw net ; ELSE IS 0 if hvr rate available above.

NOTE: Jul-Sep Hvr rate is FW and marine combined; If hvr rate on Early Ck is available, "0" is entered in FW NET.

FWSPT: 45% age 2 (90-92 avg)

===15B=====15B==== ===15B===== ===15B=====15B=====15B===== ===15B=====15B=====15B=====

Dependents of Cell INPUT_Harvest:C113

Current file

NS:P8: +INPUT_Harvest:C113

NS:Y10: +P8

TAMI:C29: +NS:Y10

NS:D14: @IF(P8<1,P8*\$STRSNKER,P8)

NS:G14: +D14+E14+F14

Chronology:C213: +INPUT_Harvest:C113

^ 12/9/2021 +

TABLE 15-C >>> NOOKSACK-SAMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK TABLE 15C
 Bellingham Marine (Areas 7B,7C,7D) data prepared for FRAM

FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM

NOOKSACK Early CHINOOK:

PASS TO TAMI:	MAY-JUN	JUL-SEP	OCT-DEC	Notes:
NTTrty Bham TAMI input	na	-88	na	If JUL-SEP is rate; then its a hrtrate on Earlies only
Trty Bham TAMI input	286	-88	na	Rate is applied to NkEarlyCk TRS

NOTE: Jul-Sep Hrvrate is FW and marine combined; If hrtrate on Early Ck is available, "0" is entered in FW NET.

NOOKSACK SUMMER/FALL CHINOOK:

PASS TO TAMI:	MAY-JUN	JUL-SEP	OCT-DEC	Notes:
NTTrty Bham TAMI input	na	0.12815	11.51117	If JUL-SEP is <1 (rate); then its a hrtrate on TAA Bham
Trty Bham TAMI input	0	0.2729	14.167594	If JUL-SEP =1 then compute shares; >1 = target catch

SUPPLEMENTAL INFORMATION:

PASS TO TAMI:	FWSPT	MAR SPT	%FWNET	ESC RATE	EQADJ	Notes:
ADD'L Bham TAMI input	4648.0754	0	1769.5212	0.3513542	0	Nontreaty Row

====15C=====15C==== ==15C=====15C=====15C=====15C=====15C=====15C=====15C==== ==15C====

TABLE 15-D >> NOOKSACK-SAMISH << T
 NOOKSACK-SAMISH REGION STATUS RI

FRAM Run: SLC-Chir
 Run Description: SLC-Chir

NOT READY FOR USE

Production Unit	Total Pgt Snd Run Size	Expected Pre-term Harvest
-----------------	------------------------	---------------------------

NOOKSACK EARLY CHINOOK:

Nooksack Early chinook	na	1
------------------------	----	---

NOOKSACK-SAMISH-EASTSOUND SUMM

---- EastSound / 7E ----		
Glenwood Springs Hatch	609	0

----- Nooksack/Samish -----

Nooksack River Hatchery	0	0
Natural	0	0
Lummi Bay Hatchery	116	0
Samish R. Hatchery	19,140	7
Natural	0	0

Subtotal Natural	0	0
Subtotal Hatchery	19,256	7

Total Nooks-Samish only 19,256 7

GRAND TOTAL incl. 7E 19,866 8

Procedure: (TLS 951025)

1. Total Preterminal Harvest and Terminal A
2. Terminal harvest is computed using the e
3. Expected escapement is computed: TAA

====15D=====15D==== ==15D=====15D=====15D=====15D=====15D=====15D=====15D==== ==15D====

^ 12/9/2021 +

TERMINAL AREA MANAGEMENT MODULE - CHINOOK ===== TABLE 15D
 EPORT 1Version 2.21Dec15 12/09/21
 13721_Final 10:42 AM
 13721_Final

Terminal Area	Terminal Abu	Tamx Harvest	Post-Season Exterm Harvest	Term Harvest	Expected Escapmnt	Escapmnt Goal	NookSam Breakout Proportn	NS+7E Breakout Proportn	Original PSF	Terminal Hrv Rate
	na	7	na	6,738					10,074	

WINTER/FALL CHINOOK:

609	191	0	418	249	na	0.0306794	612	0.0000
0	0	0	0	na	0	0	0	0.7418
0	0	0	0	na	0	0	0	0.7418
116	86		30	na	0.006045	0.0058595	117	0.7418
19,132	6,005	6418	6,710	5,128	0.993955	0.9634611	19,209	0.7418
0	0		0	na	0	0	0	0.7418
0	0		0	0	0.0000	0.0000		
19,249	6,091		6,740	5,128	1.0000	0.9693		
19,249	6,091		6,740	5,128	1.0000	0.9693	19,937	
19,858	6,232		7,158	5,377			1.0000	

Area Abundance are provided from FRAM; apportioned by PSF %, INCLUDING 7E.
 Expected terminal (hatchery aggregate) harvest rate. Total Hatchery Esc Goal/TAA
 - terminal harvest. Expected Escapement is used to define "rate" (Esc/TAA) for Table 15B & A.
 ===15D:===15D=== 15D===15D===15D===15D===15D===15D===

^ 12/9/2021 +

TABLE T10 -> SUMMARY -> TERMINAL AREA MANAGEMENT METRICS - CHECKED

Item	Value	Unit	Notes
Terminal Area Management Metrics	2,270,675	0.0000	
Terminal Area Management Metrics	10,000	0.0000	
Terminal Area Management Metrics	10,000	0.0000	

TABLE T11 -> SUMMARY -> TERMINAL AREA MANAGEMENT METRICS - CHECKED

Item	Value	Unit	Notes
Terminal Area Management Metrics	2,270,675	0.0000	
Terminal Area Management Metrics	10,000	0.0000	
Terminal Area Management Metrics	10,000	0.0000	

TABLE T12 -> SUMMARY -> TERMINAL AREA MANAGEMENT METRICS - CHECKED

Item	Value	Unit	Notes
Terminal Area Management Metrics	2,270,675	0.0000	
Terminal Area Management Metrics	10,000	0.0000	
Terminal Area Management Metrics	10,000	0.0000	

TABLE T13 -> SUMMARY -> TERMINAL AREA MANAGEMENT METRICS - CHECKED

Item	Value	Unit	Notes
Terminal Area Management Metrics	2,270,675	0.0000	
Terminal Area Management Metrics	10,000	0.0000	
Terminal Area Management Metrics	10,000	0.0000	

TABLE T14 -> SUMMARY -> TERMINAL AREA MANAGEMENT METRICS - CHECKED

Item	Value	Unit	Notes
Terminal Area Management Metrics	2,270,675	0.0000	
Terminal Area Management Metrics	10,000	0.0000	
Terminal Area Management Metrics	10,000	0.0000	

TABLE T15 -> SUMMARY -> TERMINAL AREA MANAGEMENT METRICS - CHECKED

Item	Value	Unit	Notes
Terminal Area Management Metrics	2,270,675	0.0000	
Terminal Area Management Metrics	10,000	0.0000	
Terminal Area Management Metrics	10,000	0.0000	

TABLE T16 -> SUMMARY -> TERMINAL AREA MANAGEMENT METRICS - CHECKED

Item	Value	Unit	Notes
Terminal Area Management Metrics	2,270,675	0.0000	
Terminal Area Management Metrics	10,000	0.0000	
Terminal Area Management Metrics	10,000	0.0000	

Item	Value	Unit	Notes
Terminal Area Management Metrics	2,270,675	0.0000	
Terminal Area Management Metrics	10,000	0.0000	
Terminal Area Management Metrics	10,000	0.0000	

Item	Value	Unit	Notes
Terminal Area Management Metrics	2,270,675	0.0000	
Terminal Area Management Metrics	10,000	0.0000	
Terminal Area Management Metrics	10,000	0.0000	

TABLE 11-A >>> SKAGIT <<< TERMINAL AREA MANAGEMENT MODULE - CH/SLC-Chin37===== TABLE 11A
 Provides Skagit (8) and Extreme Terminal catches & Escapement for spring and sum/fall stocks

FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21 10:42 AM
 Run Description: SLC-Chin3721_Final

MARKED ONLY

FISHERY	AREA 8 TRTY	AREA 8 NTRTY	AREA 8 TOTAL	REMARKS:
---------	-------------	--------------	--------------	----------

SKAGIT Sum/Fall TERMINAL AREA ABUNDANCE -----> 521 = Run entering area 8 (all stks, landed catch)
 ----- (includes marine sport savings) -----

TERMINAL (SKAGIT BAY, AREA 8) FISHERIES:

	AREA 8 TRTY	AREA 8 NTRTY	AREA 8 TOTAL	REMARKS:
Chinook Directed Marine	0.0	0	0.0	Spring Chinook: Swinomish wks 18-19: 4.4. USIT no fishery. No S/F directed fisheries.
Sockeye Directed Marine	0.2	0	0.2	Swin wks 27-28: 2.2; USIT No fisher closed
Pink Directed Marine	1.9	0	1.9	Swin wks 35-37: 1.5,2. USIT no fishery
COHO Directed Marine	0.1	0	0.1	Swin wks 39-40: 1.5,1.5. USIT no fishery.
CHUM MARINE	0.0	0	0.0	No fisheries for Swin or USIT closed
STEELHEAD MARINE	0.0	0	0.0	No fisheries for Swin or USIT
Bay, Jetty & Brown's Pt Test Fishery, PSC Res	0.0	NA	0.0	WK 44-45 Bay and Jetty chum tests 1,1.

	AREA 8 TRTY	AREA 8 NTRTY	AREA 8 TOTAL	REMARKS:
TAMM Area 8 Catch:	2.2	0.0	2.2	Stocks Catch
Area 8 Catch MAY-SEP Only:	2	0	2	TAMM Area 8 May-Sep All-Stocks Catch
FRAM Area 8 Catch: Springs	0	0	0	FRAM Area 8 catch is May-Sep LANDED only
MAY-SEP ONLY!!!! S/F 0s	0	0	0	"Natural"
S/F 1s	0	0	0	"Hatchery"
Total local stocks	0	0	0	Including Springs and Sum/falls
NONLOCAL	0	0	0	
TOTAL AREA 8	0.2809643	0	0.2809643	Provided as as err chk, TAMM-FRAM = 2

EXTREME TERMINAL FISHERIES (INCLUDES SWINOMISH CHANNEL, RIVER, FW SPORT):

EXTR TERM RUN SIZES FOR AGES 3-5:	SPRING TOTAL ATURAL	S/F 0s TOTAL NATURAL	S/F 1s TOTAL NATURAL	TOTAL NATURAL	TOTAL CATCH	CHINOOK
	2,516	0	516	0	0	1

FRESHWATER NET:

	SPRING TOTAL ATURAL	S/F 0s TOTAL NATURAL	S/F 1s TOTAL NATURAL	TOTAL NATURAL	TOTAL CATCH	CHINOOK
T FW Chinook Directed	803	0	0.0	0.0	0	803
T FW Chinook C&S	16	0	10	0.0	0	26
T FW Sockeye Directed	0	0	3	0.0	0	3
T FW Pink Directed	0	54	0.0	0.0	0	54
T Swin. Channel	0	0	0.0	0.0	0	0
T FW Coho Directed	0	0	3	0.0	0	3
T FW Chum Directed	0	0	0.0	0.0	0	0
T FW STEELHEAD	0	0	0.0	0.0	0	0
RIVER TEST FISHERY	18	0	18	0.0	0	36

EXTREME TERM. SPORT:

	SPRING TOTAL ATURAL	S/F 0s TOTAL NATURAL	S/F 1s TOTAL NATURAL	TOTAL NATURAL	TOTAL CATCH	CHINOOK
NT SKAGIT R. RECR.	0.00	0.000	0.968	0.000	0.000	0.968
Skagit Spring Selective	496	0				

^ 12/9/2021 +

Skagit Sockeye Sport	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	closed
EXT TERM CATCH (3-5):	1,334	0	88.256	0	0	0	0	1,422	0.7955976
NT RECR. 8-1 SAVINGS	0	0	0	0	0	0	0	0	
SPAWNING ESCAPEMEN	SP TOT	SP NAT	0 TOT	0 NAT	1 TOT	1 NAT	TOTAL S/F ESCAPEMENT (hat&nat):		
TOTAL (AGE 3-5):	1,182	0.00	428	0	0	0	428		

For springs: If rate-or-catch cell is rate, then $rate * etrssksp3 + ppnspring$, else $catch * ppnspring$
For Falls: If rate-or-catch cell is <1 (rate) then $rate * (1 - ppnspring) * etrssksf3 + \%fingerling$ (or 1-%fing) of fall adults,
else $catch * \%fingerling$ (or 1-%fing, for yearlings) of fall*(1-ppnspring)
For natural: Multiply total by the percent natural input into table 11B.
Escapement = ETRS - TotalETCatch + 8-1 Marine Sport savings

TABLE 11-B >>> SKAGIT <<< TERMINAL AREA MANAGEMENT \ SLC-Chin37===== TABLE 11B
 SKAGIT Terminal Area Fishery Parameters; Harvest rates used for FRAM modelling, & associated regulations. 12/09/21
 FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 10:42 AM
 Run Description: SLC-Chin3721_Final

INPUT TABLE	TREATY	Para-	NONTRTY	Para-	NONTRTY
Fishery	Chinook %TAAsksf	meter Type	TREATY Fishery Description:	Chinook %TAAsksf	meter Type Fishery Description:
Source:	#REF!			#REF!	
TERMINAL (SKAGIT BAY, AREA 8) FISHERIES:					
Skagit S/F Chinook In			#REF!		#REF!
Chinook Directed Ma	0.0000	<<< rate	Spring Chinook: Swinomi	NA	No fishery
Sockeye Directed Ma	0.0003	<<< rate	Swin wks 27-28: 2,2; USI na	<<< rate	closed
Pink Directed Marine	0.0036	<<< rate	Swin wks 35-37: 1,5,2. L	0.0000	Modeled in treaty column
COHO Directed Marii	0.0002	<<< rate	Swin wks 39-40: 1.5,1.5.	NA	No fishery
CHUM MARINE	0	<<<catcl	No fisheries for Swin or L	0 <<<catch	closed
STEELHEAD MARIN	0	<<<catcl	No fisheries for Swin or L	NA	
Bay, Jetty & Brown's	0	<<<catcl	WK 44-45 Bay and Jetty	NA	

% Fingerling of Fall 95% = etrssksf0/(etrssksf0+etrssksf1) for ages 3-5 [from FRAM] ["SKSF% fing"]

Note: All fish caught in area 8 time steps 2 (May-Jun) and 3 (Jul-Sep) are considered "adult"

EXTREME TERMINAL (FRESHWATER) FISHERIES (INCLUDES FPPNs input in TAMM (eventually will pass from FRAM):

Fishery	Chinook %TAA or catch	Para-meter Type	Item Description	% Spr	Fishery Description
FRESHWATER NET: #REF!					
T FW Chinook Direct	0.00	<<< rate	Spring Chinook: Swinomish w	0.1809	Spring HR
T FW C&S	10	<<<catcl	Total Swin/USIT C&S target zi	16	Spring Catch
T FW Sockeye Direct	0.0055	<<< rate	Swin wks 27-28: 2,2; Swin 78	0.0000	
T FW Pink Directed	0.1043	<<<catcl	Swin wks 35-37: 1,5,2. SSIT r	0.0000	
T Swin. Channel	0.0000	<<< rate	N/A	0.0000	
T FW Coho Directed	0.0058	<<< rate	Swin wks 39-40: 1.5,1.5. SSIT	0.0000	
T FW Chum Directed	0.0000	<<< rate	No fisheries for Swin, SSIT, or	0.0000	
T FW Steelhead Dire	0.0000	<<< rate	No fisheries for Swin, SSIT, or	0.0000	
RIVER TEST FISHEF	408.7311	<<<catcl	Wks 19-45 Blakes (chinook w	0.0909	<<<%SPR
EXTREME TERMINAL SPORT: #REF!					
NT SKAGIT R. RECF	0.968	<<<catcl	pink fishery from 8/14-8/3	0.0000	<<<%SPR
Skagit Sockeye Sport	0.00000	<<Sp	HR or catch Su/Fa HR or c	0.0000	n/a

^ 12/9/2021 +

MAR SPT SAVINGS:

NT RECR. 8-1 SAVIN 0 <<<catcl Cells no longer used. 0.0000

=====

% by AGE: All ET harvest rate fisheries are 100% age 3-5 (J. Scott, 3/3/95)

Freshwater sport is 34% age 2 (88-92 average), however all FWS catches are considered "adult"

% SPRING: Chinook fishery: Fishery to start Wk 26, at beginning of s/f aap; TEST: 28% of expected catch during spring aap;

FWsport: 86-92 avg chinook + chin jacks catch through June; All other fisheries are outside AAP for spring.

Marine Sport 8-1 Savings: This represents the amount of fish "saved" from harvest when the FRAM 8-1 fishery is modelled as open, but a portion of 8-1 is closed. This number is added to the terminal area abundance of S/F chinook in FRAM; and added to ETRS in escapement computations.

====11B==== ==11B====11B:==11B====11B=== ==11B====11B====11B====11B====11B====11B====11B====

^ 12/9/2021 +

TABLE 11-C >>> SKAGIT <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK
 Skagit Bay (Area 8) data prepared for FRAM

FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15
 Run Description: SLC-Chin3721_Final

TABLE 11C
 12/09/21
 10:42 AM

PASS TO TAMI:	MAY-JUN	JUL-SEP	OCT-APR	Notes:
NTTrty Area 8 Inputs	0.0000	0.0000	0.0	OCT-DEC are catch projections
Trty Area 8 Inputs	0.00000	2.1086	30.3299	based on most recent TAA for sum/falls

Note: All fish caught in area 8 time steps 2 (May-Jun) and 3 (Jul-Sep) are considered "adult"

AVERAGE PERCENT OF CHINOOK CATCH IN EACH SKAGIT BAY FISHERY BY MONTH:

				Total Source:	
Nontreaty breakout proportions:					
PINK FISHERY	In Jul-Sep->	0.0%	0.0%	0.0%	<<<<<<<< #REF!
CHUM FISHERY	In Jul-Sep->	0.0%	0.0%	0.0%	<<<<<<<<

Nontreaty hrates or catch:				
PINK FISHERY	0.0000	0.0000	0.0000	0.0000
CHUM FISHERY	0	0	0.0	0

Treaty breakout proportions:					
Chinook Directed Marine	-99900.0%	100.0%	0.0%	100.0%	<<<<<<<< #REF!
Sockeye Directed Marine	In Jul-Sep->	100.0%	0.0%	100.0%	<<<<<<<<
Pink Directed Marine	In Jul-Sep->	100.0%	0.0%	100.0%	<<<<<<<<
COHO Directed Marine	In Jul-Sep->	49.1%	50.9%	100.0%	<<<<<<<<
CHUM MARINE	In Jul-Sep->	0.0%	100.0%	100.0%	<<<<<<<<
STEELHEAD MARINE	In Jul-Sep->	0.0%	100.0%	100.0%	<<<<<<<<

Treaty catches:				
Chinook Directed Marine	0.0000	0.0000	0.0000	0.0000
Sockeye Directed Marine	0.0000	0.1768	0.0000	0.1768
Pink Directed Marine	0.0000	1.8756	0.0000	1.8756
COHO Directed Marine	0.0000	0.0563	0.0582	0.1145
CHUM MARINE	0.0000	0.0000	0.0000	0.0000
STEELHEAD MARINE	0.0000	0.0000	0.0000	0.0000

TEST Catch Apportionment:					
By time step:	In Jul-Sep->	0.0%	100.0%	100.0%	<<<<<<<< BH (3/3/97)
TEST CATCH projection	0	0	0	0	Bay Test occurs only during Chum

^ 12/9/2021 +

TABLE 11-D >>> SK/ SKAGIT REGION ST/ FRAM Run: Run Description:

NOT REAL

Production Unit
 SKAGIT RIVER SPRING Natural Hatchery TOTAL
 SKAGIT RIVER SUMMER/FALL CHINOOK
 Fingerling Natural Hatchery
 Yearling Natural Hatchery

Swin. Chan. Hatchery Oak Harbor Net Pens
 Skagit Natural Hatchery
 Skagit Total
 Spring Chinook Escapement
 1. ETRS - ETCatch
 Summer/Fall Procedure
 1. FRAM proportions r Springs:
 2. Total Preterminal Hatchery apportioned by FRAI

taa (or preterminal catch)
 3. Area 8 all-stocks catch
 Note: catches will be apportioned by FRAI
 4. ETRSs are from TA
 5. In-river harvest from TA
 6. Expected escapement
 Note: Procedure MUS

^ 12/9/2021 +

AGIT <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK ===== TABLE 11D
 STATUS REPORT TABLE Version 2.21Dec15 12/09/21
 SLC-Chin3721_Final 10:42 AM
 SLC-Chin3721_Final

DO NOT USE!!!

Total Pgt Snd Run Size	Expected Pre-term Harvest	Terminal Area Abu.	Expected Area 8 Harvest	Extreme Terminal Run Size	Expected Extr Trm Net Hrv	Total Trm Net Harvest	Expected Escapmnt	Escapmnt Goal
	0						1,182	
2,526	1	2,525	5,539	2,516	1,334	na	1,182	
470	0	470	0	490	0	0	470	
25	0	25	0	26	87	87	(62)	See
26	0	26	0	0	0	0	26	Below
0	0	0	0	0	0	0	0	
na		na						
na		na						
496	0	496	0	490	0	0	495	14,500
25	0	25	0	26	87	87	(62)	0
521	0	521	0	0	0	0	26	14,500

Escapment Procedure:

re: (TLS 960510)
 natural are: SF 0's: 0.9490074 (from Table 11B)
 0.2983832 SF 1's: 1
 Harvest and Terminal Area Abundance are provided from FRAM (via Table 2E);
 M ETRS % 0's and 1's (times their respective proportions natural for natural stock figures), as follows:

catch) * %fing (* %0nat) and taa * (1-%fing) (* %1nat) [yes, it's awkward, I know!]
 catch from FRAM, time steps 2 and 3 only (via Table 2E), apportioned by FRAM ETRS.
 0 different from "FRAM" fingerling and yearling catches because this table refers to "all-stocks" landed catch in area 8.
 .MX; ETRS0 * %0nat and ETRS1* %1nat
 1 TAMM table 11A, computed for 0s and 1s separately (FWSport and Oak Hbr Spt are subtracted).
 ment is computed: TAA - total terminal harvest (and matches table 11A estimated natural escapements!)
 IT BE UPDATED if forecasts are made for Swinomish Channel and Oak Harbor returns.
 ===11D=====11D=====11D=====11D=====11D=====11D=====11D=====11D=====11D=====

^ 12/9/2021 +

TABLE 11-A >>> SKAGIT <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK SLC-Chin37===== TABLE 11A
 Provides Skagit (8) and Extreme Terminal catches & Escapement for spring and sum/fall stocks 12/09/21
 FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 10:42 AM
 Run Description: SLC-Chin3721_Final

FISHERY	AREA 8 TRTY	AREA 8 NTRTY	AREA 8 TOTAL	REMARKS:
SKAGIT Sum/Fall TERMINAL AREA ABUNDANCE ----->			10,198	= Run entering area 8 (all stks, landed catch) (includes marine sport savings) -----
TERMINAL (SKAGIT BAY, AREA 8) FISHERIES:				#REF! #REF!
Chinook Directed Marine	0	0		Spring Chinook: Swinomish wks 18-19: 4.4. USIT no fishery. No S/F directed fisherie:
Sockeye Directed Marine	3	0		Swin wks 27-28: 2.2; USIT No fisher closed
Pink Directed Marine	37	0		Swin wks 35-37: 1.5,2. USIT no fishery
COHO Directed Marine	2	0		Swin wks 39-40: 1.5,1.5. USIT no fishery.
CHUM MARINE	0	0		No fisheries for Swin or USIT closed
STEELHEAD MARINE	0	0		No fisheries for Swin or USIT
Bay, Jetty & Brown's Pt Test Fishery, PSC Research	0	NA		WK 44-45 Bay and Jetty chum tests 1.1.
TAMM Area 8 Catch:	42	0	42	Stocks Catch
Area 8 Catch MAY-SEP Only:	41	0	41	TAMM Area 8 May-Sep All-Stocks Catch
FRAM Area 8 Catch: Springs	2	0		FRAM Area 8 catch is May-Sep LANDED only
MAY-SEP ONLY!!!! S/F 0s	35	0		"Natural"
S/F 1s	1	0		"Hatchery"
Total local stocks	38.26946545	0		Including Springs and Sum/falls
NONLOCAL	0	0		
TOTAL AREA 8	38.40211587	0	38	Provided as as err chk, TAMM-FRAM = 3

EXTR TERM RUN SIZES FOR AGES 3-5:	SPRING		S/F 0s		S/F 1s		TOTAL CHINOOK CATCH	1
	TOTAL	NATURAL	TOTAL	NATURAL	TOTAL	NATURAL		
	2,692	1,555	9,661	9,658	499	499		From FRAM

FRESHWATER NET:								#REF!
T FW Chinook Directed	439.0	76	0	0	0	0	439	Spring Chinook: Swinomish wks 18-9: 4.4. SSIT: no 78C fishery. Upper Skagit wks 19-20:
T FW Chinook C&S	17.6	10	181	181	9	9	208	Total Swin/USIT C&S target zero during summer/fall chinook timing and 34 during spring c
T FW Sockeye Directed	0.0	0	53	53	3	3	56	Swin wks 27-28: 2.2; Swin 78D/O (Baker) wk 28:29 (contingency): 1.1. SSIT: no 78C fishe
T FW Pink Directed	11	11	1,020	1,020	53	53	1,084	Swin wks 35-37: 1.5,2. SSIT no 78C fishery. USIT wks 36-38: 1.5,2.167,2.167 (USIT chin
T Swin. Channel	0.0	0	0	0	0	0	0	N/A
T FW Coho Directed	0.0	0	56	56	3	3	59	Swin wks 39-40: 1.5,1.5. SSIT: no 78C fisheries. USIT wks 41-43: 0.333,0.333,0.333 (USI
T FW Chum Directed	0.0	0	0	0	0	0	0	No fisheries for Swin, SSIT, or USIT
T FW STEELHEAD	0.0	0	0	0	0	0	0	No fisheries for Swin, SSIT, or USIT during S/F chinook management period
RIVER TEST FISHERY	19.2	11	336	336	17	17	373	Wks 19-45 Blakes (chinook wks 19-35, sockeye wks 24-29; coho wks 38-42, chum wks 44
EXTREME TERM. SPORT:								
NT SKAGIT R. RECR.	0.00	0.00	18.1257	18	0.9362	1	19	pink fishery from 8/14-8/31; coho + pink 9/1-10/15; impacts at
Skagit Spring Selective	31	4						

Skagit Sockeye Sport	0.00	0.00	0.00	0.00	0.00	0.00	0.00	closed
EXT TERM CATCH (3-5):	517	112	1,665	1,664	86	86	2,268	
NT RECR. 8-1 SAVINGS	0	0	0	0	0	0	0	
SPAWNING ESCAPEMEN	SP TOT	SP NAT	0 TOT	0 NAT	1 TOT	1 NAT	TOTAL S/F ESCAPEMENT (hat&nat):	
TOTAL (AGE 3-5):	2,175	1,442	7,996	7,994	413	413	8,409	

For springs: If rate-or-catch cell is rate, then $rate * etrssksp3 + ppnspring$, else $catch * ppnspring$
For Falls: If rate-or-catch cell is <1 (rate) then $rate * (1 - ppnspring) * etrsskf3 + \%fingerling$ (or 1-%fing) of fall adults,
else $catch * \%fingerling$ (or 1-%fing, for yearlings) of fall*(1-ppnspring)
For natural: Multiply total by the percent natural input into table 11B.
Escapement = ETRS - TotalETCatch + 8-1 Marine Sport savings

^ 12/9/2021 +

MAR SPT SAVINGS:

NT RECR. 8-1 SAVINGS: 0 <<<catch Cells no longer used. 0.0000

=====

% by AGE: All ET harvest rate fisheries are 100% age 3-5 (J. Scott, 3/3/95)

Freshwater sport is 34% age 2 (88-92 average), however all FWS catches are considered "adult"

% SPRING: Chinook fishery: Fishery to start Wk 26, at beginning of s/f aap; TEST: 28% of expected catch during spring aap;

FWsport: 86-92 avg chinook + chin jacks catch through June; All other fisheries are outside AAP for spring.

Marine Sport 8-1 Savings: This represents the amount of fish "saved" from harvest when the FRAM 8-1 fishery is modelled as open, but a portion of 8-1 is closed. This number is added to the terminal area abundance of S/F chinook in FRAM; and added to ETRS in escapement computations.

====11B=====11B=== ===11B=====11B=====11B=====11B=====11B=== ===11B=== ===11B=== ===11B=====11B=== ===11B=====11B===

TABLE 11-C >>> SKAGIT <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK ===== TABLE 11C
 Skagit Bay (Area 8) data prepared for FRAM 12/09/21

FRAM Run: SLC-Chin3721_Final Version 2.21Dec15 10:42 AM
 Run Description: SLC-Chin3721_Final

PASS TO TAMI: MAY-JUN JUL-SEP OCT-APR

Notes:

NTrty Area 8 Inpt	0.0000	0.0000	0
Trty Area 8 Inputs	0.00000	41.2743	11620.53

OCT-DEC are catch projections
 based on most recent TAA for sum/falls
 Test is all in Oct-Dec

Note: All fish caught in area 8 time steps 2 (May-Jun) and 3 (Jul-Sep) are considered "adult"

AVERAGE PERCENT OF CHINOOK CATCH IN EACH SKAGIT BAY FISHERY BY MONTH:

Total Source:

Nontreaty breakout proportions:

PINK FISHERY	In Jul-Sep->	0.0%	0.0%	0.0%	<<<<<<<<	#REF!
CHUM FISHERY	In Jul-Sep->	0.0%	0.0%	0.0%	<<<<<<<<	

SKAGIT RIVER SUMM

Nontreaty hrvrates or catch:

PINK FISHERY	0.0000	0.0000	0.0000	0.0000
CHUM FISHERY	0	0	0	0

Treaty breakout proportions:

Chinook Directed	-99900.0%	100.0%	0.0%	100.0%	<<<<<<<<	#REF!
Sockeye Directed	In Jul-Sep->	100.0%	0.0%	100.0%	<<<<<<<<	
Pink Directed Ma	In Jul-Sep->	100.0%	0.0%	100.0%	<<<<<<<<	
COHO Directed M	In Jul-Sep->	49.1%	50.9%	100.0%	<<<<<<<<	
CHUM MARINE	In Jul-Sep->	0.0%	100.0%	100.0%	<<<<<<<<	
STEELHEAD MA	In Jul-Sep->	0.0%	100.0%	100.0%	<<<<<<<<	

Treaty catches:

Chinook Directed	0.0000	0.0000	0.0000	0.0000
Sockeye Directec	0.0000	3.4602	0.0000	3.4602
Pink Directed Ma	0.0000	36.7128	0.0000	36.7128
COHO Directed M	0.0000	1.1013	1.1395	2.2408
CHUM MARINE	0.0000	0.0000	0.0000	0.0000
STEELHEAD MA	0.0000	0.0000	0.0000	0.0000

TEST Catch Apportionment:

By time step:	In Jul-Sep->	0.0%	100.0%	100.0%	<<<<<<<<	BH (3/3/97)
TEST CATCH projection	0	0	0	0	0	Bay Test occurs only during Chum

===11C=== ===11C=== ===11C=== ===11C=== ===11C=== ===11C=== ===11C=== ===11C===

^ 12/9/2021 +

TABLE 11-D >>> SKAGIT <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK Version 2.21Dec15 TABLE 11D
 SKAGIT REGION STATUS REPORT TABLE 12/09/21
 FRAM Run: SLC-Chin3721_Final 10:42 AM
 Run Description: SLC-Chin3721_Final

NOT READY FOR USE!!!

Production Unit	Total Pgt Snd Run Size	Expected Pre-term Harvest	Terminal Area Abu.	Expected Area 8 Harvest	Extreme Terminal Run Size	Expected Extr Trm Net Hrv	Total Trm Net Harvest	Expected Escapmnt	Escapmnt Goal
SKAGIT RIVER SPRING CHINOOK									
Skagit spring Natural		2						732	
Hatchery		5						1,442	
TOTAL	2,708	8	2,700	5,666	2,692	517	na	2,175	
WINTER/FALL CHINOOK									
Fingerling Natural	9,211	8	9,203	35	9,168	1,646	1,681	7,522	
Hatchery	495	0	494	2	493	0	2	492	See Below
Yearling Natural	501	0	501	2	499	85	87	414	
Hatchery	0	0	0	0	0	0	0	0	
Swin. Chan. Hatchery	na		na						
Oak Harbor Net Pens	na		na						
Skagit Natural	9,712	8	9,704	37	9,667	1,731	1,768	7,936	14,500
Skagit Hatchery	495	0	494	2	493	0	2	492	0
Skagit Total	10,207	9	10,198	38	499	85	87	414	14,500

Spring Chinook Escapement Procedure:

1. ETRS - ETCatch

Summer/Fall Procedure: (TLS 960510)

1. FRAM proportions natural are: SF 0's: 0.9490074 (from Table 11B)
 Springs: 0.2983832 SF 1's: 1

2. Total Preterminal Harvest and Terminal Area Abundance are provided from FRAM (via Table 2E);
 apportioned by FRAM ETRS % 0's and 1's (times their respective proportions natural for natural stock figures), as follows:

taa (or preterminal catch) * %fing (* %0nat) and taa * (1-%fing) (* %1nat) [yes, it's awkward, I know!]

3. Area 8 all-stocks catch from FRAM, time steps 2 and 3 only (via Table 2E), apportioned by FRAM ETRS.

Note: catches will be different from "FRAM" fingerling and yearling catches because this table refers to "all-stocks" landed catch in area 8.

4. ETRSs are from TAMX; ETRS0 * %0nat and ETRS1* %1nat

5. In-river harvest from TAMM table 11A, computed for 0s and 1s separately (FWSport and Oak Hbr Spt are subtracted).

6. Expected escapement is computed: TAA - total terminal harvest (and matches table 11A estimated natural escapements!)

Note: Procedure MUST BE UPDATED if forecasts are made for Swinomish Channel and Oak Harbor returns.

====11D==== ==11D====11D====11D====11D====11D====11D====11D====11D====11D====

TABLE 12-A >>> STILLAGUAMISH-SNOHOMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK
 Provides 8A and 8D catch; Extreme Terminal Catches; Stilly and Sno sum/fall escapements

SLC-Chin3721===== TABLE 12A

FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM

ST-SN Sum/Fall TERMINAL AREA ABUNDANCE ----->		MARKED ONLY		13,238	= Run entering area 8A (all stks, lnded catch)		
----- (includes marine sport savings) -----							
AREA 8A FISHERIES:	AREA 8A Trty	AREA 8A NTrty	8A TOTAL	Fishery Description:	#REF! #REF!		
CHINOOK FISHERY	74	0		DH:C&S mid. Aug. on Res.			
PINK FISHERY (odd yrs)	255	0		8A Tulalip Comm (based on 201closed)			
COHO DIRECTED	3	0		8A Tulalip Comm (based on 201closed)			
CHUM & STHD FISHERY	0	0		Closed for Chum closed			
8A TEST FISHERY	NA	NA		Closed for Chum			
TAMM Area 8A catch: Jan-Dec	333	0	333	ea 8A catch			
AREA 8D FISHERIES:	AREA 8D Trty	AREA 8D NTrty	8D TOTAL	Fishery Description:			
AREA 8D NET MAY-JUN	0	0		combined with next time step as done in 2019			
AREA 8D NET JUL-SEP	5,314	2		based on 2014-2019 rates Wk 39-45, GN 5 days/week, PS 1 day/week; Wk 46-4			
AREA 8D NET OCT-APR	0	1		No catch in this period Wk 39-45, GN 5 days/week, PS 1 day/week; Wk 46-4			
NT TULALIP BAY RECR	NA	591		Cells no longer used.			
TAMM Area 8D catch: Jan-Dec	5,314	594	5,908	ea 8D catch			
TERM CATCH BY MANAGEMENT UNIT:	8D Trty	8D NTrty	8A Trty	8A NTrty	TAMM CATCH:	8D	8A
FRAM LANDED Catch: Sno 0s (Natural)	12	0	0	0		Jul-Dec	Jul-Sep
8D: Jul-Dec Only Sno 1s (Hatchery)	11	0	0	0	T	5,314	333
8A: Jul-Sep Only Stillaguamish	5	0	0	0	NT	594	0
Tulalip Hat	5,180	468	0	0	TOTAL	5,908	333
Total local stocks	5,207	468	0	0			
Nonlocal stocks	3	(464)	0	0			
AREA TOTALS	5,209	4	0	0	Err Chk TAMM-FRAM =	8D TOT: 694	8A TOT: 333
EXTREME TERMINAL FISHERIES (INCLUDES FRESHWATER NET AND SPORT):	STILLY	SNO SF 0's Total	Natural	SNO SF 1's Total	Natural	TOTAL CATCH	3428
EXTR TERM RUN SIZE age 3-5	599	3428	0.000000	2434	0	From FRAM	#REF!
T STILLAG. R. CHINOOK	14	NA	NA	NA	NA	14	5/1 - 8/15; Up to 7 days per w
T STILLAG. R. PINK	1	NA	NA	NA	NA	1	8/1 - 8/31; up to 7 days per week, max catch is 400 Pink
T STILLAG. R. COHO	1	NA	NA	NA	NA	1	9/1 - 10/31; Up to 5 days per
T STILLAG. R. CHUM	0	NA	NA	NA	NA	0	11/1-12/5; Up to 3 days per week; max catch of 300
NT STILLAG. R. RECR	0.643	NA	NA	NA	NA	1	represents non-salmon season
T SNOHOMISH R. COMM	NA	0	0	0	0	0	
SNOHOMISH RIVER TEST	NA	0	0	0	0	0	

NT SNOHOMISH R. RECR	NA	334	0	237	0	571	Snohomish pir includes nat. mort from Sky select.		
EXTR TERM CATCH (AGE 3-5):	16	334	0	237	0	587			
	Sky Sel Sport	321	0	228	0	548			
NT RECR 8-2 SAVINGS	0	0	0	0	0	0	Cells no longer used.		
SPAWNING ESCAPEMENT:	STILLY	SNO 0 TOT	SNO 0 nat	SNO 1 TOT	SNO 1 nat	SNO SFNAT	SNO SFHAT	JTAL	Hat&Nat
TOTAL (AGE 3-5):	582.7952277	#####	0.0000000	#####	0.0000000	0	5,291		5,291
Stilly: If catch-or-rate cell is rate, then rate*etrssst, else catch For Snohom: If rate-or-catch cell is <1 (rate) then rate*etrssnsf0+1*%0 of 0+1 else catch*0 of 0+1 (modified 970318 tls to permit hatchery fing. 970922 tls to permit wild yearling) Escapement = ETRS(stock) - TotalETCatch(stock) + 8-2 savings(stock)									

^ 12/9/2021 +

TABLE 12-B >>> STILLAGUAMISH-SNOHOMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK SLC-Chin37=====

STILLAGUAMISH-SNOHOMISH Terminal Area Fishery Parameters; Harvest rates used for FRAM modelling, & associated regulations.
 FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15
 Run Description: SLC-Chin3721_Final

INPUT TABLE	TREATY	Para- meter	N-TRTY	Para- meter	NONTREATY
Fishery	CHINOOK %TAASTSN	Type	Fishery Description:	CHINOOK %TAAST+SN	Type Fishery Description:
	#REF!			#REF!	
AREA 8A FISHERIES: (rate is %TAA Stilly-Sno-Tulalip S/F chinook)					
CHINOOK FISHERY	100 <<< catch		DH:C&S mid. Aug. on Res.	NA	NO FISHERY
PINK FISHERY (odd years)	0.0193 <<< rate		8A Tulalip Comm (based on 2011-19)	0.0000 <<< rate	closed
COHO DIRECTED	0.0002 <<< rate		8A Tulalip Comm (based on 2011-19)	0.0000 <<< rate	closed
CHUM & STEELHEAD FISHE	0.0000 <<<catch		Closed for Chum	0 <<<catch	closed
8A TEST FISHERY	0 <<<either		Closed for Chum	NA	REPORTED IN TRTY C.

8, GN 3days/week, PS 1

AREA 8D FISHERIES:	(rate is %TAA Stilly-Sno-Tulalip S/F chinook)				
AREA 8D NET MAY-JUN	0 <<<catch		combined with next time step as done	0 <<< zero	
AREA 8D NET JUL-SEP	5314 Computed		based on 2014-2019 rates	2 Computed	Wk 39-45, GN 5 days/wk
AREA 8D NET OCT-DEC	0 <<<catch		No catch in this period	0.94 <<<catch	Wk 39-45, GN 5 days/wk
NT TULALIP BAY RECR Jul-Sep				591 Computed	Cells no longer used.

Percent Jul-Sep 8D catch that is NT net: 200.00% Note: July-Sep Area 8D catches are modeled as 100% harvest in Treaty Net cell,
 Percent Jul-Sep 8D catch that is NT SAF: 591 then are apportioned in TAMM to T Net, NT Net and NT SAF sport by input proportions.

% SNO Fngrng of Fall 58% = $\frac{etrssnsf0}{(etrssnsf0+etrssnsf1)}$ for ages 3-5 = sn0_ofsf

Note: All 8D catch in time steps 3 (Jul-Sep) and 4 (Oct-Dec) are considered "adult."

EXTREME TERMINAL FISHERIES (FRESHWATER NET AND SPORT); PPNs input in TAMM (eventually will pass from FRAM

Fishery	Chinook %ETRS or catch	Para- meter Type	Item Description	PPn of aggregate Sno SF that is r	SnoSF 0's % natural: SnoSF 1's % natural:
				0.2595013	0.3765 0.1425
					%0's wld + %1's wld

#REF!

T STILLY R. CHINOOK	21.0000 <<< catch or rate		5/1 - 8/15; Up to 7 days per week; max catch is 21
T STILLY R. PINK	0.0013 <<< catch or rate		8/1 - 8/31; up to 7 days per week, max catch is 400 Pink
T STILLY R. COHO	0.0021 <<< catch or rate		9/1 - 10/31; Up to 5 days per week;
T STILLY R. CHUM	0.0000 <<< catch or rate		11/1-12/5; Up to 3 days per week; max catch of 300
NT STILLY R. RECR	1.000 <<< catch or rate		represents non-salmon season

^ 12/9/2021 +

T SNOHOMISH R. COMM	0.0000	<<< catch or rate	0.0000
SNOHOMISH RIVER TEST	0	<<<catch	0.0000
NT SNOHOMISH R. RECR	37	<<<catch	Snohomish pink/coho impacts (8/22 to 9/30)

Marine Sport 8-2 Savings: Fish "saved" from harvest when the FRAM 8-2 fishery is open but a portion of 8-2 is closed.

			%STILLY	%SNO nat	
NT RECR 8-2 SAVINGS	0	<<<catch	Cells no longer used.	0.0466	0.2950 < computed
=====					
% by AGE: All catch is age 3-5 except FWSPT.					
Stilly FWSPT: 58% age 2 (88-92 avg)					
Snohom. FWSPT: 31% age 2 (88-92 avg)					
However, for TAMM purposes, all FWSport are considered "adult".					
Stilly-Sno breakout for 8-2 savings: Stilly or Sno PPN is ETRS(stock)/sum ETRS(Stilly,Sno0,Sno1,tulalip)					
Mar. Spt. Area 8-2 Savings is added to TAA in FRAM; added to ETRS in escapement computations.					
===12B=====12B===	===12B===	===12B===	===12B=====12B=====12B===	===12B===	===12B=== ===12B=== ===12B===

^ 12/9/2021 +

TABLE 12B

12/09/21
10:42 AM

TABLE 12-C >>> STILLAG.-SNOHOMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK
Stillaguamish-Snohomish Marine (Areas 8A, 8D) data prepared for FRAM

TABLE 12C

12/09/21
10:42 AM

FRAM Run: SLC-Chin3721_Final Version 2.21Dec15
Run Description: SLC-Chin3721_Final

PASS TO TAMI:	MAY-JUN	JUL-SEP	OCT-APR	Notes:
NTrty Area 8A Inputs	0.00	0.00	0.00	INPUT NT MAY-JUN catches, IF ANY, in MY-JN column
Trty Area 8A Inputs	0.00	332.53	0.00	OCT-DEC catch projections
NTrty Area 8D Inputs	0	1.8865	1	Jul-Sep proportion is % of 8D Jul-Sep catch that is NT
Trty Area 8D Inputs	0	0.8818	0	Notes catch = 100% etrs

Note: All 8A catches in time step 3 (Jul-Sep) are considered "Adult";
All 8D catch in time steps 3 (Jul-Sep) and 4 (Oct-Dec) are considered "adult."

AVERAGE PERCENT OF CHINOOK CATCH IN EACH FISHERY BY MONTH:

ATEGORY

=====

Week, PS 1 day/week; Wk 46-48, GN 3
Week, PS 1 day/week; Wk 46-48, GN 3

	Total			
Nontreaty 8A breakout proportions:				
PINK FISHERY	NA	0.0%	0.0%	0.0%
COHO DIRECTED	NA	0.0%	0.0%	0.0%
CHUM FISHERY	NA	0.0%	0.0%	0.0%
Nontreaty 8A hrvrates:				
PINK FISHERY	NA	0.0000	0.0000	0.0000
COHO DIRECTED	NA	0.0000	0.0000	0.0000
CHUM FISHERY	NA	0.0000	0.0000	0.0000
Treaty 8A breakout proportions:				
CHINOOK FISHERY	0.0%	100.0%	0.0%	100.0%
PINK FISHERY	0.0%	100.0%	0.0%	100.0%
COHO DIRECTED	0.0%	100.0%	0.0%	100.0%
CHUM & STHD	0.0%	0.0%	100.0%	100.0%
8A TEST FISHERY	0.0%	0.0%	0.0%	0.0%
Treaty 8A catch or hrvrates:				
CHINOOK FISHERY CATCH	0	74	0	74
PINK FISHERY	NA	255	0	255
COHO DIRECTED	NA	3	0	3
CHUM & STHD	NA	0	0	0.00
8A TEST FISHERY	NA	0	0	0.00

l):

8D fishery breakouts:	May-Jun	Jul-Sep	Oct-Dec	Total
TULALIP RECR PPNS	See Input_F	0.0%	0.0%	0.0%
NT NET	0	1.8865	1	

^ 12/9/2021 +

NT TULALIP RECR	0	0	0
T NET	0	5313.6800	0

===12C=====12C=== ===12C=====12C=====12C=====12C=====12C=====12C=====12C=====12C=====12C=====12C===

=====

===12B===

^ 12/9/2021 +

TABLE 12-D >>> STILLAGUAMISH-SNOHOMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK
 STILLAGUAMISH-SNOHOMISH REGION STATUS REPORT TABLE Version 2.21Dec15

FRAM Run: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final

NOT READY FOR USE!!!

Production Unit	Total Pgt Snd Run Size	Expected Pre-term Harvest	Terminal Area Abu.	Expected 8A Hrv	Extreme Terminal Run Size	Expected 8D Hrv	Expected FW Net Harvest	Total Term Net Harvest	Expected Escapmnt	Escapmnt Goal	PSF Breakout Proportn	Stock-Specific PPN
Stillaguamish	618	0	618	0	599	na	16	16	602	#REF!	0.0518	1.0000
Snohomish Natural Hatchery	0 6,044	0 0	0 6,043	0 0	0 5,862	na na	0 0	0 0	0 6,043	#REF! 3,200	0.0000 0.4672	0.0000 1.0000
Tulalip Hatchery	6,580	3	6,577	0	6,380	5,645	NA	5,645	735	#REF!	0.4811	1.0000
Subtotal Natural	618	0	618	0	599	0	16	16	602	#REF!	0.0518	
Subtotal Hatchery	12,623	3	12,620	0	12,242	5,645	0	5,645	6,778	#REF!	0.9482	
Total	13,241	3	13,238	0	12,841	5,645	16	5,661	7,380	#REF!	1.0000	

Procedure:

1. Preterminal harvests are provided for Stillag., Sno, Tulalip stocks separately from FRAM (via Table 2E); apportioned by ETRS % hatchery/natural (1's/0's).
2. Terminal Area Abundance for Stillag.-Sno-Tulalip aggregate is provided from FRAM; apportioned by ETRS %s.
3. 8A and 8D harvest is all-stocks catch from FRAM (via Table 2E); 8A apportioned by %ETRS;8D is all Tulalip. Extr. Term. harvest computed for each stock in TAMM (FWSpt is subtracted).
4. Expected escapement is computed: TAA - total terminal/extr. term. harvest (Sum of st-sno does not match same sum calc in 12A; diff should be FWSpt)
5. Note that Tulalip stock should show as 100% harvested in this table (but probably doesn't because 8D harv expectation is set by manager; rest is escapement).
6. For escapement computations 8D sport is included in Terminal Net Harvest for Tulalip stock.

====12D==== 12D====12D====12D====12D====12D====12D====12D====12D====12D====12D====12D====12D====

^ 12/9/2021 +

=====
TABLE 12D
12/09/21
10:42 AM

=====
FRAM
ETRS
Original Breakout
PSF Proportn

581 0.0466
0 0.0000
5,244 0.4565
5,400 0.4968

1.0000

=====
11,225
=====

===12D=====12D===

^ 12/9/2021 +

TABLE 12-A >>> STILLAGUAMISH-SNOHOMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK SLC-Chin3721===== TABLE 12A
 Provides 8A and 8D catch; Extreme Terminal Catches; Stilly and Sno sum/fall escapements

FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM

ST-SN Sum/Fall TERMINAL AREA ABUNDANCE -----> UNMARKED ONLY 4,547 = Run entering area 8A (all stks, Inded catch)

AREA 8A FISHERIES:	AREA 8A Trty	AREA 8A NTrty	8A TOTAL	Fishery Description:	#REF!	#REF!
CHINOOK FISHERY	26	0		DH:C&S mid. Aug. on Res.		
PINK FISHERY (odd yrs)	88	0		8A Tulalip Comm (based on 201 closed)		
COHO DIRECTED	1	0		8A Tulalip Comm (based on 201 closed)		
CHUM & STHD FISHERY	0	0		Closed for Chum closed		
8A TEST FISHERY	NA	NA		Closed for Chum		
TAMM Area 8A catch: Jan-Dec	114	0	114	8A catch		

AREA 8D FISHERIES:	AREA 8D Trty	AREA 8D NTrty	8D TOTAL	Fishery Description:
AREA 8D NET MAY-JUN	0	0		combined with next time step as done in 2019
AREA 8D NET JUL-SEP	324	516		based on 2014-2019 rates Wk 39-45, GN 5 days/week, PS 1 day/we
AREA 8D NET OCT-APR	0	0		No catch in this period Wk 39-45, GN 5 days/week, PS 1 day/we
NT TULALIP BAY RECR	NA	37		Cells no longer used.
TAMM Area 8D catch: Jan-Dec	324	553	877	8D catch

TERM CATCH BY MANAGEMENT UNIT:	8D Trty	8D NTrty	8A Trty	8A NTrty	TAMM CATCH	8D	8A
FRAM LANDED Catch: Sno 0s (Natural)	12	1	0	0		Jul-Dec	Jul-Sep
8D: Jul-Dec Only Sno 1s (Hatchery)	2	0	0	0	T	324	114
8A: Jul-Sep Only Stillaguamish	3	0	1	0	NT	553	0
Tulalip Hat	300	27	20	0	TOTAL	877	114
Total local stocks	317	28	20	0			
Nonlocal stocks	1	0	29	0		8D TOT:	8A TOT:
AREA TOTALS	318	29	50	0	Err Chk TAMM-FRAM =	531	64

EXTREME TERMINAL FISHERIES (INCLUDES FRESHWATER NET AND SPORT):	STILLY	SNO SF 0's Total	Natural	SNO SF 1's Total	Natural	TOTAL CATCH	From FRAM	#REF!
						817.77	809	4237
EXTR TERM RUN SIZE age 3-5	332	3367	2,558	415	406			

T STILLAG. R. CHINOOK	7	NA	NA	NA	NA	7	5/1 - 8/15; Up to 7 days per wee
T STILLAG. R. PINK	0	NA	NA	NA	NA	0	8/1 - 8/31; up to 7 days per week, max catch is 400 Pink
T STILLAG. R. COHO	1	NA	NA	NA	NA	1	9/1 - 10/31; Up to 5 days per we
T STILLAG. R. CHUM	0	NA	NA	NA	NA	0	11/1-12/5; Up to 3 days per week; max catch of 300
NT STILLAG. R. RECR	0.357	NA	NA	NA	NA	0	represents non-salmon season
T SNOHOMISH R. COMM	NA	0	0	0	0	0	
SNOHOMISH RIVER TEST	NA	0	0	0	0	0	

^ 12/9/2021 +

NT SNOHOMISH R. RECR NA 34 24 4 4 38 Snohomish pink/c **includes nat. mort from Sky select.**

EXTR TERM CATCH (AGE 3-5): 9 34 24 4 4 47

Sky Sel Sport	21	14	2	2	24
---------------	----	----	---	---	----

NT RECR 8-2 SAVINGS 0 0 0 0 0 0 Cells no longer used.

SPAWNING ESCAPEMENT:	STILLY	SNO 0 TOT	SNO 0 nat	IO 1 TOT	SNO 1 nat	SNO SFNAT	SNO SFHAT	TOTAL Hat&Nat
TOTAL (AGE 3-5):	323	3,333	2,534	411	402	2,936	807	3,744

Stilly: If catch-or-rate cell is rate, then rate*etrssst, else catch
 For Snohom: If rate-or-catch cell is <1 (rate) then rate*etrssnsf0+1*%0 of 0+1
 else catch*0 of 0+1 (modified 970318 tls to permit hatchery fing. 970922 tls to permit wild yearling)
 Escapement = ETRS(stock) - TotalETCatch(stock) + 8-2 savings(stock)

^ 12/9/2021 +

TABLE 12-B >>> STILLAGUAMISH-SNOH
 STILLAGUAMISH-SNOHOMISH Terminal A
 FRAM Run: SLC-Chin372
 Run Description: SLC-Chin372

INPUT TABLE	TREATY
Fishery	CHINOOK %TAASTSN
	#REF!

AREA 8A FISHERIES:	(rate is %TAA
CHINOOK FISHERY	100
PINK FISHERY (odd years)	0.0193
COHO DIRECTED	0.0002
CHUM & STEELHEAD FISHE	0.0000
8A TEST FISHERY	0.0000E+00

AREA 8D FISHERIES:	(rate is %TAA
AREA 8D NET MAY-JUN	0
AREA 8D NET JUL-SEP	324
AREA 8D NET OCT-DEC	0
NT TULALIP BAY RECR Jul-Sep	

Percent Jul-Sep 8D catch that is NT net:
 Percent Jul-Sep 8D catch that is NT SAF:

% SNO Fngrlng of Fall 89%

Note: All 8D catch in time steps 3 (Jul-Sep)

EXTREME TERMINAL FISHERIES (FRESH

Fishery	Chinook %ETRS or catch
T STILLY R. CHINOOK	21.0000
T STILLY R. PINK	0.0013
T STILLY R. COHO	0.0021
T STILLY R. CHUM	0.0000
NT STILLY R. RECR	1.00

ek; Wk 46-48, GN 3days/week, PS 1 day/week
 ek; Wk 46-48, GN 3days/week, PS 1 day/week

$$=(P51-(P51*(TAMXID12/(TAMXID12+TAMXII12))))*(E40/(C40+E40))$$

$$=(P51-(P51*(TAMXII12/(TAMXID12+TAMXII12))))*(C40/(C40+E40))$$

^ 12/9/2021 +

=(P51*(C40)/(C40+E40))*(TAMX!D12/(TAMX!D12+TAMX!I12))+(INPUT_ETSport!C18*(D40/(D40+F40)))
 =(P51*(E40)/(C40+E40))*(TAMX!I12/(TAMX!I12+TAMX!D12))+(INPUT_ETSport!C18*(F40/(D40+F40)))

T SNOHOMISH R. COMM	0.0000
SNOHOMISH RIVER TEST	0
NT SNOHOMISH R. RECR	37

Marine Sport 8-2 Savings: Fish "saved" from

NT RECR 8-2 SAVINGS	0
---------------------	---

=====
 % by AGE: All catch is age 3-5 except FWS
 Stilly FWSPT:
 Snohom. FWS
 However, for
 Stilly-Sno breakout for 8-2 savings: Stilly or
 Mar. Spt. Area 8-2 Savings is added to TAA
 ===12B=====12B=== ===12B===

^ 12/9/2021 +

OMISH <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK SLC-Chin37===== TABLE 12B
 Area Fishery Parameters; Harvest rates used for FRAM modelling, & associated regulations.

1_Final Version: 2.21Dec15 12/09/21
 1_Final 10:42 AM

Parameter Type	TREATY Fishery Description:	N-TRTY CHINOOK %TAAST+SN	Parameter Type	NONTREATY Fishery Description:
		#REF!		

Stilly-Sno-Tulalip S/F chinook)

<<< catch	DH:C&S mid. Aug. on Res.	NA	NO FISHERY
<<< rate	8A Tulalip Comm (based on 2011-19	0.0000	<<< rate closed
<<< rate	8A Tulalip Comm (based on 2011-19	0.0000	<<< rate closed
<<< catch	Closed for Chum	0	<<< catch closed
<<< either	Closed for Chum	NA	REPORTED IN TRTY CATEGORY

Stilly-Sno-Tulalip S/F chinook)

<<< catch	combined with next time step as done	0	<<< zero
Computed	based on 2014-2019 rates	0	Computed Wk 39-45, GN 5 days/week, PS 1 day/week; Wk 46-48, GN :
<<< catch	No catch in this period	0.06	<<< catch Wk 39-45, GN 5 days/week, PS 1 day/week; Wk 46-48, GN :
		37	Computed Cells no longer used.

200.00% Note: July-Sep Area 8D catches are modeled as 100% harvest in Treaty Net cell,
 37 then are apportioned in TAMM to T Net, NT Net and NT SAF sport by input proportions.

= etrssnsf0/(etrssnsf0+etrssnsf1) for ages 3-5 = sn0_ofsf

and 4 (Oct-Dec) are considered "adult."

Parameter Type	Item Description	PPNs input in TAMM (eventually will pass from FRAM):
		SnoSF 0's % natural: 0.3765
		SnoSF 1's % natural: 0.1425
		Ppn of aggregate Sno SF that is r 0.2595013 %0's wld + %1's wld

#REF!

<<< catch or rate 5/1 - 8/15; Up to 7 days per week; max catch is 21
 <<< catch or rate 8/1 - 8/31; up to 7 days per week, max catch is 400 Pink
 <<< catch or rate 9/1 - 10/31; Up to 5 days per week;
 <<< catch or rate 11/1-12/5; Up to 3 days per week; max catch of 300
 <<< catch or rate represents non-salmon season
 ^ 12/9/2021 +

TABLE 12-C >>> STILLAG.-SNOHOMISH
 Stillaguamish-Snohomish Marine (Areas 8

FRAM Run:
 Run Description:

PASS TO TAMI:	MAY-JUN
NTTrty Area 8A Inputs	0.00
Trty Area 8A Inputs	0.00
NTTrty Area 8D Inputs	0
Trty Area 8D Inputs	0

Note: All 8A catches in time step 3 (Jul-Sep)
 All 8D catch in time steps 3 (Jul-Sep) :

=====

AVERAGE PERCENT OF CHINOOK CAT	
Nontreaty 8A breakout proportions:	
PINK FISHERY	NA
COHO DIRECTED	NA
CHUM FISHERY	NA

Nontreaty 8A hrvrates:	
PINK FISHERY	NA
COHO DIRECTED	NA
CHUM FISHERY	NA

Treaty 8A breakout proportions:	
CHINOOK FISHERY	0.0%
PINK FISHERY	0.0%
COHO DIRECTED	0.0%
CHUM & STHD	0.0%
8A TEST FISHERY	0.0%

Treaty 8A catch or hrvrates:	
CHINOOK FISHERY CATC	0
PINK FISHERY	NA
COHO DIRECTED	NA
CHUM & STHD	NA
8A TEST FISHERY	NA

8D fishery breakouts: May-Jun	
TULALIP RECR PPNS	See Input_F
NT NET	0


```

<<< catch or rate          0.0000
<<<catch                    0.0000
<<<catch      Snohomish pink/coho impacts (8/22 to 9/30)

```

```

NT TULALIP RECR          0
T NET                    0

```

n harvest when the FRAM 8-2 fishery is open but a portion of 8-2 is closed.

```

===12C=====12C===    ===12C===

```

```

                                %STILLY  %SNO nat
<<<catch      Cells no longer used.      0.0738  0.2950 < computed
=====

```

```

$PT.
: 58% age 2 (88-92 avg)
$PT: 31% age 2 (88-92 avg)
TAMM purposes, all FWSport are considered "adult".
Sno PPN is ETRS(stock)/sum ETRS(Stilly,Sno0,Sno1,tulalip)
.in FRAM; added to ETRS in escapement computations.
===12B===    ===12B=====12B=====12B===  ===12B===    ===12B=====12B=====12B=====12B===

```

^ 12/9/2021 +

<<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK ===== TABLE 12C
 (A, 8D) data prepared for FRAM 12/09/21
 SLC-Chin3721_Final Version 2.21Dec15 10:42 AM
 SLC-Chin3721_Final
 =====

JUL-SEP	OCT-APR	Notes:
0.00	0.00	INPUT NT MAY-JUN catches, IF ANY, in MY-JN column
114.22	0.00	OCT-DEC catch projections
0.1135	0	Jul-Sep proportion is % of 8D Jul-Sep catch that is NT
0.8818	0	Notes catch = 100% etrs

(p) are considered "Adult";
 and 4 (Oct-Dec) are considered "adult."

CH IN EACH FISHERY BY MONTH:

Total		
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0000	0.0000	0.0000
0.0000	0.0000	0.0000
0.0000	0.0000	0.0000
100.0%	0.0%	100.0%
100.0%	0.0%	100.0%
100.0%	0.0%	100.0%
0.0%	100.0%	100.0%
0.0%	0.0%	0.0%
26	0	26
88	0	88
1	0	1
0	0.00	0.0
0.0	0.0	0.0

Jul-Sep	Oct-Dec	Total
0.0%	0.0%	0.0%
0.1135	0	
^ 12/9/2021 +		

TABLE 12-D >>> STILLAGUAMISH-SNOHOMISH <<< T
 STILLAGUAMISH-SNOHOMISH REGION STATUS REPORT
 FRAM Run: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final
 =====

NOT READY FOR USE!!!

Production Unit	Total Pgt Snd Run Size	Expected Pre-term Harvest	Terminal Area Abu.
Stillaguamish	336	0	336
Snomomish Natural	3,000	4	2,997
Hatchery	828	1	827
Tulalip Hatchery	390	1	388
Subtotal Natural	3,336	4	3,332
Subtotal Hatchery	1,217	2	1,215
Total	4,553	11	4,547

Procedure:

1. Preterminal harvests are provided for Stillag., Sno, Tula from FRAM (via Table 2E); apportioned by ETRS % hat
2. Terminal Area Abundance for Stillag.-Sno-Tulalip aggre
3. 8A and 8D harvest is all-stocks catch from FRAM (via T Extr. Term. harvest computed for each stock in TAMM (
4. Expected escapement is computed: TAA - total termina
5. Note that Tulalip stock should show as 100% harvestec
6. For escapement computations 8D sport is included in T
 ===12D=== ===12D=== ===12D=== ===12D===

0	0
323.89	0

===12C=== ===12C=== ===12C=== ===12C=== ===12C=== ===12C=== ===12C=== ===12C===

^ 12/9/2021 +

Expected 8A Hrv	Extreme Terminal Run Size	Expected 8D Hrv	Expected FW Net Harvest	Total Term Net Harvest	Expected Escapmnt	Escapmnt Goal	PSF Breakout Proportn	Stock- Specific PPN	Original PSF	FRAM ETRS Breakout Proportn
4	332	na	9	12	323	#REF!	0.0749	1.0000	331	0.0738
33	2,964	na	0	33	2,964	#REF!	0.6611	0.7836	2,922	0.6590
9	818	na	0	9	818	3,200	0.1826	0.2164	807	0.1818
4	384	327	NA	327	57	#REF!	0.0814	1.0000	360	0.0854
37	3,296	0	9	45	3,287	#REF!	0.7360			1.0000
13	1,202	327	0	336	874	#REF!	0.2640			
50	4,498	327	9	382	4,161	#REF!	1.0000		4,420	

Tulalip stocks separately
 chery/natural (1's/0's).
 Escapmnt is provided from FRAM; apportioned by ETRS %s.
 (Table 2E); 8A apportioned by %ETRS; 8D is all Tulalip.
 FWSpt is subtracted).
 Total/extr. term. harvest (Sum of st-sno does not match same sum calc in 12A; diff should be FWSpt)
 listed in this table (but probably doesn't because 8D harv expectation is set by manager; rest is escapement).
 Terminal Net Harvest for Tulalip stock.
 =====12D=====12D=====12D=====12D=====12D=====12D=====12D=====12D=====12D=====12D=====

TABLE 13E: HOOD CANAL PRODUCTION UNITS - FISHERY IMPACT SUMMARY

=====

Estimated fishery impacts from regulations described by FRAM model run # SLC-Chin37 Version: 2.21Dec15

Run Description: SLC-Chin3721_Final

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations.

Treaty/non-treaty splits are NOT based on CWT recovery data.

FISHERY		Area 12B NatFing	Hoodsprt Fing	Skok Nat.Fing	Skok Hatch F	Area 12C/D Nat.	HC yearlings	Total Fingerling
Alaska	NTrty	0	180	1	176	2	0	359
Canada		2	3,451	28	3,375	33	285	6,888
S. Of Falcon Ocean	NTrty	0.05	88	1	86	1	3	176
N.Flc. Ocean Troll:	NTrty	0.35	667	5	652	6	0	1,330
	Trty	0.94	1,796	14	1,751	17	119	3,578
N.Flc. Ocean & Buoy10 Spt	NTrty	0	503	4	493	5	13	1,006
Pgt Snd Troll	Trty	0	164	1	162	2	50	329
Pgt Snd 6 Sport	NTrty	0	1,264	3	1,137	11	38	2,416
Pgt Snd 5 Sport	NTrty	0	1,034	2	929	9	76	1,974
Pgt Snd 7 Sport	NTrty	0	208	1	189	2	0	399
Pgt Snd 8-11,13 Sport	NTrty	0	2,497	7	2,274	23	778	4,802
Local Marine 12 Sport		0.03	1,222	3	1,102	11	78	2,338
Out-of-Region net:	NTrty	0	57	1	56	1	36	115
	Trty	0	392	3	386	4	72	786
Local Terminal Net:	NTrty	0.49	879	7	863	8	78	1,759
	Trty	0	3,337	28	3,276	32	257	6,672
Freshwater Sport & Net: \1	NTrty	0.00	4,879.42	0	0	0	121	4,879
Freshwater Net: \2	Trty	0.00	11,231	66	7,818	0	445	19,114

Total Marine Catch		5	17,741	110	16,906	165	1,883	34,927
Extr. Term. Catch		0	16,110	66	7,818	0	565	23,994

TOTAL CATCH		5	33,851	176	24,724	165	2,449	61,369

Escapement (from TAMMs)		18	13,859	182	21,561	283	713	35,903
TOTAL ABUNDANCE		24	47,710	357	46,285	448	3,161	94,824
Total Exploitation		0.226	0.710	0.492	0.534	0.368	0.775	0.647
SUS ER		0.144	0.633	0.410	0.457	0.292	0.684	0.545
SUS Pretrminal ER		0.121	0.207	0.127	0.199	0.203	0.400	0.203

TABLE 13E: HOOD CANAL PRODUCTION UNITS - FISHERY IMPACT SUMMARY

=====

Estimated fishery impacts from regulations described by FRAM model r SLC-Chin37. Version: 2.21Dec15
 Run Description: SLC-Chin3721_Final

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations.

Treaty/non-treaty splits are NOT based on CWT. **MARKED ONLY**

FISHERY		Area 12B NatFing	Hoodsprt Fing	Skok Nat.Fing	Skok Hatch F	Area 12C/D Nat.	HC yearlings	Total Fingerling
Alaska		0.00	180	0	157	2	0	338
Canada		0.00	3445	0	3000	31	285	6475
S. Of Falcon Ocean		0.00	88	0	77	1	3	165
N.Flc. Ocean Troll:	NTrty	0.00	665	0	579	6	0	1251
	Trty	0.00	1792	0	1561	16	119	3369
Ntrty N.Flc. Ocean & Buoy10 Spt		0.00	502	0	437	4	13	944
Pgt Snd Trty Troll		0.00	164	0	142	1	50	307
Pgt Snd 6 Sport	NTrty	0.00	1263	0	1100	11	38	2375
Pgt Snd 5 Sport		0.00	1033	0	900	9	76	1942
Pgt Snd 7 Sport		0.00	208	0	181	2	0	390
Pgt Snd 8-11,13 Sport		0.00	2496	0	2173	22	778	4691
Local Marine 12 Sport		0.00	1222	0	1064	11	78	2297
Out-of-Region net:	NTrty	0.00	57	0	50	1	36	107
	Trty	0.00	392	0	341	3	72	736
Local Terminal Net:	NTrty	0.00	878	0	764	8	78	1650
	Trty	0.00	3330	0	2900	30	257	6260
Freshwater Sport & Net: \1	NTrty	0.0000	4,870	0	0	0	121	4870
Freshwater Net: \2	Trty	0.0000	11,208	0	6,931	0	444.6	18139
Total Marine Catch		0.00	17714	0	15426	157	1883	33298
Extr. Term. Catch		0.00	16077	0	6931	0	565	23008
TOTAL CATCH		0.00	33792	0.00	22358	157	2449	56306
Escapement (from TAMMs)		0	13832	0.00000	19116	265	713	33214
TOTAL ABUNDANCE		0.000	47624	0.0000	41473	422	3161	89520
Total Exploitation		0.0000	0.7096	0.0000	0.5391	0.3720	0.7745	0.6290
Exploitation in Southern U.S. Fisherie		0.0000	0.6334	0.0000	0.4630	0.2959	0.6843	0.5529
Exploitation in Southern U.S. Preterm		0.0000	0.2075		0.2075		0.3996	

^ 12/9/2021 +

TABLE 13E: HOOD CANAL PRODUCTION UNITS - FISHERY IMPACT SUMMARY

=====
2.21Dec15

Estimated fishery impacts from regulations described by FRAM model run # SLC-Chin3721_Fil Version:
Run Description: SLC-Chin3721_Final
Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations.

Treaty/non-treaty splits are NOT based on CWT rec: **UNMARKED ONLY**

FISHERY		Area 12B NatFing	Hoodsprt Fing	Skok Nat.Fing	Skok Hatch F	Area 12C/D Nat.	HC yearlings	Total Fingerling
Alaska		0.09	0	1	19	0	0	21
Canada		1.85	7	28	375	2	0	413
S. Of Falcon Ocean		0.05	0	1	10	0	0	11
N.Flc. Ocean Troll:	NTrty	0.35	1	5	72	0	0	79
	Trty	0.94	3	14	190	1	0	209
Ntrty N.Flc. Ocean & Buoy10 Spt		0.28	1	4	56	0	0	62
Pgt Snd Trty Troll		0.10	0	1	20	0	0	22
Pgt Snd 6 Sport		0.18	1	3	37	0	0	41
Pgt Snd 5 Sport		0.14	1	2	29	0	0	32
Pgt Snd 7 Sport		0.04	0	1	8	0	0	8
Pgt Snd 8-11,13 Sport		0.50	2	7	101	1	0	111
Local Marine 12 Sport		0.03	1	3	38	0	0	41
Out-of-Region net:	NTrty	0.03	0	1	7	0	0	8
	Trty	0.22	1	3	45	0	0	49
Local Terminal Net:	NTrty	0.4867	2	7	99	1	0.00	109.04
	Trty	0.043	7	28	376	2	0.00	412.12
Freshwater Sport and Net: \1	NTrty	0.00000	9.855	0	0	0.00	0	10
Freshwater Net: \2	Trty	0.0000	22.7	66	887	0	0.0	975

Total Marine Catch		5.32	26	110	1479	8	0	1629
Extr. Term. Catch		0.00	33	66	887	0	0	985

TOTAL CATCH		5.32	59	176	2366	8	0	2614

Escapement (from TAMMs)		18	27	182	2446	18	0	2690
TOTAL ABUNDANCE		23.555	85	357	4812	26	0	5304
Total Exploitation		0.2260	0.6891	0.4917	0.4917	0.3075	0.0000	0.4928
Exploitation in Southern U.S. Fisheries		0.1436	0.6072	0.4099	0.4099	0.2256	0.0000	0.4110
Exploitation in Southern U.S. Preterm F		0.12106	0.1270	0.1270	0.1270	0.1270	0.0000	

TABLE 14-A >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - (SLC-Chin37===== TABLE 14A
 Provides Area 13A fishery catches and White River Spring Chinook Escapement

FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM

===== S/F CHINOOK RUN SIZES (ETRSs from Table 14D): S/F CHINOOK EXPECTED ESCAPEMENT (from Table 14D):

SPS Aggregate Summer/	86,950	= Run of all chinook stocks entering area 10 (from FRAM)	
ETRS fing "Lake Washi	4,424	= SPS Chinook leaving areas 10/11 * proportion of these that are Lake. Wa.	3,750
ETRS fing "Green R."	23,871	= SPS Chinook leaving areas 10/11 * proportion of these that are Green R.	14,079
ETRS fing "Grovers & E	9,849	= SPS Chinook leaving areas 10/11 * proportion of these that are Grovers or Ea. Kitsap	5,711
ETRS fing "Puyallup R."	17,937	= SPS Chinook leaving areas 10/11 * proportion of these that are Puyallup R.	10,422
ETRS fing "Carr Inlet"	7,652	= SPS Chinook leaving areas 10/11 * proportion of these that are Carr Inlet	4,038
ETRS fing "Chambers E	732	= SPS Chinook leaving areas 10/11 * proportion of these that are Chambers	174
ETRS fing "Nisqually"	15,099	= SPS Chinook leaving areas 10/11 * proportion of these that are Nisqually	8,047
ETRS fing "McAllister"	387	= SPS Chinook leaving areas 10/11 * proportion of these that are McAllister	373
ETRS fing "Deep SPS"	5,781	= SPS Chinook leaving areas 10/11 * proportion of these that are deep SPS stocks	4,827
ETRS fing Aggregate S	85,732		

Marine Fishery All-Stocks	May-Jun	TAMM Jul-Sep	TAMM Oct-Apr	TAMM TOTAL	AAP FRAM TOTAL	Jul-Sep TAMM-FRAM	Fishery Description:
Area 10/11 NTrty	0	164	174	338	236	(72)	10&11_PinksA10_2v2_03182021_KA.xlsx
Area 10/11 Trty	0	130	10	140	93	37	10&11_PinksA10_2v2_03182021_KA.xlsx
Area 10/11 test (Apple+o)	0	21	135	156			CS/JO/CP/DH: 5-YR AVG catch ('16-'20 = 5) plus comm. Pink Fishery impacts (PUY-50)
Area 10A NTrty	0	(88)	0	(88)	38	(126)	Modeled in FRAM
Area 10A Trty	0	1,500	1	1,501	387	1,113	2 nights directed fishery (with possibility of 3rd depending on ISU) + recent 4 year avera
Area 10E NTrty	0	(88)	0	(88)	1	(89)	Modeled in FRAM
Area 10E Trty	0	3,770	0	3,770	792	2,978	4-YR ('17-'20) avg rate on ETRS
Deep SPS NTrty (13,13C	0	0	0	0	0	0	closed
Deep SPS Trty (13,13C,1	0	1,346	0	1,346	102	1,244	Recent 2 Year (2019-2020) average catch
Area 13A NTrty	0	0	0	0	0	0	closed
Area 13A Trty	0	1,930	21	1,951	169	1,760	BP: recent-year (2016-2020) harvest rate on Minter ETRS, applied to 2021 Minter forec

Freshwater Summer/Fall Chinook Cat	FWNet	FWSport	Fishery Descriptions:
Lake Washington & Ship Canal (10F,)	610	3	4 year average incidental: 9/16-10/31, 4 coho only, open only N. of 520; No impacts reserved for so
Lake Sammamish	0	1	No anticipated fishery
Duwamish/Green (80B)	8,333	526	2 nights directed fishery (Avg of 2017 & 2019 CRC estimate of adults + 10% of released fish based on proporti
Puyallup (81B)	5,329	2,043	6 hrs Wk 33 (2015-2020), 8/15-12/31, 6 salmon, 2 adults, release chum and wild adult chinook
Minter Cr.	0	1,970	Closed Open Sept. 15 – Dec. 15 Daily limit 6. 2 Adults. Release wild adult Chinook and wild s
Chambers (13C & 83H)	481	34	BP: recent-year average 10 yr CRC avg; 7/1-11/15, 6 salmon, 4 adults, release wild coho
Nisqually (83D)	5,077	1,681	CS Gill net 2 days a wee 7/1-11/15 6 salmon, 2 adults, release wild chinook, wild coho, and chum ETRS rate
McAllister (83F)	298	47	CS: up to 5 days a wk, w/ 7/1-11/30, 6 salmon, 2 adults; CRC harvest estimate from 2018
Deschutes/Capitol Lk.	NA	7	recent 5yr CRC avg; 7/1-10/15, 6 salmon, 2 adults, release coho

^ 12/9/2021 +

Kennedy/Johns/Misc. "13B" NA 0 10/1-11/30, 6 salmon, 2 adults, release wild coho; CRC avg (no recent Chinook catch
 Puyallup test fishery 62 67 Total C&S -62 Falls & 5 Springers (2010-2014 & 2019 Avg)

WHITE RIVER SPRING CHINOOK - White R. Fingerlings
 White River Spring Chino 2528 = Run of White R Spring Chinook leaving areas 10/11 (from FRAM)

Area 13A Catch of WRSC	May-Jun	Jul-Sep	Oct-Apr	TOTAL	THIS SECTION IS OBSOLETE! AND SHOULD SHOW ALL ZEROS!!
Total AEQ Mortality From					
Ntrty	0	0	0	0	
Trty	0	0	0	0	

Spawning Escapement computation for WRSp 0's:
 Extreme Terminal Run Size (age 3,940
 Extreme Terminal Catch, Area 13 0 Obsolete, as noted above (should be zero!)
 Extreme Terminal Catch, Areas 1 3 Jul-Sep "adults" only
 ty Area 11A/Puy R. Catch 45 White River/Puyallup R Spring adults only
 C&S catch in White River 479 White River/Puyallup R Spring adults only
 Freshwater Sport Catch 0 White River/Puyallup R Spring adults only
 TOTAL SPAWNING ESCAPEMEN 3,413

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

TABLE 14-B >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK AREA 13A INPUTS AND TAMI PREPARATION SLC-Chin37===== TABLE 14B
 12/09/21
 FRAM Run: SLC-Chin3721_Final Version 2.21Dec15 10:42 AM
 Run Description: SLC-Chin3721_Final

Recap INPUT FOR WHITE RIVER SPRING CHINOOK 0'S EXPECTED FW Net HARVEST:
 Catch or HR

Trty Jul-Sep: 0 <<<catch or hrtrate on White R. Sp. % WRSp 13A run
 Trty Puy. R. & 11A & C&S 524 <<< catch of WRSp, May-Sep
 Nontreaty Puy R. FWSport 0.0000 <<< Proportion of Puy R. catch that is WR Sp

Fishery Description:
Note: OBSOLETE!

INPUT TABLE FOR MARINE SUMMER/FALL CHINOOK EXPECTED CATCH:

Fishery - ALL STOCKS CATCH	May-Jun	Jul-Sep	Oct-Dec	Fishery Description:
Area 10/11 NTrty	0	164	173.80036 <<<catch	10&11_PinksA10_2v2_03182021_KA.xlsx
Area 10/11 Trty	0	130	10 <<<catch	CS/JO/CP/DH: 5-YR AVG catch ('16-'20 = 5) plus comm. Pink Fishery impacts (PUY-
Area 10/11 test (Apple+other)	0	21	135 <<<catch	
Area 10A NTrty	0	-88	0 <<<catch	Modeled in FRAM
Area 10A Trty	0	1,500	1 <<<catch	2 nights directed fishery (with possibility of 3rd depending on ISU) + recent 4 year ave
Area 10E NTrty	0	-88	0 <<<catch	Modeled in FRAM
Area 10E Trty	0	3,770	0 <<<catch	4-YR ('17-'20) avg rate on ETRS
Deep SPS NTrty (13,13C,13D-K)	0	0	0 <<<catch	closed
Deep SPS Trty (13,13C,13D-K)	0	1,346	0 <<<catch	Recent 2 Year (2019-2020) average catch
Area 13A NTrty	0	0	0 <<<catch	closed
Area 13A Trty	0	1,930	21 <<<catch	BP: recent-year (2016-2020) harvest rate on Minter ETRS, applied to 2021 Minter fore

INPUT TABLE FOR FRESHWATER SUMMER/FALL CHINOOK EXPECTED CATCH:

Fishery:	Treaty Freshwater Net		NTrty Freshwater Sport	
	May-Dec	Fishery Description:	Jan-Dec	Fishery Description:
Lk. Wash.(10F,G,C,D)	610 <<<catch	4 year average incidentals ; 300 MIT	3 <<<catch	9/16-10/31, 4 coho only, open only N. of 520; No impacts reserved for soc
Lake Sammamish	0 <<<catch	No anticipated fishery	1 <<<catch	
Duwamish/Green (80B)	8333 <<<catch	2 nights directed fishery (with possib	526 <<<catch	Avg of 2017 & 2019 CRC estimate of adults + 10% of released fish based
Puyallup (81B)	0.30 <<<catch	6 hrs Wk 33 (2015-2020 Avg); 6 hrs	2043 <<<catch	8/15-12/31, 6 salmon, 2 adults, release chum and wild adult chinook
Minter Cr.	0.00 <<<catch	Closed	1970 <<<catch	Open Sept. 15 – Dec. 15 Daily limit 6. 2 Adults. Release wild adult Chinoc
Chambers (13C & 83H)	0.66 <<<catch	BP: recent-year average (2014,2015	34 <<<catch	10 yr CRC avg; 7/1-11/15, 6 salmon, 4 adults, release wild coho
Nisqually (83D)	0.00 <<<catch	CS Gill net 2 days a week 32-36. Cc	1681 <<<catch	7/1-11/15 6 salmon, 2 adults, release wild chinook, wild coho, and chum
McAllister (83F)	0.77 <<<catch	CS: up to 5 days a wk, wks 31-wk 4'	47 <<<catch	7/1-11/30, 6 salmon, 2 adults; CRC harvest estimate from 2018
Deschutes/Capitol Lk.	NA		7 <<<catch	recent 5yr CRC avg; 7/1-10/15, 6 salmon, 2 adults, release coho

^ 12/9/2021 +

Kennedy/Johns/Misc. "13B" NA 0 <<<catch 10/1-11/30, 6 salmon, 2 adults, release wild coho; CRC avg (no recent Cf
Puyallup test fishery 62 67 Total C&S -62 Falls & 5 Springers (2010-2014 & 2019 Avg)
===14B=====14B=== ===14B=== ===14B=== ===14B=== ===14B=== ===14B=== ===14B=== ===14B=== ===14B===

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

TABLE 14-C >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINC SLC-Chin37 ===== TABLE 14C
 AREA 13A INPUTS AND TAMI PREPARATION 12/09/21

FRAM Run: SLC-Chin3721_Final Version 2.21Dec15 10:42 AM
 Run Description: SLC-Chin3721_Final

WHITE RIVER SPRING CHINOOK:

PASS TO TAMI: MAY-JUN JUL-SEP OCT-APR Notes:

	MAY-JUN	JUL-SEP	OCT-APR	Notes:
NTTrty Area 13A Inputs	na	na	na	
Trty Area 13A Inputs	na	0	na	

ALL-STOCKS CATCH, SUMMER/FALL CHINOOK:

PASS TO TAMI: MAY-JUN JUL-SEP OCT-DEC NT=FWSPT

	MAY-JUN	JUL-SEP	OCT-DEC	NT=FWSPT
Area 10/11 NTTrty	0	164	173.80036	2045.6192 --> LkWA, Puy
Area 10/11 Trty	0	130	10	
Area 10/11 test (Apple+other)	0	21	135	
Area 10A NTTrty	0	-88	0	526 --> Duw/Gr
Area 10A Trty	0	1500	1	
Area 10E NTTrty	0	-88	0	0 --> "0"
Area 10E Trty	0	3769.9669	0	
Deep SPS NTTrty (13,13C,13D-K)	0	0	0	1769 --> Nisq, McA, Chambers, Deschutes/Cap, Misc
Deep SPS Trty (13,13C,13D-K)	0	1346	0	
Area 13A NTTrty	0	0	0	1970 --> Minter Cr.
Area 13A Trty	0	1929.947	21.114816	

cast

13955

key fishery. 3 is an estimate based on 2016 creel data, for which there was an estimated 26.6 Chinook encounters in the coho fishery.

on proportions of kept/released observed in creel

and wild adult coho. Encounters based on encounter rate from Nisqually sport fishery

ETRS rate

^ 12/9/2021 +

TABLE 14-D >>> SOUTH SOUND
 SOUTH PUGET SOUND COMF

FRAM Run: SLC-Chin37
 Run Description: SLC-Chin37

NOT READY FOR

Stk TRS
 Production Unit of SPS fish

WHITE RIVER SPRING CHINOOK

Grovers Ck. Hat. - 10	2,161
Lk. Washington Hatchery	3,704
Natural	733
Duwamish-Green Hatchery	20,060
Natural	3,881
Gorst Creek Hat. - 10E	7,716
Puyallup River Hatchery	16,616
Natural	1,374
Carr Inlet/Minter Hatchery	7,675
Natural	0
Chambers Creek Hatchery	734
Nisqually River Hatchery	14,245
Natural	899
McAllister Creek Hatchery	388
Natural	0
Deschutes/Cap. Lake Hatchery	5,798
Misc 13D-K Nat & Coulter Ck Hat	0

TOTAL 85,983

1. Only catches of SPS fish are
2. For extreme terminal marine
3. Freshwater net catches are c
4. The exception to #3, above, i

**TABLE 14-XXX >>> SOUTH SOUND
 For Duwamish**

Stk TRS
 Production Unit of SPS fish

Chinook catch in these rivers, despite being open to Chinook fishing)

=====
Duwamish-Green Hatchery (Icy Creek)
=====
Icy Creek Escapement = SPS1 |
NOTE: should recompute termir

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

ND <<< TERMINAL AREA MANAGEMENT MOI =====
 APPOINTMENT AND ESCAPEMENT COMPUTATION Version 2.21Dec15
 '21_Final
 '21_Final 22.6%

TABLE 14D
 12/09/21
 10:42 AM

TABLE 14-E >>> SOL
 SOUTH PUGET SOUND
 FRAM Run:
 Run Description:

OR U

10/11 Catch of SPS fish	yr1 ETRS of SPS fish	10A Catch of SPS fish	10E Catch of SPS fish	"13+" Catch of SPS fish	13A Catch of SPS fish	ET MarNet Catch SUM	FW Sport fish Catch	FW Net fish Catch	Expected Escape.	Escape. Goal	Prod Unit	INPUT TOTAL PSF Orig TRS		
0	3940	3	0	0	0	3	0	524	3,413	na				
5	2,155	8	48	0	1	58	na	na	2,097	1,750	0	0		
9	3,693	33	10	0	7	50	4	509	3,130	2,288	4	509		
2	731	7	2	0	1	10	0	101	620	1,680	0	101		
50	20,001	894	1	1	16	912	432	6,837	11,822	4,452	4	610		
10	3,870	173	0	0	3	176	85	1,351	2,257	5,800				
19	7,694	30	4,046	0	3	4,080	na	na	3,614	0				
41	16,567	25	0	1	50	75	1,887	4,979	9,626	1,200				
3	1,370	2	0	0	4	6	156	412	796	1,250				
19	7,652	39	6	148	1,451	1,644	1,970	0	4,038	2,800	1,644	1,970		
0	0	0	0	0	0	0	0	0	0	0	0	0		
2	732	4	1	33	6	43	34	481	174	500	43	34		
35	14,203	73	11	85	107	276	1,581	4,776	7,570	2,700	276	1,653		
2	896	5	1	5	7	18	100	301	477	1,200	18	28		
1	387	2	0	8	3	13	0	0	373	na	13	47		
0	0	0	0	0	0	0	0	0	0	na	0	0		
14	5,781	30	4	870	44	947	7	0	4,827	3,000	947	7		
0	0	0	0	0	0	0	0	0	0	700	0	0		
214	85,732	1,324	4,130	1,152	1,701	8,308	6,255	19,747	51,421	29,320				
											ET MarNet Catch SUM	FW Sport fish Catch		
											1,644	1,970	0	0
											0	0	0	0
											43	34	0	0
											276	1,653	1	0
											18	28	0	0
											13	47	0	0
											0	0	0	0
											947	7	0	0
											0	0	0	0
											TOTAL			85815

represented on this table.
 fisheries, 10A, 10E, 13+, 13A, see Table 14F for apportionment (some are done using CWTs).
 computed as "remainder of the harvestable" unless no harvestable exist, in which case, managers' projected fw catches are used.
 is Puyallup, for which freshwater net catch projections are taken directly from managers estimates (assumes effort is limited).

5077.4568

1086
 926

===14E=====14E===

NOR Escap
Cedar
Green
Puyallup

0,2218
 15,099 3348.9723

OUND <<< Approximating SPS Hatchery Year ===== TABLE 14-XXX

-Green Hatchery SPS1 Escapement Calculation

10/11 Catch of SPS fish	yr1 ETRS of SPS fish	10A Catch of SPS fish	10E Catch of SPS fish	"13+" Catch of SPS fish	13A Catch of SPS fish	ET MarNet Catch SUM	FW Sport fish Catch	FW Net fish Catch	Expected Escape.	Escape. Goal
-------------------------	----------------------	-----------------------	-----------------------	-------------------------	-----------------------	---------------------	---------------------	-------------------	------------------	--------------

^ 12/9/2021 +

508	35	1	0	0	36	9	145	318	0
-----	----	---	---	---	----	---	-----	-----	---

ETRS*PSF ppn - ET Net (assuming all 13A and 13+ goes to Deep SPS1 stocks)*PSF ppn - Duwamish-Green FW Net SPS1 - Duwamish-Green FW Sport SPS1
 Total net impacts (10A, 10E, 13+, 13A) using a HRI approach; base period heavily weighted towards Deep S Sound stocks

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

JTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK - >> CONTINUED <<
 ND STOCK COMPONENT APPORTIONMENT AND ESCAPEMENT COMPUTATION

Version 2.21Dec15
 Tamm: #REF!

INPUT	INPUT	COMPUTED	PSF	PSF	PSF	PSF	PSF	ETRS10	ETRS11	ETRS12	ETRS13	TOTAL	NEW	---SRT Hrvable Mthd---	
Yearling	UwAcc	Fngrlng	TOTAL	Upper fing	UWACC	Deep Fing	Yearling	USPS0	UWACC	DSPS0	SPS1	fing SPS	fing ETRS	FW Net	Expected
PSF	PSF	PSF	SPS	Ppns of	Ppns of	Ppns of	Ppns of	Breakout	Breakout	Breakout	Breakout	ETRS	APPNMNT	ETRS-ETCAT-FWS-EX	Esc
TRS	TRS	TRS	Ppn	USPS	SPS	DSPS	SPS								
0	0	2166	0.0252	0.0387	0.000000		0.000000	2,155	0	0	0	2,155	0.0251	347	1,750
0	0	3664	0.0427	0.0655	0.000000		0.000000	3,693	0	0	0	3,693	0.0431	(4,848)	8,487
0	0	746	0.0087	0.0133	0.000000		0.000000	731	0	0	0	731	0.0085	(959)	1,680
486	0	19933	0.2379	0.3563	0.000000		1.000000	20,001	0	0	508	20,001	0.2333	(11,319)	29,977
0	0	3949	0.0460	0.0706	0.000000		0.000000	3,870	0	0	0	3,870	0.0451	(2,192)	5,800
0	0	7652	0.0892	0.1368	0.000000		0.000000	7,694	0	0	0	7,694	0.0897	3,614	0
0	0	16437	0.1915	0.2938	0.000000		0.000000	16,567	0	0	0	16,567	0.1932	13,405	1,200
0	0	1398	0.0163	0.0250	0.000000		0.000000	1,370	0	0	0	1,370	0.0160	1,108	99
0	0	7562	0.0881		0.000000	0.257347	0.000000	0	0	7,652	0	7,652	0.0893	1,238	2,800
0	0	0	0.0000		0.000000	0.000000	0.000000	0	0	0	0	0	0.0000	0	0
0	0	724	0.0084		0.000000	0.024626	0.000000	0	0	732	0	732	0.0085	155	500
0	0	14079	0.1641		0.000000	0.479127	0.000000	0	0	14,203	0	14,203	0.1657	8,677	3,669
0	0	923	0.0108		0.000000	0.031415	0.000000	0	0	896	0	896	0.0105	547	231
0	0	382	0.0045		0.000000	0.013005	0.000000	0	0	387	0	387	0.0045	373	na
0	0	0	0.0000		0.000000	0.000000	0.000000	0	0	0	0	0	0.0000	0	0
0	0	5715	0.0666		0.000000	0.194480	0.000000	0	0	5,781	0	5,781	0.0674	1,827	3,000
0	0	0	0.0000		0.000000	0.000000	0.000000	0	0	0	0	0	0.0000	(700)	700
486	0	85329						56,081	0	29,651	508	85,732	1.000	11,275	59,893

Extreme terminal run sizes from FRAM; include nonlocals
 apportioned as FRAM SPS local stocks

====14E====14E====14E====14E====14E====14E====14E====14E====
 ===14E===14E===14E===14E===14E===14E===14E===14E===

pement
547
1,669
929

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

TABLE 14-F >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK - >>> CONTINUED <<
SOUTH PUGET SOUND EXTREME TERMINAL FISHERY CATCH APPORTIONMENT TO SPS STOCK COMPONENTS

FRAM Run: SLC-Chin3721_Final
Run Description: SLC-Chin3721_Final

FW Net	Exp Esc
Hrvable	ETRS-ETCAT
PROJ	-fwnet-fwspt
na	2,097
509	3,130
101	620
6,837	11,822
1,351	2,257
na	3,614
4,979	9,626
412	796
0	4,038
0	0
481	174
4,776	7,570
301	477
298	76
0	0
0	4,827
0	0
20,045	51,123

CATCH BY FRAM STOCK AND SPS FISHERY						
(Read from TAMX) TOTAL MORTALITY!! TIME STEP 3 ONLY!!						
	all-stocks	SPS-stks	usps 0	uwacc	dsps 0	sps 1
55. 10/11 NTrty:	178	119	73	0	42.629274	3
56. 10/11 Trty:	143	95	58.719858	0	34.323284	2.3856306
57. 10A NTrty:	203	156	135.45445	0	16.732275	3.6794535
58. 10A Trty:	1,530	1,204	1036.7094	0	135.55593	31.449699
59. 10E NTrty:	326	323	320.30295	0	2.2834021	0.0421978
60. 10E Trty:	3,845	3,808	3787.5675	0	20.297649	0.5237803
65. 13+ NTrty:	0	0	0	0	0	0
66. 13+ Trty:	1,373	1,178	2.3625384	0	1149.4228	26.202754
67. 13A Ntrty:	0	0	0	0	0	0
68. 13A Trty:	1,969	1,718	84.69526	0	1616.7143	16

USPS and DSPS harvest rate indices relative to USPS or DSPS fingerling			
HRI	HRI	PSF RRS	
10A	10E	13+	
Grov Hat	0.0165	0.0342	0.03871
LkWa Hat	0.0377	0.0041	0.06549
LkWa Nat	0.0377	0.0041	0.01333
Du-Gr Hat	0.1870	0.0001	0.35629
Du-Gr Nat	0.1870	0.0001	0.07059
10E Hat	0.0165	0.8030	0.13678
Puy Hat	0.0062	0.0000	0.29381
Puy Nat	0.0062	0.0000	0.02499
13A Hat	0.25735	0.25735	0.0300
13A Nat	0.00000	0.00000	0.0300
13C Hat	0.02463	0.02463	0.0700
Nisq Hat	0.47913	0.47913	0.0093
Nisq Nat	0.03141	0.03141	0.0093
McAll Hat	0.01301	0.01301	0.0330
McAll Nat	0.00000	0.00000	0.0330
Desch Hat	0.19448	0.19448	0.2330
13D-K H&N	0.00000	0.00000	0.2330

ETRS by sps stk from FRAM: 11793 0 2203 4
SPS "adult" catch by sps stk from above: 5498.7417 0 3017.9589 83.415794

Recap: fish caught in SPS fisheries:						
time step 3 only!!						
	Non-SPS	SPS only	USPS 0s	DSPS 0s		
Total "adult" Mortality!	10/11	107	213.95063	131.6495	76.952558	
	10A	373.61925	1359.5812	1172.1639	152.2882	
	10E	40.000292	4131.0175	4107.8705	22.581051	
	13+	195	1177.9881	2.3625384	1149.4228	
	13A	251	1,718	84.69526	1616.7143	
	SUM	966.86792	8600.1163	5498.7417	3017.9589	

Computed Sum of USPS ET Catch using HRs
FRAM ET Catch of USPS fingerlings
Catch index for USPS fingerlings

===14E=====14E===

===14F=== ===14F=== ===14F=== ===14F=== ===14F=== ===14F=== ===14F=== ===14F=== ===14H=== ===14H=== ===14H===

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

s	Fingerling catch apportionment based on harvest rates relative to ETRs (HRI * fingerling ETRs by stock) (except 13+)				Fingerling catch apportionment Scaled to match FRAM fishery catch (apportioned catch / catch index)				UW Accelerated catch apportionment based on PSF relative run strength				SPS Yearling catch apportionment based on PSF relative run strength				COMPU	
	HRI 13A	10A	10E	13+	13A	10A	10E	13+	13A	10A	10E	13+	13A	10A	10E	13+	13A	10A
0.0013	36	74	0	3	8	48	0	1	0	0	0	0	0	0	0	0	0	8
0.0061	139	15	0	22	33	10	0	7	0	0	0	0	0	0	0	0	0	33
0.0061	28	3	0	4	7	2	0	1	0	0	0	0	0	0	0	0	0	7
0.0026	3,740	2	1	52	894	1	1	16	0	0	0	0	35	1	26	16	894	
0.0026	724	0	0	10	173	0	0	3	0	0	0	0	0	0	0	0	173	
0.0013	127	6,178	0	10	30	4,046	0	3	0	0	0	0	0	0	0	0	30	
0.0101	103	0	1	168	25	0	1	50	0	0	0	0	0	0	0	0	25	
0.0101	8	0	0	14	2	0	0	4	0	0	0	0	0	0	0	0	2	
0.1760	39	6	230	1,347	39	6	148	1,451	0	0	0	0	0	0	0	0	39	
0.1760	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.0070	4	1	51	5	4	1	33	6	0	0	0	0	0	0	0	0	4	
0.0070	73	11	132	99	73	11	85	107	0	0	0	0	0	0	0	0	73	
0.0070	5	1	8	6	5	1	5	7	0	0	0	0	0	0	0	0	5	
0.0070	2	0	13	3	2	0	8	3	0	0	0	0	0	0	0	0	2	
0.0070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.0070	30	4	1,347	40	30	4	870	44	0	0	0	0	0	0	0	0	30	
0.0070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4,904	6,272	2	283	1,172	4,108	2	85									1,324	
	1,172	4,108	2	85	1,172	4,108	2	85									1,360	
	4.1840498	1.5269062	1	3.345136														
====14H====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	
			1,780	1,501	152		1149	1616.7143										
			1149.4228	1,617	152.2882		1149	1,617										
			1.5489	0.9282818														

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

===== BLE14F

Version 2.21Dec#####
Tamm: #REF!

TABLE 14-G >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE
SOUTH SOUND CHINOOK MANAGEMENT STRATEGIES AND DOCUMENTATION
FRAM Run: SLC-Chin3721_Final
Run Description: SLC-Chin3721_Final

=====

JTED SPS STOCK CATCH
Fishery

COMPUTED SPS Fingerling CATCH

10E	13+	13A	A10		10E		13+		13A		Prod. Unit:	Management Strategy:
			NT	T	NT	T	NT	T	NT	T		
48	0	1	1	8	4	44	0	0	0	1	Grov Hat	Hatchery rate
10	0	7	4	29	1	9	0	0	0	7	LkWa Hat	Natural rate
2	0	1	1	6	0	2	0	0	0	1	LkWa Nat	Natural rate
1	1	16	103	791	0	1	0	1	0	16	Du-Gr Hat	Natural rate
0	0	3	20	153	0	0	0	0	0	3	Du-Gr Nat	Natural rate
4,046	0	3	4	27	315	3,731	0	0	0	3	10E Hat	100% harvest
0	1	50	3	22	0	0	0	1	0	50	Puy Hat	Hatchery rate; fwnet = manager input only!
0	0	4	0	2	0	0	0	0	0	4	Puy Nat	Hatchery rate; fwnet = manager input only!
6	148	1,451	5	35	0	5	0	148	0	1,451	13A Hat	Hatchery rate
0	0	0	0	0	0	0	0	0	0	0	13A Nat	Hatchery rate
1	33	6	0	3	0	1	0	33	0	6	13C Hat	Hatchery rate
11	85	107	8	65	1	10	0	85	0	107	Nisq Hat	Clear Ck. goal per Miniken 11/94
1	5	7	1	4	0	1	0	5	0	7	Nisq H+N	Managed for H&N COMBINED; Hat. deficits made up by McAllister
0	8	3	0	2	0	0	0	8	0	3	Nisq Nat	
0	0	0	0	0	0	0	0	0	0	0	McAll Hat	Hatchery managed w/ broodstock from natural esc.; Per Miniken 1
4	870	44	3	26	0	4	0	870	0	44	McAll Nat	Hatchery managed w/ broodstock from natural esc.
0	0	0	0	0	0	0	0	0	0	0	Desch Hat	Hatchery Managed; Deschutes complex only
4,130	1,152	1,701	153	1,171	322	3,808	0	1,152	0	1,701	13D-K H&N	Hatchery Managed
4,131	1,178	1,718										

MSF HARVEST RATE % ETRS =EJ24*\$DW\$18/(\$DW\$18+\$DW\$17)

	A10A		10E		13+		13A		====14G====	====14G====	====14G====	====14G====
	NT	T	NT	T	NT	T	NT	T				
Grov Hat	0.001	0.006	0.003	0.037	0.000	0.000	0.000	0.001				
LkWa Hat	0.001	0.009	0.000	0.003	0.000	0.000	0.000	0.002				
LkWa Nat	0.009	0.046	0.002	0.014	0.000	0.001	0.000	0.036				
Du-Gr Hat	0.007	0.052	0.000	0.000	0.000	0.000	0.000	0.001				
Du-Gr Nat	0.044	0.230	0.000	0.000	0.000	0.001	0.000	0.016				
10E Hat	0.001	0.004	0.051	0.601	0.000	0.000	0.000	0.000				
Puy Hat	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.003				
Puy Nat	0.001	0.008	0.000	0.000	0.000	0.001	0.000	0.060				
13A Hat	0.001	0.005	0.000	0.001	0.000	0.020	0.000	0.191				
13A Nat	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				
13C Hat	0.001	0.005	0.000	0.001	0.000	0.045	0.000	0.008				

^ 12/9/2021 +

Nisq Hat	0.001	0.006	0.000	0.001	0.000	0.006	0.000	0.008
Nisq Nat	0.005	0.027	0.001	0.004	0.000	0.119	0.000	0.151
McAll Hat	0.001	0.005	0.000	0.001	0.000	0.021	0.000	0.008
McAll Nat	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Desch Hat	0.001	0.005	0.000	0.001	0.000	0.1529	0.000	0.008
13D-K H&N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

3 - CHINOOK - >> CONTINUED <<
 I

TABLE14G
 12/09/21
 10:42 AM

TABLE 14-H >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE
 SOUTH PUGET SOUND EXTREME TERMINAL FISHERY CATCH APPORTIONMENT
 FRAM Run: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final

Procedures/Computations: (TLS 990305)

Apportionment within SPS:

1. Original PSFs are used to determine breakouts for FRAM UWAcc & yearling stock
 2. CWT harvest rates for fingerling stocks are used to determine extreme terminal impacts by SPS stock
 3. Only time step 3 mortalities are used for table 14F,D escapement computations; Table14H apportions all mortality (steps 3&4) for impacts/Expl Rate assessment.
- Escapement Computation Procedure:
1. Begins with ETRS ("adult") by FRAM SPS stock
 2. Extr. Term. Marine catches are SPS-stock only sums, apportioned as shown on table 14F
 4. Exp. escapements are computed using a) the appropriate hatchery or nat. harvest (escapement) rate, see remarks, or b) run - proj. catch if run is > goal.
 5. Freshwater Net harvests are a) ETRS - ET marine catch - exp. escapement (FW "harvestable" fish based on escapement goals and hrv rates) or b) projected catch, if run is > goal (except Puyallup is always managers input). Negative values means the goal will not be met. These FW harvests may not match TAMM inputs because the latter are based on anticipated catch from specific fishing patterns, not on harvestable fish (except Puyallup).

CATCH BY FRAM STOCK AND SPS FISHERY						
(Read from Table2D) TOTAL MORTALITY!! All time steps!						
	all-stocks	SPS-stks	usps 0	uwacc	dsps 0	sps 1
55. 10/11 NTrty:	424	163	105	0	54	5
56. 10/11 Trty:	222	110	69	0	38	3
57. 10A NTrty:	203	156	135	0	17	4
58. 10A Trty:	1,531	1,204	1,037	0	136	31
59. 10E NTrty:	326	323	320	0	2	0
60. 10E Trty:	3,845	3,808	3,788	0	20	1
65. 13+ NTrty:	0	0	0	0	0	0
66. 13+ Trty:	1,373	1,178	2	0	1,149	26
67. 13A NTrty:	0	0	0	0	0	0
68. 13A Trty:	1,990	1,732	85	0	1,630	16

Recap: fish caught in SPS fisheries:	Non-SPS	SPS only	USPS 0s	DSPS 0s	
Total Mortality! All time :	10/11	373.24401	273.23236	173.40425	91.752397
	10A	373.9861	1360.2344	1172.7282	152.35687
	10E	40.000292	4131.0175	4107.8705	22.581051
	13+	194.93194	1177.9881	2.3625384	1149.4228
	13A	258.28759	1731.7955	85.236673	1630.1689
	SUM	1240.4499	8674.2678	5541.6022	3046.282

====14G=====14G=====14G=====14G=====

====14H=====14H=====14H=====14H=====14H=====14H=====14H=====

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

CHINOOK - >> CON=====

 NT TO SPS STOCK COMPONENTS - all time steps total mortality - for Table 2C

Prod Uni	USPS and DSPS harvest rate indices relative to USPS or DSPS fingerling ETRs				Fingerling catch apportionment based on harvest rates relative to (HRI * fingerling ETRs by stock)				Fingerling catch apportionment Scaled to match FRAM fishery catch (apportioned catch / catch index)				UW Accelerated catch apportionment based on PSF relative run strength o		
	HRI 10A	HRI 10E	PSF RRS 13+	HRI 13A	10A	10E	13+	13A	10A	10E	13+	13A	10A	10E	13+
Grov Ha	0.0165	0.0342	0.0387	0.0013	36	74	0	3	9	48	0	1	0	0	0
LkWa H:	0.0377	0.0041	0.0655	0.0061	139	15	0	22	33	10	0	7	0	0	0
LkWa N:	0.0377	0.0041	0.0133	0.0061	28	3	0	4	7	2	0	1	0	0	0
Du-Gr H	0.1870	0.0001	0.3563	0.0026	3,740	2	1	52	894	1	1	16	0	0	0
Du-Gr N	0.1870	0.0001	0.0706	0.0026	724	0	0	10	173	0	0	3	0	0	0
10E Hat	0.0165	0.8030	0.1368	0.0013	127	6,178	0	10	30	4,046	0	3	0	0	0
Puy Hat	0.0062	0.0000	0.2938	0.0101	103	0	1	168	25	0	1	50	0	0	0
Puy Nat	0.0062	0.0000	0.0250	0.0101	8	0	0	14	2	0	0	4	0	0	0
13A Hat	0.2573	0.2573	0.0300	0.1760	39	6	230	1,347	39	6	148	1,463	0	0	0
13A Nat	0.0000	0.0000	0.0300	0.1760	0	0	0	0	0	0	0	0	0	0	0
13C Hat	0.0246	0.0246	0.0700	0.0070	4	1	51	5	4	1	33	6	0	0	0
Nisq Hat	0.4791	0.4791	0.0093	0.0070	73	11	132	99	73	11	85	108	0	0	0
Nisq Nat	0.0314	0.0314	0.0093	0.0070	5	1	8	6	5	1	5	7	0	0	0
McAll H:	0.0130	0.0130	0.0330	0.0070	2	0	13	3	2	0	8	3	0	0	0
McAll N:	0.0000	0.0000	0.0330	0.0070	0	0	0	0	0	0	0	0	0	0	0
Desch H	0.1945	0.1945	0.2330	0.0070	30	4	1,347	40	30	4	870	44	0	0	0
13D-K H	0.0000	0.0000	0.2330	0.0070	0	0	0	0	0	0	0	0	0	0	0
Computed Sum of USPS ET Catch using HRs					4,904	6,272	2	283	1,173	4,108	2	85			
FRAM ET Catch of USPS fingerlings					1,173	4,108	2	85	1,173	4,108	2	85			
Catch index for USPS fingerlings					4.182	1.5269	1	3.3239							
Computed Sum of DSPS ET Catch using HRs							1,780	1,501			1,149	1,630			
FRAM ET Catch of DSPS fingerlings							1,149.4	1,630			1,149	1,630			
Catch index for DSPS fingerlings							1.5489	0.9206							

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

TABLE14H

Version 2.21Dec15 10:42 AM
Tamm: #REF!

it of UWA	SPS Yearling catch apportionment based on PSF relative run strength of yearlings				COMPUTED SPS STOCK total fingerling mortal by SPS Fishery - all time steps				COMPUTED SPS Fingerling CATCH								
	13A	10A	10E	13+	13A	10A	10E	13+	13A	A10A		10E		13+		13A	
										NT	T	NT	T	NT	T	NT	T
0	0	0	0	0	9	48	0	1	1	8	4	44	0	0	0	0	1
0	0	0	0	0	33	10	0	7	4	29	1	9	0	0	0	0	7
0	0	0	0	0	7	2	0	1	1	6	0	2	0	0	0	0	1
0	35	1	26	16	894	1	1	16	103	791	0	1	0	1	0	16	
0	0	0	0	0	173	0	0	3	20	153	0	0	0	0	0	3	
0	0	0	0	0	30	4,046	0	3	4	27	315	3,731	0	0	0	3	
0	0	0	0	0	25	0	1	50	3	22	0	0	0	1	0	50	
0	0	0	0	0	2	0	0	4	0	2	0	0	0	0	0	4	
0	0	0	0	0	39	6	148	1,463	5	35	0	5	0	148	0	###	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	4	1	33	6	0	3	0	1	0	33	0	6	
0	0	0	0	0	73	11	85	108	8	65	1	10	0	85	0	108	
0	0	0	0	0	5	1	5	7	1	4	0	1	0	5	0	7	
0	0	0	0	0	2	0	8	3	0	2	0	0	0	8	0	3	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	30	4	870	44	3	26	0	4	0	870	0	44	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Computed Sum of ET fingerling Catch using HRs					1,325	4,130	1,152	1,715									
FRAM ET Catch of fingerlings					1,360	4,131	1,178	1,732									

===14H===14H===14H===14H===14H===14H===14H===14H===14H===14H===

^ 12/9/2021 +

TABLE 14-A >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK SLC-Chin37===== TABLE 14A
 Provides Area 13A fishery catches and White River Spring Chinook Escapement

FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM

SUMMER/FALL CHINOOK RUN SIZES (ETRSs from Table 14D): S/F CHINOOK EXPECTED ESCAPEMENT
 MARKED ONLY (from Table 14D):

SPS Aggregate Summer/Fall TAA:	72,670	= Run of all chinook stocks entering area 10 (from FRAM)	
ETRS fing "Lake Washington"	3,596	= SPS Chinook leaving areas 10/11 * proportion of these that are Lake. Wa.	3,048
ETRS fing "Green R."	16,484	= SPS Chinook leaving areas 10/11 * proportion of these that are Green R.	9,797
ETRS fing "Grovers & East Kitsa	8,025	= SPS Chinook leaving areas 10/11 * proportion of these that are Grovers or Ea. Kitsap	4,319
ETRS fing "Puyallup R."	16,183	= SPS Chinook leaving areas 10/11 * proportion of these that are Puyallup R.	9,233
ETRS fing "Carr Inlet"	7,586	= SPS Chinook leaving areas 10/11 * proportion of these that are Carr Inlet	4,003
ETRS fing "Chambers Bay"	727	= SPS Chinook leaving areas 10/11 * proportion of these that are Chambers	173
ETRS fing "Nisqually"	13,066	= SPS Chinook leaving areas 10/11 * proportion of these that are Nisqually	6,738
ETRS fing "McAllister"	384	= SPS Chinook leaving areas 10/11 * proportion of these that are McAllister	31
ETRS fing "Deep SPS"	5,685	= SPS Chinook leaving areas 10/11 * proportion of these that are deep SPS stocks	4,746
ETRS fing Aggregate SPS	71,736		

Marine Fishery All-Stocks Catch:	May-Jun	TAMM Jul-Sep	TAMM Oct-Apr	TAMM TOTAL	AAP FRAM TOTAL	Jul-Sep TAMM-FRAMery Description:
Area 10/11 NTrty	0	137	145	282	200	10&11_PinksA10_2v2_03182021_KA.xlsx (63) 10&11_PinksA10_2v2_03182021_KA.xlsx
Area 10/11 Trty	0	109	8	117	64	44 CS/JO/CP/DH: 5-YR AVG catch ("16-"20 = 5) plus comm. Pink Fishery impacts (PUY-50.
Area 10/11 test (Apple+other)	0	18	113	130		
Area 10A NTrty	0	(74)	0	(74)	0	(74) Modeled in FRAM
Area 10A Trty	0	812	1	813	1	812 2 nights directed fishery (with possibility of 3rd depending on ISU) + recent 4 year avera
Area 10E NTrty	0	(74)	0	(74)	0	(74) Modeled in FRAM
Area 10E Trty	0	3,368	0	3,368	0	3,368 4-YR ("17-"20) avg rate on ETRS
Deep SPS NTrty (13,13C,13D-K)	0	0	0	0	0	0 closed
Deep SPS Trty (13,13C,13D-K)	0	1,125	0	1,125	0	1,125 Recent 2 Year (2019-2020) average catch
Area 13A NTrty	0	0	0	0	0	0 closed
Area 13A Trty	0	1,613	18	1,631	19	1,594 BP: recent-year (2016-2020) harvest rate on Minter ETRS, applied to 2021 Minter forec

Freshwater Summer/Fall Chinook Catch:	FWNet	FWSport	ery Descriptions:
Lake Washington & Ship Canal (10F,G,C,D)	496	2	4 year average incident: 9/16-10/31, 4 coho only, open only N. of 520; No impacts reserved for sockeye fishery
Lake Sammamish	0	1	No anticipated fishery
Duwamish/Green (80B)	5,754	363	2 nights directed fishery Avg of 2017 & 2019 CRC estimate of adults + 10% of released fish based on proporti
Puyallup (81B)	4,808	2,013	6 hrs Wk 33 (2015-2020) 8/15-12/31, 6 salmon, 2 adults, release chum and wild adult chinook
Minter Cr.	0	1,953	Closed Open Sept. 15 - Dec. 15 Daily limit 6. 2 Adults. Release wild adult Chinook and wild a
Chambers (13C & 83H)	478	34	BP: recent-year average 10 yr CRC avg; 7/1-11/15, 6 salmon, 4 adults, release wild coho
Nisqually (83D)	4,450	1,624	CS Gill net 2 days a we 7/1-11/15 6 salmon, 2 adults, release wild chinook, wild coho, and chum ETRS rate
McAllister (83F)	293	47	CS: up to 5 days a wk, v 7/1-11/30, 6 salmon, 2 adults; CRC harvest estimate from 2018
Deschutes/Capitol Lk.	NA	7	recent 5yr CRC avg; 7/1-10/15, 6 salmon, 2 adults, release coho

^ 12/9/2021 +

Kennedy/Johns/Misc. "13B" NA - 10/1-11/30, 6 salmon, 2 adults, release wild coho; CRC avg (no recent Chinook catch)
 Puyallup test fishery 55.94 67 Total C&S -62 Falls & 5 Springers (2010-2014 & 2019 Avg)

WHITE RIVER SPRING CHINOOK - White R. Fingerlings
 White River Spring Chinook "ETRS" 3940 = Run of White R Spring Chinook leaving areas 10/11 (from FRAM)

Area 13A Catch of WRSC 1's:	May-Jun	Jul-Sep	Oct-Apr	TOTAL	THIS SECTION IS OBSOLETE! AND SHOULD SHOW ALL ZEROS!!
Total AEQ Mortality From FRAM					
Ntrty	0	0	0	0	
Trty	0	0	0	0	

Spawning Escapement computation for WRSp 0's:

- Extreme Terminal Run Size (age 3-5):: 0
- Extreme Terminal Catch, Area 13A: 0 Obsolete, as noted above (should be zero!)
- Extreme Terminal Catch, Areas 10A, 10E, 0 Jul-Sep "adults" only
- Treaty Area 11A/Puy R. Catch 0 White River/Puyallup R Spring adults only
- C&S catch in White River 0 White River/Puyallup R Spring adults only
- Freshwater Sport Catch 0 White River/Puyallup R Spring adults only
- TOTAL SPAWNING ESCAPEMENT: 0

TABLE 14-B >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK SLC-Chin37===== TABLE 14B
 AREA 13A INPUTS AND TAMI PREPARATION 12/09/21
 FRAM Run: SLC-Chin3721_Final Version 2.21Dec15 10:42 AM
 Run Description: SLC-Chin3721_Final

Recap INPUT FOR WHITE RIVER SPRING CHINOOK 0'S EXPECTED FW Net HARVEST:
 Catch or HR Fishery Description:
 Trty Jul-Sep: 0 <<<catch or hrtrate on White R. Sp. % WRSp 13A run Note: OBSOLETE!
 Trty Puy. R. & 11A & C&S 0 <<< catch of WRSp, May-Sep
 Nontreaty Puy R. FWSport 0.0000 <<< Proportion of Puy R. catch that is WR Sp

INPUT TABLE FOR MARINE SUMMER/FALL CHINOOK EXPECTED CATCH:

Fishery - ALL STOCKS CATCH	May-Jun	Jul-Sep	Oct-Dec	Fishery Description:
Area 10/11 NTrty	0	137	145 <<<catch	10&11_PinksA10_2v2_03182021_KA.xlsx
Area 10/11 Trty	0	109	8 <<<catch	CS/JO/CP/DH: 5-YR AVG catch ('16-'20 = 5) plus comm. Pink Fishery impacts (PUY-
Area 10/11 test (Apple+other)	0	18	113 <<<catch	
Area 10A NTrty	0	-74	0 <<<catch	Modeled in FRAM
Area 10A Trty	0	812	1 <<<catch	2 nights directed fishery (with possibility of 3rd depending on ISU) + recent 4 year ave
Area 10E NTrty	0	-74	0 <<<catch	Modeled in FRAM
Area 10E Trty	0	3,368	0 <<<catch	4-YR ('17-'20) avg rate on ETRS
Deep SPS NTrty (13,13C,13D-K)	0	0	0 <<<catch	closed
Deep SPS Trty (13,13C,13D-K)	0	1125	0 <<<catch	Recent 2 Year (2019-2020) average catch
Area 13A NTrty	0	0	0 <<<catch	closed
Area 13A Trty	0	1613	18 <<<catch	BP: recent-year (2016-2020) harvest rate on Minter ETRS, applied to 2021 Minter fore

INPUT TABLE FOR FRESHWATER SUMMER/FALL CHINOOK EXPECTED CATCH:

Fishery:	Treaty Freshwater Net May-Dec	Fishery Description:	NTrty Freshwater Sport Jan-Dec	Fishery Description:
Lk. Wash.(10F,G,C,D)	496 <<<catch	4 year average incidentals ; 300 MIT	2 <<<catch	9/16-10/31, 4 coho only, open only N. of 520; No impacts reserved for soc
Lake Sammamish	0	No anticipated fishery	1	
Duwamish/Green (80B)	5754 <<<catch	2 nights directed fishery (with possib	363 <<<catch	Avg of 2017 & 2019 CRC estimate of adults + 10% of released fish based
Puyallup (81B)	0.30 <<<catch	6 hrs Wk 33 (2015-2020 Avg); 6 hrs	2013 <<<catch	0
Minter Cr.	0.00 <<<catch	Closed	1953 <<<catch	Open Sept. 15 – Dec. 15 Daily limit 6. 2 Adults. Release wild adult Chinoc
Chambers (13C & 83H)	0.66 <<<catch	BP: recent-year average (2014,2015	34 <<<catch	10 yr CRC avg; 7/1-11/15, 6 salmon, 4 adults, release wild coho
Nisqually (83D)	0.00 <<<catch	CS Gill net 2 days a week 32-36. Cc	1624 <<<catch	7/1-11/15 6 salmon, 2 adults, release wild chinook, wild coho, and chum
McAllister (83F)	0.76 <<<catch	CS: up to 5 days a wk, wks 31-wk 4'	47 <<<catch	7/1-11/30, 6 salmon, 2 adults; CRC harvest estimate from 2018
Deschutes/Capitol Lk.	NA		7 <<<catch	recent 5yr CRC avg; 7/1-10/15, 6 salmon, 2 adults, release coho

^ 12/9/2021 +

Kennedy/Johns/Misc. "13B" NA 0 <<<catch 10/1-11/30, 6 salmon, 2 adults, release wild coho; CRC avg (no recent Cf
Puyallup test fishery 56 67 Total C&S -62 Falls & 5 Springers (2010-2014 & 2019 Avg)

INPUT FOR UPPER SPS % OF SPS YEARLING STOCK: =INPUT_ETSport!C23*SUM(BM12:BP13)/(SUM(BM12:BP13,SPSUnmrkd!BM12:BP13))
Obsolete!

===14B=====14B=== ===14B=====14B=====14B=====14B=====14B=====14B=====14B=====14B=====14B=====14B=====14B=====14B=====

- 2 catch of LaWa Hatchery Chinook in LaWa sport fisheries
- 496 catch of LaWa Hatchery Chinook in LaWa net fisheries

^ 12/9/2021 +

TABLE 14-C >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINC SLC-Chin37 ===== TABLE 14C
 AREA 13A INPUTS AND TAMI PREPARATION 12/09/21

FRAM Run: SLC-Chin3721_Final Version 2.21Dec15 10:42 AM
 Run Description: SLC-Chin3721_Final

WHITE RIVER SPRING CHINOOK:

PASS TO TAMI: MAY-JUN JUL-SEP OCT-APR Notes:

	MAY-JUN	JUL-SEP	OCT-APR	Notes:
NTTrty Area 13A Inputs	na	na	na	
Trty Area 13A Inputs	na	0	na	

ALL-STOCKS CATCH, SUMMER/FALL CHINOOK:

PASS TO TAMI: MAY-JUN JUL-SEP OCT-DEC NT=FWSPT

	MAY-JUN	JUL-SEP	OCT-DEC	NT=FWSPT
Area 10/11 NTTrty	0	137	145	2015.7222 --> LkWA, Puy
Area 10/11 Trty	0	109	8	
Area 10/11 test (Apple+other)	0	18	113	
Area 10A NTTrty	0	-74	0	363.23061 --> Duw/Gr
Area 10A Trty	0	812	1	
Area 10E NTTrty	0	-74	0	0 --> "0"
Area 10E Trty	0	3368	0	
Deep SPS NTTrty (13,13C,13D-K)	0	0	0	1711.6824 --> Nisq, McA, Chambers, Deschutes/Cap, Misc
Deep SPS Trty (13,13C,13D-K)	0	1125	0	
Area 13A NTTrty	0	0	0	1953.0539 --> Minter Cr.
Area 13A Trty	0	1613	18	

TABLE 14-D >>> S
 SOUTH PUGET SC

FRAM Run:
 Run Description:

NOT REAL

Production Unit

WHITE R SP FING

- Grovers Ck. Hat. - 10
- Lk. Washington Hatchery Natural
- Duwamish-Green Hatchery Natural
- Gorst Creek Hat. - 10E
- Puyallup River Hatchery Natural
- Carr Inlet/Minter Hatchery Natural
- Chambers Creek Hatchery
- Nisqually River Hatchery Natural
- McAllister Creek Hatchery
- Deschutes/Cap. Lake Hatchery
- Misc 13D-K Nat & Coulter Ck Hat

TOTAL

1. Only catches of :
2. For extreme tern
3. Freshwater net c
4. The exception to

cast

key fishery. 3 is an estimate based on 2016 creel data, for which there was an estimated 26.6 Chinook encounters in the coho fishery.

l on proportions of kept/released observed in creel

sk and wild adult coho. Encounters based on encounter rate from Nisqually sport fishery

ETRS rate

^ 12/9/2021 +

Chinook catch in these rivers, despite being open to Chinook fishing)

^ 12/9/2021 +

READY FOR USE!!

Stk TRS of SPS fish	10/11 Catch of SPS fish	ing ETRS of SPS fish	10A Catch of SPS fish	10E Catch of SPS fish	"13+ " Catch of SPS fish	13A Catch of SPS fish	ET MarNet Catch SUM	FW Sport ing Catch	FW Net ing Catch	Expected Escape.
na	0	0	0	0	0	0	0	0	0	0
1,155	3	1,152	5	27	0	0	32	na	na	1,120
3,604	8	3,596	32	10	0	7	49	3	496	3,048
0	0	0	0	0	0	0	0	0	0	0
16,523	39	16,484	737	1	1	13	751	352	5,584	9,797
0	0	0	0	0	0	0	0	0	0	0
6,889	16	6,873	27	3,643	0	3	3,673	na	na	3,200
16,221	38	16,183	24	0	1	49	74	2,013	4,864	9,233
0	0	0	0	0	0	0	0	0	0	0
7,606	20	7,586	39	6	147	1,438	1,630	1,953	0	4,003
0	0	0	0	0	0	0	0	0	0	0
729	2	727	4	1	33	5	43	34	478	173
13,100	34	13,066	67	10	78	99	254	1,624	4,450	6,738
0	0	0	0	0	0	0	0	0	0	0
385	1	384	2	0	8	3	13	47	293	31
0	0	0	0	0	0	0	0	0	0	0
5,699	15	5,685	29	4	855	43	931	7	0	4,746
0	0	0	0	0	0	0	0	0	0	0
71,969	175	71,736	966	3,702	1,123	1,660	7,450	6,034	16,164	42,088

Prod Unit
 Grov Hat
 LkWa Hat
 LkWa Nat
 Du-Gr Hat
 Du-Gr Nat
 10E Hat
 Puy Hat
 Puy Nat
 13A Hat
 13A Nat
 13C Hat
 Nisq Hat
 Nisq Nat
 McAll Hat
 McAll Nat
 Desch Hat
 13D-K H&
 TOTAL

SPS fish are represented on this table.
 ninal marine fisheries, 10A, 10E, 13+, 13A, see Table 14F for apportionment (some are done using CWTs). 4449,8862
 catches are computed as "remainder of the harvestable" unless no harvestable exist, in which case, managers' projected fw catches are used.
 #3, above, is Puyallup, for which freshwater net catch projections are taken directly from managers estimates (assumes effort is limited).

19,030

^ 12/9/2021 +

^ 12/9/2021 +

-E >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK - >> CONTINUED << =====
 UGET SOUND STOCK COMPONENT APPORTIONMENT AND ESCAPEMENT COMPUTATION

TABLE 14-F >>> SOUTH SOUND <<< TERM
 SOUTH PUGET SOUND EXTREME TERMINAL
 FRAM Run:
 Run Description:

Marked	Calculated ETRS Proportion	PSF	PSF	PSF	PSF	ETRS10	ETRS11	ETRS12	ETRS13
		Jpper fin Ppns of USPS	UWACC Ppns of SPS	Deep Fir Ppns of DSPS	Yearling Ppns of SPS	USPS0 Breakout	UWACC Breakout	DSPS0 Breakout	SPS1 Breakout
	0.535	0.0260	0.0000		0.0000	1,152	0	0	0
	0.974	0.0812	1.0000		0.0000	3,596	0	0	0
	0.000	0.0000	0.0000		0.0000	0	0	0	0
	0.824	0.3722	0.0000		1.0000	16,484	0	0	504
	0.000	0.0000	0.0000		0.0000	0	0	0	0
	0.893	0.1552	0.0000		0.0000	6,873	0	0	0
	0.977	0.3654	0.0000		0.0000	16,183	0	0	0
	0.000	0.0000	0.0000		0.0000	0	0	0	0
	0.991		0.0000	0.2764	0.0000	0	0	7,586	0
	0.000		0.0000	0.0000	0.0000	0	0	0	0
	0.993		0.0000	0.0265	0.0000	0	0	727	0
	0.920		0.0000	0.4760	0.0000	0	0	13,066	0
	0.000		0.0000	0.0000	0.0000	0	0	0	0
	0.992		0.0000	0.0140	0.0000	0	0	383.72427	0.00000
	0.000		0.0000	0.0000	0.0000	0	0	0.00000	0.00000
	0.983		0.0000	0.2071	0.0000	0	0	5,685	0
	0.000		0.0000	0.0000	0.0000	0	0	0.00000	0.00000
Read from Input_StockData Table	#####	1.000	1.000	1.000	1.000	44,288	0	27,448	504
					#DIV/0!	Extreme terminal run sizes from FRAM; include nonlocals apportioned as FRAM SPS local stocks			
====14E=====14E=====14E====		====14E:====14E:====14E:====14E:====				====14E:====14E:====14E:====		====14E:====14E:====14E:====	====14E:====

	CATCH BY FRAM STOCK / (Read from TAMX) TOTAL #	
	all-stocks	SPS-stks
55. 10/11 NTrty:	141	100
56. 10/11 Trty:	114	80
57. 10A NTrty:	146	126
58. 10A Trty:	1,135	978
59. 10E NTrty:	293	291
60. 10E Trty:	3,038	3,003
65. 13+ NTrty:	0	0
66. 13+ Trty:	1,269	1,092
67. 13A Ntrty:	0	0
68. 13A Trty:	1,815	1,581

ETRS by sps stk from FRAM:
 SPS "adult" catch by sps stk from above:

Recap: fish caught in SPS fisheries:
 Total "adult" Mortality! 10/11
 10A
 10E
 13+
 13A
 SUM
 ===14F=== ===14F=== ===14F===

^ 12/9/2021 +

MINAL AREA MANAGEMENT MODULE - CHINOOK - >> CONTINUED <<
 JAL FISHERY CATCH APPORTIONMENT TO SPS STOCK COMPONENTS
 SLC-Chin3721_Final
 SLC-Chin3721_Final

AND SPS FISHERY				USPS and DSPS harvest rate indices relative to USPS or DSPS fingerling ETRs					Fingerling catch apportionment based on harvest rates relative to ETRs (HRI * fingerling ETRs by stock) (except 13+)				Fingerling catch apportionment M ratio applied to SPS	
MORTALITY!! TIME STEP 3 ONLY!!				Prod Unit	HRI 10A	HRI 10E	PSF RRS 13+	HRI 13A	10A	10E	13+	13A	10A	10E
usps 0	uwacc	dsps 0	sps 1											
57.518139	0	39.327459	2.9383466	Grov Hat	0.0165	0.0342	0.0260	0.0013	19	39	0	1	5	27
46.311166	0	31.664803	2.3658321	LkWa Hat	0.0377	0.0124	0.0812	0.0061	136	45	0	22	32	10
106.90883	0	15.591333	3.6511247	LkWa Hat	0.0377	0.0124	0.0000	0.0061	0	0	0	0	0	0
820.41856	0	126.79405	31.207799	Du-Gr Hat	0.1870	0.0001	0.3722	0.0026	3,083	2	1	43	737	1
288.27675	0	2.2067887	0.0421433	Du-Gr Hat	0.1870	0.0001	0.0000	0.0026	0	0	0	0	0	0
2983.8122	0	18.660879	0.5198384	10E Hat	0.0165	0.8030	0.1552	0.0013	113	5,519	0	9	27	3,643
0	0	0	0	Puy Hat	0.0062	0.0000	0.3654	0.0101	100	0	1	164	24	0
1.9066125	0	1064.4421	26.002192	Puy Hat	0.0062	0.0000	0.0000	0.0101	0	0	0	0	0	0
0	0	0	0											
67.758556	0	1496.7346	16.044526	13A Hat	0.2764	0.2764	0.0300	0.1760	39	6	228	1,335	39	6
				13A Hat	0.0000	0.0000	0.0300	0.1760	0	0	0	0	0	0
44288	0	27448	504	13C Hat	0.0265	0.0265	0.0700	0.0070	4	1	51	5	4	1
4373	0	2795	82.771802	Nisq Hat	0.4760	0.4760	0.0330	0.0070	68	10	431	91	67	10
				Nisq Hat	0.0000	0.0000	0.0330	0.0070	0	0	0	0	0	0
				McAll Hat	0.0140	0.0140	0.0330	0.0070	2	0	13	3	2	0
time step 3 only!!				McAll Hat	0.0000	0.0000	0.0330	0.0070	0	0	0	0	0	0
Non-SPS	SPS only	USPS 0s	DSPS 0s	Desch Hat	0.2071	0.2071	0.2330	0.0070	29	4	1,325	40	29	4
75	180.12575	103.82931	70.992262	13D-K H&N	0.0000	0.0000	0.2330	0.0070	0	0	0	0	0	0
177	1105	927	142											
38	3294	3272	21											
176	1092	2	1064	Computed Sum of USPS ET Catch using HRs					3,451	5,604	2	239	825	3,681
235	1581	68	1497	FRAM ET Catch of USPS fingerlings					927	3,272	2	68	927	3,272
701	7251	4373	2795	Catch index for USPS fingerlings					3.7212967	1.7127422	1.000	3.5267274		
====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====	====14F====
				Computed Sum of DSPS ET Catch using HRs							2,047	1,474		
				FRAM ET Catch of DSPS fingerlings							1064.4421	1,497		
				Catch index for DSPS fingerlings							1.9229	0.9849584		

^ 12/9/2021 +

^ 12/9/2021 +

TABLE 14-G >>>
 SOUTH SOUND C
 FRAM Run:
 Run Description:

onment
 ;' apportionment

compute impacts to marked first; then compute HR; use HR to compute impacts to UM

13+	13A	Mark	MSF 10 A	MSF 10E	MSF 13+	MSF 13 A	A10A		10E		13+		13A		Prod. Unit:
		Rate	MR	MR	MR	MR	NT	T	NT	T	NT	T	NT	T	
0	0	0.53	0.90	0.90	0.96		0.5	4.0	3.4	23.8	0.0	0.0	0.0	0.4	Grov Hat
0	7	0.97	1.00	1.00	1.00		3.7	28.7	0.8	8.9	0.0	0.2	0.0	6.5	LkWa Hat
0	0	0.00	0.00	0.00	0.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	LkWa Nat
1	13	0.82	0.97	0.97	0.99		85.1	651.6	0.1	1.0	0.0	0.7	0.0	12.8	Du-Gr Hat
0	0	0.00	0.00	0.00	0.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Du-Gr Nat
0	3	0.89	0.98	0.98	0.99		3.1	24.0	310.5	3,332	0.0	0.3	0.0	2.6	10E Hat
1	49	0.98	1.00	1.00	1.00		2.8	21.2	0.0	0.0	0.0	0.7	0.0	49.0	Puy Hat
0	0	0.00	0.00	0.00	0.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Puy Nat
147	1,438	0.99	1.00	1.00	1.00		4.5	34.4	0.5	5.3	0.0	146.9	0.0	#####	13A Hat
0	0	0.00	0.00	0.00	0.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13A Nat
33	5	0.99	1.00	1.00	1.00		0.4	3.3	0.0	0.5	0.0	32.9	0.0	5.5	13C Hat
78	99	0.92	0.99	0.99	1.00		7.8	59.4	0.8	9.2	0.0	78.1	0.0	98.5	Nisq Hat
0	0	0.00	0.00	0.00	0.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Nisq H+N
8	3	0.99	1.00	1.00	1.00		0.2	1.7	0.0	0.3	0.0	8.2	0.0	2.9	Nisq Nat
0	0	0.00	0.00	0.00	0.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	McAll Hat
855	43	0.98	1.00	1.00	1.00		3.4	25.8	0.3	4.0	0.0	855.1	0.0	42.9	McAll Nat
0	0	0.00	0.00	0.00	0.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Desch Hat

HARVEST RATE % ETRS

		A10A		10E		13+		13A		
		NT	T	NT	T	NT	T	NT	T	
Grov Hat		0.000	0.003	0.003	0.021	0.000	0.000	0.000	0.000	
LkWa Hat		0.001	0.008	0.000	0.002	0.000	0.000	0.000	0.002	====14G====
LkWa Nat		0.001	0.008	0.000	0.002	0.000	0.000	0.000	0.002	
Du-Gr Hat		0.005	0.040	0.000	0.000	0.000	0.000	0.000	0.001	
Du-Gr Nat		0.005	0.040	0.000	0.000	0.000	0.000	0.000	0.001	
10E Hat		0.000	0.003	0.0452	0.485	0.000	0.000	0.000	0.000	
Puy Hat		0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.003	
Puy Nat		0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.003	
13A Hat		0.001	0.005	0.000	0.001	0.000	0.019	0.000	0.190	
13A Nat		0.001	0.005	0.000	0.001	0.000	0.019	0.000	0.190	
13C Hat		0.001	0.005	0.000	0.001	0.000	0.045	0.000	0.008	
Nisq Hat		0.001	0.005	0.000	0.001	0.0000	0.006	0.000	0.008	
Nisq Nat		0.001	0.005	0.000	0.001	0.000	0.006	0.000	0.008	
McAll Hat		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

^ 12/9/2021 +

McAll Nat	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Desch Hat	0.001	0.005	0.000	0.001	0.000	0.150	0.000	0.008
13D-K H&N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

^ 12/9/2021 +

SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK - >> CONTINUED <<
 CHINOOK MANAGEMENT STRATEGIES AND DOCUMENTATION
 SLC-Chin3721_Final
 SLC-Chin3721_Final

TABLE14G
 12/09/21
 10:42 AM

TABLE 14-H >>>
 SOUTH PUGET S
 FRAM Run:
 Run Description:

=====

=====

Management	Procedures/Computations:	(TLS 990305)
Strategy:	=====	
Hatchery rate	Apportionment within SPS:	
Natural rate	1. Original PSFs are used to determine breakouts for FRAM UWAcc & yearling stock	
Natural rate	2. CWT harvest rates for fingerling stocks are used to determine extreme terminal impacts by SPS stock	
Natural rate	3. Only time step 3 mortalities are used for table 14F,D escapement computations; Table14H apportions all mortality (steps 3&4) for impacts/Expl Rate assessment.	
100% harvest	Escapement Computation Procedure:	
Hatchery rate; fwnet = manager input only!	1. Begins with ETRS ("adult") by FRAM SPS stock	
Hatchery rate; fwnet = manager input only!	2. Extr. Term. Marine catches are SPS-stock only sums, apportioned as shown on table 14F	
Hatchery rate	4. Exp. escapements are computed using a) the appropriate hatchery or nat. harvest (escapement) rate, see remarks, or b) run - proj. catch if run is > goal.	
Hatchery rate	5. Freshwater Net harvests are a) ETRS - ET marine catch - exp. escapement (FW "harvestable" fish based on escapement goals and hrv rates) or b) projected catch, if run is > goal (except Puyallup is always managers input).	
Clear Ck. goal per Miniken 11/94	Negative values means the goal will not be met. These FW harvests may not match TAMM inputs because the latter are based on anticipated catch from specific fishing patterns, not on harvestable fish (except Puyallup).	
Managed for H&N COMBINED; Hat. deficits made up by McAllister	=====	
Hatchery managed w/ broodstock from natural esc.; Per Miniken 1		
Hatchery managed w/ broodstock from natural esc.		
Hatchery Managed; Deschutes complex only		
Hatchery Managed	=====	

55. 10/11 NTrty:
56. 10/11 Trty:
57. 10A NTrty:
58. 10A Trty:
59. 10E NTrty:
60. 10E Trty:
65. 13+ NTrty:
66. 13+ Trty:
67. 13A Ntrty:
68. 13A Trty:

Recap: fish caught
 Total Mortality! All

====14G=====14G=====14G=====14G===== =====14G=====14G=====14G=====14G===== =====14G===== ===14H===

^ 12/9/2021 +

^ 12/9/2021 +

SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK - >> CONTINUE =====
 ROUND EXTREME TERMINAL FISHERY CATCH APPORTIONMENT TO SPS STOCK COMPONENTS - all time steps total mortality - for Table 2C
 SLC-Chin3721_Final
 SLC-Chin3721_Final

CATCH BY FRAM STOCK AND SPS FISHERY						USPS and DSPS harvest rate indices				Fingerling catch apportionment				Fingerling catch apportionment			
(Read from Table2D) TOTAL MORTALITY!! All time steps!						relative to USPS or DSPS fingerling ETR				based on harvest rates relative to				M ratio applied to 'SPS' &			
all-stocks	SPS-stks	usps 0	uwacc	dsps 0	sps 1	Prod Unit	HRI 10A	HRI 10E	PSF RRS 13+	HRI 13A	10A	10E	13+	13A	10A	10E	13+
345	137	82.136915	0	49.53783	4.9850408	Grov Hat									5	27	0
179	92	54.218138	0	34.944133	3.0231821	LkWa Hat									32	10	0
146	114	95	0	15	3.6511247	LkWa Nat									0	0	0
1,136	886	730	0	125	31.227747	Du-Gr Hat									737	1	1
293	287	287	0	0	0.0421433	Du-Gr Nat									0	0	0
3,038	3,394	3394	0	0	0.5198384	10E Hat									27	3,643	0
0	0	0.00	0	0	0	Puy Hat									24	0	1
1,269	1,149	1.86	0	1121	26.002192	Puy Nat									0	0	0
0	0	0	0	0	0												
1,835	1,689	72	0	1601	16.263262	13A Hat									39	6	147
						13A Nat									0	0	0
						13C Hat									4	1	33
						Nisq Hat									67	10	78
						Nisq Nat									0	0	0
						McAll Hat									2	0	8
time in SPS fisheries:	Non-SPS	SPS only	USPS 0s	DSPS 0s		McAll Nat									0	0	0
time steps	10/11	296.00012	228.84524	136.35505	84.481963	Desch Hat									29	4	855
	10A	281	1,001	825	141	13D-K H&N									0	0	0
	10E	(350)	3,681	3,681	0												
	13+	119	1,149	2	1,121	Computed Sum of USPS ET Catch using HRs									825	3,681	2
	13A	145	1,689	72	1,601	FRAM ET Catch of USPS fingerlings									0	0	0
	SUM	492	7,750	4,716	2,948	Catch index for USPS fingerlings											
====14H=====	14H=====	14H=====	14H=====	14H=====	14H=====	14H=====	14H=====	14H=====	14H=====	14H=====	14H=====	14H=====	14H=====	14H=====	14H=====	14H=====	14H=====
						Computed Sum of DSPS ET Catch using HRs											
						FRAM ET Catch of DSPS fingerlings											
						Catch index for DSPS fingerlings											

^ 12/9/2021 +

^ 12/9/2021 +

=====

===== | compute impact in mark selective fisheries by using TAMX AEQ mort as total
ment | mort and use MSF parameters to split catch into mark and unmarked
pportio | COMPUTED SPS Fingerling CATCH

13A	10A		10E		13+		13A	
	NT	T	NT	T	NT	T	NT	T
0	1	4	3	24	0	0	0	0
7	4	29	1	9	0	0	0	7
0	0	0	0	0	0	0	0	0
13	85	652	0	1	0	1	0	13
0	0	0	0	0	0	0	0	0
3	3	24	311	3332	0	0	0	3
49	3	21	0	0	0	1	0	49
0	0	0	0	0	0	0	0	0
1,450	4	34	0	5	0	147	0	1450
0	0	0	0	0	0	0	0	0
6	0	3	0	1	0	33	0	6
99	8	59	1	9	0	78	0	99
0	0	0	0	0	0	0	0	0
3	0	2	0	0	0	8	0	3
0	0	0	0	0	0	0	0	0
43	3	26	0	4	0	855	0	43
0	0	0	0	0	0	0	0	0

=====

72
0

===14H:

^ 12/9/2021 +

TABLE 14-A >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK SLC-Chin37===== TABLE 14A
 Provides Area 13A fishery catches and White River Spring Chinook Escapement

FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM

SUMMER/FALL CHINOOK RUN SIZES (ETRSs from Table 14D):

S/F CHINOOK EXPECTED ESCAPEMENT
 (from Table 14D):

UNMARKED ONLY

SPS Aggregate Summer/Fall TAA:	14,280	= Run of all chinook stocks entering area 10 (from FRAM)	
ETRS fing "Lake Washington"	828	= SPS Chinook leaving areas 10/11 * proportion of these that are Lake. Wa.	702
ETRS fing "Green R."	7,387	= SPS Chinook leaving areas 10/11 * proportion of these that are Green R.	4,310
ETRS fing "Grovers & East Kitsa	1,824	= SPS Chinook leaving areas 10/11 * proportion of these that are Grovers or Ea. Kitsap	1,392
ETRS fing "Puyallup R."	1,754	= SPS Chinook leaving areas 10/11 * proportion of these that are Puyallup R.	1,190
ETRS fing "Carr Inlet"	66	= SPS Chinook leaving areas 10/11 * proportion of these that are Carr Inlet	35
ETRS fing "Chambers Bay"	5	= SPS Chinook leaving areas 10/11 * proportion of these that are Chambers	1
ETRS fing "Nisqually"	2,033	= SPS Chinook leaving areas 10/11 * proportion of these that are Nisqually	1,309
ETRS fing "McAllister"	3	= SPS Chinook leaving areas 10/11 * proportion of these that are McAllister	3
ETRS fing "Deep SPS"	96	= SPS Chinook leaving areas 10/11 * proportion of these that are deep SPS stocks	80
ETRS fing Aggregate SPS	13,996		

Marine Fishery All-Stocks Catch:	May-Jun	TAMM Jul-Sep	Oct-Apr	TAMM TOTAL	AAP FRAM TOTAL	Jul-Sep TAMM-FRAM	Fishery Description:
Area 10/11 NTrty	0	27	29	55	36	(9)	10&11_PinksA10_2v2_03182021_KA.xlsx
Area 10/11 Trty	0	21	2	23	29	(8)	CS/JO/CP/DH: 5-YR AVG catch ('16-'20 = 5) plus comm. Pink Fishery im
Area 10/11 test (Apple+other)	0	3	22	26			
Area 10A NTrty	0	(14)	0	(14)	38	(52)	Modeled in FRAM
Area 10A Trty	0	160	0	160	387	(227)	2 nights directed fishery (with possibility of 3rd depending on ISU) + recer
Area 10E NTrty	0	(14)	0	(14)	1	(15)	Modeled in FRAM
Area 10E Trty	0	402	0	402	792	(389)	4-YR ('17-'20) avg rate on ETRS
Deep SPS NTrty (13,13C,13D-K)	0	0	0	0	0	0	closed
Deep SPS Trty (13,13C,13D-K)	0	221	0	221	102	119	Recent 2 Year (2019-2020) average catch
Area 13A NTrty	0	0	0	0	0	0	closed
Area 13A Trty	0	317	3	320	150	167	BP: recent-year (2016-2020) harvest rate on Minter ETRS, applied to 202

Freshwater Summer/Fall Chinook Catch:	FWNet	FWSport	Fishery Descriptions:	0
Lake Washington & Ship Canal (10F,G,C,D)	114	1	4 year average incident: 9/16-10/31, 4 coho only, open only N. of 520; No impacts reserved for soc	
Lake Sammamish	0	0	No anticipated fishery	
Duwamish/Green (80B)	2,579	163	2 nights directed fishery Avg of 2017 & 2019 CRC estimate of adults + 10% of released fish based	
Puyallup (81B)	521	29	6 hrs Wk 33 (2015-2020) 8/15-12/31, 6 salmon, 2 adults, release chum and wild adult chinook	
Minter Cr.	0	17	Closed	Open Sept. 15 - Dec. 15 Daily limit 6. 2 Adults. Release wild adult Chinoc
Chambers (13C & 83H)	3	0	BP: recent-year average 10 yr CRC avg; 7/1-11/15, 6 salmon, 2 adults, release wild coho	
Nisqually (83D)	627.57	57	CS Gill net 2 days a we 7/1-11/15 6 salmon, 2 adults, release wild chinook, wild coh	IF(O44<1,(
McAllister (83F)	0	0	CS: up to 5 days a wk, v 7/1-11/30, 6 salmon, 2 adults; CRC harvest estimate from 2018	
Deschutes/Capitol Lk.	NA	0	recent 5yr CRC avg; 7/1-10/15, 6 salmon, 2 adults, release coho	

^ 12/9/2021 +

Kennedy/Johns/Misc. "13B" NA 0 10/1-11/30, 6 salmon, 2 adults, release wild coho; CRC avg (no recent Cr
Puyallup test fishery 6.062630882 67 Total C&S -62 Falls & 5 Springers (2010-2014 & 2019 Avg)

WHITE RIVER SPRING CHINOOK - White R. Fingerlings
White River Spring Chinook "ETRE 3940 = Run of White R Spring Chinook leaving areas 10/11 (from FRAM)

Area 13A Catch of WRSC 1's:	May-Jun	Jul-Sep	Oct-Apr	TOTAL	THIS SECTION IS OBSOLETE! AND SHOULD SHOW ALL ZEROS!!
Total AEQ Mortality From FRAM					
Ntrty	0	0	0	0	
Trty	0	0	0	0	

Spawning Escapement computation for WRSp 0's: =INPUT_Harvest!C102*SUM(BM12:BP13)/(SUM(BM12:Bp13,SPSmrkd!BM12:BP13))

Extreme Terminal Run Size (age 3-5)::	3,940	
Extreme Terminal Catch, Area 13A:	0	Obsolete, as noted above (should be zero!)
Extreme Terminal Catch, Areas 10A, 10E,	3	Jul-Sep "adults" only
Treaty Area 11A/Puy R. Catch	45	White River/Puyallup R Spring adults only
C&S catch in White River	479	White River/Puyallup R Spring adults only
Freshwater Sport Catch	0.0	White River/Puyallup R Spring adults only
TOTAL SPAWNING ESCAPEMENT:	3,413	

TABLE 14-B >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINCSLC-Chin37===== TABLE 14B
 AREA 13A INPUTS AND TAMI PREPARATION 12/09/21

FRAM Run: SLC-Chin3721_Final Version 2.21Dec15 10:42 AM
 Run Description: SLC-Chin3721_Final

Recap INPUT FOR WHITE RIVER SPRING CHINOOK 0'S EXPECTED FW Net HARVEST:

Catch or HR		Fishery Description:
Trty Jul-Sep:	0 <<<catch or hrtrate on White R. Sp. % WRSp 13A run	Note: OBSOLETE!
Trty Puy. R. & 11A & C&S	524 <<< catch of WRSp, May-Sep	
Nontreaty Puy R. Fl	0.0000 <<< Proportion of Puy R. catch that is WR Sp	

INPUT TABLE FOR MARINE SUMMER/FALL CHINOOK EXPECTED CATCH:

Fishery - ALL STOCKS CATCH	May-Jun	Jul-Sep	Oct-Dec	Fishery Description:
Area 10/11 NTrty	0	27	29 <<<catch	10&11_PinksA10_2v2_03182021_KA.xlsx
Area 10/11 Trty	0	21	2 <<<catch	CS/JO/CP/DH: 5-YR AVG catch ('16-'20 = 5) plus comm. Pink Fishery imj
Area 10/11 test (Apple+other)	0	3	22 <<<catch	
Area 10A NTrty	0	-14	0 <<<catch	Modeled in FRAM
Area 10A Trty	0	160	0 <<<catch	2 nights directed fishery (with possibility of 3rd depending on ISU) + recer
Area 10E NTrty	0	-14	0 <<<catch	Modeled in FRAM
Area 10E Trty	0	402	0 <<<catch	4-YR ('17-'20) avg rate on ETRS
Deep SPS NTrty (13,13C,13D-K)	0	0	0 <<<catch	closed
Deep SPS Trty (13,13C,13D-K)	0	221	0 <<<catch	Recent 2 Year (2019-2020) average catch
Area 13A NTrty	0	0	0 <<<catch	closed
Area 13A Trty	0	317	3 <<<catch	BP: recent-year (2016-2020) harvest rate on Minter ETRS, applied to 202

=101+1251*(1-0.98)+(B12/(SPSmrkd!B12+B12)*184)*0.1

INPUT TABLE FOR FRESHWATER SUMMER/FALL CHINOOK EXPECTED CATCH:

Fishery:	Treaty Freshwater Net May-Dec	Fishery Description:	NTrty Freshwater Sport Jan-Dec	Fishery Description:
key fishery Lk. Wash.(10F,G,C, Lake Sammamish	114 <<<catch 0	4 year average incidentals ; 300 MIT No anticipated fishery	1 <<<catch 0	9/16-10/31, 4 coho only, open only N. of 520; No impacts res
on proportic Duwamish/Green (8 Puyallup (81B)	2579 <<<catch 0.30 <<<catch	2 nights directed fishery (with possib 6 hrs Wk 33 (2015-2020 Avg); 6 hrs	163 <<<catch 29 <<<catch	Avg of 2017 & 2019 CRC estimate of adults + 10% of release 0
and wild e Minter Cr.	0 <<<catch	Closed	17 <<<catch	Open Sept. 15 – Dec. 15 Daily limit 6. 2 Adults. Release wild
Chambers (13C & 8	0.66 <<<catch	BP: recent-year average (2014,2015	0 <<<catch	10 yr CRC avg; 7/1-11/15, 6 salmon, 4 adults, release wild cc
O44*(\$AP\$2 Nisqually (83D)	0.000 <<<catch	CS Gill net 2 days a week 32-36. Cx	57 <<<catch	7/1-11/15 6 salmon, 2 adults, release wild chinook, wild coh
McAllister (83F)	0 <<<catch	CS: up to 5 days a wk, wks 31-wk 4'	0 <<<catch	7/1-11/30, 6 salmon, 2 adults; CRC harvest estimate from 20'
Deschutes/Capitol L	NA		0 <<<catch	recent 5yr CRC avg; 7/1-10/15, 6 salmon, 2 adults, release c

^ 12/9/2021 +

chinook catch Kennedy/Johns/Mis NA 0 <<<catch 10/1-11/30, 6 salmon, 2 adults, release wild coho; CRC avg (i
 Puyallup test fishery 6 67 Total C&S -62 Falls & 5 Springers (2010-2014 & 2019 Avg)
 =====
 INPUT FOR UPPER SPS % OF SPS YEARLING STOCK: =INPUT_ETSport!C23*SUM(BM12:BP13)/(SUM(BM12:BP13,SPSmrkd!BM12:BP13))
 Obsolete!
 ===14B=== ===14B=== ===14B=== ===14B=== ===14B=== ===14B=== ===14B=== ===14B=== ===14B=== ===14B===
 0 catch of LaWa Hatchery Chinook in LaWa sport fisheries
 13 catch of LaWa Hatchery Chinook in LaWa net fisheries

^ 12/9/2021 +

TABLE 14-C >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINOC SLC-Chin37===== TABLE 14C
 AREA 13A INPUTS AND TAMI PREPARATION

FRAM Run: SLC-Chin3721_Final Version 2.21Dec15 12/09/21 10:42 AM
 Run Description: SLC-Chin3721_Final

WHITE RIVER SPRING CHINOOK:

PASS TO TAMI: MAY-JUN JUL-SEP OCT-APR Notes:

	MAY-JUN	JUL-SEP	OCT-APR	Notes:
NTrty Area 13A Inputs	na	na	na	
Trty Area 13A Inputs	na	0	na	

ALL-STOCKS CATCH, SUMMER/FALL CHINOOK:

PASS TO TAMI: MAY-JUN JUL-SEP OCT-DEC NT=FWSPT

	MAY-JUN	JUL-SEP	OCT-DEC	NT=FWSPT	Notes:
Area 10/11 NTrty	0	27	29	29.897017	--> LkWA, Puy
Area 10/11 Trty	0	21	2		
Area 10/11 test (Apple+other)	0	3	22		
Area 10A NTrty	0	-14	0	162.76939	--> Duw/Gr
Area 10A Trty	0	160	0		
Area 10E NTrty	0	-14	0	0	--> "0"
Area 10E Trty	0	402	0		
Deep SPS NTrty (13,13C,13D-K)	0	0	0	57.32002	--> Nisq, McA, Chambers, Deschutes/Cap, Misc
Deep SPS Trty (13,13C,13D-K)	0	221	0		
Area 13A NTrty	0	0	0	16.946065	--> Minter Cr.
Area 13A Trty	0	317	3		

Deschutes/Cap. Lake Hatchery
 Misc 13D-K Nat & Coulter Ck Hat

TABLE 14-D >>> S
 SOUTH PUGET SC

FRAM Run:
 Run Description:

NOT REA

Production Unit

WHITE R SP FING

Grovers Ck. Hat. - 10
 Lk. Washington Hatchery
 Natural
 Duwamish-Green Hatchery
 Natural
 Gorst Creek Hat. - 10E
 Puyallup River Hatchery
 Natural
 Carr Inlet/Minter Hatchery
 Natural
 Chambers Creek Hatchery
 Nisqually River Hatchery
 Natural
 McAllister Creek Hatchery
 Natural
 Deschutes/Cap. Lake Hatchery
 Misc 13D-K Nat & Coulter Ck Hat

TOTAL

1. Only catches of :
2. For extreme tem
3. Freshwater net c
4. The exception to

1 Minter forecast

erved for sockeye fishery. 3 is an estimate based on 2016 creel data, for which there was an estimated 26.6 Chinook encounters in the coho fishery.

id fish based on proportions of kept/released observed in creel

adult Chinook and wild adult coho. Encounters based on encounter rate from Nisqually sport fishery

ho
), and chum ETRS rate

18

oho

^ 12/9/2021 +

no recent Chinook catch in these rivers, despite being open to Chinook fishing)

^ 12/9/2021 +

READY FOR USE

Stk TRS of SPS fish	10/11 Catch of SPS fish	10A Catch of SPS fish	10E Catch of SPS fish	"13+" Catch of SPS fish	13A Catch of SPS fish	ET MarNet Catch SUM	FW Sport fing Catch	FW Net fing Catch	Expected Escape.	Escape. Goal	Prod Unit
na	0	3940	3.04	0.00	0.00	0.00	3	0	524	3,413	na
1,005	2.37	1,003	4	21	0	0	25	0	na	977	Grov Hat
97	0.23	97	1	0	0	0	1	0	13	82	LkWa Hat
733	1.72	731	7	2	0	1	10	0	101	620	LkWa Nat
3,525	8.30	3,517	157	0	0	3	160	77.46	1,227	2,052	Du-Gr Hat
3,879	9.13	3,870	173	0	0	3	176	85.27	1,351	2,257	Du-Gr Nat
823	1.94	821	3	403	0	0	407	na	na	414	10E Hat
385	0.91	384	1	0	0	1	2	6	115	261	Puy Hat
1,373	3.23	1,370	2	0	0	4	6	23	412	929	Puy Nat
66	0.18	66	0	0	1	12	14	17	0	35	13A Hat
0	0.00	0	0	0	0	0	0	0	0	0	13A Nat
5	0.01	5	0	0	0	0	0	0	3	1	13C Hat
1,140	3.08	1,137	6	1	7	9	22	29	382	704	Nisq Hat
898	2.42	896	5	1	5	7	18	28	246	605	Nisq Nat
3	0.01	3	0	0	0	0	0	0	0	3	McAll Hat
0	0.00	0	0	0	0	0	0	0	0	0	McAll Nat
96	0.26	96	0	0	14	1	16	0	0	80	Desch Hat
0	0.00	0	0	0	0	0	0	0	0	0	13D-K H&I
13,634	33.78050	13,996	359	429	29	42	858	267	3,850	9,021	TOTAL

wrong formula was 101

SPS fish are represented on this table.
 ninal marine fisheries, 10A, 10E, 13+, 13A, see Table 14F for apportionment (some are done using CWTs). 627.57064
 catches are computed as "remainder of the harvestable" unless no harvestable exist, in which case, managers' projected fw catches are used.
 #3, above, is Puyallup, for which freshwater net catch projections are taken directly from managers estimates (assumes effort is limited).

8,047

14475

^ 12/9/2021 +

^ 12/9/2021 +

-E >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK - >>> CO=====

TABLE 14-F >>> SOUTH SOUND <<< TERMINAL AREA MANAGEM
SOUTH PUGET SOUND EXTREME TERMINAL FISHERY CATCH AI
FRAM Run: SLC-Chin3721_Final
Run Description: SLC-Chin3721_Final

Calculated ETRS UnMarked Proportion	PSF Upper fing Ppns of USPS	PSF UWACC Ppns of SPS	PSF Deep Fing Ppns of DPS	PSF Yearling Ppns of SPS	ETRS10 USPS0 Breakout	ETRS11 UWACC Breakout	ETRS12 DPS0 Breakout	ETRS13 SPS1 Breakout
0.465	0.0850	0.00000		0.00000	1,003	0	0	0
0.026	0.0082	1.00000		0.00000	97	0	0	0
1.000	0.0620	0.00000		0.00000	731	0	0	0
0.176	0.2982	0.00000		1.00000	3,517	0	0	4
1.000	0.3281	0.00000		0.00000	3,870	0	0	0
0.107	0.0696	0.00000		0.00000	821	0	0	0
0.023	0.0326	0.00000		0.00000	384	0	0	0
1.000	0.1162	0.00000		0.00000	1,370	0	0	0
0.009		0.00000	0.02988	0.00000	0	0	66	0
0.000		0.00000	0.00000	0.00000	0	0	0	0
0.007		0.00000	0.00232	0.00000	0	0	5	0
0.080		0.00000	0.51608	0.00000	0	0	1,137	0
1.000		0.00000	0.40670	0.00000	0	0	896	0
0.008		0.00000	0.00136	0.00000	0	0	3	0
0.000		0.00000	0.00000	0.00000	0	0	0	0
0.017		0.00000	0.04366	0.00000	0	0	96	0
0.000		0.00000	0.00000	0.00000	0	0	0	0
	1.000000	1.000000	1.000000	1.000000	11,793	0	2,203	4

CATCH BY FRAM STOCK AND SPS FISHERY (Read from TAMX) TOTAL MORTALITY!! TIME STE				
	all-stocks	SPS-stks	usps 0	uwacc
55. 10/11 NTrty:	37	19	15.411507	0
56. 10/11 Trty:	30	15	12.408692	0
57. 10A NTrty:	57	45	40	0
58. 10A Trty:	395	349	307	0
59. 10E NTrty:	32	33	33	0
60. 10E Trty:	807	396	394	0
65. 13+ NTrty:	0	0	0.0	0
66. 13+ Trty:	104	55	0.5	0
67. 13A Ntrty:	0	0	0.0	0
68. 13A Trty:	153	58	13.3	0

ETRS by sps stk from FRAM: 11793 0
SPS "adult" catch by sps stk from above: 815.936 0

time step 3 only!!
Recap: fish caught in SPS fisheries: Non-SPS SPS only
Total "adult" Mortality! 10/11 32.348941 33.824883
10A 58.047354 393.75344
10E 410.49287 429.15664
13+ 50 54.701584
13A 95.322938 57.899073
SUM 645.87008 969.33562

^ 12/9/2021 +

MENT MODULE - CHINOOK - >> CONTINUED <<=====
 APPORTIONMENT TO SPS STOCK COMPONENTS

SPS ONLY!!	USPS and DSPS harvest rate indices relative to USPS or DSPS fingerling E				Fingerling catch apportionment based on harvest rates relative to ET				Fingerling catch apportionment UnM ratio applied to 'SPS' apportionment and use MSF parameters to				compute impact in mark selectiv								
	dspd 0	sps 1	Prod Unit	HRI	HRI	PSF RRS	HRI	10A	10E	13+	13A	10A	10E	13+	13A	A10A 10E 13					
				10A	10E	13+	13A									NT	T	NT			
3.3018149	0.0245897	Grov Hat	0.0165	0.0342	0.0850	0.0013	17	34	0	1	4	21	0	0	0	0	3	0	21	0	
2.6584814	0.0197985	LkWa Hat	0.0377	0.0124	0.0082	0.0061	4	1	0	1	1	0	0	0	0	0	1	0	0	0	
1	3.6511247	LkWa Nat	0.0377	0.0124	0.0620	0.0061	28	9	0	4	7	2	0	1	0	0	6	0	2	0	
10	31.207799	Du-Gr Hat	0.1870	0.0001	0.2982	0.0026	658	0	0	9	157	0	0	3	0	0	18	139	0	0	
0.1656449	0.0421433	Du-Gr Nat	0.1870	0.0001	0.3281	0.0026	724	0	0	10	173	0	0	3	0	0	20	153	0	0	
1.4724526	0.5198384	10E Hat	0.0165	0.8030	0.0696	0.0013	14	659	0	1	3	403	0	0	0	0	3	5	398	0	
0	0	Puy Hat	0.0062	0.0000	0.0326	0.0101	2	0	0	4	1	0	0	1	0	0	0	1	0	0	
28	26.002192	Puy Nat	0.0062	0.0000	0.1162	0.0101	8	0	0	14	2	0	0	4	0	0	0	2	0	0	
0	0																				
29	16.044526	13A Hat	0.0299	0.0299	0.0300	0.1760	0	0	2	12	0	0	1	12	0	0	0	0	0	0	
		13A Nat	0.0000	0.0000	0.0300	0.1760	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2203	4	13C Hat	0.0023	0.0023	0.0700	0.0070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
75.8876	77.512012	Nisq Hat	0.5161	0.5161	0.0330	0.0070	6	1	38	8	6	1	7	9	1	5	0	1	0	0	
		Nisq Nat	0.4067	0.4067	0.0330	0.0070	5	1	30	6	5	1	5	7	1	4	0	1	0	0	
		McAll Hat	0.0014	0.0014	0.0330	0.0070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
USPS 0s	DSPS 0s	McAll Nat	0.0000	0.0000	0.0330	0.0070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27.820199	5.9602963	Desch Hat	0.0437	0.0437	0.2330	0.0070	1	0	22	1	0	0	14	1	0	0	0	0	0	0	
347	11.496231	13D-K H&N	0.0000	0.0000	0.2330	0.0070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426.95656	1.6380974																				
0.5025476	28.196844	Computed Sum of USPS ET Catch using HRs					1,454	705	1	44	347	427	1	13							
13.258415	28.596132	FRAM ET Catch of USPS fingerlings					347	427	1	13	347	427	1	13							
815.936	75.8876	Catch index for USPS fingerlings					4.184	1.6507	1	3.3451											
====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====	====14F=====
		Computed Sum of DSPS ET Catch using HRs							92	27	11	2	28	29							
		FRAM ET Catch of DSPS fingerlings							28.197	29											
		Catch index for DSPS fingerlings							3.2603	0.9283											

^ 12/9/2021 +

^ 12/9/2021 +

=====

TABLE 14-G >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK - >> CONTINUED <<

SOUTH SOUND CHINOOK MANAGEMENT STRATEGIES AND DOCUMENTATION

FRAM Run: SLC-Chin3721_Final

Run Description: SLC-Chin3721_Final

=====

TABLE14G

12/09/21

10:42 AM

e fisheries by using TAMX AEQ mort as total

o split catch into mark and unmarked

3+	T	NT	13A	T	Prod. Unit:	Management Strategy:
0	0	0			Grov Hat	Hatchery rate
0	0	0			LkWa Hat	Natural rate
0	0	1			LkWa Nat	Natural rate
0	0	3			Du-Gr Hat	Natural rate
0	0	3			Du-Gr Nat	Natural rate
0	0	0			10E Hat	100% harvest
0	0	1			Puy Hat	Hatchery rate; fwnet = manager input only!
0	0	4			Puy Nat	Hatchery rate; fwnet = manager input only!
1	0	12			13A Hat	Hatchery rate
0	0	0			13A Nat	Hatchery rate
0	0	0			13C Hat	Hatchery rate
7	0	9			Nisq Hat	Clear Ck. goal per Miniken 11/94
5	0	7			Nisq H+N	Managed for H&N COMBINED; Hat. deficits made up by McAllister
0	0	0			Nisq Nat	
0	0	0			McAll Hat	Hatchery managed w/ broodstock from natural esc.; Per Miniken 1
14	0	1			McAll Nat	Hatchery managed w/ broodstock from natural esc.
0	0	0			Desch Hat	Hatchery Managed; Deschutes complex only
					13D-K H&N	Hatchery Managed

Procedures/Computations: (TLS 990305)

=====

Apportionment within SPS:

1. Original PSFs are used to determine breakouts for FRAM UWAcc & yearling stock

2. CWT harvest rates for fingerling stocks are used to determine extreme terminal impacts by SPS stock

3. Only time step 3 mortalities are used for table 14F,D escapement computations; Table14H apportions all mortality (steps 3&4) for impacts/Expl Rate assessment

Escapement Computation Procedure:

1. Begins with ETRS ("adult") by FRAM SPS stock

2. Extr. Term. Marine catches are SPS-stock only sums, apportioned as shown on table 14F

4. Exp. escapements are computed using a) the appropriate hatchery or nat. harvest (escapement) rate, see remarks, or b) run - proj. catch if run is > goal.

5. Freshwater Net harvests are a) ETRS - ET marine catch - exp. escapement (FW "harvestable" fish based on escapement goals and hrv rates) or b) projected catch, if run is > goal (except Puyallup is always managers input). Negative values means the goal will not be met. These FW harvests may not match TAMM inputs because the latter are based on anticipated catch fr specific fishing patterns, not on harvestable fish (except Puyallup).

=====

===

=====14G=====

=====14G=====14G=====14G=====14G=====

=====14G=====14G=====14G=====14G=====

=====14G=====

^ 12/9/2021 +

^ 12/9/2021 +

TABLE 14-H >>> SOUTH SOUND <<< TERMINAL AREA MANAGEMENT MODULE - CHINOOK - >> CONTINUEC=====

SOUTH PUGET SOUND EXTREME TERMINAL FISHERY CATCH APPORTIONMENT TO SPS STOCK COMPONENTS - all time steps total mortality - for Table 2C
 FRAM Run: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final

CATCH BY FRAM STOCK AND SPS FISHERY							USPS and DSPS harvest rate indices				Fingerling catch apportic		
(Read from Table2D) TOTAL MORTALITY!! All time steps!							relative to USPS or DSPS fingerling ETRSs				based on harvest rates r		
	all-stocks	SPS-stks	usps 0	uwacc	dsps 0	sps 1	Prod Unit	HRI 10A	HRI 10E	PSF RRS 13+	HRI 13A	10A	10E
55. 10/11 NTrty:	79	27	22.396947	0	4.2934594	0.0420729	Grov Hat						
56. 10/11 Trty:	43	18	14.652251	0	2.9769742	0.0254138	LkWa Hat						
57. 10A NTrty:	57	128	79	27	22	0	LkWa Nat						
58. 10A Trty:	395	75	43	18	15	0	Du-Gr Hat						
59. 10E NTrty:	32	139	57	41	40	0	Du-Gr Nat						
60. 10E Trty:	807	1,020	395	318	307	0	10E Hat						
65. 13+ NTrty:	0	101	32	36	33	0	Puy Hat						
66. 13+ Trty:	104	1,615	807	414	394	0	Puy Nat						
67. 13A Ntrty:	0	0	0	0	0	0	13A Hat						
68. 13A Trty:	155	134	104	29	1	0	13A Nat						
							13C Hat						
							Nisq Hat						
							Nisq Nat						
							McAll Hat						
Recap: fish caught in SPS fisheries:			Non-SPS	SPS only	USPS 0s	DSPS 0s	McAll Nat						
Total Mortality! All time steps	10/11		77.243889	44.387118	37.049197	7.2704336	Desch Hat						
	10A		249.02198	203.06732	121.63101	37.049197	13D-K H&N						
	10E		-319.3427	1158.9922	452.0893	347.56554							
	13+		-1611.788	1716.1477	839.64951	426.95656	Computed Sum of USPS ET Catch using HRs						
	13A		21.334911	133.76206	104.35956	0.5025476	FRAM ET Catch of USPS fingerlings						
	SUM		-1583.53	3256.3564	1554.7786	819.34428	Catch index for USPS fingerlings						
====14H====	====14H====	====14H====	====14H====	====14H====	====14H====	====14H====	====14H====	====14H====	====14H====	====14H====	====14H====	====14H====	====14H====
							Computed Sum of DSPS ET Catch using HRs						
							FRAM ET Catch of DSPS fingerlings						
							Catch index for DSPS fingerlings						

^ 12/9/2021 +

^ 12/9/2021 +

=====

compute impact in mark selective fisheries by using TAMX AEQ mort as total

===== mort and use MSF parameters to split catch into mark and unmarked

Apportionment		Fingerling catch apportionment											
relative to ETRSS		UnM ratio applied to 'SPS' apportionment				COMPUTED SPS Fingerling CATCH							
by stock) (except 13+)		10A	10E	13+	13A	A10A		10E		13+		13A	
13+	13A					NT	T	NT	T	NT	T	NT	T
		4	21	0	0	0	3	0	21	0	0	0	0
		1	0	0	0	0	1	0	0	0	0	0	0
		7	2	0	1	1	6	0	2	0	0	0	1
		157	0	0	3	18	139	0	0	0	0	0	3
		173	0	0	3	20	153	0	0	0	0	0	3
		3	403	0	0	0	3	5	398	0	0	0	0
		1	0	0	1	0	1	0	0	0	0	0	1
		2	0	0	4	0	2	0	0	0	0	0	4
		0	0	1	13	0	0	0	0	0	1	0	13
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		6	1	7	9	1	5	0	1	0	7	0	9
		5	1	5	7	1	4	0	1	0.00	5	0	7
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	14	1	0	0	0	0	0	14	0	1
		0	0	0	0	0	0	0	0	0	0	0	0
		348	427	1	13								
		0	0	0	0								

===14H=== ===14H=== ===14H=== ===14H=== ===14H===



UnMarked Catch

	fixed	un fixed	
Grov Hat	25	298	273
LkWa Hat	1	24	23
LkWa Nat	10	60	50
Du-Gr Hat	160	80	(81)
Du-Gr Nat	176	931	755
10E Hat	407	2,723	2,316
Puy Hat	2	1	(1)
Puy Nat	6	25	19

^ 12/9/2021 +

-	0	0	0
13A Hat	14	101	86
13A Nat	0	0	0
13C Hat	0	73	73
Nisq Hat	22	96	74
Nisq Nat	18	226	208
McAll Hat	0	7	7
McAll Nat	0	0	0
Desch Hat	16	34	18
13D-K H&N	0	6	6

^ 12/9/2021 +

ich
ons.

TABLE 16-A >>> STRAIT OF JUAN DE FUCA TRIBUTARIES <<< TERMINAL AREA REPORT SLC-Chin3721_Final =====

TABLE 16A

Provides Strait of Juan de Fuca Tributaries Catch and Expected Escapement

FRAM Run: SLC-Chin3721_Final

Version: 2.21Dec15

12/09/21

Run Description: SLC-Chin3721_Final

10:42 AM

MARKED ONLY

STRAIT OF JUAN DE FUCA TRIBUTARIES

	"4B" Run	Pre-term Harvest	Terminal Run	Terminal Harvest	Extr Tern Harvest	Expected Escape	Expected Spawner	Escape Goal	PSF Ppns.	Actual 4B RS	Source: NL 3/01
Dungeness River Nat	0	0	0	0.0	0	0	0	117	0.0000	0	TBD-no earlier than 10/16
Elwha River Nat & Hat	694	0	694.00	0.000	0.0	694	694	304	1.0000	694	T: wb 9/15 though wb 10/27, wb 12/15 sthd
Hoko River Nat & Hat	411	0	411	0	0	411	411	409	1.0000	411	closed thru 12/12
TOTAL	1,105	0	1,105	0	0	1,105	1,105	830		1,105.1	
										694	Elwha/Dungeness

Procedure: (TLS 951025, modified by TJT 960313)

1. Preterminal harvest and Terminal Area Abundances are provided from FRAM; apportioned by PSF %.
2. Expected terminal harvest for Dungeness is input above.
3. Expected Elwha in-river test/comm catch % and %ETRS prespawning mortalities are input above; broodstock subtraction/addition from natural and to hatchery are calculated.
4. Expected escapements for Elwha = TRS - terminal and extreme terminal harvests - mortality, then - broodstock removal for natural and plus removed fish for hatchery.

^ 12/9/2021 +

^ 12/9/2021 +

TABLE 16E: Strait of Juan de Fuca Production Units - FISHERY IMPACTS ===== **TABLE 16E**

Estimated fishery impacts from regulations described in SLC-Chin37 Version: 2.21 Dec 15 12/09/21
 Run Descript SLC-Chin3721_Final 10:42 AM
 Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations.
 Treaty/non-treaty splits are NOT based on CWT recovery data.

FISHERY		Abundance (N) /ha (N+H)		Hoko	Total
Canada		0.0	76.4	62.4	138.9
Alaska	Ntrty	0.0	8.9	49.3	58.2
S. Of Falcon	Ntrty	0.0	0.0	0.0	0.0
N.Flc. Ocean	NTrty	0.0	0.3	3.5	3.8
	Trty	0.0	6.8	3.3	10.1
N.Flc. Ocean	Ntrty	0.0	1.9	0.5	2.4
Pgt Snd Troll	Trty	0.0	4.3	0.2	4.5
Pgt Snd 6 Sp	Ntrty	0.0	6.4	0.0	6.4
Pgt Snd 5 Sp	Ntrty	0.0	14.2	2.8	17.0
Pgt Snd 7 Sp	Ntrty	0.0	2.4	0.0	2.4
Pgt Snd 8-13	Ntrty	0.0	9.4	0.0	9.4
Strait Net	Trty	0.0	0.3	0.0	0.3
San Juans N	Ntrty	0.0	0.0	0.0	0.0
	Trty	0.0	0.0	0.0	0.0
Out-of-Regio	NTrty	0.0	0.0	0.0	0.0
	Trty	0.0	1.5	0.0	1.5
Local Termin	NTrty	0.0			0.000
	Trty	0.0			0.0
Freshwater S	NTrty	0	0.0	0	0.0
Freshwater N	Trty	0.0	0.0	0	0.0

Total Marine C		0.0	132.8	122.0	254.8
Extr. Term. C:		0.0	0.0	0.0	0.0

TOTAL CATCH		0.0	132.8	122	254.8

Escapement (fron		0.0	694.0	411	1,105.0
TOTAL ABUNDAI		0.0	826.8	533.0	1,359.8
Total Exploitation		0.000	0.161	0.229	0.187

^ 12/9/2021 +

Exploitation in So	0.000	0.057	0.019	0.043
<hr/>				
2003 BR Limit ER	0.046	0.046		
2003 BR SUS Ca	0.0	37.7		
Current SUS Catc	0.0	47.5	10.3	
AEQ Impacts				
Current SUS Ntrty	0.0%	72.7%	66.0%	
Trty	0.0%	27.3%	34.0%	

^ 12/9/2021 +

TABLE 16-A >>> STRAIT OF JUAN DE FUCA TRIBUTARIES <<< TERMINAL AREA REPORT - CHINOOK SLC-Chin37===== TABLE 16A
 Provides Strait of Juan de Fuca Tributaries Catch and Expected Escapement
 FRAM Run: SLC-Chin3721_Final Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM
UNMARKED ONLY

STRAIT OF JUAN DE FUCA TRIBUTARIES											
	"4B" Run	Pre-term Harvest	Terminal Run	Terminal Harvest	Extr Term Harvest	Expected Escape.	Expected Spawners	Escape. Goal	PSF Ppns.	Actual 4B RS	Source: NL 3/01
Dungeness River Nat	700	1	699	0.0	0	699	674	808	0.1461	700	TBD-no earlier than 10/16
Elwha River Nat & Hat	4,091	3	4,089	0.000000	0.0	4,089	4,089	2,096	0.8539	4,091	T: wb 9/15 though wb 10/27, w
Hoko River Nat & Hat	643	0	643	0	0	643	643	641	1.0000	643	closed thru 12/12
TOTAL	5,434	3	5,431	0	0	5,431	5,406	3,545		5,434	
										4,791	Elwha/Dungeness

- Procedure: (TLS 951025, modified by TJT 960313)
1. Preterminal harvest and Terminal Area Abundances are provided from FRAM; apportioned by PSF %.
 2. Expected terminal harvest for Dungeness is input above.
 3. Expected Elwha in-river test/comm catch % and %ETRS prespawning mortalities are input above; broodstock subtraction/addition from natural and to hatchery are calculated.
 4. Expected escapements for Elwha = TRS - terminal and extreme temrnal harvests - mortality, then - broodstock removal for natural and plus removed fish for hatchery.

^ 12/9/2021 +

^ 12/9/2021 +

TABLE 16E: Strait of Juan de Fuca Production Units - FISHERY IMPACT SUMMARY ===== **TABLE 16E**

Estimated fishery impacts from regulations described by FRAM model ru SLC-Chin37 Version: 2.21Dec15 12/09/21
 Run Description: SLC-Chin3721_Final 10:42 AM
 Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations.
 Treaty/non-treaty splits are NOT based on CWT recovery data.

b 12/15 sthd

FISHERY		Dungeness (N)	Elwha (N+H)	Hoko	Total
Canada		76.5	446.9	91.6	615.0
Alaska	Ntrty	8.9	52.0	60.4	121.3
S. Of Falcon Ocean	Ntrty	0.0	0.0	0.0	0.0
N.Fic. Ocean Troll:	NTrty	0.3	1.8	5.8	7.9
	Trty	6.8	39.5	5.8	52.1
N.Fic. Ocean & Buoy1	Ntrty	1.9	10.9	2.1	14.9
Pgt Snd Troll	Trty	4.3	25.4	0.5	30.2
Pgt Snd 6 Sport	Ntrty	2.1	12.2	0.0	14.3
Pgt Snd 5 Sport	Ntrty	5.2	30.7	2.4	38.3
Pgt Snd 7 Sport	Ntrty	0.8	4.7	0.0	5.5
Pgt Snd 8-13 Sport	Ntrty	5.0	28.9	0.0	33.9
Strait Net	Trty	0.3	1.8	0.0	2.1
San Juans Net	Ntrty	0.0	0.0	0.0	0.0
	Trty	0.0	0.0	0.0	0.0
Out-of-Region net:	NTrty	0.0	0.2	0.0	0.2
	Trty	1.6	9.1	0.0	10.6
Local Terminal Net:	NTrty	0.0			0.0
	Trty	0.0			0.0
Freshwater Sport: \1	NTrty	0	0.0	0	0.0
Freshwater Net:	Trty	0.0	0.0	0	0.0
Total Marine Catch		113.6	664.0	168.7	946.3
Extr. Term. Catch		0.0	0.0	0.0	0.0
TOTAL CATCH		113.6	664.0	168.7	946.3
Escapement (from TAMMs)		674.2	4,088.5	643.0	5,405.7
TOTAL ABUNDANCE		787.8	4,752.5	811.7	6,352.0
Total Exploitation		0.144	0.140	0.208	0.149

^ 12/9/2021 +

Exploitation in Southern U.S. Fish	0.036	0.035	0.020	0.033
2003 BR Limit ER	0.046	0.046		
2003 BR SUS Catch Limit	36.3	217.0		
Current SUS Catch	28.2	165.1	16.6	
AEQ Impacts				
Current SUS Impact E Ntrty	54.2%	54.2%	62.0%	
Trty	45.8%	45.8%	38.0%	

^ 12/9/2021 +

TABLE 2C: SOUTH PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT SUMMARY HIGHLIGHTS

TABLE 2C

Estimated fishery impacts from regulations described by FRAM model run # SLC-Chin372 Version: 2.21Dec15
 Run Description: SLC-Chin3721_Final

12/09/21
 10:42 AM

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations. Treaty/non-treaty splits and some SPS stock breakouts are NOT based on CWT recovery data.

----- AEQ Total May-April Fishery-Related Mortality (Natural & Hatchery) -----									
FISHERY	Misc 10 & 10E	Lake Wash.	Green River	Puyallup River	Carr Inlet	Chambers	Nisq. River	McAll. Creek	Deschutes & 13D-K
Alaska	16	7	39	29	7	1	14	0	6
Canada	1,348	605	3,258	2,460	707	68	1,373	36	534
S. Of Falcon Ocean	11	5	25	20	18	2	34	1	13
N.Fic. Ocean Troll: NTrty	172	77	412	315	93	9	181	5	71
Trty	419	188	1,010	767	515	49	1,007	26	389
Ntrty N.Fic. Ocean & Buoy10 Spl	132	59	317	241	106	10	206	5	80
Pgt Snd Trty Troll	94	42	229	170	74	7	148	4	56
Pgt Snd 6 Sport	255	114	547	501	102	10	181	5	76
Pgt Snd 5 Sport	263	118	587	504	207	20	384	10	156
Pgt Snd 7 Sport	47	21	102	92	52	5	95	3	39
Pgt Snd 8-13 Sport	989	443	2,178	1,916	1,540	148	2,810	78	1,158
Out-of-Region net: NTrty	3	1	6	5	3	0	6	0	2
Trty	55	25	134	100	38	4	75	2	29
Local Terminal Net: NTrty	342	14	168	36	19	2	37	1	14
(&/or SAF sport) Trty	3,826	60	995	101	1,661	43	304	14	951
Freshwater Sport: NTrty	na	4	517	2,043	1,970	34	1,681	0	7
Freshwater Net: Trty	na	610	8,188	5,391	0	481	5,077	0	na
Total Marine Catch	7,970	1,780	10,007	7,258	5,141	377	6,855	190	3,573
Extr. Term. Catch	0	614	8,704	7,433	1,970	515	6,758	0	7
TOTAL CATCH	7,970	2,394	18,711	14,691	7,111	892	13,613	190	3,580
Escapement (from TAMMs)	5,711	3,750	14,079	10,422	4,038	174	8,047	373	4,827
TOTAL ABUNDANCE	13,681	6,144	32,790	25,114	11,150	1,066	21,661	563	8,406
Total Exploitation	58.25%	38.97%	57.06%	58.50%	63.78%	83.68%	62.85%	33.69%	42.58%
Exploitation in Southern U.S. Fis	48.28%	29.00%	47.01%	48.59%	57.37%	77.26%	56.44%	27.27%	36.17%

666fc767ba1c430ebd58b3fe17abf0a3 12/9/2021

TABLE 2A: KEY NATURAL PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT :

Estimated fishery impacts from regulations described by FRAM model run # SLC-Chin372

Run Description: SLC-Chin3721_Final

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality includes catch, non-retention mortality and other fishery-related mortality; not to be used for Treaty/non-treaty splits are NOT based on CWT recovery data.

FISHERY	TOTAL MORTALITY ALL STOCKS	AEQ May-April Total		
		NOOKSACK Early *	SKAGIT Spr Nat **	SKAGIT S/F Nat **
Alaska	187,522	109	1	#REF!
Canada	301,774	96	9	#REF!
S. Of Falcon Ocean	110,204	0	0	#REF!
N.Flc. Ocean Troll: NTrty	23,894	0	0	#REF!
Trty	22,756	0	0	#REF!
Ntrty N.Flc. Ocean & Buoy10 Sport	15,613	0	0	#REF!
Pgt Snd Trty Troll	1,724	55	8	#REF!
Pgt Snd 6 Sport	424	0	0	#REF!
Pgt Snd 5 Sport	3,506	56	4	#REF!
Pgt Snd 7 Sport	578	0	0	#REF!
Pgt Snd 8-13 Sport	2,078	1	2	#REF!
Preterm. Pgt Snd or NTrty	3,185	0	2	#REF!
Out-of-Region net: Trty	4,504	0	1	#REF!
Terminal Pgt Snd or NTrty	1,250	0	0	#REF!
Local Terminal Net: Trty	4,000	0	0	#REF!
Freshwater Sport: NTrty	0	0	0	0
Freshwater Net: Trty	0	0	0	0
Total Marine Catch	683,011	316	27	#REF!
Extr. Term. Catch	NA	0	0	0
TOTAL CATCH	683,011	316	27	#REF!
Escapement (from TAMMs)		4,534	1,442	8,407
TOTAL ABUNDANCE		4,850	1,470	#REF!

Total Exploitation	6.52%	1.86%	#REF!
Exploitation in Southern U.S. Fisheries	2.31%	1%	#REF!
=====	=====	=====	=====

* Nooksack Native" stock comprises an aggregation of North Fork and
 ** Only the portion of Skagit and Snohomish spring, fingerling and year are presented in this table.
 *** White River Springs are fingerlings

"Out-of-Region" net includes traditional Puget Sound preterminal net as well as non local
 "Freshwater sport" for NTry includes freshwater sport and some SAF catches.

SUS NT ER	0.012	0.006	#REF!
SUS T ER	0.011	0.006	#REF!

SUS Ocean Only ER	0.000	0.000	#REF!
NT SUS Ocn	0.000	0.000	#REF!
T SUS Ocn	0.000	0.000	#REF!
PS Preterminal Net	0.000	0.002	#REF!

added 50 chinook to this input to hard-wire AI's May-June impacts 3/13/01
added Skykomish Chinook Selective Wild Mortality to original input

Pgt Snd 5 Sport	1.2%	0.3%	#REF!
Pgt Snd 7 Sport	0.0%	0.0%	#REF!
Pgt Snd 8-13 Sport	0.0%	0.1%	#REF!

"Washington Run Size" = "NOF abundance"	4,646	1,460	#REF!
"% of Washington Run Size" = "% of NOF run"	2%	1%	#REF!

=====

SUMMARY

Version: 2.21Dec15

ry-related mortality, which
or allocation computations.

TABLE 2A

12/09/21
10:42 AM

TABLE 2B: OTHER

Estimated fishery imp
Run Description:
Impacts are expresse
includes catch, non-r
Treaty/non-treaty spl

=====

I Fishery-Related Mortality -----

STILLAG. Sum/Fall	SNOHOM S/F Nat **	Skykomish S/F Nat	WHITE R. Spring***
1	0	0	0
5	23	15	28
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
3	14	9	7
0	0	0	0
1	6	4	16
0	0	0	0
1	11	7	41
0	2	2	10
0	1	1	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
11	58	37	105
0	0	0	0
11	58	37	105
323	2,936	1,870	0
334	2,994	1,907	105

UNMARKED ONLY

FISHERY

Alaska
Canada
S. Of Falcon Ocean
N.Flc. Ocean Troll:
Ntrty N.Flc. Ocean &
Pgt Snd Trty Troll
Pgt Snd 6 Sport
Pgt Snd 5 Sport
Pgt Snd 7 Sport
Pgt Snd 8-13
Out-of-Region net:
Local Terminal Net:
Freshwater Sport: \1
Freshwater Net:
Total Marine Cat
Extr. Term. Catch
TOTAL CATCH
Escapement (from T)
TOTAL ABUNDANC

3.4%	1.9%	1.9%	100.0%
1%	1%	1%	0.7343
=====	=====	=====	=====

Total Exploitation
Exploitation in South
=====

| South Fork Native (Spring) stocks.
ling stocks representing wild chinook

Out-of-Region" net in
"Freshwater sport" fo

terminal net and Coastal/Col. R.

\1 The category "fre

=====

=====

0.005	0.007	0.007	0.640
0.009	0.005	0.005	0.095

SUS NT ER
SUS T ER

0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.001	0.001	0.127

SUS Ocean Only ER

PS Pretermina Net

0.3%	0.2%	0.2%	15.6%
0.0%	0.0%	0.0%	0.0%
0.2%	0.4%	0.4%	39.0%

328	2,971	77	
2%	1%	100%	

"Washington Run Siz
"% of Washington Rt

=====

=====

PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT SUMMARY

Impacts from regulations described by FRAM model run # SLC-Chin372 Version: SLC-Chin3721_Final

Reported as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, retention mortality and other fishery-related mortality; not to be used for allocation decisions. Impacts are NOT based on CWT recovery data.

	TOTAL MORTALITY ALL STOCKS	AEQ May-April Total Fish			
		NOOKSACK S/F N&H	TULALIP S/F H	HDCNL S/F N&H	Mid-HDCNL (12B) Natural
	187,522	0	0	2	0
	301,774	0	17	18	0
	110,204	0	0	0	0
NTrty	23,894	0	0	0	0
Trty	22,756	0	0	0	0
Buoy10 Sp	15,613	0	0	0	0
	1,724	0	9	12	0
	424	0	0	0	0
	3,506	0	9	8	0
	578	0	0	0	0
	2,078	0	29	25	0
NTrty	3,185	0	4	3	0
Trty	4,504	0	1	2	0
NTrty	1,250	0	0	3	0
Trty	4,000	0	0	2	0
NTrty	0	0	0	0	0
Trty	0	0	0	0	0
ch	683,011	1	69	75	5
1	NA	0	0	0	0
	683,011	1	69	75	5
AMMs)		0	57	990	18
E		1	126	1,065	24

	100.00%	55.06%	7.04%	22.5993%
ern U.S. Fisheries	63.18%	41.72%	5.22%	14.36%
=====	=====	=====	=====	=====

includes traditional Puget Sound preterminal net as well as non local terminal net ar
 or NTTrty includes freshwater sport and some SAF catches.

shwater sport" for Hood Canal includes nontreaty net catch in areas 12A and 9A.

=====

	0.268	0.334	0.037	0.006
	0.364	0.083	0.015	0.004

	0.000	0.000	0.000	0.000
NT SUS Ocn	0.000	0.000	0.000	0.000
T SUS Ocn	0.000	0.000	0.000	0.000
	0.048	0.044	0.005	0.001

ze" = "NOF abundance"	1	109	1,045
Un Size" = "% of NOF run"	100%	48%	5%

=====

2.21Dec15
 mortality, which
 computations.

TABLE 2B
 12/09/21
 10:42 AM

Fishery-Related Mortality		
Skok. R Natural	Dung/Elwha S/F N&H	Hoko S/F N&H
1	22	62
1	57	92
1	0	0
0	0	0
0	0	0
0	0	0
1	28	0
0	0	0
1	25	0
0	0	0
2	5	0
0	0	0
0	0	0
0	0.00	0.00
0	0	0
0	0.00	0.00
0	0.00	0.00
110	137	154
66	0	0
176	137	154
182	5,431	5,431
357	5,568	5,585

TABLE 2C: SOUTH PUGET SO
 Estimated fishery impacts from re
 Run Description: SLC-Chin37
 Impacts are expressed as total fis
 includes catch, non-retention mor
 Treaty/non-treaty splits and some

UNMARKED ONLY

FISHERY	
Alaska	
Canada	
S. Of Falcon Ocean	
N.Fl.c. Ocean Troll:	NTrty
	Trty
Ntrty N.Fl.c. Ocean & Buoy10 Spt	
Pgt Snd Trty Troll	
Pgt Snd 6 Sport	
Pgt Snd 5 Sport	
Pgt Snd 7 Sport	
Pgt Snd 8-13 Sport	
Out-of-Region net:	NTrty
	Trty
Local Terminal Net:	NTrty
(&/or SAF sport)	Trty
Freshwater Sport:	NTrty
Freshwater Net:	Trty
Total Marine Catch	
Extr. Term. Catch	
TOTAL CATCH	
Escapement (from TAMMs)	
TOTAL ABUNDANCE	

49.17%	2.46%	2.75%
40.99%	1.04%	0.00%
=====	=====	=====

rd Coastal/Col. R.

=====

0.010	0.005
0.003	0.005

0.002	0.000
0.002	0.000
0.000	0.000
0.001	0.000

5,489
1%

Total Exploitation
Exploitation in Southern U.S. Fish
=====

"Out-of-Region" net includes trad
"Local Term." means: AREAS 10
"Freshwater" means:
Extreme Terminal" for NTrty inclu

Note: Within-South-Puget-Sound
UW Acc, an
=====

SUS NT ER
SUS T ER

SUS Ocean Only ER
NT SUS Oc
T SUS Ocn

PS Pretermina Net

NT
T

"Washington Run Size" = "NOF ε
"% of Washington Run Size" = "%

=====

=====

WYOMING CHINOOK STOCKS - FISHERY IMPACT SUMMARY HIGHLIGHTS

Regulations described by FRAM model run # SLC-Chin372 Version: 2.21Dec15
 '21_Final

fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes hatchery-related mortality and other fishery-related mortality; not to be used for allocation computations.

⚠ SPS stock breakouts are NOT based on CWT recovery data.

=====

----- AEQ Total May-April Fishery-Related Mortality (Natural & Hatchery) -----

Misc 10 & 10E	Lake Wash.	Green River	Puyallup River	Carr Inlet	Cham- bers	Nisq. River
1	0	4	1	0	0	0
4	2	18	4	0	0	2
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
11	5	45	11	0	0	14
0	0	0	0	0	0	0
2	1	9	2	0	0	1
0	0	0	0	0	0	0
8	4	32	8	0	0	12
0	0	0	0	0	0	0
0	0	1	0	0	0	0
1	0	4	1	0	0	1
0	0	1	0	0	0	0
0	0	0	0	17	0	0
0	0	0	0	0	0	0
28	13	114	27	1	0	31
0	0	0	0	17	0	0
28	13	114	27	18	0	31
1,392	702	4,310	1,190	35	1	1,309
1,420	715	4,423	1,216	53	1	1,340

1.98%	1.78%	2.57%	2.22%	34.07%	6.05%	2.32%
1.61%	1.45%	2.09%	1.81%	33.92%	5.57%	2.14%

ditional Puget Sound preterminal net and "nonlocal terminal net" such as Bellingham Bay and C
/11, 10A, 10E, 13A, 13+, and may include NT SAF fisheries, if so modeled.

no FW ash., no Lk. S Green R. Puy. R. Minter Ck. 13C+Ch Ck Nisq. R.
ides freshwater sport ; SAF catches in extreme terminal marine areas are shown under NT loc:

d stock breakouts are based on CWT recoveries for areas 10A, 10E, 13A fingerlings, PSF prop
d yearlings. Refer to Tables 14D and 14F.

0.008	0.007	0.010	0.009	0.330	0.028	0.011
0.008	0.007	0.011	0.009	0.009	0.028	0.011

n	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.001	0.000

46
47

1,415	712	4,402	1,211	53	1	1,338
2%	1%	2%	2%	34%	6%	2%

=====

===== **TABLE 2C**
 12/09/21
 10:42 AM

=====

McAll. Creek	Deschutes & 13D-K	Total SPS	Upper SPS	Deep SPS
0	0	6	6	0
0	0	31	28	3
				0
0	0	0	0	0
				0
0	0	0	0	0
0	0	0	0	0
				0
0	0	0	0	0
				0
0	1	86	71	15
0	0	0	0	0
0	0	15	14	1
0	0	0	0	0
0	1	64	51	13
				0
0	0	1	0	0
0	0	2	1	0
				0
0	0	8	7	1
0	0	3	2	0
				0
0	0	17	0	17
0	0	0	0	0
0	1			
0	0			
0	1			
3	80			
3	82			

1.56% 1.80%
1.44% 1.66%

=====

Coastal/Col. R.

McA. Ck. Misc. tribs
al terminal net.

portions for area 13+,

=====

0.007	0.008
0.007	0.008

0.000 0.000
0.000 0.000
0.000 0.000
0.000 0.000

3 82
1% 2%

=====

TABLE 2A: KEY NATURAL PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT :

Estimated fishery impacts from regulations described by FRAM model run # SLC-Chin372

Run Description: SLC-Chin3721_Final

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality includes catch, non-retention mortality and other fishery-related mortality; not to be used for Treaty/non-treaty splits are NOT based on CWT recovery data.

FISHERY	TOTAL MORTALITY ALL STOCKS	AEQ May-April Total		
		NOOKSACK Early *	SKAGIT Spr Nat **	SKAGIT S/F Nat **
Alaska	187,522	92	5	#REF!
Canada	301,774	2,127	186	#REF!
S. Of Falcon Ocean	110,204	0	0	#REF!
N.Flc. Ocean Troll: NTrty	23,894	0	0	#REF!
Trty	22,756	89	7	#REF!
Ntrty N.Flc. Ocean & Buoy10 Sport	15,613	26	1	#REF!
Pgt Snd Trty Troll	1,724	7	1	#REF!
Pgt Snd 6 Sport	424	2	2	#REF!
Pgt Snd 5 Sport	3,506	42	8	#REF!
Pgt Snd 7 Sport	578	13	2	#REF!
Pgt Snd 8-13 Sport	2,078	20	9	#REF!
Preterm. Pgt Snd or NTrty	3,185	0	3	#REF!
Out-of-Region net: Trty	4,504	1	12	#REF!
Terminal Pgt Snd or NTrty	1,250	0	0	#REF!
Local Terminal Net: Trty	4,000	7	1	#REF!
Freshwater Sport: NTrty	NA	2	4	19
Freshwater Net: Trty	NA	381	108	1,731
Total Marine Catch	683,011	2,427	239	#REF!
Extr. Term. Catch	NA	383	112	1,750
TOTAL CATCH	683,011	2,810	351	#REF!
Escapement (from TAMMs)		4,534	1,442	8,407
TOTAL ABUNDANCE		7,344	1,793	#REF!

Total Exploitation	38.26%	19.56%	#REF!
Exploitation in Southern U.S. Fisheries	8.04%	9%	#REF!
=====	=====	=====	=====

* Nooksack Native" stock comprises an aggregation of North Fork and

** Only the portion of Skagit and Snohomish spring, fingerling and year are presented in this table.

*** White River Springs are fingerlings

"Out-of-Region" net includes traditional Puget Sound preterminal net as well as non local "Freshwater sport" for NTry includes freshwater sport and some SAF catches.

=====

SUS NT ER	0.014	0.016	#REF!
SUS T ER	0.066	0.073	#REF!

SUS Ocean Only ER	0.016	0.005	#REF!
NT SUS Ocn	0.004	0.001	#REF!
T SUS Ocn	0.012	0.004	#REF!
PS Preterminal Net	0.000	0.009	#REF!

added 50 chinook to this input to hard-wire AI's May-June impacts 3/13/01
added Skykomish Chinook Selective Wild Mortality to original input

Pgt Snd 5 Sport	0.6%	0.4%	#REF!
Pgt Snd 7 Sport	0.2%	0.1%	#REF!
Pgt Snd 8-13 Sport	0.3%	0.5%	#REF!

"Washington Run Size" = "NOF abundance"	5,125	1,602	#REF!
"% of Washington Run Size" = "% of NOF run"	12%	10%	#REF!

=====

SUMMARY

Version: 2.21Dec15

ry-related mortality, which
or allocation computations.

TABLE 2A

12/09/21
10:42 AM

TABLE 2B: OTHER

Estimated fishery imp
Run Description:
Impacts are expresse
includes catch, non-r
Treaty/non-treaty spl

=====

I Fishery-Related Mortality -----

STILLAG. Sum/Fall	SNOHOM S/F Nat **	Skykomish S/F Nat	WHITE R. Spring***
2	9	6	10
29	231	148	66
0	0	0	0
0	1	1	0
0	8	5	11
1	9	6	18
0	3	2	0
0	2	1	0
2	15	10	0
2	6	4	3
4	29	19	25
0	3	2	2
0	11	7	6
0	0	0	0
3	11	7	0
0	28	24	479
9	0	0	45
43	339	217	141
9	28	24	524
52	367	241	665
323	2,936	1,870	0
375	3,304	2,111	665

UNMARKED ONLY

FISHERY

Alaska
Canada
S. Of Falcon Ocean
N.Flc. Ocean Troll:
Ntrty N.Flc. Ocean &
Pgt Snd Trty Troll
Pgt Snd 6 Sport
Pgt Snd 5 Sport
Pgt Snd 7 Sport
Pgt Snd 8-13
Out-of-Region net:
Local Terminal Net:
Freshwater Sport: \1
Freshwater Net:
Total Marine Catc
Extr. Term. Catc
TOTAL CATCH
Escapement (from T,
TOTAL ABUNDANC

13.9%	11.1%	11.4%	100.0%
6%	4%	4%	0.8856
=====	=====	=====	=====

Total Exploitation
Exploitation in South
=====

| South Fork Native (Spring) stocks.
ling stocks representing wild chinook

Out-of-Region" net in
"Freshwater sport" fo

terminal net and Coastal/Col. R.

\1 The category "fre

=====	=====	=====	=====
-------	-------	-------	-------

=====

0.022	0.028	0.031	0.792
0.034	0.010	0.010	0.093

SUS NT ER
SUS T ER

0.002	0.005	0.005	0.043
0.002	0.003	0.003	0.027
0.001	0.002	0.002	0.016
0.001	0.004	0.004	0.012

SUS Ocean Only ER

PS Pretermina Net

0.4%	0.5%	0.5%	0.0%
0.5%	0.2%	0.2%	0.4%
1.0%	0.9%	0.9%	3.8%

344	3,063	589
6%	4%	100%

"Washington Run Siz
"% of Washington Rt

=====

=====

PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT SUMMARY

Impacts from regulations described by FRAM model run # SLC-Chin3721 Version: SLC-Chin3721_Final

AEQ is defined as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality is defined as retention mortality and other fishery-related mortality; not to be used for allocation credits. Credits are NOT based on CWT recovery data.

	TOTAL MORTALITY ALL STOCKS	AEQ May-April Total Fish			
		NOOKSACK S/F N&H	TULALIP S/F H	HDCNL S/F N&H	Mid-HDCNL (12B) Natural
	187,522	0	5	12	0
	301,774	7	186	343	2
	110,204	0	0	1	0
NTrty	23,894	1	0	12	0
Trty	22,756	2	10	80	0
Buoy10 Sp	15,613	1	2	59	0
	1,724	0	2	6	0
	424	0	7	41	0
	3,506	0	13	24	0
	578	0	2	8	0
	2,078	0	57	125	0
NTrty	3,185	0	0	4	0
Trty	4,504	1	10	48	0
NTrty	1,250	8	0	106	0
Trty	4,000	18	327	401	0
NTrty	NA	20	NA	0	0
Trty	NA	7	NA	0	0
ch	683,011	39	621	1,269	5
1	NA	28	#VALUE!	0	0
	683,011	67	621	1,269	5
AMMs)		0	57	990	18
E		67	#VALUE!	2,259	24

	100.00%	#VALUE!	56.18%	22.5993%
ern U.S. Fisheries	89.74%	#VALUE!	40.44%	14.36%
=====	=====	=====	=====	=====

includes traditional Puget Sound preterminal net as well as non local terminal net ar
 or NTTrty includes freshwater sport and some SAF catches.

shwater sport" for Hood Canal includes nontreaty net catch in areas 12A and 9A.

=====	=====	=====	=====	=====	=====
	0.478	#VALUE!	0.168	0.066	
	0.420	#VALUE!	0.237	0.027	

	0.059	#VALUE!	0.067	0.029
NT SUS Ocn	0.027	#VALUE!	0.032	0.014
T SUS Ocn	0.032	#VALUE!	0.035	0.015
	0.017	#VALUE!	0.023	0.010

ze" = "NOF abundance"	60	487	1,902
Un Size" = "% of NOF run"	100%	88%	48%

=====

2.21Dec15
 mortality, which
 computations.

TABLE 2B
 12/09/21
 10:42 AM

Fishery-Related Mortality		
Skok. R Natural	Dung/Elwha S/F N&H	Hoko S/F N&H
1	37	52
23	416	89
0	0	0
1	0	4
5	4	5
4	10	2
0	2	0
3	14	0
2	11	2
1	5	0
8	28	0
0	0	0
3	12	0
7	0.00	0.00
28	0	0
0	0.00	0.00
0	0.00	0.00
110	540	155
66	0	0
176	540	155
182	5,431	5,431
357	5,971	5,586

TABLE 2C: SOUTH PUGET SO
 Estimated fishery impacts from re
 Run Description: SLC-Chin37
 Impacts are expressed as total fish
 includes catch, non-retention mor
 Treaty/non-treaty splits and some

UNMARKED ONLY

FISHERY	
Alaska	
Canada	
S. Of Falcon Ocean	
N.Fl.c. Ocean Troll:	NTrty Trty
Ntrty N.Fl.c. Ocean & Buoy10 Spt	
Pgt Snd Trty Troll	
Pgt Snd 6 Sport	
Pgt Snd 5 Sport	
Pgt Snd 7 Sport	
Pgt Snd 8-13 Sport	
Out-of-Region net:	NTrty Trty
Local Terminal Net: (&/or SAF sport)	NTrty Trty
Freshwater Sport:	NTrty
Freshwater Net:	Trty
Total Marine Catch	
Extr. Term. Catch	
TOTAL CATCH	
Escapement (from TAMMs)	
TOTAL ABUNDANCE	

49.17% 9.05% 2.77%
 40.99% 1.47% 0.24%
 =====

rd Coastal/Col. R.

=====

0.072	0.012
0.103	0.003

0.029 0.002
 0.013 0.002
 0.015 0.001
 0.010 0.002

5,519
 2%

Total Exploitation
 Exploitation in Southern U.S. Fish
 =====

"Out-of-Region" net includes trad
 "Local Term." means: AREAS 10
 "Freshwater" means:
 Extreme Terminal" for NTrty inclu

Note: Within-South-Puget-Sound
 UW Acc, an
 =====

SUS NT ER
SUS T ER

SUS Ocean Only ER
 NT SUS Oc
 T SUS Ocn
 PS Pretermina Net

NT
 T

"Washington Run Size" = "NOF ε
 "% of Washington Run Size" = "%

=====

=====

WYOMING CHINOOK STOCKS - FISHERY IMPACT SUMMARY HIGHLIGHTS

Regulations described by FRAM model run # SLC-Chin372 Version: 2.21Dec15
 '21_Final

fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes hatchery-related mortality and other fishery-related mortality; not to be used for allocation computations.

⚠ SPS stock breakouts are NOT based on CWT recovery data.

=====

----- AEQ Total May-April Fishery-Related Mortality (Natural & Hatchery) -----

Misc 10 & 10E	Lake Wash.	Green River	Puyallup River	Carr Inlet	Chambers	Nisq. River
2	1	8	2	0	0	2
210	95	849	202	4	0	132
0	0	0	0	0	0	0
5	2	22	5	0	0	2
32	15	130	31	1	0	42
19	9	76	18	1	0	25
4	2	16	4	0	0	5
12	5	48	11	0	0	6
22	10	88	21	1	0	28
3	1	11	3	0	0	5
64	29	257	61	5	0	149
0	0	2	0	0	0	1
10	5	41	10	0	0	10
2	1	10	2	0	0	3
2	1	8	2	0	0	2
na	1	163	29	17	0	57
na	114	2,578	527	0	3	628
387	175	1,566	372	13	1	413
#VALUE!	115	2,741	556	17	4	684
387	290	4,306	928	30	5	1,097
1,392	702	4,310	1,190	35	1	1,309
#VALUE!	992	8,616	2,118	65	6	2,406

#VALUE!	29.25%	49.98%	43.83%	46.59%	79.24%	45.59%
#VALUE!	19.57%	40.03%	34.22%	39.96%	73.51%	40.05%
=====	=====	=====	=====	=====	=====	=====

ditional Puget Sound preterminal net and "nonlocal terminal net" such as Bellingham Bay and C
/11, 10A, 10E, 13A, 13+, and may include NT SAF fisheries, if so modeled.

no FW ash., no Lk. S Green R. Puy. R. Minter Ck. 13C+Ch Ck Nisq. R.
ides freshwater sport ; SAF catches in extreme terminal marine areas are shown under NT loc:

d stock breakouts are based on CWT recoveries for areas 10A, 10E, 13A fingerlings, PSF prop
d yearlings. Refer to Tables 14D and 14F.

=====	=====	=====	=====	=====	=====	=====
#VALUE!	0.059	0.079	0.071	0.370	0.135	0.115
#VALUE!	0.137	0.322	0.271	0.030	0.600	0.286

	0.026	0.026	0.026	0.034	0.030	0.029
n	0.011	0.011	0.011	0.014	0.012	0.011
	0.015	0.015	0.015	0.021	0.018	0.017
	0.005	0.005	0.005	0.005	0.005	0.005

629
2,772

1,567	896	7,759	1,914	61	6	2,273
11%	22%	44%	38%	43%	78%	42%

=====

===== **TABLE 2C**
 12/09/21
 10:42 AM

=====

McAll. Creek	Deschutes & 13D-K	Total SPS	Upper SPS	Deep SPS
0	0	15	13	2
0	6	1498	1355	143
				0
0	0	0	0	0
				0
0	0	37	35	2
0	2	253	207	45
				0
0	1	150	122	28
				0
0	0	31	26	5
0	0	83	77	6
0	1	171	141	31
0	0	23	17	5
0	7	573	411	162
				0
0	0	3	3	1
0	0	76	65	11
				0
0	0	19	15	3
0	0	15	12	3
				0
0	0	267	193	74
0	na	3850	3219	631

1	20			
0	#VALUE!			

1	20			

3	80			
3	#VALUE!			

17.37% #VALUE!
11.76% #VALUE!

=====

Coastal/Col. R.

McA. Ck. Misc. tribs
al terminal net.

Portions for area 13+,

=====

0.093	#VALUE!
0.025	#VALUE!

0.029 #VALUE!
0.012 #VALUE!
0.018 #VALUE!
0.005 #VALUE!

3 94
12% 14%

=====

TABLE 2D: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - TOTAL AEQ FISHERY-RELATED MORTALITY STOCK-SPECIFIC IMPACTS

FRAM Run Number:	SLC-Chin3721_Final	Version: 2.21Dec15									
Run Description:	SLC-Chin3721_Final	Tamm: #REF!									
Total May-April AEQ Fishery-Related Mort	TruetoModel	NkSF	NkErly	SkSF0	SkSF1	Skag S/F	Skag SF0	Skag SF1	Skag S/F	SkSP	SkSP
Fishery Aggregate	Total	1	2	3	4	0+1 total	Natural	Natural	0+1 Nat	5	Natural
1-3. Alaska	16,210	8	326	213	7	219	202	7	208	2	1
4-13. Canada	3,247	81	287	31	1	32	29	1	30	42	9
28-33. S. Of Falcon Ocean:	28,845	0	0	0	0	0	0	0	0	0	0
14,18,24. NTrty N.Falc. Ocean Troll:	0	0	0	0	0	0	0	0	0	0	0
15,19. Trty N.Falc. Ocean Troll:	0	0	0	0	0	0	0	0	0	0	0
16,20,25,27. NTrty N.Flc. Ocean & Buoy10 S	0	0	0	0	0	0	0	0	0	0	0
39. Pgt Snd Trty Troll	2,900	76	165	37	1	38	35	1	36	1	8
34. Pgt Snd 5 Sport	2,409	108	316	0	0	0	0	0	0	71	4
40 Pgt Snd 7 Sport	0	0	0	0	0	0	0	0	0	0	0
43,46,51,54,61,64. Pgt Snd 8-13 Sport	3,519	36	2	0	0	0	0	0	0	31	2
21,23,26. NTrty Non-Pgt Snd Net	0	0	0	0	0	0	0	0	0	0	0
17,22. Trty Non-Pgt Snd Net	0	0	0	0	0	0	0	0	0	0	0
41. JDF NTrty	0	0	0	0	0	0	0	0	0	0	0
42. JDF Trty	20	0	0	0	0	0	0	0	0	0	0
35. SJI NTrty	170	5	0	0	0	0	0	0	0	0	0
36. SJI Trty	30	1	0	0	0	0	0	0	0	0	0
52. Pgt Snd 6 Sport	0	0	0	0	0	0	0	0	0	0	0
53. 6B/9 Trty	11	0	1	0	0	0	0	0	0	0	0
37. B'ham NTrty:	13	8	0	0	0	0	0	0	0	0	0
38. B'ham Trty:	16	10	0	0	0	0	0	0	0	0	0
44. 8 NTrty:	0	0	0	0	0	0	0	0	0	0	0
45. 8 Trty:	1	0	0	1	0	1	1	0	1	0	0
47. 8A NTrty:	0	0	0	0	0	0	0	0	0	0	0
48. 8A Trty:	0	0	0	0	0	0	0	0	0	0	0
49. 8D NTrty:	1	0	0	0	0	0	0	0	0	0	0
50. 8D Trty:	0	0	0	0	0	0	0	0	0	0	0
62. Hood Canal NTrty:	74	0	0	0	0	0	0	0	0	0	0
63. Hood Canal Trty:	55	1	0	0	0	0	0	0	0	0	0
55. 10/11 NTrty:	246	3	0	0	0	0	0	0	0	10	2
56. 10/11 Trty:	79	1	0	0	0	0	0	0	0	3	1
57. 10A NTrty:	0	0	0	0	0	0	0	0	0	0	0
58. 10A Trty:	1	0	0	0	0	0	0	0	0	0	0
59. 10E NTrty:	0	0	0	0	0	0	0	0	0	0	0
60. 10E Trty:	0	0	0	0	0	0	0	0	0	0	0
65. 13+ NTrty:	0	0	0	0	0	0	0	0	0	0	0
66. 13+ Trty:	0	0	0	0	0	0	0	0	0	0	0
67. 13A NTrty:	0	0	0	0	0	0	0	0	0	0	0
68. 13A Trty:	22	0	0	0	0	0	0	0	0	0	0
Out-of-Region net. NTrty	504	8	0	0	0	0	0	0	0	10	2

12/9/2021 +

Out-of-Region net: Trty	235	3	1	0	0	0	0	0	0	4	1
(Out-of-Region computed as total net minus Local, from below)											
Local Term. Mar. Net: NTrty		8	0	0	0	0	0	0	0	0	0
Local Term Mar. Net: Trty		10	0	1	0	1	1	0	1	0	0
Local fishery is --->>>>>>>		Bham	Bham	8	8					8	8

=====
Note: table 14D corrected 29Sep98; fisheries were in incorrect order (Hood Canal was labeled as 10/11, 10/11 as 10A, 10A as 10E, 10E as Hood Canal)
=====

^ 12/9/2021 +

SnSF0 6	SnSF1 7	Sno S/F 0+1 total	Sn SF 0 Natural	SN SF 1 Natural	Sno S/F 0+1 Nat	StSF 8	Tula 9	USPS0 10	UWAcc0 11	DSPS0 12	SPS1 13	WRSC 14	HCSF0 15	HCSF1 16
0	0	0	0	0	0	5	0	25	0	0	0	0	29	0
57	4	62	20	2	23	16	286	126	0	30	3	28	253	17
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	5	38	11	3	14	10	153	318	0	168	1	7	167	46
41	7	48	4	2	6	7	313	260	0	41	0	16	575	35
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	32	33	20	20	41	3	737	372	0	316	24	41	566	62
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	2	3	0	1	0	0	2	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	2	0	1	0	0	3	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	0	0	0	0	0	2	0	3	0	0	42	14
1	0	1	0	0	0	0	0	1	0	2	0	0	31	10
0	4	4	0	2	2	0	70	32	0	11	2	10	45	6
0	1	1	0	1	1	0	22	10	0	4	1	3	15	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	13	0	0	2	0
1	4	5	0	2	2	0	70	2	0	3	0	10	45	6

^ 12/9/2021 +

2	1	3	1	1	1	0	25	6	0	5	0	3	22	2	
0	0	0	0	0	0	0	1	32	0	11	2	0	42	14	
0	0	0	0	0	0	0	0	11	0	17	1	0	31	10	
8A,8D	8A,8D						8A,8D	8A,8D	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	13A	HdCnl	HdCnl

^ 12/9/2021 +

=====
 TABLE 2D
 12/09/21
 10:42 AM

=====
TABLE 2E: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - LANDED CATCH STOCK-SPECIFIC IMPACTS
 FRAM Run Number: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final
 =====

HC S/F	Dung/Elwha	Hoko	LANDED CATCH ("AAP" fo	Time	TruetoMode	NkSF	NkErly	SkSF0	SkSF1	Skag S/F	SkSP	SnSF0
F+Y	17	18	Fishery Aggregate	Step	Total	1	2	3	4	F+Y	5	6
29	25	2	1-3. Alaska	May-April	11,876	0	108	220	7	227	1	0
270	65	0	4-13. Canada	May-April	1,423	0	103	31	1	32	17	28
0	0	0	28-33. S. Of Falcon Ocean:	May-April	19,611	0	0	0	0	0	0	0
0	0	0	14,18,24. NTrty N.Falc. Oceaz	May-April	0	0	0	0	0	0	0	0
0	0	0	15,19. Trty N.Falc. Ocean Tr	May-April	0	0	0	0	0	0	0	0
0	0	0	16,20,25,27. NTrty N.Flc. Oc	May-April	0	0	0	0	0	0	0	0
213	32	0	39. Pgt Snd Trty Troll	May-April	677	0	41	37	1	38	15	16
610	36	0	34,40. Pgt Snd 5,6,7 Sport &	May-April	9	0	1	0	0	0	1	0
0	0	0	43,46,51,54,61,64. Pgt Snd 8-13 Sport									
628	7	0										
0	0	0	21,23,26. NTrty Non-Pgt Snd	May-April	0	0	0	0	0	0	0	0
0	0	0	17,22. Trty Non-Pgt Snd Nel	May-April	0	0	0	0	0	0	0	0
0	0	0	41. JDF NTrty	Jul-Sep ONLY								
0	0	0	42. JDF Trty	Jul-Sep ONLY								
2	0	0	35. SJI NTrty	Jul-Sep ONLY								
0	0	0	36. SJI Trty	Jul-Sep ONLY								
0	0	0	52. Pgt Snd 6 Sport	Jul-Sep ONLY								
0	0	0	53. 6B/9 Trty	Jul-Sep ONLY								
3	0	0										
0	0	0	37. B'ham NTrty:	Jul-Sep ONLY								
0	0	0	38. B'ham Trty:	Jul-Sep ONLY								
0	0	0	44. 8 NTrty:	May-Sep								
0	0	0	45. 8 Trty:	May-Sep								
0	0	0	47. 8A NTrty:	Jul-Sep ONLY								
0	0	0	48. 8A Trty:	Jul-Sep ONLY								
0	0	0	49. 8D NTrty:	Jul-Dec								
0	0	0	50. 8D Trty:	Jul-Dec								
0	0	0	62. Hood Canal NTrty:	Jul-Sep ONLY								
55	0	0	63. Hood Canal Trty:	Jul-Sep ONLY								
42	0	0	55. 10/11 NTrty:	Jul-Sep ONLY								
51	0	0	56. 10/11 Trty:	Jul-Sep ONLY								
17	0	0	57. 10A NTrty:	Jul-Sep ONLY								
0	0	0	58. 10A Trty:	Jul-Sep ONLY								
0	0	0	59. 10E NTrty:	Jul-Sep ONLY								
0	0	0	60. 10E Trty:	Jul-Sep ONLY								
0	0	0	65. 13+ NTrty:	Jul-Sep ONLY								
0	0	0	66. 13+ Trty:	Jul-Sep ONLY								
0	0	0	67. 13A NTrty:	Jul-Sep ONLY								
0	0	0	68. 13A Trty:	Jul-Sep ONLY								
2	0	0										
51	0	0	Out-of-Region net: NTrty		0	0	0	0	0	0	0	0
^ 12/9/2021 +		0	Out-of-Region net: Trty		0	0	0	0	0	0	0	0

24	0	0	see total mortality table for computations										
			Local Term. Mar. Net: NTrty	0	0	0	0	0	0	0	0	0	0
55	na	na	Local Term Mar. Net: Trty	0	0	0	0	0	0	0	0	0	0
42	na	na											
	none	none											

^ 12/9/2021 +

Version: 2.21Dec15
Tamm: #REF!

TABLE 2E
12/09/21
10:42 AM

TABLE 2F:
SOUTH PU

SnSF1 7	Sno S/F F+Y	StSF 8	Tula 9	USPS0 10	UWAcc0 11	DSPS0 12	SPS1 13	WRSC 14	HCSF0 15	HCSF1 16	HC S/F F+Y	JDF 17
0	0	1	0	6	0	0	0	0	2	0	2	22
2	30	5	19	29	0	3	0	28	18	0	18	59
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
2	18	3	8	72	0	15	0	7	11	0	11	25
0	1	0	0	1	0	0	0	2	1	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	0	0	0

Fishery Agg
Stock Break
SPS Table
Used for all

1-3. Alaska
4-13. Canac
28-33. S. Of
14,18,24. N
15,19. Trty I
16,20,25,27
39. Pgt Snd
34. Pgt Snd
40 Pgt Snd
43,46,51,54

21,23,26. N
17,22. Trty
41. JDF NTr
42. JDF Trty
35. SJI NTrt
36. SJI Trty
52. Pgt Snd
53. 6B/9 Trt

37. B'ham NTrty:
38. B'ham Trty:
44. 8 NTrty:
45. 8 Trty:
47. 8A NTrty:
48. 8A Trty:
49. 8D NTrty:
50. 8D Trty:
62. Hood Canal NTrty:
63. Hood Canal Trty:
55. 10/11 NTrty:
56. 10/11 Trty:

EXTREME
Incl. NT spo

0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
^ 12/9/2021 +												

0	0	0	0	0	0	0	0	0	0	0	0	0	na
0	0	0	0	0	0	0	0	0	0	0	0	0	na

Stocks:

Fingerling
 UWAcc
 Yearling
 Fingerling
 UWAcc
 Yearling
 Fingerling
 UWAcc
 Yearling
 Fingerling
 UWAcc
 Yearling

- 57. 10A NTrty:
- 58. 10A Trty:
- 59. 10E NTrty:
- 60. 10E Trty:
- 65. 13+ NTrty:
- 66. 13+ Trty:
- 67. 13A Ntrty:
- 68. 13A Trty:

RECAPITUL
 Out-of-Regi
 Out-of-Regi

(Out-of-Region computed as total net minus Local, from below)

Local Term.
 Local Term

Local fishery is ---->>>>>>>>
 =====

^ 12/9/2021 +

CHINOOK FISHERY IMPACTS SUMMARY - TOTAL MORTALITY STOCK-SPECIFIC IMPACTS APPORTIONED TO SOUTH SOUND STOCKS
 GET SOUND - FRAM STOCK APPORTIONMENTS FROM TABLES 14E AND 14F

=====

Regate	Total May-April AEQ Fishery-Related Mortality					=SPSIBL14		=SPSIBL16						
	USPS0	UWAcc0	DSPO0	SPS1 Grovers	SPS1 Misc 10	Lk. Wa Hatchery	Lk. Wa Natural	Green Hatchery	Green Natural	Area 10E Gorst	Puyallup Hatchery	Puyallup Natural	Minter Hatchery	Carr Inlet Natural
USPS 0s														
UWAcc														
DSPO0s														
SPS 1s														
Regate	10	11	12	13	13	13	10	10	10	10	10	10	10	10
USPS 0s	25	0	0	0	1	2	0	9	2	3	7	1	0	0
UWAcc	126	0	30	3	5	8	2	45	9	17	37	3	8	0
DSPO0s	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SPS 1s	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trty N.Falc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
U.Falc. Ocea	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NTrty N.Flc	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trty Troll	318	0	168	1	12	21	4	113	23	43	92	8	43	0
5 Sport	260	0	41	0	8	20	1	96	5	39	90	2	11	0
7 Sport	0	0	0	0	0	0	0	0	0	0	0	0	0	0
,61,64. Pgt	372	0	316	24	13	26	3	135	17	53	119	6	84	0
Trty Non-Pgt	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Pgt Snr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trty	0	0	0	0	0	0	0	0	0	0	0	0	0	0
/	3	0	1	0	0	0	0	1	0	0	1	0	0	0
y	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Sport	0	0	0	0	0	0	0	0	0	0	0	0	0	0
y	2	0	1	0	0	0	0	1	0	0	1	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	3	0	0	0	0	1	0	0	1	0	1	0
	1	0	2	0	0	0	0	0	0	0	0	0	1	0
	32	0	11	2	1	2	0	11	2	4	9	1	3	0
	10	0	4	1	0	1	0	4	1	1	3	0	1	0
TERMINAL I	----- percent NT of stock-specific catch ----- APPORTIONMENT OF EXTREME TERMINAL "NET", from Table 14H (same method as Table 14F except applied to time													
rt if modelec	USPS0	UWAcc0	DSPO0	SPS1 Grovers	SPS1 Misc 10	Lk. Wa Hatchery	Lk. Wa Natural	Green Hatchery	Green Natural	Area 10E Gorst	Puyallup Hatchery	Puyallup Natural	Minter Hatchery	Carr Inlet Natural
	10	11	12	13	13	13	10	10	10	10	10	10	10	10

^ 12/9/2021 +

10A	0.0%		0.0%		0.0%
10A		0.0%			
10A				0.0%	
10E	#DIV/0!		0.0%		0.0%
10E		0.0%			
10E				0.0%	
13+	#DIV/0!		0.0%		0.0%
13+		0.0%			
13+				0.0%	
13A	0.0%		0.0%		
13A		0.0%			
13A				0.0%	

fin only	0	0	0	0	0	0	0	0	0	0	0	0	0	0
fin only	1	0	0	0	0	0	0	0	0	0	0	0	0	0
fin only	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0
fin only	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0
fin only	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0
fin only	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0
fin only	0	0	0	0	0	0	0	0	0	0	0	0	0	0
fin only	1	0	13	0	0	0	0	0	0	0	0	0	0	0

_ATION FOFLOCAL = 11,10A,10E,13,13A														
on net: NTrty	2	0	3	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1	0
on net: Trty	6	0	5	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1	0
Mar. Net: N	32	0	11	2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	3	0
Mar. Net: Tr	11	0	17	1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1	0
=====														
10^11,10A,10E,13,13A 10^11,10A,10E,13,13A 10^11,10A,10E,13,13A 10^11,10A,10E,13,13A 10^11,10A,10E,13,13A 10^11,10A,10E,13,13A 10^11,10A,10E,13,13A 10^11,10A,10E,13,13A 10^11,10A,10E,13,13A 10^11,10A,10E,13,13A 10^11,10A,10E,13,13A 10^11,10A,10E,13,13A 10^11,10A,10E,13,13A 10^11,10A,10E,13,13A 10^11,10A,10E,13,13A														
=====														

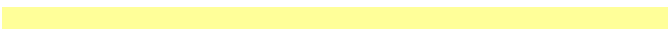
^ 12/9/2021 +

=====
 Version: 2.21Dec15
 Tamm: #REF!
 12/09/21
 10:42 AM

TABLE 2F

y still be close enough unless abundance scalars mess them up.

Chambers Nisqually Nisqually McAllister McAllister Deschutes Misc 13D-K
 Hatchery Hatchery Natural Hatchery Natural Hatchery Natural



0	0	0	0	0	0	0
1	14	1	0	0	6	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
4	80	6	2	0	32	0
1	19	0	1	0	8	0
0	0	0	0	0	0	0
8	151	5	4	0	63	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	1	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	1	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	2	0	0	0	1	0
0	1	0	0	0	0	0
0	5	0	0	0	2	0
0	2	0	0	0	1	0

steps 3 & 4 total mortality)
 Chambers Nisqually Nisqually McAllister McAllister Deschutes Misc 13D-K
 Hatchery Hatchery Natural Hatchery Natural Hatchery Natural

^ 12/9/2021 +

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	2	0	0	0	1	0
0	2	0	0	0	1	0
0	5	0	0	0	2	0
0	2	0	0	0	1	0
10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A
=====	=====	=====	=====	=====	=====	=====

^ 12/9/2021 +

TABLE 2D: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - TOTAL AEQ FISHERY-RELATED MORTALITY STOCK-SPECIFIC IMPACTS

FRAM Run Number:	SLC-Chin3721_Final	Version: 2.21Dec15									
Run Description:	SLC-Chin3721_Final	Tamm: #REF!									
Total May-April AEQ Fishery-Related Mort	TruetoModel	NkSF	NkErly	SkSF0	SkSF1	Skag S/F	Skag SF0	Skag SF1	Skag S/F	SkSP	SkSP
Fishery Aggregate	Total	1	2	3	4	0+1 total	Natural	Natural	0+1 Nat	5	Natural
1-3. Alaska	186,482	26	278	267	12	279	254	12	266	21	5
4-13. Canada	351,783	1,662	6,404	2,075	94	2,169	1,969	94	2,063	806	186
28-33. S. Of Falcon Ocean:	73,912	0	0	0	0	0	0	0	0	0	0
14,18,24. NTrty N.Falc. Ocean Troll:	20,317	279	0	0	0	0	0	0	0	0	0
15,19. Trty N.Falc. Ocean Troll:	22,218	515	269	23	1	24	22	1	23	33	7
16,20,25,27. NTrty N.Flc. Ocean & Buoy10 S	26,143	162	79	58	2	60	55	2	57	5	1
39. Pgt Snd Trty Troll	1,218	16	22	7	0	7	6	0	7	7	1
34. Pgt Snd 5 Sport	10,418	254	185	34	1	35	33	1	33	56	8
40 Pgt Snd 7 Sport	2,435	339	66	72	2	73	68	2	70	15	2
43,46,51,54,61,64. Pgt Snd 8-13 Sport	24,261	242	84	60	1	62	57	1	58	70	9
21,23,26. NTrty Non-Pgt Snd Net	6,276	0	0	0	0	0	0	0	0	0	0
17,22. Trty Non-Pgt Snd Net	939	0	0	0	0	0	0	0	0	0	0
41. JDF NTrty	0	0	0	0	0	0	0	0	0	0	0
42. JDF Trty	108	3	2	0	0	0	0	0	0	1	0
35. SJI NTrty	3,584	199	0	0	0	0	0	0	0	10	1
36. SJI Trty	4,717	132	0	0	0	0	0	0	0	8	2
52. Pgt Snd 6 Sport	6,269	293	19	59	1	61	56	1	58	25	2
53. 6B/9 Trty	500	12	2	8	0	8	7	0	8	2	0
37. B'ham NTrty:	3,007	1,947	0	50	2	52	47	2	49	8	2
38. B'ham Trty:	6,341	4,294	21	45	1	46	43	1	44	44	10
44. 8 NTrty:	0	0	0	0	0	0	0	0	0	0	0
45. 8 Trty:	44	0	0	38	1	39	36	1	37	5	1
47. 8A NTrty:	0	0	0	0	0	0	0	0	0	0	0
48. 8A Trty:	456	0	0	0	0	0	0	0	0	0	0
49. 8D NTrty:	2	0	0	0	0	0	0	0	0	0	0
50. 8D Trty:	5,638	0	0	0	0	0	0	0	0	0	0
62. Hood Canal NTrty:	1,797	0	0	0	0	0	0	0	0	0	0
63. Hood Canal Trty:	6,803	0	0	0	0	0	0	0	0	0	0
55. 10/11 NTrty:	178	1	0	1	0	1	1	0	1	0	0
56. 10/11 Trty:	143	0	0	1	0	1	1	0	1	0	0
57. 10A NTrty:	203	3	0	0	0	0	0	0	0	0	0
58. 10A Trty:	1,530	14	0	0	0	0	0	0	0	0	0
59. 10E NTrty:	326	0	0	0	0	0	0	0	0	0	0
60. 10E Trty:	3,845	0	0	0	0	0	0	0	0	0	0
65. 13+ NTrty:	0	0	0	0	0	0	0	0	0	0	0
66. 13+ Trty:	1,373	5	0	0	0	0	0	0	0	0	0
67. 13A NTrty:	0	0	0	0	0	0	0	0	0	0	0
68. 13A Trty:	1,969	0	0	0	0	0	0	0	0	0	0
Out-of-Region net. NTrty	15,373	202	0	51	2	53	48	2	50	18	3

12/9/2021 +

Out-of-Region net: Trty	34,406	167	4	54	2	56	51	2	53	55	12
(Out-of-Region computed as total net minus Local, from below)											
Local Term. Mar. Net: NTrty		1,947	0	0	0	0	0	0	0	0	0
Local Term Mar. Net: Trty		4,294	21	38	1	39	36	1	37	5	1
Local fishery is ---->>>>>>>		Bham	Bham	8	8					8	

=====
Note: table 14D corrected 29Sep98; fisheries were in incorrect order (Hood Canal was labeled as 10/11, 10/11 as 10A, 10A as 10E, 10E as Hood Canal)

^ 12/9/2021 +

SnSF0 6	SnSF1 7	Sno S/F 0+1 total	Sn SF 0 Natural	SN SF 1 Natural	Sno S/F 0+1 Nat	StSF 8	Tula 9	USPS0 10	UWAacc0 11	DSPS0 12	SPS1 13	WRSC 14	HCSF0 15	HCSF1 16
20	12	32	7	1	9	8	105	67	0	28	0	10	208	0
470	226	697	170	61	231	91	3,187	6,646	0	2,126	50	66	5,709	231
0	0	0	0	0	0	0	0	0	0	0	0	0	15	3
0	7	7	0	1	1	0	0	168	0	27	3	0	198	0
0	31	31	0	8	8	1	160	987	0	608	13	11	1,278	29
12	11	23	4	5	9	2	31	599	0	408	8	18	947	0
7	2	9	3	0	3	1	42	122	0	70	1	0	90	3
73	19	92	14	1	15	7	441	1,212	0	736	8	0	1,399	42
27	9	36	5	1	6	13	231	262	0	195	10	3	399	0
90	171	261	20	20	41	19	1,262	4,948	0	5,197	353	25	6,473	773
0	0	0	0	0	0	0	0	0	0	0	1	0	19	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	3	1	0	1	0	10	21	0	7	0	0	17	0
0	0	0	0	0	0	0	0	0	0	0	0	2	0	22
0	0	0	0	0	0	0	0	0	0	0	0	3	0	15
14	13	27	2	0	2	3	3	1,417	0	374	24	0	2,416	38
3	7	10	1	1	2	0	0	137	0	94	5	0	123	25
0	2	2	0	1	1	0	0	0	0	8	0	0	0	0
0	0	0	0	0	0	0	157	0	0	42	0	0	50	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	348	96	0	0	0	0	0	0
0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
24	13	37	9	2	11	8	5,589	4	0	0	0	0	0	0
0	0	0	0	0	0	0	0	13	0	0	0	0	1,714	64
0	0	0	0	0	0	0	0	51	0	0	0	0	6,492	243
1	2	4	1	1	1	0	0	73	0	43	3	0	33	6
1	2	3	0	0	1	0	0	59	0	34	2	0	27	5
2	0	2	1	0	1	0	0	135	0	17	4	0	14	2
19	0	19	7	0	7	0	0	1,037	0	136	31	3	109	24
0	0	0	0	0	0	0	0	320	0	2	0	0	3	0
0	0	0	0	0	0	0	0	3,788	0	20	1	0	37	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	2	0	1,149	26	0	151	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	85	0	1,617	16	0	250	1
3	4	8	1	2	3	0	0	13	0	8	1	2	69	30

^ 12/9/2021 +

26	9	35	10	2	11	1	167	307	0	143	5	6	764	70
0	0	0	0	0	0	0	2	529	0	62	7	0	1,714	64
24	13	37	9	2	11	9	5,937	4,970	0	2,956	77	0	6,492	243
8A,8D	8A,8D					8A,8D	8A,8D	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	13A	HdCnl	HdCnl

^ 12/9/2021 +

=====
 TABLE 2D
 12/09/21
 10:42 AM

TABLE 2E: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - LANDED CATCH STOCK-SPEC

FRAM Run Number: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final

HC S/F	Dung/Elwha	Hoko	LANDED CATCH ("A	Time	TruetoModel	NkSF	NkErly	SkSF0	SkSF1	Skag S/F	SkSP	SnSF0	SnSF1
F+Y	17	18	Fishery Aggregate	Step	Total	1	2	3	4	F+Y	5	6	7
208	42	95	1-3. Alaska	May-April	115,200	0	80	226	10	236	5	8	1
5,940	476	151	4-13. Canada	May-April	228,879	7	2,215	1,952	91	2,042	342	231	68
18	0	0	28-33. S. Of Falcon O	May-April	47,523	0	0	0	0	0	0	0	0
198	0	6	14,18,24. NTrty N.Falc	May-April	9,882	1	0	0	0	0	0	0	1
1,307	4	7	15,19. Trty N.Falc. Oc	May-April	11,918	2	88	24	1	25	14	0	9
947	12	3	16,20,25,27. NTrty N.I	May-April	12,219	1	26	53	2	54	2	6	6
92	2	1	39. Pgt Snd Trty Troll	May-April	154	0	2	4	0	5	1	3	0
1,441	14	5	34,40. Pgt Snd 5,6,7	May-April	127	0	1	7	0	7	1	3	1
399	8	0	43,46,51,54,61,64. Pgt Snd 8-13 Sport										
7,246	36	0											
			21,23,26. NTrty Non-F	May-April	955	0	0	0	0	0	0	0	0
19	0	0	17,22. Trty Non-Pgt S	May-April	678	0	0	0	0	0	0	0	0
0	0	0	41. JDF NTrty	Jul-Sep ON	0	0	0	0	0	0	0	0	0
0	0	0	42. JDF Trty	Jul-Sep ON	48	1	1	1	0	1	1	2	0
17	2	0	35. SJI NTrty	Jul-Sep ON	3,011	6	0	0	0	0	3	0	0
22	0	0	36. SJI Trty	Jul-Sep ON	4,308	2	0	0	0	0	4	0	0
15	0	0	52. Pgt Snd 6 Sport	Jul-Sep ON	14	0	0	2	0	2	0	0	0
2,454	21	0	53. 6B/9 Trty	Jul-Sep ON	79	0	1	8	0	8	1	2	1
148	1	0											
			37. B'ham NTrty:	Jul-Sep ON	952	17	0	46	2	47	3	0	1
0	0	0	38. B'ham Trty:	Jul-Sep ON	1,646	29	7	42	1	43	17	0	0
50	0	0	44. 8 NTrty:	May-Sep									
0	0	0	45. 8 Trty:	May-Sep									
0	0	0	47. 8A NTrty:	Jul-Sep ON	0	0	0	0	0	0	0	0	0
0	0	0	48. 8A Trty:	Jul-Sep ON	50	0	0	0	0	0	0	0	0
0	11	0	49. 8D NTrty:	Jul-Dec									
0	0	0	50. 8D Trty:	Jul-Dec									
0	0	0	52. Hood Canal NTrty:	Jul-Sep ON	174	1	0	0	0	0	0	1	0
1,779	0	0	63. Hood Canal Trty:	Jul-Sep ON	465	1	0	0	0	0	0	1	0
6,735	0	0	55. 10/11 NTrty:	Jul-Sep ON	236	4	0	1	0	1	0	1	3
39	0	0	56. 10/11 Trty:	Jul-Sep ON	93	1	0	1	0	1	0	1	1
32	0	0	57. 10A NTrty:	Jul-Sep ON	38	0	0	0	0	0	0	1	0
16	0	0	58. 10A Trty:	Jul-Sep ON	387	0	0	0	0	0	0	9	0
133	0	0	59. 10E NTrty:	Jul-Sep ON	1	0	0	0	0	0	0	0	0
3	0	0	60. 10E Trty:	Jul-Sep ON	792	0	0	0	0	0	0	0	0
37	0	0	65. 13+ NTrty:	Jul-Sep ON	0	0	0	0	0	0	0	0	0
0	0	0	66. 13+ Trty:	Jul-Sep ON	102	0	0	0	0	0	0	0	0
151	0	0	67. 13A NTrty:	Jul-Sep ON	0	0	0	0	0	0	0	0	0
0	0	0	68. 13A Trty:	Jul-Sep ON	169	0	0	0	0	0	0	0	0
251	0	0											
			Out-of-Region net: NTrty		5,366	11	0	47	2	48	6	2	4
99	0	0	Out-of-Region net: Trty		8,818	4	2	51	2	53	23	14	3

^ 12/9/2021 +

834	14	0	l mortality table for computations										
			Local Term. Mar. Net: NTrty	17	0	0	0	0	0	0	0	0	0
1,779	na	na	Local Term Mar. Net: Trty	29	7	0	0	0	0	0	0	0	0
6,735	na	na											
	none	none											
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

^ 12/9/2021 +

Version: 2.21Dec15 Tamm: #REF!												TABLE 2E 12/09/21 10:42 AM
Sno S/F F+Y	StSF 8	Tula 9	USPS0 10	UWAcc0 11	DSPOS0 12	SPS1 13	WRSC 14	HCSF0 15	HCSF1 16	HC S/F F+Y	JDF 17	
9	2	3	12	0	1	0	5	6	0	6	29	
299	30	204	1,380	0	132	0	70	332	0	332	439	
0	0	0	0	0	0	0	0	1	0	1	0	
1	0	0	32	0	2	0	0	10	0	10	0	
9	0	10	208	0	44	0	11	79	0	79	4	
12	1	2	121	0	27	0	20	57	0	57	11	
3	0	1	10	0	2	0	0	5	0	5	1	
4	0	28	19	0	6	0	1	8	0	8	1	
0	0	0	0	0	0	0	0	1	0	1	0	
0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	
2	0	3	5	0	1	0	0	1	0	1	2	
0	0	0	0	0	0	0	3	0	0	0	0	
0	0	0	0	0	0	0	4	0	0	0	0	
0	0	0	3	0	0	0	0	1	0	1	0	
3	0	1	30	0	7	0	0	8	0	8	1	
1	0	0	0	0	1	0	0	0	0	0	0	
0	0	9	0	0	4	0	0	4	0	4	0	
0	0	0	0	0	0	0	0	0	0	0	0	
0	1	20	20	0	0	0	0	0	0	0	9	
1	0	0	3	0	0	0	0	146	15	161	0	
1	0	0	10	0	0	0	0	427	11	438	0	
3	0	86	15	0	3	0	0	2	0	2	0	
2	0	28	12	0	3	0	0	2	0	2	0	
1	0	0	21	0	1	0	0	1	0	1	0	
9	0	0	212	0	9	0	3	6	0	6	0	
0	0	0	1	0	0	0	0	0	0	0	0	
0	0	0	788	0	2	0	0	2	0	2	0	
0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	83	0	0	9	0	9	0	
0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	17	0	118	0	0	16	0	16	0	
6	0	86	3	0	1	0	3	4	0	4	0	
16	0	41	66	0	12	0	4	48	0	48	13	

^ 12/9/2021 +

**TABLE 2F: CHINOOK
SOUTH PUGET SOUND**

- Fishery Aggregate
-
- Stock Break USPS 0s
SPS Table UWAcc
Used for all DSPOS 0s
SPS 1s
-
- 1-3. Alaska
4-13. Canada
28-33. S. Of Falcon Oce
14,18,24. NTrty N.Falc.
15,19. Trty N.Falc. Oce
16,20,25,27. NTrty N.Flc
39. Pgt Snd Trty Troll
34. Pgt Snd 5 Sport
40 Pgt Snd 7 Sport
43,46,51,54,61,64. Pgt S
-
- 21,23,26. NTrty Non-Pgt
17,22. Trty Non-Pgt Snd
41. JDF NTrty
42. JDF Trty
35. SJI NTrty
36. SJI Trty
52. Pgt Snd 6 Sport
53. 6B/9 Trty
-
37. B'ham NTrty:
38. B'ham Trty:
44. 8 NTrty:
45. 8 Trty:
47. 8A NTrty:
48. 8A Trty:
49. 8D NTrty:
50. 8D Trty:
62. Hood Canal NTrty:
63. Hood Canal Trty:
55. 10/11 NTrty:
56. 10/11 Trty:
-
- EXTREME TERMINAL I
Incl. NT sport if modelec
-

0	0	0	36	0	4	0	0	146	15	161	na
0	1	20	1,029	0	214	1	3	427	11	438	na

Stocks:

=====

Fingerling 10A
 UWAcc 10A
 Yearling 10A
 Fingerling 10E
 UWAcc 10E
 Yearling 10E
 Fingerling 13+
 UWAcc 13+
 Yearling 13+
 Fingerling 13A
 UWAcc 13A
 Yearling 13A

57. 10A NTrty: **fing only**
 58. 10A Trty: **fing only**
 59. 10E NTrty: **fing only**
 60. 10E Trty: **fing only**
 65. 13+ NTrty: **fing only**
 66. 13+ Trty: **fing only**
 67. 13A Ntrty: **fing only**
 68. 13A Trty: **fing only**

RECAPITULATION FOF
 Out-of-Region net: NTrty
 Out-of-Region net: Trty

(Out-of-Region computed as total net minus Local, from below)

Local Term. Mar. Net: N
 Local Term Mar. Net: Tr

Local fishery is ---->>>>>>>>

=====

^ 12/9/2021 +

FISHERY IMPACTS SUMMARY - TOTAL MORTALITY STOCK-SPECIFIC IMPACTS APPORTIONED TO SOUTH SOUND STOCKS

=====

)- FRAM STOCK APPORTIONMENTS FROM TABLES 14E AND 14F

Total May-April AEQ Fishery-Related Mortality					=SPSIBL14		=SPSIBL16		M + UM ratios wrong after Selective Fishery, but the preseason unique M and unique UM ratios may still be clo					
USPS0	UWAcc0	DSPS0	SPS1 Grovers	13 Misc 10	Lk. Wa Hatchery	Lk. Wa Natural	Green Hatchery	Green Natural	Area 10E Gorst	Puyallup Hatchery	Puyallup Natural	Minter Hatchery	Carr Inlet Natural	Chambers Hatchery
10	11	12	13	10										
67	0	28	0	3	4	1	24	4	9	20	2	7	0	1
6,646	0	2,126	50	253	441	84	2,373	445	915	1,978	157	552	0	53
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	0	27	3	6	11	2	60	11	23	50	4	7	0	1
987	0	608	13	38	65	13	352	68	135	292	24	157	0	15
599	0	408	8	23	40	8	214	40	82	178	14	106	0	10
122	0	70	1	5	8	2	43	8	17	36	3	18	0	2
1,212	0	736	8	40	88	9	441	46	176	396	16	196	0	19
262	0	195	10	8	20	1	96	6	39	90	2	52	0	5
4,948	0	5,197	353	153	372	25	1,811	135	733	1,671	48	1,396	0	134
0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	7	0	1	1	0	7	1	3	6	1	2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1,417	0	374	24	41	109	5	522	25	213	492	9	102	0	10
137	0	94	5	5	9	2	49	9	19	41	3	24	0	2
0	0	8	0	0	0	0	0	0	0	0	0	2	0	0
0	0	42	0	0	0	0	0	0	0	0	0	11	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	0	0	0	4	6	1	34	7	13	28	2	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	1	0	0	1	0	0	0	0
13	0	0	0	1	1	0	5	1	2	4	0	0	0	0
51	0	0	0	2	3	1	18	3	7	15	1	0	0	0
73	0	43	3	3	5	1	26	5	10	22	2	11	0	1
59	0	34	2	2	4	1	21	4	8	17	1	9	0	1

----- percent NT of stock-specific catch ----- APPORTIONMENT OF EXTREME TERMINAL "NET", from Table 14H (same method as Table 14F except applied to time steps 3 & 4

USPS0	UWAcc0	DSPS0	SPS1 Grovers	13 Misc 10	Lk. Wa Hatchery	Lk. Wa Natural	Green Hatchery	Green Natural	Area 10E Gorst	Puyallup Hatchery	Puyallup Natural	Minter Hatchery	Carr Inlet Natural	Chambers Hatchery
10	11	12	13	10										

^ 12/9/2021 +

11.6%	0.0%	11.0%	
7.8%	0.0%	10.1%	10.5%
0.0%	0.0%	0.0%	7.5%
0.0%	0.0%	0.0%	0.0%
	0.0%	0.0%	0.0%

135	0	17	4	0	0	0	0	0	0	0	0	0	0	0
1,037	0	136	31	0	0	0	0	0	0	0	0	0	0	0
320	0	2	0	0	0	0	0	0	0	0	0	0	0	0
3,788	0	20	1	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	1,149	26	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	0	1,617	16	0	0	0	0	0	0	0	0	0	0	0

LOCAL = 11,10A,10E,13,13A

13	0	8	1	1	1	0	5	1	2	4	0	2	0	0
307	0	143	5	12	20	4	110	21	42	91	8	37	0	4
529	0	62	7	3	5	1	26	5	10	22	2	11	0	1
4,970	0	2,956	77	2	4	1	21	4	8	17	1	9	0	1

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A

^ 12/9/2021 +

=====
 Version: 2.21Dec15
 Tamm: #REF!
 12/09/21
 10:42 AM

TABLE 2F

use enough unless abundance scalars mess them up.

Nisqually Hatchery Natural McAllister Hatchery Natural Deschutes Hatchery Misc 13D-K Natural

13	1	0	0	6	0
1,018	58	28	0	417	0
0	0	0	0	0	0
13	1	0	0	5	0
291	18	8	0	118	0
195	11	5	0	80	0
34	2	1	0	14	0
351	12	10	0	147	0
93	2	3	0	39	0
2,480	66	71	0	1,050	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
3	0	0	0	1	0
0	0	0	0	0	0
0	0	0	0	0	0
178	3	5	0	76	0
45	3	1	0	18	0
4	0	0	0	1	0
20	2	1	0	8	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
20	1	1	0	8	0
16	1	0	0	7	0

total mortality)

Nisqually Hatchery Natural McAllister Hatchery Natural Deschutes Hatchery Misc 13D-K Natural

^ 12/9/2021 +

0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
4	0	0	0	1	0
68	5	2	0	28	0
20	1	1	0	8	0
16	1	0	0	7	0
10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A

^ 12/9/2021 +

TABLE 2D: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - TOTAL AEQ

FRAM Run Number: SLC-Chin3721_Final

Run Description: SLC-Chin3721_Final

Total May-April AEQ Fishery-Related Mort	TruetoModel	NkSF	NkErly
Fishery Aggregate	Total	1	2
1-3. Alaska	40,859	7	20
4-13. Canada	55,231	407	1,534
28-33. S. Of Falcon Ocean:	43,988	16	0
14,18,24. NTrty N.Falc. Ocean Troll:	22,934	185	56
15,19. Trty N.Falc. Ocean Troll:	21,886	638	412
16,20,25,27. NTrty N.Flc. Ocean & Buoy10 S	4,434	30	48
39. Pgt Snd Trty Troll	435	10	0
34. Pgt Snd 5 Sport	0	0	0
40 Pgt Snd 7 Sport	0	0	0
43,46,51,54,61,64. Pgt Snd 8-13 Sport	793	29	0
21,23,26. NTrty Non-Pgt Snd Net	0	0	0
17,22. Trty Non-Pgt Snd Net	0	0	0
41. JDF NTrty	0	0	0
42. JDF Trty	0	0	0
35. SJI NTrty	0	0	0
36. SJI Trty	0	0	0
52. Pgt Snd 6 Sport	0	0	0
53. 6B/9 Trty	0	0	0
37. B'ham NTrty:	0	0	0
38. B'ham Trty:	0	0	0
44. 8 NTrty:	0	0	0
45. 8 Trty:	0	0	0
47. 8A NTrty:	0	0	0
48. 8A Trty:	0	0	0
49. 8D NTrty:	0	0	0
50. 8D Trty:	0	0	0
62. Hood Canal NTrty:	0	0	0
63. Hood Canal Trty:	0	0	0
55. 10/11 NTrty:	0	0	0
56. 10/11 Trty:	0	0	0
57. 10A NTrty:	0	0	0
58. 10A Trty:	0	0	0
59. 10E NTrty:	0	0	0
60. 10E Trty:	0	0	0

65. 13+ NTrty:	0	0	0
66. 13+ Trty:	0	0	0
67. 13A Ntrty:	0	0	0
68. 13A Trty:	0	0	0
Out-of-Region net: NTrty	0	0	0
Out-of-Region net: Trty	0	0	0
(Out-of-Region computed as total net minus Local, from below)			
Local Term. Mar. Net: NTrty		0	0
Local Term Mar. Net: Trty		0	0

Local fishery is --->>>>>>>>

Bham

Bham

=====

Note: table 14D corrected 29Sep98; fisheries were in incorrect order (Hood Canal wa

EQ FISHERY-RELATED MORTALITY STOCK-SPECIFIC IMPACTS

Version: 2.21Dec15

Tamm: #REF!

SkSF0 3	SkSF1 4	Skag S/F 0+1 total	Skag SF0 Natural	Skag SF1 Natural	Skag S/F 0+1 Nat	SkSP 5
215	12	227	204	12	217	1
232	10	242	220	10	230	90
0	0	0	0	0	0	0
23	1	23	21	1	22	0
73	2	75	69	2	72	48
0	0	0	0	0	0	0
5	0	6	5	0	5	1
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	1
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	0	0	0	0	0	0
0	0	0	0	0	0	0

8

8

8

=====

s labeled as 10/11, 10/11 as 10A, 10A as 10E, 10E as Hood Canal)

SkSP Natural	SnSF0 6	SnSF1 7	Sno S/F 0+1 total	Sn SF 0 Natural	SN SF 1 Natural	Sno S/F 0+1 Nat	
0	0	1	1	0	0	0	
25	216	197	412	80	23	103	
0	0	0	0	0	0	0	
0	36	4	40	13	0	14	
12	79	29	108	29	3	32	
0	0	0	0	0	0	0	
0	9	0	9	3	0	3	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	20	20	41	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

8A,8D

8A,8D

=====

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

8A,8D

8A,8D

10/11,10A,10E,13,13A

10/11,10A,10E,13,13A

10/11,10A,10E,13,13A

10/11,10A,10E,13,13A

13A

=====

=====

TABLE 2D
12/09/21
10:42 AM

=====

TABLE 2E: CHINOOK
FRAM Run Number:
Run Description:

HCSF0 15	HCSF1 16	HC S/F F+Y	Jung/Elwha 17	Hoko 18	LANDED C. Fishery Agg	Time Step
122	0	122	2	13	1-3. Alaska	May-April
926	37	963	58	3	4-13. Canac	May-April
161	0	161	0	0	28-33. S. O	May-April
1,132	0	1,132	2	3	14,18,24. N	May-April
2,300	90	2,390	49	2	15,19. Trty I	May-April
58	13	72	3	0	16,20,25,27	May-April
72	1	73	0	0	39. Pgt Snd	May-April
0	0	0	0	0	34,40. Pgt S	May-April
0	0	0	0	0	43,46,51,54,6	
101	20	121	1	0		
					21,23,26. N	May-April
0	0	0	0	0	17,22. Trty	May-April
0	0	0	0	0	41. JDF NT	Jul-Sep ONI
0	0	0	0	0	42. JDF Trty	Jul-Sep ONI
0	0	0	0	0	35. SJI NT	Jul-Sep ONI
0	0	0	0	0	36. SJI Trty	Jul-Sep ONI
0	0	0	0	0	52. Pgt Snd	Jul-Sep ONI
0	0	0	0	0	53. 6B/9 Trt	Jul-Sep ONI
0	0	0	0	0		
					37. B'ham NT	Jul-Sep ONI
0	0	0	0	0	B'ham Trty:	Jul-Sep ONI
0	0	0	0	0	44. 8 NT	May-Sep
0	0	0	0	0	45. 8 Trty:	May-Sep
0	0	0	0	0	7. 8A NT	Jul-Sep ONI
0	0	0	0	0	18. 8A Trty:	Jul-Sep ONI
0	0	0	0	0	9. 8D NT	Jul-Dec
0	0	0	0	0	50. 8D Trty:	Jul-Dec
0	0	0	0	0	Canal NT	Jul-Sep ONI
0	0	0	0	0	Canal Trty:	Jul-Sep ONI
0	0	0	0	0	10/11 NT	Jul-Sep ONI
0	0	0	0	0	10/11 Trty:	Jul-Sep ONI
0	0	0	0	0	10A NT	Jul-Sep ONI
0	0	0	0	0	8. 10A Trty:	Jul-Sep ONI
0	0	0	0	0	10E NT	Jul-Sep ONI
0	0	0	0	0	10E Trty:	Jul-Sep ONI
0	0	0	0	0	13+ NT	Jul-Sep ONI

0	0	0	0	0	6. 13+ Trty: Jul-Sep ONI
0	0	0	0	0	7. 13A Ntrty: Jul-Sep ONI
0	0	0	0	0	8. 13A Trty: Jul-Sep ONI
0	0	0	0	0	
					Out-of-Region net: NTrty
0	0	0	0	0	Out-of-Region net: Trty
0	0	0	0	0	for computations
					Local Term. Mar. Net: N
0	0	0	na	na	Local Term Mar. Net: Tr
0	0	0	na	na	
HdCnl	HdCnl		none	none	=====
=====	=====	=====	=====	=====	=====

FISHERY IMPACTS SUMMARY - HIGHLIGHTS - LANDED CATCH STC=====

SLC-Chin3721_Final

SLC-Chin3721_Final

TruetoModel	NkSF	NkErly	SkSF0	SkSF1	Skag S/F	SkSP
Total	1	2	3	4	F+Y	5
31,022	0	5	223	13	235	0
35,501	2	468	242	10	252	42
25,567	0	0	0	0	0	0
6,538	1	10	18	1	19	0
8,795	3	149	81	3	83	24
1,603	0	17	0	0	0	0
105	0	0	5	0	5	0
3	0	0	0	0	0	0

1,64. Pgt Snd 8-13 Sport

0	0	0	0	0	0	0
0	0	0	0	0	0	0

LY
LY
LY
LY
LY
LY

LY
LY

LY
LY



LY
LY
LY
LY
LY
LY
LY
LY
LY
LY

LY
LY
LY

0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

Trty	0	0	0	0	0	0	0
ty	0	0	0	0	0	0	0

=====

=====

SnSF0	SnSF1	Sno S/F	StSF	Tula	USPS0	UWAcc0
6	7	F+Y	8	9	10	11
0	0	0	0	1	0	0
106	21	127	5	71	206	0
0	0	0	0	0	10	0
15	0	16	0	0	140	0
41	4	45	3	35	293	0
0	0	0	0	7	29	0
4	0	5	0	1	16	0
0	0	0	0	0	1	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

=====

=====							TABLE 2E
Version: 2.21Dec15							12/09/21
Tamm: #REF!							10:42 AM
=====							=====
DSPS0	SPS1	WRSC	HCSF0	HCSF1	HC S/F	JDF	
12	13	14	15	16	F+Y	17	
-----							-----
0	0	0	8	0	8	1	
33	0	114	56	0	56	57	
3	0	0	7	0	7	0	
17	0	1	54	0	54	1	
100	0	45	138	0	138	49	
0	0	0	3	0	3	3	
3	0	2	5	0	5	0	
0	0	1	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	



0	0	0	0	0	0	#VALUE!
0	0	0	0	0	0	#VALUE!
0	0	0	0	0	0	na
0	0	0	0	0	0	na

Stocks:

=====

(Out-of-Region computed a

TABLE 2F: CHINOOK FISHERY IMPACTS SUMMARY - TOTAL MORT SOUTH PUGET SOUND - FRAM STOCK APPORTIONMENTS FROM T

Fishery Aggregate	Total May-April AEQ Fishery-Related Mortality			
	USPS0	UWAcc0	DSPS0	SPS1
Fishery Aggregate	10	11	12	13

Stock Break USPS 0s				
SPS Table UWAcc				
Used for all DSPS 0s				
SPS 1s				

1-3. Alaska	0	0	0	0
4-13. Canada	899	0	562	4
28-33. S. Of Falcon Ocea	60	0	67	3
14,18,24. NTrty N.Falc.	808	0	332	10
15,19. Trty N.Falc. Ocea	1,398	0	1,378	14
16,20,25,27. NTrty N.Flc	150	0	0	1
39. Pgt Snd Trty Troll	94	0	50	1
34. Pgt Snd 5 Sport	0	0	0	0
40 Pgt Snd 7 Sport	0	0	0	0
43,46,51,54,61,64. Pgt !	207	0	221	17
21,23,26. NTrty Non-Pg	0	0	0	0
17,22. Trty Non-Pgt Snd	0	0	0	0
41. JDF NTrty	0	0	0	0
42. JDF Trty	0	0	0	0
35. SJI NTrty	0	0	0	0
36. SJI Trty	0	0	0	0
52. Pgt Snd 6 Sport	0	0	0	0
53. 6B/9 Trty	0	0	0	0
37. B'ham NTrty:	0	0	0	0
38. B'ham Trty:	0	0	0	0
44. 8 NTrty:	0	0	0	0
45. 8 Trty:	0	0	0	0
47. 8A NTrty:	0	0	0	0
48. 8A Trty:	0	0	0	0
49. 8D NTrty:	0	0	0	0
50. 8D Trty:	0	0	0	0
62. Hood Canal NTrty:	0	0	0	0
63. Hood Canal Trty:	0	0	0	0
55. 10/11 NTrty:	0	0	0	0

56. 10/11 Trty: 0 0 0 0

EXTREME TERMINAL I----- percent NT of stock-specific catch -----

Incl. NT sport if modelec USPS0 UWAcc0 DSPOS0 SPS1
10 11 12 13

Fingerling	10A	#DIV/0!		#DIV/0!	
UWAcc	10A		0.0%		
Yearling	10A				0.0%
Fingerling	10E	#DIV/0!		0.0%	
UWAcc	10E		0.0%		
Yearling	10E				0.0%
Fingerling	13+	#DIV/0!		0.0%	
UWAcc	13+		0.0%		
Yearling	13+				0.0%
Fingerling	13A	#DIV/0!		#DIV/0!	
UWAcc	13A		0.0%		
Yearling	13A				0.0%

57. 10A NTrty: **fing only** 0 0 0 0
58. 10A Trty: **fing only** 0 0 0 0
59. 10E NTrty: **fing only** 0 0 0 0
60. 10E Trty: **fing only** 0 0 0 0
65. 13+ NTrty: **fing only** 0 0 0 0
66. 13+ Trty: **fing only** 0 0 0 0
67. 13A Ntrty: **fing only** 0 0 0 0
68. 13A Trty: **fing only** 0 0 0 0

RECAPITULATION FOF LOCAL = |1,10A,10E,13,13A

Out-of-Region net: NTrty 0 0 0 0

Out-of-Region net: Trty 0 0 0 0

is total net minus Local, from below)

Local Term. Mar. Net: N 0 0 0 0

Local Term Mar. Net: Tr 0 0 0 0

Local fishery is ---->>>>>>>>>> 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A

=====

QUALITY STOCK-SPECIFIC IMPACTS APPORTIONED TO SOUTH SOUND STOCKS
TABLES 14E AND 14F

	=SPSIBL14				=SPSIBL16	
	M + UM ratios wrong after Selective Fishery, but the preseason u					
	Lk. Wa	Lk. Wa	Green	Green	Area 10E	Puyallup
	Hatchery	Natural	Hatchery	Natural	Gorst	Hatchery

0	0	0	0	0	0	0
35	58	12	320	66	122	262
2	4	1	22	4	8	18
30	54	10	289	52	112	243
53	93	17	500	90	193	419
6	10	2	54	9	21	45
4	6	1	34	7	13	28
0	0	0	0	0	0	0
0	0	0	0	0	0	0
6	16	1	76	5	31	71
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0 0 0 0 0 0 0

APPORTIONMENT OF EXTREME TERMINAL "NET", from Table 14H (same method)
Grovers Lk. Wa Lk. Wa Green Green Area 10E Puyallup
Misc 10 Hatchery Natural Hatchery Natural Gorst Hatchery

#DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!
#DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!
#DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!
#DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!
#DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!
#DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!
#DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!
#DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!

#DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!
#DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!

#DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!
#DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A

=====

Version: 2.21Dec15

Tamm: #REF!

unique M and unique UM ratios may still be close enough unless abundance scaled

Puyallup Natural	Minter Hatchery	Carr Inlet Natural	Chambers Hatchery	Nisqually Hatchery	Nisqually Natural	McAllister Hatchery
---------------------	--------------------	-----------------------	----------------------	-----------------------	----------------------	------------------------



0	0	0	0	0	0	0
23	147	0	14	269	13	7
1	18	0	2	32	1	1
18	87	0	8	159	8	4
32	358	0	34	660	38	18
3	0	0	0	0	0	0
2	13	0	1	24	2	1
0	0	0	0	0	0	0
0	0	0	0	0	0	0
2	60	0	6	105	2	3
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0 0 0 0 0 0 0

 d as Table 14F except applied to time steps 3 & 4 total mortality)

Puyallup Natural	Minter Hatchery	Carr Inlet Natural	Chambers Hatchery	Nisqually Hatchery	Nisqually Natural	McAllister Hatchery
---------------------	--------------------	-----------------------	----------------------	-----------------------	----------------------	------------------------

#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
#DIV/0!	0	0	0	0	0	0
#DIV/0!	0	0	0	0	0	0
#DIV/0!	0	0	0	0	0	0
#DIV/0!	0	0	0	0	0	0
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A

=====

0	0	0

McAllister Natural	Deschutes Hatchery	Misc 13D-K Natural

#DIV/0!	#DIV/0!	#DIV/0!
#DIV/0!	#DIV/0!	#DIV/0!
0	0	0
0	0	0
0	0	0
0	0	0
#DIV/0!	#DIV/0!	#DIV/0!
#DIV/0!	#DIV/0!	#DIV/0!

#DIV/0!	#DIV/0!	#DIV/0!
#DIV/0!	#DIV/0!	#DIV/0!
#DIV/0!	#DIV/0!	#DIV/0!
#DIV/0!	#DIV/0!	#DIV/0!
10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A
=====	=====	=====

TABLE 2D: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - TOTAL AEQ FISHERY-RELATED MORTALITY STOCK-SPECII =====

FRAM Run Number:	SLC-Chin3721_Final		Version: 2.21Dec15													
Run Description:	SLC-Chin3721_Final		Tamm: #REF!													
Total May-April AEQ Fishery-Related	ruetoMode	NkSF	NkErly	SkSF0	SkSF1	Skag S/FSkag	SF(Skag SF1Skag S/F	SkSP	SkSP	SnSF0	SnSF1	Sno S/F	Sn SF 0	SN SF 1		
MARKED ONLY	Total	1	2	3	4	0+1 total	Natural	Natural	0+1 Nat	5	Natural	6	7	0+1 total	Natural	Natural
1-3. Alaska	3,412	8	217	9	0	9	0	0	0	2	0	0	0	0	0	0
4-13. Canada	1,669	80	192	1	0	1	0	0	0	26	0	30	2	32	0	0
28-33. S. Of Falcon Ocean:	5,365	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14,18,24. NTrty N.Falc. Ocean Troll:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15,19. Trty N.Falc. Ocean Troll:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16,20,25,27. NTrty N.Flc. Ocean & Bu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39. Pgt Snd Trty Troll	1,865	75	110	2	0	2	0	0	0	24	0	17	3	20	0	0
34. Pgt Snd 5 Sport	2,117	108	260	0	0	0	0	0	0	63	0	35	5	41	0	0
40 Pgt Snd 7 Sport	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43,46,51,54,61,64. Pgt Snd 8-13 Spor	3,189	36	1	0	0	0	0	0	0	28	0	0	21	21	0	0
21,23,26. NTrty Non-Pgt Snd Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17,22. Trty Non-Pgt Snd Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41. JDF NTrty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42. JDF Trty	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35. SJI NTrty	13	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36. SJI Trty	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52. Pgt Snd 6 Sport	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53. 6B/9 Trty	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37. B'ham NTrty:	10	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38. B'ham Trty:	13	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44. 8 NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45. 8 Trty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47. 8A NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48. 8A Trty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49. 8D NTrty:	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50. 8D Trty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62. Hood Canal NTrty:	69	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0
63. Hood Canal Trty:	51	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55. 10/11 NTrty:	204	3	0	0	0	0	0	0	0	6	0	0	2	2	0	0
56. 10/11 Trty:	66	1	0	0	0	0	0	0	0	2	0	0	1	1	0	0
57. 10A NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58. 10A Trty:	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59. 10E NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60. 10E Trty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65. 13+ NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66. 13+ Trty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67. 13A NTrty:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68. 13A Trty:	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out-of-Region net. NTrty	297	9	0	0	0	0	0	0	0	6	0	1	2	3	0	0

12/9/2021

Out-of-Region net: Trty	174	3	1	0	0	0	0	0	0	0	2	0	1	1	1	0	0
↳Region computed as total net minus Local, from below																	
Local Term. Mar. Net: NTrty		8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Term Mar. Net: Trty		10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local fishery is --->>>>>>>>>>		Bham	Bham	8	8					8		8A,8D	8A,8D				

=====
Note: table 14D corrected 29Sep98; fisheries were in incorrect order (Hood Canal was labeled as 10/11, 10/11 as 10A, 10A as 10E, 10E as Hood Canal)
0 160 0 86 36 122 0 0
633 353 1842 1990 3832 846 1064

^ 12/9/2021 +

TABLE 2D
12/09/21
10:42 AM

TABLE 2E: CHINOOK
FRAM Run Number:
Run Description:

Sno S/F 0+1 Nat	StSF 8	Tula 9	USPS0 10	UWAcc0 11	DSPO 12	SPS1 13	WRSC 14	HCSF0 15	HCSF1 16	HC S/F F+Y	Dung/EIwha 17	Hoko 18	LANDED C. Marked	Time Step
0	3	0	19	0	0	0	0	27	0	27	3	0	1-3. Alaska	May-April
0	11	269	98	0	28	3	0	236	17	253	8	0	4-13. Canac	May-April
0	0	0	0	0	0	0	0	0	0	0	0	0	28-33. S. O	May-April
0	0	0	0	0	0	0	0	0	0	0	0	0	14,18,24. N	May-April
0	0	0	0	0	0	0	0	0	0	0	0	0	15,19. Trty I	May-April
0	0	0	0	0	0	0	0	0	0	0	0	0	16,20,25,27	May-April
0	7	144	246	0	153	1	0	155	46	201	4	0	39. Pgt Snd	May-April
0	6	303	246	0	40	0	0	567	35	602	11	0	34,40. Pgt S	May-April
0	0	0	0	0	0	0	0	0	0	0	0	0	43,46,51,54,6	
0	3	709	321	0	303	24	0	541	62	603	1	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	21,23,26. N	May-April
0	0	0	0	0	0	0	0	0	0	0	0	0	17,22. Trty	May-April
0	0	0	0	0	0	0	0	0	0	0	0	0	41. JDF NTri	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	42. JDF Trty	Jul-Sep ONI
0	0	2	3	0	1	0	0	2	0	2	0	0	35. SJI NTrty	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	36. SJI Trty	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	52. Pgt Snd	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	53. 6B/9 Trty	Jul-Sep ONI
0	0	0	1	0	1	0	0	3	0	3	0	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	37. B'ham NTrty	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	3'ham Trty	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	44. 8 NTrty	May-Sep
0	0	0	0	0	0	0	0	0	0	0	0	0	45. 8 Trty	May-Sep
0	0	0	0	0	0	0	0	0	0	0	0	0	7. 8A NTrty	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	18. 8A Trty	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	3. 8D NTrty	Jul-Dec
0	0	1	0	0	0	0	0	0	0	0	0	0	50. 8D Trty	Jul-Dec
0	0	0	0	0	0	0	0	0	0	0	0	0	Canal NTrty	Jul-Sep ONI
0	0	0	1	0	3	0	0	39	14	52	0	0	Canal Trty	Jul-Sep ONI
0	0	0	1	0	2	0	0	29	10	39	0	0	10/11 NTrty	Jul-Sep ONI
0	0	66	25	0	10	2	0	42	6	48	0	0	10/11 Trty	Jul-Sep ONI
0	0	21	8	0	3	1	0	14	2	15	0	0	10A NTrty	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	8. 10A Trty	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	10E NTrty	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	10E Trty	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	13+ NTrty	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	16. 13+ Trty	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	13A Ntrty	Jul-Sep ONI
0	0	0	0	0	0	0	0	0	0	0	0	0	8. 13A Trty	Jul-Sep ONI
0	0	0	0	0	12	0	0	2	0	2	0	0		
0	0	66	1	0	3	0	0	42	6	48	0	0	Out-of-Region net: NTrty	
0	0	0	0	0	0	0	0	0	0	0	0	0	Out-of-Region net: Trty	

^ 12/9/2021 +

0	0	23	5	0	4	0	0	20	2	22	0	0 for computations	
0	0	1	25	0	10	2	0	39	14	52	na	Local Term. Mar. Net: N	
0	0	0	9	0	16	1	0	29	10	39	na	na Local Term. Mar. Net: Tri	
8A,8D		8A,8D	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	13A	HdCnl	HdCnl		none	none	=====
0	30	1,604	1,009	0	589	35	0	1,786	224	2,010	28		
1910	314	16862	20173	3	4298	45	234	12558	45	12603	1576		

^ 12/9/2021 +

FISHERY IMPACTS SUMMARY - HIGHLIGHTS - LANDED CATCH STC=====

SLC-Chin3721_Final
SLC-Chin3721_Final

TruetoModel	NkSF	NkErly	SkSF0	SkSF1	Skag S/F	SkSP	SnSF0	SnSF1	Sno S/F	StSF	Tula	USPS0	UWAcc0	DSPS0
Total	1	2	3	4	F+Y	5	6	7	F+Y	8	9	10	11	12
47,067	34	390	34	0	34	7	9	10	19	8	66	67	0	17
97,269	2,126	5,599	121	0	121	586	401	316	717	88	5,025	6,166	0	2,402
30,519	10	0	0	0	0	0	0	0	0	0	0	45	0	61
14,330	391	21	1	0	1	0	16	9	26	0	0	706	0	300
706	23	0	0	0	0	0	0	0	0	0	0	15	0	6
13,427	187	86	4	0	4	3	7	6	13	2	148	596	0	370
20,366	1,255	567	7	0	7	80	71	52	123	14	923	2,305	0	2,109
29,216	1,106	349	37	0	37	182	174	171	345	32	2,201	6,381	0	5,230
1,64. Pgt Snd 8-13 Sport														
5,116	0	0	0	0	0	0	0	0	0	0	0	0	0	0
234	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LY
LY
LY
LY
LY
LY
LY

LY
LY

LY
LY

LY
LY
LY
LY
LY
LY
LY
LY
LY
LY
LY
LY
LY

/

^ 12/9/2021 +

Trty
ty

=====

^ 12/9/2021 +

=====						TABLE 2E
Version: 2.21Dec15						12/09/21
Tamm: #REF!						10:42 AM
=====						=====
SPS1	WRSC	HCSF0	HCSF1	HC S/F	JDF	
13	14	15	16	F+Y	17	
0	0	265	0	265	8	
54	0	6,390	290	6,680	81	
2	0	131	2	133	0	
10	0	1,068	0	1,068	0	
0	0	39	0	39	0	
9	0	935	13	948	2	
30	0	3,770	175	3,944	11	
312	0	10,463	893	11,356	26	
1	0	17	0	17	0	
0	0	0	0	0	0	

TABLE 2F: CHINOOK FISHERY IMPACTS SUMMARY - TOTAL MORTALITY STOCK-SPECIFIC
SOUTH PUGET SOUND - FRAM STOCK APPORTIONMENTS FROM TABLES 14E AND 14F

Marked Fishery Aggregate	Total May-April AEQ Fishery-Related Mortality					
	USPS0	UWAcc0	DSPS0	SPS1 Grovers	Lk. Wa	
	10	11	12	13 Misc 10	Hatchery	
Stock Break USPS 0s				0.026014	0.081190	
SPS Table UWAcc						
Used for all DSPS 0s						
SPS 1s						
1-3. Alaska	19	0	0	0	0	2
4-13. Canada	98	0	28	3	3	8
28-33. S. Of Falcon Oce	0	0	0	0	0	0
14,18,24. NTrty N.Falc.	0	0	0	0	0	0
15,19. Trty N.Falc. Ocea	0	0	0	0	0	0
16,20,25,27. NTrty N.Flc	0	0	0	0	0	0
39. Pgt Snd Trty Troll	246	0	153	1	6	20
34. Pgt Snd 5 Sport	246	0	40	0	6	20
40 Pgt Snd 7 Sport	0	0	0	0	0	0
43,46,51,54,61,64. Pgt S	321	0	303	24	8	26
21,23,26. NTrty Non-Pgl	0	0	0	0	0	0
17,22. Trty Non-Pgt Snc	0	0	0	0	0	0
41. JDF NTrty	0	0	0	0	0	0
42. JDF Trty	3	0	1	0	0	0
35. SJI NTrty	0	0	0	0	0	0
36. SJI Trty	0	0	0	0	0	0
52. Pgt Snd 6 Sport	0	0	0	0	0	0
53. 6B/9 Trty	1	0	1	0	0	0
37. B'ham NTrty:	0	0	0	0	0	0
38. B'ham Trty:	0	0	0	0	0	0
44. 8 NTrty:	0	0	0	0	0	0
45. 8 Trty:	0	0	0	0	0	0
47. 8A NTrty:	0	0	0	0	0	0
48. 8A Trty:	0	0	0	0	0	0
49. 8D NTrty:	0	0	0	0	0	0
50. 8D Trty:	0	0	0	0	0	0
62. Hood Canal NTrty:	1	0	3	0	0	0
63. Hood Canal Trty:	1	0	2	0	0	0
55. 10/11 NTrty:	25	0	10	2	1	2
56. 10/11 Trty:	8	0	3	1	0	1
EXTREME TERMINAL I	percent NT of stock-specific catch ----- APPORTIONMENT OF I					
Incl. NT sport if modelec	USPS0	UWAcc0	DSPS0	SPS1 Grovers	Lk. Wa	
	10	11	12	13 Misc 10	Hatchery	

^ 12/9/2021 +

IC IMPACTS APPORTIONED TO SOUTH SOUND STOCKS

===== TABLE 2F

		Version: 2.21Dec15		12/09/21										10:42 AM	
		Tamm: #REF!													
		=SPSUnmrkd!BL14		=SPSUnmrkd!BL16		=SPSUnmrkd!BL20						=SPSUnmrkd!BL27			
Lk. Wa	Green	Green	Area 10E	Puyallup	Puyallup	Minter	Carr Inlet	Chambers	Nisqually	Nisqually	McAllister	McAllister	Deschutes	Misc 13D-K	
Natural	Hatchery	Natural	Gorst	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	
0.000000	0.372206	0.000000	0.155179	0.365411	0.000000										
						0.276388	0.000000	0.026493	0.476034	0.000000	0.013980	0.000000	0.207105	0.000000	
0	7	0	3	7	0	0	0	0	0	0	0	0	0	0	0
0	37	0	15	36	0	8	0	1	13	0	0	0	6	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	92	0	38	90	0	42	0	4	73	0	2	0	32	0	0
0	91	0	38	90	0	11	0	1	19	0	1	0	8	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	119	0	50	117	0	84	0	8	144	0	4	0	63	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	1	0	1	0	0	1	0	0	0	1	0	0
0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
0	9	0	4	9	0	3	0	0	5	0	0	0	2	0	0
0	3	0	1	3	0	1	0	0	2	0	0	0	1	0	0

EXTREME TERMINAL "NET", from Table 14H (same method as Table 14F except applied to time steps 3 & 4 total mortality)

Lk. Wa	Green	Green	Area 10E	Puyallup	Puyallup	Minter	Carr Inlet	Chambers	Nisqually	Nisqually	McAllister	McAllister	Deschutes	Misc 13D-K	
Natural	Hatchery	Natural	Gorst	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	

^ 12/9/2021 +



0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	1	0	1	0	0	1	0	0	0	1	0
0	2	0	1	2	0	1	0	0	2	0	0	0	1	0
0	9	0	4	9	0	2.82	0	0	5	0	0	0	2	0
0	3	0	1	3	0	1	0	0	2	0	0	0	1	0
10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

^ 12/9/2021 +

TABLE 2D: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - TOTAL AEQ FISHERY-RELATED MORTALITY STOCK-SPECIFIC IMPACTS

FRAM Run Number:	SLC-Chin3721_Final	Version: 2.21Dec15									
Run Description:	SLC-Chin3721_Final	Tamm: #REF!									
Total May-April AEQ Fishery-Related Mort	TruetoModel	NkSF	NkErly	SkSF0	SkSF1	Skag S/F	Skag SF0	Skag SF1	Skag S/F	SkSP	SkSP
MARKED ONLY	Total	1	2	3	4	0+1 total	Natural	Natural	0+1 Nat	5	Natural
1-3. Alaska	45,476	26	187	16	0	16	0	0	0	12	0
4-13. Canada	92,001	1,655	4,277	109	0	109	0	0	0	483	0
28-33. S. Of Falcon Ocean:	17,441	0	0	0	0	0	0	0	0	0	0
14,18,24. NTrty N.Falc. Ocean Troll:	6,833	278	0	0	0	0	0	0	0	0	0
15,19. Trty N.Falc. Ocean Troll:	9,060	513	180	1	0	1	0	0	0	20	0
16,20,25,27. NTrty N.Flc. Ocean & Buoy10 S	12,331	161	53	4	0	4	0	0	0	3	0
39. Pgt Snd Trty Troll	659	16	15	0	0	0	0	0	0	4	0
34. Pgt Snd 5 Sport	7,204	253	143	5	0	5	0	0	0	42	0
40 Pgt Snd 7 Sport	1,858	339	53	13	0	13	0	0	0	12	0
43,46,51,54,61,64. Pgt Snd 8-13 Sport	22,567	242	64	9	0	9	0	0	0	54	0
21,23,26. NTrty Non-Pgt Snd Net	5,276	0	0	0	0	0	0	0	0	0	0
17,22. Trty Non-Pgt Snd Net	241	0	0	0	0	0	0	0	0	0	0
41. JDF NTrty	0	0	0	0	0	0	0	0	0	0	0
42. JDF Trty	71	3	1	0	0	0	0	0	0	1	0
35. SJI NTrty	556	199	0	0	0	0	0	0	0	7	0
36. SJI Trty	368	132	0	0	0	0	0	0	0	5	0
52. Pgt Snd 6 Sport	5,845	293	17	16	0	16	0	0	0	21	0
53. 6B/9 Trty	419	12	2	0	0	0	0	0	0	1	0
37. B'ham NTrty:	2,046	1,939	0	3	0	3	0	0	0	5	0
38. B'ham Trty:	4,691	4,276	14	2	0	2	0	0	0	27	0
44. 8 NTrty:	0	0	0	0	0	0	0	0	0	0	0
45. 8 Trty:	5	0	0	2	0	2	0	0	0	2	0
47. 8A NTrty:	0	0	0	0	0	0	0	0	0	0	0
48. 8A Trty:	405	0	0	0	0	0	0	0	0	0	0
49. 8D NTrty:	2	0	0	0	0	0	0	0	0	0	0
50. 8D Trty:	5,314	0	0	0	0	0	0	0	0	0	0
62. Hood Canal NTrty:	1,685	0	0	0	0	0	0	0	0	0	0
63. Hood Canal Trty:	6,380	0	0	0	0	0	0	0	0	0	0
55. 10/11 NTrty:	141	1	0	0	0	0	0	0	0	0	0
56. 10/11 Trty:	114	0	0	0	0	0	0	0	0	0	0
57. 10A NTrty:	146	2	0	0	0	0	0	0	0	0	0
58. 10A Trty:	1,135	14	0	0	0	0	0	0	0	0	0
59. 10E NTrty:	293	0	0	0	0	0	0	0	0	0	0
60. 10E Trty:	3,038	0	0	0	0	0	0	0	0	0	0
65. 13+ NTrty:	0	0	0	0	0	0	0	0	0	0	0
66. 13+ Trty:	1,269	5	0	0	0	0	0	0	0	0	0
67. 13A NTrty:	0	0	0	0	0	0	0	0	0	0	0
68. 13A Trty:	1,815	0	0	0	0	0	0	0	0	0	0
Out-of-Region net. NTrty	10,145	202	0	3	0	3	0	0	0	12	0

12/9/2021 +

Out-of-Region net: Trty	25,266	166	3	3	0	3	0	0	0	34	0
(Out-of-Region computed as total net minus Local, from below)											
Local Term. Mar. Net: NTrty		1,939	0	0	0	0	0	0	0	0	0
Local Term Mar. Net: Trty		4,276	14	2	0	2	0	0	0	2	0

^ 12/9/2021 +

SnSF0 6	SnSF1 7	Sno S/F 0+1 total	Sn SF 0 Natural	SN SF 1 Natural	Sno S/F 0+1 Nat	StSF 8	Tula 9	USPS0 10	UWAcc0 11	DSPS0 12	SPS1 13	WRSC 14	HCSF0 15	HCSF1 16
10	11	21	0	0	0	5	99	54	0	26	0	0	196	0
246	164	410	0	0	0	63	3,001	5,291	0	1,983	49	0	5,366	231
0	0	0	0	0	0	0	0	0	0	0	0	0	14	3
0	7	7	0	0	0	0	0	133	0	24	3	0	187	0
0	23	23	0	0	0	1	151	780	0	562	13	0	1,198	29
6	6	12	0	0	0	2	29	477	0	380	8	0	889	0
3	1	5	0	0	0	1	0	96	0	65	1	0	84	3
54	18	72	0	0	0	6	428	1,072	0	705	8	0	1,375	42
20	8	28	0	0	0	11	229	244	0	189	10	0	390	0
64	162	225	0	0	0	15	1,204	4,537	0	5,035	351	0	6,348	773
0	0	0	0	0	0	0	0	0	0	0	1	0	18	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	2	0	0	0	0	9	16	0	6	0	0	16	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
12	13	24	0	0	0	3	411	1,340	0	368	24	0	2,375	38
2	6	8	0	0	0	0	9	109	0	87	5	0	116	25
0	1	1	0	0	0	0	0	0	0	7	0	0	0	0
0	0	0	0	0	0	0	148	0	0	38	0	0	47	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	327	75	0	0	0	0	0	0
0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
12	11	23	0	0	0	5	5,283	3	0	0	0	0	0	0
0	0	0	0	0	0	0	0	11	0	0	0	0	1,609	64
0	0	0	0	0	0	0	0	40	0	0	0	0	6,091	243
1	2	2	0	0	0	0	0	58	0	39	3	0	31	6
1	1	2	0	0	0	0	0	46	0	32	2	0	25	5
1	0	1	0	0	0	0	0	107	0	16	4	0	13	2
10	0	10	0	0	0	0	0	820	0	127	31	0	103	24
0	0	0	0	0	0	0	0	288	0	2	0	0	3	0
0	0	0	0	0	0	0	0	2,984	0	19	1	0	35	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1,064	26	0	141	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	68	0	1,497	16	0	233	1
2	3	4	0	0	0	0	0	11	0	7	1	0	65	30

^ 12/9/2021 +

13	7	21	0	0	0	1	166	242	0	131	5	0	716	70
0	0	0	0	0	0	0	2	453	0	57	7	0	1,609	64
12	11	23	0	0	0	6	5,611	3,920	0	2,738	76	0	6,091	243

^ 12/9/2021 +

===== TABLE 2D
 12/09/21
 10:42 AM

TABLE 2E: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - LANDED CATCH STC

FRAM Run Number: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final

HC S/F F+Y	Dung/Elwha 17	Hoko 18	LANDED C. Marked	Time Step	TruetoModel Total	NkSF 1	NkEry 2	SkSF0 3	SkSF1 4	Skag S/F F+Y	SkSP 5	SnSF0 6	SnSF1 7	Sno S/F F+Y
196	5	43	1-3. Alaska	May-April	3,133	8	216	10	0	10	2	0	0	0
5,597	61	61	4-13. Canac	May-April	1,481	84	207	1	0	1	27	31	2	33
17	0	0	28-33. S. O	May-April	4,606	0	0	0	0	0	0	0	0	0
187	0	2	14,18,24. N	May-April	0	0	0	0	0	0	0	0	0	0
1,227	1	2	15,19. Trty I	May-April	1,305	69	81	2	0	2	26	18	2	20
889	2	1	16,20,25,27	May-April	0	0	0	0	0	0	0	0	0	0
87	0	0	39. Pgt Snd	May-April	19	1	1	0	0	0	0	0	0	0
1,417	3	3	34,40. Pgt S	May-April	2,748	120	189	0	0	0	92	37	17	54
390	2	0	43,46,51,54,61,64. Pgt Snd 8-13 Sport											
7,121	8	0												
			21,23,26. N	May-April	0	0	0	0	0	0	0	0	0	0
18	0	0	17,22. Trty	May-April	0	0	0	0	0	0	0	0	0	0
0	0	0	41. JDF NT	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
0	0	0	42. JDF Trt	Jul-Sep ON	12	1	0	0	0	0	0	0	0	0
16	0	0	35. SJI NT	Jul-Sep ON	13	6	0	0	0	0	0	0	0	0
22	0	0	36. SJI Trty	Jul-Sep ON	2	1	0	0	0	0	0	0	0	0
15	0	0	52. Pgt Snd	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
2,413	6	0	53. 6B/9 Trt	Jul-Sep ON	8	0	0	0	0	0	0	0	0	0
141	0	0												
			37. B'ham NT	Jul-Sep ON	10	9	0	0	0	0	0	0	0	0
0	0	0	3'ham Trty	Jul-Sep ON	13	12	0	0	0	0	0	0	0	0
47	0	0	44. 8 NT	May-Sep										
0	0	0	45. 8 Trty	May-Sep										
0	0	0	7. 8A NT	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
0	0	0	18. 8A Trty	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
0	1	0	3. 8D NT	Jul-Dec										
0	0	0	50. 8D Trty	Jul-Dec										
0	0	0	Canal NT	Jul-Sep ON	68	1	0	0	0	0	0	1	0	1
1,673	0	0	Canal Trty	Jul-Sep ON	50	1	0	0	0	0	0	1	0	1
6,334	0	0	10/11 NT	Jul-Sep ON	200	4	0	0	0	0	6	0	2	2
37	0	0	10/11 Trty	Jul-Sep ON	64	1	0	0	0	0	2	0	1	1
30	0	0	10A NT	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
15	0	0	8. 10A Trty	Jul-Sep ON	1	0	0	0	0	0	0	0	0	0
127	0	0	10E NT	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
3	0	0	0. 10E Trty	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
35	0	0	13+ NT	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
0	0	0	6. 13+ Trty	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
141	0	0	13A NT	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
0	0	0	8. 13A Trty	Jul-Sep ON	19	0	0	0	0	0	0	0	0	0
235	0	0												
			Out-of-Region net: NT											
95	0	0	Out-of-Region net: Trty											

^ 12/9/2021 +

786	2	0	for computations
			Local Term. Mar. Net: NTrty
1,673	na	na	Local Term Mar. Net: Trty
6,334	na	na	
		none	=====

^ 12/9/2021 +

Version: 2.21Dec15
Tamm: #REF!

StSF 8	Tula 9	USPS0 10	UWAcc0 11	DSPS0 12	SPS1 13	WRSC 14	HCSF0 15	HCSF1 16	HC S/F F+Y	JDF 17
3	0	19	0	0	0	0	27	0	27	3
11	310	101	0	29	3	0	245	18	263	9
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
6	132	246	0	149	1	0	148	47	195	4
0	0	0	0	0	0	0	0	0	0	0
0	2	4	0	2	0	0	2	1	3	0
6	549	441	0	256	16	0	893	93	986	12
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	2	4	0	1	0	0	3	0	3	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	2	0	1	0	0	3	0	3	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	2	0	4	1	0	45	15	60	0
0	0	1	0	3	0	0	34	11	45	0
0	86	30	0	11	2	0	49	7	56	0
0	28	10	0	4	1	0	16	2	18	0
0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	16	0	0	2	0	2	0

TABLE 2E
12/09/21
10:42 AM

TABLE 2F: CHINOOK FISHERY IM
SOUTH PUGET SOUND - FRAM ST

	Total May- USPS0
Marked Fishery Aggregate	10
Stock Break USPS 0s	
SPS Table UWAcc	
Used for all DSPS 0s	
SPS 1s	

1-3. Alaska	54
4-13. Canada	5,291
28-33. S. Of Falcon Ocea	0
14,18,24. NTrty N.Falc.	133
15,19. Trty N.Falc. Oce	780
16,20,25,27. NTrty N.Fl	477
39. Pgt Snd Trty Troll	96
34. Pgt Snd 5 Sport	1,072
40 Pgt Snd 7 Sport	244
43,46,51,54,61,64. Pgt S	4537

21,23,26. NTrty Non-Pgt	0
17,22. Trty Non-Pgt Snd	0
41. JDF NTrty	0
42. JDF Trty	16
35. SJI NTrty	0
36. SJI Trty	0
52. Pgt Snd 6 Sport	1,340
53. 6B/9 Trty	109

37. B'ham NTrty:	0
38. B'ham Trty:	0
44. 8 NTrty:	0
45. 8 Trty:	0
47. 8A NTrty:	0
48. 8A Trty:	75
49. 8D NTrty:	0
50. 8D Trty:	3
62. Hood Canal NTrty:	11
63. Hood Canal Trty:	40
55. 10/11 NTrty:	58
56. 10/11 Trty:	46

EXTREME TERMINAL I	per
Incl. NT sport if modelec	USPS0
	10

^ 12/9/2021 +

Stocks:

=====

Fingerling	10A	11.6%
UWAcc	10A	
Yearling	10A	
Fingerling	10E	7.8%
UWAcc	10E	
Yearling	10E	
Fingerling	13+	0.0%
UWAcc	13+	
Yearling	13+	
Fingerling	13A	0.0%
UWAcc	13A	
Yearling	13A	

57. 10A NTrty:	fang only	107
58. 10A Trty:	fang only	820
59. 10E NTrty:	fang only	288
60. 10E Trty:	fang only	2,984
65. 13+ NTrty:	fang only	0
66. 13+ Trty:	fang only	2
67. 13A Ntrty:	fang only	0
68. 13A Trty:	fang only	68

RECAPITULATION FOF LOCAL =
Out-of-Region net: NTrty 11
Out-of-Region net: Trty 242

(Out-of-Region computed as total net minus Local, from below)

Local Term. Mar. Net: N 453
Local Term Mar. Net: Tr 3,920

Local fishery is ---->>>>>>>> 0

=====

^ 12/9/2021 +

IPACTS SUMMARY - TOTAL MORTALITY STOCK-SPECIFIC IMPACTS APPORTIONED TO SOUTH SOUND STOCKS

STOCK APPORTIONMENTS FROM TABLES 14E AND 14F

=====

April AEQ Fishery-Related Mortality																			
UWAcc0	DSPS0	SPS1 Grovers	Lk. Wa	Lk. Wa	Green	Green	Area 10E	Puyallup	Puyallup	=SPSUnmrkd!BL20									
11	12	13 Misc 10	Hatchery	Natural	Hatchery	Natural	Gorst	Hatchery	Natural	Minter	Carr Inlet	Chambers	Nisqually						
										Hatchery	Natural	Hatchery	Hatchery						
										0.026014	0.081190	0.000000	0.372206	0.000000	0.155179	0.365411	0.000000		
														0.276388	0.000000	0.026493	0.476034		
0	26	0	1	4	0	20	0	8	20	0	7	0	1	13					
0	1,983	49	138	430	0	1,969	0	821	1,933	0	548	0	53	944					
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
0	24	3	3	11	0	49	0	21	48	0	7	0	1	12					
0	562	13	20	63	0	290	0	121	285	0	155	0	15	268					
0	380	8	12	39	0	177	0	74	174	0	105	0	10	181					
0	65	1	3	8	0	36	0	15	35	0	18	0	2	31					
0	705	8	28	87	0	399	0	166	392	0	195	0	19	336					
0	189	10	6	20	0	91	0	38	89	0	52	0	5	90					
0	5,035	351	118	368	0	1,689	0	704	1,658	0	1,392	0	133	2,397					
0	0	1	0	0	0	0	0	0	0	0	0	0	0	0					
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
0	6	0	0	1	0	6	0	2	6	0	2	0	0	3					
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
0	368	24	35	109	0	499	0	208	490	0	102	0	10	175					
0	87	5	3	9	0	40	0	17	40	0	24	0	2	41					
0	7	0	0	0	0	0	0	0	0	0	2	0	0	3					
0	38	0	0	0	0	0	0	0	0	0	11	0	1	18					
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
0	0	0	2	6	0	28	0	12	27	0	0	0	0	0					
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
0	0	0	0	0	0	1	0	0	1	0	0	0	0	0					
0	0	0	0	1	0	4	0	2	4	0	0	0	0	0					
0	0	0	1	3	0	15	0	6	15	0	0	0	0	0					
0	39	3	1	5	0	21	0	9	21	0	11	0	1	19					
0	32	2	1	4	0	17	0	7	17	0	9	0	1	15					

percent NT of stock-specific catch ----- APPORTIONMENT OF EXTREME TERMINAL "NET", from Table 14H (same method as Table 14F except applied to time steps 3 & 4 total mortality)

UWAcc0	DSPS0	SPS1 Grovers	Lk. Wa	Lk. Wa	Green	Green	Area 10E	Puyallup	Puyallup	Minter	Carr Inlet	Chambers	Nisqually
11	12	13 Misc 10	Hatchery	Natural	Hatchery	Natural	Gorst	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery

^ 12/9/2021 +



0	16	4	0	0	0	0	0	0	0	0	0	0	0	0	0
0	127	31	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	19	1	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1,064	26	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1,497	16	0	0	0	0	0	0	0	0	0	0	0	0	0

0	7	1	0	1	0	4	0	2	4	0	2	0	0	3	
0	131	5	6	20	0	90	0	38	89	0	36	0	3	63	
0	57	7	1	5	0	21	0	9	21	0	10.87	0	1	19	
0	2,738	76	1	4	0	17	0	7	17	0	9	0	1	15	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
=====															

^ 12/9/2021 +

=====
 Version: 2.21Dec15
 Tamm: #REF!
 =SPSUnmrkd!BL27
TABLE 2F
 12/09/21
 10:42 AM
 Nisqually McAllister McAllister Deschutes Misc 13D-K
 Natural Hatchery Natural Hatchery Natural

0.000000 0.013980 0.000000 0.207105 0.000000

0	0	0	5	0
0	28	0	411	0
0	0	0	0	0
0	0	0	5	0
0	8	0	116	0
0	5	0	79	0
0	1	0	13	0
0	10	0	146	0
0	3	0	39	0
0	70	0	1,043	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	5	0	76	0
0	1	0	18	0
0	0	0	1	0
0	1	0	8	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	8	0
0	0	0	7	0

y)
 Nisqually McAllister McAllister Deschutes Misc 13D-K
 Natural Hatchery Natural Hatchery Natural

^ 12/9/2021 +



0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	1	0
0	2	0	27	0
0	1	0	8	0
0	0	0	7	0
10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A
=====	=====	=====	=====	=====

^ 12/9/2021 +

TABLE 2D: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - TOTAL AEQ

FRAM Run Number: SLC-Chin3721_Final

Run Description: SLC-Chin3721_Final

	TruetoModel	NkSF	NkErly
MARKED ONLY	Total	1	2
1-3. Alaska	7,142	7	14
4-13. Canada	14,817	405	1,024
28-33. S. Of Falcon Ocean:	13,735	16	0
14,18,24. NTrty N.Falc. Ocean Troll:	12,524	184	38
15,19. Trty N.Falc. Ocean Troll:	12,288	635	276
16,20,25,27. NTrty N.Flc. Ocean & Buoy10 S	2,633	30	32
39. Pgt Snd Trty Troll	304	10	0
34. Pgt Snd 5 Sport	0	0	0
40 Pgt Snd 7 Sport	0	0	0
43,46,51,54,61,64. Pgt Snd 8-13 Sport	737	29	0
21,23,26. NTrty Non-Pgt Snd Net	0	0	0
17,22. Trty Non-Pgt Snd Net	0	0	0
41. JDF NTrty	0	0	0
42. JDF Trty	0	0	0
35. SJI NTrty	0	0	0
36. SJI Trty	0	0	0
52. Pgt Snd 6 Sport	0	0	0
53. 6B/9 Trty	0	0	0
37. B'ham NTrty:	0	0	0
38. B'ham Trty:	0	0	0
44. 8 NTrty:	0	0	0
45. 8 Trty:	0	0	0
47. 8A NTrty:	0	0	0
48. 8A Trty:	0	0	0
49. 8D NTrty:	0	0	0
50. 8D Trty:	0	0	0
62. Hood Canal NTrty:	0	0	0
63. Hood Canal Trty:	0	0	0
55. 10/11 NTrty:	0	0	0
56. 10/11 Trty:	0	0	0
57. 10A NTrty:	0	0	0
58. 10A Trty:	0	0	0
59. 10E NTrty:	0	0	0
60. 10E Trty:	0	0	0

65. 13+ NTrty:	0	0	0
66. 13+ Trty:	0	0	0
67. 13A Ntrty:	0	0	0
68. 13A Trty:	0	0	0
Out-of-Region net: NTrty	0	0	0
Out-of-Region net: Trty	0	0	0
(Out-of-Region computed as total net minus Local, from below)			
Local Term. Mar. Net: NTrty		0	0
Local Term Mar. Net: Trty		0	0

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

=====

TABLE 2D
12/09/21
10:42 AM

=====

TABLE 2E: CHINOOK
FRAM Run Number:
Run Description:

HCSF0 15	HCSF1 16	HC S/F F+Y	Jung/Elwha 17	Hoko 18	LANDED C. Marked	Time Step
115	0	115	0	6	1-3. Alaska	May-April
874	37	911	7	1	4-13. Cana	May-April
151	0	151	0	0	28-33. S. O	May-April
1,064	0	1,064	0	1	14,18,24. N	May-April
2,171	90	2,261	6	1	15,19. Trty I	May-April
55	13	69	0	0	16,20,25,27	May-April
68	1	69	0	0	39. Pgt Snd	May-April
0	0	0	0	0	34,40. Pgt S	May-April
0	0	0	0	0	43,46,51,54,6	
99	20	119	0	0		
					21,23,26. N	May-April
0	0	0	0	0	17,22. Trty	May-April
0	0	0	0	0	41. JDF NT	Jul-Sep ONI
0	0	0	0	0	42. JDF Trty	Jul-Sep ONI
0	0	0	0	0	35. SJI NTrty	Jul-Sep ONI
0	0	0	0	0	36. SJI Trty	Jul-Sep ONI
0	0	0	0	0	52. Pgt Snd	Jul-Sep ONI
0	0	0	0	0	53. 6B/9 Trt	Jul-Sep ONI
0	0	0	0	0		
					37. B'ham NTrty:	Jul-Sep ONI
0	0	0	0	0	B'ham Trty:	Jul-Sep ONI
0	0	0	0	0	44. 8 NTrty:	May-Sep
0	0	0	0	0	45. 8 Trty:	May-Sep
0	0	0	0	0	7. 8A NTrty:	Jul-Sep ONI
0	0	0	0	0	18. 8A Trty:	Jul-Sep ONI
0	0	0	0	0	9. 8D NTrty:	Jul-Dec
0	0	0	0	0	50. 8D Trty:	Jul-Dec
0	0	0	0	0	Canal NTrty:	Jul-Sep ONI
0	0	0	0	0	Canal Trty:	Jul-Sep ONI
0	0	0	0	0	10/11 NTrty:	Jul-Sep ONI
0	0	0	0	0	10/11 Trty:	Jul-Sep ONI
0	0	0	0	0	10A NTrty:	Jul-Sep ONI
0	0	0	0	0	8. 10A Trty:	Jul-Sep ONI
0	0	0	0	0	10E NTrty:	Jul-Sep ONI
0	0	0	0	0	10E Trty:	Jul-Sep ONI
0	0	0	0	0	13+ NTrty:	Jul-Sep ONI

0	0	0	0	0	6. 13+ Trty: Jul-Sep ONI
0	0	0	0	0	7. 13A Ntrty: Jul-Sep ONI
0	0	0	0	0	8. 13A Trty: Jul-Sep ONI
0	0	0	0	0	
					Out-of-Region net: NTrty
0	0	0	0	0	Out-of-Region net: Trty
0	0	0	0	0	for computations
					Local Term. Mar. Net: N
0	0	0	na	na	Local Term Mar. Net: Tr
0	0	0	na	na	
				none	=====

FISHERY IMPACTS SUMMARY - HIGHLIGHTS - LANDED CATCH STC=====

SLC-Chin3721_Final

SLC-Chin3721_Final

TruetoModel	NkSF	NkErly	SkSF0	SkSF1	Skag S/F	SkSP
Total	1	2	3	4	F+Y	5
6,374	8	11	10	0	10	0
13,083	408	940	13	0	13	43
11,318	10	0	0	0	0	0
8,837	145	21	1	0	1	0
11,205	684	302	4	0	4	30
2,375	31	34	0	0	0	0
217	11	0	0	0	0	1
561	27	0	0	0	0	1
1,64. Pgt Snd 8-13 Sport						
0	0	0	0	0	0	0
0	0	0	0	0	0	0

LY
LY
LY
LY
LY
LY
LY

LY
LY

LY
LY



LY
LY
LY
LY
LY
LY
LY
LY
LY
LY

LY
LY
LY

√

Trty
ty

=====

=====

SnSF0	SnSF1	Sno S/F	StSF	Tula	USPS0	UWAcc0
6	7	F+Y	8	9	10	11
0	1	1	0	13	0	0
112	166	278	10	1,436	718	0
0	0	0	0	0	45	0
16	3	20	0	0	585	0
45	26	71	7	596	1,192	0
0	0	0	0	115	125	0
5	0	5	0	23	57	0
0	0	0	0	1	188	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

=====

Version: 2.21Dec15						TABLE 2E
Tamm: #REF!						12/09/21
						10:42 AM
DSPS0	SPS1	WRSC	HCSF0	HCSF1	HC S/F	JDF
12	13	14	15	16	F+Y	17
0	0	0	128	0	128	0
537	5	0	930	35	965	8
61	2	0	119	0	119	0
279	7	0	895	0	895	0
1,357	14	0	2,309	92	2,401	7
0	1	0	58	13	72	0
34	1	0	75	1	76	0
205	17	0	99	21	120	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

=====

(Out-of-Region computed a

TABLE 2F: CHINOOK FISHERY IMPACTS SUMMARY - TOTAL MORT SOUTH PUGET SOUND - FRAM STOCK APPORTIONMENTS FROM T

	Total May-April AEQ Fishery-Related Mortality			
	USPS0	UWAcc0	DSPS0	SPS1
Marked				
Fishery Aggregate	10	11	12	13

Stock Break USPS 0s				
SPS Table UWAcc				
Used for all DSPS 0s				
SPS 1s				

1-3. Alaska	0	0	0	0
4-13. Canada	698	0	530	4
28-33. S. Of Falcon Ocea	49	0	64	3
14,18,24. NTrty N.Falc.	650	0	311	10
15,19. Trty N.Falc. Ocea	1,123	0	1,285	14
16,20,25,27. NTrty N.Flc	122	0	0	1
39. Pgt Snd Trty Troll	74	0	46	1
34. Pgt Snd 5 Sport	0	0	0	0
40 Pgt Snd 7 Sport	0	0	0	0
43,46,51,54,61,64. Pgt :	193	0	215	17
21,23,26. NTrty Non-Pg	0	0	0	0
17,22. Trty Non-Pgt Snd	0	0	0	0
41. JDF NTrty	0	0	0	0
42. JDF Trty	0	0	0	0
35. SJI NTrty	0	0	0	0
36. SJI Trty	0	0	0	0
52. Pgt Snd 6 Sport	0	0	0	0
53. 6B/9 Trty	0	0	0	0
37. B'ham NTrty:	0	0	0	0
38. B'ham Trty:	0	0	0	0
44. 8 NTrty:	0	0	0	0
45. 8 Trty:	0	0	0	0
47. 8A NTrty:	0	0	0	0
48. 8A Trty:	0	0	0	0
49. 8D NTrty:	0	0	0	0
50. 8D Trty:	0	0	0	0
62. Hood Canal NTrty:	0	0	0	0
63. Hood Canal Trty:	0	0	0	0
55. 10/11 NTrty:	0	0	0	0

56. 10/11 Trty: 0 0 0 0

 EXTREME TERMINAL I----- percent NT of stock-specific catch -----

Incl. NT sport if modelec USPS0 UWAcc0 DSPS0 SPS1
 10 11 12 13

Fingerling	10A	11.6%		11.6%	
UWAcc	10A		0.0%		
Yearling	10A				10.5%
Fingerling	10E	7.8%		7.8%	
UWAcc	10E		0.0%		
Yearling	10E				7.5%
Fingerling	13+	0.0%		0.0%	
UWAcc	13+		0.0%		
Yearling	13+				0.0%
Fingerling	13A	0.0%		0.0%	
UWAcc	13A		0.0%		
Yearling	13A				0.0%

 57. 10A NTrty: **fing only** 0 0 0 0
 58. 10A Trty: **fing only** 0 0 0 0
 59. 10E NTrty: **fing only** 0 0 0 0
 60. 10E Trty: **fing only** 0 0 0 0
 65. 13+ NTrty: **fing only** 0 0 0 0
 66. 13+ Trty: **fing only** 0 0 0 0
 67. 13A Ntrty: **fing only** 0 0 0 0
 68. 13A Trty: **fing only** 0 0 0 0

RECAPITULATION FOFLOCAL = |1,10A,10E,13,13A

Out-of-Region net: NTrty 0 0 0 0

Out-of-Region net: Trty 0 0 0 0

is total net minus Local, from below)

Local Term. Mar. Net: N 0 0 0 0

Local Term Mar. Net: Tr 0 0 0 0

Local fishery is ---->>>>>>> 0 0 0 0

=====

QUALITY STOCK-SPECIFIC IMPACTS APPORTIONED TO SOUTH SOUND STOCKS

TABLES 14E AND 14F

=SPSUnmrkd!BL14 =SPSUnmrkd!BL16

Grover Misc 10	Lk. Wa Hatchery	Lk. Wa Natural	Green Hatchery	Green Natural	Area 10E Gorst	Puyallup Hatchery
0.026014	0.081190	0.000000	0.372206	0.000000	0.155179	0.365411

0	0	0	0	0	0	0
18	57	0	260	0	108	255
1	4	0	18	0	8	18
17	53	0	242	0	101	238
29	91	0	418	0	174	411
3	10	0	45	0	19	44
2	6	0	28	0	12	27
0	0	0	0	0	0	0
0	0	0	0	0	0	0
5	16	0	72	0	30	70
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0 0 0 0 0 0 0

APPORTIONMENT OF EXTREME TERMINAL "NET", from Table 14H (same method)

Grovers Lk. Wa Lk. Wa Green Green Area 10E Puyallup
Misc 10 Hatchery Natural Hatchery Natural Gorst Hatchery



0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0

0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A
=====

=SPSUnmrkd!BL20

Puyallup Natural	Minter Hatchery	Carr Inlet Natural	Chambers Hatchery	Nisqually Hatchery	Nisqually Natural	McAllister Hatchery
---------------------	--------------------	-----------------------	----------------------	-----------------------	----------------------	------------------------

0.000000

0.276388 0.000000 0.026493 0.476034 0.000000 0.013980

0	0	0	0	0	0	0
0	146	0	14	252	0	7
0	18	0	2	30	0	1
0	86	0	8	148	0	4
0	355	0	34	612	0	18
0	0	0	0	0	0	0
0	13	0	1	22	0	1
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	60	0	6	102	0	3
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0 0 0 0 0 0 0

as Table 14F except applied to time steps 3 & 4 total mortality)

Puyallup Minter Carr Inlet Chambers Nisqually Nisqually McAllister
Natural Hatchery Natural Hatchery Hatchery Natural Hatchery



0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0

0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0.00 0 0 0 0 0
0 0 0 0 0 0 0

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A
=====

0

0

0

McAllister Natural	Deschutes Hatchery	Misc 13D-K Natural
-----------------------	-----------------------	-----------------------



0
0
0
0
0
0
0
0
0

0
0
0
0
0
0
0
0
0

0
0
0
0
0
0
0
0
0

0
0

0
0

0
0

0
0

0
0

0
0

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A
=====

TABLE 2D: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - TOTAL AEQ FISHERY-RELATED MORTALITY STOCK-SPECIFIC IMPACTS

FRAM Run Number:	SLC-Chin3721_Final	Version: 2.21Dec15									
Run Description:	SLC-Chin3721_Final	Tamm: #REF!									
Total May-April AEQ Fishery-Related Mort	TruetoModel	NkSF	NkErly	SkSF0	SkSF1	Skag S/F	Skag SF0	Skag SF1	Skag S/F	SkSP	SkSP
Unmarked Only	Total	1	2	3	4	0+1 total	Natural	Natural	0+1 Nat	5	Natural
1-3. Alaska	12,798	0	109	204	7	210	204	#REF!	#REF!	1	1
4-13. Canada	1,579	0	96	30	1	31	30	#REF!	#REF!	16	9
28-33. S. Of Falcon Ocean:	23,480	0	0	0	0	0	0	#REF!	#REF!	0	0
14,18,24. NTrty N.Falc. Ocean Troll:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
15,19. Trty N.Falc. Ocean Troll:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
16,20,25,27. NTrty N.Flc. Ocean & Buoy10 S	0	0	0	0	0	0	0	#REF!	#REF!	0	0
39. Pgt Snd Trty Troll	1,034	0	55	35	1	36	35	#REF!	#REF!	14	8
34. Pgt Snd 5 Sport	291	0	56	0	0	0	0	#REF!	#REF!	8	4
40 Pgt Snd 7 Sport	0	0	0	0	0	0	0	#REF!	#REF!	0	0
43,46,51,54,61,64. Pgt Snd 8-13 Sport	330	0	1	0	0	0	0	#REF!	#REF!	4	2
21,23,26. NTrty Non-Pgt Snd Net	0	0	0	0	0	0	0	#REF!	#REF!	0	0
17,22. Trty Non-Pgt Snd Net	0	0	0	0	0	0	0	#REF!	#REF!	0	0
41. JDF NTrty	0	0	0	0	0	0	0	#REF!	#REF!	0	0
42. JDF Trty	7	0	0	0	0	0	0	#REF!	#REF!	0	0
35. SJI NTrty	157	0	0	0	0	0	0	#REF!	#REF!	0	0
36. SJI Trty	28	0	0	0	0	0	0	#REF!	#REF!	0	0
52. Pgt Snd 6 Sport	0	0	0	0	0	0	0	#REF!	#REF!	0	0
53. 6B/9 Trty	3	0	0	0	0	0	0	#REF!	#REF!	0	0
37. B'ham NTrty:	4	0	0	0	0	0	0	#REF!	#REF!	0	0
38. B'ham Trty:	3	0	0	0	0	0	0	#REF!	#REF!	0	0
44. 8 NTrty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
45. 8 Trty:	1	0	0	1	0	1	1	#REF!	#REF!	0	0
47. 8A NTrty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
48. 8A Trty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
49. 8D NTrty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
50. 8D Trty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
62. Hood Canal NTrty:	5	0	0	0	0	0	0	#REF!	#REF!	0	0
63. Hood Canal Trty:	4	0	0	0	0	0	0	#REF!	#REF!	0	0
55. 10/11 NTrty:	42	0	0	0	0	0	0	#REF!	#REF!	4	2
56. 10/11 Trty:	13	0	0	0	0	0	0	#REF!	#REF!	1	1
57. 10A NTrty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
58. 10A Trty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
59. 10E NTrty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
60. 10E Trty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
65. 13+ NTrty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
66. 13+ Trty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
67. 13A NTrty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
68. 13A Trty:	2	0	0	0	0	0	0	#REF!	#REF!	0	0
Out-of-Region net, NTrty	207	0	0	0	0	0	0	#REF!	#REF!	4	2

Out-of-Region net: Trty	61	0	0	0	0	0	0	#REF!	#REF!	1	1
(Out-of-Region computed as total net minus Local, from below)											
Local Term. Mar. Net: NTrty		0	0	0	0	0	0	#REF!	#REF!	0	0
Local Term Mar. Net: Trty		0	0	1	0	1	1	#REF!	#REF!	0	0
Local fishery is ---->>>>>>>>>		Bham	Bham	8	8					8	8
=====		=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

Note: table 14D corrected 29Sep98; fisheries were in incorrect order (Hood Canal was labeled as 10/11, 10/11 as 10A, 10A as 10E, 10E as Hood Canal)

^ 12/9/2021 +

1	1	1	1	1	1	0	1	1	0	0	0	3	2	0
0	0	0	0	0	0	0	0	7	0	1	0	0	3	0
0	0	0	0	0	0	0	0	2	0	1	0	0	2	0
8A,8D	8A,8D					8A,8D	8A,8D	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	13A	HdCnl	HdCnl

^ 12/9/2021 +

=====
 TABLE 2D
 12/09/21
 10:42 AM

TABLE 2E: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - LANDED CATCH STOC

FRAM Run Number: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final

HC S/F F+Y	Elwha/Dung 17	Hoko 18	LANDED CATCH UNMARKED ON	Time Step	TruetoModel Total	NkSF 1	NkErly 2	SkSF0 3	SkSF1 4	Skag S/F F+Y	SkSP 5	SnSF0 6	SnSF1 7	Sno S/F F+Y
2	22	62	1-3. Alaska	May-April	11,876	0	108	220	7	227	1	0	0	0
18	57	92	4-13. Canada	May-April	1,423	0	103	31	1	32	17	28	2	30
0	0	0	28-33. S. Of Falco	May-April	19,611	0	0	0	0	0	0	0	0	0
0	0	0	14,18,24. NTrty N.	May-April	0	0	0	0	0	0	0	0	0	0
0	0	0	15,19. Trty N.Falc	May-April	0	0	0	0	0	0	0	0	0	0
0	0	0	16,20,25,27. NTrty	May-April	0	0	0	0	0	0	0	0	0	0
12	28	0	39. Pgt Snd Trty T	May-April	677	0	41	37	1	38	15	16	2	18
8	25	0	34,40. Pgt Snd 5,6	May-April	9	0	1	0	0	0	1	0	0	1
0	0	0	43,46,51,54,61,64. Pgt Snd 8-13 Sport											
25	5	0												
0	0	0	21,23,26. NTrty N.	May-April	0	0	0	0	0	0	0	0	0	0
0	0	0	17,22. Trty Non-F	May-April	0	0	0	0	0	0	0	0	0	0
0	0	0	41. JDF NTrty	Jul-Sep ONLY										
0	0	0	42. JDF Trty	Jul-Sep ONLY										
0	0	0	35. SJI NTrty	Jul-Sep ONLY										
0	0	0	36. SJI Trty	Jul-Sep ONLY										
0	0	0	52. Pgt Snd 6 Spo	Jul-Sep ONLY										
0	0	0	53. 6B/9 Trty	Jul-Sep ONLY										
0	0	0												
0	0	0	37. B'ham NTrty:	Jul-Sep ONLY										
0	0	0	38. B'ham Trty:	Jul-Sep ONLY										
0	0	0	44. 8 NTrty:	May-Sep										
0	0	0	45. 8 Trty:	May-Sep										
0	0	0	47. 8A NTrty:	Jul-Sep ONLY										
0	0	0	48. 8A Trty:	Jul-Sep ONLY										
0	0	0	49. 8D NTrty:	Jul-Dec										
0	0	0	50. 8D Trty:	Jul-Dec										
0	0	0	Hood Canal NTrty:	Jul-Sep ONLY										
3	0	0	Hood Canal Trty:	Jul-Sep ONLY										
2	0	0	55. 10/11 NTrty:	Jul-Sep ONLY										
3	0	0	56. 10/11 Trty:	Jul-Sep ONLY										
1	0	0	57. 10A NTrty:	Jul-Sep ONLY										
0	0	0	58. 10A Trty:	Jul-Sep ONLY										
0	0	0	59. 10E NTrty:	Jul-Sep ONLY										
0	0	0	60. 10E Trty:	Jul-Sep ONLY										
0	0	0	65. 13+ NTrty:	Jul-Sep ONLY										
0	0	0	66. 13+ Trty:	Jul-Sep ONLY										
0	0	0	67. 13A Ntrty:	Jul-Sep ONLY										
0	0	0	68. 13A Trty:	Jul-Sep ONLY										
0	0	0												
3	0	0	Out-of-Region net: NTrty											
^ 12/9/2021 +	0	0	Out-of-Region net: Trty											

2 0 0 ality table for computations
Local Term. Mar. Net: NTrty
3 na na Local Term Mar. Net: Trty
2 na na

===== none none =====
=====

^ 12/9/2021 +

Version: 2.21Dec15
Tamm: #REF!

TABLE 2E
12/09/21
10:42 AM

StSF 8	Tula 9	USPS0 10	UWAcc0 11	DSPS0 12	SPS1 13	WRSC 14	HCSF0 15	HCSF1 16	HC S/F F+Y	JDF 17
1	0	6	0	0	0	0	2	0	2	22
5	19	29	0	3	0	28	18	0	18	59
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
3	8	72	0	15	0	7	11	0	11	25
0	0	1	0	0	0	2	1	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

TABLE 2F: CHINOOK FISHERY III
SOUTH PUGET SOUND - FRAM ST

	Total May-1
UNMARKED ONLY	USPS0
Fishery Aggregate	10
Stock Break USPS 0s	
SPS Table UWAcc	
Used for all DSPS 0s	
SPS 1s	
1-3. Alaska	6
4-13. Canada	28
28-33. S. Of Falcon Oce	0
14,18,24. NTrty N.Falc.	0
15,19. Trty N.Falc. Oce	0
16,20,25,27. NTrty N.Flc	0
39. Pgt Snd Trty Troll	71
34. Pgt Snd 5 Sport	14
40 Pgt Snd 7 Sport	0
43,46,51,54,61,64. Pgt S	51
21,23,26. NTrty Non-Pg	0
17,22. Trty Non-Pgt Sn	0
41. JDF NTrty	0
42. JDF Trty	1
35. SJI NTrty	0
36. SJI Trty	0
52. Pgt Snd 6 Sport	0
53. 6B/9 Trty	0
37. B'ham NTrty:	0
38. B'ham Trty:	0
44. 8 NTrty:	0
45. 8 Trty:	0
47. 8A NTrty:	0
48. 8A Trty:	0
49. 8D NTrty:	0
50. 8D Trty:	0
62. Hood Canal NTrty:	0
63. Hood Canal Trty:	0
55. 10/11 NTrty:	7
56. 10/11 Trty:	2
EXTREME TERMINAL I	per
Incl. NT sport if modelec	USPS0
	10

^ 12/9/2021 +

=====			
	Fingerling	10A	11.6%
	UWAcc	10A	
	Yearling	10A	
	Fingerling	10E	7.8%
	UWAcc	10E	
	Yearling	10E	
	Fingerling	13+	0.0%
	UWAcc	13+	
	Yearling	13+	
	Fingerling	13A	0.0%
	UWAcc	13A	
	Yearling	13A	

57.	10A NTrty:	finger only	0
58.	10A Trty:	finger only	0
59.	10E NTrty:	finger only	0
60.	10E Trty:	finger only	0
65.	13+ NTrty:	finger only	0
66.	13+ Trty:	finger only	0
67.	13A Ntrty:	finger only	0
68.	13A Trty:	finger only	0

RECAPITULATION FOF LOCAL =			
	Out-of-Region net: NTrty		0
	Out-of-Region net: Trty		1
(Out-of-Region computed as total net minus Local, from below)			
	Local Term. Mar. Net: N		7
	Local Term Mar. Net: Tr		2
Local fishery is	----->	10/1,10A,10E,13,13A	
=====			

^ 12/9/2021 +

IMPACTS SUMMARY - TOTAL MORTALITY STOCK-SPECIFIC IMPACTS APPORTIONED TO SOUTH SOUND STOCKS

STOCK APPORTIONMENTS FROM TABLES 14E AND 14F

=====

April AEQ Fishery-Related Mortality				=SPSUnmrkd!BL14		=SPSUnmrkd!BL16		=SPSUnmrkd!BL20					
UWAcc0	DSPOS0	SPS1 Grovers	Lk. Wa	Lk. Wa	Green	Green	Area 10E	Puyallup	Puyallup	Minter	Carr Inlet	Chambers	Nisqually
11	12	13 Misc 10	Hatchery	Natural	Hatchery	Natural	Gorst	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery
		0.085041	0.008226	0.061985	0.298230	0.328147	0.069640	0.032571	0.116160				
										0.029879	0.000000	0.002322	0.516075
0	0	0	0	0	0	2	2	0	0	1	0	0	0
0	3	0	2	0	2	8	9	2	1	3	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	15	0	6	1	4	21	23	5	2	8	0	0	8
0	1	0	1	0	1	4	5	1	0	2	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	13	0	4	0	3	15	17	4	2	6	0	0	7
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	1	0	0	2	2	0	0	1	0	0	1
0	0	0	0	0	0	1	1	0	0	0	0	0	0

percent NT of stock-specific catch ----- APPORTIONMENT OF EXTREME TERMINAL "NET", from Table 14H (same method as Table 14F except applied to time steps 3 & 4 total mortality)

UWAcc0	DSPOS0	SPS1 Grovers	Lk. Wa	Lk. Wa	Green	Green	Area 10E	Puyallup	Puyallup	Minter	Carr Inlet	Chambers	Nisqually
11	12	13 Misc 10	Hatchery	Natural	Hatchery	Natural	Gorst	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery

^ 12/9/2021 +



0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

11,10A,10E,13,13A														
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	1	0	0	2	2	0	0	1	0.03	0	0	1
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A

^ 12/9/2021 +

```

=====
Version: 2.21Dec15           12/09/21
Tamm:      #REF!           10:42 AM
           =SPSunmrk!BL27
Nisqually  McAllister  McAllister  Deschutes  Misc 13D-K
Natural     Hatchery    Natural     Hatchery    Natural
-----

```

```

0.406700  0.001360  0.000000  0.043664  0.000000
-----

```

```

0      0      0      0      0
1      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
6      0      0      1      0
0      0      0      0      0
0      0      0      0      0
5      0      0      1      0

0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
0      0      0      0      0
-----

```

```

y)
Nisqually  McAllister  McAllister  Deschutes  Misc 13D-K
Natural     Hatchery    Natural     Hatchery    Natural
-----

```

^ 12/9/2021 +



0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A
=====

^ 12/9/2021 +

TABLE 2D: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - TOTAL AEQ FISHERY-RELATED MORTALITY STOCK-SPECIFIC IMPACTS

FRAM Run Number:	SLC-Chin3721_Final	Version: 2.21Dec15									
Run Description:	SLC-Chin3721_Final	Tamm: #REF!									
Total May-April AEQ Fishery-Related Mort	TruetoModel	NkSF	NkErly	SkSF0	SkSF1	Skag S/F	Skag SF0	Skag SF1	Skag S/F	SkSP	SkSP
Unmarked Only	Total	1	2	3	4	0+1 total	Natural	Natural	0+1 Nat	5	Natural
1-3. Alaska	141,006	0	92	252	12	264	251	#REF!	#REF!	9	5
4-13. Canada	259,781	7	2,127	1,966	94	2,060	1,965	#REF!	#REF!	323	186
28-33. S. Of Falcon Ocean:	56,471	0	0	0	0	0	0	#REF!	#REF!	0	0
14,18,24. NTrty N.Falc. Ocean Troll:	13,484	1	0	0	0	0	0	#REF!	#REF!	0	0
15,19. Trty N.Falc. Ocean Troll:	13,158	2	89	22	1	23	22	#REF!	#REF!	13	7
16,20,25,27. NTrty N.Flc. Ocean & Buoy10 S	13,813	1	26	54	2	56	54	#REF!	#REF!	2	1
39. Pgt Snd Trty Troll	558	0	7	6	0	7	6	#REF!	#REF!	2	1
34. Pgt Snd 5 Sport	3,214	0	42	30	1	31	30	#REF!	#REF!	13	8
40 Pgt Snd 7 Sport	578	0	13	59	2	60	59	#REF!	#REF!	3	2
43,46,51,54,61,64. Pgt Snd 8-13 Sport	1,693	0	20	51	1	52	51	#REF!	#REF!	15	9
21,23,26. NTrty Non-Pgt Snd Net	1,000	0	0	0	0	0	0	#REF!	#REF!	0	0
17,22. Trty Non-Pgt Snd Net	698	0	0	0	0	0	0	#REF!	#REF!	0	0
41. JDF NTrty	0	0	0	0	0	0	0	#REF!	#REF!	0	0
42. JDF Trty	37	0	1	0	0	0	0	#REF!	#REF!	0	0
35. SJI NTrty	3,028	0	0	0	0	0	0	#REF!	#REF!	2	1
36. SJI Trty	4,349	1	0	0	0	0	0	#REF!	#REF!	3	2
52. Pgt Snd 6 Sport	424	0	2	44	1	45	44	#REF!	#REF!	4	2
53. 6B/9 Trty	81	0	1	7	0	8	7	#REF!	#REF!	1	0
37. B'ham NTrty:	961	8	0	47	2	48	47	#REF!	#REF!	3	2
38. B'ham Trty:	1,650	18	7	42	1	44	42	#REF!	#REF!	17	10
44. 8 NTrty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
45. 8 Trty:	39	0	0	35	1	37	35	#REF!	#REF!	2	1
47. 8A NTrty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
48. 8A Trty:	51	0	0	0	0	0	0	#REF!	#REF!	0	0
49. 8D NTrty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
50. 8D Trty:	324	0	0	0	0	0	0	#REF!	#REF!	0	0
62. Hood Canal NTrty:	112	0	0	0	0	0	0	#REF!	#REF!	0	0
63. Hood Canal Trty:	422	0	0	0	0	0	0	#REF!	#REF!	0	0
55. 10/11 NTrty:	37	0	0	1	0	1	1	#REF!	#REF!	0	0
56. 10/11 Trty:	30	0	0	1	0	1	1	#REF!	#REF!	0	0
57. 10A NTrty:	57	0	0	0	0	0	0	#REF!	#REF!	0	0
58. 10A Trty:	395	0	0	0	0	0	0	#REF!	#REF!	0	0
59. 10E NTrty:	32	0	0	0	0	0	0	#REF!	#REF!	0	0
60. 10E Trty:	807	0	0	0	0	0	0	#REF!	#REF!	0	0
65. 13+ NTrty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
66. 13+ Trty:	104	0	0	0	0	0	0	#REF!	#REF!	0	0
67. 13A NTrty:	0	0	0	0	0	0	0	#REF!	#REF!	0	0
68. 13A Trty:	153	0	0	0	0	0	0	#REF!	#REF!	0	0
Out-of-Region net, NTrty	5,228	0	0	48	2	49	48	#REF!	#REF!	5	3

12/9/2021

Out-of-Region net: Trty	9,140	1	1	51	2	53	51	#REF!	#REF!	22	12
(Out-of-Region computed as total net minus Local, from below)											
Local Term. Mar. Net: NTrty		8	0	0	0	0	0	#REF!	#REF!	0	0
Local Term Mar. Net: Trty		18	7	35	1	37	35	#REF!	#REF!	2	1
Local fishery is ---->>>>>>>>>		Bham	Bham	8	8					8	

=====
Note: table 14D corrected 29Sep98; fisheries were in incorrect order (Hood Canal was labeled as 10/11, 10/11 as 10A, 10A as 10E, 10E as Hood Canal)
=====

^ 12/9/2021 +

SnSF0 6	SnSF1 7	Sno S/F 0+1 total	Sn SF 0 Natural	SN SF 1 Natural	Sno S/F 0+1 Nat	StSF 8	Tula 9	USPS0 10	UWAcc0 11	DSPO 12	SPS1 13	WRSC 14	HCSF0 15	HCSF1 16
10	1	11	7	1	9	2	5	13	0	2	0	10	12	0
224	62	287	170	61	231	29	186	1,355	0	143	0	66	343	0
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
0	1	1	0	1	1	0	0	35	0	2	0	0	12	0
0	8	8	0	8	8	0	10	207	0	45	0	11	80	0
6	5	11	4	5	9	1	2	122	0	28	0	18	59	0
4	0	4	3	0	3	0	2	26	0	5	0	0	6	0
19	1	20	14	1	15	2	13	141	0	31	0	0	24	0
7	1	8	5	1	6	2	2	17	0	5	0	3	8	0
27	9	36	20	9	29	4	57	411	0	162	1	25	125	0
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	0	1	0	1	4	0	1	0	0	1	0
0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
2	0	2	2	0	2	0	7	77	0	6	0	0	41	0
2	1	3	1	1	2	0	1	28	0	7	0	0	7	0
0	1	1	0	1	1	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	0	9	0	0	4	0	0	4	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	20	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	2	14	9	2	11	3	306	1	0	0	0	0	0	0
0	0	0	0	0	0	0	0	3	0	0	0	0	106	0
0	0	0	0	0	0	0	0	11	0	0	0	0	401	0
1	1	1	1	1	1	0	0	15	0	3	0	0	2	0
1	0	1	0	0	1	0	0	12	0	3	0	0	2	0
1	0	1	1	0	1	0	0	29	0	1	0	0	1	0
9	0	9	7	0	7	0	0	216	0	9	0	3	6	0
0	0	0	0	0	0	0	0	32	0	0	0	0	0	0
0	0	0	0	0	0	0	0	804	0	2	0	0	2	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	85	0	0	10	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	17	0	120	0	0	16	0
2	2	3	1	2	3	0	0	3	0	1	0	2	4	0

^ 12/9/2021 +

13	2	14	10	2	11	0	10	65	0	11	0	6	48	0
0	0	0	0	0	0	0	0	76	0	5	0	0	106	0
12	2	14	9	2	11	3	327	1,050	0	218	1	0	401	0
8A,8D	8A,8D					8A,8D	8A,8D	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	10/11,10A,10E,13,13A	13A	HdCnl	HdCnl
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

^ 12/9/2021 +

=====
 TABLE 2D
 12/09/21
 10:42 AM

TABLE 2E: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - LANDED CATCH STC

FRAM Run Number: SLC-Chin3721_Final
 Run Description: SLC-Chin3721_Final

HC S/F F+Y	Dungeness 17	Hoko 18	LANDED C. UNMARKE	Time Step	TruetoModel Total	NkSF 1	NkErlly 2	SkSF0 3	SkSF1 4	Skag S/F F+Y	SkSP 5	SnSF0 6	SnSF1 7	Sno S/F F+Y
12	37	52	1-3. Alaska	May-April	115,200	0	80	226	10	236	5	8	1	9
343	416	89	4-13. Canac	May-April	228,879	7	2,215	1,952	91	2,042	342	231	68	299
1	0	0	28-33. S. Ol	May-April	47,523	0	0	0	0	0	0	0	0	0
12	0	4	14,18,24. N	May-April	9,882	1	0	0	0	0	0	0	1	1
80	4	5	15,19. Trty I	May-April	11,918	2	88	24	1	25	14	0	9	9
59	10	2	16,20,25,27	May-April	12,219	1	26	53	2	54	2	6	6	12
6	2	0	39. Pgt Snd	May-April	154	0	2	4	0	5	1	3	0	3
24	11	2	34,40. Pgt S	May-April	127	0	1	7	0	7	1	3	1	4
8	5	0	43,46,51,54,61,64. Pgt Snd 8-13 Sport											
125	28	0												
			21,23,26. N	May-April	955	0	0	0	0	0	0	0	0	0
1	0	0	17,22. Trty	May-April	678	0	0	0	0	0	0	0	0	0
0	0	0	41. JDF NTI	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
0	0	0	42. JDF Trt	Jul-Sep ON	36	0	1	1	0	1	0	1	0	2
1	2	0	35. SJI NTrt	Jul-Sep ON	2,998	0	0	0	0	0	3	0	0	0
0	0	0	36. SJI Trty	Jul-Sep ON	4,305	1	0	0	0	0	4	0	0	0
0	0	0	52. Pgt Snd	Jul-Sep ON	14	0	0	2	0	2	0	0	0	0
41	14	0	53. 6B/9 Trt	Jul-Sep ON	79	0	1	8	0	8	1	2	1	3
7	1	0												
			37. B'ham NTrty	Jul-Sep ON	943	8	0	46	2	47	3	0	1	1
0	0	0	B'ham Trty	Jul-Sep ON	1,634	18	7	42	1	43	17	0	0	0
4	0	0	44. 8 NTrty	May-Sep										
0	0	0	45. 8 Trty	May-Sep										
0	0	0	7. 8A NTrty	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
0	0	0	18. 8A Trty	Jul-Sep ON	50	0	0	0	0	0	0	0	0	0
0	9	0	3. 8D NTrty	Jul-Dec										
0	0	0	50. 8D Trty	Jul-Dec										
0	0	0	Canal NTrty	Jul-Sep ON	106	0	0	0	0	0	0	0	0	0
106	0	0	Canal Trty	Jul-Sep ON	414	0	0	0	0	0	0	0	0	0
401	0	0	10/11 NTrty	Jul-Sep ON	36	0	0	1	0	1	0	1	1	1
2	0	0	10/11 Trty	Jul-Sep ON	29	0	0	1	0	1	0	1	0	1
2	0	0	10A NTrty	Jul-Sep ON	38	0	0	0	0	0	0	1	0	1
1	0	0	8. 10A Trty	Jul-Sep ON	387	0	0	0	0	0	0	9	0	9
6	0	0	10E NTrty	Jul-Sep ON	1	0	0	0	0	0	0	0	0	0
0	0	0	10E Trty	Jul-Sep ON	792	0	0	0	0	0	0	0	0	0
2	0	0	13+ NTrty	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
0	0	0	16. 13+ Trty	Jul-Sep ON	102	0	0	0	0	0	0	0	0	0
10	0	0	13A NTrty	Jul-Sep ON	0	0	0	0	0	0	0	0	0	0
0	0	0	8. 13A Trty	Jul-Sep ON	150	0	0	0	0	0	0	0	0	0
16	0	0												
			Out-of-Region net: NTrty											
			Out-of-Region net: Trty											
4	0	0												
^ 12/9/2021 +														

48	12	0	for computations
			Local Term. Mar. Net: NTrty
106	na	na	Local Term Mar. Net: Trty
401	na	na	

=====

none none

=====

^ 12/9/2021 +

Version: 2.21Dec15
Tamm: #REF!

TABLE 2E
12/09/21
10:42 AM

TABLE 2F: CHINOOK FISHERY IM
SOUTH PUGET SOUND - FRAM ST

StSF 8	Tula 9	USPS0 10	UWAcc0 11	DSPOS0 12	SPS1 13	WRSC 14	HCSF0 15	HCSF1 16	HC S/F F+Y	JDF 17
2	3	12	0	1	0	5	6	0	6	29
30	204	1,380	0	132	0	70	332	0	332	439
0	0	0	0	0	0	0	1	0	1	0
0	0	32	0	2	0	0	10	0	10	0
0	10	208	0	44	0	11	79	0	79	4
1	2	121	0	27	0	20	57	0	57	11
0	1	10	0	2	0	0	5	0	5	1
0	28	19	0	6	0	1	8	0	8	1
0	0	0	0	0	0	0	1	0	1	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	1	5	0	1	0	0	1	0	1	2
0	0	0	0	0	0	3	0	0	0	0
0	0	0	0	0	0	4	0	0	0	0
0	0	3	0	0	0	0	1	0	1	0
0	1	30	0	7	0	0	8	0	8	1
0	0	0	0	1	0	0	0	0	0	0
0	9	0	0	4	0	0	4	0	4	0
0	0	0	0	0	0	0	0	0	0	0
1	20	20	0	0	0	0	0	0	0	9
0	0	3	0	0	0	0	101	0	101	0
0	0	10	0	0	0	0	393	0	393	0
0	0	15	0	3	0	0	2	0	2	0
0	0	12	0	3	0	0	2	0	2	0
0	0	21	0	1	0	0	1	0	1	0
0	0	212	0	9	0	3	6	0	6	0
0	0	1	0	0	0	0	0	0	0	0
0	0	788	0	2	0	0	2	0	2	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	83	0	0	9	0	9	0
0	0	0	0	0	0	0	0	0	0	0
0	0	17	0	118	0	0	16	0	16	0

	Total May-1
USPS0	10
Stock Break USPS 0s	
SPS Table UWAcc	
Used for all DSPOS 0s	
SPS 1s	
1-3. Alaska	13
4-13. Canada	1,355
28-33. S. Of Falcon Oce	0
14,18,24. NTrty N.Falc.	35
15,19. Trty N.Falc. Oce	207
16,20,25,27. NTrty N.Flc	122
39. Pgt Snd Trty Troll	26
34. Pgt Snd 5 Sport	141
40 Pgt Snd 7 Sport	17
43,46,51,54,61,64. Pgt S	411
21,23,26. NTrty Non-Pgt	0
17,22. Trty Non-Pgt Snd	0
41. JDF NTrty	0
42. JDF Trty	4
35. SJI NTrty	0
36. SJI Trty	0
52. Pgt Snd 6 Sport	77
53. 6B/9 Trty	28
37. B'ham NTrty:	0
38. B'ham Trty:	0
44. 8 NTrty:	0
45. 8 Trty:	0
47. 8A NTrty:	0
48. 8A Trty:	21
49. 8D NTrty:	0
50. 8D Trty:	1
62. Hood Canal NTrty:	3
63. Hood Canal Trty:	11
55. 10/11 NTrty:	15
56. 10/11 Trty:	12
EXTREME TERMINAL I	per
Incl. NT sport if modelec	USPS0
	10

^ 12/9/2021 +

Stocks:

=====

Fingerling	10A	11.6%
UWAcc	10A	
Yearling	10A	
Fingerling	10E	7.8%
UWAcc	10E	
Yearling	10E	
Fingerling	13+	0.0%
UWAcc	13+	
Yearling	13+	
Fingerling	13A	0.0%
UWAcc	13A	
Yearling	13A	

57. 10A NTrty:	fig only	29
58. 10A Trty:	fig only	216
59. 10E NTrty:	fig only	32
60. 10E Trty:	fig only	804
65. 13+ NTrty:	fig only	0
66. 13+ Trty:	fig only	0
67. 13A Ntrty:	fig only	0
68. 13A Trty:	fig only	17

RECAPITULATION FOF LOCAL =

Out-of-Region net: NTrty:	3
Out-of-Region net: Trty	65

(Out-of-Region computed as total net minus Local, from below)

Local Term. Mar. Net: N	76
Local Term Mar. Net: Tr	1,050

Local fishery is ---->>>>>>>> 10/1,10A,10E,13,13A

=====

IMPACTS SUMMARY - TOTAL MORTALITY STOCK-SPECIFIC IMPACTS APPORTIONED TO SOUTH SOUND STOCKS

STOCK APPORTIONMENTS FROM TABLES 14E AND 14F

=====

April AEQ Fishery-Related Mortality														
UWAcc0	DSPS0	SPS1 Grovers	Lk. Wa	Lk. Wa	Green	Green	Area 10E	Puyallup	Puyallup	=SPSUnmrkd!BL20				
11	12	13 Misc 10	Hatchery	Natural	Hatchery	Natural	Gorst	Hatchery	Natural	Minter Hatchery	Carr Inlet Natural	Chambers Hatchery	Nisqually Hatchery	
			0.085041	0.008226	0.061985	0.298230	0.328147	0.069640	0.032571	0.116160				
											0.029879	0.000000	0.002322	0.516075
0	2	0	1	0	1	4	4	1	0	2	0	0	0	1
0	143	0	115	11	84	404	445	94	44	157	4	0	0	74
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	3	0	2	10	11	2	1	4	0	0	0	1
0	45	0	18	2	13	62	68	14	7	24	1	0	0	23
0	28	0	10	1	8	36	40	8	4	14	1	0	0	14
0	5	0	2	0	2	8	8	2	1	3	0	0	0	3
0	31	0	12	1	9	42	46	10	5	16	1	0	0	16
0	5	0	1	0	1	5	6	1	1	2	0	0	0	3
0	162	1	35	3	25	122	135	29	13	48	5	0	0	84
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	1	1	0	0	1	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	6	0	7	1	5	23	25	5	3	9	0	0	0	3
0	7	0	2	0	2	8	9	2	1	3	0	0	0	4
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	0	1	6	7	1	1	2	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
0	0	0	1	0	1	3	3	1	0	1	0	0	0	0
0	3	0	1	0	1	5	5	1	1	2	0	0	0	2
0	3	0	1	0	1	4	4	1	0	1	0	0	0	1

percent NT of stock-specific catch ----- APPORTIONMENT OF EXTREME TERMINAL "NET", from Table 14H (same method as Table 14F except applied to time steps 3 & 4 total mortality)

UWAcc0	DSPS0	SPS1 Grovers	Lk. Wa	Lk. Wa	Green	Green	Area 10E	Puyallup	Puyallup	Minter	Carr Inlet	Chambers	Nisqually
11	12	13 Misc 10	Hatchery	Natural	Hatchery	Natural	Gorst	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery

^ 12/9/2021 +



0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
0	9	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	85	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	120	0	0	0	0	0	0	0	0	0	0	0	0	0

11,10A,10E,13,13A														
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0
0	11	0	6	1	4	19	21	5	2	8	0	0	0	6
0	5	0	1	0	1	5	5	1	1	2	0.10	0	0	2
0	218	1	1	0	1	4	4	1	0	1	0	0	0	1

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A

^ 12/9/2021 +

=====
 Version: 2.21Dec15
 Tamm: #REF!
 Nisqually Natural
 McAllister Hatchery
 McAllister Natural
 Deschutes Hatchery
 Misc 13D-K Natural
 =SPSUnmrkd!BL27
TABLE 2F
 12/09/21
 10:42 AM

0.406700 0.001360 0.000000 0.043664 0.000000

1	0	0	0	0
58	0	0	6	0
0	0	0	0	0
1	0	0	0	0
18	0	0	2	0
11	0	0	1	0
2	0	0	0	0
12	0	0	1	0
2	0	0	0	0
66	0	0	7	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
3	0	0	0	0
3	0	0	0	0
0	0	0	0	0
2	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
1	0	0	0	0

y)
 Nisqually Natural
 McAllister Hatchery
 McAllister Natural
 Deschutes Hatchery
 Misc 13D-K Natural

^ 12/9/2021 +



0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
5	0	0	0	0
1	0	0	0	0
1	0	0	0	0

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A
=====

^ 12/9/2021 +

TABLE 2D: CHINOOK FISHERY IMPACTS SUMMARY - HIGHLIGHTS - TOTAL AEQ

FRAM Run Number: SLC-Chin3721_Final

Run Description: SLC-Chin3721_Final

Total May-April AEQ Fishery-Related Mort Unmarked Only	TruetoModel Total	NkSF 1	NkErly 2
1-3. Alaska	33,717	0	6
4-13. Canada	40,414	2	510
28-33. S. Of Falcon Ocean:	30,253	0	0
14,18,24. NTrty N.Falc. Ocean Troll:	10,410	1	19
15,19. Trty N.Falc. Ocean Troll:	9,598	3	136
16,20,25,27. NTrty N.Flc. Ocean & Buoy10 S	1,801	0	16
39. Pgt Snd Trty Troll	132	0	0
34. Pgt Snd 5 Sport	0	0	0
40 Pgt Snd 7 Sport	0	0	0
43,46,51,54,61,64. Pgt Snd 8-13 Sport	55	0	0
21,23,26. NTrty Non-Pgt Snd Net	0	0	0
17,22. Trty Non-Pgt Snd Net	0	0	0
41. JDF NTrty	0	0	0
42. JDF Trty	0	0	0
35. SJI NTrty	0	0	0
36. SJI Trty	0	0	0
52. Pgt Snd 6 Sport	0	0	0
53. 6B/9 Trty	0	0	0
37. B'ham NTrty:	0	0	0
38. B'ham Trty:	0	0	0
44. 8 NTrty:	0	0	0
45. 8 Trty:	0	0	0
47. 8A NTrty:	0	0	0
48. 8A Trty:	0	0	0
49. 8D NTrty:	0	0	0
50. 8D Trty:	0	0	0
62. Hood Canal NTrty:	0	0	0
63. Hood Canal Trty:	0	0	0
55. 10/11 NTrty:	0	0	0
56. 10/11 Trty:	0	0	0
57. 10A NTrty:	0	0	0
58. 10A Trty:	0	0	0
59. 10E NTrty:	0	0	0
60. 10E Trty:	0	0	0

65. 13+ NTrty:	0	0	0
66. 13+ Trty:	0	0	0
67. 13A Ntrty:	0	0	0
68. 13A Trty:	0	0	0
Out-of-Region net: NTrty	0	0	0
Out-of-Region net: Trty	0	0	0
(Out-of-Region computed as total net minus Local, from below)			
Local Term. Mar. Net: NTrty		0	0
Local Term Mar. Net: Trty		0	0
Local fishery is --->>>>>>>		Bham	Bham

=====

Note: table 14D corrected 29Sep98; fisheries were in incorrect order (Hood Canal wa

0	0	0	0	#REF!	#REF!	0
0	0	0	0	#REF!	#REF!	0
0	0	0	0	#REF!	#REF!	0
0	0	0	0	#REF!	#REF!	0
0	0	0	0	#REF!	#REF!	0
0	0	0	0	#REF!	#REF!	0
0	0	0	0	#REF!	#REF!	0

8

8

8

=====

s labeled as 10/11, 10/11 as 10A, 10A as 10E, 10E as Hood Canal)

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

8A,8D

8A,8D

=====

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

8A,8D

8A,8D

10/11,10A,10E,13,13A

10/11,10A,10E,13,13A

10/11,10A,10E,13,13A

10/11,10A,10E,13,13A

13A

=====

=====

TABLE 2D
12/09/21
10:42 AM

=====

TABLE 2E: CHINOOK FISHE
FRAM Run Number:
Run Description:

=====

HCSF0 15	HCSF1 16	HC S/F F+Y	Dungeness 17	Hoko 18	LANDED CATCH ("AAP" for I UNMARKED ONLY)
7	0	7	2	7	1-3. Alaska
53	0	53	51	2	4-13. Canada
10	0	10	0	0	28-33. S. Of Falcon Ocean:
68	0	68	2	2	14,18,24. NTrty N.Falc. Ocean
129	0	129	42	1	15,19. Trty N.Falc. Ocean Troll
3	0	3	2	0	16,20,25,27. NTrty N.Flc. Ocea
4	0	4	0	0	39. Pgt Snd Trty Troll
0	0	0	0	0	34,40. Pgt Snd 5,6,7 Sport &
0	0	0	0	0	43,46,51,54,61,64. P
2	0	2	1	0	
					21,23,26. NTrty Non-Pgt Snd N
0	0	0	0	0	17,22. Trty Non-Pgt Snd Net
0	0	0	0	0	41. JDF NTrty
0	0	0	0	0	42. JDF Trty
0	0	0	0	0	35. SJI NTrty
0	0	0	0	0	36. SJI Trty
0	0	0	0	0	52. Pgt Snd 6 Sport
0	0	0	0	0	53. 6B/9 Trty
0	0	0	0	0	
0	0	0	0	0	37. B'ham NTrty:
0	0	0	0	0	38. B'ham Trty:
0	0	0	0	0	44. 8 NTrty:
0	0	0	0	0	45. 8 Trty:
0	0	0	0	0	47. 8A NTrty:
0	0	0	0	0	48. 8A Trty:
0	0	0	0	0	49. 8D NTrty:
0	0	0	0	0	50. 8D Trty:
0	0	0	0	0	62. Hood Canal NTrty:
0	0	0	0	0	63. Hood Canal Trty:
0	0	0	0	0	55. 10/11 NTrty:
0	0	0	0	0	56. 10/11 Trty:
0	0	0	0	0	57. 10A NTrty:
0	0	0	0	0	58. 10A Trty:
0	0	0	0	0	59. 10E NTrty:
0	0	0	0	0	60. 10E Trty:
0	0	0	0	0	65. 13+ NTrty:

0	0	0	0	0	66. 13+ Trty:
0	0	0	0	0	67. 13A Ntrty:
0	0	0	0	0	68. 13A Trty:
0	0	0	0	0	
0	0	0	0	0	Out-of-Region net: NTrty
0	0	0	0	0	Out-of-Region net: Trty
0	0	0	0	0	see total mortality table for computations
0	0	0	na	na	Local Term. Mar. Net: NTrty
0	0	0	na	na	Local Term Mar. Net: Trty
HdCnl	HdCnl		none	none	=====
=====	=====	=====	=====	=====	

Jul-Sep ONLY
Jul-Sep ONLY
Jul-Sep ONLY

=====

=====

SkSP	SnSF0	SnSF1	Sno S/F	StSF	Tula	USPS0
5	6	7	F+Y	8	9	10
0	0	0	0	0	1	0
42	106	21	127	5	71	206
0	0	0	0	0	0	10
0	15	0	16	0	0	140
24	41	4	45	3	35	293
0	0	0	0	0	7	29
0	4	0	5	0	1	16
0	0	0	0	0	0	1
0	0	0	0	0	0	0
0	0	0	0	0	0	0

=====

=====

Version: 2.21Dec15
Tamm: #REF!

UWAcc0	DSPS0	SPS1	WRSC	HCSF0	HCSF1	HC S/F
11	12	13	14	15	16	F+Y
0	0	0	0	8	0	8
0	33	0	114	56	0	56
0	3	0	0	7	0	7
0	17	0	1	54	0	54
0	100	0	45	138	0	138
0	0	0	0	3	0	3
0	3	0	2	5	0	5
0	0	0	1	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

=====

(Out-of-R

TABLE 2E
12/09/21
10:42 AM

TABLE 2F: CHINOOK FISHERY IMPACTS SUMMARY - TC
SOUTH PUGET SOUND - FRAM STOCK APPORTIONMEN

=====		Total May-April AEQ Fishery-Relat		
JDF	UNMARKED ONLY	USPS0	UWAcc0	DSPS0
17	Fishery Aggregate	10	11	12

1	Stock Break USPS 0s			
57	SPS Table UWAcc			
0	Used for all DSPS 0s			
1	SPS 1s			
49				

3	1-3. Alaska	0	0	0
0	4-13. Canada	201	0	32
0	28-33. S. Of Falcon Oce	11	0	4
	14,18,24. NTrty N.Falc.	158	0	20
	15,19. Trty N.Falc. Oce	274	0	94
0	16,20,25,27. NTrty N.Fk	28	0	0
0	39. Pgt Snd Trty Troll	20	0	4
	34. Pgt Snd 5 Sport	0	0	0
	40 Pgt Snd 7 Sport	0	0	0
	43,46,51,54,61,64. Pgt S	14	0	6
	21,23,26. NTrty Non-Pg	0	0	0
	17,22. Trty Non-Pgt Snd	0	0	0
	41. JDF NTrty	0	0	0
	42. JDF Trty	0	0	0
	35. SJI NTrty	0	0	0
	36. SJI Trty	0	0	0
	52. Pgt Snd 6 Sport	0	0	0
	53. 6B/9 Trty	0	0	0
	37. B'ham NTrty:	0	0	0
	38. B'ham Trty:	0	0	0
	44. 8 NTrty:	0	0	0
	45. 8 Trty:	0	0	0
	47. 8A NTrty:	0	0	0
	48. 8A Trty:	0	0	0
	49. 8D NTrty:	0	0	0
	50. 8D Trty:	0	0	0
	62. Hood Canal NTrty:	0	0	0
	63. Hood Canal Trty:	0	0	0
	55. 10/11 NTrty:	0	0	0

56. 10/11 Trty: 0 0 0

 EXTREME TERMINAL |----- percent NT of stock-specific
 Incl. NT sport if modelec USPS0 UWAcc0 DSPS0
 10 11 12

=====

Fingerling	10A	11.6%		11.6%
UWAcc	10A		0.0%	
Yearling	10A			
Fingerling	10E	7.8%		7.8%
UWAcc	10E		0.0%	
Yearling	10E			
Fingerling	13+	0.0%		0.0%
UWAcc	13+		0.0%	
Yearling	13+			
Fingerling	13A	0.0%		0.0%
UWAcc	13A		0.0%	
Yearling	13A			

57. 10A NTrty:	fing only	0	0	0
58. 10A Trty:	fing only	0	0	0
59. 10E NTrty:	fing only	0	0	0
60. 10E Trty:	fing only	0	0	0
65. 13+ NTrty:	fing only	0	0	0
66. 13+ Trty:	fing only	0	0	0
67. 13A Ntrty:	fing only	0	0	0
68. 13A Trty:	fing only	0	0	0

 RECAPITULATION OF LOCAL = 1,10A,10E,13,13A

Out-of-Region net: NTrty	0	0	0
Out-of-Region net: Trty	0	0	0

Region computed as total net minus Local, from below)

Local Term. Mar. Net: N	0	0	0
Local Term Mar. Net: Tr	0	0	0

Local fishery is --->>>>>>>>> 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A

=====

0 0 0 0 0 0 0

catch ----- APPORTIONMENT OF EXTREME TERMINAL "NET", from Table 14H (s
 SPS1 Grovers Lk. Wa Lk. Wa Green Green Area 10E
 13 Misc 10 Hatchery Natural Hatchery Natural Gorst

10.5%

7.5%

0.0%

0.0%

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A

=====

0 0 0 0 0 0 0

same method as Table 14F except applied to time steps 3 & 4 total mortality)

Puyallup Puyallup Minter Carr Inlet Chambers Nisqually Nisqually
Hatchery Natural Hatchery Natural Hatchery Hatchery Natural



0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0

0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0.00 0 0 0 0
0 0 0 0 0 0 0

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A

=====

0 0 0 0

McAllister Hatchery McAllister Natural Deschutes Hatchery Misc 13D-K Natural



0 0 0 0
0 0 0 0
0 0 0 0
0 0 0 0
0 0 0 0
0 0 0 0
0 0 0 0
0 0 0 0

0 0 0 0
0 0 0 0

0 0 0 0
0 0 0 0

10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A 10/11,10A,10E,13,13A
=====

TABLE 2A: KEY NATURAL PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT SUMMARY

TABLE 2A

Estimated fishery impacts from regulations described by FRAM model run # SLC-Chin372 Version: 2.21Dec15

12/09/21

Run Description: SLC-Chin3721_Final

10:42 AM

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations. Treaty/non-treaty splits are NOT based on CWT recovery data.

FISHERY	TOTAL MORTALITY ALL STOCKS	----- AEQ May-April Total Fishery-Related Mortality -----						
		NOOKSACK Early *	SKAGIT Spr H+W	SKAGIT S/F H+W	STILLAG. Sum/Fall	SNOHOM S/F H+W	Skykomish S/F H+W	WHITE R. Spring***
Canada	16,210	326	2	219	5	0	0	0
	3,247	287	42	32	16	62	127	28
S. Of Falcon Ocean	28,845	0	0	0	0	0	0	0
N.Fl. Ocean Troll: NTrty	0	0	0	0	0	0	0	0
Trty	0	0	0	0	0	0	0	0
Ntrty N.Fl. Ocean & Buoy10 Spt	0	0	0	0	0	0	0	0
Pgt Snd Trty Troll	2,900	165	38	38	10	38	78	7
Pgt Snd 6 Sport	0	0	0	0	0	0	0	0
Pgt Snd 5 Sport	2,409	316	71	0	7	48	98	16
Pgt Snd 7 Sport	0	0	0	0	0	0	0	0
Pgt Snd 8-13 Sport	3,519	2	31	0	3	33	68	41
Preterm. Pgt Snd or NTrty	170	0	10	0	0	5	11	10
Out-of-Region net: Trty	61	1	4	0	0	3	6	3
Terminal Pgt Snd or NTrty	334	0	0	0	0	0	0	0
Local Terminal Net: Trty	174	21	0	1	0	0	0	0
Freshwater Sport: NTrty	NA	803	531	20	1	609	572	0
Freshwater Net: Trty	NA	2,777	1,433	1,819	24	0	0	524
Total Marine Catch	57,869	1,118	199	290	41	188	388	105
Extr. Term. Catch	NA	3,581	1,964	1,839	25	609	572	524
TOTAL CATCH	57,869	4,698	2,163	2,129	66	797	960	629
Escapement (from TAMMs)		11,272	3,357	8,837	906	9,035	7,969	#REF!
TOTAL ABUNDANCE		15,971	5,520	10,966	972	9,832	8,929	#REF!
Total Exploitation		29.42%	39.18%	19.41%	6.8%	8.1%	10.7%	#REF!
Exploitation in Southern U.S. Fisheries		25.58%	38%	17%	5%	7%	9%	#REF!

* Nooksack Native" stock comprises an aggregation of North Fork and South Fork Native (Spring) stocks.

** Only the portion of Skagit and Snohomish spring, fingerling and yearling stocks representing wild chinook are presented in this table.

*** White River Springs are fingerlings

"Out-of-Region" net includes traditional Puget Sound preterminal net as well as non local terminal net and Coastal/Col. R.

"Freshwater sport" for NTrty includes freshwater sport and some SAF catches.

Ntrty TM	1,121	643	20	11	695	749	67
Trty TM	2,964	1,475	1,858	34	41	84	534

TABLE 2A: KEY NATURAL PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT SUMMARY

TABLE 2A

Estimated fishery impacts from regulations described by FRAM model run # SLC-Chin372 Version: 2.21Dec15

12/09/21

Run Description: SLC-Chin3721_Final

10:42 AM

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations. Treaty/non-treaty splits are NOT based on CWT recovery data.

FISHERY	TOTAL MORTALITY ALL STOCKS	AEQ May-April Total Fishery-Related Mortality						
		NOOKSACK Early *	SKAGIT Spr H+W	SKAGIT S/F H+W	STILLAG. Sum/Fall	SNOHOM S/F H+W	Skykomish S/F H+W	WHITE R. Spring***
Canada	186,482 351,783	278 6,404	21 806	279 2,169	8 91	32 697	66 1,438	10 66
S. Of Falcon Ocean	73,912	0	0	0	0	0	0	0
N.Fl. Ocean Troll: NTrty	20,317	0	0	0	0	7	15	0
Trty	22,218	269	33	24	1	31	63	11
Ntrty N.Fl. Ocean & Buoy10 Spt	26,143	79	5	60	2	23	47	18
Pgt Snd Trty Troll	1,218	22	7	7	1	9	19	0
Pgt Snd 6 Sport	6,269	19	25	61	3	27	55	0
Pgt Snd 5 Sport	10,418	185	56	35	7	92	189	0
Pgt Snd 7 Sport	2,435	66	15	73	13	36	74	3
Pgt Snd 8-13 Sport	24,261	84	70	62	19	261	539	25
Preterm. Pgt Snd or NTrty	3,584	0	18	53	0	8	16	2
Out-of-Region net: Trty	5,325	4	55	56	1	35	73	6
Terminal Pgt Snd or NTrty	5,513	0	0	0	0	0	0	0
Local Terminal Net: Trty	28,142	21	5	39	9	37	76	0
Freshwater Sport: NTrty	NA	803	531	20	1	609	572	479
Freshwater Net: Trty	NA	2,777	1,433	1,819	24	0	0	45
Total Marine Catch	768,019	7,432	1,113	2,918	156	1,294	2,671	141
Extr. Term. Catch	NA	3,581	1,964	1,839	25	609	572	524
TOTAL CATCH	768,019	11,013	3,077	4,757	181	1,903	3,243	665
Escapement (from TAMMs)		11,272	3,357	8,837	906	9,035	7,969	#REF!
TOTAL ABUNDANCE		22,285	6,434	13,594	1,087	10,938	11,212	#REF!
Total Exploitation		49.42%	47.82%	34.99%	16.6%	17.4%	28.9%	#REF!
Exploitation in Southern U.S. Fisheries		19.43%	35%	17%	8%	11%	16%	#REF!

* Nooksack Native" stock comprises an aggregation of North Fork and South Fork Native (Spring) stocks.

** Only the portion of Skagit and Snohomish spring, fingerling and yearling stocks representing wild chinook are presented in this table.

*** White River Springs are fingerlings

"Out-of-Region" net includes traditional Puget Sound preterminal net as well as non local terminal net and Coastal/Col. R.

"Freshwater sport" for NTrty includes freshwater sport and some SAF catches.

Ntrty TM	1,217	694	303	42	1,036	1,453	527
Trty TM	3,094	1,532	1,945	36	112	231	62

TABLE 2C: SOUTH PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT SUMMARY HIGHLIGHTS

TABLE 2C

Estimated fishery impacts from regulations described by FRAM model run # SLC-Chin372; Version: 2.21Dec15
 Run Description: SLC-Chin3721_Final

12/09/21
 10:42 AM

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations. Treaty/non-treaty splits and some SPS stock breakouts are NOT based on CWT recovery data.

----- AEQ Total May-April Fishery-Related Mortality (Natural & Hatchery) -----									
FISHERY	Misc 10 & 10E	Lake Wash.	Green River	Puyallup River	Carr Inlet	Chambers	Nisq. River	McAll. Creek	Deschutes & 13D-K
Alaska	16	7	39	29	7	1	14	0	6
Canada	1,348	605	3,258	2,460	707	68	1,373	36	534
S. Of Falcon Ocean	11	5	25	20	18	2	34	1	13
N.Fl.c. Ocean Troll: NTrty	172	77	412	315	93	9	181	5	71
Trty	419	188	1,010	767	515	49	1,007	26	389
Ntrty N.Fl.c. Ocean & Buoy10 Spl	132	59	317	241	106	10	206	5	80
Pgt Snd Trty Troll	94	42	229	170	74	7	148	4	56
Pgt Snd 5 Sport	263	118	587	504	207	20	384	10	156
Pgt Snd 7 Sport	47	21	102	92	52	5	95	3	39
Pgt Snd 8-13 Sport	989	443	2,178	1,916	1,540	148	2,810	78	1,158
Out-of-Region net: NTrty	3	1	6	5	3	0	6	0	2
Trty	55	25	134	100	38	4	75	2	29
Local Terminal Net: NTrty	342	14	168	36	19	2	37	1	14
(&/or SAF sport) Trty	3,826	60	995	101	1,661	43	304	14	951
Freshwater Sport: NTrty	na	4	515	2,043	1,970	34	1,681	47	7
Freshwater Net: Trty	na	610	8,162	5,391	0	481	5,077	293	0
Total Marine Catch	7,715	1,666	9,460	6,757	5,040	367	6,674	185	3,496
Extr. Term. Catch	0	614	8,677	7,433	1,970	515	6,758	340	7
TOTAL CATCH	7,715	2,280	18,137	14,190	7,010	882	13,433	524	3,503
Escapement (from TAMMs)	5,711	3,750	14,106	10,422	4,038	174	8,047	33	4,827
TOTAL ABUNDANCE	13,427	6,030	32,243	24,612	11,048	1,056	21,480	558	8,330
Total Exploitation	57.46%	37.81%	56.25%	57.65%	63.45%	83.53%	62.54%	94.00%	42.06%
Exploitation in Southern U.S. Fisl	47.30%	27.65%	46.02%	47.54%	56.98%	77.06%	56.08%	87.52%	35.58%

"Out-of-Region" net includes traditional Puget Sound preterminal net and "nonlocal terminal net" such as Bellingham Bay and Coastal/Col. R.
 "Local Term." means: AREAS 10/11, 10A, 10E, 13A, 13+, and may include NT SAF fisheries, if so modeled.
 "Freshwater" means: no FW, Wash. & Sai, Green R., Puy. R., Minter Ck., 13C+Ch Ck, Nisq. R., McA. Ck., Misc. tribs
 Extreme Terminal" for NTrty includes freshwater sport; SAF catches in extreme terminal marine areas are shown under NT local terminal net.

Note: Within-South-Puget-Sound stock breakouts are based on CWT recoveries for areas 10A, 10E, 13A fingerlings, PSF proportions for area 13+, UW Acc, and yearlings. Refer to Tables 14D and 14F.

	Ntrty TM	Trty TM	UW Acc	Yearlings
So U.S. preterminal	1,957	4,394	0.1626	0.1625
SUS Ocean Only ER	742	925	0.055	0.055
NT SUS Ocn	4,311	10,529	0.023	0.023
T SUS Ocn	5,172	6,529	0.031	0.031
PS Preterminal Net	4,008	2,287	0.004	0.004
Nontreaty TM	229	585	0.004	0.004
Treaty TM	5,434	6,612	0.004	0.004

Pgt Snd 5 Sport T4	47	21	100	92	11	1	20	1	8
Pgt Snd 7 Sport T4	0	0	0	0	0	0	0	0	0
Pgt Snd 8-13 Sport T4	66	30	151	125	84	8	156	4	63
Pgt Snd 5 Sport Total ER	2.0%	2.0%	1.8%	2.0%	1.9%	1.9%	1.8%	1.9%	1.9%
Pgt Snd 7 Sport Total ER	0.3%	0.3%	0.3%	0.4%	0.5%	0.5%	0.4%	0.5%	0.5%
Pgt Snd 8-13+saf Sport Total ER	9.9%	7.4%	7.3%	7.8%	13.9%	14.0%	13.1%	14.0%	13.9%
Pgt Snd 5 Sport T4 ER	0.3%	0.3%	0.3%	0.4%	0.1%	0.1%	0.1%	0.1%	0.1%
Pgt Snd 7 Sport T4 ER	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pgt Snd 8-13 Sport T4 ER	0.5%	0.5%	0.5%	0.5%	0.8%	0.8%	0.7%	0.8%	0.8%

TABLE 2B: OTHER PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT SUMMARY

Estimated fishery impacts from regulations described by FRAM model run # SLC-Chin372 Version: 2.21Dec15

Run Description: SLC-Chin3721_Final

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations.

Treaty/non-treaty splits are NOT based on CWT recovery data.

FISHERY	TOTAL MORTALITY ALL STOCKS	AEQ May-April Total Fishery-Related Mortality --					
		NOOKSACK S/F H	TULALIP S/F H	HDCNL S/F H	Hoodspport Hatchery	Gadams Hatchery	Dung/Elwha (Elwha H&N)
Alaska	243,551	41	123	356	180	176	61
Canada	410,261	2,150	4,951	6,826	3451	3,375	523
S. Of Falcon Ocean	146,745	16	0	174	88	86	0
N.Flc. Ocean Troll: NTrty	43,251	464	0	1,318	667	652	2
Trty	44,104	1,153	734	3,547	1796	1,751	46
Ntrty N.Flc. Ocean & Buoy10 Sp	30,577	191	142	997	503	493	0
Pgt Snd Trty Troll	4,553	101	219	326	164	162	30
Pgt Snd 5 Sport	12,827	361	754	1,963	1034	929	45
Pgt Snd 7 Sport	2,435	339	231	396	208	189	7
Pgt Snd 8-13	28,572	307	2,003	7,096	3720	3,376	38
Out-of-Region net: NTrty	10,023	211	70	114	57	56	0
Trty	5,386	170	201	778	392	386	13
Local Terminal Net: NTrty	5,847	1,955	3	1,743	879	863	0
Trty	28,316	4,304	5,937	6,612	3337	3,276	0
Freshwater Sport: \1 NTrty	NA	4,668	NA	4,879	4879	0	0
Freshwater Net: Trty	NA	1,777	NA	19,048	11231	7,818	0
Total Marine Catch	1,016,448	11,765	15,368	34,646	17741	16,906	765
Extr. Term. Catch	NA	6,445	0	23,928	16110	7,818	0
TOTAL CATCH	1,016,448	18,210	15,368	58,574	33851	24,724	765
Escapement (from TAMMs)		7,188	791	35,420	13859	21,561	4,783
TOTAL ABUNDANCE		25,398	16,159	93,995	47710	46,285	5,548
Total Exploitation		71.70%	95.10%	62.32%	70.95%	53.42%	13.80%
Exploitation in Southern U.S. Fisheries		63.07%	63.70%	52.12%	60.69%	43.29%	3.27%

Out-of-Region" net includes traditional Puget Sound preterminal net as well as non local terminal net and Coastal/Col. R. "Freshwater sport" for NTrty includes freshwater sport and some SAF catches.

\1 The category "freshwater sport" for Hood Canal includes nontreaty net catch in areas 12A and 9A.

Ntrty TM	8,514	3,204	18,679	12,036	6,644	93
Trty TM	7,505	7,091	30,311	16,919	13,392	89
SUS Ocean Only ER	0.072	0.054	0.064	0.064	0.064	0.009
NT SUS Ocn	0.026	0.009	0.026	0.026	0.027	0.000
T SUS Ocn	0.045	0.045	0.038	0.038	0.038	0.008
PS Preterminal Net	0.015	0.017	0.009	0.009	0.010	0.002

Pgt Snd 5 Sport T4	2,409	108	313	584	308	276	32
Pgt Snd 7 Sport T4	0	0	0	0	0	0	0
Pgt Snd 8-13 Sport T4	3,519	36	737	557	292	265	6
Pgt Snd 5 Sport Total ER		1.4%	4.7%	2.1%	2.2%	2.0%	0.8%
Pgt Snd 7 Sport Total ER		1.3%	1.4%	0.4%	0.4%	0.4%	0.1%
Pgt Snd 8-13+saf Sport Total ER		1.2%	12.4%	7.5%	7.8%	7.3%	0.7%
Pgt Snd 5 Sport T4 ER		0.4%	1.9%	0.6%	0.6%	0.6%	0.6%
Pgt Snd 7 Sport T4 ER		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pgt Snd 8-13 Sport T4 ER		0.1%	4.6%	0.6%	0.6%	0.6%	0.1%
"Washington Run Size" = "NOF abundance"	23,192	11,086	84,237				4,964
"% of Washington Run Size" = "% of NOF run"	69%	93%	58%				4%

TABLE 2B: OTHER PUGET SOUND CHINOOK STOCKS - FISHERY IMPACT SUMMARY

Estimated fishery impacts from regulations described by FRAM model run # SLC-Chin372 Version: 2.21Dec15

Run Description: SLC-Chin3721_Final

Impacts are expressed as total fishery-related mortality, and Adult Equivalent (AEQ) fishery-related mortality, which includes catch, non-retention mortality and other fishery-related mortality; not to be used for allocation computations. Treaty/non-treaty splits are NOT based on CWT recovery data.

FISHERY	TOTAL MORTALITY ALL STOCKS	AEQ May-April Total Fishery-Related Mortality					
		NOOKSACK S/F H	TULALIP S/F H	HDCNL S/F H	Hoodsport Hatchery	Gadams Hatchery	JDF TRIBS (Elwha H&N)
Alaska	243,551	41	123	356	180	176	61
Canada	410,261	2,150	4,951	6,826	3451	3,375	523
S. Of Falcon Ocean	146,745	16	0	174	88	86	0
N.Flc. Ocean Troll: NTrty	43,251	464	0	1,318	667	652	2
Trty	44,104	1,153	734	3,547	1796	1,751	46
Ntrty N.Flc. Ocean & Buoy10 Spt	30,577	191	142	997	503	493	0
Pgt Snd Trty Troll	4,553	101	219	326	164	162	30
Pgt Snd 5 Sport	12,827	108	313	584	308	276	32
Pgt Snd 7 Sport	2,435	0	0	0	0	0	0
Pgt Snd 8-13	28,572	36	737	557	292	265	6
Out-of-Region net: NTrty	10,023	211	70	114	57	56	0
Trty	5,386	170	201	778	392	386	13
Local Terminal Net: NTrty	5,847	1,955	3	1,743	879	863	0
Trty	28,316	4,304	5,937	6,612	3337	3,276	0
Freshwater Sport: \1 NTrty	NA	4,668	NA	4,879	4879	0	0
Freshwater Net: Trty	NA	1,777	NA	19,048	11231	7,818	0
Total Marine Catch	1,016,448	10,900	13,429	34,646	17741	16,906	713
Extr. Term. Catch	NA	6,445	0	23,928	16110	7,818	0
TOTAL CATCH	1,016,448	17,345	13,429	58,574	33851	24,724	713.1
Escapement (from TAMMs)		7,188	791	35,420	13859	21,561	4,783
TOTAL ABUNDANCE		24,534	14,221	93,995	47710	46,285	5,496
Total Exploitation		70.70%	94.44%	62.32%	70.95%	53.42%	12.98%
Exploitation in Southern U.S. Fisheries		61.77%	58.76%	43.28%	51.55%	34.75%	2.35%

PS Aggregate	Stock	Origin	Esc Goal	Escapemen
Skagit	Skagit S/F	Hat/Nat	9100	8837
Skagit	Skagit Springs	Hat/Nat	823	1442
Skagit	Upper Skagit Summer	Hat/Nat	2200	7017
Skagit	Lower Sauk Summer	Hat/Nat	400	400
Skagit	Lower Skagit Fall	Hat/Nat	900	1420
Skagit	Upper Sauk Spring	Nat	130	871
Skagit	Suiattle Spring	Nat	170	431
Skagit	Upper Cascade Spring	Nat	170	141
St/Sn	Stillaguamish	Nat	0	928
St/Sn	Snohomish Natural	Nat	0	3,032
St/Sn	Snohomish Hatchery	Nat	3,200	6,101
St/Sn	Tulalip Hatchery	Nat	0	791
Hood Canal	Area 12B tribs Natural	Nat	400	18
Hood Canal	Hoodsport Hatchery	Hat	1,850	13,859
Hood Canal	Enetai Hatchery	Hat	0	0
Hood Canal	Skokomish River Natural	Nat	1,200	182
Hood Canal	Skokomish Hatchery	Hat	2,250	17,956
Hood Canal	Area 12C-D tribs Natural	Nat	n/a	283
SPS	Grov Hat	Hat	1,750	2,097
SPS	LkWa Hat	Hat	2,288	1,963
SPS	LkWa Nat	Nat	1,680	778
SPS	Du-Gr Hat	Hat	4,452	10,683
SPS	Du-Gr Nat	Nat	5,800	#REF!
SPS	10E Hat	Hat	0	3,614
SPS	Puy Hat	Hat	1,200	8,019
SPS	Puy Nat	Nat	500	#REF!
SPS	13A Hat	Hat	2,800	4,038
SPS	13A Nat	Nat	0	0
SPS	13C Hat	Hat	500	174
SPS	Nisq Hat	Hat	2,700	6,434
SPS	Nisq Nat	Nat	1,200	#REF!
SPS	McAll Hat			
SPS	McAll Nat			
SPS	Desch Hat	Hat	3,000	4,827
SPS	13D-K H&N	Hat/Nat	700	0
Nooksack/Samish	Nooksack S/F	Hat	5400	6,770
Nooksack/Samish	Nooksack Earlies	Nat	2000	#REF!
JDF	Dungeness (N)	Nat	925	674
JDF	Elwha (N+H)	Hat/Nat	2,400	#REF!
JDF	Hoko (N)	Nat/Hat	1,050	1054

Chinook Catch Summary

SKAGIT

Marine Fisheries	Spring Treaty	pring N-Trea	Spring Total	SF Treaty
CHINOOK FISHERY	11.2	0	11	0
PINK FISHERY			0	4
COHO EVALUATION			0	39
COHO DIRECTED			0	2
CHUM MARINE			0	0
STEELHEAD MARINE			0	0
BAY TEST FISHERY			0	0

Freshwater Fisheries	Spring Chinook	S/F Chinook	Total
T FW Chinook	1242	0	1,242
T FW C&S	34	200	234
T FW Sockeye	0	59	59
T FW PINK	11	1,126	1,138
T SWIN. CHNL	0	0	0
T FW COHO Directed	0	62	62
T FW CHUM	0	0	0
T FW STEELHEAD	0	0	0
RIVER TEST FISHERY	37	372	409

STILLY/SNO

Fishery	Chinook
T STILLAG. R. CHINOC	21
T STILLAG. R. PINK	1
T STILLAG. R. COHO	2
T STILLAG. R. CHUM	0
T SNOHOMISH R. COM	0
SNOHOMISH RIVER T	0

Hood Canal

Fishery	T Chinook
SKOK R (82G) CHINOC	7,866
SKOK R (82G) COHO	18
SKOK R (82G) CHUM	0
12A CHINOOK	0
12A COHO	72
12A CHUM	0
Hoodsport Hatchery Seir	11,508

MARINE 9A Chin&Coh	81
MARINE 9A Chum	0

SPS

Fishery	Chinook
Lake Washington & Ship	610
Lake Sammamish	0
Duwamish/Green (80B)	8,333
Puyallup (81B)	5,329
Puyallup Test	62
White R	#REF!
Nisqually (83D)	5,077
Chambers (13C & 83H)	481

Nooksack/Samish

Fishery	T Chinook	NT Chinook
Nooksack Early		
Nooksack Marine		
FW Net	1,777	

JDF

Fishery	T Chinook	NT Chinook
Dungeness Bay	0	0
Elwha	0	
Hoko	0	

Chinook Freshwater Sport Catches

Fishery	Total	M	UM
NT Skagit Summer Falls	20	1	19
Skagit Springs	527	496	31
Oak Harbor	0	0	0
Stillaguamish	1	1	0
Snohomish w/o Sky	37	22	15
Skykomish	572	548	24
SKOK R (82G) SPORT	0	0	0
HC Misc FW Sport	0	0	0
Lake Washington	3	2	1
Lake Sammamish	1	1	0
Duwamish-Green R.	526	363	163
Puyallup R	1,292	1274	18

Carbon R	751	739	12
Nisqually R. M Enc or H	1,681	1624	57
McAllister Cr.	47	47	0
Minter Cr.	1,970	1953	17
Chambers Creek:	34	34	0
Deschutes/Capitol Lake	7	7	0
Kennedy/Johns/Misc "13	0	0	0
Nooksack River excl MS	4,617	4,598	19
Nooksack R MSF	51	51	0
Dungenes R	0	0.0	0.0

12,100

TAA Tables

TAA	Hatchery	Natural	Total
Spring/Early:			
Nooksack	14,369	0	2
Skagit	3,662	#REF!	0
White (H+N)			3,937
Dungeness(H+N)			0
Summer/Fall:			
Skagit	518	#REF!	#REF!
Stillaguamish	611	#REF!	1,242
Snohomish	6,708	0	1,138
Tulalip	6,731	0	0
East Kitsap (10E)	9,879	0	62
Lake Wa. (Cedar R.)	3,704	0	0
Green	20,063	0	0
Puyallup	16,619	0	409
Nisqually	14,248	0	0
Other Area 13	14,221	0	0
Western Strait-Hoko(H+N)			0
Elwha(H+N)			0
Mid-Hood Canal tri	0	0	21
Skokomish & Hoods	67,703	0	1

JDF splits	M	U	H	N
Dungeness	0	674	0	674
Elwha	694	4,089	4,783	0
Hoko	411	643	0	1054

Landed Chinook Catch in Marine Sport Fisheries

Fishery	UM	M	Total
Area 5	35	0	35
Area 6	14	0	14
Area 7	17	0	17
Area 8.1/8.2	0	0	0
Area 8D	28	0	28
Area 9	10	0	10
Area 10	13	0	13
Area 10A	38	0	38
Area 10E	1	0	1
Area 11	15	0	15
Area 12	2	0	2
Area 13	5	0	5
	177	0	177

Total Mortality in Marine Sport Fisheries

Fishery	UM	M	Total
Area 5	3506	9321	12827
Area 6	424	5845	6269
Area 7	578	1858	2435
Area 8.1/8.2	6	37	43
Area 8D	37	591	628
Area 9	639	7711	8350
Area 10	856	7831	8688
Area 10A	57	146	203
Area 10E	32	293	326
Area 11	379	4481	4859
Area 12	58	2830	2888
Area 13	102	3013	3115
	6676	43957	50632

Okay
check

check

check

check

check

check
check

#REF!

#REF!

check

#REF!

check

#REF!

check

#REF!

SF N-Treaty	SF Total
0	0
0	4
0	39
0	2
0	0
0	0
NA	0

landed

Fishery	Total	M	UM
NT Skagit Summer Fall	20	1	19
Skagit Springs	475	475	0.00
Oak Harbor	0	0	0
Stillaguamish	0	0	0
Snohomish w/o Sky	0	0	0
Skykomish	551	547	4
SKOK R (82G) SPORT	0	0	0
HC Misc FW Sport	0	0	0
Lake Washington	3	2	1
Lake Sammamish	1	1	0
Duwamish-Green R.	526	363	163
Puyallup R	1,256	1251	6

Carbon R	706	703	3
Nisqually R.	1,504	1494	10
McAllister Cr.	47	47	0
Minter Cr.	1,970	1953	17
Chambers Creek:	34	34	0
Deschutes/Capitol Lake	7	7	0
Kennedy/Johns/Misc "1	0	0	0
Nooksack River excl M	4,617	4,598	19
Nooksack R MSF	49	49	0
Dungenes R	0	0.0	0.0
11,800			

M	U	H	N	PPN all
0.00	0.12	0.00	0.39	0.10
0.63	0.76	1.00	0.00	0.73
0.37	0.12	0.00	0.61	0.16

Landed Chinook Catch in Marine Sport Fisheries

#REF!			
Fishery	M	UM	Total
Area 7	0	17	17
Area 5/6	0	49	49
Area 8.1/8.2	0	0	0
Area 8D	0	28	28
Area 9	0	10	10
Area 10	0	13	13
Area 10A	0	38	38
Area 10E	0	1	1
Area 11	0	15	15
Area 12	0	2	2
Area 13	0	5	5
	0	177	177

Total Mortality in Marine Sport Fisheries

#REF!			
Fishery	M	UM	Total
Area 7	1858	578	2435
Area 5/6	15166	3930	19096
Area 8.1/8.2	37	6	43
Area 8D	591	37	628
Area 9	7711	639	8350
Area 10	7831	856	8688
Area 10A	146	57	203
Area 10E	293	32	326
Area 11	4481	379	4859
Area 12	2830	58	2888
Area 13	3013	102	3115
	43957	6676	50632

666fc767ba1c430ebd58b3fe17abf0a3

666fc767ba1c430ebd58b3fe17abf0a3

M	M	M	M	Um	Um	Um	Um
Total	Natural	Total	Natural	Total	Natural	Total	Natural
321	0	228	0	3	2	0	0

Sky Sel Sport_M	320	0	227	0
Sky Sel Sport_UM	3	2	0	0

666fc767ba1c430ebd58b3fe17abf0a3

1811		
M	UM	Total
4717	868	5585
7275	287	7562
1978	67	2045
319	92	411
6097	44	6141
4257	125	4382
32	11	43
1147	28	1175
9174	204	9378
1026	244	1270
1558	38	1596
37580	2008	39588

1811		
M	UM	Total
7521	1673	9194
10196	1775	11971
5433	1644	7077
335	97	432
11593	1427	13020
7862	1538	9400
34	11	45
1230	77	1307
13781	1465	15246
2894	693	3587
2473	169	2642
63352	10569	73921

Final 2016 Chinook Allocation Accounting Summary by Puget Sound Management Units.

Allocation Unit & Stock (stk specific AEQ preterm+term)	Treaty		
	Hatchery	Natural	Total
Nooksack/Samish	11,116	61	11,177
Skagit	1,445	1,937	3,382
Stilly-Snoh	7,313	103	7,416
So. Puget Sound	31,106	3,113	34,219
Hood Canal	30,311	168	30,479
Str. Juan de Fuca	92	19	111
Total	81,384	5,400	86,784

	Nontreaty			
	Hatchery	Natural	Total	
	10,454	11	10,465	0.48
	865	554	1,419	0.30
	4,728	138	4,866	0.40
	24,564	893	25,457	0.43
	21,081	113	21,194	0.41
	117	36	154	0.58
	61,809	1,745	63,554	0.42
	43%	24%	42%	

Allocation Unit & Stock (preterm AEQ+term all stk TM)	Treaty			
	Hatchery	Natural	Mixed a/	Total
Nooksack/Samish	11,116	61	2033	13,210
Skagit	1,445	1937	1	3,382
Stilly-Snoh	7,313	103	110	7,526
So. Puget Sound	31,106	3113	1007	35,226
Hood Canal	30,311	168	186	30,665
Str. Juan de Fuca	92	19	0	111
Total	81,384	5,400	3,337	90,121

	Nontreaty			
	Hatchery	Natural	Mixed a/	Total
	10,454	11	1066	11,531
	865	554	0	1,419
	4,728	138	0	4,866
	24,564	893	319	25,776
	21,081	113	111	21,305
	117	36	3	156
	61,809	1,745	1,499	65,053
	43%	24%	31%	42%

a/ Catch of mixed origin (non local Chinook) in terminal area fisheries.

666fc767ba1c430ebd58b3fe17abf0a3 12/9/2021

Skokomish Chinook AEQ Mortalities (SLC-Chin3721_Final)

FISHERY	Hat + Nat	UM^{/a} Nat	Hat + Nat ER	Nat ER
Alaska	177	1	0.4%	0.4%
Canada	3403	28	7.3%	7.8%
S. Of Falcon Ocean	87	1	0.2%	0.2%
N.Flc. Ocean Troll:				
NTrty	657	5	1.4%	1.5%
Trty	1765	14	3.8%	3.9%
Ntrty N.Flc. Ocean & CMoy10 Spt	498	4	1.1%	1.2%
Pgt Snd Trty Troll	163	1	0.4%	0.4%
Pgt Snd 6 Sport	1140	3	2.4%	0.8%
Pgt Snd 5 Sport	931	2	2.0%	0.6%
Pgt Snd 7 Sport	189	1	0.4%	0.2%
Pgt Snd 8-13 Sport	3386	10	7.3%	2.9%
Out-of-Region net:				
NTrty	57	1	0.1%	0.1%
Trty	389	3	0.8%	0.9%
Local Terminal Net:				
NTrty	871	7	1.9%	2.1%
(&/or SAF sport) Trty	3303	28	7.1%	7.8%
Freshwater Sport:				
NTrty	0	0	0.0%	0.0%
Freshwater Net:				
Trty	7884	66	16.9%	18.4%
Freshwater Test				
TOTAL CATCH	24899	176	53.4%	49.2%
Escapement (from TAMMs)	21743	182		
TOTAL ABUNDANCE	46643	357		
Total Exploitation	53.4%	49.2%		

^{/a} due to inclusion of a stray marked component in the natural forecast, natural ER is calc'd f

Lake Washington Chinook AEQ Mortalities (SLC-Chin3721_Final)

FISHERY	Hat + Nat	Nat	Hat + Nat ER	Nat ER
----------------	----------------------	------------	-------------------------	-------------------

Alaska		7	1	0.1%	0.1%
Canada		605	98	9.9%	10.4%
S. Of Falcon Ocean		5	1	0.1%	0.1%
N.Flc. Ocean Troll:	NTrty	77	12	1.3%	1.3%
	Trty	188	30	3.1%	3.2%
Ntrty N.Flc. Ocean & CMoy10 Spt		59	9	1.0%	1.0%
Pgt Snd Trty Troll		42	7	0.7%	0.8%
Pgt Snd 6 Sport		114	5	1.9%	0.5%
Pgt Snd 5 Sport		118	10	1.9%	1.0%
Pgt Snd 7 Sport		21	1	0.3%	0.1%
Pgt Snd 8-13 Sport		443	30	7.2%	3.1%
Out-of-Region net:	NTrty	1	0	0.0%	0.0%
	Trty	25	4	0.4%	0.4%
Local Terminal Net:	NTrty	14	2	0.2%	0.2%
(&/or SAF sport)	Trty	60	10	1.0%	1.1%
Freshwater Sport:	NTrty	4	0	0.1%	0.1%
Freshwater Net:	Trty	610	101	9.9%	10.7%
Freshwater Test		na	na		
TOTAL CATCH		2394	321	39.0%	34.1%
-	-	-	-	-	-
Escapement (from TAMMs)		3750	620		
TOTAL ABUNDANCE		6144	941		
Total Exploitation		39.0%	34.1%		

Green River Chinook AEQ Mortalities (SLC-Chin3721_Final)

FISHERY		Hat + Nat	Nat	Hat + Nat ER	Nat ER
Alaska		39	6	0.1%	0.1%
Canada		3258	520	9.9%	10.4%
S. Of Falcon Ocean		25	4	0.1%	0.1%
N.Flc. Ocean Troll:	NTrty	412	63	1.3%	1.3%

	Trty	1010	158	3.1%	3.2%
Ntrty N.Flc. Ocean & CMoy10 Spt		317	49	1.0%	1.0%
Pgt Snd Trty Troll		229	39	0.7%	0.8%
Pgt Snd 6 Sport		547	25	1.7%	0.5%
Pgt Snd 5 Sport		587	51	1.8%	1.0%
Pgt Snd 7 Sport		102	6	0.3%	0.1%
Pgt Snd 8-13 Sport		2178	156	6.6%	3.1%
Out-of-Region net:	NTrty	6	1	0.0%	0.0%
	Trty	134	22	0.4%	0.4%
Local Terminal Net:	NTrty	168	27	0.5%	0.5%
(&/or SAF sport)	Trty	995	161	3.0%	3.2%
Freshwater Sport:	NTrty	515	85	1.6%	1.7%
Freshwater Net:	Trty	8162	1351	24.9%	27.1%
Freshwater Test		na	na		
TOTAL CATCH		18684	2725	57.0%	54.7%
Escapement (from TAMMs)		14106	2258		
TOTAL ABUNDANCE		32790	4982		
Total Exploitation		57.0%	54.7%		

	NT Morts Hat+Nat	NT Morts Nat	% NT of Hat+Nat	% NT of Nat
Ocean	1241	10	41.3%	42.0%
Puget Sound Troll, Net, Sport	5703	16	96.5%	90.7%
Terminal Net	871	7	20.9%	20.9%
Freshwater	0	0	0.0%	0.0%
Total	7815	34	36.7%	23.1%

rom UM naturals only.

)

	NT Morts Hat+Nat	NT Morts Nat	% NT of Hat+Nat	% NT of Nat
--	-----------------------------	-----------------------------	----------------------------	------------------------

Ocean	141	22	42.8%	42.4%
Puget Sound Troll, Net, Sport	698	45	94.3%	86.8%
Terminal Net	14	2	18.6%	17.8%
Freshwater	4	0	0.7%	0.5%
Total	856	70	48.1%	31.5%

	NT Morts Hat+Nat	NT Morts Nat	% NT of Hat+Nat	% NT of Nat
Ocean	754	116	42.7%	42.4%
Puget Sound Troll, Net, Sport	3421	239	93.8%	86.8%
Terminal Net	168	27	14.4%	14.5%
Freshwater	515	85	5.9%	5.9%
Total	4858	468	31.6%	21.3%

Stock	Approximate flow of information/calculations from FRAM output and
Nooksack (n)	TAMX >> 2DFmrkd & 2DFunmrkd >> Difference 2AC U&M H+N and 2AC
Skagit (n)	TAMX >> 2DFUnmrkd >> 2ACUnmrkd >> 5Unmrkd >> 6Unmrkd >> ER_E
White	TAMX >> 2DFUnmrkd >> 2ACUnmrkd >> 5Unmrkd >> 6Unmrkd >> ER_E
Dungeness	TAMX >> 2DFUnmrkd+2DFMrkd >> JdFMrkd+JdFUnmrkd >> JdF >> ER_I
Skagit	TAMX >> 2DFUnmrkd+2DFMrkd >> 2DF >> 2AC U&M >> 5 U&M >> 6Na
Stillaguamish (n)	TAMX >> 2DFUnmrkd >> 2ACUnmrkd >> 5Unmrkd >> 6Unmrkd >> ER_E
Snohomish (n)	TAMX >> 2DFUnmrkd >> 2ACUnmrkd >> ER_ESC_Overview [fw fisher
Lake Wa. (Cedar R.)	TAMX >> 2DFUnmrkd >> 2ACUnmrkd >> 5Unmrkd >> 6Unmrkd >> ER_E
Green	TAMX >> 2DFUnmrkd >> 2ACUnmrkd >> 5Unmrkd >> 6Unmrkd >> ER_E
Puyallup	TAMX >> 2DFUnmrkd >> 2ACUnmrkd >> 5Unmrkd >> 6Unmrkd >> ER_E
Nisqually	TAMX >> 2DFUnmrkd >> 2ACUnmrkd >> 5Unmrkd >> 6Unmrkd >> ER_E
Western Strait-Hoko	TAMX >> 2DFUnmrkd+2DFMrkd >> JdFMrkd+JdFUnmrkd >> JdF >> ER_I
Elwha	TAMX >> 2DFUnmrkd+2DFMrkd >> JdFMrkd+JdFUnmrkd >> JdF >> ER_I
Mid-Hood Canal tribs. (n)	TAMX >> 2DFUnmrkd >> HdUnmrkd >> ER_ESC_Overview [stock app
Skokomish	TAMX >> 2DFUnmrkd >> HdUnmrkd >> ER_ESC_Overview [stock app

TAMM stock/fishery inputs to bottom-line ER projections

U&M Hatchery >> 2AC U&M N >> ER_ESC_Overview [stock inputs enter on 2DF sheets; fw fi
ESC_Overview [stock inputs enter on 2DF; fw fishery workup on SkUnmrkd, SkMrkd, Sk sheet:
ESC_Overview [fw fishery workup on SPSUnmrkd]
ESC_Overview [stock inputs are applied on JdF M+U sheets, as are fw fisheries]
its >> ER_ESC_Overview [stock inputs are applied 2DFMrkd & 2DFUnmrkd sheets; fw fisherie:
ESC_Overview [fw fishery workup on StSnUnrmkd]
ry workup on StSnUnrmkd; stock inputs applied on 2DFUnmrkd]
ESC_Overview [stock inputs enter variously on SPSUnmrkd and 2DFUnmrkd; considerable ma
ESC_Overview [stock inputs enter variously on SPSUnmrkd and 2DFUnmrkd; considerable ma
ESC_Overview [stock inputs enter variously on SPSUnmrkd and 2DFUnmrkd; considerable ma
ESC_Overview [stock inputs enter variously on SPSUnmrkd and 2DFUnmrkd; considerable ma
ESC_Overview [stock inputs are applied on JdF M+U sheets, as are fw fisheries]
ESC_Overview [stock inputs are applied on JdF M+U sheets, as are fw fisheries]
ortioning, fw fisheries, and some additional NoA/SoA processing occurs on HdUnmrkd]
ortioning, fw fisheries, and some additional NoA/SoA processing occurs on HdUnmrkd]



fishery workup on NS sheets]
s]

s apply on SkUnmrkd, SkMrkd]

gic happens on SPS sheets, including fw fisheries]
gic happens on SPS sheets, including fw fisheries]
gic happens on SPS sheets, including fw fisheries]
gic happens on SPS sheets, including fw fisheries]



GUTS FOR TAMM VERSION: #REF! #REF! at #REF! #REF!

VARIABLES:

TAMMVER #REF!
TAMMVERDATE #REF!
TAMMVERTIME: #REF!
TAMMAUTHOR #REF!
FRAMVER: 2.21Dec15
(FRAM)RUN: SLC-Chin3721_
DESCR: SLC-Chin3721_Final
PATH:
LASTtammINPUTS: #REF!
CKTIfilename CKTISLC-Chin3721_Final.tam
CKTLfilename CKTSLC-Chin3721_Final.tam
CKTTfilename CKTTSLC-Chin3721_Final.tam
CKTVfilename CKTVSLC-Chin3721_Final.tam
CKTXfilename CKTXSLC-Chin3721_Final.tam

^ 12/9/2021 +

Puget Sound Recreational Chinook Seasons 2021-22 Modeling Proposal												
Area	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
5			M M M	NR NR NR							M M M M	
6			M M M	NR NR NR								
7			M M	NR M	NR NR							
81				NR NR NR	NR***							
82				NR* NR NR	NR*							
9				M M	NR NR NR							
10		NR NR	M M M	M M M	NR NR	NR NR			M M M M M M			
11		M M M M M M				NR NR	M M M M					
12 NoA			NR** NR NR NR	NR NR	NR NR	NR NR	NR NR					
12 SoA			M M M M M M			NR NR NR NR						
13	M M											

Nooksack	M	Skykomish	M	Sammamish	NR	Nisqually	M
Samish	NS	Skagit/Cascade	M	Puyallup	M	Skokomish	
Elliot Bay SAF	NS	Sinclair Inlet	M	Tulalip Bubble	NS	Year-round piers	NS
Duwamish	NS	Bellingham	NS				

NR Non-Retention
 NS non-sel
 M Mark selective
 Closed

* Aug. 14-Sept. 19 in Area 8-2 is modeled as NR for Chinook
 **NR beginning July 11th in A12 - NOA
 ***closing Sept. 19

Puget Sound Recreational Chinook Seasons 2020-21 Modeling Proposal												
Area	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
5			M M M	NR NR NR							M M M M	
6			M M M	NR NR NR								
7			M M	NR M	NR NR							
81												
82												
9				M M	NR NR NR							
10		NR NR NR	M M M	M M M	NR NR	NR NR NR			M M M M M M			
11		M M M M M M				NR NR						
12 NoA				NR NR NR NR	NR NR	NR NR NR NR						
12 SoA			M M M M M M			NR NR NR NR						
13	M M											

Nooksack	M	Skykomish	M	Sammamish	NR	Nisqually	M
Samish	NS	Skagit/Cascade	M	Puyallup	M	Skokomish	
Elliot Bay SAF	NS	Sinclair Inlet	M	Tulalip Bubble	NS	Year-round piers	NS
Duwamish	NS	Bellingham	NS				

NR Non-Retention
 NS non-sel
 M Mark selective
 Closed

666f767ba1c430ebd58b3fe17abf0a3 12/9/2021

Input Chronology

Date	Run	Fishery	Description	Comment
3/2/2006	Skagit ET Catches			made changes to skagit Extreme terminal catches computations were changed to reflect catches based on TAA instead of ETRS
3/16/06	White River Impac		fixed formulas in SPS Unmrkd C63 to reference unmarked run size	
	Nisqually River net		reduce input to .43897	
3/22/06	Skykomish Selectiv		fixed unmarked calculation by multiplying *.1	
			added input and changed marked calculation to compute differing marked and unmarked encounter rates	
	Puyallup ET Net		added new treaty net inputs provided by Chris 3/22	
3/23/06	Hoodsport hat seir		make modifications to allow HR on Hoodsport hatchery ETRS	
	White River C&S		entered new value per MM request	
3/24/06	NT Commercial		new inputs for Skagit(chum) and A10/11	
	No/Sa sport		new input for the sport fishery	
	No/Sa T and NT ne		modeled to get an escapement of 4800 (0.365)	
	Skagit T Net		new inputs from Rebecca	
	Hoodsport hat seir		entered Jim's new input	
	Skagit Spring Sel S		new values from Steve (505 encounters)	
	Carbon Sport		new values from Steve	
03/26/06	Marine Area 12-12		JH catch mixed with NL HR frm 3/24/06 emails from each	
	Hoodsport hat seir		JH catch converted to HR	
	Skok net		JH catch converted from NL HRs	
3/28/06	Carbon Sport		Changed input sport to accept marked and un-marked encounters	
3/29/06	SJI Reef Net		changed description for CmNr through 9/30	
	Lk Sammamish Chi		2000 per MM 3/29	
	Puyallup ET Net		new input .18699 because of reduced schedule	
	Green R sport		new input of 26	
	Nisqually Sport		modeled as selective	
	Elliott Bay Sport		new inputs because of fisheries reductions	
	Puyallup Sport		new input from Steve due to fisheries reductions	
	8A T net		entered new inputs for wk 36,37 chinook fishery	
	HC T Net		final agreed upon HC inputs	
3/31/06	Elliott Bay Net		new JZ inputs due to reversion to 2004 season	
	Skokomish Sport		new NT input to share reductions needed to meet escapement goal	
	Skokomish Net		new treaty inputs to reduce net fishery from 4 to 3 days	
4/3/2006	HC T Net		new monthly splits from Jim Huinker	
4/4/2006	Skagit T Net		new inputs from Rebecca starting fishery 2 weeks earlier	
	NT Commercial		new Don inputs for 8A,8D and HC	
4/5/2006	Puyallup R Test		reduced by 50 fish, because fishery delayed by one week	
	Skokomish sport		new input of 3167 to reflect season of 8/1 to 9/13	
	Puyallup Test		white spch extracted from test	
	Carbon Sport		Reduced unmarked encounters to account for enforcement effectiveness	

06 Post-Season Fixes

7/11/2006 =2D_Fmrkdnew'!! Changed Skagit S/F nat columns on 2D_Fmrkdnew page to reference % natural of marked (before % nat of UM)
 ^ 12/9/2021 +

=INPUT_StockData: Changed cell C10 Input_StockData to read % natural of UM (instead of % natural of total)

Inserted A11 Sport Row in TAMX and changed all cells referencing TAMX 10/11 Sport to reference TAMX 10 Sport & TAMX 11 Sport
Changed 2D_F "Landed Catch" Table to be the sum of the 2D_F marked and unmarked tables

7/14/2006 Hood Canal mrkd© cell reference from HC G26

8/25/2006 deleted "2D_Fmrkdnew" pages after making sure that they are no longer referenced
deleted "7"! Page after changing all references in the NoSa TAMM pages

11/29/06 JDF
Changed cell reference: Before the fix, JDF was missing values from 2D_F marked because wrong column was referenced
Changed cell reference: this change resulted in the expected escapement being used instead of the Spawner escapement

12/13/06 Skagit SF
Set up natural exploitation rates to be computed from hatchery and natural values to include wild broodstock
ER ESC Overview Marine and PS Sport ERs for SPS stocks
incorrect cell references for 10A and 10E sport for SPS stocks
fixed cell references

0.01190476

12/14/2006 Hood Canal
Computation of extreme terminal harvest on HDC page didn't include marked fish in the denominator in cell HdCIF53

Sno SF Natural Fingerl on 2D_F page
used to be computed as Sno SF Fingerlings * PPN Natural
is now read in from 2D-F Unmarked as UM Fingerling * ppn Natural (since no marked fingerlings of natural origin)
this new approach deals with changes in mark rate due to selective fishing

2/13/07 NT SNOHOMISH R. RECR
Eliminated a term in the calculation that seemed to be a relic of the old way of doing the computation
changes made to cells C,D,E,F 49 on STSN UM Page

1/0/00 Skagit Treaty FW Pink Directed
new input and fisheries description from Rebecca season change

Skagit Terminal Run Breakout PPNs
new slightly changed values from Bob values need updating with model runs

x=SkID70	0.9742
x=SKSPNAT	0.4447
x=INPUT_MKRTIG6	0.784
x=SKSFONAT	0.9322

Carbon River Sport Selective
New Marked Encounters and Mrel rate

x=INPUT_ETSport!C31	1906 new method per agreement with Andy
x=INPUT_ETSport!G31	0.5

Nisqually Selective Sport
new encounter input

^ 12/9/2021 +

0.045	0.0684
0.338	0.5475
0.0325	0.0684

Hood Canal Treaty Inputs

0.0951	0.034189
0.0004	0.023134
0.0000	0.000177
0.2655	0.111841
0.0006	0.010693
0.72805	0.004582001

3/29/07 7/7A Treaty Net Table 1 Description 2607
 add one week to chum fishery
 #REF! Trty (GN/PS): wks 41-46

Hood Canal NT Net

corrected chinook bycatch during chum
 72.89055195 48
 0 0.01875

3/30/07 Bellingham Bay NT Net
 new inputs to lower ER
 0.12815 0.36848

4/3/07 JDF markd and Unmarkd TAMM fixes
 fixed cell references to split out catches and runs sizes for marked and unmarked JDF components

Puyallup Treaty Net

0.29844 0.18446
 #REF! wks 36-42 1,3,3,3,4,4,4

Nick's edits to Hood Canal Inputs

descriptions
 and changes to monthly splits
 22.05% 0.922
 77.95% 0.078
 0.728045153 0.996 (reverted to Jim's)

12: GN 5 d/wk 9/25-12-12B: 9/25-10/20, 7 d/wk (BS may start 9/16); 12C/D: 10/01-10/20, 5 d/wk (BS may start 9/21); 10/21-10/27, 7 d/wk
 #REF! <<=>ETRS or CATCH

9A: 8/08-10/30 7d/\v9A 8/26-11/3 GN 7 d/wk; 12A 8/26-10/13 (GN 1d, more poss after 9/15; BS 5d/wk, rel Chinook)

9A: 10/31-11/20 7d/9A 11/4-12/8 7d/wk (GN); 12A S. of Whitney 10/14-11/20 7d/wk (GN)

Wb 7/18 - 9/16 1 d/\wb 8/5 - wb 9/23, and 10/21 - 12/1 Tues. & Thurs (possible in-season modifications)

^ 12/9/2021 +

4/4/07 Fix to HC UNMarkd Page
X=HdCUmrkd!BL9 cell was referencing the wrong cell
result:no impact since value was zero

Skagit Sport Selective
% UM in Spr MSF as % Bob's changes to deal with differing mark rates
#REF!
297
#REF!
#REF!
0.483434012
496.43
31

Skokomish Treaty Net
0.2655
0.0006
03-06 avg

Skokomish sport
new input adding hooking mortality
0 5182

Puyallup Sport
cut the month of August
1487
126

4/5/07 A9 Chum Test Fishery
impact reduction
assumes that samples will also be taken in commercial fisheries, modeled under 10/11 test
10

A9 Chum Treaty Net
instate a treaty net fishery for chum in Area 9
modeled in 10/11 net
#REF!

4/13/7 Skokomish R Net
additional 2% HR per potential Purdy Crk fishery add-on (not passed to modelers on 4/6/07)

3/11/08 Skagit Spring Chinook Impacts in Freshwater
Instead of modeling fw impacts on Skagit Springs in the freshwater net fisheries as a proportion springs on the summer/fall fishery
this fishery is now modeled as a harvest rate on spring chinook in the Input_Harvest section. All the changes were made to the marked and
unmarked Skagit A tables.

^ 12/9/2021 +

3/13/08	Compute Hood Canal page by adding HC UM and HC M	Run 1608
	fixed yearling computation on UM and Marked E table	Run 1608
	fixed UM and marked computation of impacts during chin, coho, chum in cells B15-17	Run 1608
	fixed Hood Canal landed catch and total mortality calculation of local stocks Jul-Sep in 12/12B&9 (HC page F-J 26)	Run 1608
	fixed the calculation of treaty and non-treaty impacts Jul-Sep (HC page H-J 20)	Run 1608
3/19/08	Add Snohomish Hatchery Exploitation Rate Columns into 2A_C and 2D_F pages a see also 2A_CU&M_Hatchery page	Run 1608 Run 1608 Run 1608
	Add Preterminal NT Impacts on Tulalip Hatchery Computation to 2A_CU&M_Hatchery Page	Run 1608
	Fix cell reference errors caused by the 5/6 split on the 2A_CU&M_Hatchery Page	Run 1608 Run 1608
3/21/08	Update TAMM with Missing Inputs	Run 1608
	New treaty Hood Canal net inputs from Cindy	Run 1608
	Updated Input_MKRt, Input_Stockdata, and Skagit TAMM pages with stock proportions from Bob	Run 1608
	edited Table 1 descriptions	Run 1608
	Update North of Ayock and South of Ayock impacts of HC sport fisheries on Hood Canal TAMM page	Run 1608
	Update Hood Canal Forecasts	Run 1608
	Fixes to TAMI for A10/11 T and NT impacts	Run 1608
	TAMI wasn't reading in the correct cells	Run 1608
3/24/08	New Skagit Net Treaty Tamm Inputs	Run 1308
3/25/08	New Skagit PPN natural for the FW net fishery	Run1308updated
	added fields to compute new hatchery/wild ppns in the Skagit FW net fishery on sockeye	
	added fields to Input_Stockdata page for ppn Skagit Nat and Ratio New/Old	
	this ratio is then multiplied with the catch of Skagit Spring naturals on the unmarked page	
	Delete second JDF E table table that is created by adding M+UM	
	set the first JDF E talbe up to compute as the sum of marked and unmarked	
	change all the cell references to the second table	
	Fix cell reference errors on 2A_CU&Mhatchery Page	
3/26/08	Placed A9 treaty research fishery impacts into the 10/11 treaty net cell	
	this input was previously modeled in the 10/11 test fishing cell	
	which splits impacts 50/50 between State and Tribes	
	Fixed cell reference error on StSn page	
	ER in cell AB36 was previously computed by dividing catch by UM run size instead of total run size	

^ 12/9/2021 +

Add 369 impact to 10/11 treaty net cell for chum commercial fishery in Area 9

3/28/08 Hood Canal D table edits
fixed cell references to make the HC D table the sum of the marked and unmarked tables
computed area breakouts using TAA instead of pre-season forecast

4/2/08 New Skagit FW Net Inputs
New Elliott Bay sport input
extend fishery from 7 weeks to 8 weeks
New Puyallup River Net inputs
0.17246 and 265
New Skagit Treaty reduction of 16% due to mesh restrictions

4/3/08 Fixed cell referenced in Skagit TAMM for River test fishery
catch was not multiplied times ppm Summerfalls in cells SK_M & SK_UM D43 F43

4/8/08 New Skokomish Treaty and Sport Inputs
New Skagit Treaty Net
New Puyallup Sport

4/9/2008 fix cell references on Skagit M and unmarked Pages (C tables)
new HC net value during coho (slightly higher)
corrected input in Skagit River
input for Nooksack Early C&S catch (to model 9 NORs)
new input for NT A 10/11 net frpm 361 to 360
new NT commercial net fisheries descriptions for HC chum, 10/11 chum and No/Sa Chin

4/10/08 new skokomish sport input 3550
LaWa additional net catch (682) to achieve 5% fw ER.

4/23/08 changes to Tulalip Esc computation on St/Sno pages
subtracted 8D sport from ETRS instead of just 8D net
for an escapement near zero

4/24/08 Lake Washington computation of Esc on ER page
this calculation had fixed values for Cedar and NorthTribes
calculation is now based on inputs in the stock data page of Lake Wa and North Tribes run sizes

4/24/08 Computation of 10E T net catch
fixed computation to apply harvest rate only to Grovers
instead of Grovers and Gorst

4/24/08 Make 2D_F Page for SPS the sum of the marked and Un-marked page

Split Area 8-13 sport catch of SPS on 2D_F, 2D_Fmrkd, 2D_Funmrkd pages into individual Areas

5/1/2008 Fixed cell references for Skagit River sport fishery to deal with marked and unmarked Spring Chinook impacts
^ 12/9/2021 +

May/08 Modifications to Add 8D sport catch to TAA
changes to input harvest; set flag to .99

August/08 Consolidate all inputs into new Input_Page

9/11/2008 Recalculate HC Tamm ETRS run sizes
Made some changes to the HC Tamm to fix your concern about differing ER for 12B naturals and Skok naturals in northern fisheries.
As mentioned earlier the problem arose because the ETRS was split according to PSF proportions.
I made changes in the "BA" column of the HC marked and unmarked Tamm's to modify the splits.
1. Take ETRS from TAMX for all HC stocks
2. Add Area12 sport and local terminal net catches
3. Split by PSF proportions for each stock
4. Subtract A12 sport and local terminal net catches for each stock to get the final ETRS for a stock

10/7/2008 **8D NT Net catch**
set up the input as a fixed catch and read directly into TAMI

11/10/2008 **Stilly Nat Escapement on ER_ESC_Overview Page**
Changed formula to read of 2A_CU&M_N page instead of un-marked page
Some of the cells on 2A_CU&M_Hatchery page column G were hard-wired; changed to formula

12/24/2008 **Skokomish Sport**
set up cells to process mark selective input
HC TAA

December 20 Change TAMX load macro to replace
the "Run Entering" run size with the TAA. This was done
to deal with new forecasts that incorporate
HC sport catch

1/15/2009 **Skokomish Sport**
for rate inputs use ETRS as base instead of TAA
Skokomish Net
for rate inputs use ETRS as base instead of TAA
this also fixed the discrepancies between D and E tables

2/2/2009 **Stilly Nat Escapement on ER_ESC_Overview Page**
changed formula to get escapement from unmarked page times PPN natural from mark rate page

2/6/2009 **A2_CU&M_Hatchery page**
Fixed formula to be based on $UM * PPN \text{ Hatchery} + M * PPN \text{ Hatchery}$
whenever possible to achieve independence from pre-season forecast proportions of hatchery and natural

3/3/2009 **Skagit Spring MSF**
Changed inputs and processing to accept encounters of marked and unmarked
Fixed SkUM cell C46
I made the following fix: Instead of multiplying total UM times (1-SkSpUpct) the cell now multiplies total UM times $(1 - SkSpUpct * 1 / PPN \text{ UM Cascade})$. PPN UM Cascade is entered on the input page
SkSpUpct = the proportion hatchery of the Unmarked Skagit Springs
1-SkSpUpct = the proportion wild of the Unmarked Skagit Springs
 $SkSpUpct * 1 / PPN \text{ UM Cascade} = \#UM \text{ hatchery} / (\#UM \text{ hatchery} + \#UM \text{ wild}) * PPN \text{ UM Cascade}$; hopefully equals proportion hatchery of unmarked Cascade

^ 12/9/2021 +

3/3/2009 **Stilly/Sno Marked and Unmarked**
 Fixed cell referenced on marked and unmarked page D10:E13
 these cells used to compute catch from rates by multiplying rate times marked/unmarked abundance
 and then multiplying again times mark rate

3/4/2009 **Skagit Spring**
 Cells B37-43 on marked and unmarked page referenced Hoko run size TAMX I32
 fixed cell referenceds to Skagit Spring Chinook
Skagit S/F
 Cells D12:E18 had formula that processed a catch of 1 as a rate
 changed formula to process any value >0.999 as catch

3/18/09 **New Nooksack selective sport input**
Added A9 chum fishery into 10/11 treaty input field (same values as in 2008)
added Craigs Smith's Nisqually hatchery escapement goal
revised A 10/11 test fishery input per MM to 450
confirmed Lake Sammamish input at 5000 (MM)
entere Bob's new stock data inputs (BH 3/17 memo)
enter Cindy's new Hood Canal inputs for Skokomish exclusive areas waiting for agreement to update rest(CG 3/17)

3/19/09 **changed fishery description for Jetty fishery per BH**

3/20/09 **entered Rebecca's new Skagit numbers provided 3/20**

3/23/09 **formula fixes on Hcmarked E-table for treaty freshwater net row and fingerling calculation**

3/31/2009 **made fixes to TAA tables on 2A_C U&M_N page, many wrong cell references**
entered input for Area 10 treaty pink fishery

4/1/2009 **Updated base regime values on Overview page**
new HC treaty inputs for in common areas; same as those submitted by CG 3/17

4/2/2009 revised inputs for non-treaty commercial, major change of 233 impacts for A10 pink fishery

4/4/2009 Revised NT and T inputs for Bell Bay; Treaty from 2000-07 average.

4/4/2009 Revised White C&S; Chambers catch converted to HR; 13A catch from discounted recent year average catch.

4/4/2009 revised Skagit treaty inputs

4/6/09 Skagit sport of 1770
 revised Skagit treaty inputs

4/7/09 changed Nooksack C&S to result in 8 earlyies
 updated Puyallup River net
 new t & nt 10A and Green River inputs
 new 8A nt net input of 0; chum closure
 new A10 sport summer quota
 new calculation of ppn SPCH 10% of SPCH/SFChin ppn
 set quota back to 2923 close outer E'bay
 quota at 7K
 remove test fishing in TS 4
 new input 752
 open half Oct, close Nov
 eliminate summer test

4/8/09 22hp **Skagit R sport**
A 10 sport
JDF troll
A 11 & 81/82 sport
Skagit R sport
A 5 sport
A 5 sport

^ 12/9/2021 +

		Skokomish R	new input 5864		
		Dumwamish Net	05-08 ave river net HR		0.275%
		Skagit R net	new coho directed input of 0.0197	Swin -1 day, Upper +1.167 days	
4/14/09	2309	Skagit FW Net Chinook	new input of 0.1506 & changed description for input		
		SPS FW net	made fixes to formulas in range O38:O48	cells did not process harvest rates correctly	
		Table 1 descriptions	A7 Oct sport; describe as msf		
		Snohomish R test	add 50 fish and description for sentinel fishery		
		Nisqually FW net	based rate on a run size including escapement, FW net & spo before denominator only had esc. & FW net		
5/21/09	new 2010	Skagit test fisheries	added a row to key tables for FW test fishing	exclude from denominator when computing allocation	
5/26/09	new2010	Skagit River C&S	added new input for C&S fishery		
11/18/09	Chin2010UseMe	Nook/Samish FW Net	fixed cell D61 on NSmrkd & NSunmrkd pages to split catch in marked and unmarked		
1/29/2010	Chin2010UseMe	x='ER_ESC_Overview(ifanyMS	Escapement for Lake Washington natural was recomputed to previously the proportion assumed that Ntribs are not included in the Lk Wa natura		
1/29/2010	Chin2010UseMe	SPS M and UM	corrected cells BU 12 + 13 in SPS TAMMs	this was necessary to correct a reference error; formula was also simplified	
		Hood Canal Jul-Sep Impacts in 12/12B & 9A			
2/2/2010	Chin2010UseMe	x=B26*((B15*Input Page 1E	fixed formula computed the treaty marked and unmarked Jul-Sep 12/12B & 9A impact		
		Du/Gr Natural Escapement			
2/16/2010	Chin2010UseMe	#REF!	add naturally spawning hatchery fish and subtract naturals to Du/Gr R natural forecast is now excluding hatchery strays		
			0.16342107 add two fields to stock inputs for PPN nat to hatchery and hatchery spawning in wild		
			10,683 adjust hatchery escapement on "Cat&Esc" tab for strays		
		Cedar River Escapement			
		#REF!	expand for hatchery strays	Cedar R natural forecast is now excluding hatchery strays	
			0.074 add field to account for hatchery strays		
2/22/2010		Puyallup River Escapement			
		#REF!	expanded for hatchery strays	Puyallup natural forecast is now excluding hatchery strays	
		#REF!	added field to account for hatchery strays		
3/3/2010	Chin0210	Nooksack FW net			
			changed formulas on Nook/Samish TAMMs to accept a rate or a fixed catch		
			6,258		
			6445		
3/4/2010	Chin0210	Mid HC nat escapement			
		#REF!	escapement is now computed off the combined mrkd&unmrkd HC page to account for marked supplementation fish		
3/8/2010	Chin0210	New T Nooksack Samish Inputs			
3/10/2010	Chin0210	Corrected Area 10A test catch			
			528		
3/10/2010	Chin0510	Skagit Stock Spec PPN			
			computed Skagit Spring % nat and Spring % Marked Hatchery using TAMX TRS values and % hat UM, followed Bob's suggestions		
			30% computed	this changes requires fewer inputs and is sensitive to mark rate changes of	
			0.00% computed	terminal run size with pre-terminal fisheries from FRAM	
			0.42257323 new input % hatchery unmarked		
			48% computed		

^ 12/9/2021 +

		Stilly ppn SF of Total	
		used Kit's number	
		Nooksack/Samish SF forecast	
		corrected PSF	
3/11/2010	Chin0510	Lk Washington ppn marked	
			o changed to 98 from 99
		Lk Washington Esc Computation	
		#REF!	
3/15/2010	Chin0510	Skagit Stock Specific Rate Corrections	
			submitted by BH 3/12/2010
			0.42257323
		Critical	
		Critical	
			0.949007384
			0.0707
3/15/2010	Chin0510	Sentinel Fishery Impacts	
			zeroed out impacts because these fish are covered in 2010 with a 4D permit (Mitch Dennis)
3/18/2010	Chin0510	corrected Stilly marine inputs	
			submitted by Val 3/18
3/23/2010	Chin0510	Nooksack Early C&S fishery	
		adjusted catch to result in 30 NORs	
			286
3/23/2010	Chin0510	Nisqually Net Input	
			o increased rate
			submitted by CS 3/18/2010
3/24/2010	Chin0510	Skagit Updates from Bob & Rebecca	
			0.949007384 calculated from TAMX
			0.0696 updated proportion
			0.233257092 calculated as ratio
			0.1809 updated
3/25/2010	Chin0510	Updated Table 1 descriptions	
3/25/2010	Chin0510	Model A13 Selective Beach Seine fishery	
			this is done in FRAM but the TAMM input needed to be flagged to prevent o
3/29/2010	Chin0810	Input for White River 11A & Puyallup Fishery	CP 3/29/2010
			0.0115
3/29/2010	Chin0810	Updated ER Objectives on Tables 6es	
4/6/2010	Chin0810	Hood Canal Escapement	formulas on input mark rate page were set up to not coi AHB
			o mark rate of natural Chin; this carried through
			to marked and unmarked pages
4/7/2010	Chin0810	Nisqually selective tangle net	add marked mortality of Chin in Nisqually tangle net fish AHB
			o additional marked morts
			4,450 add morts to marked page
			5,077 make combined value sum of mrkd + unmrkd

^ 12/9/2021 +

4/7/2010	Chin0810	New Puyallup R net input		CP
		0.29844	revised after discussions with WDFW 6hr opening instead of 12 in week 34	
4/7/2010	Chin0810	New Nooksack Early Forecast		AC & Ned C
		15175	+93 hatchery	
		517.110911	+74 wild	
			see "Nooksack Early Recruit Scalar Changes.xls"	
4/12/2010	Chin0810	New Puyallup R sport input		ST 4/12
		1487	fishery opens August 1	
		126		
4/12/2010	Chin0810	Skokomish MSF		AHB 4/12
		0		
		yes		
		0		
		0		
4/12/2010	Chin0810	Increased Nisqually net input		CS 4/8/2010
		0		
4/12/2010	Chin0810	New Skokimish Net inputs		CG 4/12/2010
		0.2655		
		0.0006		
4/12/2010	Chin0810	Skagit Spring Recreational		ST 4/12
		297	corrected input	
4/12/2010	Chin0810	Skagit Net Changes		
		0.0696		
		0	Spring Chinook: Swinomish wks 18-19: 4,4. USIT no fishery. No S/F directed fisheries.	
		0.1809		
4/12/2010	Chin0810	re-adjust Nooksack Early to 30 NORs		
		286		
4/13/2010	Chin0910	new Green/Elliott Net inputs		MM 4/13
		972	shorter average (3yrs) resulted	
		528	in catch reduction	
		8333		
4/13/2010	Chin0910	updated Skykomish MSF input		ST 4/12
		285	rates were doubled to	
		558	account for area expansion	
4/13/2010	Chin0910	eliminated A9 chum fishing impact		GG 4/13
		10		
4/13/2010	Chin0910	Skagit net changes	fishing reductions	RB
		0.000219728		
		0.1809		
		0		
		49%		
		51%		
		0.005524684		
		408.7310758		
		0.090909		

^ 12/9/2021 +

4/13/2010	Chin0910	Nisqually Net inputs	see Craig's spreadsheet	CS 4/13
			0	
			0	
4/13/2010	Chin0910	Puyallup sport		ST 4/13
			1487	
			126	
			0.045	
4/13/2010	Chin0910	Green sport		ST 4/13
			526	
4/13/2010	Chin0910	E/Bay MSF		
			-88	
4/13/2010	Chin0910	Nooksack Earlyies	new catch input	AC 4/13
			286	
4/13/2010	Chin0910	Paste TAMX SPS abundances from Ebay nonselective run		
4/13/2010	Chin0910	New Puyallup Net input		CP 4/13
			0.29844 33% reduction for 6 hours of fishing (instead of 12hrs)	
4/14/2010	Chin1010	Use fixed proportions to split SPS into sub-stocks		
			input stockdata section uses PSF plus sport to split SPS into sub-stocks	
			when sport fishing input changes pre-season this also changes the catch distribution	
			which makes no sense.-; ie. Smaller Green River catch produces very small gain to Green River escapement	
			because fewer fish are allocated to Green River ETRS	
			used proportions sport + PSF from initial model run as fixed numbers (proportions) to address this problem	
4/14/2010	Chin1010	Add impacts from Skagit sockeye test fishery		
			0	
			0	
			0	
			3	
4/14/2010	Chin1010	Green River net: new input		JZ & MM 4/14
			8333	
4/14/2010	Chin1010	Elliott Bay non-selective		JZ & MM 4/14
			-88	
4/14/2010	Chin1010	Non-treaty net changes		
			z Wk 39-45, GN 5 days/week, PS 1 day/week; Wk 46-48, GN 3days/week, PS 1 day/week	
			confirmed in 12&12B_02162021_KA	
			0	
			0.12815 Wk 34-35: GN 3,3; PS 1,2; Wk 36-39: GN 5,5,5,7; PS 1,3,3,7; Wk 40-43 PS&GN 7 days/week, Wk 44-50 GN 2,2,2,2,2 PS 1,1,1,1,1,1(c	
			o KA: Wk 38-44: cKNR SKGN 2-5-5-5-5-5	
5/10/2010	Chin0011	SPS TAMM Pages		
			set SPS marked & unmarked pages	
			range DZ11: EC28 up to compute independent of	
			SPS total page ; this allow for msf modeling;	
			before the pages were set up to compute	
			off the combined page, assuming impact splits	
			based on PSF proportions of marked and unmarked	
7/1/2010	Chin0011	Skagit Spring Chinook Impact Calculations		
			^ 12/9/2021 +	

		FRAM assigns impacts in spring chinook T net fishery to Skagit Summer/Falls. Developed a new input. This input is now processed in TAMM. Changes to "Sk", "Skmrkd", "Skunmrkd" (A&D tables) and 2D_F, 2D_FMrdk 2D_Funmrkd tables were necessary	
Sep 2010	Chin0011	Make Calculations Sensitive to Pre-terminal Mark Rate Changes instead of fixed PSF Mark Rates Eliminated Input_MkRt pages and MarkRate section on Input_Page by consolidating inputs Make all marked and unmarked calculations using % hatchery of marked, % hatchery of unmarked, % nat of marked, % nat of unmarked These calculations are sensitive to mark rate changes in pre-terminal fisheries. Before, in some instances, using unmarked hatchery calculations from pre-season forecast didn't allow for incorporation of mark rate changes	
	Chin0011newinput	Cleaned up SPS TAMM pages get rid of redundancies in marked, unmarked, and total pages eliminate columns based on pre-season mark rates (no longer needed since changes form above)	
1/14/2011	hin0011.xls	Cleaned up JDF TAMM pages Set up JDF worksheet table A to compute as the sum of marked + unmarked fixed marked and unmarked pages to compute from the Input Page worksheet	
1/14/2011	Chin0011.xls	Change SPS stock split calculations It is no longer necessary to add FW sport catch to TRS to make the stock splits because forecasts now include FW sport	
03/05/2011	Chin0011.xls	Change SPS stock split calculations because of mismatch between UM Fingerling catch reported by FRAM and the SPS HRIs went back and set SPS pages up to compute M as total times ppn marked UM as Total -Marked this produces impacts that match the total TAMX, but do not match the FRAM mark rate; also had to make adjustments to properly compute MSF in SPS ETRS (10A, 10E etc). Made changes to input page as well as SPS pages; also made changes to 2D_F pages	
		788	4,580
		70	2,884
3/8/2011	Chin0111.xls	report Skagit marine test to TAMI 0.004047293 add impacts to time 3 1.19770587 add impacts to time 4 o new rate calculation	
3/17/2011	Chin0711.xls	Model Nisqually River Tangle Net Fishery add new cells to model this fishery on "InputPage" add impacts to SPS M & Um page cell C44	
		4,450	
		628	
3/25/11	Chin0711.xls	adjust Skagit Spring natural impacts to 84 0.0696	
3/25/11	Chin0711.xls	Update Skn nat of Sno nat value 0.639049236 also use this value to split snohomish nat esc on the Overview page into Sno & Sky	
3/25/11	Chin0711.xls	Adjust HC forecast according to Cindy & Thom email from 3/24	
^ 12/9/2021 +			

3/11/11	Chin0711.xls	Update HC Treaty Net Impacts according to updates submitted by Cindy Grey
3/30/2011	Chin1311.xls	Update Skykomish Selective Inputs new values from Steve Thiesfeld
3/30/2011	Chin1311.xls	Skagit Yrl PPN nat of unmarked fixed cell references the fix didn't change the values, but these cells were referencing the wrong field 0 0 17 1 0
3/31/2011	Chin1311.xls	Snohomish Forecasts made adjustments to PSF of fingerlings and yearlings; see comments
3/31/2011	Chin1311.xls	Model Puyallup & Tulalip pink fishery in 10/11
3/31/2011	Chin1311.xls	Model 10A sport as 900
3/31/2011	Chin1311.xls	Update Puyallup & Carbon sport inputs
4/4/2011	Chin1311.xls	Recompute SPS Impacts of marked & unmarked due to a mismatch of the number of unmarked & marked reported for the FRAMM aggregated SPS stocks and the mark rates coming from using the SPS HRIs, calculations were changed to account for UM impacts, especially during MSF fisheries. Impacts are now computed for the marked TAMM stock, then a harvest rate is calculated this harvest rate is applied to the unmarked TAMM stock in conjunction with MSF parameters entered in the InputPage Before, the FRAM stocks were first split into TAMM stocks on the combo page and then divided into marked and unmarked using the mark rate coming out of FRAM and adjustments to the mark rate to deal with MSF fisheries. This approach did not work when a TAMM stock (i.e. Nisqually nat) did not have a marked component.
4/4/2011	Chin1311.xls	Updated NT net inputs for Skagit pink 8D chum 8A pink & chum B'ham Bay Chinook
4/6/2011	Chin1311.xls	New Puyallup net inputs from Chris
4/5/2011	Chin1311.xls	New Skagit net inputs from Rebecca
4/6/2011	Chin1411.xls	Nisqually Tangle Net Fishery model fishery with 1000 marked mortalities Nisqually Treaty Net Input slightly smaller input
4/11/2011	Chin1711.xls	New Skagit Net Inputs from Rebecca
4/11/2011	Chin1711.xls	New sport inputs for 10A
4/12/2011	Chin1711.xls	New net inputs for 10A and Green River 43 Steve Thiesfeld impacts during pink fishery

^ 12/9/2021 +

4/12/2011	Chin1711.xls	New Puyallup R net impacts for Puy tribe + Muckleshoot tribe	0.14401 Puyallup Tribe 0.04166 Muckleshoot Tribe	CP
4/12/2011	Chin1811.xls	winter troll at 7000		
4/13/2011	Chin1811.xls	set Nooksack C&S to 150		
4/13/2011	Chin1811.xls	model Sequatchew BS MSF at 1317 (866)		
4/13/2011	Chin1811.xls	forced skok River ER to 50% due to lack of agreement		
12/16/2011	Chin0012.xls	A12 Sport South of Ayok im	Distributed AEQ impacts based on PSF proportions of cc HCU nmrkd & HCMrkd Q43:S43 Q47:S47 Q51:S51	A12Sport SoA AEQ mort calc was changed to be distributed evenly across HC FF populations (without impacting 12B nats a Previously 75% AEQ impacts were allocated to Hoodspport Hatchery and the remaining 25% were distributed according to PSF proportions to Hoodspport i Skokomish Hat, Skomomish Nat, and 12C/D nats This system resulted in negative escapement to UM Hoodspport Chin, becaus the Hoodspport UM abundance was too low to absorb 75% of UM impact It also didn't make sense to assign a fixed ppn (75%) of the impacts to Hoodspport regardless of its abundance and the abundance of its marked : Skokomish Hat abundance has increased significantly in the past 10 years wf reflected in the impact calculation. resulted in increased mid HC ER (about 0.2%)
2/10/2012	Chin0012.xls	HCFF ETRS on D table	took A12 sport out of the ETRS calculation it was previously included to deal with uneven impact distribution over HCFF stock units New system is better, but still not perfect because changes in Area 12 still slightly change mid-HC ETRS even when no additional mid HC fish are caught in Area 12 sport	
3/01/2012	Chin0112.xls	Nisqually (83D) tangle net I Nisqually (83D) experiment Nisqually (83D) beach seine T STILLY R. PINK (2012 coh Inputs rec'd to date	I modified tangle net fishery input to allow for retention ; added an experimental fishery field to accommodate a j added a freshwater beach seine modified to take a fixed catch Entered proposed 2012 inputs	Tangle net MSF had to be modeled separately given that it was proposed as Non-retention experimental fishery, field can be used for future gear tests (c Modeled separate of tangle net MSF given that this was proposed as a fixed Used in 2012 to model assumed impacts of coho-directed marine fishery in f Outstanding (or in need of confirmation) inputs colored in magenta
3/02/2012	Chin0112.xls	Nisqually (83D) tangle net I Nisqually (83D) Net Fishery Modified Lk WA and Sam Additional inputs received	I rate downgraded to 6.8% rate increased to 26.9% catch expectations downgraded per MIT/SUQ agreement entered Skagit, updated sport	CS requested a TN encounter rate reduction and GN ER increase, 3/2/12 em:
3/07/2012	Chin0812.xls	Skagit-Oak Harbor SAF Lummi Nooksack MSF	Replaced by in-river sockeye fishery Added new fishery for spring Chin-directed MSF (C&S)	All formulae have been modified to accommodate the in-river status of the f Fishery modeled with encounter rate and rel mort

^ 12/9/2021 +

3/8/2012	Chin1012.xls	Skagit S/F FW net Nooksack C&S Du/GR nat escapement	zero out Chinook directed fishery Change input to 24 from 150 eliminated adjustment to obtain TRS; since forecast unit reflects a run size similar to TRS	
3/12/12	Chin1112.xls	NSmrkd, NSUnmrkd HCmrkd, HCUmrkd	Correction to cell ref error. Error handling for ER calc's	Mark rates in P19 and 22 computed from TAMX were referencing Sp Chin fo added if/then statement to ER calc's for fish w/ zero abundance (e.g., marke
3/13/12	Chin1112.xls	NT Nisqually MSF sport	Revised model inputs	Updated sport encounters total and MRR & URR based on C.Smith review; e
3/14/12	Chin1112.xls	TI 10A coho/chum, TI 10A t	Revised model inputs (reduced based on revised data)	Updated model inputs based on Mike Mahovilich 3/14/12 email
3/19/12	Chin1112.xls	Green River forecast	Corrected based on revisions circulated	Errors were detected in the Green River forecast, and FW sport was also inc
3/20/12	Chin1112.xls	Nooksack early ER	Revised 'ER_ESC_Overview(ifanyMSF)' formulas to refer	Revision made per co-manager and fed discussion
3/20/12	Chin1112.xls	HdCmrkd & HdCUnmrkd	Entered/corroborated error-handling formula used to c	A non-zero small number (partial fish) was divided by a smaller non-zero nur
3/22/12	Chin1112.xls	TI SU/FA Nook-Sam timeste	Changed non-target impact on earlies in SU/FA-directed	Per Alan Chapman/Marianna's analysis of 2002-2010 CWT recoveries in 7BCI
3/27/12	Chin1112.xls	TI Nisqually MSF Tangle net	Revised encounter rate for tangle net fishery	Increased from 6.8 to 7.7% due to error in estimation
3/27/12	Chin1112.xls	TI Area 81B & 11A	Revised ER on ETRS down from 31% to 26%	Revised due to change in structure and data analysis
3/28/12	Chin1112.xls	TI Nook Sp Tangle C&S	Zeroed out the MSF Tangle net fishery	Fishery no longer planned
3/28/12	Chin1112.xls	TI Nisqually Net	Revised target ER down from 26% to 22%	New input based on fewer nets, same season.
4/2/12	Chin1312.xls	NT Commerical	8A Chum Marine Chum HC Areas 9A/12A coho Nook-Sam Jul-Sept NT	increased rate from 0 to 0.0006 Decreased impacts from 48 to 40 Shifted from 75:25 TS 3:4 split, to 100% TS3 Increased rate from 0.3775 from 0.2990
4/2/12	Chin1312.xls	TI 10/11 test (Apple+other)	Updated impact from 5 fish during chum to 15	increased catch from 35 to 45
4/3/12	Chin1312.xls	TI Nisqually extreme termir	Updated dates in descriptions	No change to input
4/3/12	Chin1412.xls	TI 13A, 13+ Jul-Sept rates TI Nooksack C&S	reduced to recent 2 year average raised C&S to 164	placeholder until fisheries are resolved
4/4/12	Chin1512.xls	NT Skagit Sockeye Sport	Increased Chinook (SU/FA) incidental encounter impact	Brett updated SU/FA based on RB's review, increased from 0.00005 to 0.005
4/4/12	Chin1512.xls	NT Skykomish Inputs	Updated rates, based on 2011 creel	Net decrease in UM (0.0778 to 0.0790) and M (0.1410 to 0.1150) enc rates, j
4/4/12	Chin1512.xls	TI Nisqually Net	Revised target ER (from 0.2236 to 0.2285 to reflect addi	This revision results in a 0.3% ER increase

^ 12/9/2021 +

4/4/12	Chin1512.xls	TI Nooksack C&S	Reduced C&S total to 159	Modification to constrain total impacts to 17 NOR
4/4/12	Chin1512.xls	TI Skagit FW	Added C&S and additional impacts during sockeye-direc	Affects SU/FA and SP ERs
4/4/12	Chin1512.xls	TI Skokomish FW Net	Reduced overall (all fisheries) to 0.2191 harvest rate	
6/19/12	Ck0013.xls	Input Pg, Skykomish MSF R	This fishery was rewired to take either a encounter rate	The latter parameter is more readily available from creel data and therefore
7/2/12	Ck0013.xls	HdCmrkd & HdCUnmrkd	Cells O18, J26, G26	J26 and G26 were corrected to handle a divide by zero error; O18 formulae \
7/2/12	Ck0013.xls	Input Pg, Nisqually Beach Seine MSF		
7/30/12	Ck0013.xls	T 8D Net May-June		0 eliminate input cell and make note to model May-June catches in time 3
8/8/2012	Ck0013.xls	8D Net	take 8D sport out of terminal net in Tulalip D tables	prior to fix this often resulted in negative escapements
8/8/2012	Ck0013.xls	10E Net	error in formula caused doubling of 10E net catch when entered as fixed catch	
8/9/2012	Ck0013.xls	Lk Washington FW net catc	fixed formula to not use an UM FW net catch < 1 as a ra	SPSUnmrkd!O38
8/12/2012	Ck0013.xls	SPS Extreme Terminal MSF	changed formulas on SPS, SPS M & SPS UM so that the c	before the rate on marked component was used to compute the rate of the
9/13/12	Ck0013.xls	Table 5 Headers	added tab name to table 5 headers	this will aid in identifying which table was used (U&M) or just (U) in documents such as the validation run summary
10/23/12	Ck0013.xls	Cat&Esc Table	delete fixed cath inputs from landed catch table	these were relics from previous years when some NS fisheries were modeled in the non-retention section
1/3/2013	Ck0013.xls	ST/SN D table	fix Snohomish hat & nat ETRS calcs	
2/19/2013	Ck0013.xls	Input Pg, macros	macros embedded within TAMM gone, probably due to conversion from .xls to .xlsx file type; save as .xlsm from here forward.	
3/4/2013	Ck0013.xls	Input Pg, Nisqually tangle n	Added capability for including UM retention error into model input, cell J199 on Input Page	
3/6/2013	Ck0013.xls	White River Escapement	ER_ESC_Overview(ifanyMSF), cell E14	Pending approval, the White River escapement displayed in the table now in
3/6/2013	Ck0013.xls	Skokomish Escapement	ER_ESC_Overview(ifanyMSF), cell E35	The Skokomish 'natural' forecast was revised to account for the fact that the
3/6/2013	Ck0013.xls	Puyallup Escapement	ER_ESC_Overview(ifanyMSF), cell E30; Input Page T61	The displayed escapement has been revised to include a projection of hatche
3/6/2013	Ck0013.xls	Green River Escapement	ER_ESC_Overview(ifanyMSF), cell E30; also see AM42 o	The displayed escapement has been revised to include a projection of yearlir
3/11/2013	Ck0013.xls	9A Chum TI	Added 20 C&S Chinook for Port Gamble Sk'lallam (Jul-Se	Due to issues with 9A Chinook field (needs to be same input type, rate or cat
3/12/2013	Ck0013.xls	Nooksack Early MSF TI	Changed from 8% encounter rate to 351 total encounte	8% encounter rate is shy of proposed 24 NOR impacts

^ 12/9/2021 +

3/12/2013	Ck0013.xls	Nisqually Net Fishery	Error detected in input estimation model, revised input	Rate increased slightly (0.27 to 0.31)
3/14/2013	Ck0513.xls	Misc. S Sound	A variety of cell ref errors were detected and corrected. Errors arose during the addition of the SPS yearling stray modification to Gre	
3/14/2013	Ck0513.xls	Nooksack Early MSF	Added hatchery-selective (M+UM CWT'd) MSF for Lumr	Given that the TAMM assumes equal impact on UM NOR and HOR, this mod Misc Cells on Input Page -- Col J:M, Row 210:216 -- Input parameters and int Cell I61 NSUnmrkd -- NOR escapement calculation had to be redefined. Cell D61 NSUnmrkd -- FW Net Catch was redefined according to the new fish Col F 5Unmrkd -- Re-referenced Nooksack Early calc's to 2A_CU&M_N so the Cell D35 2A_CU&M_Hatchery -- reapportioned UM FW net impacts of hatch Cell D43 2A_CU&M_N -- rewired to NOR escapement in NSUnmrkdI161
3/14/2013	Ck0513.xls	ER_ESC_Overview(ifanyMS	Updated/revised conditional formatting of ER and Escap	Also added a variety of definitions to the table header so that the uninitiated
3/14/2013	Ck0513.xls	Green-Duwamish Stray Rat	Updated the Soos stray to wild and NOR stray to hatche	Updated values increased the stray rate to the hatchery and decreased the r
3/18/2013	Ck0513.xls	Table 1	Upated Table 1 Descriptions	
3/18/2013	Ck0513.xls	Skagit Spring Abundance	Updated on "InputPage" see	2013TAMM&FRAMForecastTemplate.xls
3/18/2013	Ck0713.xls	Nooksack Early	slight adjustment in Early forecast	due to change in age comp; see forecast template
3/19/2013	Ck0713.xls	Area 10/11 Trty Net	Added 100 fish to this fishery to account for Area 11 pin Per Chris Phinney memo, 2/28/13	
3/21/2013	Ck0713.xls	Skok FW Sport	Revised HR input	Increased to 0.25 from 0.17
3/21/2013	Ck0713.xls	Nooksack Early FW Net	Revised C&S to increase to 46 nonselective by Nooksack	Maintained total 24 NOR morts, total impact unchanged.
3/25/2013	Ck0713.xls	Tulalip Tribe 8A Pink	Revised from 5d/wk to 7d/wk fishery	Increased rate from 0.0315 to 0.0440
3/25/2013	Ck0713.xls	Nooksack Early FW Net	Revised Lummi + Nooksack NS C&S and Lummi MSF tan	Increases total NOR impacts to 28 from 24
3/26/2013	Ck0713.xls	Nooksack Early FW Net	Revised Lummi + Nooksack NS C&S and Lummi MSF tan	Corrected error in NS fishery; now 32 NS Nooksack fish and 31 NOR encount
3/27/2013	Ck0713.xls	Nisqually Net Fishery	Revised input to achieve same harvest rate as 2012; dro	Determined what 2012 preseason rate was, then figured out 2013 schedule
4/4/2013	Ck0813.xls	Treaty 13+ Net	Reduced TS3 Input from 7281 to 4689	Adjustment made to reflect recent 3-year (10-12) mean.
4/4/2013	Ck0813.xls	Skok FW Sport	Reduced terminal enc. rate to 0.24 from 0.27	Incorrect input was in previous version.
4/5/2013	Ck0813.xls	NT 8A Pink	Revised so that 100% of impacts occur in Jul-Sep, and tc	Value of 100% in May-Jun was erroneously held in the earlier model runs; m
4/6/2013	Ck1013.xls	Treaty 13A Net	Reduced TS3 Input from 2040 to 1693	Adjustment made to reflect recent 3-year (10-12) mean.
4/6/2013	Ck1013.xls	Skagit TI Fisheries	Updates to several stock and fishery inputs	

^ 12/9/2021 +

			Spring % Natural May Marine Spr Chin %TAA Pink directed Marine FW spring catch FW Sockeye Directed FW Pink Directed FW Coho Directed	Decreased to 13.99% from 27.73 Revised to 0.002052 from 0.001989 Changed to 0.0072 from 0.0042 Increased to 654 from 594 Rate changed to 0.0306 from 0.0251 Rate changed to 0.1770 from 0.2352 changed to 0.0229 from 0.0215	biggest chang
4/6/2013	Ck1213.xls	Nooksack FW C&S MSF & N	Converted inputs to integer fish		
4/9/2013	Ck1213.xls	Skagit FW Sockeye Sport	Zeroed out; fishery not to occur		
4/9/2013	Ck1213.xls	7C Coho Input	100 fish added for 7C coho fishery in Samish Bay Oct-Apr period		
4/9/2013	Ck1213.xls	Nisqually FW Net	Reduced HR to 0.239 from 0.270		
4/10/2013	Ck1213.xls	Skagit TI Fisheries	Updates to several stock and fishery inputs	Changed to input (new - old), some increases and decrease	
			Sockeye Directed Marine	-9.60135E-05	
			Pink Directed Marine	0.000624522	
			COHO Directed Marine	-5.65265E-06	
			T FW C&S	25	
			T FW Sockeye Directed	-0.001466423	
			T FW Pink Directed	0.001865947	
			T FW Coho Directed	-0.007143001	
			T FW Chum Directed	0	
4/10/2013	Ck1213.xls	Puyallup FW Sport Carbon FW Sport	Closure up to White River for 17d, encounters reduced based on day closure Updated input based on recent three year average (09-11) to reflect recent fishery performance		
4/10/2013	Ck1213.xls	Nisqually FW Sport	Reduced encounters input due to bag limit reduction (3 Input based on the proportion of landed Chinook in recent creel due to none)		
4/10/2013	Ck1213.xls	Skokomish FW Sport	Added Fishery Agreed To Yes/No Cell	Sets ER at 50% in Table 2 as placeholder while agreements are struck.	
4/10/2013	Ck1213.xls	Hood Canal T Net	Reduced Chinook and Coho marine rates	Closure days caused reduction in marine harvest rate	
12/6/2013	Chin0014.xls	NA	Changed footnotes and labeling on tables 5 & 6 for SnoI added clarification that these columns were for "nat" only		
12/10/2013	Chin0014.xls	NA	recomputed the stock proportions of UM for Upper Sou North Tribs are already included in the Lake Washington Natural forecast		
12/10/2013	Chin0014.xls	NA	split Lake Sammish catch on SPS pages into M & UM using Issaquah hatchery mark rates		
12/31/2013	Chin0014.xls	NA	Tab 6 and tab 6_U&M are blank for cells T27:X27; and tab 6_fixed		
3/19/2014	Chin1314.xlsx	Hood Canal T Net	Skok 82G coho	revised rate to reflect correction to terminal harvest model calculation	
		Nisqually Esc	Added stray HORs to escapement	C Smith provided stray rate estimate 3/18/14; 'ER_ESC_Overview' escapeme	

^ 12/9/2021 +

		Input Page	Lake Washington North Tribs Nat	Renamed "Sammamish Naturals (Bear, Cottage, Issaquah)" to reflect the fac
		Input Page	Hood Canal T/NT sharing cheat sheet	Added back the cheat sheet near sport inputs, b/c it was useful to co-manag
		6_Nats	Updated ER criteria to be consistent with annual guideli	Must be updated each year if there are exceptions; rewired other 6s (6, 6_U
		6_Nats	Re-wired Nooksack early to 6Unmrkd	6Unmrkd and 6_Nats now both reflect the ER difference between hatchery :
3/21/2014	Chin1314.xlsm	Lake Wash Net	Added 50 C&S SUQ Fish	
3/27/2014	Chin1314.xlsm	Skagit C&S	model as 420	
3/28/2014	Chin1714.xlsm	NT Skok Sport	Encounter rate changed to 0.36	Revised due to error detected by Andy and due to schedule change.
3/31/2014	Chin1914.xlsm	Puyallup R Net	Revised Input	Week 36 Used 5-y instead of 4-y average
4/1/2014	Chin1914.xlsm	Skagit R Net	Revised Input	C&S Input raised from 420 to 1350
4/1/2014	Chin1914.xlsm	NT Puyallup R Sport	Revised Input	UM retention error increased from 0.04 to 0.06 due to change in averaging r
4/3/2014	Chin1914.xlsm	Nisqually TN & GN NT Nisqually R Sport ER Limit Reference Green R Puyallup R Net	Revised Input Revised Input Rewired Green R to 12% PTSUS Revised Input	Revision but schedule stays same; slight reductions in GN HR nad TN enc rate Increased UM Ret and Mark Release Rate, Decreased total encounters 2014 management objective that deviates from HMP rules wired into spread Week 33 averaging modified; negligible change in rate
4/7/2014	Chin2514.xlsm	Tr 13, 13D-K Net Tr Ship Canal Incidental Inp	Revised Input Revised Input	Shifted to 3-year average Shifted to encounters expectation based on recent average HR and 2014 pre
4/8/2014	Chin2514.xlsm	Puyallup R Net Skagit C&S Lake Wash NT Sport Incider	Revised Input Revised input Set to 0	Week 33 reduced schedule resulted in rate change Added 600 fish Will modify A10 winter MSF to offset impacts if sockeye fishery occurs follow
4/9/2014	Chin2714.xlsm	Nisqually GN & TN Skagit C&S Ship Canal C&S Skok NT Sport Nisqually NT Sport NT Marine Chum 10/11 NT Marine Chum 12 Skok NT 82G Chin/Coho	Revised input Revised input Revised input Revised input Revised input Correction Revised input Revised input	Week 33 reduced schedule resulted in rate change Shifted 5 of 1950 S/F to Spring Reduced Combined MIT/SUQ C&S Fishery from 300 to 251 Data update Updated UM retention to 2 year creel, closure days to reduce encounters an
12/9/2014	Chin0015 BiOpRev N/A		Added table of contents at front of spreadsheet for easier navigation Added Susan's BiOp worksheet and wired it to relevant TAMM values Repaired bad cell referencing discovered in cells B573:CA73 on 2D_Fmrkd and 2D_FUNmrkd worksheets Repaired "DIV/0" errors associated with ghosty SPS stocks (McAllister, soon UWA) on SPS worksheets (<i>not all sheets</i>)	

^ 12/9/2021 +

1/8/2015	Chin0015 BiOpRev N/A		Added a description of worksheet contents to the TAMM spreadsheet table of contents; Reorganized the worksheet so that similar sheets are clustered and grouped by color scheme.
1/16/2015	Chin0015.xlsm	Nisqually FW Net Worksheets 8 and 10	Nisqually FW Net fishery impacts are now decomposed by gear/fishery to allow for easier enumeration and troubleshooting of forms. These were hidden due to their lack of use/maintenance
3/1/2015	Chin0015.xlsm	Input Page	A197 relabeled C&S per Chris Phinney's recommendation
3/8/2015	Chin0115	ER_ESC_Overview(ifanyMS	Compute Puyallup hatchery strays as # HOR in River/Hatchery Escapement
3/13/2015	ChinXX15WedOpt:	Input Page	Added Lummi 7BCD Net inputs Made minor revision to Stillaguamish schedule description (no change to inputs themselves) Added NT Commercial inputs Incomplete, some still coming our way
3/19/2015	Chin0715@20SL.xl	Guts Input Page	Unhid Guts Sheet Allows for user defined run summary to be entered and mirrored across pages Updated Skagit Treaty fishery inputs, pink, sockeye, coh Per Bob McClure 3/18 email, agreement among co-mgrs exists regarding the
3/27/2015	Chin0915.xlsm	Input Page	Nisqually Experimental Fishery Added 500 fish pound net input with 5% release mort Skagit Pink and Coho Inriver Fisheries Revised per Bob McClure 3.27 input submission Lummi and Nooksack tribal net fisheries on early Chinoc Revised to get below 7% ceiling, with condition of preserving 75:25 Lummi:N Skagit Pink and Coho Inriver Fisheries
3/30/15	Chin0915	Input Page	
4/1/2015	Chin1215	10A NT & T pink	updated Fraser Late and WCVI abundances from Larrie no change, looks like it is already in the model
4/8/2015	Chin 1515	Nisqually FW new Nisqually FW sport 8A pink Suquamish & Swin close Elliott Bay MSF Area Submitted 7/7A JDF net Dungeness Bay & FW Dungeness Bay & FW Skagit FW E'Bay A 11 pink Puyallup Nisqually Area 13D-K NT Net Skokomish Skokomish NoA Chin NR	new inputs from CS resulting in 4.1% drop new input from LP resulting in 0.9% drop inputs from Casey modeled in FRAM NR section modeled in FRAM
		T	NT Sport
		no	
			855
			5
			0.1223
			57
			100
			2719
			0.2138
			0.264
			yes
			3300
			1
			4787

^ 12/9/2021 +

4/12/2015		Added 8% (2-pole) to time 1 A 13 sport updated S/L ratios updated non-retention	
4/14/2015		Puyallup & Carbon Sport 6D NT net - 4 Chin morts Skagit Treaty Inputs Closed Lake Sammamish Sport Update C&S in White River to 0.1315 Update Lake WA (10F,G,C,D) to 412 Update Treaty troll to 4000 Area 9 to 2483 quota (MSF 7/16-7/30; NR otherwise) Area 10 Chin non-retention Area 3/4 transfer to Area 1/2	updated inputs from Larry Phillips per email 4/13/15 Kendall from Casey from Chris Phinney from Jason Schaefer From Hap
		Updated NT A10/11 TS4 to 133 Updated NT A112 TS4 to 61 Puyallup A11 pink - 2 Nisqually Beach Seine input change - 5 A7 July change from MSF to NS Nisqually Sport Skagit Pink NT new input Nisqually Tangle Net	KH 4/14/15 email KH 4/14/15 email CP CS PP LP KH email CS email
Dec 2015		add run size definitions to TAMX eliminated TAMX Upper + Deep SPS YrI Splits	AHB these splits come from TAMM not FRAM and TAMI value previously set to ze
1/4/2016	ChinXX16	fixed formula for Skykomish on 2A_CU&M H+N page	2A_CU&M_H+N'!!12
2/1/2016	ChinXX16	Updated definition of Elwha escapement; JC MSF landed catch calculations in Cat&Esc tab; JC	Updated Elwha escapement formula on JDFMrkd and JDFUnmrkd tabs to ref Corrected formula for landed catch in Skykomish and Skokomish FW sport M
2/19/2016	ChinXX16	Corrected Non-treaty TM in 2A_CU&M_Hatchery Include Test fisheries in T-NT TM in 2A_CU&M_Hatcher	Updated Non-treaty TM formulas in row 56 of 2A_CU&M_Hatchery to includ Updated Treaty & Non-treaty TM formulas in rows 56 & 57 of 2A_CU&M_Ha
3/5/2016	ChinXX16	Included NT Hoodspport Hatchery Seine in ETRS Catch eq Update conditional formatting of Green River ER Update Nisqually ERC from 52% to 50% Corrected formulae for Tulalip terminal harvest and esc. Updated calculation for Cedar River hatchery strays	Updated formulae in cells BB13, BM33 and BQ33 in each tab to reflect the st Trigger highlighting if ER exceeds 12% PTSUS, based on co-manager agreeme Calculate 8D harvest for StSnmrkd/StSnUnmrkd as T3 8D sport + T3 T 8D net Convert input from ppn Cedar natural on spawning ground to % hatchery sp; Last year's fisheries this year's abundance
3/6/2016	ChinNalf16	eliminate pink update with 2016 abundances	
3/10/2016	ChinNALF16_2	Update Nisqually ERC from 50% to 52% with note regrding 50% identified by NOAA	
3/10/2016	Chin0016	Area 8D Sport Rewire 8D sport input to pull landed catch from TAMX Update conditional formatting of Dungeness ER Update conditional formatting for Puyallup ER	
3/13/2016	Chin0016	Update hatchery escapement goals for LakeWA and Green to 2288 and 4452, based on new agreement between co-managers	
3/17/2016	Chin1016	Add IFERROR() functions to allow running "zero fishing" option for Puget Sound	
3/23/2016	Chin1016	Update LakeWA, Green, Puyallup, and Nisqually escapements in 'Cat&Esc' tab to correctly address strays	
3/24/2016	Chin1016	Update JDF escapement goals on 'Cat&Esc' tab, and Hoko in JDF tabs	
4/3/2016	Chin1316	Added clarification to RunSize Definitions in TAMX	
4/3/2016	Chin1316	Added comment on InputPage to indicate that LakeWA natural forecast includes Sammamish naturals	
		^ 12/9/2021 +	

4/3/2016	Chin1316	Updated fishery #s and names in TAMX
4/4/2016	Chin1316	Updated formulae in SPS tabs to apply Puyallup HR to River Run instead of ETRS
4/11/2016	Chin1516	Updated Lake Washington and Green River Esc Goals
4/12/2016	Chin1716	Updated Nisqually River Sport input to accept rate Cells changed: SPSmrkd T44, SPSUnmrkd T44, Cat&Esc H126 & I126, InputPa
5/6/2016	Chin2816	Update '6_Nats' formula for MidHC & Dungeness ER objective to include LAT
5/6/2016	Chin2816	Update '6_Nats' formula for A6 sport in Dungeness (denominator was escapement, now abundance)
2/25/2017	Chin0017	Updated Limiting Stock Distribution tab to include all natural PS stocks, now called 'LimitingStkComplete'. Tab now located to the left Added IFERROR() statement to cell H43 of '2A_CU&M_Hatchery' tab to prevent #DIV/0! Error if marked ETRS is 0 (only likely to occur Added IFERROR() statement to cell P32 of 'StSnmrkd' tab to prevent #DIV/0! Error if marked ETRS is 0 (only likely to occur for earlier Added 'SPS Abundance Iterations' tab to correctly apportion stock specific catches in SPS terminal net fisheries to their respective ab Update formulae in cells BH13, BI13, BH26, BI26 of '2A_CU&M_H+N' & BK13, BL13, BK26, BL26 of '2A_CU&M_Hatchery' to properly Update, add, and re-order links in table of contents (RunLog, LimitingStkComplete, SPS Abundance Iterations) Updated field names in RunLog and started a new section for 2017 pre-season
3/6/2018	2017_NALF	Update Nooksack Early management objective to 10% SUS Update White River management objective to 22% SUS Update Nisqually management objective to 47% Total
3/9/2017	Chin0017	White out SPS TAAs in lines 23 & 24 of TAMX
3/22/2017	Chin1017-1217	Add conditional formatting to Green River escapement in ER_Overview table to highlight when below 5800
4/10/2017	Chin1917	Added quick links to navigate to desired stocks on TAMX page
4/10/2017	Chin1917	Added cell references to SPS tab so that HRIs when entered in block CF11:CI29 will automatically read into cells DZ11:EC29
4/10/2017	Chin1917	Updated HRIs for Lk Washington in 10E and Nisqually in 13+; see [SPS Recover
2/8/2018	Chin2017	Updated HC pages to accurately account for terminal run sizes (with non-locals versus without non-locals). See email from Derek to .
2/8/2018	Chin2017	Removed Stilly NF and SF escapements from ER_ESC_Overview; Changed cell B36 on the input page to NA (Ppn Stilly Nats in SF).
2/8/2018	Chin2017	Corrected an error in TAMX, column AF. Total landed catch has been revised to include column Z and no longer includes column AA (
2/8/2018	Chin2017	Added cell P46 to the input page (Skokomish hatchery stray rate); Updated Skokomish escapement formula in ER_ESC_Overview to i
2/9/2018	Chin2017	Updated cells Z32:AC38 on the Skmrkd and SkUmrkd tabs to use the same currency (catch), when they were previously using a mix o
2/9/2018	Chin2017	Updated cells BM32:33 and BQ32:33 (HdCmrkd and HdCUnmrkd) such that NT hoodsport seine now goes into NT FW sport rather th
2/9/2018	Chin2017	Updated cell BQ33 (HdCmrkd and HdCUnmrkd) to designate proportion HC YRL from TRS rather than ETRS (for consistency with the i
2/9/2018	Chin2017	Updated cells B23:D28 (HdCmrkd) to take care from "Jul-Sep" rather than from "Oct-Apr"
2/9/2018	Chin2017	Added cell T55 to the input page for % of total LK WA hatchery return straying into Sammamish basin and Issaquah Creek
2/9/2018	Chin2017	Updated formula for Lake WA escapement (cell E28 on ER overview tab) so that stray rate is applied to ETRS instead of escapement (
2/9/2018	Chin2017	Updated formula for Lake WA hatchery escapement (see above two rows) on Cat&Esc tab (E21)
3/22/2018	Chin1318-1518	Added New 'ER_ESC_Overview' and 'RMP_Mgmt_Criteria' tabs
3/29/2018	Chin1618-1818	Corrected Skokomish natural and hatchery escapement calculations in cells E34 & E35 in 'ER_ESC_Overview_New' tab Corrected conditional formatting for Snohomish Total & SUS ERs so both are in effect when < LAT Updates to allow proper processing of Nisqually experimental MSF Corrected Hoodcanal calculations (NT/TR) in nt&t tab, row 11 to properly process NT Hoodsport beach seine.
4/3/2018	Chin1918-2118	Updated TAMMs to accommodate new Nooksack Spring stock structure, see documentation at http://s3.amazonaws.com/nwifc-fish
4/8/2018	Chin2718-2818	Added Cedar River NOR calculation to cell BD36 of 'SPS' tab
12/18/2018	Chin0019	Fix Green & Puyallup TRS calcs in ER_ESC_OVERVIEW (E26 & E28) by correcting the calculation of SPSUnmrkd & SPSmrkd column AN
1/23/2019	Chin0019	Blacked out Input Page B238 and greyed out JDFmrkd & JDFUnmrkd E12 & E16; per Gordon Rose, the "Elwha Treaty Terminal Catch"
4/1/2019	Chin2019	Via Oliver Miler, corrected '2A_CU&M_H+N'!AE31 calculation from '2D_FUNmrkd'!BV83+2D_FUNmrkd!BW83+2D_Fmrkd!BV83+2I
4/9/2019	Chin2019	various Skagit springs related changes in Input_page (D102), Skmrkd/SkUnmrkd (AO14), LimitingStock (S/T49, 207, 286, 365, 232, 47
3/5/2020	Chin0020	updated several management objectives in RMP_Mgmt_Criteria to reflect current values in MUP per email exchange and review DD/
3/31/2020	Chin1620-1820	Implemented Skagit Spring Cascade fishery + Chinook S/F bycatch from a coho directed fishery. (See Draft Proposal Cascade Spring C
^ 12/9/2021 +		

3/31/2020	before Chin3020	Implemented differential HRs for Nisqually Marked and Unmarked net catch.
5/5/2020	na	DA: Corrected formula errors for Carr, Nisq and McAllister in 2A_CU&M_H+N where McAllister had fixed zeros and other stocks had
5/20/2020	na	DA: changed '2A_CU&M_H+N'!BI23 & BH23 to incorporate OM and AHB changes re:test fishery in nt&t calcs
10/30/2020	as valid_2020_TAMM_template	DA/AHB/OM: further modifications to accommodate Nisqually net catch differential hat/nat rates for post-season runs with catches
2/18/2021		DA: deleted unused sheets [scratch, Sheet2]
2/18/2021		DA: deleted unused hidden sheets [Sheet1, Welcome, SimpleHandout, ER_ESC_Overview(ifanyMSF), ER_ESC_OverviewNTTrtySu, Li

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

: in cell B29. This cell is labeled as % UM in SprMSF as % of total UM.

^ 12/9/2021 +

^ 12/9/2021 +

al forecast. Based on ER calculations north tribs should be included

^ 12/9/2021 +

verwriting FRAM

^ 12/9/2021 +

^ 12/9/2021 +

original rate from Kwasi = .10105; increased by .0271 to account for B' bay sport)

^ 12/9/2021 +

^ 12/9/2021 +

^ 12/9/2021 +

is previously negotiated)

Hatchery,

se

and unmarked components
which needs to be

a rate
currently a fixed catch, modify if rate desired)
catch
3A (local, in N Port Susan) on Stillaguamish Chinook

ail.

fishery.

^ 12/9/2021 +

r Su/Fa
d naturals), columns BJ-BN

ncounters from 3413 to 4904, MRR from 53 to 47%, UMR about same (4%)

orporated into productivity estimates

nber in the HdC cacls--this yielded massive Ers for Skok and tiny Ers for Mid HdC.

D and 77B, C, and D.

i.

plus minor change in Mrel & Umret

^ 12/9/2021 +

preferred for post-season runs.

were revised so they handle a catch total or a rate.

unmarked component

cludes true NOR+acclimation ponds fish only (as opposed to all hatchery UM+natural UM)

: FC projects NOR+HOR (M+UM), and that some naturals are marked. The escapement total now includes M+UM naturals.

ery fish spawning naturally, based on the 5-year contribution rate

g hatchery fish spawning naturally.

tch, as coho), modeled here for convenience.

^ 12/9/2021 +

Ben-Duwamish

Modification required the rewiring of several formulae throughout the TAMM, including:
intermediate calc's for MSF

every
that NOR impacts are displayed and reviewed on ER_ESC_Overview(if any MSF)
every only

I know what they're looking at.

rate from the hatchery to spawning grounds, resulting in lower escapement.

fishers in Lummi fishery

that produced same rate.

minimal effect (worst case = 0.025% inc on Sno)

^ 12/9/2021 +

ge, decreased due to TOCAS error correction

than 2 fish being retained

ent includes stray HORs, consistent with LAT H+N benchmark

^ 12/9/2021 +

t that naturally spawning fish in Issaquah are now part of the forecast.
ers in achieving final agreement on inputs during 2013 NOF
&M, 6Unmrkd) to this sheet so update only has to occur on one sheet.
and natural unmarked fish in the CWT and/or clip-directed terminal MSF

period (5 straight to 4 even)

e

sheet

season forecast, reduced from 600 to 485 incidentals

ving ISU

id conflict;

^ 12/9/2021 +

Jlae; N196:Q203 on InputPage

es
:se inputs

looksack NOR mort ratio; may require additional revision after N Fisheries settle

Comment

new input from Kendall
Scott Bass correction adding 1 fish
rel mort during pink from Ryan
rel mort during pink from Jamestown
new input from Bob M; NR during MW 37 & 38
new input from Ryan; bycatch during pink
input from Chris Phinney
corrected input from Larry P
new Squaxin Input from JP
inputs submitted 3/17
Skok R net input from Cindy
Skok R sport new input from Mark D
converted NoA MSF to NR

^ 12/9/2021 +

ero

ference 'Expected Spawners' instead of 'Expected Escapement'

1SFs

de Area 6 sport

atchery to include .5 of FW test each

um of Tr and NT Hoodsport Hatchery seine rather than just Tr (realizing that NT seine isn't an actual fishery these days)

ent to manage to CERC regardless of whether LAT is triggered

: + T3 NT 8D net, remove 8A from terminal harvest, calculate escapement off ETRS

awning in river; updated escapement formula on 'ER Overview' accordingly

^ 12/9/2021 +

age I279 & K279

t of 'SPS Abundance Iterations' tab
r for earlier years when running validation runs)
years when running validation runs)
undnace inputs on 'InputPage'
allocate NT HdSpt Hatchery Seine catch to Non-Treaty (this will follow through to 'nt&t' tab)

ies__Working [HRI LkWa10E Calcs.xlsx]Summary!\$B\$25
Angelika, Galen, Gordon, Jon on March 27th, 2017 for details.

(was blank).
ncorporate stray rate.
f catch and harvest rate. Catches and harvest rates were being summed together incorrectly.
ian TR FW Net. I've also changed the descriptions for those tables to be "Sport and Net".
rest of the table)

[based on the way the estimate is derived in the Lake WA forecast file)

eresservices/wp/wp-content/uploads/20180404085036/Processing-Nook-Spr-Separately.docx. Document name = "Processing Nook Spr Separately.docx"

("Stk TRS of SPS fish") to sum(10/11 catch, ETRS fingerlings)
' does not refer to any currently meaningful fishery; the invalid references in JDFunmkd/JDFmkd were left but greyed and comment added
D_Fmrkd!BW86 to '2D_Fmrkd!BW83.
) via AHB, with Oliver Miler & Casey Ruff approval (changes in "TAMM Corrections for Skagit Springs.xlsx")
/OM/Chris James
hinook Implementation...docx; 3.31.20 email from Oliver)
^ 12/9/2021 +

fishery rows that were offset for "nat" in references to 2D_Fmrkd

not rates provided (first implemented 2020 preseason); see email thread "RE: Nisqually FW Net" late Oct 2020

limitingStkComplete, INPUT_ERObjOldStuff, LimitingStockDistn2, MarkC, INPUT_MkRt, NSmrkd (2), NS (2)]

^ 12/9/2021 +

FRAM Model Run	TAMM Model Run	Base Run	Date
ChinNALF16	ChinNALF16		3/9/2016
ChinNALF16_2	ChinNALF16_2		3/10/2016
ChinNALF16_2	ChinNALF16_2		3/10/2016
ChinNALF16_2	ChinNALF16_2		3/12/2016
Chin0116	Chin0116		3/10/2016
Chin0216	Chin0216		3/10/2016
Chin0316	Chin0316		3/10/2016
Chin0416	Chin0416		3/11/2016
Chin0515	Chin0515		3/11/2016
Chin0616	Chin0616		3/11/2016
Chin0716	Chin0716		3/13/2016
Chin0816	Chin0816		3/13/2016
Chin0916	Chin0916		3/13/2016
Chin1016	Chin1016	Chin0716	3/17/2016
Chin1116	Chin1116	Chin0716	3/17/2016
Chin1216	Chin1216	Chin0716	3/17/2016
Chin1316	Chin1316	Chin0716	3/29/2016
Chin1316	Chin1316	Chin0716	3/29/2016
Chin1316	Chin1316	Chin0716	3/29/2016
Chin1316	Chin1316	Chin0716	3/29/2016
Chin1316	Chin1316	Chin0716	4/4/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616	Chin1316-1416	4/12/2016
	Chin1516-1616 2pole20	Chin1516-1616	4/12/2016
	Chin1716-1816	Chin1716-1816	4/12/2016
	Chin1716-1816	Chin1716-1816	4/12/2016
	Chin1716-1816	Chin1716-1816	4/13/2016
	Chin1716-1816	Chin1716-1816	4/12/2016
	Chin1716-1816	Chin1716-1816	4/12/2016
	Chin1716-1816	Chin1716-1816	4/13/2016
	Chin1716-1816	Chin1716-1816	4/13/2016
	Chin1716-1816	Chin1716-1816	4/13/2016
	Chin1716-1816	Chin1716-1816	4/13/2016
	Chin1716-1816	Chin1716-1816	4/13/2016
	Chin1716-1816	Chin1716-1816	4/13/2016

	Chin1716-1816	Chin1716-1816	4/13/2016
	Chin1716-1816	Chin1716-1816	4/13/2016
	Chin1716-1816	Chin1716-1816	4/13/2016
	Chin1716-1816	Chin1716-1816	4/13/2016
	Chin2216; HC Updates	Chin1716; SofA MSF	4/19/2016
	Chin2216; HC Updates	Chin1716; SofA MSF	4/19/2016
	Chin2216; HC Updates	Chin1716; SofA MSF	4/19/2016
	Chin2216; HC Updates	Chin1716; SofA MSF	4/19/2016
	Chin2216; HC Updates	Chin1716; SofA MSF	4/19/2016
	Chin2216; HC Updates	Chin1716; SofA MSF	4/19/2016
	Chin2216b	Chin2216; HC Updates	4/19/2016
	Chin2216b	Chin2216; HC Updates	4/19/2016
	Chin2216b	Chin2216; HC Updates	4/19/2016
	Chin2216b	Chin2216; HC Updates	4/19/2016
	Chin2216b	Chin2216; HC Updates	4/19/2016
5.10.16 WDFW Proposal	5.12.16 WDFW Scenaric	Chin2216b	5/11/2016
5.10.16 WDFW Proposal	5.12.16 WDFW Scenaric	Chin2216b	5/11/2016
5.10.16 WDFW Proposal	5.12.16 WDFW Scenaric	Chin2216b	5/11/2016
5.10.16 WDFW Proposal	5.12.16 WDFW Scenaric	Chin2216b	5/11/2016
5.10.16 WDFW Proposal	5.12.16 WDFW Scenaric	Chin2216b	5/11/2016
5.10.16 WDFW Proposal	5.12.16 WDFW Scenaric	Chin2216b	5/11/2016
5.10.16 WDFW Proposal	5.12.16 WDFW Scenaric	Chin2216b	5/11/2016
5.10.16 WDFW Proposal	5.12.16 WDFW Scenaric	Chin2216b	5/11/2016
5.10.16 WDFW Proposal	5.12.16 WDFW Scenaric	Chin2216b	5/11/2016
5.10.16 WDFW Proposal	5.12.16 WDFW Scenaric	Chin2216b	5/11/2016
Chin2916	Chin2916	5.12.16 WDFW Scenario 2	5/24/2016
Chin2916	Chin2916	5.12.16 WDFW Scenario 2	5/24/2016
Chin2916	Chin2916	5.12.16 WDFW Scenario 2	5/24/2016
Chin2916	Chin2916	5.12.16 WDFW Scenario 2	5/24/2016
Chin2916	Chin2916	5.12.16 WDFW Scenario 2	5/24/2016
Chin2916	Chin2916	5.12.16 WDFW Scenario 2	5/24/2016
Chin2916	Chin2916	5.12.16 WDFW Scenario 2	5/24/2016
Chin2916	Chin2916	5.12.16 WDFW Scenario 2	5/24/2016
Chin2916	Chin2916	5.12.16 WDFW Scenario 2	5/24/2016
Chin2916_Final	Chin2916_Final	Chin2916	5/26/2016

New field names for 2017 pre-season

FRAM Model Run	TAMM Model Run	Model Run Description	Base Run
2017_NALF	2017_NALF	2016 Fisheries, 2017 Abundance:	Chin2916_NewBP
Chin1017-1217	Chin1017-1217	March PFMC Ocean Options with	Chin0717
Chin1017-1217rev1	Chin1017-1217rev1	NOF 1 model runs with Puyallup,	Chin1017-1217

Chin1317-1517

Chin1317-1517

NOF #2 Model Runs

Chin1017rev1

Chin1617

Chin1617

April PFMC Run #1; STT

Chin1317

Chin1717

Chin1717

April PFMC Run #2; Co-Manager Chin1617

Chin1917

Chin1917

April PFMC Run#4; Co-Manager | Chin1817

Chin2017	Chin2017	April PFMC Run#5; Co-Manager I	Chin1917
Chin2017; Final	Chin2017; Final	Final 2017 Model Run	Chin2017
SLC-2018NALF SLC-Chin1018-1218	2018NALF; TAMM Chin1018-1218	2017 Fisheries on 2018 Abundan Final March PFMC Alternatives	Chin2017
Chin1318-1518	Chin1315-1518	NOF #1 Runs with 2018 PS	Chin1018-1218
Chin1618-1818	Chin1618-1818	NOF #1 Runs with North Update	Chin1318-1518
	Chin1918-2118 Chin2218-2418	Lynnwood runs Post-Lynnwood runs	Chin1618-1818 Chin1918-2118
Chin2518-2618 Chin2718-2818	Chin2518-2618 Chin2718-2818	4/6/18 STT Runs 4/8/18 STT Runs	Chin2218-2418 Chin2518-2618
Chin2918-3018	Chin2918-3018	4/9/18 Co-manager runs	Chin2718-2818

Chin3118

Chin3118

4/9/18 Co-manager runs

Chin2918

Chin3218

Chin3218

4/10/18 Co-manager runs

Chin3118

Staff	Fishery Name	Stock Name	Old Value	New Value
AHB, JC				
AHB	A7 NT Net T3		3058	2758
AHB, JC				
AHB		Skagit Nat		TRS
		Skagit Nat		Recruit Scalars
JC				
JC				
JC				
JC,AHB				
JC,AHB				
JC,AHB				
JC,AHB				
JC,AHB				
JC,AHB				
JC,AHB				
JC,AHB				
JC,AHB				
JC,AHB				
JC,AHB	12C NT Net		0	10,000
JC,AHB	Skok R sport		5396	0
JC,AHB	A10/11 Net Test		132	583
JC,AHB	Nisqually R Sport		3254	3241
JC,AHB	Puyallup R Sport		1169, 156	837, 110
JC,AHB	Carbon R Sport		399, 71	224, 29
JC,AHB	Area 9 Net		T3=490, T4=10	T3=489, T4=11
JC,AHB				
JC	Skagit T FW C&S			
JC	Nisqually R Sport		0.5011, 0.011	0.503, 0.028
JC	Nisqually R Sport		3241	0.04566
JC	Nook Early tangle net C&S		30	39
JC	Nook Early C&S		46	49
JC	Area 10/11 NT Net		171	467
JC	NT Area 6A:7:7A Net		53	29
JC	T JDF Net		352, 1	351, 0
JC	Puyallup R Sport			326, 43
JC	Carbon R Sport			163.5, 21.5
JC	12C NT Net		10000	5000

JC	Lake Sammamish Sport	193	0
JC	Puget Sound Marine Sport		
JC	White River C&S		0.1215
JC	Skagit R Test	538, 14.8%	
JC, AHB			
JC, AHB			
JC, AHB			
JC, AHB			
JC, AHB			
JC, AHB			
JC, AHB			
JC, AHB			
JC, AHB			
JC, AHB			
JC	Area 11 sport	0.0339	0.0153
JC	Treaty winter troll	8,500	4,500
JC	Carbon R Sport	M=163, UM=22	M=0, UM=0
JC	Puyallup R Sport	M=326, UM=43	M=188, UM=25
JC	Puyallup R Net	0.328845133	0.224390973
JC	Area 11 sport	0.0339	0.0153
JC	Treaty winter troll	8500	4500
JC	Carbon R Sport	M=163, UM=22	M=209, UM=27
JC	Puyallup R Sport	M=326, UM=43	M=0, UM=0
JC	Puyallup R Net	0.328845133	0.224390973
JC, DD	Area 6 winter sport	0.1293	0.1212
JC, DD	Area 9/10 summer sport		
JC, DD	Skagit Spring	0.2214	0.2379
JC, DD	Skagit Net	645	623
JC, DD	Stilly, Sno, Green Sport	6, 12, 7	1, 1, 1
JC, DD	Puyallup R sport	0, 0	22, 3
JC, DD	Puyallup R sport	0.1589, 0.0450	1, 0
JC, DD	Area 10 sport TS2		
JC, DD	Area 8D sport		
JC	HC NT chum	38	32

Date	Staff	Fishery Name	Stock Name	Old Value
3/7/2017	JC			
3/20/2017	JC,DD,AHB			
3/22/2017	JC	HC Tr Marine Chinook		0.0624
		HC Tr Marine Chinook ppn 12C-D		0.9992

	HC Tr Marine Coho	0.0024
	HC Tr Marine Coho ppn Jul-Sep	0.88
	HC Tr Marine Coho ppn Oct-Apr	0.12
	HC Tr Marine Coho ppn 12C-D	0.9762
	Tr Skok R Chinook	0.1972
	Tr Puyallup (81B + 11A)	0.2273
	Nooksack SF Tr Jul-Sep	10430
	UM WA N Coast Age 1	4.2051
	UM WA N Coast Age 2	4.1971
	UM WA N Coast Age 3	6.7326
	UM WA N Coast Age 4	13.7661
	M WA N Coast Age 1	0.9961
	M WA N Coast Age 2	0.9943
	M WA N Coast Age 3	1.7092
	M WA N Coast Age 4	4.6612
	UM Willapa Age 2	0.4464
	UM Willapa Age 3	0.446
	UM Willapa Age 4	0.4288
	UM Willapa Age 5	0.23
	M Willapa Age 2	1.9255
	M Willapa Age 3	1.9235
	M Willapa Age 4	2.7047
	M Willapa Age 5	1.4111
	Nooksack May-Jul C&S	114
	Nooksack May-Jul tangle C&S	39
4/3/2017 DD, JC	Northern AABM Fisheries	See FRAM Fishery I
	Canadian & OR Coast Stocks	
	PS Sport fisheries	
	Samish River Sport	7068
	Nisqually R Hatche	7%
	Nisqually River Sport	0.2407
	Skagit Net NT Pink Marine	0.0018
	Stilly/Snoh Net NT 8A Pink	0.0008
	Stilly/Snoh Net Tr 8A Pink	0.0023
	Stilly/Snoh Net Tr 8A Coho	0.00003
	Tr 8D Net	0.7775
	HC Net NT Marine Chum	62
	10/11 NT Net Oct-Apr	256
	6D NT Net	3
4/7/2017 JC, LL	PFMC NOF & SOF Fisheries	
	Re-update WA N Coast and WB recrui	
4/8/2017 JC, DD, AHB	Area 7 sumer sport	1
	Area 7 winter sport	1.9315
	Area 7 winter sport	503/397
	Nisqually River Net	0.30662
4/10/2017 JC, DD, AHB	Nisqually River Net	0.30661

	See model run description and accompanying memo for PS Sport c	
4/10/2017 JC, DD, AHB	Puyallup River Sport	851
	Puyallup River Sport	224
	Carbon River Sport	250
	Carbon River Sport	66
	LK WA C&S	562
	NT 12C Net	5000
	Skagit C&S	775
	Skagit Spring % Na	0.322
	Nooksack C&S	89
	Lummi C&S	30
	Sport descriptions	
	Nisqually Net	0.30344
4/12/2017 JC, DD, AHB	HC Tr Marine Chinook	
	Skokomish R Tr Net	
3/7/2018 JC		
3/14/2018		
3/22/2018 DD, JC		
3/30/2018 DD, JC		
		0
	Green FW Sport	193
	Willapa Bay Net	3992
4/3/2018 DD,JC,OM		
4/4/2018 DD,JC,OM	Area 6 Sport T4	1.8211
	Area 7 Sport T4	1.8098
	Area 9 Sport T4	2.992
	Trty Trl T4	8500
	Puyallup Net	0.25381
4/6/2018		
4/8/2018	Nisqually Net	0.3393
	NT 12C Net	0
4/9/2018 DD,JC,OM	NT 12C Net	2200
	SkSp % Nat	0.2424
	Skagit FW Chinook Spr HR	0.1914
	Skagit FW Sockeye	0.0368
	Skagit FW Coho	0.0541
	Nisqually Sport	7343
	Area 11 Summer Sport	1.3551
	Area 9 Summer Sport	1.3718
	Area 6 Summer Sport	5976

		Area 7 Summer Sport	1.1399
		Area 12 Sport	364/647
		Area 10 Winter Sport	1.0092
4/9/2018	DD,JC,OM	NT 12C Net	2024
		Stillaguamish R Spt	6
		Puyallup R Spt UM	163
		Puyallup R Spt M	2433
		Carbon R Spt UM	56
		Carbon R Spt M	843
		Skagit T FW coho directed	0.0418
		Winter treaty troll	4500
		Elliot Bay Spt closed	414
		NT 10:11 net	288
		Ocean treaty troll	
		Nooksack FW C&S updated	124/30/40%
		A9 July 1-15 spt closed	
		Nisqually Sport	6794
4/10/2018	DD,JC	Hood Canal Tr Net	0.1077
		Nisqually R Net	0.27895
		NT Hood Canal Chum	70
		Puyallup R C&S	53
		Area 6 sport	4434
		Area 2 sport	1716/11384
		Area 10 Winter Sport	0.609

Description	Comment		
2016 Abundances, 2015 Fisheries (without pink)			
subtract 300 MSF from retention			
updated JDF BC sport in avg catch and re-ran bkFRAM			
TRS provided by Pete K and Casey R 2/12/2016			
Updated Alt 1: NOF 120K NSF NT; 60K T			
Updated Alt 2: NOF 110K NSF NT; 42.5K T			
Updated Alt 3: NOF 100K NSF NT; 30K			
Updated Alt 1: NOF 110K NSF NT; 50K T			
Updated Alt 2: NOF 110K NSF NT; 42.5K T			
Updated Alt 3: NOF 100K NSF NT; 30K			
Updated Alt 1: NOF 110K NSF NT; 50K T			
Updated Alt 2: NOF 60K NSF NT; 42.5K T			
Updated Alt 3: NOF Closed NT; 30KT			
Alt 1 w/ coastal net and all PS inputs at zero			
Alt 2 w/ coastal net and all PS inputs at zero			
Alt 3 w/ coastal net and all PS inputs at zero			
Alt 1 w/ with initial State/Tribal PS inputs			
sport fisheries as proposed 3/29/2016			
Updated Northern fisheries and Canadian OR NCst abundances			
updated Skagit Rive		408.7310758	0.090909
Zero out Treaty 8A fisheries except C&S and Steelhead(per DH, 4/4/16)			
Updated 2016 agreed-to AABM Als			
Updated BC & OR NoCst forecasts			
Updated ocean fisheries (Alts 1 & 2)			
Corrected Treaty 4:4B winter troll size limit (from 24" to 22")			
Match Chinook recreational seasons to matrix			
Added NT net fishery			
Removed Skokomish R sport fishery			
Updated input from Bill Patton			
Updated input from James Losee to reflect coho closure			
Updated input from James Losee to reflect coho closure			
Updated input from James Losee to reflect coho closure			
Added 1 Chin for Suq chum to T4 (Andy Rankis)			
Add 2-pole to Area 11 sport Dec-Apr, add 20"min SL to winter PS sport			
Updated description per PK			
Updated Mret & UMrel rates per JL & CS			
Updated input from encounters to rate			
Updated Lummi Nooksack early C&S NOR encs (Input page J215)			
Updated Nooksack Tribe's Nooksack early C&S catch (Input page B213)			
Updated due to agreement to change years in average			
Updated T4 input to reflect Oct schedule change (KH; 4/13/16)			
Updates to T3, T4 from Scott Bass, 4/12/16			
New inputs from JL; 4/13/16			
New inputs from JL; 4/13/16			
Reduce input			

zero out
 Update non-retention to reflect proposed season structures
 From BP 4/13/16
 From PK 4/12/16
 Update Ocean quotas to PFMC finals
 Update treaty Hood Canal fisheries (from GR, 4/14/16)
 Transfer 5000 NT HC net from 12C to 12H
 Move Area 12 sport winter MSF start date from 10/15 to 10/1
 Add 2-pole in Area 12 sport Jul-Oct
 Add 20" min size limit to Area 12 sport Jul-Sep
 Add Area 10 June C&R
 Add Area 9&10 Jul 1-15 C&R
 Add Area 9&10 Aug 1-15 NR
 Convert Area 7 Jul from NS to MSF
 Increase LakeWA C&S by 130
 Close Nov-Jan
 Reduce winter troll quota
 Close
 Reduce to 15d fishery
 Reduce Chin from 12h to 6h, shift 1 coho day from wk2 to wk3
 Close Nov-Jan
 Reduce winter troll quota
 Reduce to 15d fishery
 Close
 Reduce Chin from 12h to 6h, shift 1 coho day from wk2 to wk3
 Change end date of fishery from 4/30 to 4/15
 Remove Aug 1-15 non-retention encounters from Areas 9/10 sport
 Spring % nat May-June FW(sockeye)
 Update Skagit T FW Chinook Directed
 Reduce inputs to reflect river closures
 Include Chinook encounters during 10/16-12/31
 Update MSF parameters to release of all fish
 Add test fishing encounters for June
 Convert from NS to MSF
 Revised PS schedule from 1-1-1-2-2 to 1-1-1-1-2

New Value	Description	Comment
	Updated Canadian ISBM fisheries to 2016 post-season Updated Time Step 1 to actual where possible Updated UM ret rate in Area 7 sport to use 2016 data	
0.1145	Included all proposed 2017 Puget Sound fisheries; see TAMM input page and FRA	2017_Chinook_TAMM_Review_3.13.17_CG21MAR17 343PM_REVIS..._input de
0.9996		2017_Chinook_TAMM_Review_3.13.17_CG21MAR17 343PM_REVIS..._input de

0.0033 2017_Chinook_TAMM_Review_3.13.17_CG21MAR17 343PM_REVIS... input de
 0.86 2017_Chinook_TAMM_Review_3.13.17_CG21MAR17 343PM_REVIS... input de
 0.14 2017_Chinook_TAMM_Review_3.13.17_CG21MAR17 343PM_REVIS... input de
 0.9823 2017_Chinook_TAMM_Review_3.13.17_CG21MAR17 343PM_REVIS... input de
 0.2261 2017_Chinook_TAMM_Review_3.13.17_CG21MAR17 343PM_REVIS... input de
 0.3098 REVISED_2017_Chinook_TAMM_InputCP322176hrto12hrWeek33.xlsx
 0.3280 Convert catch input to harvest rate Nooksack Fal
 4.2710 WNC & Willapa Recruit Scalar Updates.xlsx
 4.2629 WNC & Willapa Recruit Scalar Updates.xlsx
 7.2916 WNC & Willapa Recruit Scalar Updates.xlsx
 13.0924 WNC & Willapa Recruit Scalar Updates.xlsx
 1.2352 WNC & Willapa Recruit Scalar Updates.xlsx
 1.2329 WNC & Willapa Recruit Scalar Updates.xlsx
 1.6100 WNC & Willapa Recruit Scalar Updates.xlsx
 3.8184 WNC & Willapa Recruit Scalar Updates.xlsx
 0.4406 WNC & Willapa Recruit Scalar Updates.xlsx
 0.4402 WNC & Willapa Recruit Scalar Updates.xlsx
 0.4183 WNC & Willapa Recruit Scalar Updates.xlsx
 0.2242 WNC & Willapa Recruit Scalar Updates.xlsx
 1.8923 WNC & Willapa Recruit Scalar Updates.xlsx
 1.8904 WNC & Willapa Recruit Scalar Updates.xlsx
 2.5575 WNC & Willapa Recruit Scalar Updates.xlsx
 1.3140 WNC & Willapa Recruit Scalar Updates.xlsx
 89 Ben Starkho
 30 Ben Starkho
 Inputs Updated to reflect TACs from CTC model calibration 1702
 Updated to reflect 2017 forecasts used by CTC
 Updated to reflect NOF #2 4.3.17 sport matrix proposal
 0.2458 Convert from Catch input to HR on ETRS
 6% Update to Nisqually Hatchery Stray Rate
 0.2282 Update to HR input from JL/CS
 0 Closed
 0 Closed
 0 Closed
 0.000011 Reduced to 2d/wk
 0.777 Reduced to 3d/wk
 68 Scheduling Change
 269 Scheduling Change
 1 Input Update
 Update to Ocean quotas identified by Council 4/7/17 PM
 t scalars to values in Chin1017rev1 above (those updates were accidentally undone)
 0.3367 Add stock-fishery scalar for Nooksack Spring Stocks to address BP sublegal recove
 1.4215 Close December to salmon fishing
 419/331 Legal/Sublegal test fishing encounters (assumming 150 encounters/month)
 0.30661 Minor input correction and description update from CS
 0.30344 Input change from CS, 4.9.17

changes

- 700 Gear conflict closures; Legal encounters
- 184 Gear conflict closures; Sublegal encounters
- 206 Gear conflict closures; Legal encounters
 - 54 Gear conflict closures; Sublegal encounters
- 495 Communication with JS
 - 0 Closed
 - 925 Updated by BMC
- 0.310 Updated by BMC
 - 70 Updated by BS
 - 29 Updated by BS
 - Updated multiple sport descriptions
- 0.28699 Updated by CS
 - Correct fishery description
 - Correct fishery description

 - Updated Canadian ISBM fisheries to 2017 post-season
 - AABM fisheries using final 2017 fishery scalars
 - Update S/L ratios to 2018 values
 - Include all proposed 2018 Puget Sound fisheries
 - Update WNC recruit scalars to include 2018 Quinault forecast
 - Re-run bkFRAM/Avg run to incorporate OR coast and Canadian forecasts
 - Update AABM fishery inputs to quotas from clb1804
- 1878 Include McAllister Creek Chinook forecast
- 386 Updated Green River Sport
- 17700 Updated Willapa Net to achieve 34 unmarked tule mortalities (per direction from Corrected PS marine sport scalars Updated stock format for Nooksack Springs
- 1.1889 Close Nov. to Jan.
- 1.2333 Close Dec.; Apr. 16 to 30.
- 2.0943 Close Dec.
 - 4500 Reduce quota to 4500
- 0.30004 Updated HR input per CP email; 4/4/18
 - Refine Ocean Options
- 0.27895 4/7/18 email from Craig Smith
 - 2200 4/8/18 email from Kendall Henry
 - NT Ocean Quotas to 55K plus additional shaping
- 2024 Reduce existing input by 8% (Mark Downen, 4/9/18)
- 0.2512 Pete Kairis 4/8/18 email
- 0.1952 Pete Kairis 4/8/18 email
- 0.0371 Pete Kairis 4/8/18 email
- 0.0418 Pete Kairis 4/8/18 email
 - 6794 Encounter reduction due to closure Sundays wks 32-36; JL 4/9/18
- 0.847 Reduce expected catch to ~ 5326
- 1.0392 Reduce expected catch to ~ 5563
- 4434 Reduce quota to 4434

123/218 0.7594 Close to Chinook beginning 9/4
 Reduce non-retention due to Aug closure
 0.609 Close Nov-Dec, open Mar
 0 Close NT 12C net
 3 Update Stillaguamish gamefish impacts
 145 Updated to reflect upper river closure
 2169 Updated to reflect upper river closure
 52 Updated to reflect upper river closure
 752 Updated to reflect upper river closure
 0.0439 Updated as per email from PK
 3000 Reduced winter quota
 0 Closed
 203 Changed chum fishing schedule from initial input
 Spring-Summer split updated
 100/35/30% Updated with reduced mortality as per conversation with BS

 0.2335 Changed to HR input
 0.0789 Revised Inputs from CG, 4/10/18
 0.29825 Revised Inputs from CS, 4/9/18
 63 Updated to reflect revised Chum schedule
 190 Revised inputs from JS, 4/10/18
 4241 Updated quota to reflect 2 day closure (7/1 & 7/2)
 0/13100 Delay opening until 7/1 (inputs are TS2/TS3 quotas)
 0.4032 Reduce total encounters guideline

IM input templates

:scripton change 12C_82G.xlsx

:scripton change 12C_82G.xlsx

:scription change 12C_82G.xlsx
:scription change 12C_82G.xlsx
:scription change 12C_82G.xlsx
:scription change 12C_82G.xlsx
:scription change 12C_82G.xlsx

Il Chinook TAMM input.xlsx

use 3.23.17 email
use 3.23.17 email

ry error

ı Chad Herring)