Excerpt from DRAFT Consultation on the Issuance of Twenty Four ESA Section 10(a)(1)(A) Scientific Research Permits in Oregon, Washington, Idaho, and California affecting Salmon, Steelhead, Eulachon, Sturgeon and Rockfish in the West Coast Region

## NMFS Consultation Number: WCRO-2021-XXXXX ARN 151422WCR2021PR000XX

Species	Life Stage	Origin	Abundance	
		Natural	21,486	
	Adult	Listed Hatchery, Clipped and Intact	18,060	
Puget Sound Chinook salmon		Natural	3,163,652	
	Juvenile	Listed Hatchery Intact Adipose	7,470,630	
		Listed Hatchery Adipose Clip	47,372,500	
	Adult	Listed Hatchery and Natural Origin	19,456	
Design of Course of Course of		Natural	2,210,140	
Puget Sound Steelhead	Juvenile	Listed Hatchery Intact Adipose	112,500	
		Listed Hatchery Adipose Clip	110,000	
Puget Sound/Georgia Basin DPS Rockfish, Bocaccio	Adult	Natural	4,606	
Puget Sound/Georgia Basin DPS Rockfish, Yelloweye	Adult	Natural	66,998	
		Natural	25,146	
Hood Canal summer-run chum salmon	Adult	Listed Hatchery Intact Adipose	1,452	
	Juvenile	Natural	3,889,955	

## Table 1. Estimated annual abundance of ESA listed fish.

	Hatchery 150,000 Adipose
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## Table 2. Total expected take of the ESA listed species for scientific research and monitoring already approved for 2021 plus the permits covered in this Biological Opinion.

Species	Life Stage	Origin	Requeste d Take	Lethal Take	Percent of ESU/DPS taken	Percent of ESU/DPS killed
		Natural	859	34	3.998	0.158
	Adult	Listed Hatchery Intact Adipose	937	10	11.5(1	0.200
Puget Sound		Listed Hatchery Adipose Clip	1,151	60	- 11.561	0.388
Chinook salmon		Natural	388,621	8,676	12.284	0.274
	Juvenile	Listed Hatchery Intact Adipose	86,433	2,966	1.157	0.040
		Listed Hatchery Adipose Clip	207,705	11,012	0.438	0.023
Puget Sound	Adult	Natural	1,814	39		0.236
		Listed Hatchery Intact Adipose	22	0	9.611	
Steelhead		Listed Hatchery Adipose Clip	34	7	-	
	Juvenile	Natural	45,796	1,124	2.072	0.051

		Listed Hatchery Intact Adipose	2,309	38	2.052	0.034
		Listed Hatchery Adipose Clip	5,265	111	4.786	0.101
Puget Sound/Georgia Basin DPS Rockfish, Bocaccio	Adult	Natural	38	21	2.518	
	Subadult	Natural	2	1		1.086
	Juvenile	Natural	76	28		
Puget Sound/Georgia Basin DPS Rockfish, Yelloweye	Adult	Natural	40	22	0.140	
	Subadult	Natural	2	1		0.076
	Juvenile	Natural	52	28		
Hood Canal summer-run chum salmon	Adult	Natural	2,007	31	7.981	0.123
		Natural	726,913	2,551	18.687	0.066
	Juvenile	Listed Hatchery Intact Adipose	250	21	0.167	0.014
		Listed Hatchery Adipose Clip	85	18	-	_