

HARVEST SPECIFICATION PROJECTIONS FOR SELECT WEST COAST GROUND FISH
STOCKS IN 2027 AND BEYOND

The following harvest projections are those based on requests made after the Stock Assessment Review Panel or Scientific and Statistical Committee’s Groundfish Subcommittee meeting versions of assessment documents were due, and which would be added to the final version of stock assessments pending SSC endorsement and Council adoption. They are provided here for supporting harvest specification decision-making by the Council.

See also Agenda Item G.3 for additional tables provided in new assessments or catch-only projections in the current stock assessment cycle.

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Table 1. Scientific uncertainty buffers recommended by the SSC in 2019 and implemented in 2020 (PFMC adopted per Agenda Item G.3.a Supplemental SSC Report 1, March 2019).

Year since assessment	Category 1 (baseline $\sigma = 0.5$)				
	P*				
	0.45	0.4	0.35	0.3	0.25
1	6.1%	11.9%	17.5%	23.1%	28.6%
2	6.5%	12.7%	18.7%	24.6%	30.4%
3	7.0%	13.6%	19.9%	26.0%	32.1%
4	7.4%	14.4%	21.0%	27.5%	33.8%
5	7.8%	15.2%	22.2%	28.9%	35.5%
6	8.3%	16.0%	23.3%	30.3%	37.1%
7	8.7%	16.8%	24.4%	31.6%	38.7%
8	9.1%	17.6%	25.5%	33.0%	40.2%
9	9.6%	18.3%	26.5%	34.3%	41.7%
10	10.0%	19.1%	27.6%	35.5%	43.2%
11	10.4%	19.9%	28.6%	36.8%	44.6%
12	10.8%	20.6%	29.6%	38.0%	46.0%
13	11.3%	21.4%	30.7%	39.2%	47.3%
14	11.7%	22.1%	31.6%	40.4%	48.6%
15	12.1%	22.9%	32.6%	41.6%	49.9%
Year since assessment	Category 2 (baseline $\sigma = 1.0$)				
	P*				
	0.45	0.4	0.35	0.3	0.25
1	11.8%	22.4%	32.0%	40.8%	49.1%
2	12.6%	23.8%	33.9%	43.1%	51.6%
3	13.5%	25.3%	35.8%	45.3%	54.0%
4	14.3%	26.7%	37.6%	47.4%	56.2%
5	15.1%	28.1%	39.4%	49.4%	58.4%
6	15.9%	29.4%	41.1%	51.4%	60.4%
7	16.7%	30.7%	42.8%	53.3%	62.4%
8	17.4%	32.0%	44.4%	55.1%	64.2%
9	18.2%	33.3%	46.0%	56.8%	66.0%
10	19.0%	34.6%	47.6%	58.5%	67.7%
11	19.7%	35.8%	49.0%	60.1%	69.3%
12	20.5%	37.0%	50.5%	61.6%	70.8%
13	21.2%	38.2%	51.9%	63.1%	72.2%
14	22.0%	39.4%	53.3%	64.5%	73.6%
15	22.7%	40.5%	54.6%	65.9%	74.9%
	Category 3 (constant $\sigma = 2.0$)				
	P*				
	0.45	0.4	0.35	0.3	0.25
	22.2%	39.8%	53.7%	65.0%	74.0%

Table 2. California quillback rockfish harvest specification projections based on the 2025 assessment. Potential OFLs (mt), ABCs (mt), ACLs (mt), the buffer between the OFL and ABC based on a category 1 sigma of 0.75 and P^* of 0.45, estimated spawning output (billions of eggs), and fraction of unfished spawning output with adopted OFLs and ACLs and assumed catch for the first two years of the projection period.

Year	Adopted OFL (mt)	Adopted ACL (mt)	Assumed Catch (mt)	OFL (mt)	Buffer	ABC (mt)	ACL (mt)	Spawning output (Billions of eggs)	Fraction Unfished
2025	1.50	1.30	1.30	—	—	—	—	42	0.435
2026	1.80	1.50	1.50	—	—	—	—	46	0.475
2027	—	—	—	12.83	0.904	11.60	11.60	50	0.513
2028	—	—	—	13.31	0.897	11.93	11.93	51	0.530
2029	—	—	—	13.65	0.891	12.16	12.16	53	0.543
2030	—	—	—	13.86	0.885	12.27	12.27	54	0.551
2031	—	—	—	13.98	0.878	12.27	12.27	54	0.556
2032	—	—	—	14.01	0.872	12.22	12.22	54	0.559
2033	—	—	—	13.99	0.866	12.12	12.12	54	0.559
2034	—	—	—	13.93	0.860	11.98	11.98	54	0.558
2035	—	—	—	13.85	0.854	11.83	11.83	54	0.556
2036	—	—	—	13.76	0.848	11.67	11.67	54	0.554

Table 3. California quillback rockfish decision table based on the 2025 assessment. Decision table with 10-year projections beginning in 2027 for alternative states of nature based around modeling natural mortality (M). All models assume a $P^* = 0.45$ (category 1 sigma of 0.75). Catch (mt) is from the projections from the base model, and is applied to each state of nature. Catches in 2025 and 2026 are fixed at values provided by the GMT. The alternative states of nature ('Low', 'Base', and 'High') are provided in the columns. Natural mortality is fixed either at the low state of nature (Low M = 0.0525), the base model value (M = 0.068), or the high state of nature (High M = 0.08). Spawning output ('Spawn', in billions of eggs) and fraction of unfished ('Frac') is provided for each state of nature.

Year	Catch (mt)	LowM Spawn	LowM Frac	BaseM Spawn	BaseM Frac	HighM Spawn	HighM Frac
2025	1.30	30.67	0.299	42.26	0.435	56.13	0.563
2026	1.50	33.79	0.330	46.12	0.475	60.69	0.608
2027	11.60	36.77	0.359	49.78	0.513	64.94	0.651
2028	11.93	37.85	0.370	51.45	0.530	67.08	0.672
2029	12.16	38.58	0.377	52.68	0.543	68.65	0.688
2030	12.27	39.00	0.381	53.51	0.551	69.70	0.699
2031	12.27	39.17	0.382	54.00	0.556	70.31	0.705
2032	12.22	39.16	0.382	54.23	0.559	70.57	0.707
2033	12.12	39.03	0.381	54.27	0.559	70.58	0.707
2034	11.98	38.81	0.379	54.17	0.558	70.40	0.706
2035	11.83	38.55	0.376	53.98	0.556	70.09	0.703
2036	11.67	38.27	0.374	53.74	0.554	69.70	0.699

Table 4. Chilipepper rockfish decision table based on the 2025 assessment, with revised time-varying buffers (due to natural mortality > 0.15). Decision table summary of 10-year projections beginning in 2027 for alternative states of nature based on an axis of uncertainty about Beverton-Holt steepness for the base model. Columns range over low, base, and high states of nature. Steepness in the base model was fixed at 0.72. The low state of nature assumed a steepness of 0.38, and the high state of nature assumed a steepness of 0.97. Catch in 2025 and 2026 were based upon removal assumptions provided by the GMT.
++Time-varying buffers for the ABC were calculated in R using the PEPtools package, i.e. PEPtools::get_buffer(2025:2036, sigma = 0.5, pstar = 0.45, m = c(0.165, 0.216), verbose = TRUE).

Year	ACL=ABC catch	low steepness			base model			high steepness		
		OFL	spawning output	fraction unfished	OFL	spawning output	fraction unfished	OFL	spawning output	fraction unfished
2025	1598.7	--	7247	0.469	--	9925	0.832	--	10836	0.959
2026	1521.6	--	6704	0.434	--	9369	0.786	--	10212	0.903
2027	3204.2	2637.5	6435	0.416	3434.3	9133	0.766	3844.3	9927	0.878
2028	3079.7	2484.8	5989	0.387	3318.7	8780	0.736	3703.5	9505	0.841
2029	2998.2	2400.8	5753	0.372	3251.9	8601	0.721	3616.3	9265	0.820
2030	2942.8	2361.7	5600	0.362	3212.7	8443	0.708	3561.2	9055	0.801
2031	2884.6	2328.3	5457	0.353	3166.4	8252	0.692	3498.0	8813	0.780
2032	2800.8	2277.3	5294	0.343	3094.8	8020	0.673	3406.0	8529	0.755
2033	2700.4	2209.3	5111	0.331	3003.8	7763	0.651	3292.7	8221	0.727
2034	2598.7	2133.4	4923	0.319	2906.9	7505	0.630	3173.9	7914	0.700
2035	2499.1	2057.1	4740	0.307	2814.3	7262	0.609	3061.7	7626	0.675
2036	2412.5	1985.4	4570	0.296	2732.2	7045	0.591	2963.3	7370	0.652