Table 1. Washington State smolt and adult monitoring of ESA listed species by primary population, major population group, salmon recovery region, agency, and funding source. This DRAFT table is under review.

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Proposed

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Recovery Region	Major Population Groups	WRIAs	Target Species	Primary Populations[16]	Juveniles				Adults		
					Smolt Sites	Production/ Index[2]	Smolt Trapping Agency	Funding	Spawners (Stocks)	Data Quality[3]	Funding
Puget Sound	North Sound	1 to 2	Chinook	**NF Nooksack**	Nooksack	Index[4]	Lummi	Tribal	NF/MF Nooksack	Very Good	State General Fund
				SF Nooksack					SF Nooksack	Very Good	State General Fund
									Samish/MS Nooksack	Poor	
	Whidbey Basin	3 to 7	Chinook	?[17]	Skagit	Production	WDFW	Federal (Dingall/ Johnson) 50% Seattle PU 50%	Lower Skagit MS/Tribs	Good	
									Upper Skagit MS/Tribs	Very Good	
									Lower Sauk	Good	
									Upper Sauk	Excellent	
									Suiattle	Excellent	
									Upper Cascade	Excellent	
				?	Stillaguamish	Production[4]	Stillaguamish	Tribal	NF Stillaguamish	Good	GFS
									SF Stillaguamish	Good	GFS
				?	Skykomish/ Snoqualmie	Production[4]	Tulalip	Tribal	Skykomish	Good	GFS
									Snoqualmie	Good	GFS
	Central/South Sound Basin	8 to 11	Chinook	N/A	Cedar River	Production	WDFW	Seattle PUD	Cedar	Good	King Cons Dist GFS
				N/A	Bear Creek	Production	WDFW	King Co.	N Lk Washington Tribs	Good	King Cons Dist GFS
				N/A	Green River	Production	WDFW	SRF Board	Green R (Duwamish)	Good	90% State GFS/ 10% Fed (PST)
				N/A	Puyallup		Puyallup	Tribal	Puyallup	Poor (total esc est)	State General Fund 50% / Tribal 50%
				White River					White River Adult Trap	Good	GFS 10%/ Tribal 90%
									White River Spawner Surveys		GFS 50%/ Tribal 50%
				Nisqually					Nisqually		GFS 50%/ Tribal 50%
	Hood Canal	16	Chinook	N/A	Hamma Hamma River	Index[6]	LLK/HCSEG/ Port Gamble/ WDFW	USFWS (DOI) /Tribal/ State	Mid-Hood Canal / Hamma Hamma	Good	State General Fund (GFS) 90% / LLTK 10%
				Skokomish					Skokomish	Good	GFS 90%/ Tribal 10%
				Dosewallips					Mid-Hood Canal / Dosewallips	Good	State General Fund (GFS) 90% / LLTK 10%
			Summer Chum	Quilcene					Quilcene	Good	GFS 100%
				Dosewallips					Dosewallips	Good	GFS 100%
				Duckabush					Duckabush	Good	GFS 100%
				Lilliwaup					Lilliwaup	Good	GFS 100%
				Union River					Union River	Good	GFS 100%
				Hamma Hamma	Hamma Hamma River	Production[12]	LLK/HCSEG/ Port Gamble/ WDFW	USFWS (DOI) /Tribal/ State	Hamma Hamma	Good	GFS 100%

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					Smolt Sites	Production/ Index[2]	Smolt Trapping Agency	Funding	Spawners (Stocks)	Data Quality[3]	Funding
	Eastern JDF	18	Chinook	**Dungeness**	Dungeness River	Production	WDFW	SRF Board	Dungeness	Excellent	GFS 100%
				Elwha	Elwha River	Production	Lower Elwha	Tribal	Elwha	Excellent	GFS 80%/ Tribal 20%
			Summer Chum	Jimmycomelately					Jimmycomelately		NOSC 60% /GFS 40%
				Salmon/Snow					Salmon/Snow		NOSC 30% / GFS 70%
Coastal	Ozette	20	Sockeye	Lake Ozette	Ozette River	Index	Makah	Tribal	Ozette	Excellent	Tribal
Lower Columbia	Coast	25	Chinook	***Grays/Chinook Falls***	*Grays River*	*Proposed*	*WDFW*	*NPCC/BPA*			
				Elochoman/ Skamokawa Falls							
				N/A	Mill Creek	Production	WDFW	SRF Board	Mill/Abernathy/Germany	Good	SRF Board
					Abernathy Creek	Production	WDFW				
					Germany Creek	Production	WDFW				
			Chum	**Mill/Abernathy/ Germany**	Mill Creek	Production	WDFW	SRF Board	Mill/Abernathy/Germany		BPA
					Abernathy Creek	Production	WDFW				
					Germany Creek	Production	WDFW				
				Grays/Chinook Riv	*Grays River*	*Proposed*	*WDFW*	*NPCC/BPA*			
				Elochoman/ Skamokawa	*Elocho/Skamokawa*	*Proposed*	*WDFW*	*NPCC/BPA*			
			Coho	***Grays/Chinook***	*Grays River*	*Proposed*	*WDFW*	*NPCC/BPA*			
				Elochoman/Skamokawa	*Elocho/Skamokawa*	*Proposed*	*WDFW*	*NPCC/BPA*			
				N/A	Mill Creek	Production	WDFW	SRF Board	Mill/Abernathy/Germany	Very Good[7]	SRF Board
					Abernathy Creek	Production	WDFW				
					Germany Creek	Production	WDFW				
	Cascade	26 to 28	Chinook	**Upper Cowlitz Springs**	Cowlitz Falls	Production	WDFW	Tacoma PUD			
				Cispus Springs							
				N/A	Mossyrock Dam	Index	WDFW	State GFS			
				Coweeman Falls	*Coweeman*	*Proposed*	*WDFW*	*NPCC/BPA*			
				Kalama Falls							
				Kalama Springs							
				NF Lewis Falls	Cedar Creek	Index[11]	WDFW	State GFS/ SRF Board			
				NF Lewis Springs							
				EF Lewis Falls							
				Washougal Falls							

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					Smolt Sites	Production/ Index[2]	Smolt Trapping Agency	Funding	Spawners (Stocks)	Data Quality[3]	Funding
			Chum	EF Lewis							
				Washougal							
			Coho	N/A	Cowlitz Falls	Production	WDFW	Tacoma PUD	Upper Cowlitz	NA[8]	Tacoma PUD
					Mossyrock Dam	Index	WDFW	State GFS			
				Lower Cowlitz							
				SF Toutle							
				NF Toutle							
				Coweeman	*Coweeman*	*Proposed*	*WDFW*	*NPCC/BPA*			
				N/A	Cedar Creek	Production	WDFW		Lewis	N/A[5, 9]	
				EF Lewis							
			Steelhead	N/A	Cowlitz Falls	Production	WDFW	Tacoma PUD	Upper Cowlitz winter	NA[8]	Tacoma PUD
					Mossyrock Dam	Index	WDFW	State GFS			
				SF Toutle Winters NF Toutle Winters							
				Coweeman Winters	*Coweeman*	*Proposed*	*WDFW*	*NPCC/BPA*			
				Kalama Winters **Kalama Summers**	Kalama River	Production	WDFW	Mitchell Act (NMFS-NOAA)	Kalama summer Kalama winter	Excellent Good	Mitchell Act (NMFS-NOAA)
				N/A	Cedar Creek	Production	WDFW		NF Lewis summer NF Lewis winter	N/A[5, 9] Just starting	State GFS/ SRF Board
				EF Lewis Winters							
				EF Lewis Summers							
				Washougal Summers							
	Gorge	29	Chinook	N/A	NONE[10]				Wind Tule Fall	Good	
									Wind Springs[10]	Poor	
									Wind Bright Fall	Poor	
									White Salmon Tule Fall		
									White Salmn Bright Fall		
			Chum	**Lower Gorge**	Duncan Creek	Production	WDFW	NPCC/BPA	Duncan Creek		
					Hamilton Creek		USFS	Federal: Forest Service	Hamilton Creek		
					Hardy Creek		USFS		Hardy Creek		
			Coho	Lower Gorge							
				Upper Gorge	Wind River[11]	Index	WDFW	NPCC/BPA	Bonneville Tribs	Fair	
			Steelhead	Lower Gorge Winters							
				Upper Gorge Summers	Wind River	Production	WDFW	NPCC/BPA	Wind summer	Good	
									Wind winter	NONE	

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					Smolt Sites	Production/ Index[2]	Smolt Trapping Agency	Funding	Spawners (Stocks)	Data Quality[3]	Funding
Middle Columbia	Eastslope	29 to 31	Steelhead	**Klickitat summer**	Klickitat River[11]	Index	Yakama	Tribal (NPCC/BPA)	Klickitat summer		Tribal (NPCC/BPA)
									Klickitat winter		
									Rock Creek summer		
	Yakima	37 to 39	Steelhead	Satus or Toppenish Creek summer	Yakima River (Prosser Dam a.ka. Chandler Juv. Eval. Facility)	Production	Yakama	Tribal (NPCC/BPA)	Satus Creek summer	NA	Tribal (NPCC/BPA)
									Toppenish Creek summer	NA	Tribal (NPCC/BPA)
				Naches summer					Naches summer	NA	WDFW 50%; USFS 50%
				Upper Yakima summer					Upper Yakima summer	NA	Tribal (NPCC/BPA); USBR
	Walla Walla	32	Steelhead	**Walla Walla**	Walla Walla[13]	Production	Umatilla	Tribal	Walla Walla summer	NA	Tribal / WDFW
				Touchet	*Touchet*	*Proposed*[15]	*WDFW*	*NPCC/BPA*	Touchet summer	Fair	
Snake	Lower Snake[14]	33 to 35	Chinook	**Tucannon Spring**	Tucannon River	Production	WDFW	BPA	Tucannon spring	Good	BPA
									Snake fall	Good	BPA
				Asotin Spring				BPA	Asotin Spring		BPA
			Steelhead	**Tucannon Summer**	Tucannon River	Production	WDFW	BPA	Tucannon summer	Fair	BPA
				Asotin Summer	Asotin Creek	Production	WDFW	BPA	Asotin Creek summer	Fair	BPA
								Asotin Co. Conservation Dist			Asotin Co. Conservation Dist
Upper Columbia	East Cascades	45, 46, & 48	Chinook	**Wenatchee Spring**	Wenatchee	Production	WDFW	Chelan Co PUD NMFS-NOAA	Chiwawa spring	Excellent	Chelan Co PUD
									Nason Creek spring	Excellent	Chelan Co PUD
									Little Wenatchee spring	Excellent	Chelan Co PUD
									White River spring	Excellent	Chelan Co PUD
				Entiat Spring	Entiat	Production	USFWS	Federal (DOI)	Entiat spring	Good	
				Methow spring	Methow	Production	WDFW	Douglas Co PUD	Methow spring	Excellent	Douglas Co PUD
									Twisp spring	Excellent	
									Chewuch spring	Excellent	
									Lost River spring	Excellent	
			Steelhead	**Wenatchee summer**	Wenatchee	Production	WDFW	Chelan Co PUD NMFS-NOAA	Wenatchee summer	Fair	Chelan Co PUD
				Entiat Summer	Entiat	Production	USFWS	Federal (DOI)	Entiat Summer	Fair	
				Methow summer	Methow	Production	WDFW	Douglas Co PUD			
				Okanogan summer	Okanogan[18]	Production	Okanogan Tribe	BPA	Methow/Okanogan summer	Good	Douglas Co PUD

Note: Spawner data and data quality ratings were retrieved from the SaSI database.

[1] "Sub-regional groupings" (i.e. Geographic Regions of Diversity and Risk, Meta-population Strata, and Major Population Groups) were designated by the appropriate Technical Recovery Team.

[2] Production" refers to sites where the total number of downstream migrants are estimated; "index" refers to sites at which an index of production (e.g. total catch, or catch per unit effort of fishing time) is made. Traps monitor naturally produced migrants.

[3] Subjective rating; no formal definitions are available. In some individual stock reports, an explanation is provided regarding the assigned rating, especially for data rated "poor".

[4] Traps operated less than 40% of the time; production estimates (rather than index counts) could be developed or substantially improved with additional monitoring.

[5] Data collected but analysis has not been completed to produce production estimates due to lack of funding/prioritization.

[7] Spawner escapement estimates with confidence intervals have been available since 2004, however only two data points are available and therefore escapement estimate ratings are currently not in the SaSI database.

[8] Current efforts would likely be rated as "Good" to "Excellent", however data are not available above Cowlitz dams and therefore ratings are currently not in the SaSI database.

[9] Partial escapement counts for the Lewis River are made at the Cedar Creek trap, however due to insufficient data, escapement estimate ratings are currently not in the SaSI database.

[10] The smolt trap on the Wind River is located at the downstream-most viable trapping site to estimate nearly the entire Wind River production. Yet, nearly all of the listed Wind Tule Fall Chinook spawn downstream of this site. Therefore, estimation of Wind River tule fall chinook production is not viable with existing technology. Chinook production from the Wind and White Salmon Rivers includes non-listed stocks (Wind Spring Chinook, Wind Bright Fall Chinook, and White Salmon Bright Fall Chinook are not native to these systems and therefore are not part of the listed ESU) as well as listed tule fall chinook. Estimation of White Salmon tule fall chinook production would require DNA analysis. The USGS is planning to initiate trapping for chinook, coho, and steelhead on the Big White Salmon River in Spring 2006, with production estimates available in 2007. With funding for DNA analysis, the USGS trap could potentially fill the information gap for estimating listed tule fall chinook production.

[11] Production estimates are anticipated beginning in 2006.

[12] Listed Hood Canal summer chum production is currently estimated from the non-listed fall chum production using run timing. More accurate and precise estimates could be developed using DNA analysis at an additional cost.

[13] Traps are also located in Oregon sections of the mainstem Walla Walla River (USFWS) and on Mill Creek (ODFW), however, these are not listed since they measure production originating in Oregon and the lower Walla Walla trap integrates production from all of these sites.

[14] Downstream migrant traps are also operated on the Grande Ronde (ODFW) and mainstem Snake River (IFG). These are not listed since they measure production largely occurring outside of the State of Washington.

[15] WDFW is seeking funding to begin a smolt monitoring project on the Touchet River directed at assessing summer steelhead production.

[16] Only those populations designated as "Primary" within each Major Population Group are listed. "N/A" is shown for monitoring sites containing only "Contributing" or "Stabilizing" populations.

[17] ? Primary Populations not yet designated for this major population group.

[18] Trapping to begin in 2006.