

California Marine Life Protection Act Initiative
Master Plan Science Advisory Team Analysis of Habitat Representation in MPA Package 0
Revised February 24, 2006

Analysis of Habitat Representation in MPA Package 0 (Existing Central Coast MPAs, 2005)

MPA Package 0 (Existing MPAs)	How measured ?	Total Amount in Study Region	Total Percent of Study Region	Amount in Existing State Marine Reserves	Percent of Total in Existing SMRs	Amount in Existing State Marine Parks	Percent of Total in Existing SMPs	Amount in Existing State Marine Conservation Areas	Percent of Total in Existing SMCAs	Amount in Existing Special Closures	Percent of Total in Existing SCs	Amount in all Existing MPAs in Study Region	Percent of Total in Existing MPAs	Spatial Data Source
Area	Area (mi2)	1150.01		7.45	0.65%	0.00	0.00%	33.50	2.91%	2.20	0.19%	43.15	3.75%	GIS analysis
Number of MPAs				5		0		7		1		13		
HABITATS														
Sandy or gravel beaches	Linear (mi)	223.66	60.3%	5.27	2.36%	0.00	0.00%	14.42	6.45%	6.06	2.71%	25.75	11.51%	NOAA ESI 2002
Rocky intertidal and cliff	Linear (mi)	209.21	56.4%	16.71	7.99%	0.00	0.00%	12.69	6.07%	2.73	1.30%	32.13	15.36%	NOAA ESI 2002
Coastal marsh	Linear (mi)	36.53	9.8%	9.16	25.08%	0.00	0.00%	0.00	0.00%	0.00	0.00%	9.16	25.08%	NOAA ESI 2002
Tidal flats	Linear (mi)	23.48	6.3%	9.16	39.02%	0.00	0.00%	0.00	0.00%	0.00	0.00%	9.16	39.02%	NOAA ESI 2002
Surfgrass	Linear (mi)	161.09	43.4%	9.74	6.05%	0.00	0.00%	11.82	7.34%	4.59	2.85%	26.15	16.23%	Minerals Management Service / Tenera Inc.
Eelgrass	Area (mi2)	1.07	0.1%	0.03	2.80%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.03	2.80%	Elkhorn Slough Foundation; Morro Bay National Estuary Program
Estuary	Area (mi2)	9.83	0.9%	1.36	13.84%	0.00	0.00%	0.06	0.61%	0.00	0.00%	1.42	14.45%	Combined layer w/ data from NOAA ESI; National Wetlands Inventory; CNDDDB; USGS
Soft 0-30	Area (mi2)	270.34	23.5%	4.52	1.67%	0.00	0.00%	14.82	5.48%	1.88	0.70%	21.22	7.85%	Substrata_Proxy Layer (DFG 2005) based on fine scale (high res); coarse-scale (low res); union of all kelp as proxy for rock; CPFV rockfish fishing effort as proxy for rock
Soft 30-100	Area (mi2)	562.38	48.9%	1.32	0.23%	0.00	0.00%	14.78	2.63%	0.00	0.00%	16.10	2.86%	same as above
Soft 100-200	Area (mi2)	57.83	5.0%	0.00	0.00%	0.00	0.00%	0.02	0.03%	0.00	0.00%	0.02	0.03%	same as above
Soft >200	Area (mi2)	105.52	9.2%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	same as above
Hard 0-30	Area (mi2)	73.60	6.4%	1.04	1.41%	0.00	0.00%	2.12	2.88%	0.33	0.45%	3.49	4.74%	same as above
Hard 30-100	Area (mi2)	40.30	3.5%	0.28	0.69%	0.00	0.00%	0.72	1.79%	0.00	0.00%	1.00	2.48%	same as above

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Analysis of Habitat Representation in MPA Package 0 (Existing Central Coast MPAs, 2005)

MPA Package 0 (Existing MPAs)	How measured ?	Total Amount in Study Region	Total Percent of Study Region	Amount in Existing State Marine Reserves	Percent of Total in Existing SMRs	Amount in Existing State Marine Parks	Percent of Total in Existing SMPs	Amount in Existing State Marine Conservation Areas	Percent of Total in Existing SMCAs	Amount in Existing Special Closures	Percent of Total in Existing SCs	Amount in all Existing MPAs in Study Region	Percent of Total in Existing MPAs	Spatial Data Source
Hard 100-200	Area (mi2)	14.64	1.3%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	same as above
Hard >200	Area (mi2)	16.16	1.4%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	same as above
Average Kelp	Area (mi2)	10.83	0.94%	0.36	3.35%	0.00	0.00%	0.68	6.23%	0.00	0.02%	1.04	9.61%	Average of DFG aerial survey years: '89, '99, '02, '03
Persistent Kelp	Area (mi2); present in 3 of 4 years	3.18	0.3%	0.20	6.29%	0.00	0.00%	0.21	6.61%	0.00	0.00%	0.41	12.90%	Kelp present in 3 of 4 DFG survey years
Canyon 0-30	Area (mi2)	0.56	0.0%	0.00	0.00%	0.00	0.00%	0.18	31.86%	0.00	0.00%	0.18	31.86%	Coarse-scale substrata data (Greene et al 2004)
Canyon 30-100	Area (mi2)	4.42	0.4%	0.00	0.00%	0.00	0.00%	0.07	1.58%	0.00	0.00%	0.07	1.58%	Coarse-scale substrata data (Greene et al 2004)
Canyon 100-200	Area (mi2)	6.06	0.5%	0.00	0.00%	0.00	0.00%	0.01	0.17%	0.00	0.00%	0.01	0.17%	Coarse-scale substrata data (Greene et al 2004)
Canyon >200	Area (mi2)	42.77	3.7%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	Coarse-scale substrata data (Greene et al 2004)

SC = special closure SMCA = state marine conservation area SMP = state marine park SMR = state marine reserve

The total shoreline length, as measured by NOAA-ESI data, is 371mi.

California Marine Life Protection Act Initiative
Master Plan Science Advisory Team Analysis of Habitat Representation in MPA Package 1
Revised February 24, 2006

Analysis of Habitat Representation in MPA Package 1 (2/9/06 version)

Note these habitat amounts are relative to proposed MPA designations not SAT levels of protection

CCRSG Package 1	How measured?	Total amount in Study Region	Total percent of Study Region	Amount in Proposed State Marine Reserves	Percent of Total in Proposed SMRs	Amount in Proposed State Marine Parks	Percent of Total in Proposed SMPs	Amount in Proposed State Marine Conservation Area	Percent of Total in Proposed SMCAs	Amount in all Proposed MPAs in region	Percent of Total in Proposed MPAs	Spatial Data Source
Area	Area (mi2)	1150.01		59.99	5.22%	4.41	0.38%	107.36	9.34%	171.75	14.93%	GIS analysis
Number of MPAs				21		1		7		29		
HABITATS												
Sandy or gravel beaches	Linear (mi)	223.66	60.3%	32.05	14.33%	3.52	1.57%	12.55	5.61%	48.12	21.51%	NOAA ESI 2002
Rocky intertidal and cliff	Linear (mi)	209.21	56.4%	46.59	22.27%	2.96	1.41%	12.29	5.87%	61.84	29.56%	NOAA ESI 2002
Coastal marsh	Linear (mi)	36.53	9.8%	19.83	54.28%	0.38	1.04%	4.69	12.84%	24.90	68.16%	NOAA ESI 2002
Tidal flats	Linear (mi)	23.48	6.3%	13.76	58.61%	0.15	0.64%	5.46	23.26%	19.37	82.51%	NOAA ESI 2002
Surfgrass	Linear (mi)	161.09	43.4%	40.29	25.01%	3.48	2.16%	8.59	5.33%	52.36	32.50%	Minerals Management Service / Tenera Inc.
Eelgrass	Area (mi2)	1.07	0.1%	0.27	25.16%	0.00	0.00%	0.79	73.62%	1.06	98.78%	Elkhorn Slough Foundation; Morro Bay National Estuary Program
Estuary	Area (mi2)	9.83	0.9%	3.17	32.25%	0.02	0.20%	2.64	26.86%	5.83	59.31%	Combined layer w/ data from NOAA ESI; National Wetlands Inventory; CNDDB; USGS
Soft 0-30	Area (mi2)	270.34	23.5%	28.90	10.69%	3.10	1.15%	6.84	2.53%	38.84	14.37%	Substrata_Proxy Layer (DFG 2005) based on fine scale (high res); coarse-scale (low res); union of all kelp as proxy for rock; CPFV rockfish fishing effort as proxy for rock
Soft 30-100	Area (mi2)	562.38	48.9%	13.30	2.36%	0.18	0.03%	46.98	8.35%	60.46	10.75%	same as above
Soft 100-200	Area (mi2)	57.83	5.0%	0.47	0.81%	0.00	0.00%	10.34	17.88%	10.81	18.69%	same as above
Soft >200	Area (mi2)	105.52	9.2%	6.18	5.86%	0.00	0.00%	25.85	24.50%	32.03	30.36%	same as above
Hard 0-30	Area (mi2)	73.60	6.4%	8.68	11.79%	1.14	1.55%	5.30	7.20%	15.12	20.54%	same as above
Hard 30-100	Area (mi2)	40.30	3.5%	1.29	3.20%	0.00	0.00%	3.79	9.40%	5.08	12.61%	same as above
Hard 100-200	Area (mi2)	14.64	1.3%	0.04	0.27%	0.00	0.00%	1.73	11.82%	1.77	12.09%	same as above

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CCRS Package 1	How measured?	Total amount in Study Region	Total percent of Study Region	Amount in Proposed State Marine Reserves	Percent of Total in Proposed SMRs	Amount in Proposed State Marine Parks	Percent of Total in Propose d SMPs	Amount in Proposed State Marine Conserva tion Area	Percent of Total in Proposed SMCAs	Amount in all Proposed MPAs in region	Percent of Total in Propose d MPAs	Spatial Data Source
Hard >200	Area (mi2)	16.16	1.4%	0.16	0.99%	0.00	0.00%	5.18	32.06%	5.34	33.05%	same as above
Average Kelp	Area (mi2)	10.83	0.94%	1.58	14.62%	0.45	4.13%	0.63	5.84%	2.66	24.59%	Average of DFG aerial survey years: '89, '99, '02, '03
Persistent Kelp	Area (mi2); present in 3 of 4 years	3.18	0.3%	0.85	26.74%	0.20	6.29%	0.22	6.92%	1.27	39.96%	Kelp present in 3 of 4 DFG survey years
Canyon 0-30	Area (mi2)	0.56	0.0%	0.05	8.85%	0.00	0.00%	0.15	26.55%	0.20	35.40%	Coarse-scale substrata data (Greene et al 2004)
Canyon 30-100	Area (mi2)	4.42	0.4%	0.15	3.39%	0.00	0.00%	0.04	0.90%	0.19	4.30%	Coarse-scale substrata data (Greene et al 2004)
Canyon 100-200	Area (mi2)	6.06	0.5%	0.27	4.46%	0.00	0.00%	0.19	3.14%	0.46	7.59%	Coarse-scale substrata data (Greene et al 2004)
Canyon >200	Area (mi2)	42.77	3.7%	2.12	4.96%	0.00	0.00%	11.14	26.04%	13.26	31.00%	Coarse-scale substrata data (Greene et al 2004)

SC = special closure SMCA = state marine conservation area SMP = state marine park SMR = state marine reserve
The total shoreline length, as measured by NOAA-ESI data, is 371mi.

California Marine Life Protection Act Initiative
Master Plan Science Advisory Team Analysis of Habitat Representation in MPA Package 2
Revised February 24, 2006

Analysis of Habitat Representation in MPA Package 2 (2/9/06 version)

Note these habitat amounts are relative to proposed MPA designations not SAT levels of protection

CCRS Package 2	How measured?	Total Amount in Study Region	Total Percent of Study Region	Amount in Proposed State Marine Reserves	Percent of Total in Proposed SMRs	Amount in Proposed State Marine Parks	Percent of Total in Proposed SMPs	Amount in Proposed State Marine Conservation Area	Percent of Total in Proposed SMCAs	Amount in All Proposed MPAs in Study Region	Percent of Total in Proposed MPAs	Spatial Data Source
Area	Area (mi2)	1150.01		147.85	12.86%	9.84	0.86%	63.48	5.52%	221.17	19.23%	GIS analysis
Number of MPAs				21		1		7		29		
HABITATS												
Sandy or gravel beaches	Linear (mi)	223.66	60.3%	52.64	23.54%	5.23	2.34%	5.21	2.33%	63.08	28.20%	NOAA ESI 2002
Rocky intertidal and cliff	Linear (mi)	209.21	56.4%	71.59	34.22%	2.98	1.42%	5	2.39%	79.57	38.03%	NOAA ESI 2002
Coastal marsh	Linear (mi)	36.53	9.8%	20.79	56.91%	0.47	1.29%	1.48	4.05%	22.74	62.25%	NOAA ESI 2002
Tidal flats	Linear (mi)	23.48	6.3%	15.08	64.24%	0.15	0.64%	4.42	18.83%	19.65	83.70%	NOAA ESI 2002
Surfgrass	Linear (mi)	161.09	43.4%	57.35	35.60%	4.06	2.52%	5.72	3.55%	67.13	41.67%	Minerals Management Service / Tenera Inc.
Eelgrass	Area (mi2)	1.07	0.1%	0.35	32.62%	0	0.00%	0.72	67.10%	1.07	99.71%	Elkhorn Slough Foundation; Morro Bay National Estuary Program
Estuary	Area (mi2)	9.83	0.9%	3.69	37.54%	0.01	0.10%	2.1	21.36%	5.8	59.00%	Combined layer w/ data from NOAA ESI; National Wetlands Inventory; CNDDB; USGS
Soft 0-30	Area (mi2)	270.34	23.5%	36.16	13.38%	4.84	1.79%	3.15	1.17%	44.15	16.33%	Substrata_Proxy Layer (DFG 2005) based on fine scale (high res); coarse-scale (low res); union of all kelp as proxy for rock; CPFV rockfish fishing effort as proxy for rock
Soft 30-100	Area (mi2)	562.38	48.9%	61.63	10.96%	3.74	0.67%	24.35	4.33%	89.72	15.95%	same as above
Soft 100-200	Area (mi2)	57.83	5.0%	5.19	8.97%	0	0.00%	8.25	14.26%	13.44	23.24%	same as above
Soft >200	Area (mi2)	105.52	9.2%	11.82	11.20%	0	0.00%	16.29	15.44%	28.11	26.64%	same as above
Hard 0-30	Area (mi2)	73.60	6.4%	20.66	28.07%	1.26	1.71%	1.08	1.47%	23	31.25%	same as above
Hard 30-100	Area (mi2)	40.30	3.5%	3.3425	30.87%	0.535	4.94%	0.49	4.53%	4.3675	40.34%	same as above
Hard 100-200	Area (mi2)	14.64	1.3%	1.68	11.48%	0	0.00%	3.85	26.31%	5.53	37.78%	same as above
Hard >200	Area (mi2)	16.16	1.4%	1.53	9.47%	0	0.00%	2.07	12.81%	3.6	22.28%	same as above

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Analysis of Habitat Representation in MPA Package 2 (2/9/06 version)

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CCRS Package 2	How measured?	Total Amount in Study Region	Total Percent of Study Region	Amount in Proposed State Marine Reserves	Percent of Total in Proposed SMRs	Amount in Proposed State Marine Parks	Percent of Total in Proposed SMPs	Amount in Proposed State Marine Conservat ion Area	Percent of Total in Proposed SMCAs	Amount in All Proposed MPAs in Study Region	Percent of Total in Propose d MPAs	Spatial Data Source
Average Kelp	Area (mi2)	10.83	0.94%	3.35	30.94%	0.54	4.94%	0.49	4.53%	4.38	40.41%	Average of DFG aerial survey years: '89, '99, '02, '03
Persistent Kelp	Area (mi2); present in 3 of 4 years	3.18	0.3%	0.97	30.52%	0.31	9.75%	0.22	6.92%	1.5	47.19%	Kelp present in 3 of 4 DFG survey years
Canyon 0-30	Area (mi2)	0.56	0.0%	0.01	1.77%	0	0.00%	0.2	35.40%	0.21	37.17%	Coarse-scale substrata data (Greene et al 2004)
Canyon 30-100	Area (mi2)	4.42	0.4%	0.18	4.07%	0	0.00%	0.39	8.82%	0.57	12.89%	Coarse-scale substrata data (Greene et al 2004)
Canyon 100-200	Area (mi2)	6.06	0.5%	0.23	3.80%	0	0.00%	1	16.50%	1.23	20.30%	Coarse-scale substrata data (Greene et al 2004)
Canyon >200	Area (mi2)	42.77	3.7%	4.92	11.50%	0	0.00%	6.02	14.07%	10.94	25.58%	Coarse-scale substrata data (Greene et al 2004)

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The total shoreline length, as measured by NOAA-ESI data, is 371mi.

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Analysis of Habitat Representation in MPA Package 3 (2/9/06 version)

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CCRS Package 3	How measured?	Total Amount in Study Region	Total Percent of Study Region	Amount in Proposed State Marine Reserves	Percent of Total in Proposed SMRs	Amount in Proposed State Marine Parks	Percent of Total in Proposed SMPs	Amount in Proposed State Marine Conservation Areas	Percent of Total in Proposed SMCAs	Amount in All Proposed MPAs in Study Region	Percent of Total in Proposed MPAs	Spatial Data Source
Area	Area (mi²)	1150.01		107.19	9.32%	7.54	0.66%	80.80	7.03%	195.53	17.00%	GIS analysis
Number of MPAs				17		3		10		30		
HABITATS												
Sandy or gravel beaches	Linear (mi)	223.66	60.3%	40.85	18.26%	10.38	4.64%	5.66	2.53%	56.89	25.44%	NOAA ESI 2002
Rocky intertidal and cliff	Linear (mi)	209.21	56.4%	57.26	27.37%	8.14	3.89%	5.19	2.48%	70.59	33.74%	NOAA ESI 2002
Coastal marsh	Linear (mi)	36.53	9.8%	3	8.21%	0	0.00%	2.21	6.05%	5.21	14.26%	NOAA ESI 2002
Tidal flats	Linear (mi)	23.48	6.3%	11.45	48.77%	0.15	0.64%	4.7	20.02%	16.3	69.43%	NOAA ESI 2002
Surfgrass	Linear (mi)	161.09	43.4%	41.05	25.48%	7.29	4.53%	5.49	3.41%	53.83	33.42%	Minerals Management Service / Tenera Inc.
Eelgrass	Area (mi²)	1.07	0.1%	0.27	25.16%	0	0.00%	0.8	74.55%	1.07	99.71%	Elkhorn Slough Foundation; Morro Bay National Estuary Program
Estuary	Area (mi²)	9.83	0.9%	3.35	34.08%	0.02	0.20%	2.32	23.60%	5.69	57.88%	Combined layer w/ data from NOAA ESI; National Wetlands Inventory; CNDDB; USGS
Soft 0-30	Area (mi²)	270.34	23.5%	41.11	15.21%	5.38	1.99%	3.64	1.35%	50.13	18.54%	Substrata_Proxy Layer (DFG 2005) based on fine scale (high res); coarse-scale (low res); union of all kelp as proxy for rock; CPFV rockfish fishing effort as proxy for rock
Soft 30-100	Area (mi²)	562.38	48.9%	29.58	5.26%	0.4	0.07%	42.35	7.53%	72.33	12.86%	same as above
Soft 100-200	Area (mi²)	57.83	5.0%	1.11	1.92%	0	0.00%	10.21	17.65%	11.32	19.57%	same as above
Soft >200	Area (mi²)	105.52	9.2%	12.83	12.16%	0	0.00%	7.41	7.02%	20.24	19.18%	same as above
Hard 0-30	Area (mi²)	73.60	6.4%	17.75	24.12%	1.76	2.39%	0.93	1.26%	20.44	27.77%	same as above
Hard 30-100	Area (mi²)	40.30	3.5%	3.71	9.21%	0	0.00%	6.92	17.17%	10.63	26.38%	same as above
Hard 100-200	Area (mi²)	14.64	1.3%	0.07	0.48%	0	0.00%	5.44	37.17%	5.51	37.65%	same as above

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CCRS Package 3	How measured?	Total Amount in Study Region	Total Percent of Study Region	Amount in Proposed State Marine Reserves	Percent of Total in Proposed SMRs	Amount in Proposed State Marine Parks	Percent of Total in Proposed SMPs	Amount in Proposed State Marine Conservat ion Areas	Percent of Total in Proposed SMCAs	Amount in All Proposed MPAs in Study Region	Percent of Total in Proposed MPAs	Spatial Data Source
Hard >200	Area (mi2)	16.16	1.4%	0.05	0.31%	0	0.00%	3.34	20.67%	3.39	20.98%	same as above
Average Kelp	Area (mi2)	10.83	0.94%	2.79	25.79%	0.67	6.14%	0.47	4.34%	3.93	36.28%	Average of DFG aerial survey years: '89, '99, '02, '03
Persistent Kelp	Area (mi2); present in 3 of 4 years	3.18	0.3%	0.77	24.23%	0.38	11.96%	0.22	6.92%	1.37	43.10%	Kelp present in 3 of 4 DFG survey years
Canyon 0-30	Area (mi2)	0.56	0.0%	0.1	17.70%	0	0.00%	0.11	19.47%	0.21	37.17%	Coarse-scale substrata data (Greene et al 2004)
Canyon 30- 100	Area (mi2)	4.42	0.4%	0.18	4.07%	0	0.00%	0.1	2.26%	0.28	6.33%	Coarse-scale substrata data (Greene et al 2004)
Canyon 100- 200	Area (mi2)	6.06	0.5%	0.17	2.81%	0	0.00%	0.84	13.86%	1.01	16.67%	Coarse-scale substrata data (Greene et al 2004)
Canyon >200	Area (mi2)	42.77	3.7%	4.33	10.12%	0	0.00%	4.11	9.61%	8.44	19.73%	Coarse-scale substrata data (Greene et al 2004)

SC = special closure SMCA = state marine conservation area SMP = state marine park SMR = state marine reserve
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CCRS Package S	How measured?	Total Amount in Study Region	Total Percent of Study Region	Amount in Proposed State Marine Reserves	Percent of Total in Proposed SMRs	Amount in Proposed State Marine Parks	Percent of Total in Proposed SMPs	Amount in Proposed State Marine Conservation Area	Percent of Total in Proposed SMCAs	Amount in All Proposed MPAs in Study Region	Percent of Total in Proposed MPAs	Spatial Data Source
Area	Area (mi2)	1150.01		113.91	9.91%	5.51	0.48%	85.00	7.39%	204.42	17.78%	GIS analysis
Number of MPAs				18		1		11		30		
HABITATS												
Sandy or gravel beaches	Linear (mi)	223.66	60.3%	55.91	25.00%	4.33	1.94%	6.49	2.90%	66.73	29.83%	NOAA ESI 2002
Rocky intertidal and cliff	Linear (mi)	209.21	56.4%	72.61	34.71%	2.88	1.38%	8.01	3.83%	83.5	39.91%	NOAA ESI 2002
Coastal marsh	Linear (mi)	36.53	9.8%	11.02	30.17%	0.38	1.04%	1.94	5.31%	13.34	36.52%	NOAA ESI 2002
Tidal flats	Linear (mi)	23.48	6.3%	8.75	37.27%	0.15	0.64%	4.28	18.23%	13.18	56.14%	NOAA ESI 2002
Surfgrass	Linear (mi)	161.09	43.4%	60.6	37.62%	3.46	2.15%	7.6	4.72%	71.66	44.48%	Minerals Management Service / Tenera Inc.
Eelgrass	Area (mi2)	1.07	0.1%	0.34	31.68%	0	0.00%	0.73	68.03%	1.07	99.71%	Elkhorn Slough Foundation; Morro Bay National Estuary Program
Estuary	Area (mi2)	9.83	0.9%	3.14	31.94%	0.01	0.10%	1.97	20.04%	5.12	52.09%	Combined layer w/ data from NOAA ESI; National Wetlands Inventory; CNDDB; USGS
Soft 0-30	Area (mi2)	270.34	23.5%	44.58	16.49%	3.64	1.35%	3.55	1.31%	51.77	19.15%	Substrata_Proxy Layer (DFG 2005) based on fine scale (high res); coarse-scale (low res); union of all kelp as proxy for rock; CPFV rockfish fishing effort as proxy for rock
Soft 30-100	Area (mi2)	562.38	48.9%	34.11	6.07%	0.74	0.13%	38.75	6.89%	73.6	13.09%	same as above
Soft 100-200	Area (mi2)	57.83	5.0%	1.25	2.16%	0	0.00%	11.55	19.97%	12.8	22.13%	same as above
Soft >200	Area (mi2)	105.52	9.2%	9.23	8.75%	0	0.00%	13.91	13.18%	23.14	21.93%	same as above
Hard 0-30	Area (mi2)	73.60	6.4%	20.34	27.64%	1.12	1.52%	1.3	1.77%	22.76	30.93%	same as above
Hard 30-100	Area (mi2)	40.30	3.5%	3.1	7.69%	0	0.00%	6.2	15.39%	9.3	23.08%	same as above
Hard 100-200	Area (mi2)	14.64	1.3%	0.25	1.71%	0	0.00%	5.44	37.17%	5.69	38.88%	same as above
Hard >200	Area (mi2)	16.16	1.4%	0.46	2.85%	0	0.00%	3.29	20.36%	3.75	23.21%	same as above

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Analysis of Habitat Representation in MPA Package S (2/22/06 version)

Note these habitat amounts are relative to proposed MPA designations not SAT levels of protection

CCRS Package S	How measured?	Total Amount in Study Region	Total Percent of Study Region	Amount in Proposed State Marine Reserves	Percent of Total in Proposed SMRs	Amount in Proposed State Marine Parks	Percent of Total in Proposed SMPs	Amount in Proposed State Marine Conservat ion Area	Percent of Total in Proposed SMCAs	Amount in All Proposed MPAs in Study Region	Percent of Total in Propose d MPAs	Spatial Data Source
Average Kelp	Area (mi2)	10.83	0.94%	2.65	24.45%	0.47	4.34%	0.55	5.06%	3.67	33.85%	Average of DFG aerial survey years: '89, '99, '02, '03
Persistent Kelp	Area (mi2); present in 3 of 4 years	3.18	0.3%	0.7	22.02%	0.27	8.50%	0.21	6.61%	1.18	37.13%	Kelp present in 3 of 4 DFG survey years
Canyon 0-30	Area (mi2)	0.56	0.0%	0.05	8.85%	0	0.00%	0.15	26.55%	0.2	35.40%	Coarse-scale substrata data (Greene et al 2004)
Canyon 30-100	Area (mi2)	4.42	0.4%	0.57	12.89%	0	0.00%	0.1	2.26%	0.67	15.15%	Coarse-scale substrata data (Greene et al 2004)
Canyon 100-200	Area (mi2)	6.06	0.5%	0.62	10.23%	0	0.00%	0.77	12.71%	1.39	22.94%	Coarse-scale substrata data (Greene et al 2004)
Canyon >200	Area (mi2)	42.77	3.7%	4.06	9.49%	0	0.00%	5.08	11.88%	9.14	21.37%	Coarse-scale substrata data (Greene et al 2004)

SC = special closure SMCA = state marine conservation area SMP = state marine park SMR = state marine reserve
The total shoreline length, as measured by NOAA-ESI data, is 371mi.

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Master Plan Science Advisory Team Analysis of Habitat Representation in MPA Package AC
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Analysis of Habitat Representation in External MPA Package AC (12/15/05 version)

Note these habitat amounts are relative to proposed MPA designations not SAT levels of protection

External Package AC	How measured?	Total Amount in Study Region	Total Percent of Study Region	Amount in Proposed State Marine Reserves	Percent of Total in Proposed SMRs	Amount in Proposed State Marine Parks	Percent of Total in Proposed SMPs	Amount in Proposed State Marine Conservation Areas	Percent of Total in Proposed SMCA's	Amount in All Proposed MPAs in Study Region	Percent of Total in Proposed MPAs	Spatial Data Source
Area	Area (mi2)	1150.01		202.28	17.59%	12.33	1.07%	99.10	8.62%	313.71	27.28%	GIS analysis
Number of MPAs				19		3		8		30		
HABITATS												
Sandy or gravel beaches	Linear (mi)	223.66	60.3%	52.08	23.28%	8.62	3.85%	6.40	2.86%	67.10	30.00%	NOAA ESI 2002
Rocky intertidal and cliff	Linear (mi)	209.21	56.4%	73.54	35.15%	5.90	2.82%	7.15	3.42%	86.59	41.39%	NOAA ESI 2002
Coastal marsh	Linear (mi)	36.53	9.8%	16.26	44.51%	0.38	1.04%	0.00	0.00%	16.64	45.55%	NOAA ESI 2002
Tidal flats	Linear (mi)	23.48	6.3%	10.90	46.43%	0.15	0.64%	0.00	0.00%	11.05	47.07%	NOAA ESI 2002
Surfgrass	Linear (mi)	161.09	43.4%	56.79	35.25%	7.36	4.57%	3.50	2.17%	67.65	41.99%	Minerals Management Service / Tenera Inc.
Eelgrass	Area (mi2)	1.07	0.1%	0.35	32.62%	0.00	0.00%	0.00	0.00%	0.35	32.62%	Elkhorn Slough Foundation; Morro Bay National Estuary Program
Estuary	Area (mi2)	9.83	0.9%	3.42	34.79%	0.08	0.81%	0.00	0.00%	3.50	35.61%	Combined layer w/ data from NOAA ESI; National Wetlands Inventory; CNDDB; USGS
Soft 0-30	Area (mi2)	270.34	23.5%	43.79	16.20%	5.06	1.87%	5.59	2.07%	54.44	20.14%	Substrata_Proxy Layer (DFG 2005) based on fine scale (high res); coarse-scale (low res); union of all kelp as proxy for rock; CPFV rockfish fishing effort as proxy for rock
Soft 30-100	Area (mi2)	562.38	48.9%	95.15	16.92%	4.03	0.72%	44.94	7.99%	144.12	25.63%	same as above
Soft 100-200	Area (mi2)	57.83	5.0%	8.27	14.30%	0.00	0.00%	10.02	17.33%	18.29	31.62%	same as above
Soft >200	Area (mi2)	105.52	9.2%	14.16	13.42%	0.00	0.00%	23.25	22.03%	37.41	35.45%	same as above
Hard 0-30	Area (mi2)	73.60	6.4%	23.30	31.66%	2.61	3.55%	3.16	4.29%	29.07	39.50%	same as above
Hard 30-100	Area (mi2)	40.30	3.5%	9.11	22.61%	0.18	0.45%	4.44	11.02%	13.73	34.07%	same as above

California Marine Life Protection Act Initiative
Master Plan Science Advisory Team Analysis of Habitat Representation in MPA Package AC
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Analysis of Habitat Representation in External MPA Package AC (12/15/05 version)

Note these habitat amounts are relative to proposed MPA designations not SAT levels of protection

External Package AC	How measured?	Total Amount in Study Region	Total Percent of Study Region	Amount in Proposed State Marine Reserves	Percent of Total in Proposed SMRs	Amount in Proposed State Marine Parks	Percent of Total in Proposed SMPs	Amount in Proposed State Marine Conservation Areas	Percent of Total in Proposed SMCAs	Amount in All Proposed MPAs in Study Region	Percent of Total in Proposed MPAs	Spatial Data Source
Hard 100-200	Area (mi2)	14.64	1.3%	2.64	18.04%	0.00	0.00%	3.78	25.83%	6.42	43.87%	same as above
Hard >200	Area (mi2)	16.16	1.4%	2.27	14.05%	0.00	0.00%	3.37	20.86%	5.64	34.91%	same as above
Average Kelp	Area (mi2)	10.83	0.94%	3.03	27.94%	0.86	7.97%	0.26	2.36%	4.14	38.26%	Average of DFG aerial survey years: '89, '99, '02, '03
Persistent Kelp	Area (mi2); present in 3 of 4 years	3.18	0.3%	0.85	26.74%	0.41	12.90%	0.05	1.57%	1.31	41.22%	Kelp present in 3 of 4 DFG survey years
Canyon 0-30	Area (mi2)	0.56	0.0%	0.23	40.71%	0.00	0.00%	0.00	0.00%	0.23	40.71%	Coarse-scale substrata data (Greene et al 2004)
Canyon 30-100	Area (mi2)	4.42	0.4%	0.50	11.31%	0.01	0.23%	1.05	23.75%	1.56	35.28%	Coarse-scale substrata data (Greene et al 2004)
Canyon 100-200	Area (mi2)	6.06	0.5%	0.69	11.39%	0.00	0.00%	1.58	26.08%	2.27	37.46%	Coarse-scale substrata data (Greene et al 2004)
Canyon >200	Area (mi2)	42.77	3.7%	4.76	11.13%	0.00	0.00%	10.84	25.34%	15.60	36.47%	Coarse-scale substrata data (Greene et al 2004)

SC = special closure SMCA = state marine conservation area SMP = state marine park SMR = state marine reserve
The total shoreline length, as measured by NOAA-ESI data, is 371 mi.