

2018

ANNUAL OPERATING PLAN
for
FISH PRODUCTION PROGRAMS
in the
CLEARWATER RIVER BASIN

by

U.S Fish and Wildlife Service

Idaho Department of Fish and Game

Nez Perce Tribe

March 5, 2018

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1. Summer Steelhead

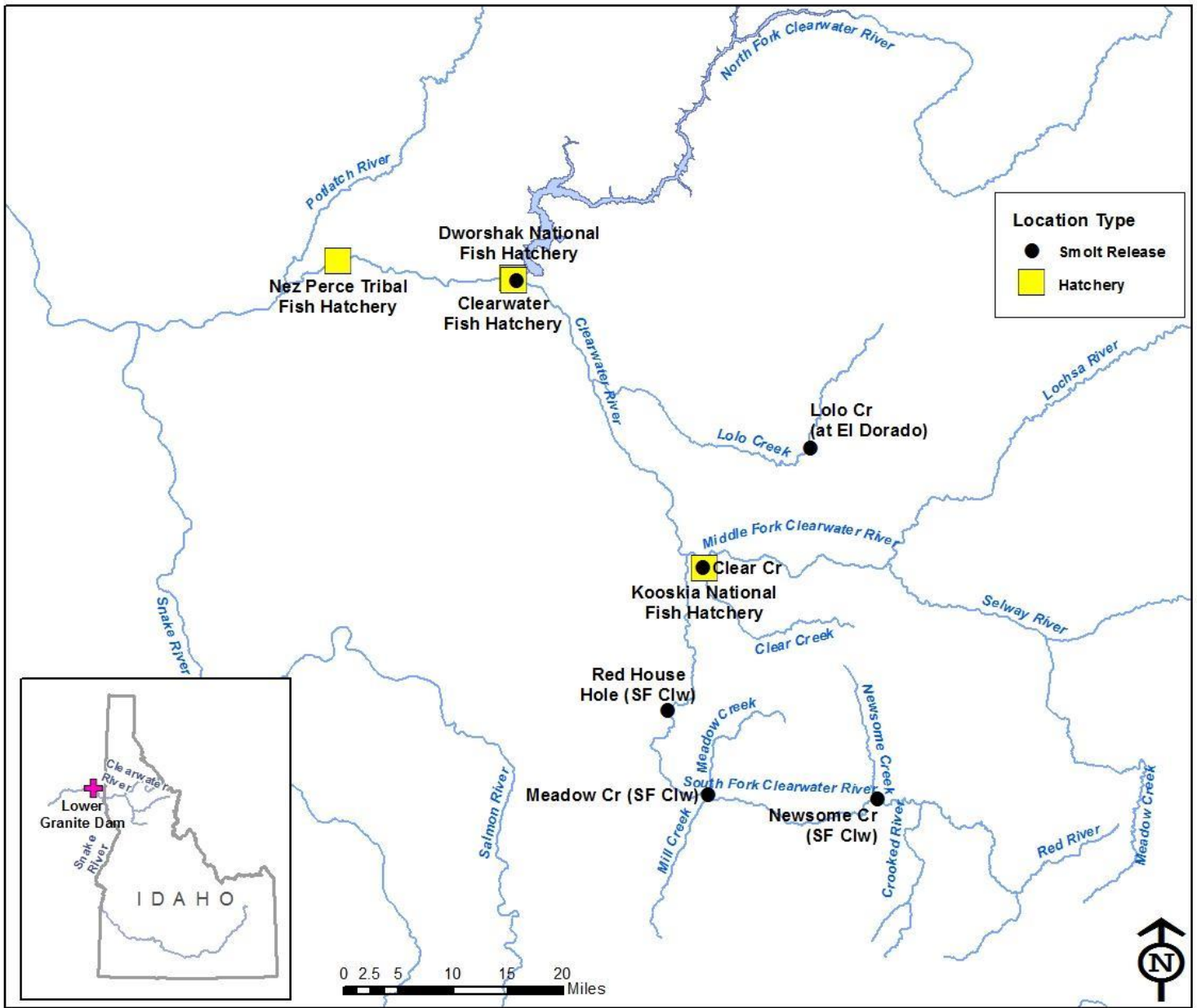


Figure 1.1. Steelhead trapping, hatchery facilities and smolt release locations. Table below gives smolt release goals for 2018 by release site.

Table 1.1. BY 2017 Steelhead Release Goals for 2018.

Rearing Facility	Program	Brood Collection Site	Release Site	BY2017 Smolt Release Goals	Size (FPP)
DNFH	NF Clearwater	DNFH (Trad. & Air Spawned)	DNFH	1,200,000	6.0
			Clear Creek	300,000	6.0
			Lolo Creek	200,000	6.0
	SF Clearwater	SFClwR Angler (DNFH)	Red House Hole-SF Clw	400,000	6.0
Total				2,100,000	
CFH/DNFH	CFH	SFClwR Angler (DNFH)	Meadow Creek-SF Clw	501,000	4.5
			Red House Hole-SF Clw	219,000	4.5
			Newsome Creek-SF Clw	123,000	4.5
Total				843,000	
Grand Total				2,943,000	

1.1. Timeline and Flowchart for Steelhead Production

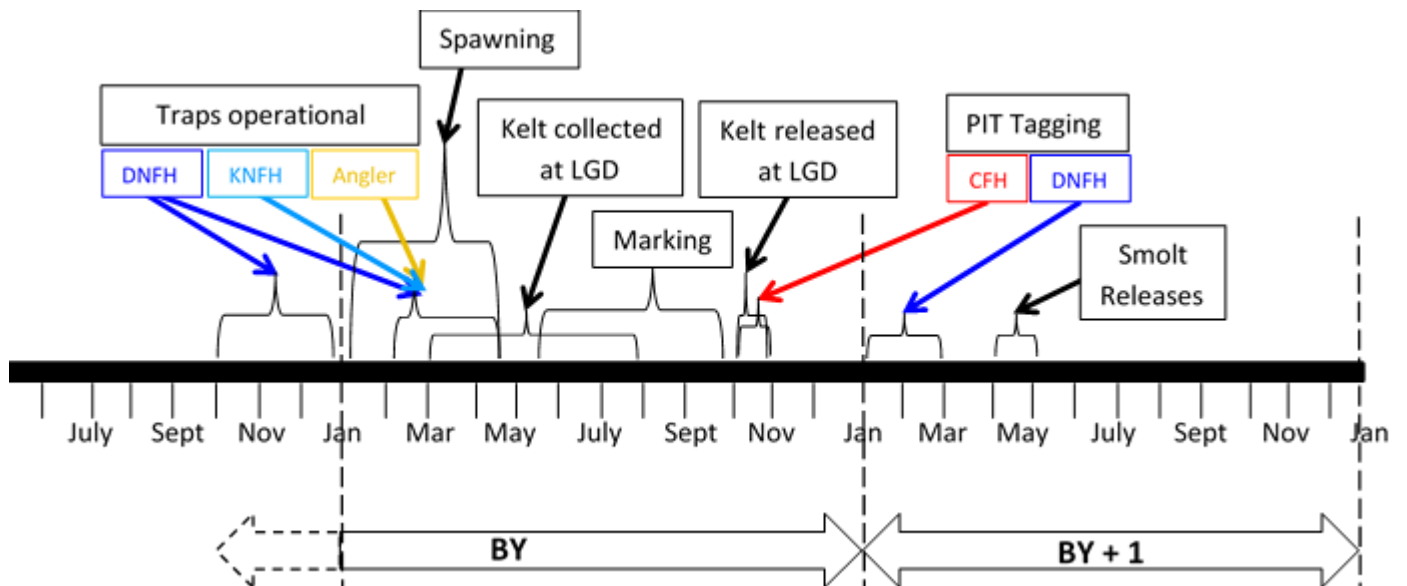


Figure 1.2. Timeline for Steelhead Production. Date ranges with black labels are shown to include all facilities' operations. Color-coded labels identify activities that have variability in timing for the different facilities.

STEELHEAD

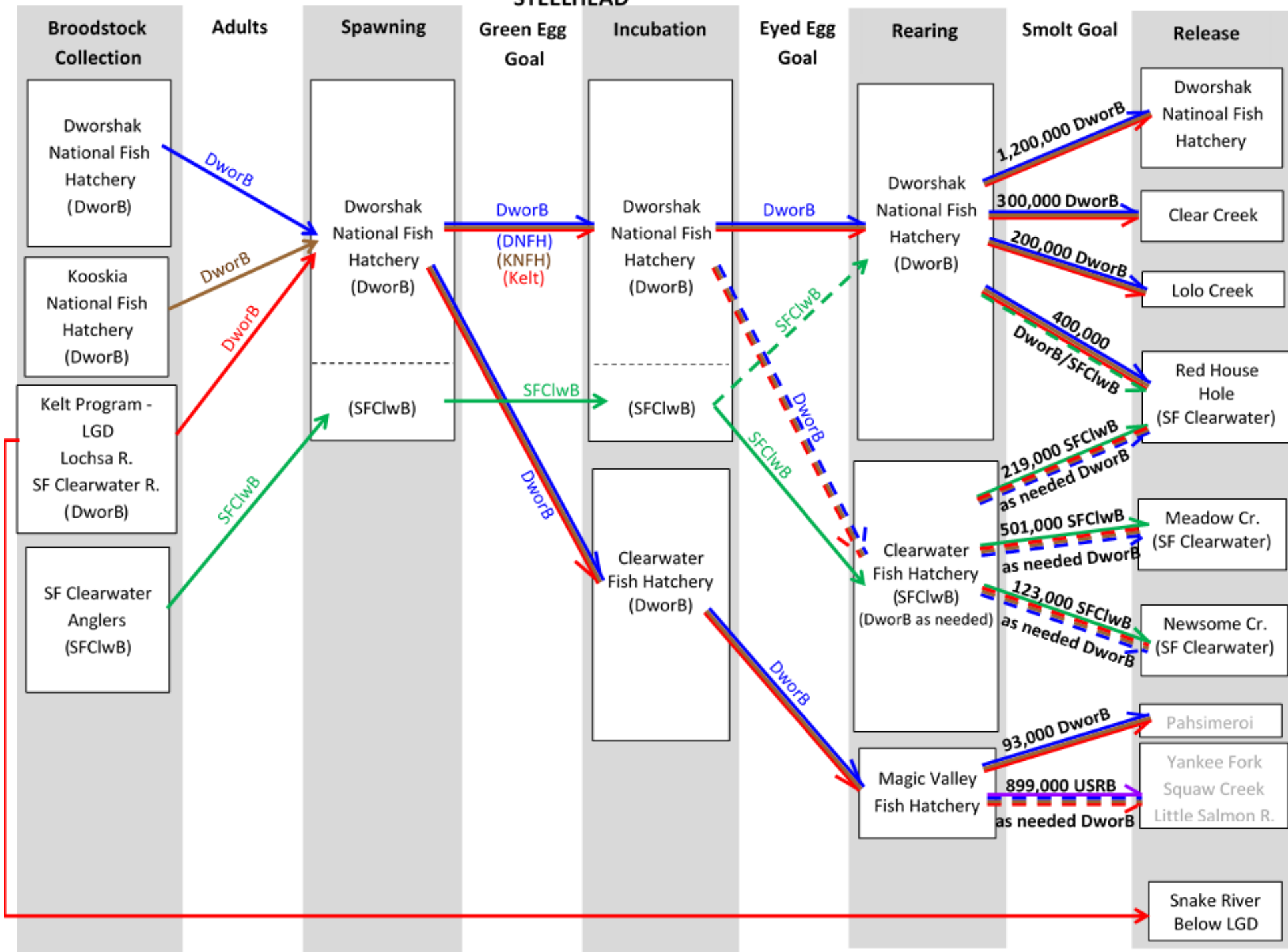


Figure 1.2. Fish and egg movements for Steelhead. Numbers represent 2018 releases.

1.2. Releases in 2018 (Smolt BY 2017)

1.2.1. Releases in 2018 (Smolt BY 2017) – Totals

Table 1.2a. Steelhead Rearing Metrics for BY 2017 fish for release in 2018

Rearing Facility	Program	Brood Collection Site	Release Site	Release Goals		Inventory To Date		Excess Fry/ Fingerlings Released		Projected Smolt Releases		
				Number	Size (FPP)	Date	Number	Number	Release Site	Dates	Number	Size (FPP)
DNFH	NF Clearwater	DNFH (Trad. & Air Spawnd)	DNFH	1,200,000	6.0	12/31/2017	1,361,558			April 17-18	1,340,000	5.8
			Clear Creek	300,000	6.0	12/31/2017	353,626			April 9-13	350,000	5.8
			Lolo Creek	200,000	6.0	12/31/2017	202,238			April 16, 2018	200,000	5.8
	SF Clearwater	SFClwR Angler (DNFH)	Red House Hole-SF Clw	400,000	6.0	12/31/2017	417,333			April 9-13	413,000	5.8
Total				2,100,000			2,334,755	0			2,303,000	5.8
CFH	CFH	SFClwR Angler (DNFH)	Meadow Creek-SF Clw	501,000	4.5	12/31/2017	541,323	0		April 3-6, 2018	541,119	4.5
			Red House Hole-SF Clw	219,000	4.5	12/31/2017	234,104	0		April 2-3, 2018	233,972	4.5
			Newsome Creek-SF Clw	123,000	4.5	12/31/2017	131,594	0		April 9-10, 2018	131,564	4.5
Totals				843,000			907,021	0			906,655	
Grand Total				2,943,000			3,241,776	0			3,209,655	

Table 1.2b. BY 2017 Steelhead Inventory to Date by Mark Type for release in 2018.

Rearing Facility	Program	Brood Collection Site	Release Site	Inventory to Date						PIT Tags				
				Date	Total	Adipose Fin Clip		No Clip		Total # Tags ¹	Funding Source ²			
						No CWT	CWT	CWT	No CWT		CSS	LSRCP	NPT	USFWS
DNFH	NF Clearwater	DNFH (Trad. & Air Spawnd)	DNFH	12/31/2017	1,361,558	1,200,091	161,467	0	0	19,200	7,600			11600 ³
			Clear Creek	12/31/2017	353,626	333,114	20,512	0	0	4,900	1,900			3,000
			Lolo Creek	12/31/2017	202,238	0	0	0	202,238	2,900	1,100			1,800
	SF Clearwater	SFClwR Angler (DNFH)	Red House Hole-SF Clw	12/31/2017	417,333	357,360	59,973	0	0	5,900	2,300			3,600
Total					2,334,755	1,890,565	241,952	0	202,238	32,900	12,900	-	-	8,400
CFH	CFH	SFClwR Angler (DNFH)	Meadow Creek-SF Clw	12/31/2017	541,323	308,466	0	232,857	0	10,801	3,200	7,600		
			Red House Hole-SF Clw	12/31/2017	234,104	234,104	0	0	0	4,701	1,400	3,300		
			Newsome Creek-SF Clw	12/31/2017	131,594	0	0	131,594	0	2,599	800	1,800		
Totals					907,021	542,570	0	364,451	0	18,101	5,400	12,700	-	-
Grand Total					3,241,776	2,433,135	241,952	364,451	202,238	51,001	18,300	12,700	-	8,400

¹ Represents actual number tagged if tags have already been applied at the time of this report

² Represents number of tags paid for by each agency. Sum total may not equal "Total # Tags" for locations where tagging has already occurred

³ Includes 1,500 PIT tags for SMP

1.2.2. Releases in 2018 (Smolt BY 2017) - Narrative

Here are examples of things managers talk about for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for "No Change".

- **Smolt/Egg Release Targets**- e.g. Were you below goal? Was you size at release different than SOP target? Did you depart from the mark plan?
- **Fish/Egg Health**- any epizootic history, anti-biotic treatments, was production culled at any point
- **Transportation/Releases**- e.g. timing, trucking issues, site access etc.

Release Location	Plan for 2018		Changes/Conditions that Occurred 2017-Early 2018		
	Release Target Smolt BY17	Transport/Release Smolt BY17	Fish Feeding BY17	Fish/Egg Health BY17	Marking BY17
<i>Dworshak National Fish Hatchery (SOP Section 1.2)</i>					
Dworshak National Fish Hatchery (DworB)	Projected Release greater than 10% over release goal due to below average mortality. (app. 12% over goal)	Planned Release timing and sites could be changed due to high TDG in the NF due to DW Dam generator repairs.	NC	NC	NC
Clear Creek (DworB)	Projected Release greater than 10% over release goal due to below average mortality. (app. 17% over goal)	Planned Release timing and sites could be changed due to high TDG in the NF due to DW Dam generator repairs.	NC	NC	NC
Red House, SF Clearwater (SFClw/DworB)	NC	Planned Release timing and sites could be changed due to high TDG in the NF due to DW Dam generator repairs.	NC	NC	NC
Lolo Creek (DworB)	NC	Planned Release timing and sites could be changed due to high TDG in the NF due to DW Dam generator repairs.	NC	NC	NC
<i>Clearwater Fish Hatchery (SOP Section 1.3)</i>					
Meadow Creek SF Clearwater (SFClwB/DworB)	NC	NC	NC	NC	All fish were marked/tagged

	Plan for 2018		Changes/Conditions that Occurred 2017-Early 2018		
Release Location	Release Target Smolt BY17	Transport/Release Smolt BY17	Fish Feeding BY17	Fish/Egg Health BY17	Marking BY17
Red House Hole SF Clearwater (SFClwB/DworB)	NC	NC	NC	NC	NC
Newsome Creek SF Clearwater (SFClwB/DworB)	NC	NC	NC	NC	All fish were marked/tagged

1.3. Trap Operations and Production Planning for 2018 (Smolt BY 2018) BY 2018 Steelhead smolt production goals for release in 2019

Rearing Facility	Program	Brood Collection Site	Release Site	Smolt Release Goals
DNFH	NF Clearwater	DNFH (Trad. & Air Spawned) ¹	MS Clearwater at DNFH	1,200,000
			Clear Creek	300,000
			Lolo Creek	200,000
	SF Clearwater	SFClwR Angler (DNFH)	Red House Hole - SF Clw	400,000
Total				2,100,000
CFH/DNFH	CFH	SFClwR Angler (DNFH)	Meadow Creek-SF Clw	501,000
			Red House Hole-SF Clw	219,000
			Newsome Creek-SF Clw	123,000
Total				843,000
Grand Total				2,943,000

¹ Additional brood are collected for the Upper Salmon River program (to be incubated at CFH, reared at MVFH, and released at Pahsimeroi). Tables 1.3a and 1.3b show details of brood acquisition, which include fish to be spawned for this program. See the Salmon and Snake River AOP for details on rearing of these progeny.

1.3.1. Trap Operations and Production Planning for 2018 (Smolt BY 2018) – TOTALS

Table 1.3a. 2018 Adult cumulative brood stock acquisition schedules for hatchery steelhead programs in the Clearwater River¹

Season	Date	Dworshak Trap ^{2,3}	SF Clw Localized ⁴	
Fall	Oct	147	NA	
	Nov	147		
	Dec	98		
Spring	7-Feb	123	0	
	21-Feb	123	0	
	22-Feb	0	575	
	28-Feb	117		
	1-Mar	0		
	8-Mar	0		
	14-Mar	59		
	15-Mar	0		
	21-Mar	59		
	28-Mar	59		
	11-Apr	117		0
TOTAL		1,048		575
LGR Return	2017-18 Projected	2,199		1,309
	Previous			
	5-yr Avg	6,688	5,735	

¹ Approximate acquisition schedule based on average historic acquisition timing and number of adults needed to meet broodstock needs based on the broodstock calculator.

² Dworshak Trap numbers include MVFH reared fish.

³ Total Broodstock Calculator indicates the Dworshak Trap need is 938. Trapping to 1048 (110 extra fish in fall collection) ensures adequate supply of males for early (fall return) takes.

⁴ SF Clw Localized value represents needs for CFH (371) and DWOR (204).

Table 1.3b. BY 2018 - Steelhead Spawning/Egg Take Plan.

Take		Eggs / Female by Spawn Type		Hatchery Program / Brood Source / Females Spawmed By Method / Green Eggs Taken																													
				DNFH - All Releases											CFH - South Fork Clearwater								MVH- Upper Salmon R.			Grand Totals							
				DWORB				Reconditioned Kelts			SFCWR				DWORB			SFCWR			Green Eggs Projections Combined	DWORB											
				Females			Green Eggs Projections	Females		Green Eggs Projections	Females		Green Eggs Projections	Females		Green Eggs Projections	Green Eggs Projections Combined	Females		Green Eggs Projections		Green Eggs Projections Combined	Females		Green Eggs Projections								
Kill Sp	Air Sp	Total	Kill Sp	Air Sp	Total	Kill Sp		Air Sp	Total		Kill Sp	Air Sp		Total	Kill Sp			Air Sp	Total		Kill Sp		Air Sp	Total									
No.	Dates	Kill Sp	Air Sp	Kill Sp	Air Sp	Total	Green Eggs Projections	Kill Sp	Air Sp	Total	Green Eggs Projections	Kill Sp	Air Sp	Total	Green Eggs Projections	Green Eggs Projections Combined	Kill Sp	Air Sp	Total	Green Eggs Projections	Kill Sp	Air Sp	Total	Green Eggs Projections									
1 E	16-Jan	6,870	6,219	60		60	412,200			0	0			0	0	412,200			0	0			0	0	0	0	60	0	60	412,200			
2 E	23-Jan	6,870	6,219	60		60	412,200			0	0			0	0	412,200			0	0			0	0	0	0	60	0	60	412,200			
3	6-Feb	6,870	6,219			0	0	60	60	373,140			0	0	373,140			0	0			0	0	0	0	0	60	60	373,140				
4	20-Feb	6,870	6,219			0	0	60	60	373,140			0	0	373,140			0	0			0	0	0	0	0	60	60	373,140				
4CW	21-Feb	6,870	6,219			0	0			0	0			0	0	0			15	15	103,050	103,050			0	0	15	0	15	103,050			
5	27-Feb	6,870	6,219	58		58	398,460			0	0			0	0	398,460			0	0			0	0	0	58	0	58	398,460				
5CW	28-Feb	6,870	6,219			0	0			0	0			0	0	0			55	55	377,850	377,850			0	0	55	0	55	377,850			
6CW	7-Mar	6,870	6,219			0	0			0	0			0	0	0			55	55	377,850	377,850			0	0	55	0	55	377,850			
7	13-Mar	6,870	6,219	59		59	405,330			0	0			0	0	405,330			0	0			0	0	0	59	0	59	405,330				
7CW	14-Mar	6,870	6,219			0	0			0	0			0	0	0			55	55	377,850	377,850			0	0	55	0	55	377,850			
8	20-Mar	6,870	6,219	0		0	0			0	59	59	405,330	405,330			0	0			0	0			0	55	55	377,850	114	0	114	783,180	
9	27-Mar	6,870	6,219	20		20	137,400			0	39	39	267,930	405,330			0	0			0	0			0	59	0	59	405,330				
10	10-Apr	6,870	6,219	52		52	357,240			0	0			0	0	357,240			0	0			0	0	0	52	0	52	357,240				
Cumulative				309	0	309	2,122,830	0	120	120	746,280	98	0	98	673,260	3,542,370	0	0	0	0	180	0	180	1,236,600	1,236,600	55	0	55	377,850	642	120	762	5,156,820

1.3.2. Trap Operations and Production Planning for 2018 (Smolt BY 2018) – NARRATIVE

Here are examples of things managers were instructed to discuss for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for “No Change”.

Plan for 2018 (BY 2018)					
Rearing Location	Adult Fish Health	Trap Ops	Production target changes	Spawning protocol changes	Disposition of adults
<i>Dworshak/Kooskia National Fish Hatchery Ladder/Trap (Fall 2017-Spring 2018)(SOP Section 1.2)</i>					
Dworshak National Fish Hatchery (DworB)	NC	Alternate Trapping Plan due to low returns may be used for late takes, as determined by co-managers during weekly calls. See attached plan for details. Kooskia will open trap in late January to collect broodstock	NC	NC	156 Adult SST Carcasses will go to Forest Service wildlife research study this year.
Clearwater Fish Hatchery (DworB)	NC	Kooskia will open trap in late January to collect broodstock	NC	NC	NC
Magic Valley Fish Hatchery (DworB)	NC	Kooskia will open trap in late January to collect broodstock	Magic Valley has requested 55 females this year (normally 20)	NC	NC
<i>Reconditioned Kelts (SOP Section 1.2)</i>					
Dworshak National Fish Hatchery (DworB)	NC	NC	120 Kelts will be collected due to lower fecundity of air spawning needing extra females (normally 180 collected)	NC	Surviving DworB kelts will be lethally sampled in September, due to need to deconstruct and remove kelt tanks.

	Plan for 2018 (BY 2018)				
Rearing Location	Adult Fish Health	Trap Ops	Production target changes	Spawning protocol changes	Disposition of adults
<i>SF Clearwater Anglers (SOP Section 1.3)</i>					
Dworshak National Fish Hatchery (SFClwB)	NC	SF Brood predicted to be insufficient this year. This group may need to be filled from NF trap	NC	NC	NC
Clearwater Fish Hatchery (SFClwB)	NC	Efforts will be made to reduce excess males collection due to multiple use of males.	NC	NC	NC

1.4. Marking and Rearing Plan for 2018 (Smolt BY 2108)

BY 2018 Steelhead smolt production goals for release in 2019.

Rearing Facility	Program	Brood Collection Site	Release Site	Smolt Release Goals
DNFH	NF Clearwater	DNFH (Trad. & Air Spawned)	MS Clearwater at DNFH	1,200,000
			Clear Creek	300,000
			Lolo Creek	200,000
	SF Clearwater	SFClwR Angler (DNFH)	Red House Hole - SF Clw	400,000
Total				2,100,000
CFH/DNFH	CFH	SFClwR Angler (DNFH)	Meadow Creek-SF Clw	501,000
			Red House Hole-SF Clw	219,000
			Newsome Creek-SF Clw	123,000
Total				843,000
Grand Total				2,943,000

1.4.1. Marking and Rearing Plan for 2018 (Smolt BY 2018) – TOTALS

Table 1.4a. Steelhead Projected marking for BY 2018 Production for release in 2019.

Rearing Facility	Program	Brood Collection Site	Release Site	Smolt Release Goals	Projected Marking				PIT Tags					
					Adipose Fin Clip		No Clip		Total # Tags	Funding Source				
					No CWT	CWT	CWT	No CWT		CSS	LSRCP	IPC	ACOE	USFWS
DNFH	NF Clearwater	DNFH (Trad. & Air Spawned)	MS Clearwater at DNFH	1,200,000		120,000			19,200	7,600				11,600
			Clear Creek	300,000		40,000			4,900	1,900				3,000
			Lolo Creek	200,000		0			2,900	1,100				1,800
	SF Clearwater	SFClwR Angler (DNFH)	Red House Hole - SF Clw	400,000		20,000			5,900	2,300				3,600
Total				2,100,000	0	180,000	0	0	32,900	12,900	0	0	0	20,000
CFH/DNFH	CFH	SFClwR Angler (DNFH)	Meadow Creek-SF Clw	501,000	291,000		210,000		10,800	3,200	7,600			
			Red House Hole-SF Clw	219,000	219,000			4,700	1,400	3,300				
			Newsome Creek-SF Clw	123,000		123,000		2,600	800	1,800				
Totals				843,000	510,000	0	333,000	0	18,100	5,400	12,700	0	0	0
Grand Totals				2,943,000	510,000	180,000	333,000	0	51,000	18,300	12,700	0	0	20,000

1.4.2. Marking and Rearing Plan for 2018 (Smolt BY 2018) – NARRATIVE

Here are examples of things managers were instructed to discuss for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for “No Change”.

- **Fish Health** - anticipated changes to normal fish health sampling or treatments
- **Fish feeding** - changes of diets of feed manufacturer, growth regimes etc.
- **Rearing conditions** - incubation, water temp, flow, rearing density changes
- **Marking** - e.g. changes to schedules, fish handling or movement, raceway loading for PBT, %PBT etc.

Release Location	Plan for 2018 (BY 2018)			
	Juvenile Fish Health	Fish Feeding	Rearing Conditions	Marking
<i>Dworshak National Fish Hatchery (SOP Section 1.2)</i>				
Dworshak National Fish Hatchery (DworB)	NC	NC	NC	NC
Clear Creek (DworB)	NC	NC	NC	NC
Red House, SF Clearwater (SFClw/DworB)	NC	NC	NC	NC
Lolo Creek (DworB)	NC	NC	NC	NC
<i>Clearwater Fish Hatchery (SOP Section 1.3)</i>				
Meadow Creek SF Clearwater (SFClwB/DworB)	NC	NC	NC	NC
Red House Hole SF Clearwater (SFClwB/DworB)	NC	NC	NC	NC
Newsome Creek SF Clearwater (SFClwB/DworB)	NC	NC	NC	NC

2. Spring/Summer Chinook

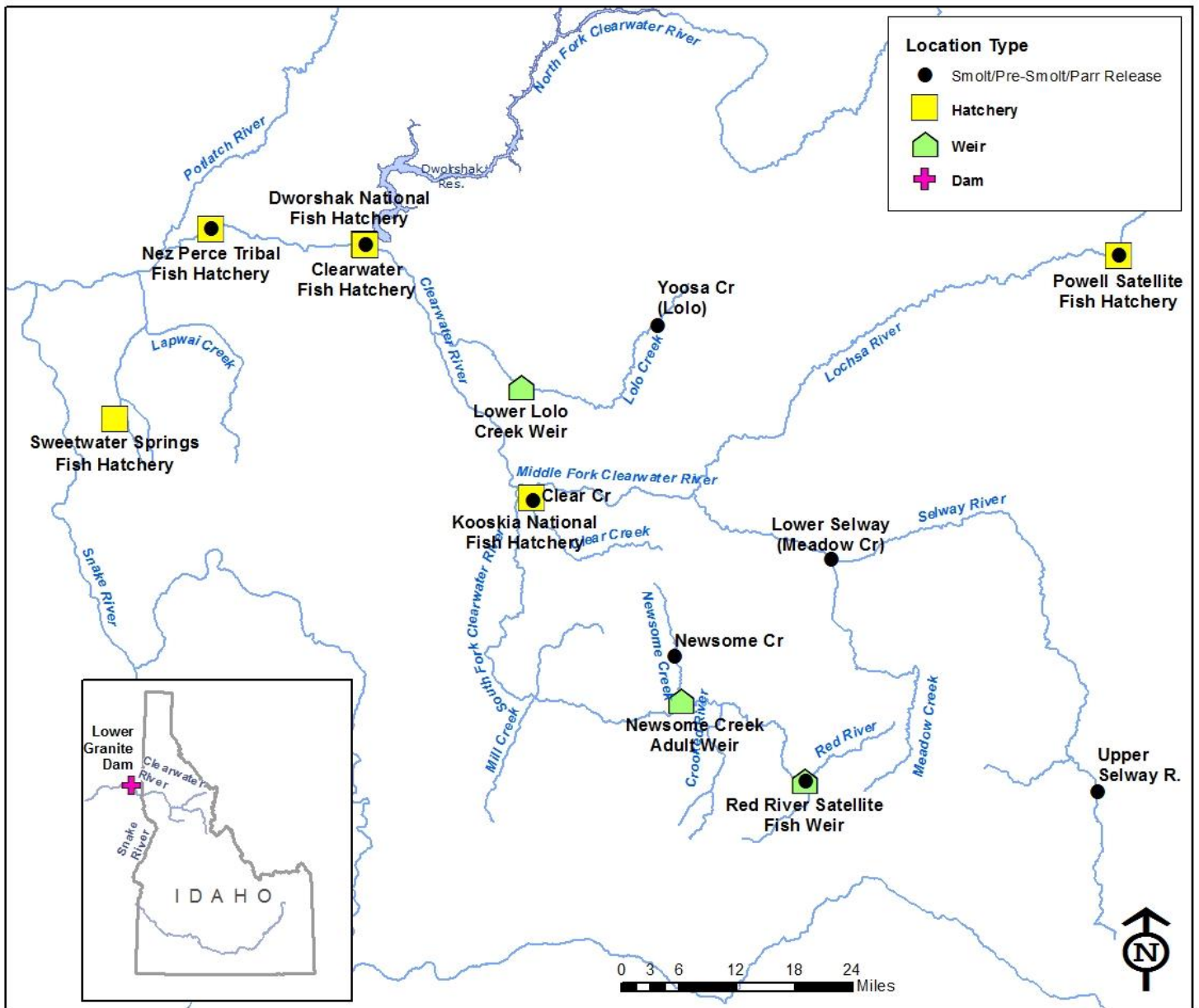


Figure 2.1. Locations of Spring/Summer Chinook Salmon hatchery facilities and smolt/parr/pre-smolt releases. Table below gives smolt and parr/pre-smolt release goals by release site.

Table 2.1. Spring/Summer Chinook Goals for Release in 2018**BY2016 SMOLTS**

Action in 2018	Brood/Release Year	Hatchery Program	Rearing Facility	Brood Collection Site	Release Site	Smolt Release Goal		
Release	BY2016 RY2018	Spring						
		DNFH - LSRCP	DNFH	DNFH	NF Clearwater (DNFH)		1,650,000	
		Total					1,650,000	
		KNFH-LSRCP	KNFH	KNFH	Kooskia NFH		600,000	
		Total					600,000	
		NPTH	NPTH	DNFH	NPTH		200,000	
							Lolo Creek	180,000
		Total					380,000	
		CFH-LSRCP ¹	CFH		KNFH/DNFH	SFClw	Red River	1,100,000
							NF Clearwater (CFH)	400,000
							Selway River-Lower	400,000
							Clear Creek	635,000
							All CFH Programs ²	615,000
		Total					3,150,000	
		Spring Grand Total					5,780,000	
Summer								
CFH-LSRCP ¹	CFH	Pow/SFSR	Powell Pond		600,000			
Summer Grand Total					600,000			

¹ Program goals were increased for CFH after BY2016 juveniles were produced. The goals shown above were the original production goals for the brood year and the 615,000 smolts for "All CFH Programs" represents the expanded production.

² The release sites for this production had not been determined at the time of the AOP in 2017. Refer to the current inventories in table 2.2a to see the release sites where this new production was incorporated

BY2017 PARR and PRE-SMOLTS SMOLTS

Action in 2018	Brood/Release Year	Hatchery Program	Rearing Facility	Brood Collection Site	Life Stage	Release Site	Smolt Release Goal	
Marking and Release	BY2017 RY2018	Spring						
		DNFH	DNFH	DNFH	Parr	Selway River-Upper		300,000
		Total						300,000
		NPTH	NPTH	NPTH	Pre-Smolt	Newsome Cr (SF Clw)		75,000
					Pre-Smolt	Lolo Cr (SF Clw)		150,000
					Parr	Meadow Cr (Selway)		400,000
		Total						625,000
Spring Grand Total						925,000		

2.1. Timeline and Flowchart for Spring/Summer Chinook Production

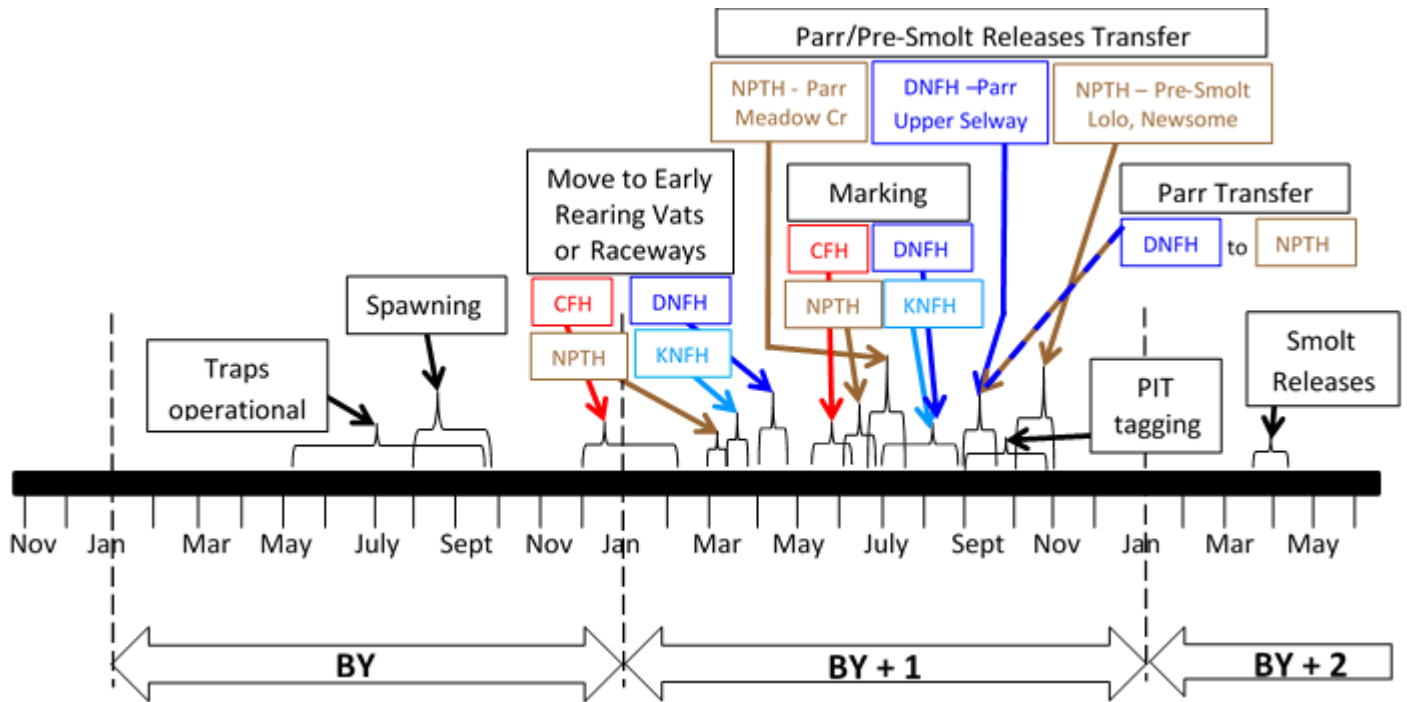
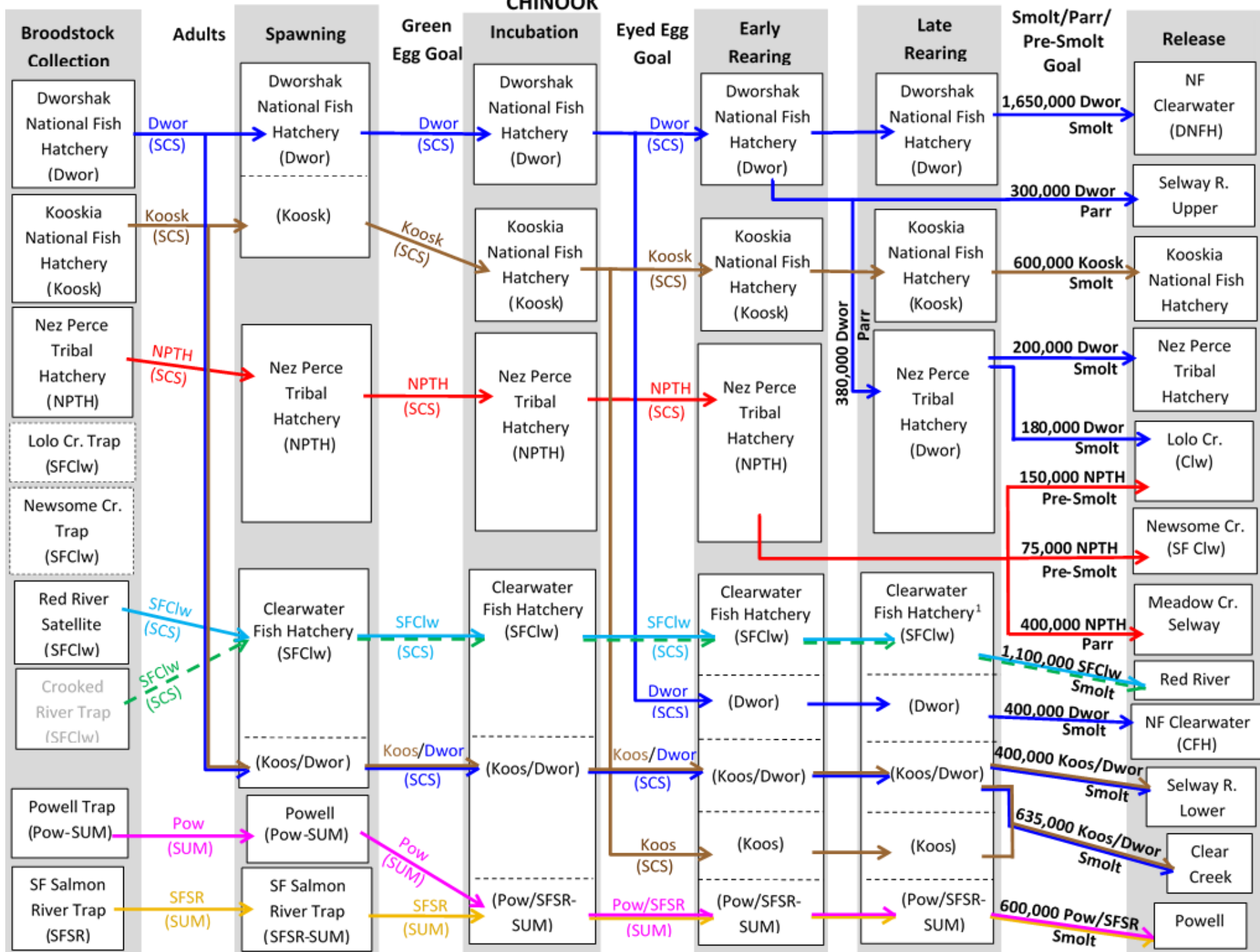


Figure 2.2. Timeline for Spring/Summer Chinook Production. Date ranges with black labels are shown to include all facilities' operations. Color-coded labels identify activities that have variability in timing for the different facilities.

CHINOOK



¹ Rearing space for an additional 615,000 smolts was identified at Clearwater Hatchery after the 2016 AOP. Refer to table 2.2a for release sites for these.

Figure 2.3. Chinook movements for Clearwater. Numbers represent 2018 releases.

2.2. Releases in 2018 (Smolt BY 2016, Parr/Pre-Smolt BY 2017)

2.2.1. Releases in 2018 (Smolt BY 2016, Parr/Pre-Smolt BY 2017) – Totals

Table 2.2a. BY2016 SMOLTS - Sp/Su Chinook Salmon inventories by life stage, smolt release goals and projected releases in 2018.

Hatchery Program	Run	Rearing Facility	Brood Collection Site	Release Site	Release Goals		Inventory To Date		Projected Smolt Release			
					Number	Size (FPP)	Date	Number	Dates	Number	Size (FPP)	
Spring												
DNFH - LSRCP	SpCS	DNFH	DNFH	NF Clearwater (DNFH)	1,650,000	20.0	12/31/2017	1,648,668	3/28/18-3/29/18	1,646,032	20.0	
Total					1,650,000			1,648,668		1,646,032		
KNFH-LSRCP	SpCS	KNFH	KNFH	Kooskia NFH	600,000	20.0	12/28/2017	513,409	3/30/2018	513,250	24.0	
Total					600,000			513,409		513,250		
NPTH	SpCS	NPTH	DNFH	NPTH	200,000		12/31/2017	188,492	Early to mid April 2018	187,738	20.0	
				Lolo Creek	180,000			0		0		
Total					380,000			188,492		187,738		
CFH-LSRCP 1	SpCS	CFH	KNFH/DNFH	SFCIw	Red River	1,100,000	16.0	12/31/2017	1,277,096	March 26-30, 2018	1,276,289	16.0
					NF Clearwater (CFH)	400,000	16.0	12/31/2017	544,340	March 26-27, 2018	543,996	16.0
					Selway River-Lower	400,000	16.0	12/31/2017	451,524	March 21-23, 2018	451,239	16.0
					Clear Creek	635,000	16.0	12/31/2017	818,207	March 19-21, April 9-13 2018	817,690	16.0
					All CFH Programs ²	615,000	16.0		0		0	
Total					3,150,000			3,091,167		3,089,214		
Spring Grand Total					5,780,000			5,441,736		5,436,234		
Summer												
CFH-LSRCP ¹	SuCS	CFH	Pow/SFSR	Powell Pond	600,000	16.0	12/31/2017	674,919	March 12-14, 2018	674,492	16.0	
Summer Grand Total					600,000			674,919		674,492		
Spring/Summer Grand Total					6,380,000			6,116,655		6,110,726		

¹ Program goals were increased for CFH after BY2016 juveniles were produced. The goals shown above were the original production goals for the brood year and the 615,000 smolts for "All CFH Programs" represents the expanded production.

² The release sites for this production had not been determined at the time of the AOP in 2017. Refer to the "Inventory to Date" and "Projected Smolt Release" columns to see the release sites where this new production was incorporated

Table 2.2b. BY2016 SMOLTS - Sp/Su Chinook Salmon Inventory to Date by Mark Type for release in 2018.

Hatchery Program	Run	Rearing Facility	Brood Collection Site	Release Site	Inventory to Date						PIT Tags					
					Date	Total	Adipose Fin Clip		No Clip		Total # Tags	Funding Source				
							CWT	No CWT	CWT	No CWT		CSS	LSRCP	USFWS	BPA	
Spring																
DNFH - LSRCP	SpCS	DNFH	DNFH	NF Clearwater (DNFH)	12/31/2017	1,648,668	120,000	1,528,668	0	0	42,000	42,000	0	0	0	
Total						1,648,668	120,000	1,528,668	0	0	42,000	42,000	0	0	0	
KNFH-LSRCP	SpCS	KNFH	KNFH	Kooskia NFH	12/2/2017	513,409	99,995	358,414		55,000	8,000			8,000		
Total						513,409	99,995	358,414	0	55,000	8,000	0	0	8,000	0	
NPTHC	SpCS	NPTH	DNFH	NPTH Lolo Creek	12/31/2017	188,492	64,293	501	114,257	9,441	600				600	
Total						188,492	64,293	501	114,257	9,441	600	0	0	0	600	
CFH-LSRCP ¹	SpCS	CFH	SFCIw	Red River	12/31/2017	1,277,096	119,865	1,157,231	0	0	17,100	5,100	12,000	0	0	
			KNFH/DNFH	NF Clearwater (CFH)	12/31/2017	544,340	396,311	148,029	0	0	17,100	0	17,100	0	0	0
				Selway River-Lower	12/31/2017	451,524	119,640	186,634	145,250	0	17,100	5,100	12,000	0	0	0
				Clear Creek	12/31/2017	818,207	119,837	698,370	0	0	9,500	3,500	6,000	0	0	0
				All CFH Programs ²		0	0	0	0	0	0	0	0	0	0	0
Total						3,091,167	755,653	2,190,264	145,250	0	60,800	13,700	47,100	0	0	
Spring Grand Total						5,441,736	1,039,941	4,077,847	259,507	64,441	111,400	55,700	47,100	8,000	600	
Summer																
CFH-LSRCP ¹	SuCS	CFH	Pow/SFSR	Powell Pond	12/31/2017	674,919	119,633	218,216	119,951	217,119	25,500	13,500	12,000			
Summer Grand Total						674,919	119,633	218,216	119,951	217,119	25,500	13,500	12,000	0	0	
Spring and Summer Grand Total						6,116,655	1,159,574	4,296,063	379,458	281,560	136,900	69,200	59,100	8,000	600	

¹ Program goals were increased for CFH after BY2016 juveniles were produced. The goals shown above were the original production goals for the brood year and the 615,000 smolts for "All CFH Programs" represents the expanded production.

² The release sites for this production had not been determined at the time of the AOP in 2017. Refer to the "Inventory to Date" columns to see the release sites where this new production was incorporated

Table 2.2c. BY2017 PARR and PRE-SMOLT - Sp/Su Chinook Salmon inventories by life stage, release goals and projected releases in 2018.

Hatchery Program	Rearing Facility	Brood Collection Site	Life Stage	Release Site	Inventory To Date		Release Goals		Projected Releases		
					Date	Number	Number	Size (FPP)	Dates	Number	Size (FPP)
Spring											
DNFH	DNFH	DNFH	Parr	Selway River-Upper	12/31/17	340,553	300,000	100.0	09/10/18-09/12/18	300,000	100.0
Total						340,553	300,000			300,000	
NPTHC	NPTH	NPTHC	Pre-Smolt	Newsome Cr (SF Clw)	12/31/17	622,751	75,000	29.0	10/15/2018	75,000	29.0
			Pre-Smolt	Lolo Cr (SF Clw)			150,000	34.0	10/15/2018	150,000	34.0
			Parr	Meadow Cr (Selway)			400,000	117.0	6/25-29/2018	395,000	117.0
Total						622,751	625,000			620,000	
Grand Total						963,304	925,000			920,000	

2.2.2. Releases in 2018 (Smolt BY 2016, Parr/Pre-Smolt BY 2017) – Total

Here are examples of things managers were instructed to discuss for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for “No Change”.

- **Smolt/Egg Release Targets-** e.g. were you below goal, was your size at release different than SOP target etc.
- **Fish/Egg Health-** any epizootic history, anti-biotic treatments, was production culled at any point
- **Transportation/Releases-** e.g. timing, trucking issues, site access etc.

Release Location	Plan for 2018		Changes/Conditions that Occurred 2017-Early 2018		
	Release Target Smolt BY16 Parr/Pre-Smolt BY17	Transport/Release Smolt BY16 Parr/Pre-Smolt BY17	Fish Feeding Smolt BY16 Parr/Pre-Smolt BY17	Fish/Egg Health Smolt BY16 Parr/Pre-Smolt BY17	Marking Smolt BY16 Parr/Pre-Smolt BY17
<i>Dworshak National Fish Hatchery (SOP Section 2.2)</i>					
NF Clearwater-DNFH (Dwor)	N/C	Dependent on conditions, possible release date change/ pump to Main stem	N/C	LHO's installed 3/17, four raceways baffled 10/17	N/C
Selway River Upper (Dwor-Parr)	N/C	N/C	N/C	N/C	N/C

	Plan for 2018		Changes/Conditions that Occurred 2017-Early 2018		
Release Location	Release Target Smolt BY16 Parr/Pre-Smolt BY17	Transport/Release Smolt BY16 Parr/Pre-Smolt BY17	Fish Feeding Smolt BY16 Parr/Pre-Smolt BY17	Fish/Egg Health Smolt BY16 Parr/Pre-Smolt BY17	Marking Smolt BY16 Parr/Pre-Smolt BY17
<i>Kooskia National Fish Hatchery (SOP Sections 2.3)</i>					
Kooskia National Fish Hatchery (Koosk)	By16 smolts at Kooskia will be released on march 30,2018. Clearwater hatchery will transport smolts to the Kooskia hatchery for acclimation on April 2,2018	Total BY16 Kooskia stock fry tanked numbered 770,253. The nursery tanks were operated on reuse with well water makeup. On March 17th we had a power outage to the Bio filter at 5:30am and the alarms failed to go off at 7:00 am in the morning the hatchery staff arrived to feed and all the fry died except for 15,310 because of anoxia. The remaining fry were placed into two vats and feeding was continued. On April 24, 2017 we received 263,739 fry from the IDFG Clearwater Hatchery. These fish were 250 fpp they were placed in the outside vats. On May 5, 2017 the Kooskia hatchery staff transported 248,276 button up fry from the DNFH for rearing at the Kooskia Hatchery.	NC	NC	NC
<i>Nez Perce Tribal Hatchery (SOP Section 2.4)</i>					
Nez Perce Tribal Hatchery (Dwor Smolt)	NC	NC	NC	NC	Transfer to NPTH on 8/13, Marking completed at NPTH
Lolo Creek (Dwor-Smolt)	NC	NC	NC	NC	NC
Lolo Creek (NPTH-Pre-Smolt)	NC	NC	NC	NC	NC
Newsome Creek (NPTH-Pre-Smolt)	NC	NC	NC	NC	NC

	Plan for 2018		Changes/Conditions that Occurred 2017-Early 2018		
Release Location	Release Target Smolt BY16 Parr/Pre-Smolt BY17	Transport/Release Smolt BY16 Parr/Pre-Smolt BY17	Fish Feeding Smolt BY16 Parr/Pre-Smolt BY17	Fish/Egg Health Smolt BY16 Parr/Pre-Smolt BY17	Marking Smolt BY16 Parr/Pre-Smolt BY17
Meadow Creek Selway (NPTH-Parr)	NC	NC	NC	NC	NC
<i>Clearwater Fish Hatchery (SOP Sections 2.5)</i>					
Red River (SFCIw)	Due to increased capacity target goal increased 180,000 fish to 1,280,000	NC	NC	NC	NC
NF Clearwater-CFH (Baffle) (Dwor/Koos)	NC	NC	NC	NC	NC
NF Clearwater-CFH (Regular) (Dwor/Koos)	Due to increased capacity and aligning releases to fit rearing containers, the target goal was reduced by 40,000 and that production was shifted to Powell	NC	NC	NC	NC
Selway River-Lower (Dwor/Koos)	NC	NC	NC	NC	NC
Clear Creek (Dwor/Koos)	Due to increased capacity the target goal increased 85,000 fish to 720,000	March 19-21 approximately 163,890 non PIT tagged fish will be direct released at KNFH weir. On April 2-4, approximately 653,800 will be hauled to KNFH and acclimated then release after a 7-10 acclimation period.	NC	NC	NC

	Plan for 2018		Changes/Conditions that Occurred 2017-Early 2018		
Release Location	Release Target Smolt BY16 Parr/Pre-Smolt BY17	Transport/Release Smolt BY16 Parr/Pre-Smolt BY17	Fish Feeding Smolt BY16 Parr/Pre-Smolt BY17	Fish/Egg Health Smolt BY16 Parr/Pre-Smolt BY17	Marking Smolt BY16 Parr/Pre-Smolt BY17
Powell (Pow/SFSR- Summer)	Due to increased capacity and aligning releases to fit rearing containers, the target goal increased 40,000 fish to 640,000	NC	NC	NC	NC

2.3. Trap Operations and Production Planning for 2018 (Smolt and Parr/Pre-Smolt BY 2018)

When the Clearwater basin cooperators met in January 2018 for the AOP, the level of Chinook smolt production that would be targeted for brood year 2018 had not yet been determined. Because of this, the table below that lists the production goals includes two production levels. The lower level includes only production listed in Table B1 of the 2018-2027 USvOR Agreement. The higher level of production includes all production that has been discussed to date for the Clearwater basin. The level of production that will occur in 2018 will be determined prior to the 2018 fisheries.

BY2018 SMOLTS - Spring/Summer Chinook Goals for Release in 2020

Action in 2018	Brood/Release Year	Hatchery Program	Brood Collection Site	Rearing Facility	Release Site	Smolt Release Goal (US v OR)	Smolt Release Goal (Including Additional Production)		
Trapping	BY2018 RY2020	Spring							
		DNFH - LSRCP	DNFH	DNFH		NF Clearwater (DNFH)	1,050,000	1,650,000	
		Total						1,050,000	1,650,000
		KNFH-LSRCP	KNFH	KNFH		Kooskia NFH	600,000	600,000	
		Total						600,000	600,000
		NPTH C	DNFH	DNFH		Trans. to NPTH-NPTH	200,000	200,000	
						Trans. to NPTH-Lolo Creek	0	180,000	
		Total						200,000	380,000
		CFH-LSRCP	SFCIw				Red River	1,100,000	1,280,000
			DNFH				NF Clearwater-CFH (Baffle)	0	389,000
			DNFH	CFH			NF Clearwater-CFH (Regular)	0	320,000
			DNFH				Selway River-Lower	400,000	400,000
		KNFH/DNFH				Clear Creek	635,000	720,000	
		Total						2,135,000	3,109,000
		Spring Grand Total						3,985,000	5,739,000
Summer									
CFH-LSRCP ¹	Pow/SFSR	CFH			Powell Pond (SUM)	640,000	640,000		
Summer Grand Total						640,000	640,000		

¹Planning to incorporate eggs from 50F from SFSR if available

BY2018 PARR and PRE-SMOLT - Spring/Summer Chinook Goals for Release in 2019

Action in 2018	Brood/Release Year	Hatchery Program	Life Stage	Brood Collection Site	Rearing Facility	Release Site	Smolt Release Goal		
Trapping	BY2018 RY2019	Spring							
		DNFH	Parr	DNFH	DNFH		Selway River-Upper	300,000	
		Total						300,000	
		NPTH C	Pre-Smolt	NPTH C				Newsome Cr (SF Clw)	75,000
			Pre-Smolt	NPTH C				Lolo Cr (SF Clw)	150,000
			Parr	NPTH C				Meadow Cr (Selway)	400,000
		Total						625,000	
Spring Grand Total						925,000			

2.3.1. Trap Operations and Production Planning for 2018 (Smolt and Parr/Pre-Smolt BY 2018) – TOTALS

FULL PRODUCTION

Table 2.3a. 2018 Adult brood stock acquisition schedules for hatchery Sp/Su Chinook Salmon programs in the Clearwater River for FULL PRODUCTION.

Date	Spring				Summer
	Dworshak Trap	Kooskia Trap	NPTH Trap	Red River Trap	Powell ¹
3-May					
10-May					
17-May			5		
24-May		13	10		
31-May		38	15		
7-Jun		421	69	8	
14-Jun		621	109	65	
21-Jun		699	183	138	20
28-Jun		725	237	276	53
5-Jul	197	880	287	447	134
12-Jul	565	956	361	553	171
19-Jul	1,057	996	395	593	187
26-Jul	1,549	1,029	440	602	191
2-Aug	2,016		464	618	191
9-Aug	2,458		464	626	195
16-Aug			494	650	204
23-Aug			494	732	208
30-Aug			494	813	256
6-Sep				813	358
13-Sep					407
20-Sep					
27-Sep					
Total	2,458	1,029	494	813	407
2018 LGR Forecast ²	6944	3697	910	2699	2321

Date	Proportion of brood acquisition over season				Summer
	Dworshak Trap	Kooskia Trap	NPTH Trap	Red River	Powell ³
3-May	0.000	0.000	0.000	0.000	0.00
10-May	0.000	0.000	0.000	0.000	0.00
17-May	0.000	0.000	0.010	0.000	0.00
24-May	0.000	0.013	0.020	0.000	0.00
31-May	0.000	0.037	0.030	0.000	0.00
7-Jun	0.000	0.409	0.140	0.010	0.00
14-Jun	0.000	0.604	0.220	0.080	0.00
21-Jun	0.000	0.679	0.370	0.170	0.05
28-Jun	0.000	0.704	0.480	0.340	0.13
5-Jul	0.080	0.855	0.580	0.550	0.33
12-Jul	0.230	0.929	0.730	0.680	0.42
19-Jul	0.430	0.968	0.800	0.730	0.46
26-Jul	0.630	1.000	0.890	0.740	0.47
2-Aug	0.820	1.000	0.940	0.760	0.47
9-Aug	1.000	1.000	0.940	0.770	0.48
16-Aug	1.000	1.000	1.000	0.800	0.50
23-Aug	1.000	1.000	1.000	0.900	0.51
30-Aug	1.000	1.000	1.000	1.000	0.63
6-Sep	1.000	1.000	1.000	1.000	0.88
13-Sep	1.000	1.000	1.000	1.000	1.00
20-Sep	1.000	1.000	1.000	1.000	1.00
27-Sep	1.000	1.000	1.000	1.000	1.00

¹ Planning to incorporate eggs from 50F from SFSR if available. If that occurs, the total trapped for Powell will be reduced to 307.

² 2- and 3-ocean returns only

³ Based on Crooked River timing.

FULL PRODUCTION**Table 2.3b.** BY 2018 SMOLT - Sp/Su Chinook Spawning and Trapping Plan for FULL PRODUCTION

Hatchery Program	Brood Collection Site	Rearing Facility	Release Site	Green Egg Goal	Green Egg Fecundity	Female Spawn Goal	Male Spawn Goal	Holding Mortality	Total Trapping Goal	Estimated Trapping Dates	Projected Returns to LGD
<i>Spring</i>											
DNFH - LSRCP	DNFH	DNFH	NF Clearwater (DNFH)	2,230,211	3,993	559	559	9.6%	1,237	6/15/2018	3,005
Total				2,230,211	3,993	559	559		1,237		
KNFH-LSRCP	KNFH	KNFH	Kooskia NFH	916,652	3,661	251	251	12.1%	572	5/15/2018	1,058
Total				916,652	3,661	251	251		572		
NPTHC	DNFH	DNFH	Trans. to NPTH-NPTH	270,329	3,993	68	68	9.6%	151		
			Trans. to NPTH-Lolo Creek	243,296	3,993	61	61	9.6%	135		
Total				513,624	7,986	129	129		286		
CFH-LSRCP	SFCIw	CFH	Red River	1,541,782	4,000	386	386	5.0%	813	5/28/18	2,699
	DNFH		NF Clearwater-CFH (Baffle)	468,557	4,000	118	118	5.0%	249		3,939
	DNFH		NF Clearwater-CFH (Regular)	385,446	4,000	97	97	5.0%	205		
	DNFH		Selway River-Lower	481,807	4,000	121	121	5.0%	255		1,488
	KNFH/DNFH		Clear Creek	867,253	4,000	217	217	5.0%	457		2,639
Total				3,744,845	20,000	939	939		1,979		10,765
Spring Smolt Grand Total				7,405,331	35,640	1,878	1,878		4,074		10,765
<i>Summer</i>											
CFH-LSRCP ¹	Pow/SFSR	CFH	Powell Pond (SUM)	770,891	4,000	193	193	5.0%	407	6/11/18	2,321
Summer Smolt Grand Total				770,891	4,000	193	193		407		2,321

¹ Planning to incorporate eggs from 50F from SFSR if available. If collected, the number of females spawned at Powell would reduce to 143

FULL PRODUCTION**Table 2.3c.** BY 2018 PARR and PRE-SMOLT - Sp/Su Chinook Spawning and Trapping Plan for FULL PRODUCTION

Hatchery Program	Life Stage	Brood Collection Site	Rearing Facility	Release Site	Green Egg Goal	Green Egg Fecundity	Female Spawn Goal	Male Spawn Goal	Holding Mortality	Total Trapping Goal	Estimated Trapping Dates	Projected Returns to LGD
<i>Spring</i>												
DNFH	Parr	DNFH	DNFH	Selway River-Upper	405,493	3,993	102	102	9.6%	226	06/15/2018	
Total					405,493	3,993	102	102		226		0
NPTHC	Pre-Smolt	NPTHC	NPTHC	Newsome Cr (SF CIw)	110,046	4,041	28	28	7.0%	61		
	Pre-Smolt	NPTHC		Lolo Cr (SF CIw)	220,093	4,041	55	55	7.0%	119		910
	Parr	NPTHC		Meadow Cr (Selway)	586,914	4,041	146	146	7.0%	314		
Total					917,053	12,123	229	229		494		910
Spring Parr/Pre-smolt Grand Total					1,322,546	16,116	331	331		720		910

FULL PRODUCTION

Table 2.3d. BY2018 Sp/Su Chinook Spawning and Trapping Plan Summarized by Trapping Facility for FULL PRODUCTION

Brood Collection Site	Female Spawn Goal	Male Spawn Goal	Total Trapping Goal	Projected Returns to LGD
<i>Spring</i>				
DNFH	1,126	1,126	2,458	6,944
KNFH	468	468	1,029	3,697
SFCIw	386	386	813	2,699
NPTHC	229	229	494	910
<i>Summer</i>				
Pow/SFSR	193	193	407	2,321

BASE US v OR PRODUCTION

Table 2.3e. 2018 Adult brood stock acquisition schedules for hatchery Sp/Su Chinook Salmon programs in the Clearwater River for BASE US v OR PRODUCTION.

Date	Spring				Summer
	Dworshak Trap	Kooskia Trap	NPTH Trap	Red River Trap	Powell ¹
3-May					
10-May					
17-May			5		
24-May		13	10		
31-May		36	15		
7-Jun		399	69	7	
14-Jun		590	109	56	
21-Jun		663	183	119	20
28-Jun		688	237	238	53
5-Jul	114	835	287	384	134
12-Jul	327	908	361	475	171
19-Jul	611	945	395	510	187
26-Jul	895	977	440	517	191
2-Aug	1,164		464	531	191
9-Aug	1,420		464	538	195
16-Aug			494	559	204
23-Aug			494	629	208
30-Aug			494	699	256
6-Sep				699	358
13-Sep					407
20-Sep					
27-Sep					
Total	1,420	977	494	699	407
2018 LGR Forecast ²	6944	3697	910	2699	2321

Date	Proportion of brood acquisition over season				Summer
	Dworshak Trap	Kooskia Trap	NPTH Trap	Red River Trap	Powell ³
3-May	0.000	0.000	0.000	0.000	0.00
10-May	0.000	0.000	0.000	0.000	0.00
17-May	0.000	0.000	0.010	0.000	0.00
24-May	0.000	0.013	0.020	0.000	0.00
31-May	0.000	0.037	0.030	0.000	0.00
7-Jun	0.000	0.409	0.140	0.010	0.00
14-Jun	0.000	0.604	0.220	0.080	0.00
21-Jun	0.000	0.679	0.370	0.170	0.05
28-Jun	0.000	0.704	0.480	0.340	0.13
5-Jul	0.080	0.855	0.580	0.550	0.33
12-Jul	0.230	0.929	0.730	0.680	0.42
19-Jul	0.430	0.968	0.800	0.730	0.46
26-Jul	0.630	1.000	0.890	0.740	0.47
2-Aug	0.820	1.000	0.940	0.760	0.47
9-Aug	1.000	1.000	0.940	0.770	0.48
16-Aug	1.000	1.000	1.000	0.800	0.50
23-Aug	1.000	1.000	1.000	0.900	0.51
30-Aug	1.000	1.000	1.000	1.000	0.63
6-Sep	1.000	1.000	1.000	1.000	0.88
13-Sep	1.000	1.000	1.000	1.000	1.00
20-Sep	1.000	1.000	1.000	1.000	1.00
27-Sep	1.000	1.000	1.000	1.000	1.00

¹ Planning to incorporate eggs from 50F from SFSR if available. If that occurs, the total trapped for Powell will be reduced to 307.

² 2- and 3-ocean returns only

³ Based on Crooked River timing.

BASE US v OR PRODUCTION

Table 2.3f. BY 2018 SMOLT - Sp/Su Chinook Spawning and Trapping Plan for BASE US v OR PRODUCTION

Hatchery Program	Brood Collection Site	Rearing Facility	Release Site	Green Egg Goal	Green Egg Fecundity	Female Spawn Goal	Male Spawn Goal	Holding Mortality	Total Trapping Goal	Estimated Trapping Dates	Projected Returns to LGD
Spring											
DNFH - LSRCP	DNFH	DNFH	NF Clearwater (DNFH)	1,419,225	3,993	356	356	9.6%	788	6/15/2018	3,005
Total				1,419,225		356	356		788		3,005
KNFH-LSRCP	KNFH	KNFH	Kooskia NFH	916,962	3,661	251	251	12.1%	572	5/15/2018	1,058
Total				916,962		251	251		572		1,058
NPTH	DNFH	DNFH	Trans. to NPTH-NPTH	270,329	3,993	68	68	9.6%	151		
			Trans. to NPTH-Lolo Creek	0	3,993	0	0	9.6%	0		
Total				270,329		68	68		151		0
CFH-LSRCP	SFCIw	CFH	Red River	1,324,969	4,000	332	332	5.0%	699	5/28/18	2,699
	DNFH		NF Clearwater-CFH (Baffle)	0	4,000	0	0	5.0%	0		3,939
	DNFH		NF Clearwater-CFH (Regular)	0	4,000	0	0	5.0%	0		
	DNFH		Selway River-Lower	481,807	4,000	121	121	5.0%	255		1,488
Total			764,869	4,000	192	192	5.0%	405		2,639	
Total				2,571,645		645	645		1,359		10,765
Spring Grand Total				5,178,161		1,320	1320		2,870		14,828
Summer											
CFH-LSRCP ¹	Pow/SFSR	CFH	Powell Pond	770,891	4,000	193	193	5.0%	407	6/11/18	2,321
Summer Grand Total				770,891		193	193		407		2,321

¹Planning to incorporate eggs from 50F from SFSR if available. If collected, the number of females spawned at Powell would reduce to 143

BASE US v OR PRODUCTION

Table 2.3g. BY 2018 PARR and PRE-SMOLT - Sp/Su Chinook Spawning and Trapping Plan

Hatchery Program	Life Stage	Brood Collection Site	Rearing Facility	Release Site	Green Egg Goal	Green Egg Fecundity	Female Spawn Goal	Male Spawn Goal	Holding Mortality	Total Trapping Goal	Estimated Trapping Dates	Projected Returns to LGD
Spring												
DNFH	Parr	DNFH	DNFH	Selway River-Upper	405,493	3,993	102	102	9.6%	226	6/15/2018	
Total					405,493	3,993	102	102		226		0
NPTH	Pre-Smolt	NPTH	NPTH	Newsome Cr (SF Clw)	110,046	4,041	28	28	7.0%	61		
	Pre-Smolt	NPTH		Lolo Cr (SF Clw)	220,093	4,041	55	55	7.0%	119		910
	Parr	NPTH		Meadow Cr (Selway)	586,914	4,041	146	146	7.0%	314		
Total					917,053	12,123	229	229		494		910
Spring Grand Total					1,322,546	16,116	331	331		720		910

BASE US v OR PRODUCTION**Table 2.3h.** BY 2018 Sp/Su Chinook Spawning and Trapping Plan Summarized by Trapping Facility for BASE US v OR PRODUCTION

Brood Collection Site	Female Spawn Goal	Male Spawn Goal	Total Trapping Goal	Projected Returns to LGD
<i>Spring</i>				
DNFH	647	647	1,420	6,944
KNFH	443	443	977	3,697
SFCIw	332	332	699	2,699
NPTHC	229	229	494	910
<i>Summer</i>				
Pow/SFSR	193	193	407	2,321

2.3.2. Trap Operations and Production Planning for 2018 (Smolts and Parr/Pre-Smolt BY2018) – NARRATIVE

Here are examples of things managers were instructed to discuss for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for “No Change”.

Juvenile Release Location	Plan for 2018 (BY 2018)				
	Adult Fish Health	Trap Ops	Production target changes	Spawning protocol changes	Disposition of adults
<i>Dworshak National Fish Hatchery Ladder/Trap (SOP Section 2.2)</i>					
NF Clearwater-DNFH (Dwor)	N/C	N/C	N/C	N/C	N/C
Selway River Upper (Dwor-Parr)	N/C	N/C	N/C	N/C	N/C
Nez Perce Tribal Hatchery (Dwor-Smolt)	N/C	N/C	N/C	N/C	N/C
Lolo (Dwor-Smolt)	N/C	N/C	N/C	N/C	N/C
NF Clearwater-CFH (Baffle) (Dwor)	NC	NC	NC	NC	NC
NF Clearwater-CFH (Regular) (Dwor)	NC	NC	NC	NC	NC
Selway River Lower (Dwor)	NC	NC	NC	NC	NC
Clear Creek (Dwor)	NC	NC	NC	NC	NC
<i>Kooskia National Fish Hatchery Trap (SOP Sections 2.3)</i>					
Kooskia National Fish Hatchery (Koo)	NC	NC	NC	NC	NC

Juvenile Release Location	Plan for 2018 (BY 2018)				
	Adult Fish Health	Trap Ops	Production target changes	Spawning protocol changes	Disposition of adults
Clear Creek (Koos)	NC	NC	NC	NC	NC
<i>Nez Perce Tribal Hatchery Trap (SOP Section 2.4)</i>					
Lolo Creek (NPTH-Pre-Smolt)	NC	NC	NC	NC	NC
Newsome Creek (NPTH-Pre-Smolt)	NC	NC	NC	NC	NC
Meadow Creek Selway (NPTH-Parr)	NC	NC	NC	NC	NC
<i>Red River and Crooked River Traps (SOP Section 2.5)</i>					
Red River (SFCIw)	NC	NC	NC	NC	NC
<i>Powell Trap (SOP Section 2.5)</i>					
Powell (Pow-Summer)	NC	NC	NC	Planning to incorporate eggs from approximately 50 females from SFSR stock into the Powell program in 2018. Green eggs will be transferred	NC

2.4. Early Rearing and Marking Plan for 2018 (Smolts BY 2017, Parr/Pre-Smolt BY2017)

BY2017 SMOLTS - Spring/Summer Chinook Goals for Release in 2019

Action in 2018	Brood/Release Year	Hatchery Program	Brood Collection Site	Rearing Facility	Release Site	Smolt Release Goal		
Early Rearing and Marking	BY2017 RY2019	Spring						
		DNFH - LSRCP	DNFH	DNFH	NF Clearwater (DNFH)	1,650,000		
		Total					1,650,000	
		KNFH-LSRCP	KNFH	KNFH	Kooskia NFH	600,000		
		Total					600,000	
		NPTH	DNFH	NPTH	Trans. to NPTH-NPTH	200,000		
							Trans. to NPTH-Lolo Creek	180,000
		Total					380,000	
		CFH-LSRCP	SFClw	CFH	Red River	1,280,000		
			DNFH		NF Clearwater-CFH (Baffle)	389,000		
			DNFH		NF Clearwater-CFH (Regular)	320,000		
			DNFH		Selway River-Lower	400,000		
			KNFH/DNFH		Clear Creek	720,000		
		Total					3,109,000	
		Spring Grand Total					5,739,000	
		Summer						
		CFH-LSRCP	Pow/SFSR	CFH	Powell Pond (SUM)	640,000		
Summer Grand Total					640,000			

BY2017 PARR and PRE-SMOLT - Spring Chinook Goals for Release in 2018

Action in 2018	Brood/Release Year	Hatchery Program	Life Stage	Brood Collection Site	Rearing Facility	Release Site	Smolt Release Goal
Early Rearing, Marking and Release	BY2017 RY2018	Spring					
		DNFH	Parr	DNFH	DNFH	Selway River-Upper	300,000
		Total					300,000
		NPTH	Pre-Smolt	NPTH	NPTH	Newsome Cr (SF Clw)	75,000
			Pre-Smolt			Lolo Cr (SF Clw)	150,000
			Parr			Meadow Cr (Selway)	400,000
		Total					625,000
Spring Grand Total					925,000		

2.4.1. Early Rearing and Marking Plan for 2018 (Smolts BY 2017, Parr/Pre-Smolt BY2017) – TOTALS

Table 2.4a. BY 2017 Sp/Su Chinook Salmon - Early Rearing Inventory for smolt releases in 2019 (including anticipated set out)

Hatchery Program	Run	Brood Collection Site	Rearing Facility	Release Site	Release Goals for 2018	Size (FPP)	Inventory to Date		
							Date	Goal ¹	Actual
Spring									
DNFH	SpCS	DNFH	DNFH	NF Clearwater (DNFH)	1,650,000	20.00	12/31/17	1,864,881	1,866,367
Totals					1,650,000			1,864,881	1,866,367
KNFH	SpCS	KNFH	KNFH	Kooskia NFH	600,000	24.00	1/12/2018	666,667	829,487
Totals					600,000			666,667	829,487
NPTH	SpCS	DNFH	NPTH	Trans. to NPTH-NPTH	200,000	20.00	12/31/17	226,046	227,530
				Trans. to NPTH-Lolo Creek	180,000	20.00	12/31/17	203,442	204,926
Totals					380,000			429,488	432,456
CFH	SpCS	SFCIw	CFH	Red River	1,280,000	16.0	1/3/2018	1,299,492	1,205,817
		DNFH		NF Clearwater-CFH (Baffle)	389,000	16.0	1/3/2018	394,924	395,060
		DNFH		NF Clearwater-CFH (Regular)	320,000	16.0	1/3/2018	324,873	312,477
		DNFH		Selway River-Lower	400,000	16.0	1/3/2018	406,091	406,578
		KNFH/DNFH		Clear Creek	720,000	16.0	1/3/2018	730,964	703,096
Totals					3,109,000			3,156,344	3,023,028
Spring Grand Total					5,739,000			6,117,380	6,151,338
Summer									
CFH	SuCS	Pow/SFSR	CFH	Powell Pond (SUM)	640,000	16.0	1/3/2018	649,746	634,260
Totals					640,000			649,746	634,260
Summer Grand Total					640,000			649,746	634,260

¹ Estimated fish needed in vats to reach eventual smolt release goals, based on brood calculator exclusive of the buffer.

Table 2.4b. BY 2017 SMOLTS - Sp/Su Chinook Projected Marking of BY 2017 juveniles to be released in 2019.

Hatchery Program	Run	Brood Collection Site	Rearing Facility	Release Site	Release Goals for 2019	Likely Marking Date(s)	Inventory to Date		Projected Marking				Projected PIT Tags ¹				
							Date	Number	Adipose Fin Clip		No Clip		Total # Tags	Funding Source			
									No CWT	CWT	CWT	No CWT		CSS	LSRCP	USFWS	BPA
Spring																	
DNFH	SpCS	DNFH	DNFH	NF Clearwater (DNFH)	1,650,000	9/5/18-9/19/18	12/31/2017	1,866,367	0	120,000	0	0	42,000	42,000	0	0	0
Totals					1,650,000			1,866,367	0	120,000	0	0	42,000	42,000	0	0	0
KFH	SpCS	KNFH	KNFH	Kooskia NFH	600,000		1/12/2018	829,487	674,487	100,000		55,000	8,000			8,000	0
Totals					600,000			829,487	674,487	100,000	0	55,000	8,000	0	0	8,000	0
NPTH	SpCS	DNFH	NPTH	Trans. to NPTH-NPTH	200,000	9/4/18-9/19/18	12/31/2017	227,530	0	75,767	151,763	0	600	0	0	0	600
				Trans. to NPTH-Lolo Creek	180,000	9/4/18-9/19/18	12/31/2017	204,926	144,926	60,000	0	0	0	1,000	0	0	0
Totals					380,000			432,456	144,926	135,767	151,763	0	1,600	0	0	0	1,600
CFH	SpCS	SFClw	CFH	Red River	1,280,000	4/26-5/4	1/3/2018	1,205,817	1,085,817	120,000	0	0	17,100	5,100	12,000	0	0
		DNFH		NF Clearwater-CFH (Baffle)	389,000	5/21-6/8	1/3/2018	395,060	6,060	389,000	0	0	17,100	0	17,100	0	0
		DNFH		NF Clearwater-CFH (Regular)	320,000	5/21-6/8	1/3/2018	312,477	312,477	0	0	0	0	0	0	0	
		DNFH		Selway River-Lower	400,000	5/21-6/8	1/3/2018	406,578	193,578	80,000	133,000	0	17,100	5,100	12,000	0	0
		KNFH/DNFH		Clear Creek	720,000	5/21-6/8	1/3/2018	703,096	583,096	120,000	0	0	8,500	3,500	5,000	0	0
Totals					3,109,000			3,023,028	2,181,028	709,000	133,000	0	59,800	13,700	46,100	0	0
Spring Grand Total					5,739,000			6,151,338	3,000,441	1,064,767	284,763	55,000	111,400	55,700	46,100	8,000	1,600
Summer																	
CFH	SuCS	Pow/SFSR	CFH	Powell Pond (SUM)	640,000	5/21-6/8	1/3/2018	634,260	200,000	120,000	120,000	200,000	25,500	13,500	12,000	0	0
Totals					640,000			634,260	200,000	120,000	120,000	200,000	25,500	13,500	12,000	0	0
Summer Grand Totals					640,000			634,260	200,000	120,000	120,000	200,000	25,500	13,500	12,000	0	0
Spring/Summer Grand Total					6,379,000			6,785,598	3,200,441	1,184,767	404,763	255,000	136,900	69,200	58,100	8,000	1,600

¹ PIT Tagging occurs in fall 2018**Table 2.4c.** BY2017 PARR and PRE-SMOLT - Sp Chinook Salmon Inventory to Date by Projected Mark Type for release in 2018.

Hatchery Program	Run/ Life Stage	Brood Collection Site	Rearing Facility	Release Site	Inventory to Date		Projected Marking & Tagging				PIT Tags					
					Date	Total	Adipose Fin Clip		No Clip		Total # Tags	Funding Source				
							No CWT	CWT	CWT	No CWT		CSS	LSRCP	USFWS	BPA	
DHFH	Parr	DNFH	DNFH	Selway River-Upper	12/31/2017	340,553	0	0	0	300,000	0	0	0	0	0	0
Total						340,553	0	0	0	300,000	0	0	0	0	0	0
NPTH	Pre-Smolt	NPTH	NPTH	Newsome Cr (SF Clw)	12/31/2017	622,751	0	0	75,000	0	3,000	0	0	0	3,000	
	Pre-Smolt			Lolo Cr (SF Clw)			0	0	150,000	0	6,000	0	0	6,000		
	Parr			Meadow Cr (Selway)			0	0	0	397,751	5,000	0	0	5,000		
Total						622,751	0	0	225,000	397,751	14,000	0	0	14,000		
Spring Grand Total						963,304	0	0	225,000	697,751	14,000	0	0	14,000		

2.4.2. Early Rearing and Marking Plan for 2018 (Smolts BY 2017, Parr/Pre-Smolt BY2017) – NARRATIVE

Here are examples of things managers were instructed to discuss for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for “No Change”.

- **Fish Health** - fish health issues, action taken and how was the treatment implemented, anticipated changes to normal fish health sampling or treatments
- **Fish feeding** - changes of diets of feed manufacturer, growth regimes etc.
- **Rearing conditions** - incubation, water temp, flow, rearing density changes
- **Marking** - e.g. schedule changes, planned changes to fish handling or movement, marking schedule, raceway loading for PBT etc.
- **Current Inventory** - . If projected marking lines up with the current inventory, then no comment is needed at this bullet (enter NC). If current inventory is significantly above or below the projected numbers, then explain why.

Plan for 2018 (Smolts BY 2017, Parr/Pre-Smolt BY2017)					
Release Location	Juvenile Fish Health	Fish Feeding	Rearing Conditions	Marking	Meets Release Target
<i>Dworshak National Fish Hatchery (SOP Section 2.2)</i>					
NF Clearwater-DNFH (Dwor)	N/C	N/C	LHO's installed in all Dworshak raceways. 4 baffled raceways.	Marking schedule changed to 9/4-9/18/2019	N/C
Selway River Upper (Dwor-Parr)	N/C	N/C	LHO's installed in all Dworshak raceways.	N/C	N/C
Nez Perce Tribal Hatchery (Dwor)	N/C	N/C	LHO's installed in all Dworshak raceways.	Transfer to NPTHC will Occur on 8/13, Marking to be completed at NPTHC	N/C
Lolo Creek (Dwor)	N/C	N/C	LHO's installed in all Dworshak raceways.	Marking schedule changed to 9/4-9/18/2019	N/C
<i>Kooskia National Fish Hatchery (SOP Sections 2.3)</i>					
Kooskia National Fish Hatchery (KooS)	NC	NC	NC	NC	
<i>Nez Perce Tribal Hatchery (SOP Section 2.4)</i>					
Lolo Creek (NPTH-Pre-Smolt)	NC	NC	NC	NC	NC

	Plan for 2018 (Smolts BY 2017, Parr/Pre-Smolt BY2017)				
Release Location	Juvenile Fish Health	Fish Feeding	Rearing Conditions	Marking	Meets Release Target
Newsome Creek (NPTH-Pre-Smolt)	NC	NC	NC	NC	NC
Meadow Creek Selway (NPTH-Parr)	NC	NC	NC	NC	NC
<i>Clearwater Fish Hatchery (SOP Sections 2.5)</i>					
Red River (SFClw/Koos/Dwor)	NC	NC	NC	NC	NC
NF Clearwater (Baffle) Dwor	NC	NC	NC	NC	NC
NF Clearwater – (Regular) CFH (Dwor)	NC	NC	NC	NC	NC
Selway River-Lower (Dwor)	NC	NC	NC	NC	NC
Clear Creek (Koos/Dwor)	NC	NC	NC	NC	NC
Powell (Pow/SFSR- Summer)	NC	NC	NC	NC	NC

3. Coho Salmon

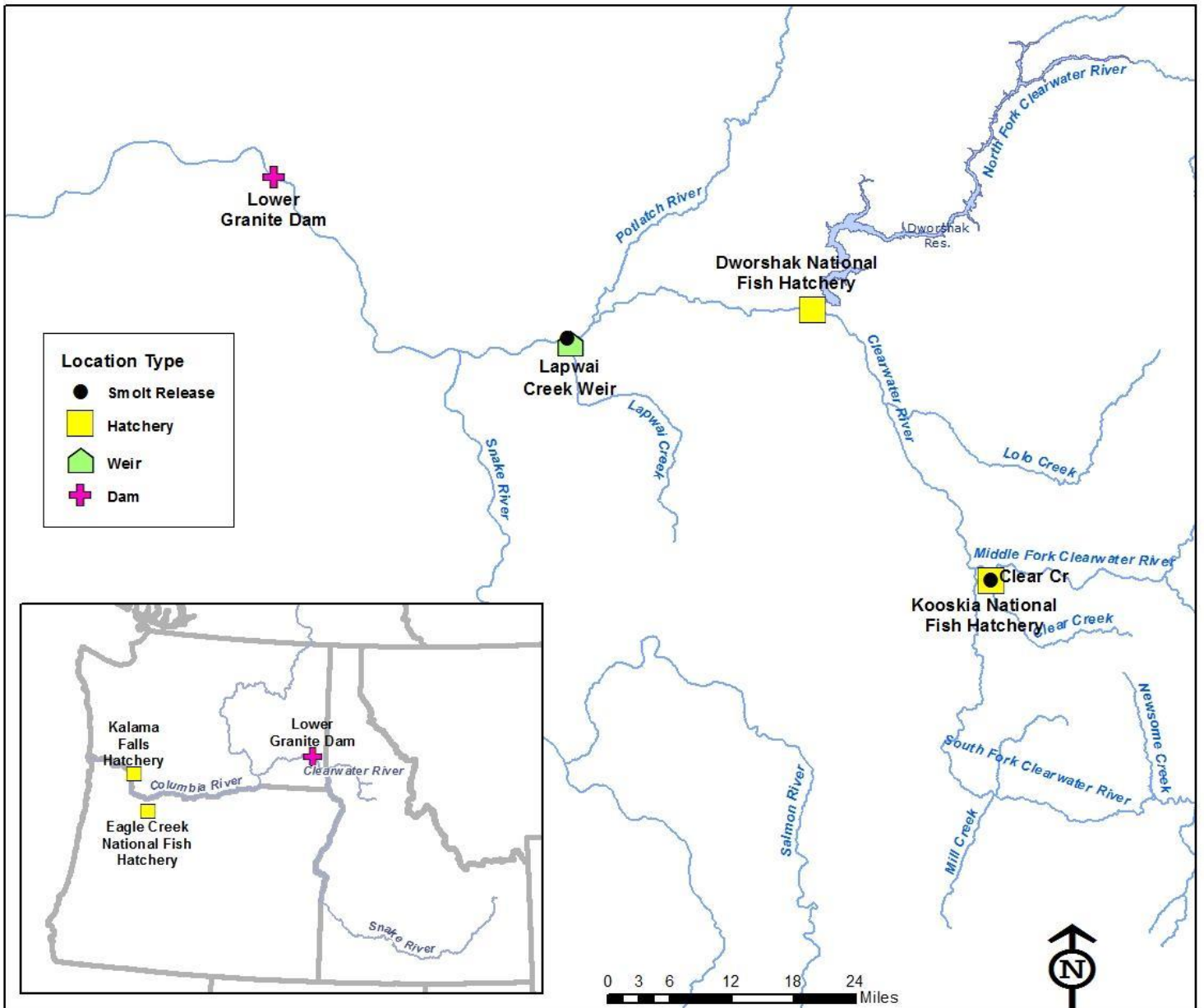


Figure 3.1. Coho trapping, hatchery facilities and smolt release locations.

Table 3.1. BY2016 SMOLTS - Coho Release Goals for 2018

Hatchery Program	Species	Brood Collection Site	Rearing Facility	Release Site	2018 Smolt Release Goal
NPT	Coho	LAP, DNFH, KNFH	DNFH	Clear Creek	400,000
Total					400,000
KAL	Coho	Kalama	DNFH	Clear Creek	100,000
Total					100,000
NPT	Coho	ECNFH	ECNFH	Lapwai Creek	275,000
	Coho			Clear Creek	275,000
Total					550,000
Grand Total					1,050,000

3.1. Timeline and Flowchart for Coho Production

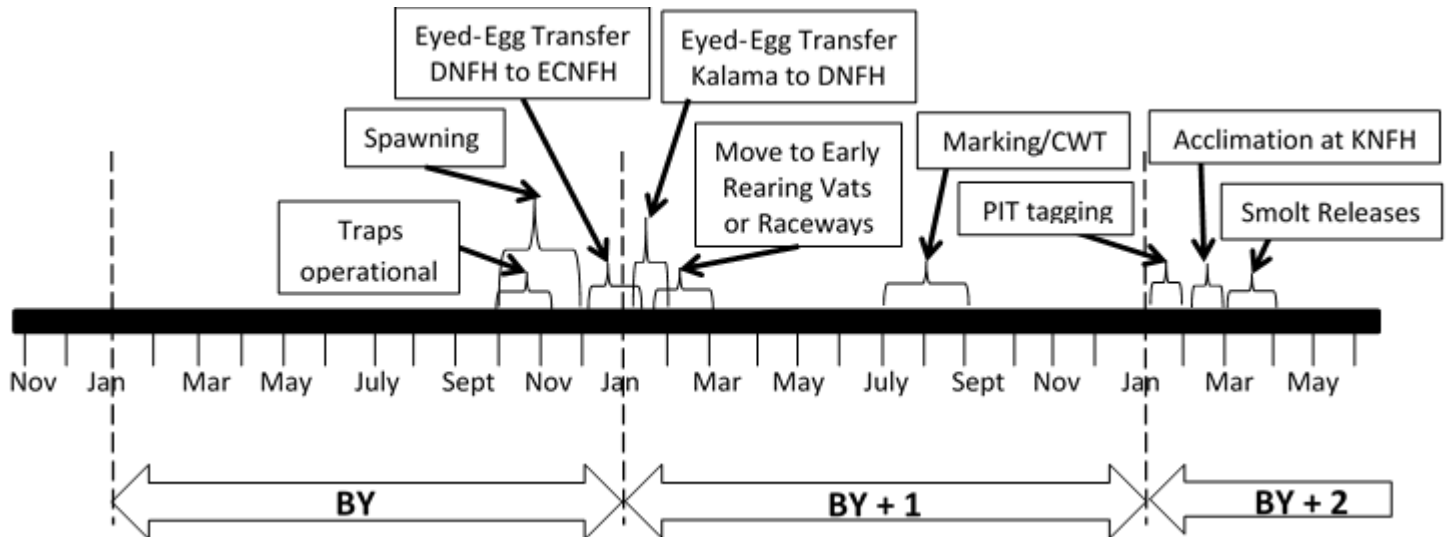


Figure 3.2. Timeline for Coho Production. Date ranges with black labels are shown to include all facilities' operations.

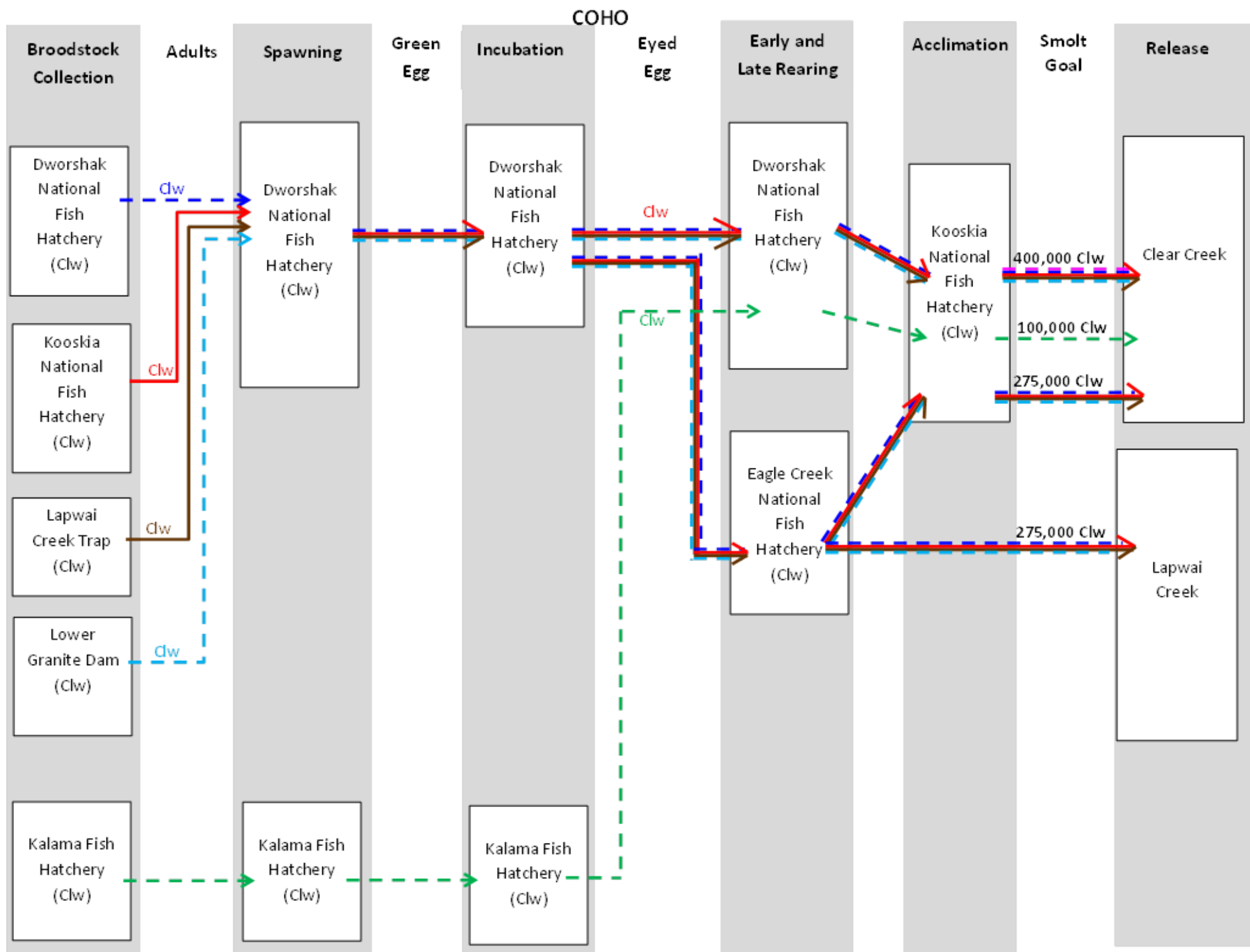


Figure 3.3. Coho movements in Clearwater. Numbers represent BY2017 and BY2018 releases.

3.2. Releases in 2018 (Smolt BY 2016)

3.2.1. Releases in 2018 (Smolt BY 2016) – Totals

Table 3.2a. BY2016 SMOLTS - Coho Salmon inventories by life stage, smolt release goals, and projected releases in 2018.

Rearing Facility	Species	Brood Collection Site	Rearing Facility	Release Site	Inventory To Date		Release Goals		Projected Smolt Release		
					Date	Number	Number	(FPP)	Dates	Number	(FPP)
NPT	Coho	LAP, DNFH, KNFH	DNFH	Clear Creek	1/9/2018	500,662	400,000	20.0			
Total						500,662	400,000			0	
KAL	Coho	Kalama	DNFH	Clear Creek	1/9/2018	137,477	100,000	20.0			
						137,477	100,000			0	
ECNFH	Coho	ECNFH	ECNFH	Lapwai Creek	1/10/2018	308,609	275,000	20.0			
	Coho			Clear Creek	1/10/2018	305,816	275,000	20.0			
Total						614,425	550,000			0	
Grand Total						1,252,564	1,050,000			0	

Table 3.2b. BY2016 SMOLTS - Coho Salmon Inventory to Date by Mark Type for release in 2018.

Rearing Facility	Species	Brood Collection Site	Rearing Facility	Release Site	Inventory to Date					PIT Tags					
					Date	Total	Adipose Fin Clip		No Clip		Total # Tags	Funding Source			
							No CWT	CWT	CWT	CWT		Mitchell Act	PCSRF	IPC	BPA
NPT	Coho	LAP, DNFH, KNFH	DNFH	Clear Creek	1/9/2018	500,662	0	0	200,480	300,182	5,000	5,000	0	0	0
Total						500,662	0	0	200,480	300,182	5,000	5,000	0	0	0
KAL	Coho	Kalama	DNFH	Clear Creek	1/9/2018	137,477	0	0	101,676	35,801	5,000	5,000	0	0	0
						137,477	0	0	101,676	35,801	5,000	5,000	0	0	0
ECNFH	Coho	ECNFH	ECNFH	Lapwai Creek	1/10/2018	308,609	0	29,997	0	278,612	2,500	2,500			
	Coho			Clear Creek	1/10/2018	305,816	0	28,943	0	276,873	2,500	2,500			
Total						614,425	0	58,940	0	555,485	5,000	5,000	0	0	0
Grand Total						1,252,564	0	58,940	302,156	891,468	15,000	15,000	0	0	0

3.2.2. Releases in 2018 (Smolt BY 2016) – Total

Here are examples of things managers were instructed to discuss for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for “No Change”.

- **Smolt/Egg Release Targets-** e.g. were you below goal, was your size at release different than SOP target etc.
- **Fish/Egg Health-** any epizootic history, anti-biotic treatments, was production culled at any point
- **Transportation/Releases-** e.g. timing, trucking issues, site access etc.

Location	Plan for 2018		Changes/Conditions that Occurred 2017-Early 2018		
	Release Target Smolt BY16	Transport/Release Smolt BY16	Fish Feeding Smolt BY16	Fish/Egg Health Smolt BY16	Marking Smolt BY16
<i>Dworshak National Fish Hatchery (SOP Section 3.2)</i>					
Clear Creek - DNFH (Clw)	NC	NC	NC	NC	NC
<i>Cascade Fish Hatchery (SOP Section 3.2)</i>					
Lapwai Creek (Clw)					
<i>Eagle Creek National Fish Hatchery (SOP Section 3.3)</i>					
Lapwai Creek (Clw)	NC	NC	NC	NC	NC
Clear Creek (Clw)	NC	NC	NC	NC	NC

3.3. Trap Operations and Production Planning for 2018 (Smolt BY 2018)

3.3.1. Trap Operations and Production Planning for 2018 (Smolt BY 2018) – TOTALS

Table 3.3a. BY 2018 SMOLTS - Coho Smolt Production Goals for Release in 2020.

Hatchery Program	Species	Brood Collection Site	Rearing Facility	Release Site	2020 Smolt Release Goal
NPT	Coho	LAP, DNFH, KNFH, LGR	DNFH	Clear Creek	500,000
Total					500,000
NPT	Coho	LAP, DNFH, KNFH, LGR	ECNFH	Lapwai Creek	275,000
	Coho			Clear Creek	275,000
Total					550,000
Grand Total					1,050,000

3.3.2. Trap Operations and Production Planning for 2018 (Smolts BY 2018) – NARRATIVE

Here are examples of things managers were instructed to discuss for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for “No Change”.

Location	Plan for 2018 (BY 2018)				
	Adult Fish Health	Trap Ops	Production target changes	Spawning protocol changes	Disposition of adults
<i>Primary Trapping Facilities (SOP Section 3.2) ¹</i>					
Kooskia National Fish Hatchery Trap (Clw)	NC	NC	NC	NC	NC
Lapwai Creek Trap (Clw)	NC	NC	NC	NC	NC
<i>Secondary Trapping Facilities (SOP Section 3.2) ¹</i>					
Dworshak National Fish Hatchery Trap (Clw)	NC	NC	NC	NC	NC
Lower Granite Dam (Clw)	NC	NC	NC	NC	NC

¹ If brood stock collection at primary and secondary trapping locations falls short of goals, green eggs from Eagle Creek National Fish hatchery and/or Kalama Fish Hatchery may be used as a source.

3.4. Early Rearing and Marking Plan for 2018 (Smolts BY 2017)

BY2017 SMOLTS - Coho Release Goals for 2019

Hatchery Program	Species	Brood Collection Site	Rearing Facility	Release Site	2019 Smolt Release Goal
NPT	Coho	LAP, DNFH, KNFH, LGR	DNFH	Clear Creek	400,000
Total					400,000
KAL	Coho	Kalama	DNFH	Clear Creek	100,000
Total					100,000
NPT	Coho	LAP, DNFH, KNFH, LGR	ECNFH	Lapwai Creek	275,000
	Coho			Clear Creek	275,000
Total					550,000
Grand Total					1,050,000

3.4.1. Early Rearing and Marking Plan for 2018 (Smolts BY 2017) – TOTALS

Table 3.4a. BY 2017 Coho - Early Rearing Inventory (including anticipated set out)

Rearing Hatchery	Species	Stock	Inventory to Date		
			Date	Goal ¹	Actual
DNFH	Coho	Clw	1/10	400,000	523,182
DNFH	Coho	Kal		100,000	145,000
ECNFH	Coho	Clw	12/18	550,000	659,513

¹ Estimated fish needed in vats to reach eventual smolt release goals, based on brood calculator

Table 3.4b. BY 2017 SMOLTS - Coho Projected Marking of BY 2017 fish in 2018

Hatchery Program	Species	Brood Collection Site	Rearing Facility	Release Site	Likely Marking Date(s)	Release Goals for 2019	Inventory to Date		Projected Marking				PIT Tags ¹				
									Adipose Fin Clip		No Clip		Total # Tags	Funding Source			
							Date	Number	No CWT	CWT	CWT	No CWT		Mitchell Act	LSRCP	IPC	BPA
NPT	Coho	LAP, DNFH, KNFH, LGR	DNFH	Clear Creek	7/9/2018	400,000	1/11/2018	523,182	0	0	100,000	300,000	5,000	5,000	0	0	0
Total						400,000		523,182	0	0	100,000	300,000	5,000	5,000	0	0	0
KAL	Coho	Kalama	DNFH	Clear Creek	8/6/2018	100,000	1/11/2018	145,000	0	0	100,000	0	5,000	5,000	0	0	0
Total						100,000		145,000	0	0	100,000	0	5,000	5,000	0	0	0
NPT	Coho	LAP, DNFH, KNFH, LGR	ECNFH	Lapwai Creek	July 2018	275,000	1/9/2018	329,757	0	30,000	0	245,000	2,500	2,500	0	0	0
	Coho			Clear Creek	July 2018	275,000	1/9/2018	329,756	0	30,000	0	245,000	2,500	2,500	0	0	0
Total						550,000		659,513	0	60,000	0	490,000	5,000	5,000	0	0	0
Grand Total						1,050,000		1,327,695	0	60,000	200,000	790,000	15,000	15,000	0	0	0

¹ PIT Tagging occurs in spring 2019

3.4.2. Early Rearing and Marking Plan for 2018 (Smolts BY 2017) – NARRATIVE

Here are examples of things managers were instructed to discuss for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for “No Change”.

- **Fish Health** - observed fish health issues, what action was taken and how was the treatment implemented, anticipated changes to normal fish health sampling or treatments
- **Fish feeding** - changes of diets of feed manufacturer, growth regimes etc.
- **Rearing conditions** - incubation, water temp, flow, rearing density changes
- **Marking** - e.g. schedule changes, planned changes to fish handling or movement, marking schedule, raceway loading for PBT etc.
- **Current Inventory** - . If projected marking lines up with the current inventory, then no comment is needed at this bullet (enter NC). If current inventory is significantly above or below the projected numbers, then explain why.

Release Location	Plan for 2018 (Smolts BY 2017)				
	Juvenile Fish Health	Fish Feeding	Rearing Conditions	Marking	Meets Release Target
<i>Dworshak National Fish Hatchery (SOP Section 3.2)</i>					
Clear Creek - DNFH (Clw/Kal)	NC	NC	NC	NC	NC
<i>Eagle Creek National Fish Hatchery (SOP Sections 3.3)</i>					
Clear Creek (Clw)	NC	NC	NC	NC	NC
Lapwai Creek (Clw)	NC	NC	NC	NC	NC

4. Fall Chinook

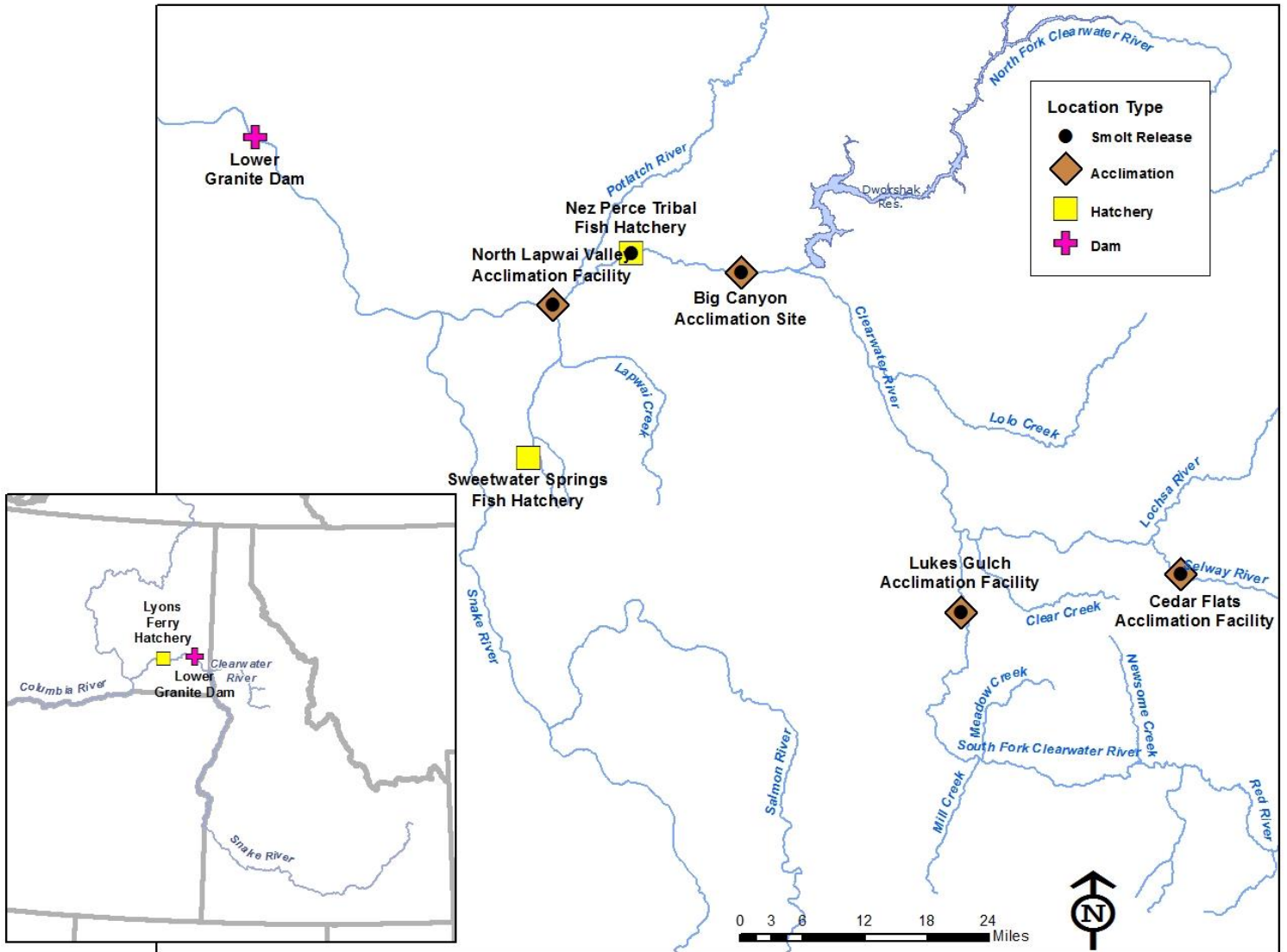


Figure 4.1. Fall Chinook Salmon hatchery and acclimation facilities, and sub-yearling and yearling release locations.

Table 4.1. Fall Chinook Goals for Release in 2018

BY2017 SUB-YEARLINGS

Hatchery Program	Brood Collection Site	Rearing Facility	Release Site	Sub-Yearling Release Goal
NPT	SnakeR	Lyons Ferry	Big Canyon Creek	500,000
Total				500,000
NPT	SnakeR	NPTH	NPTH	500,000
	SnakeR		N Lapwai Valley	500,000
	SnakeR		Lukes Gulch	200,000
	SnakeR		Cedar Flats	200,000
Total				1,400,000
Grand Total				1,900,000

BY2016 YEARLINGS

Hatchery Program	Brood Collection Site	Rearing Facility	Release Site	Yearling Release Goal
NPT	SnakeR	Lyons Ferry	Big Canyon Creek	150,000
Total				150,000
Grand Total				150,000

4.1. Timeline and Flowchart for Fall Chinook Production

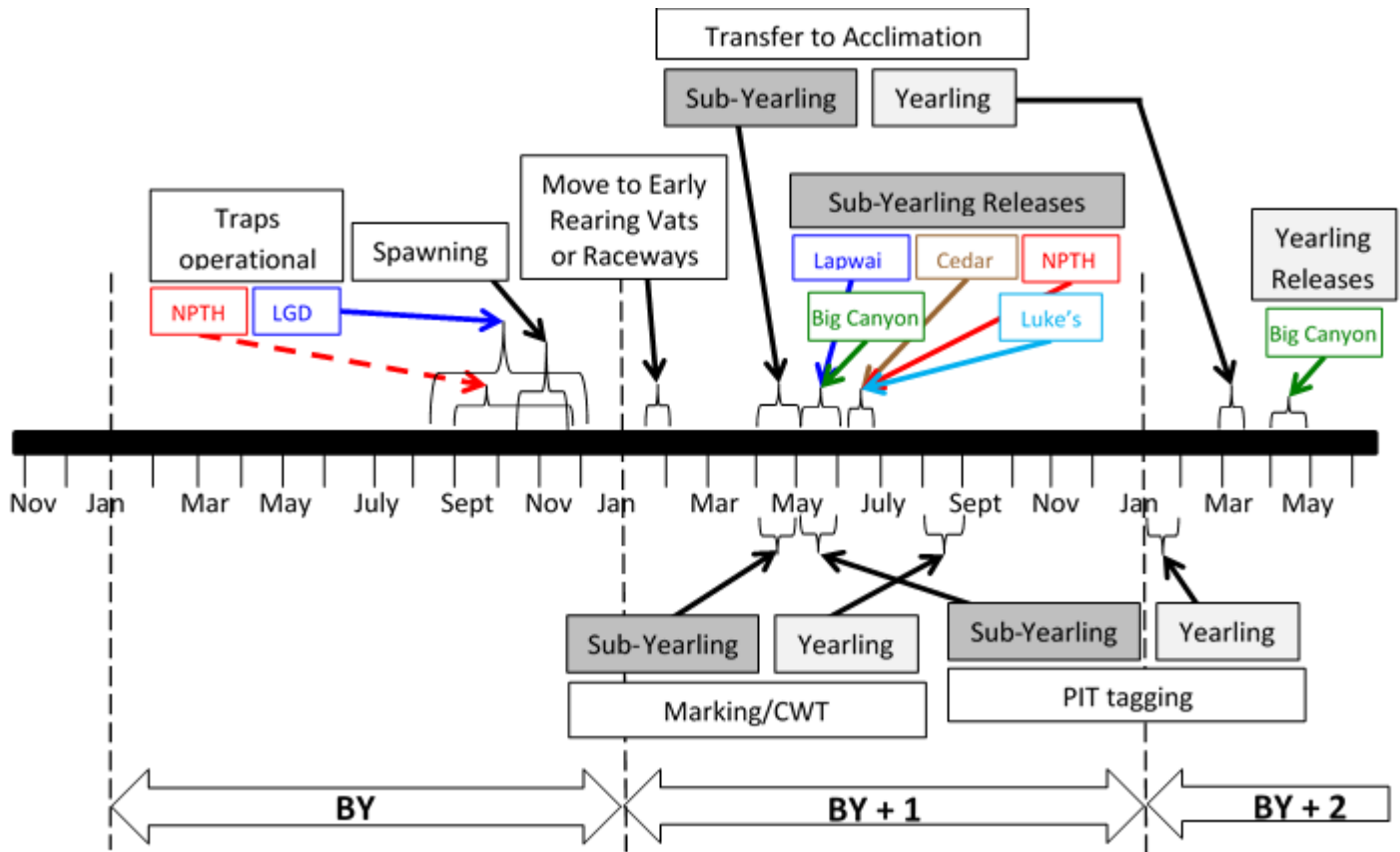


Figure 4.2. Timeline for Fall Chinook Production. Date ranges with black labels are shown to include all facilities' operations. Color-coded labels identify activities that have variability in timing for the different facilities.

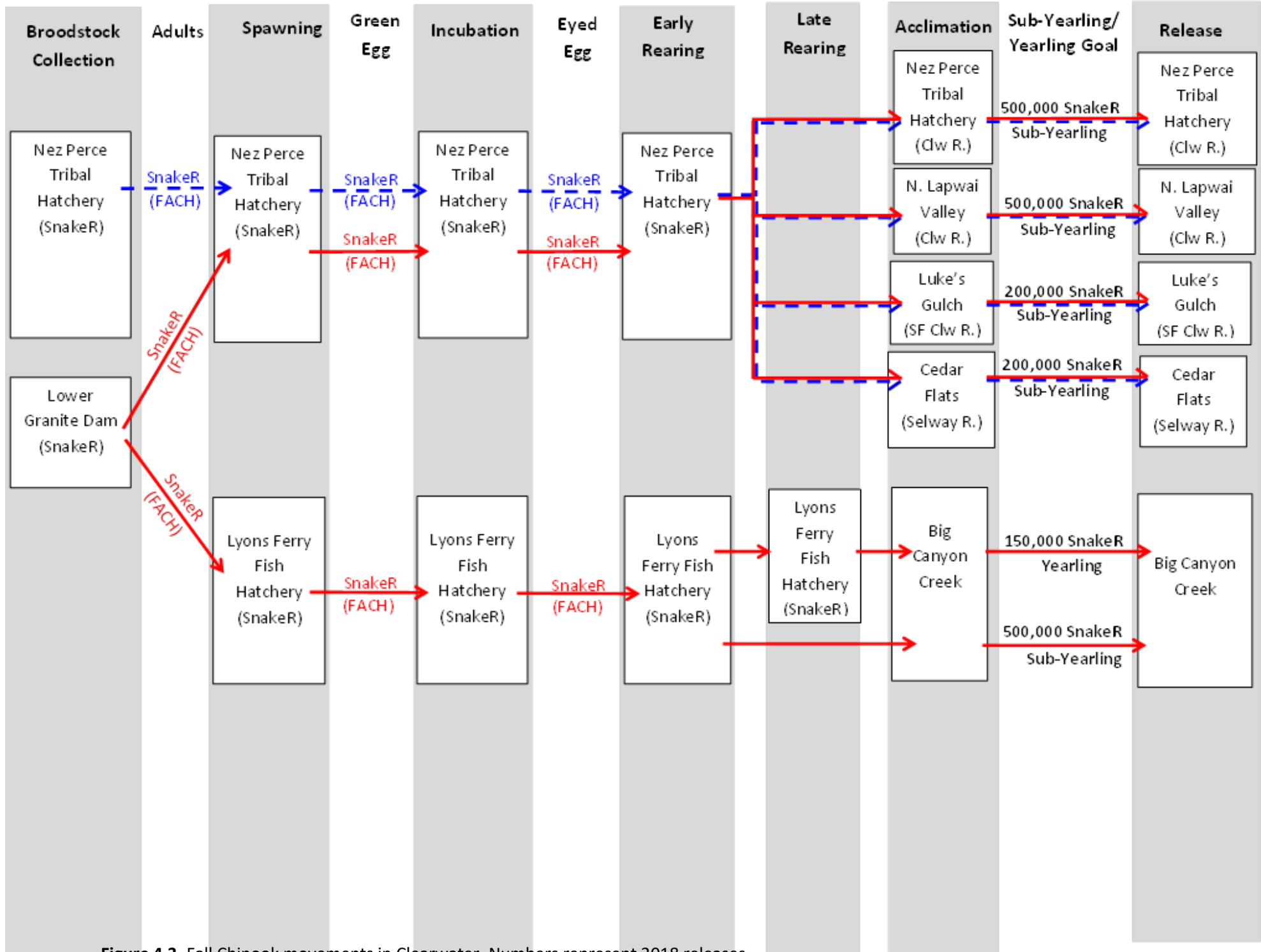


Figure 4.3. Fall Chinook movements in Clearwater. Numbers represent 2018 releases.

4.2. Releases in 2018 (Sub-Yearling BY 2017, Yearling BY 2016)

4.2.1. Releases in 2018 (Sub-Yearling BY 2017, Yearling BY 2016) – Totals

Table 4.2a. BY2016 YEARLINGS - Fall Chinook Salmon inventories by life stage, smolt release goals and projected releases in 2018.

Hatchery Program	Species	Brood Collection Site	Rearing Facility	Release Site	Inventory To Date		Release Goals		Projected Parr and Pre-Smolt Release		
					Date	Number	Number	(FPP)	Dates	Number	(FPP)
NPT	FACH	SnakeR	Lyons Ferry	Big Canyon Creek			150,000				
Total							0	150,000			0
Grand Total							0	150,000			0

Table 4.2b. BY2016 YEARLINGS - Fall Chinook Salmon Inventory to Date by Mark Type for release in 2018.

Rearing Facility	Species	Brood Collection Site	Rearing Facility	Release Site	Date	Total	Inventory to Date				Total # Tags	PIT Tags Funding Source			
							Adipose Fin Clip		No Clip			CSS	LSRCP	IPC	BPA
							No CWT	CWT	CWT	No CWT					
NPT	FACH	SnakeR	Lyons Ferry	Big Canyon Creek		150,000	0	70,000	80,000	0	1,500	0	0	0	1,500
Total						150,000	0	70,000	80,000	0	1,500	0	0	0	1,500
Grand Total						150,000	0	70,000	80,000	0	1,500	0	0	0	1,500

Table 4.2c. BY2017 SUB-YEARLINGS - Fall Chinook Salmon inventories by life stage, smolt release goals and projected releases in 2018.

Hatchery Program	Species	Brood Collection Site	Rearing Facility	Release Site	Inventory To Date		Release Goals		Projected Sub-Yearling Release		
					Date	Number	Number	(FPP)	Dates	Number	(FPP)
NPT	FACH	SnakeR	Lyons Ferry	Big Canyon Creek			500,000				
Total							0	500,000			0
NPT	FACH	SnakeR	NPTH	NPTH	12/31/2017	1,501,689	500,000	50.0	6/11-6/15	500,000	50.0
	FACH	SnakeR		N Lapwai Valley			500,000	50.0	6/11-6/15	500,000	50.0
	FACH	SnakeR		Lukes Gulch			200,000	50.0	6/11-6/15	240,000	50.0
	FACH	SnakeR		Cedar Flats			200,000	50.0	6/11-6/15	240,000	50.0
Total						1,501,689		1,400,000			1,480,000
Grand Total						1,501,689		1,900,000			1,480,000

Table 4.2d. BY2017 SUB-YEARLINGS - Fall Chinook Salmon Inventory to Date by Mark Type for release in 2018.

Hatchery Program	Species	Brood Collection Site	Rearing Facility	Release Site	Date	Total	Inventory to Date				Total # Tags	PIT Tags Funding Source				
							Adipose Fin Clip		No Clip			CSS	LSRCP	IPC	BPA	
							No CWT	CWT	CWT	No CWT						
NPT	FACH	SnakeR	Lyons Ferry	Big Canyon Creek		500,000	0	100,000	100,000	300,000	17,100	11,100	0	0	6,000	
Total						500,000	0	100,000	100,000	300,000	17,100	11,100	0	0	6,000	
NPT	FACH	Snake R.	NPTH	NPTH	12/31/2017	500,000	0	100,000	200,000	200,000	2,000	0	0	0	2,000	
	FACH	Snake R.		N Lapwai Valley			0	100,000	200,000	200,000	2,000	0	0	0	2,000	
	FACH	Snake R.		Lukes Gulch			240,000	0	100,000	100,000	40,000	2,000	0	0	0	2,000
	FACH	Snake R.		Cedar Flats			240,000	0	100,000	100,000	40,000	2,000	0	0	0	2,000
Total						1,480,000	0	400,000	600,000	480,000	8,000	0	0	0	8,000	
Grand Total						1,980,000	0	500,000	700,000	780,000	25,100	11,100	0	0	14,000	

¹ Projected marking numbers because marking/tagging occurs in April/May

4.2.2. Releases in 2018 (Sub-Yearling BY 2017, Yearling BY 2016) - Narrative

Here are examples of things managers talk about for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for “No Change”.

- **Smolt Release Targets**- e.g. Were you below goal? Was you size at release different than SOP target? Did you depart from the mark plan?
- **Fish Health**- any epizootic history, anti-biotic treatments, was production culled at any point
- **Transportation/Releases**- e.g. timing, trucking issues, site access etc.

Release Location	Plan for 2018		Changes/Conditions that Occurred 2017-Early 2018		
	Release Target Yrlng BY16, Sub-Yrlng BY17	Transport/Release Yrlng BY16, Sub-Yrlng BY17	Fish Feeding Yrlng BY16, Sub-Yrlng BY17	Fish/Egg Health Yrlng BY16, Sub-Yrlng BY17	Marking Yrlng BY16, Sub-Yrlng BY17
<i>Nez Perce Tribal Hatchery (SOP Section 4.2)</i>					
Nez Perce Tribal Hatchery (Clw R.)	NC	NLV component will be released On Station at NPTHC from the S-Channels	NC	NC	NC
N. Lapwai Valley (Clw R.)	NC	Will be released at NPTH.	NC	NC	NC
Luke’s Gulch (SF Clw R.)	NC	NC	NC	NC	NC
Cedar Flats (Selway R.)	NC	NC	NC	NC	NC
<i>Lyons Ferry Fish Hatchery (SOP Section 4.3)</i>					
Big Canyon Creek Sub-Yearling	NC	NC	NC	NC	NC
Big Canyon Creek Yearling	NC	NC	NC	NC	NC

4.3. Trap Operations and Production Planning for 2018 (Sub-Yearling and Yearling BY 2018)

4.3.1. Trap Operations and Production Planning for 2018 (Sub-Yearling and Yearling BY 2018) – TOTALS

Table 4.3a. BY 2018 SUB-YEARLINGS - Fall Chinook Production Goals for Release in 2019

Hatchery Program	Species	Brood Collection Site	Rearing Facility	Release Site	2019 Sub-Yearling Release Goal
	FACH	SnakeR	Lyons Ferry	Big Canyon Creek	500,000
Total					500,000
	FACH	Snake R.	NPTH	NPTH	500,000
	FACH	Snake R.		N Lapwai Valley	500,000
	FACH	Snake R.		Lukes Gulch	200,000
	FACH	Snake R.		Cedar Flats	200,000
Total					1,400,000
Grand Total					1,900,000

Table 4.3b. BY2018 YEARLINGS - Fall Chinook Production Goals for Release in 2020

Hatchery Program	Species	Brood Collection Site	Rearing Facility	Release Site	2020 Yearling Release Goal
	FACH	SnakeR	Lyons Ferry	Big Canyon Creek	150,000
Total					150,000
Grand Total					150,000

4.3.2. Trap Operations and Production Planning for 2018 (Sub-Yearling and Yearling BY 2018) – NARRATIVE

Here are examples of things managers were instructed to discuss for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for “No Change”.

	Plan for 2018 (BY 2018)				
Rearing Location	Adult Fish Health	Trap Ops	Production target changes	Spawning protocol changes	Disposition of adults
<i>Lower Granite Dam Ladder/Trap (SOP Sections 4.2 and 4.3)</i>					
Nez Perce Tribal Hatchery (SnakeR)	NC	NC	NC	NC	NC
Lyons Ferry Fish Hatchery – Sub-Yearling (SnakeR)	NC	NC	NC	NC	NC
Lyons Ferry Fish Hatchery – Yearling (SnakeR)	NC	NC	NC	NC	NC
<i>Nez Perce Tribal Hatchery Trap (SOP Section 4.2)</i>					
Nez Perce Tribal Hatchery (SnakeR)	NC	NC	NC	NC	NC

4.4. Early Rearing and Marking Plan for 2018 (Sub-Yearling BY 2017, Yearling BY 2017)

4.4.1. Early Rearing and Marking Plan for 2018 (Sub-Yearling BY 2017, Yearling BY 2017) – NARRATIVE

Here are examples of things managers were instructed to discuss for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for “No Change”.

- **Fish Health** - fish health issues, action taken and how was the treatment implemented, anticipated changes to normal fish health sampling or treatments
- **Fish feeding** - changes of diets of feed manufacturer, growth regimes etc.
- **Rearing conditions** - incubation, water temp, flow, rearing density changes
- **Marking** - e.g. schedule changes, planned changes to fish handling or movement, marking schedule, raceway loading for PBT etc.
- **Current Inventory** - . If projected marking lines up with the current inventory, then no comment is needed at this bullet (enter NC). If current inventory is significantly above or below the projected numbers, then explain why.

Plan for 2018 (Sub-Yearling BY 2017 and Yearling BY 2017)					
Release Location	Juvenile Fish Health	Fish Feeding	Rearing Conditions	Marking	Meets Release Target
<i>Nez Perce Tribal Hatchery (SOP Section 4.2)</i>					
Nez Perce Tribal Hatchery (Clw R.)	NC	NC	NC	NLV component will be released On Station at NPTHC from the S-Channels	NC
N. Lapwai Valley (Clw R.)	NC	NC	NC	Will be released at NPTH.	NC
Luke’s Gulch (SF Clw R.)	NC	NC	NC	NC	NC
Cedar Flats (Selway R.)	NC	NC	NC	NC	NC
<i>Lyons Ferry Fish Hatchery (SOP Sections 4.3)</i>					
Big Canyon Creek Sub-Yearling	NC	NC	NC	NC	NC
Big Canyon Creek Yearling	NC	NC	NC	NC	NC

5. Lamprey

5.1. Releases in 2018 - Narrative

Here are examples of things managers talk about for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for “No Change”.

- **Release Targets-** e.g. Were you below goal? Did you depart from the mark plan?
- **Fish Health-** any epizootic history, anti-biotic treatments
- **Transportation/Releases-** e.g. timing, trucking issues, site access etc.

Release Location	Plan for 2018		Changes/Conditions that Occurred 2017-Early 2018		
	Release Target	Transport/Release	Fish Feeding	Fish Health	Marking
<i>Nez Perce Tribal Hatchery (SOP Section 5.1)</i>					
Lolo Creek	90	NC	NC	NC	NC
Orofino Creek	90	NC	NC	NC	NC
Newsome Creek	90	NC	NC	NC	NC
Red River	90	NC			
Big Canyon Creek	10	NC	NC	NC	NC
SF Salmon River	90	NC	NC	NC	NC
Johnson Creek	90	NC	NC	NC	NC
Asotin Creek	90	NC	NC	NC	NC
Wallowa River	90	NC	NC	NC	NC
Minam River	90	NC	NC	NC	NC
Secesh River	90	NC	NC	NC	NC
Joseph Creek	90	NC	NC	NC	NC

5.2. Trap Operations for 2018

5.2.1. Trap Operations for 2018 - Narrative

Here are examples of things managers were instructed to discuss for each release group, if there are departures from the norm (i.e., SOP). If no departure from the norm, enter NC for "No Change".

	Plan for 2018				
Trapping Location	Adult Fish Health	Trap Ops	Trapping target changes	Holding protocol changes	Disposition of adults
<i>Primary Trapping Facilities (SOP Sections 5.1)</i>					
Bonneville Dam	NC	NC	NC	NC	NC
John Day Dam	NC	NC	NC	NC	NC
The Dalles Dam	NC	NC	NC	NC	NC

6. Appendices

6.1. Clearwater Brood Calculators

6.1.1. FULL PRODUCTION Brood Calculator

PROGRAM INPUTS							HISTORICAL HATCHERY PERFORMANCE METRICS (5-YR AVG)						FORM CALCULATED VALUES										
SPECIES	HATCHERY	PROGRAM	Life Stage	PREFERRED TRAPPING SITE	FORMAL RELEASE GOAL (F)	COMANAGER APPROVED CUSHION % (1)	% FEMALES IN BROODSTOCK (H)	% MORTALITY DURING HOLDING (I)	GREEN EGG FECUNDITY (J)	% REMAINING AFTER DISEASE CULLING (2)	% SURVIVAL GREEN TO EYED EGG (L)	% SURVIVAL EYED EGG TO RELEASE (M)	RELEASE GOAL WITH CUSHION (N)	EYED EGGS (O)	GREEN EGGS (P)	GREEN EGGS BEFORE DISEASE CULL (Q)	FEMALES SPAWNED (R)	MALES SPAWNED (S)	TOTAL ADULTS SPAWNED (T)	TRAPPED ADULTS NEEDED (U)	ADULTS TRAPPED TO MEET 1:1 RATIO (V)	SMOLTS PER TRAPPED ADULTS NEEDED (W)	NOTE #
STLHD	DNFH	MS Clearwater at DNFH		DNFH	755,000	3%	50.0%	3.9%	6,870	82.9%	89.3%	83.9%	777,650	926,480	1,037,418	1,251,717	183	183	366	381	381	2,041	
		MS Clearwater at DNFH - AIR SPAWN		DNFH	445,000	4%	50.0%	3.9%	6,219	82.9%	89.3%	83.9%	462,800	551,372	617,395	744,930	120	120	240	250	250	1,851	
		Red House Hole - SF Clw		SFClw Angler	400,000	4%	50.0%	3.9%	6,870	82.9%	89.3%	83.9%	416,000	495,616	554,961	669,600	98	98	196	204	204	2,039	
		Clear Creek		DNFH	300,000	4%	50.0%	3.9%	6,870	82.9%	89.3%	83.9%	312,000	371,712	416,221	502,200	74	74	148	154	154	2,026	
		Lolo Creek		DNFH	200,000	10%	50.0%	3.9%	6,870	82.9%	89.3%	83.9%	220,000	262,104	293,489	354,115	52	52	104	109	109	2,018	
	MVH	Salmon River		DNFH	93,000	5%	50.0%	3.5%	6,681	100.0%	84.0%	85.0%	97,650	114,882	136,765	136,765	21	21	42	44	44	2,219	
	CFH	Clearwater		SFCLW	843,000	3%	50.0%	3.5%	6,800	100.0%	84.0%	85.0%	868,290	1,021,518	1,216,092	1,216,092	179	179	358	371	371	2,340	
SP/SU CHIN	DNFH	NF Clearwater (DNFH)		DNFH	1,650,000	4%	50.0%	9.6%	3,993	94.2%	90.3%	90.6%	1,718,750	1,897,075	2,100,858	2,230,211	559	559	1,118	1,237	1,237	1,389	(3)
		Selway River-Upper	Parr	DNFH	300,000	4%	50.0%	9.6%	3,993	94.2%	90.3%	90.6%	312,500	344,923	381,974	405,493	102	102	204	226	226	1,383	
		Trans. to NPTH-NPTH		DNFH	200,000	4%	50.0%	9.6%	3,993	94.2%	90.3%	90.6%	208,333	229,948	254,649	270,329	68	68	136	151	151	1,380	
		Trans. to NPTH-Lolo Creek		DNFH	180,000	4%	50.0%	9.6%	3,993	94.2%	90.3%	90.6%	187,500	206,954	229,185	243,296	61	61	122	135	135	1,389	(4)
	KNFH	Kooskia NFH		KNFH	600,000	10%	50.0%	12.1%	3,661	88.2%	93.1%	88.6%	666,667	752,445	808,212	916,652	251	251	502	572	572	1,166	
	CFH	Red River		SFClw	1,280,000	0%	50.0%	5.0%	4,000	92.0%	94.0%	96.0%	1,280,000	1,333,333	1,418,440	1,541,782	386	386	772	813	813	1,574	
		Selway River-Lower		DNFH	400,000	0%	50.0%	5.0%	4,000	92.0%	94.0%	96.0%	400,000	416,667	443,262	481,807	121	121	242	255	255	1,569	
		Clear Creek		KNFH/DNFH	720,000	0%	50.0%	5.0%	4,000	92.0%	94.0%	96.0%	720,000	750,000	797,872	867,253	217	217	434	457	457	1,575	
		NF Clearwater-CFH (Baffle)		DNFH	389,000	0%	50.0%	5.0%	4,000	92.0%	94.0%	96.0%	389,000	405,208	431,073	468,557	118	118	236	249	249	1,562	(5)
		NF Clearwater-CFH (Regular)		DNFH	320,000	0%	50.0%	5.0%	4,000	92.0%	94.0%	96.0%	320,000	333,333	354,610	385,446	97	97	194	205	205	1,561	(6)
		Powell Pond (SUM)		Pow/SFSR	640,000	0%	50.0%	5.0%	4,000	92.0%	94.0%	96.0%	640,000	666,667	709,220	770,891	193	193	386	407	407	1,572	
	NPTH	Lolo Cr (SF Clw)	Pre-Smolt	NPTH	150,000	1%	50.0%	7.0%	4,041	89.0%	85.0%	91.0%	151,515	166,500	195,883	220,093	55	55	110	119	119	1,273	
		Newsome Cr (SF Clw)	Pre-Smolt	NPTH	75,000	1%	50.0%	7.0%	4,041	89.0%	85.0%	91.0%	75,758	83,250	97,941	110,046	28	28	56	61	61	1,242	
Meadow Cr (Selway)		Parr	NPTH	400,000	1%	50.0%	7.0%	4,041	89.0%	85.0%	91.0%	404,040	444,000	522,353	586,914	146	146	292	314	314	1,287		
FACH	NPTH	Snake River		LGD/NPTH	1,400,000	1%	50.0%	25.0%	3,973	94.0%	89.0%	96.0%	1,414,000	1,472,917	1,654,963	1,760,598	444	444	888	1,184	1,184	1,194	
COHO	DNFH	Clearwater			500,000	10%	49.7%	16.0%	2,505	94.3%	82.3%	90.0%	550,000	611,111	742,541	787,424	315	319	634	756	745	728	
	ECFH	Clearwater			550,000	10%	49.7%	16.0%	2,505	94.3%	82.3%	83.1%	605,000	727,951	884,509	937,973	375	380	755	899	887	673	

(1) In the 2013 AOP process, the co-managers approved a 10% cushion to meet release targets

(2) Culling of eggs for BKD, IHN, etc.

(3) Includes the New Production started in BY2015. Added production by increasing densities to 65k in all B-Bank rcwys.

(4) New production started in BY2015, Lolo release group.

(5) NEW PRODUCTION in 2015. First timing rearing smolt in the adult holding ponds

(6) NEW PRODUCTION in 2015. Increasing rearing densities across raceways and spreading the new smolts across release groups

CELL FORMULAS	F*(1+G)	N/(M)	O/(L)	P/(K)	ROUNDUP (Q/J,0)	R/(H)-R	R+S	ROUNDUP (T/(1-I),0)	ROUNDUP(R/(1-H)/(1-I),0)	N/U
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6.1.2. US v OR Brood Calculator

PROGRAM INPUTS							HISTORICAL HATCHERY PERFORMANCE METRICS (5-YR AVG)						FORM CALCULATED VALUES										
SPECIES	HATCHERY	PROGRAM	Life Stage	PREFERRED TRAPPING SITE	FORMAL RELEASE GOAL	COMANAGER APPROVED CUSHION % (1)	% FEMALES IN BROODSTOCK	% MORTALITY DURING HOLDING	GREEN EGG FECUNDITY	% REMAINING AFTER DISEASE CULLING (2)	% SURVIVAL GREEN TO EYED EGG	% SURVIVAL EYED EGG TO RELEASE	RELEASE GOAL WITH CUSHION	EYED EGGS	GREEN EGGS	GREEN EGGS BEFORE DISEASE CULL	FEMALES SPAWNED	MALES SPAWNED	TOTAL ADULTS SPAWNED	TRAPPED ADULTS NEEDED	ADULTS TRAPPED TO MEET 1:1 RATIO	SMOLTS PER TRAPPED ADULTS NEEDED	NOTE #
					(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	
STLHD	DNFH	MS Clearwater at DNFH		DNFH	755,000	3.0%	67.0%	3.9%	6,870	82.9%	89.3%	83.9%	777,650	926,877	1,037,936	1,252,034	183	90	273	285	578	2,729	
		MS Clearwater at DNFH - AIR SPAWN		DNFH	445,000	4.0%	67.0%	3.9%	6,219	82.9%	89.3%	83.9%	462,800	551,609	617,703	745,119	120	59	179	187	379	2,475	
		Red House Hole - SF Clw		SFCW Angler	400,000	4.0%	67.0%	3.9%	6,870	82.9%	89.3%	83.9%	416,000	495,828	555,239	669,770	98	48	146	153	310	2,719	
		Clear Creek		DNFH	300,000	4.0%	67.0%	3.9%	6,870	82.9%	89.3%	83.9%	312,000	371,871	416,429	502,327	74	36	110	115	234	2,713	
		Lolo Creek		DNFH	200,000	10.0%	67.0%	3.9%	6,870	82.9%	89.3%	83.9%	220,000	262,217	293,636	354,205	52	26	78	81	164	2,716	
	MVH	Salmon River		DNFH	93,000	5%	67.0%	3.5%	6,681	100.0%	84.0%	85.0%	97,650	114,882	136,765	136,765	21	10	31	33	66	2,959	
	CFH	Clearwater		SFCLW	843,000	3%	67.0%	3.5%	6,800	100.0%	84.0%	85.0%	868,290	1,021,518	1,216,092	1,216,092	179	88	267	277	563	3,135	
SP/SU CHIN	DNFH	NF Clearwater (DNFH)		DNFH	1,050,000	4%	50.0%	9.6%	3,993	94.2%	90.3%	90.6%	1,093,750	1,207,230	1,336,910	1,419,225	356	356	712	788	788	1,388	(3)
		Selway River-Upper	Parr	DNFH	300,000	4%	50.0%	9.6%	3,993	94.2%	90.3%	90.6%	312,500	344,923	381,974	405,493	102	102	204	226	226	1,383	
		Trans. to NPTH-NPTH		DNFH	200,000	4%	50.0%	9.6%	3,993	94.2%	90.3%	90.6%	208,333	229,948	254,649	270,329	68	68	136	151	151	1,380	
		Trans. to NPTH-Lolo Creek		DNFH	0	4%	50.0%	9.6%	3,993	94.2%	90.3%	90.6%	0	0	0	0	0	0	0	0	0	#DIV/0!	(4)
	KNFH	Kooskia NFH		KNFH	600,000	10%	50.0%	12.1%	3,661	88.2%	93.1%	88.6%	666,667	752,700	808,486	916,962	251	251	502	572	572	1,166	
	CFH	Red River		SFCW	1,100,000	0%	50.0%	5.0%	4,000	92.0%	94.0%	96.0%	1,100,000	1,145,833	1,218,972	1,324,969	332	332	664	699	699	1,574	
		Selway River-Lower		DNFH	400,000	0%	50.0%	5.0%	4,000	92.0%	94.0%	96.0%	400,000	416,667	443,262	481,807	121	121	242	255	255	1,569	
		Clear Creek		KNFH/DNFH	635,000	0%	50.0%	5.0%	4,000	92.0%	94.0%	96.0%	635,000	661,458	703,679	764,869	192	192	384	405	405	1,568	
		NF Clearwater-CFH (Baffle)		DNFH	0	0%	50.0%	5.0%	4,000	92.0%	94.0%	96.0%	0	0	0	0	0	0	0	0	0	#DIV/0!	(5)
		NF Clearwater-CFH (Regular)		DNFH	0	0%	50.0%	5.0%	4,000	92.0%	94.0%	96.0%	0	0	0	0	0	0	0	0	0	#DIV/0!	(6)
		Powell Pond (SUM)		Pow/SFSR	640,000	0%	50.0%	5.0%	4,000	92.0%	94.0%	96.0%	640,000	666,667	709,220	770,891	193	193	386	407	407	1,572	
	NPTH	Lolo Cr (SF Clw)	Pre-Smolt	NPTH	150,000	1%	50.0%	7.0%	4,041	89.0%	85.0%	91.0%	151,515	166,500	195,883	220,093	55	55	110	119	119	1,273	
		Newsome Cr (SF Clw)	Pre-Smolt	NPTH	75,000	1%	50.0%	7.0%	4,041	89.0%	85.0%	91.0%	75,758	83,250	97,941	110,046	28	28	56	61	61	1,242	
Meadow Cr (Selway)		Parr	NPTH	400,000	1%	50.0%	7.0%	4,041	89.0%	85.0%	91.0%	404,040	444,000	522,353	586,914	146	146	292	314	314	1,287		
FACH	NPTH	Snake River		LGD/NPTH	1,400,000	1%	50.0%	25.0%	3,973	94.0%	89.0%	96.0%	1,414,000	1,472,917	1,654,963	1,760,598	444	444	888	1,184	1,184	1,194	
COHO	DNFH	Clearwater			500,000	10%	49.7%	16.0%	2,505	94.3%	82.3%	90.0%	550,000	611,111	742,541	787,424	315	319	634	756	745	728	
	ECFH	Clearwater			550,000	10%	49.7%	16.0%	2,505	94.3%	82.3%	83.1%	605,000	727,951	884,509	937,973	375	380	755	899	887	673	

(1) In the 2013 AOP process, the co-managers approved a 10% cushion to meet release targets

(2) Culling of eggs for BKD, IHN, etc.

(3) Includes the New Production started in BY2015. Added production by increasing densities to 65k in all B-Bank rcws.

(4) New production started in BY2015, Lolo release group.

(5) NEW PRODUCTION in 2015. First timing rearing smolt in the adult holding ponds

(6) NEW PRODUCTION in 2015. Increasing rearing densities across raceways and spreading the new smolts across release groups

CELL FORMULAS	F*(1+G)	N/(M)	O/(L)	P/(K)	ROUNDUP (Q/J,0)	R/(H)-R	R+S	ROUNDUP (T/(1-1),0)	ROUNDUP(R/(1-H)/(1-1),0)	N/U
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6.2. Sites, release numbers for adult Spring Chinook Salmon, when all Clearwater Basin Production Programs are above broodstock, harvest and C&S needs

Release Location	Hatchery Source	Guideline Range	Proposed Max
<i>Selway Basin</i>			
McGruder	RR, NPTH, Clear, DNFH, KNFH	800 - 1,000	6,000
O'Hara Creek	RR, NPTH, Clear, DNFH	200	
Lower Selway	RR, NPTH, Clear, DNFH, KNFH	0 - 2,000	3,400
<i>SF Clearwater R.</i>			
Mill Creek	RR, NPTH, Clear, DNFH	150	600
Meadow Creek	RR, NPTH, Clear, DNFH	150 - 300	
SF Clearwater R.	RR, NPTH, Clear, DNFH	0 - 500	
<i>Lochsa River</i>			
Main Lochsa, Badger Cr., Boulder Cr.	RR, NPTH, Clear, DNFH	500	
	TOTAL	1,800 - 4,650	10,000

*Release Locations are not prioritized. If guideline range is likely to be exceeded, co-managers will discuss disposition of excess fish.

*There are weekly conference calls scheduled for Tuesdays, to keep all parties updated, informed, and coordinated on in-season run development, harvest estimates, broodstock collection, outplanting plans, etc...

6.3. Proposed hatchery identifying marks for adult spring Chinook salmon outplanting in Clearwater R.

Hatchery / Location	Mark	Purpose
Dworshak	left opercle v-notch	outplant
Kooskia	1) 1 right opercle v-notches	outplant / fishery recycle
	2) if recycle returnees - additional opercle v-notch	outplant / fishery recycle
Clear Creek above weir	right opercle v-notch	natural spawners
Lochsa (Powell satellite)	left opercle punch	fishery recycle / outplant
Red River/Crooked River	1) right opercle punch	fishery recycle
	2) 2 right opercle punches	outplant (early)
Rapid River	dorsal punch	Clearwater (Selway) outplants
Lower Lolo Cr. weir	left and right opercle punch	NPT weir evaluation (fish collected at weir and released above weir)
Newsome Cr. above weir	left opercle punch	NPT weir evaluation (fish collected at weir and released above weir)
NPTH	left opercle punch	outplant / fishery recycled to Lenore Boat Launch

6.4. Alternate Steelhead trapping plan at Dworshak National Fish Hatchery for 2018.

This Plan is to insure availability of broodstock for Dworshak late steelhead takes 8, 9, and 10, and to work towards providing Magic Valley Hatchery (MV) with 55 females.

Alternate Plan assumptions:

- Magic Valley is requesting a total of 55 females
- Magic Valley may request additional females if they are available
- Due to low predicted returns to the Clearwater this year and the predicted lack of South Fork Broodstock, there are concerns that we will run out of fish late into this trapping operation and will be unable to fill the last Dworshak takes or the MV take.
- Current run prediction indicates there will not be sufficient South Fork Brood available for Dworshak late takes so all Dworshak late takes will utilize North Fork trapped adults.
- Late Take (8,9,10, & MV) total female needs are 231 females (see table below)
- Clearwater Basin programs egg needs have priority over the Magic Valley program egg needs.

Take	Spawn Date	Female Needed	DW Fml	MVH Fml	Eggs/ Female	Grn Eggs incub @ DWO for DWO	Grn Eggs incub @ DWO for MVH	Comments
8	March 20, 2018	113	58		6,870	776,310	377,850	Kill Spawn DW/Redhouse/MVH
9	March 27, 2018	58	58	55	6,870	398,460	0	Kill spawn DW/Redhouse/Lolo
10	April 10, 2018	60	60		6,870	412,200	0	Kill spawn DW/Lolo/MS release
Total		231	176	55	6,870	1,586,970	377,850	

NORMAL TRAP SOP

Normally the Dworshak trap is opened 5-7 days in advance of each egg take to collect adults for each spawn. So Dworshak late takes and MV take in above table would require three trapping sessions beginning approximately March 15, March 20, and April 3. Also, normally, South Fork Angler trapped Brood are used to make up part of take 8 and take 9.

ALTERNATE TRAP OPERATION PLAN

This year we are proposing to open the North Fork trap around March 1st and trap the entire complement of adults needed to supply the total Dworshak late take and MV egg take needs. This is 231 females. In order to minimize the risk of held females becoming 'overripe' all ripe females will be spawned on March 20. Remaining green females will be placed back into the holding pond for spawning on March 27. A third take will be conducted a week later if needed.

Spawned green eggs will be placed in incubation at three different temperatures. (Primary 54F, Primary 54F blended w chilled, chilled) in order to create three distinct groups (takes) of fry for procession through the Dworshak nursery and subsequent tagging operations. Magic Valley eggs will be placed on incubation temperature which best meets the needed development timelines for Magic Valley program. Magic Valley Spawn date can also be moved to accommodate TU timeline rearing needs.