

Ocean Uses and Marine Renewable Energy

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2017-12-31 17:53

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Alaska

Alaska: Map of Uses

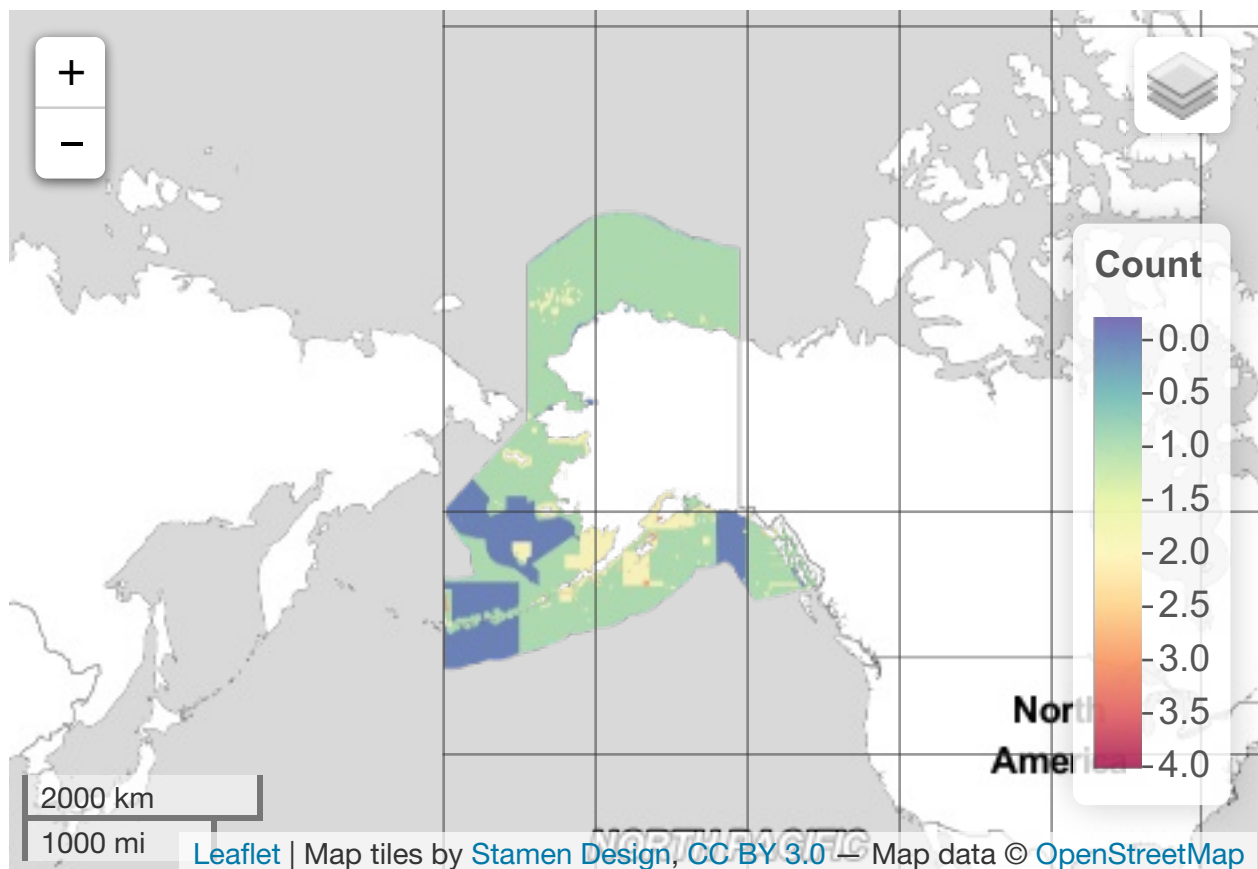


Figure 1: Map of cumulative ocean use in Alaska region.

Alaska: Map of Depth

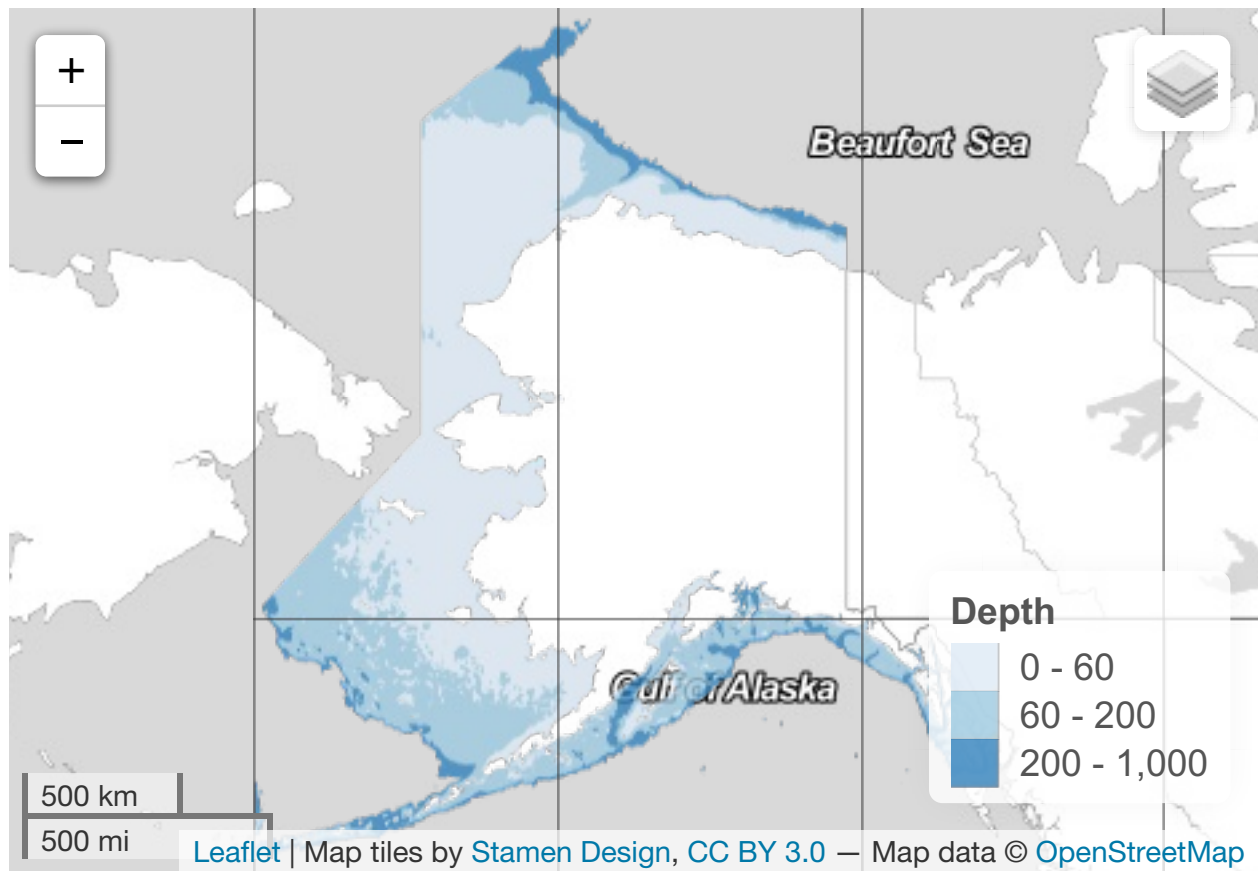


Figure 2: Map of viable depth in Alaska region.

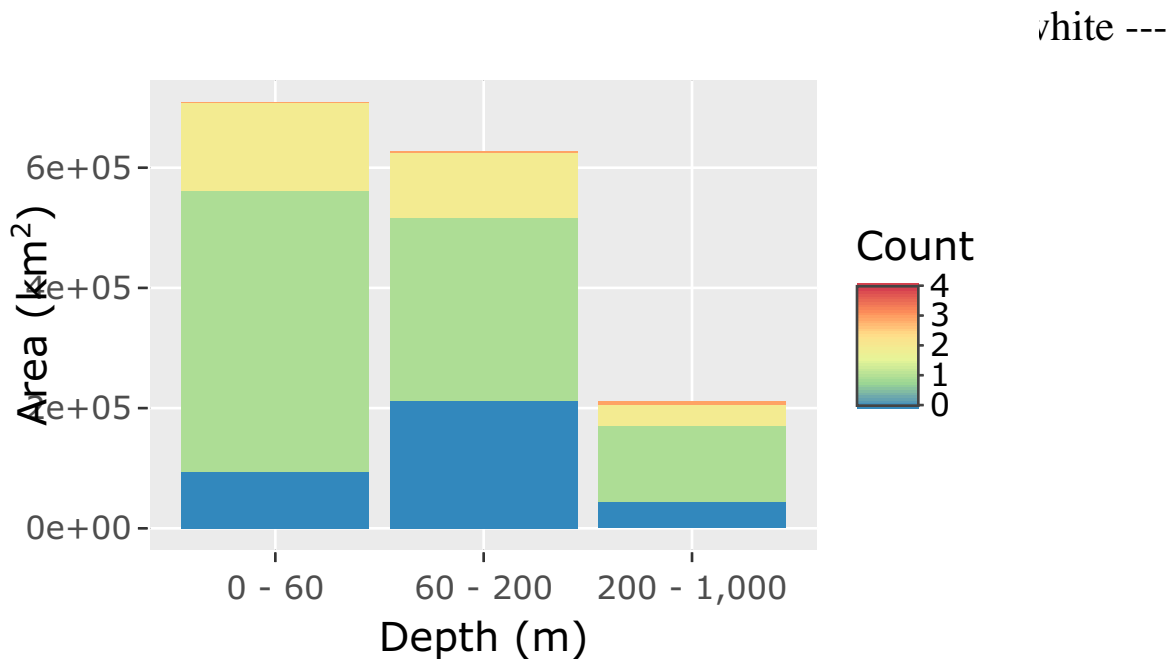


Figure 3: Area of Cumulative Ocean Use by Depth (m) for Alaska region. Cumulative use are counted and summarized by Depth (m) and area.

Alaska: Plot of Uses by Depth

Alaska: Table of Uses by Depth

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Table 1: Area (km²) of Ocean Use by Depth (m) bin for Alaska region. Width of gray horizontal bars from left of cell indicate percent area occupied in given depth bin.

Ocean Use			Area (km ²) by Depth (m)				Total	Rank
Category	Layer	Component	0 - 60	60 - 200	200 - 1,000			
	Total Area		709,865	627,590	212,112		1,549,566	0
Governance: Commercial Leases	Active Oil & Gas Leases		11,750	11	0		11,761	4
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Estuarine Research Reserve System	530	252	11		794	9
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Fisheries Service	609,470	403,506	150,351		1,163,327	1
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Park Service	806	913	341		2,060	8
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Wildlife Refuge System	12,543	1,211	127		13,881	3
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	State MPA	131,096	118,622	48,760		298,478	2
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	Bowers	0	365	10,525		10,890	5
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	Coral	3	42	5		47	13
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	Seamount	0	0	517		517	10

Atlantic Islands

Atlantic Islands: Map of Uses



Figure 4: Map of cumulative ocean use in Atlantic Islands region.

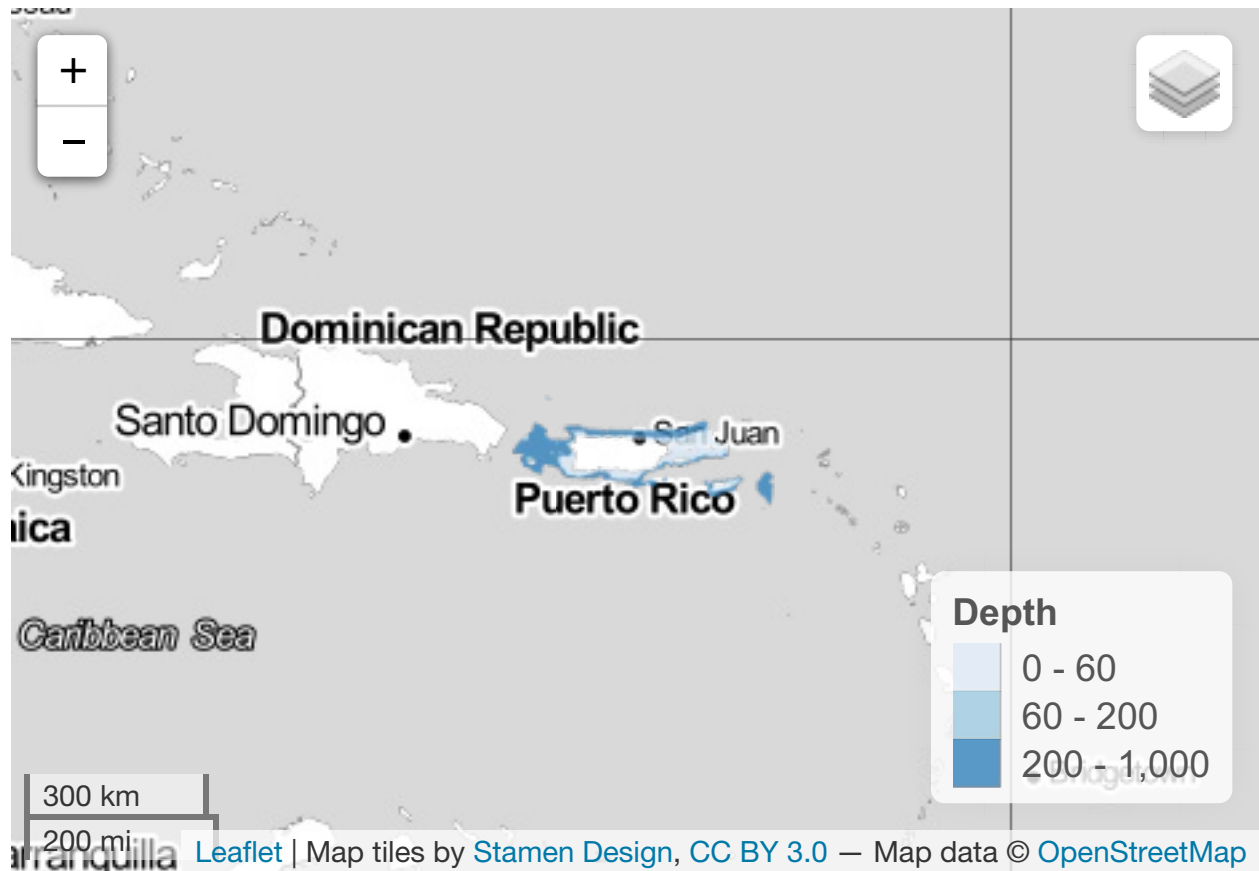


Figure 5: Map of viable depth in Atlantic Islands region.

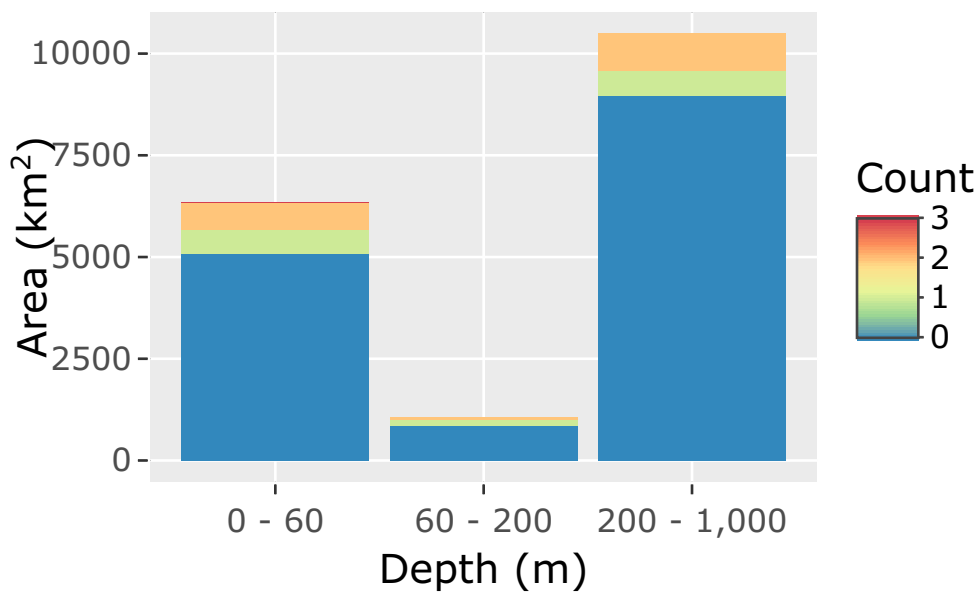


Figure 6: Area of Cumulative Ocean Use by Depth (m) for Atlantic Islands region. Cumulative use are counted and summarized by Depth (m) and area.

Atlantic Islands: Map of Depth

Atlantic Islands: Plot of Uses by Depth

Atlantic Islands: Table of Uses by Depth

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Table 2: Area (km²) of Ocean Use by Depth (m) bin for Atlantic Islands region. Width of gray horizontal bars from left of cell indicate percent area occupied in given depth bin.

Ocean Use				Area (km ²) by Depth (m)				
Category	Layer	Component	0 - 60	60 - 200	200 - 1,000	Total	Rank	
	Total Area		6,340	1,069	10,486	17,895	0	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	Marine National Monuments	66	17	24	107	5	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Estuarine Research Reserve System	2	0	0	2	7	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Fisheries Service	97	28	31	156	3	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Park Service	11	0	0	11	6	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	Puerto Rico	879	135	1,314	2,328	1	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	U S Virgin Islands	101	11	29	142	4	
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	EFH	782	77	1,045	1,905	2	

Showing 1 to 8 of 8 entries

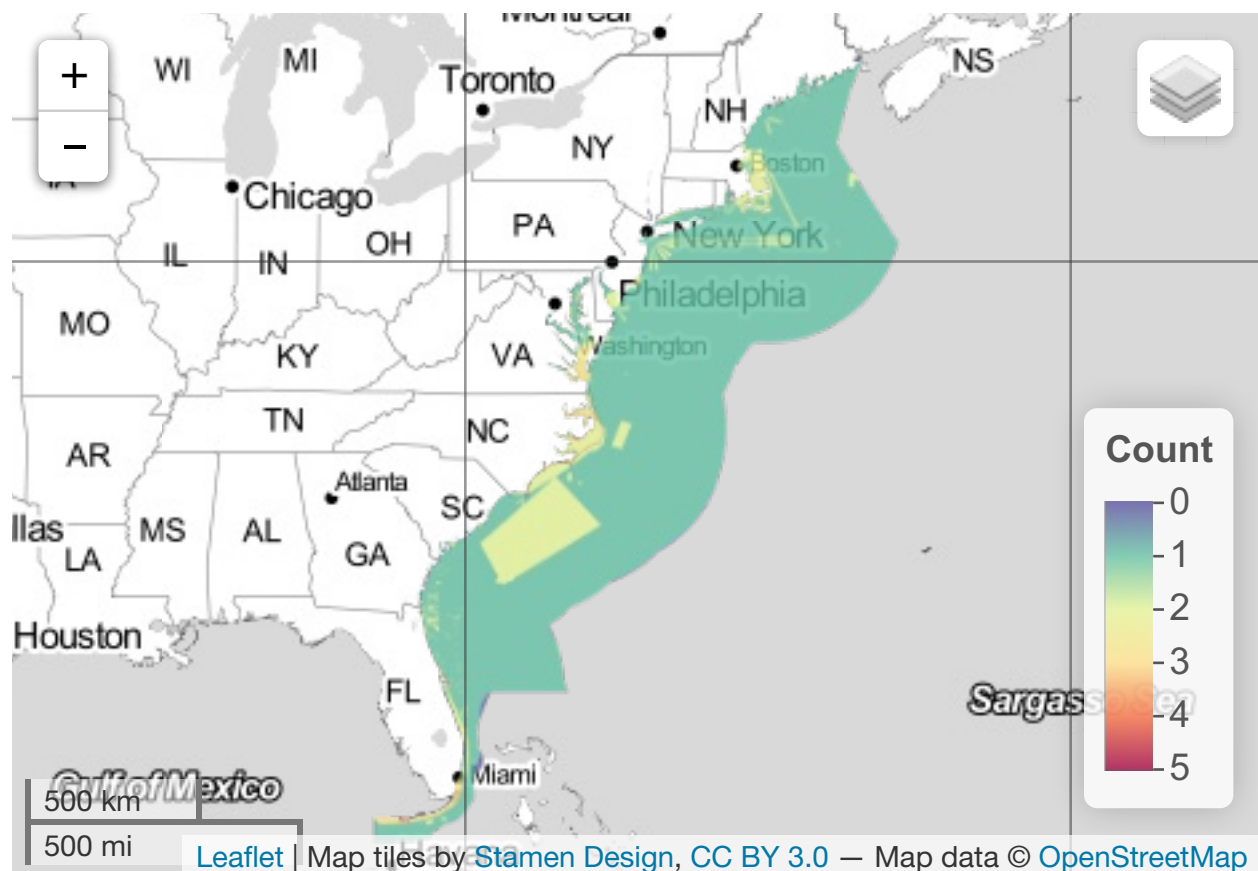


Figure 7: Map of cumulative ocean use in East region.



Figure 8: Map of viable depth in East region.

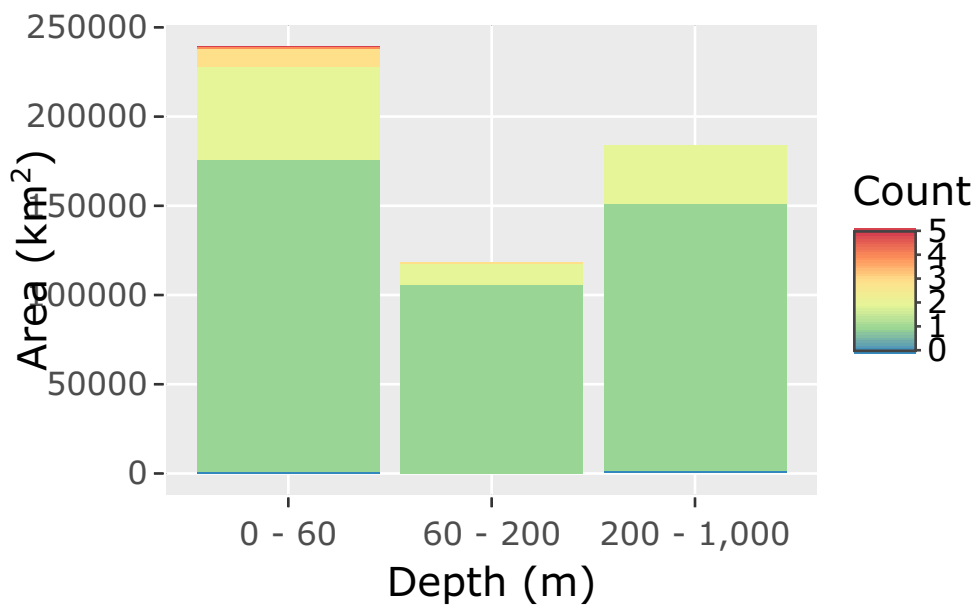


Figure 9: Area of Cumulative Ocean Use by Depth (m) for East region. Cumulative use are counted and summarized by Depth (m) and area.

East

East: Map of Uses

East: Map of Depth

East: Plot of Uses by Depth

East: Table of Uses by Depth

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Show 13 entries

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Table 3: Area (km²) of Ocean Use by Depth (m) bin for East region. Width of gray horizontal bars from left of cell indicate percent area occupied in given depth bin.

Ocean Use			Area (km ²) by Depth (m)				Total	Rank
Category	Layer	Component	0 - 60	60 - 200	200 - 1,000			
	Total Area		239,101	118,153	183,838		541,091	0
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	Marine National Monuments	1	0	0		1	12
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Estuarine Research Reserve System	625	1	0		626	9
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Fisheries Service	233,164	117,716	182,167		533,048	1
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Sanctuaries	5,265	2,113	0		7,379	5
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Park Service	1,165	0	0		1,165	6
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Wildlife Refuge System	985	0	0		985	7
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	State MPA	16,188	151	0		16,339	3
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	EFH	49,636	7,388	32,497		89,522	2
Ocean Uses: Transportation: Commercial Shipping	Shipping Lanes		6,115	3,734	4		9,854	4
	Aquaculture	Finfish	4	0	0		4	11
	Aquaculture	Other	6	0	0		6	10
	Aquaculture	Shellfish	653	0	0		653	8

Showing 1 to 13 of 13 entries



Figure 10: Map of viable wind in East region.

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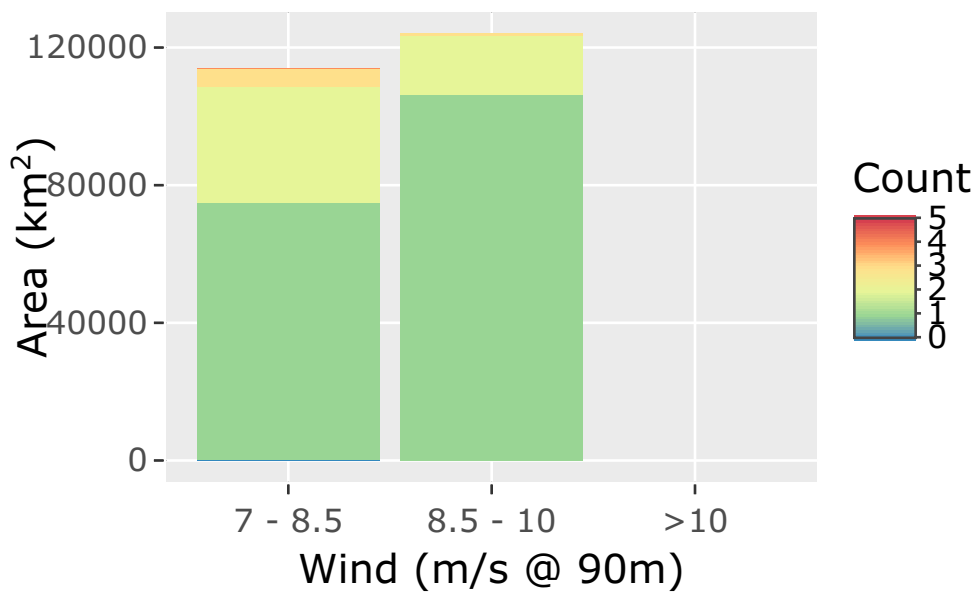


Figure 11: Area of Cumulative Ocean Use by Wind (m/s @ 90m) for East region. Cumulative use are counted and summarized by Wind (m/s @ 90m) and area.

East: Map of Wind

East: Plot of Uses by Wind

East: Table of Uses by Wind

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Show 13 entries

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Table 4: Area (km²) of Ocean Use by Wind (m/s @ 90m) bin for East region. Width of gray horizontal bars from left of cell indicate percent area occupied in given depth bin.

Ocean Use			Area (km ²) by Wind (m/s @ 90m)				
Category	Layer	Component	7 - 8.5	8.5 - 10	>10	Total	Rank
	Total Area		113,859	123,994	1	237,853	0
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	Marine National Monuments	1	0	0	1	12
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Estuarine Research Reserve System	375	0	0	375	6
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Fisheries Service	113,201	123,992	1	237,194	1
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Sanctuaries	63	2,181	0	2,244	5
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Park Service	256	12	0	268	9
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Wildlife Refuge System	259	24	0	283	8
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	State MPA	8,098	3,703	0	11,801	3
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	EFH	33,771	5,370	0	39,141	2
Ocean Uses: Transportation: Commercial Shipping	Shipping Lanes		1,504	6,868	0	8,372	4
	Aquaculture	Finfish	3	0	0	3	10
	Aquaculture	Other	1	1	0	2	11
	Aquaculture	Shellfish	320	0	0	320	7

Showing 1 to 13 of 13 entries



Figure 12: Map of cumulative ocean use in Great Lakes region.



Figure 13: Map of viable depth in Great Lakes region.

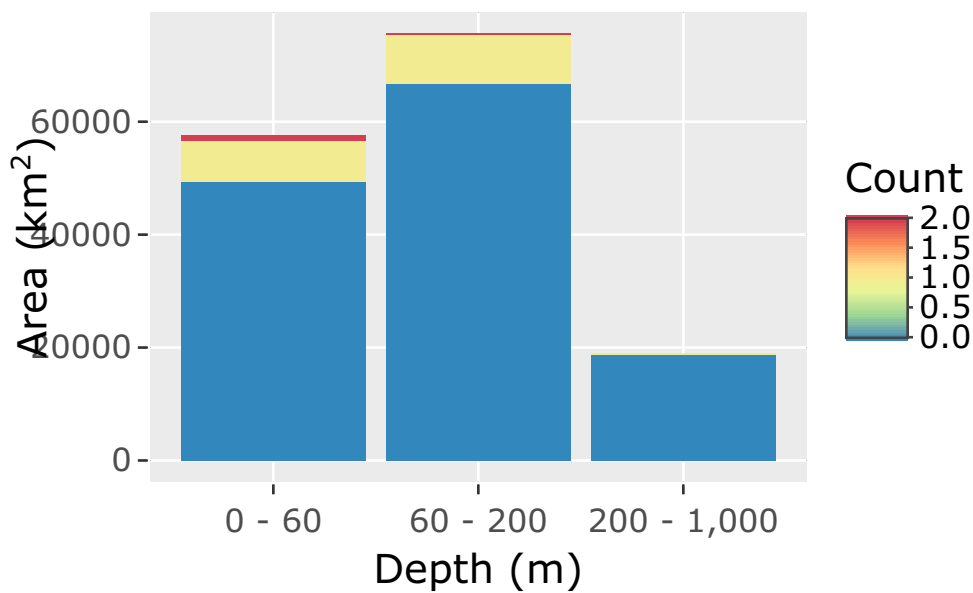


Figure 14: Area of Cumulative Ocean Use by Depth (m) for Great Lakes region. Cumulative use are counted and summarized by Depth (m) and area.

Great Lakes

Great Lakes: Map of Uses

Great Lakes: Map of Depth

Great Lakes: Plot of Uses by Depth

Great Lakes: Table of Uses by Depth

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Table 5: Area (km²) of Ocean Use by Depth (m) bin for Great Lakes region. Width of gray horizontal bars from left of cell indicate percent area occupied in given depth bin.

Ocean Use			Area (km ²) by Depth (m)				
Category	Layer	Component	0 - 60	60 - 200	200 - 1,000	Total	Rank
	Total Area		57,650	75,569	18,881	152,099	0
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Estuarine Research Reserve System	1	0	0	1	5
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Sanctuaries	3,759	7,071	83	10,913	1
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Park Service	365	1,172	117	1,655	3
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	Pennsylvania	7	0	0	7	4
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	State MPA	5,160	760	0	5,920	2

Showing 1 to 6 of 6 entries



Figure 15: Map of viable wind in Great Lakes region.

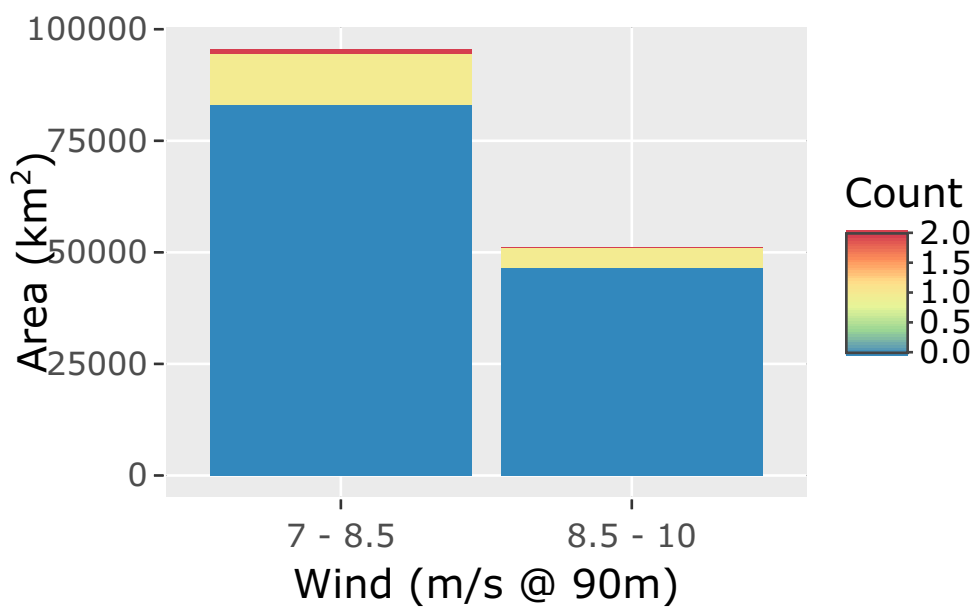


Figure 16: Area of Cumulative Ocean Use by Wind (m/s @ 90m) for Great Lakes region. Cumulative use are counted and summarized by Wind (m/s @ 90m) and area.

Great Lakes: Map of Wind

Great Lakes: Plot of Uses by Wind

Great Lakes: Table of Uses by Wind

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Table 6: Area (km²) of Ocean Use by Wind (m/s @ 90m) bin for Great Lakes region. Width of gray horizontal bars from left of cell indicate percent area occupied in given depth bin.

Ocean Use			Area (km ²) by Wind (m/s @ 90m)				
Category	Layer	Component	7 - 8.5	8.5 - 10	Total	Rank	
	Total Area		95,612	50,989	146,601	0	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Sanctuaries	6,685	4,116	10,801	1	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Park Service	1,528	11	1,540	3	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	Pennsylvania	7	0	7	4	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	State MPA	5,402	371	5,772	2	

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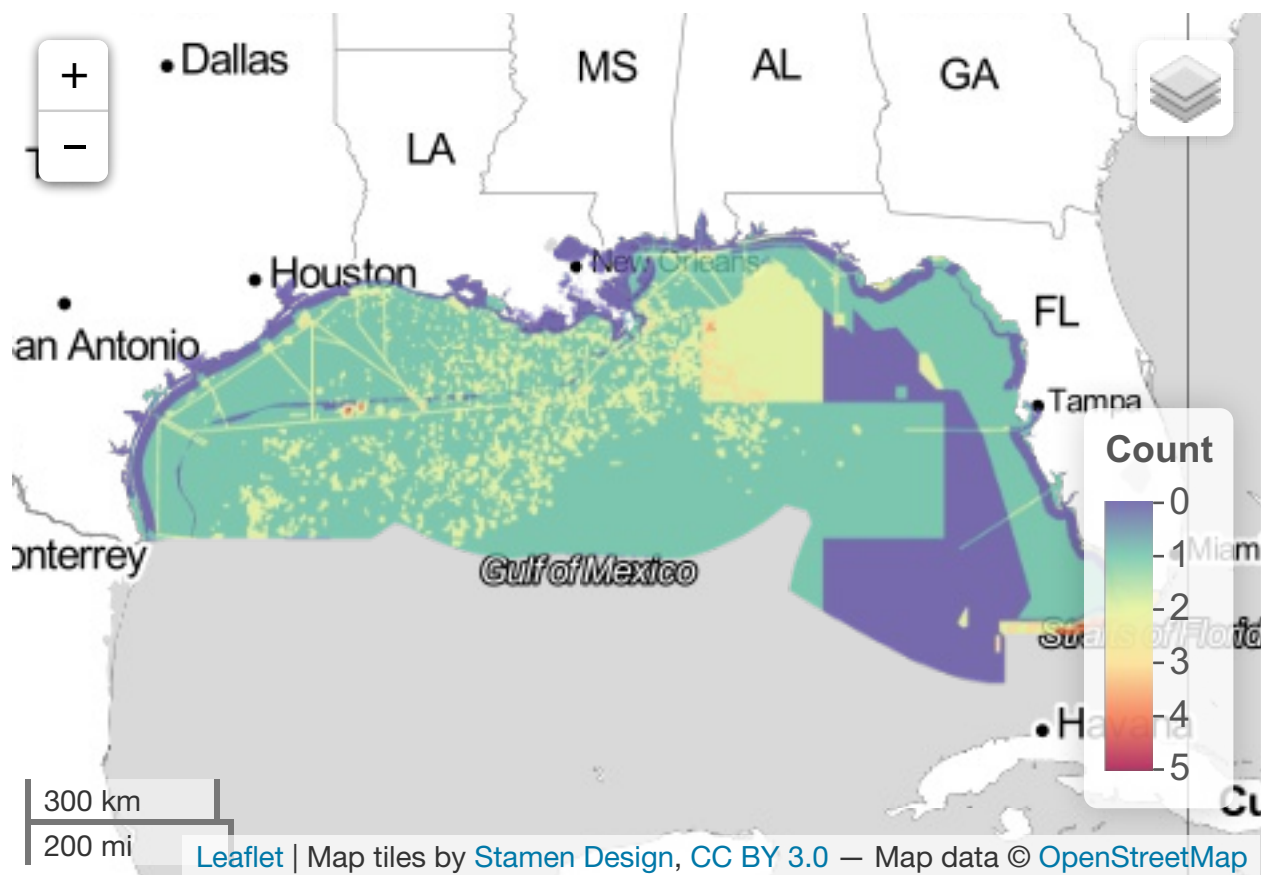


Figure 17: Map of cumulative ocean use in Gulf of Mexico region.



Figure 18: Map of viable depth in Gulf of Mexico region.

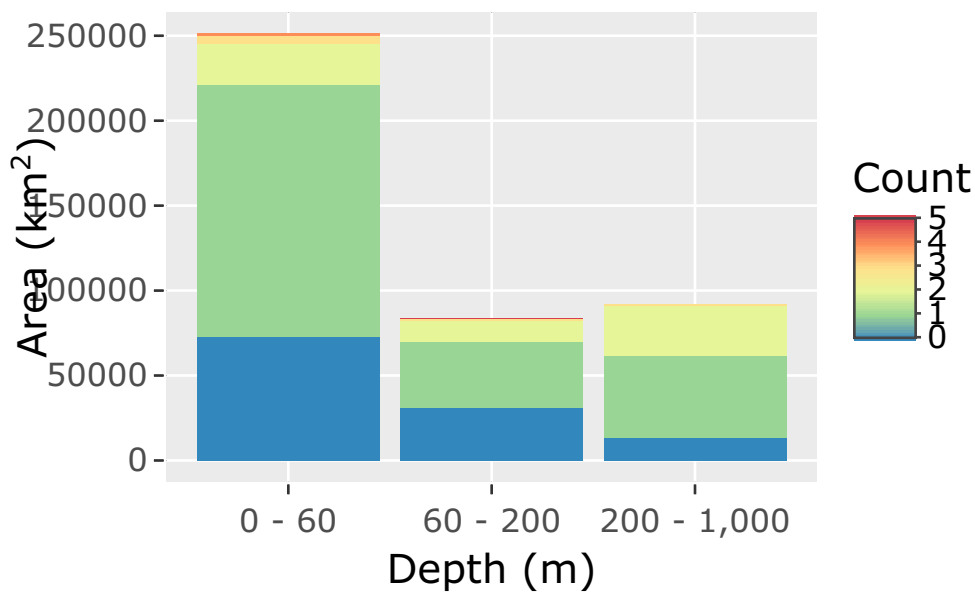


Figure 19: Area of Cumulative Ocean Use by Depth (m) for Gulf of Mexico region. Cumulative use are counted and summarized by Depth (m) and area.

Gulf of Mexico

Gulf of Mexico: Map of Uses

Gulf of Mexico: Map of Depth

Gulf of Mexico: Plot of Uses by Depth

Gulf of Mexico: Table of Uses by Depth

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Table 7: Area (km²) of Ocean Use by Depth (m) bin for Gulf of Mexico region. Width of gray horizontal bars from left of cell indicate percent area occupied in given depth bin.

Ocean Use			Area (km ²) by Depth (m)							
Category	Layer	Component	0 - 60		60 - 200		200 - 1,000		Total	Rank
	Total Area		251,128		83,535		92,050		426,713	0
Governance: Commercial Leases	Active Oil & Gas Leases		12,432		6,239		8,747		27,418	3
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	Bureau of Ocean Energy Management	437		1,642		561		2,640	8
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Estuarine Research Reserve System	996		0		0		996	10
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Fisheries Service	160,632		38,070		31,435		230,137	1
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Sanctuaries	4,283		201		55		4,539	6
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Park Service	2,737		0		0		2,737	7
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Wildlife Refuge System	2,257		11		0		2,268	9
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	State MPA	11,640		0		0		11,640	5
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	EFH	7,437		18,711		66,459		92,607	2
Ocean Uses: Transportation: Commercial Shipping	Shipping Lanes		12,343		2,687		2,309		17,338	4
	Aquaculture	Other	5		0		0		5	12
	Aquaculture	Shellfish	13		0		0		13	11

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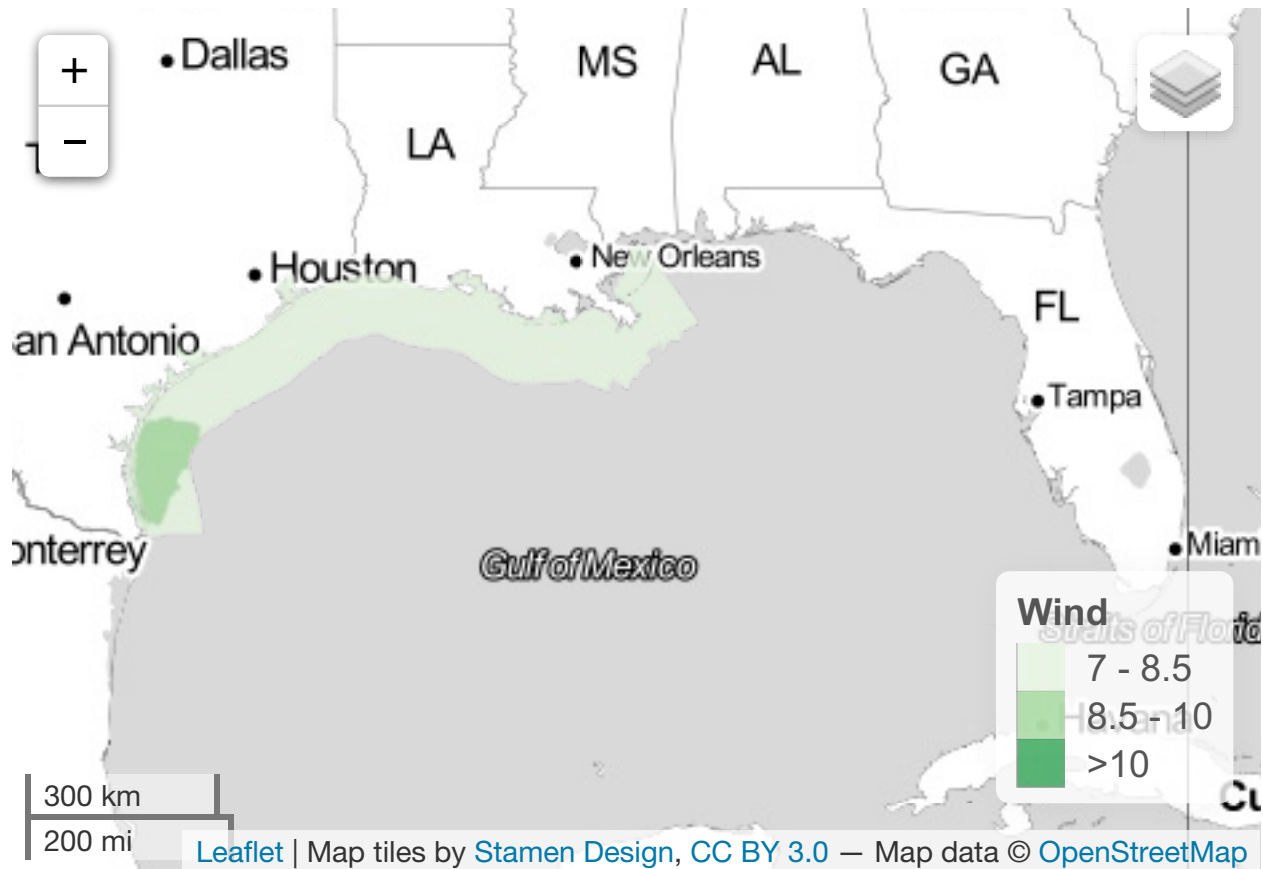


Figure 20: Map of viable wind in Gulf of Mexico region.

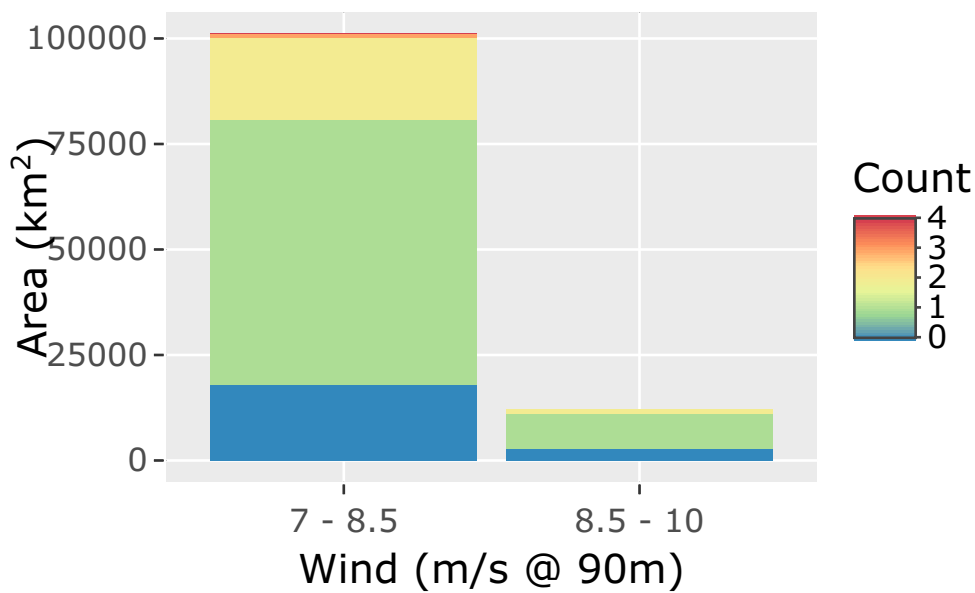


Figure 21: Area of Cumulative Ocean Use by Wind (m/s @ 90m) for Gulf of Mexico region. Cumulative use are counted and summarized by Wind (m/s @ 90m) and area.

Gulf of Mexico: Map of Wind

Gulf of Mexico: Plot of Uses by Wind

Gulf of Mexico: Table of Uses by Wind

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Table 8: Area (km²) of Ocean Use by Wind (m/s @ 90m) bin for Gulf of Mexico region. Width of gray horizontal bars from left of cell indicate percent area occupied in given depth bin.

Ocean Use			Area (km ²) by Wind (m/s @ 90m)				
Category	Layer	Component	7 - 8.5	8.5 - 10	Total	Rank	
	Total Area		101,108	12,235	113,343	0	
Governance: Commercial Leases	Active Oil & Gas Leases		14,643	0	14,643	2	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	Bureau of Ocean Energy Management	618	0	618	6	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Estuarine Research Reserve System	420	0	420	8	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Fisheries Service	68,618	8,459	77,077	1	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Park Service	239	0	239	9	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Wildlife Refuge System	465	183	648	5	
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	State MPA	519	0	519	7	
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	EFH	11,544	888	12,433	3	
Ocean Uses: Transportation: Commercial Shipping	Shipping Lanes		7,340	1,186	8,527	4	

Showing 1 to 10 of 10 entries

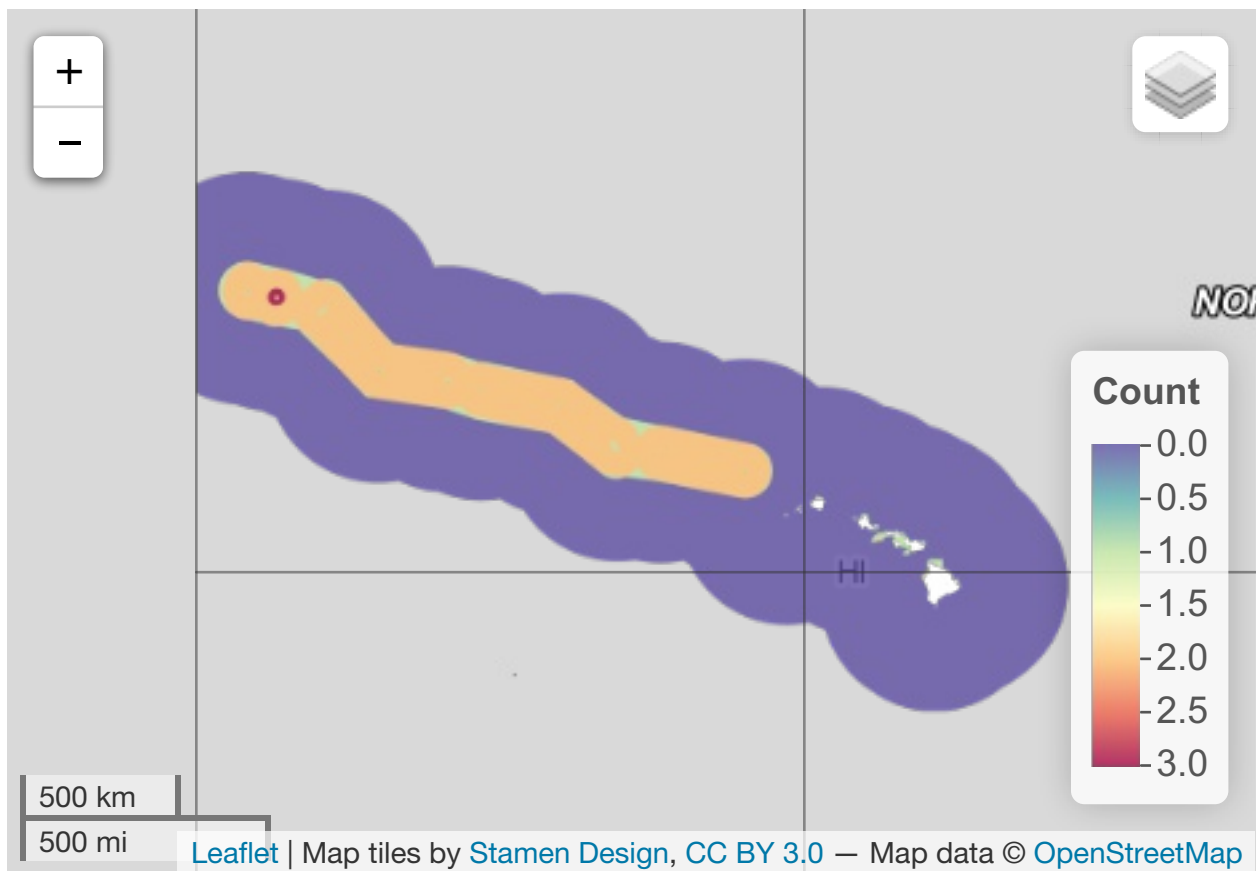


Figure 22: Map of cumulative ocean use in Hawaii region.

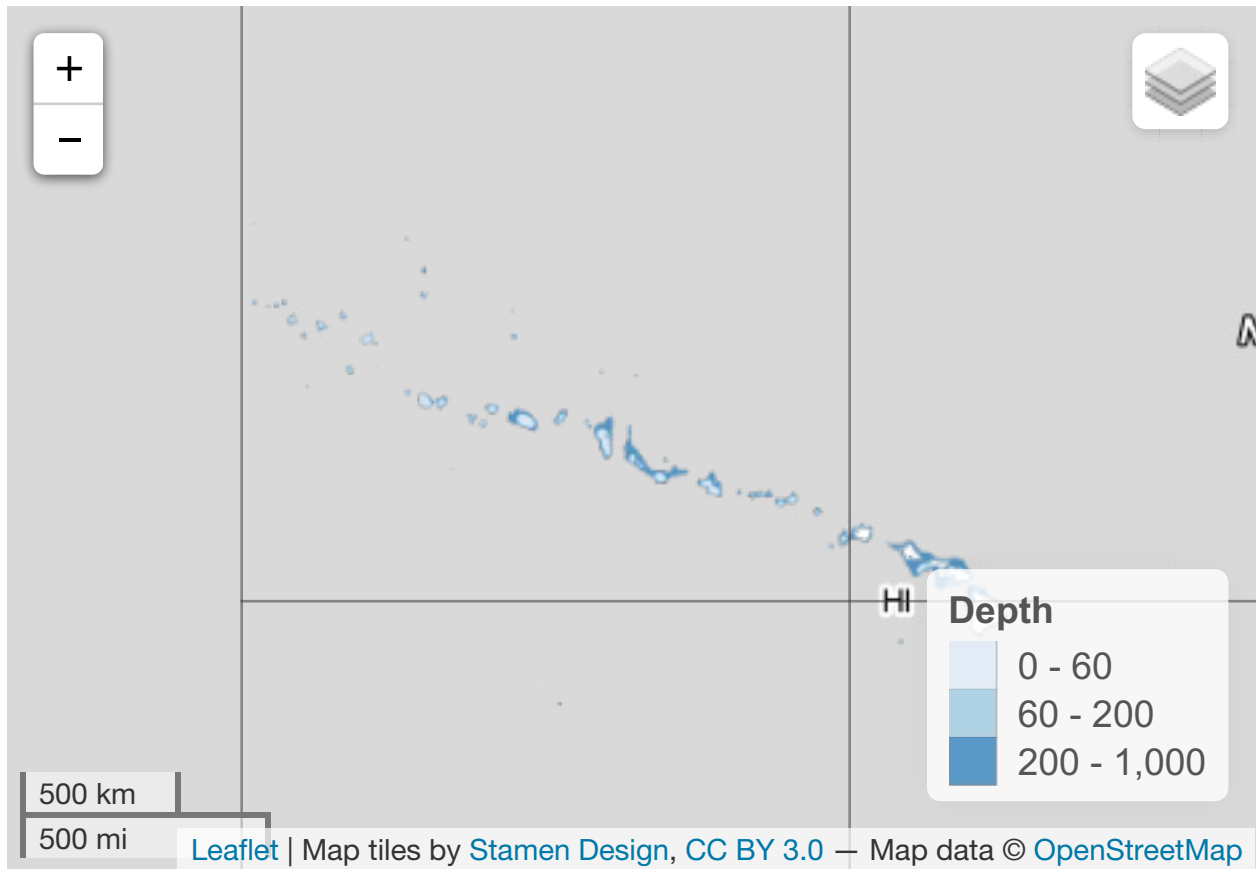


Figure 23: Map of viable depth in Hawaii region.

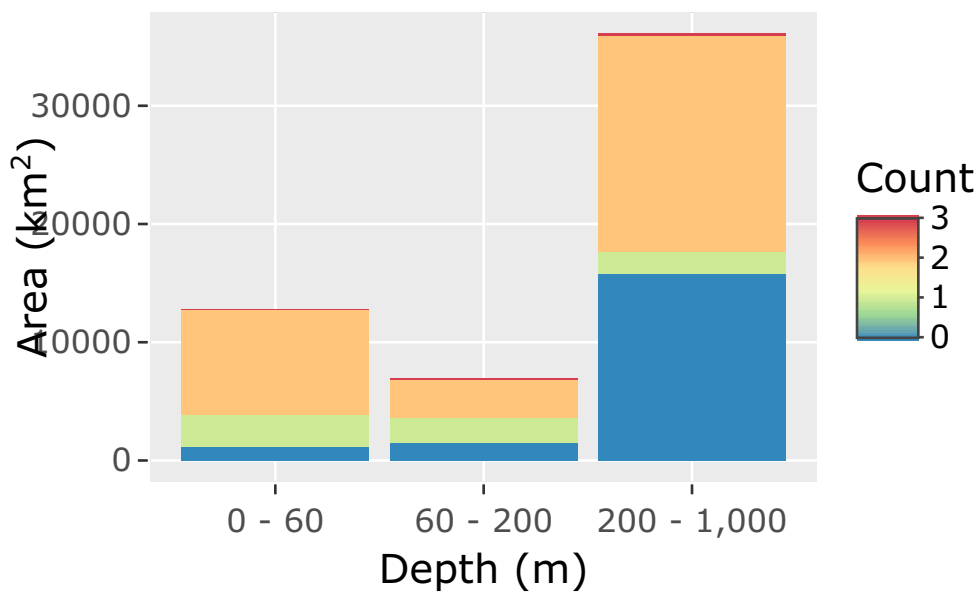


Figure 24: Area of Cumulative Ocean Use by Depth (m) for Hawaii region. Cumulative use are counted and summarized by Depth (m) and area.

Hawaii

Hawaii: Map of Uses

Hawaii: Map of Depth

Hawaii: Plot of Uses by Depth

Hawaii: Table of Uses by Depth

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Table 9: Area (km²) of Ocean Use by Depth (m) bin for Hawaii region. Width of gray horizontal bars from left of cell indicate percent area occupied in given depth bin.

Ocean Use			Area (km ²) by Depth (m)				Rank
Category	Layer	Component	0 - 60	60 - 200	200 - 1,000	Total	
	Total Area		12,800	6,968	36,084	55,852	0
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	Marine National Monuments	10,120	3,300	18,622	32,042	1
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Fisheries Service	8,711	3,094	18,443	30,248	2
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Sanctuaries	1,394	1,763	220	3,378	3
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Park Service	4	0	0	4	6
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Wildlife Refuge System	165	173	200	538	5
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	State MPA	208	622	1,407	2,238	4

Showing 1 to 7 of 7 entries

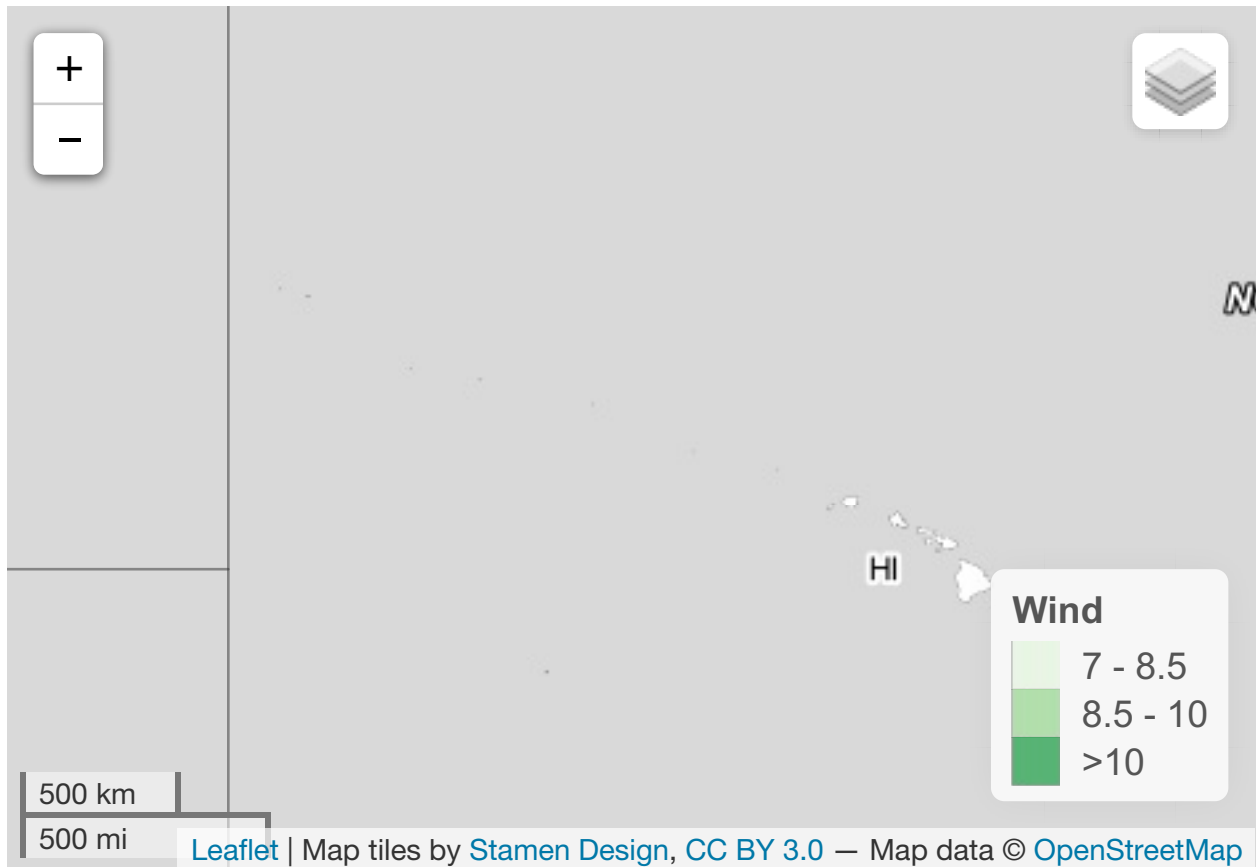


Figure 25: Map of viable wind in Hawaii region.

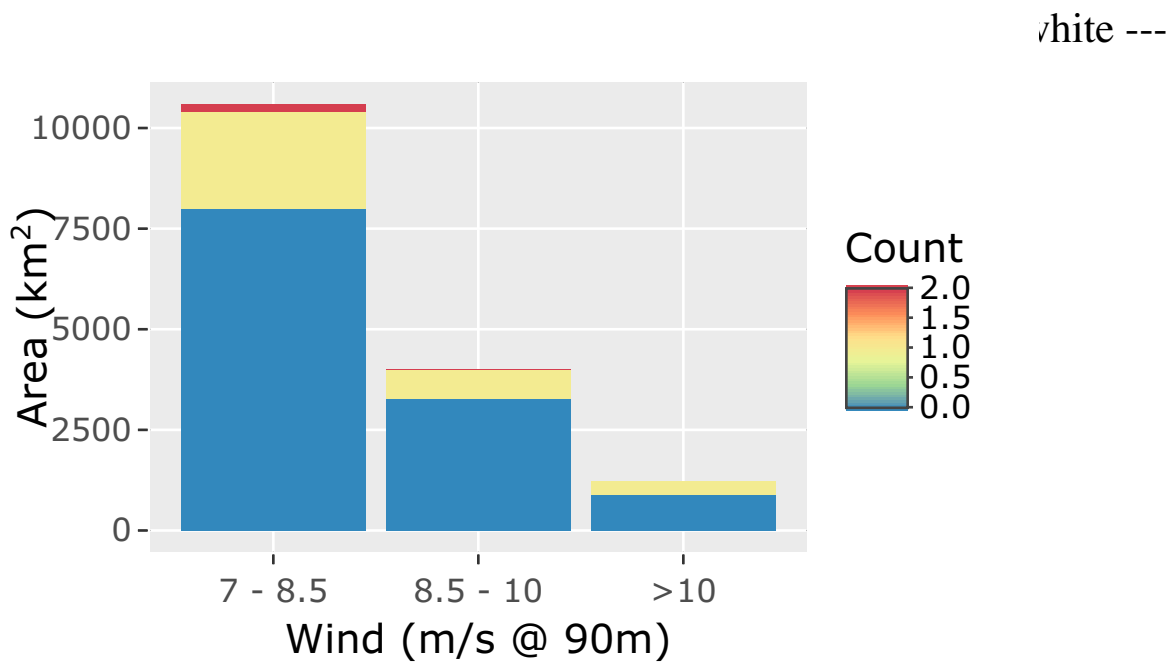


Figure 26: Area of Cumulative Ocean Use by Wind (m/s @ 90m) for Hawaii region. Cumulative use are counted and summarized by Wind (m/s @ 90m) and area.

Hawaii: Map of Wind

Hawaii: Plot of Uses by Wind

Hawaii: Table of Uses by Wind

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Table 10: Area (km²) of Ocean Use by Wind (m/s @ 90m) bin for Hawaii region. Width of gray horizontal bars from left of cell indicate percent area occupied in given depth bin.

Ocean Use			Area (km ²) by Wind (m/s @ 90m)						
Category	Layer	Component	7 - 8.5	8.5 - 10	>10	Total	Rank		
	Total Area		10,601	3,999	1,217	15,818	0		
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Sanctuaries	1,441	453	304	2,199	1		
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Park Service	2	0	0	2	3		
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	State MPA	1,369	284	39	1,691	2		

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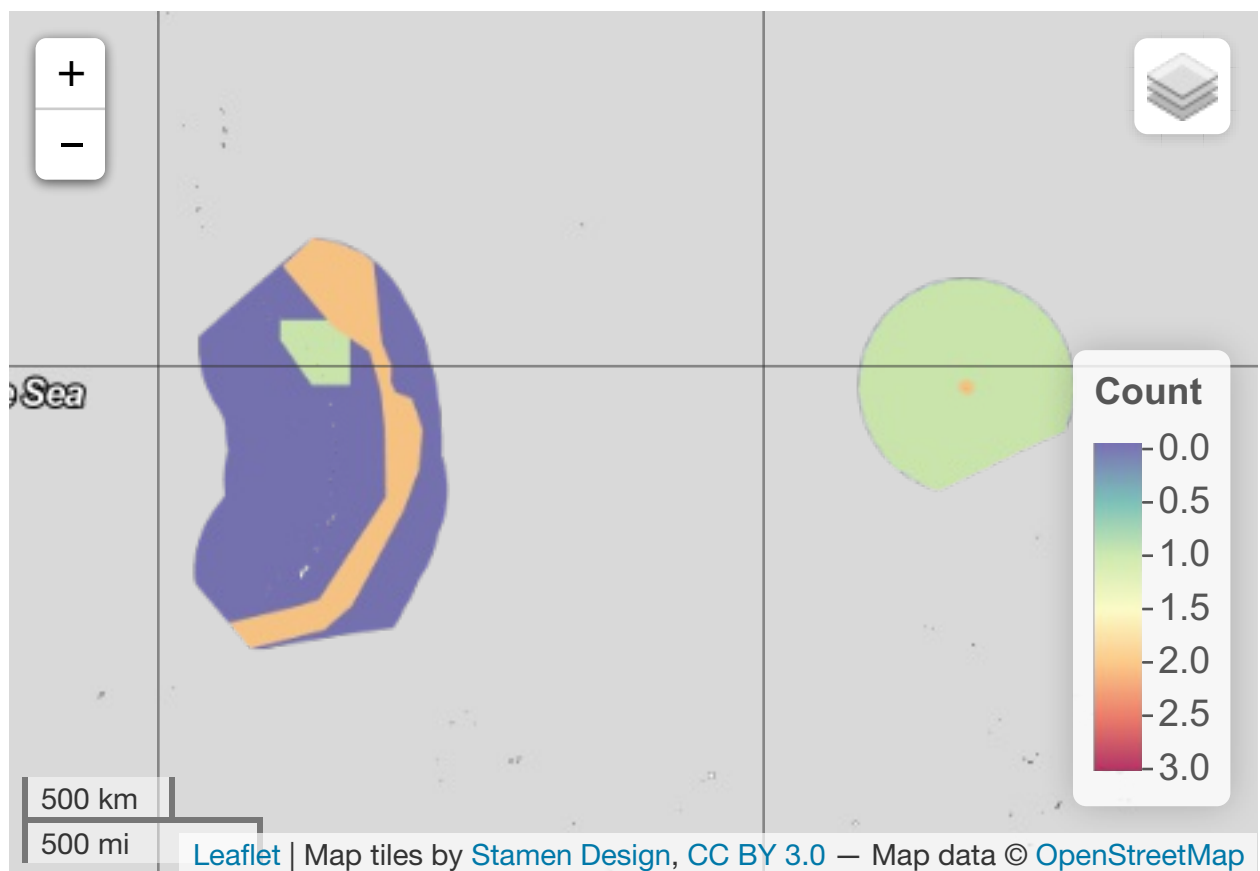


Figure 27: Map of cumulative ocean use in Pacific Islands region.

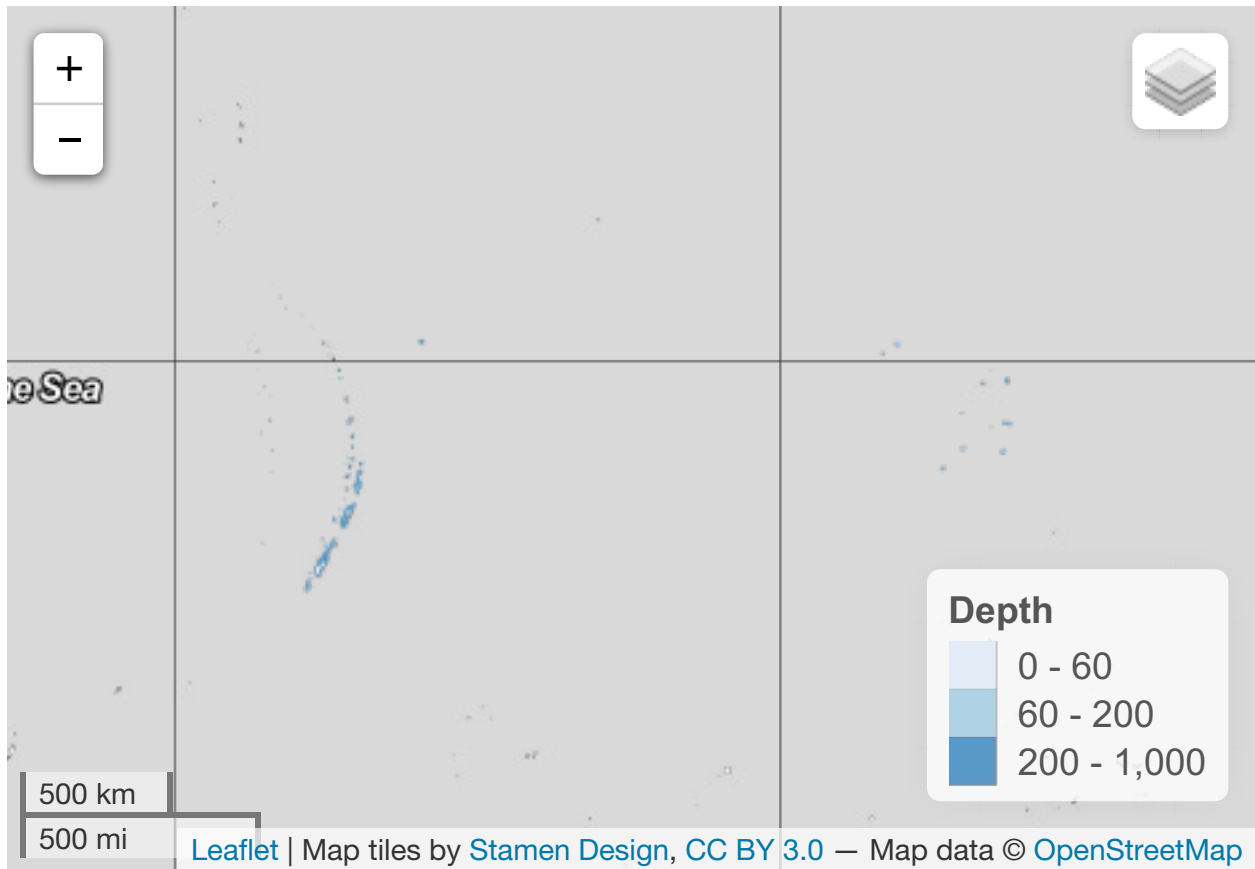


Figure 28: Map of viable depth in Pacific Islands region.

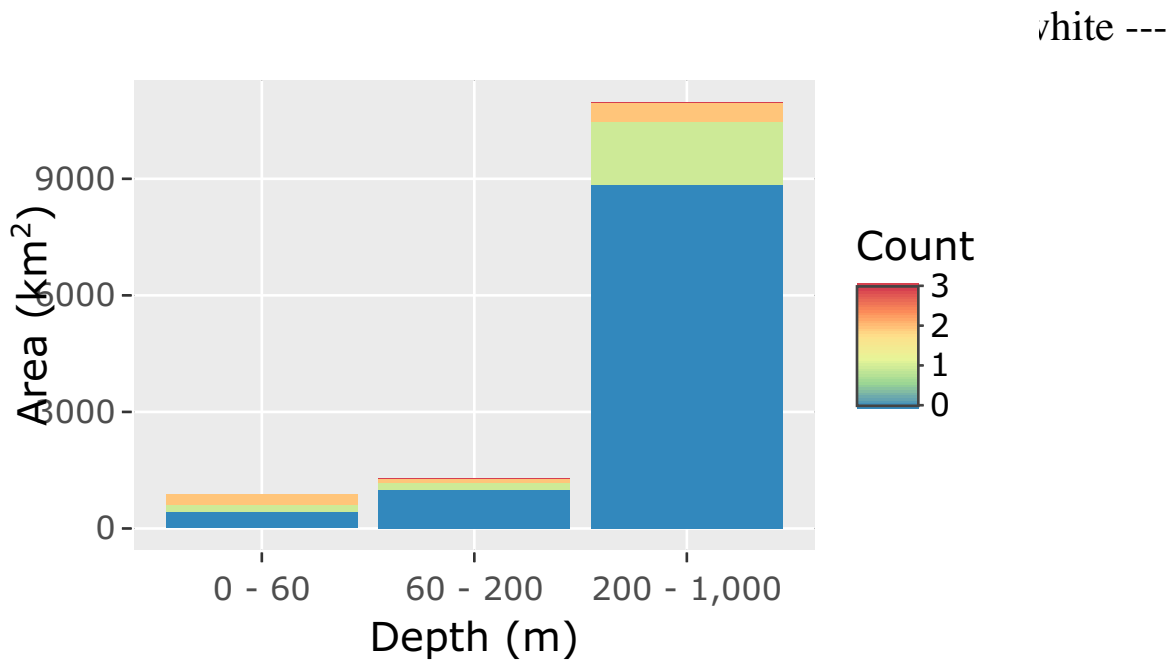


Figure 29: Area of Cumulative Ocean Use by Depth (m) for Pacific Islands region. Cumulative use are counted and summarized by Depth (m) and area.

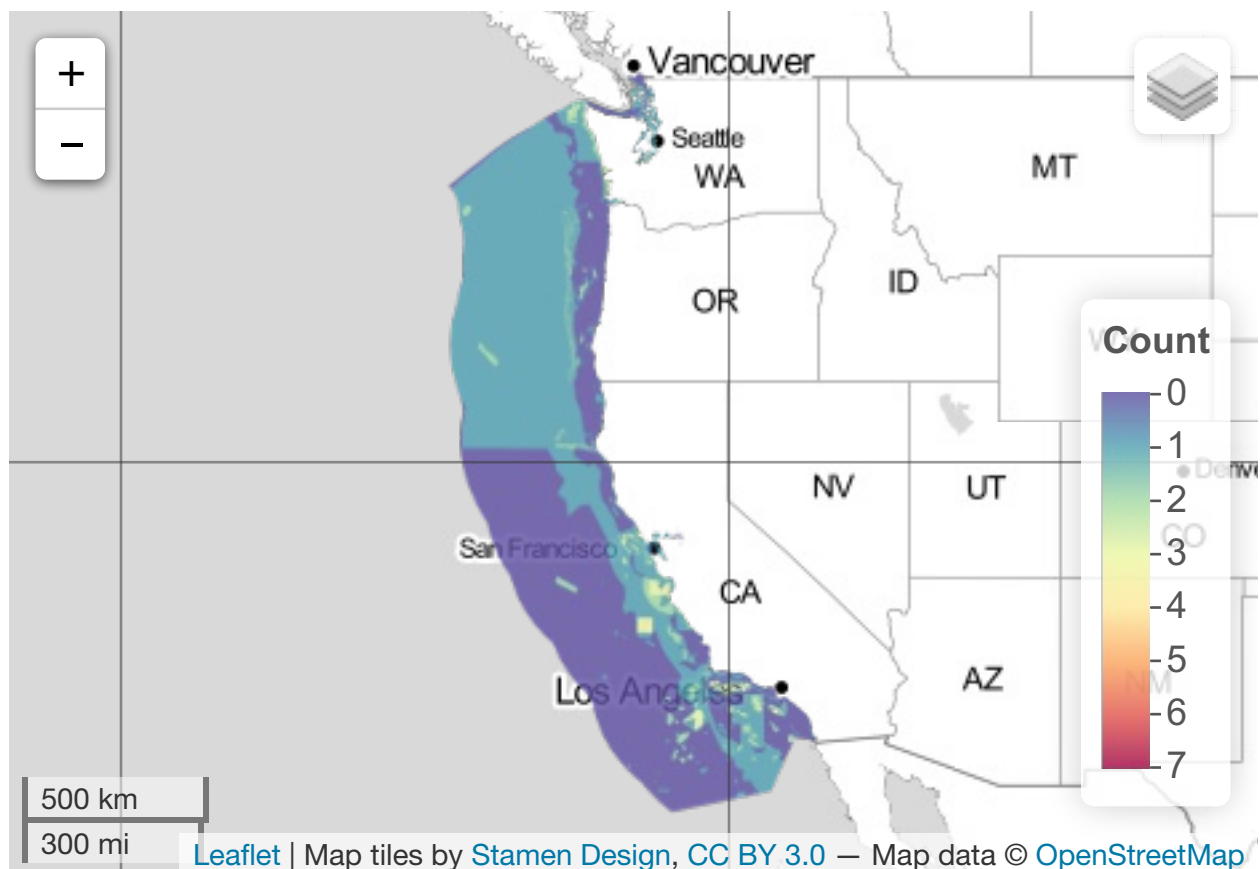


Figure 30: Map of cumulative ocean use in West region.



Figure 31: Map of viable depth in West region.

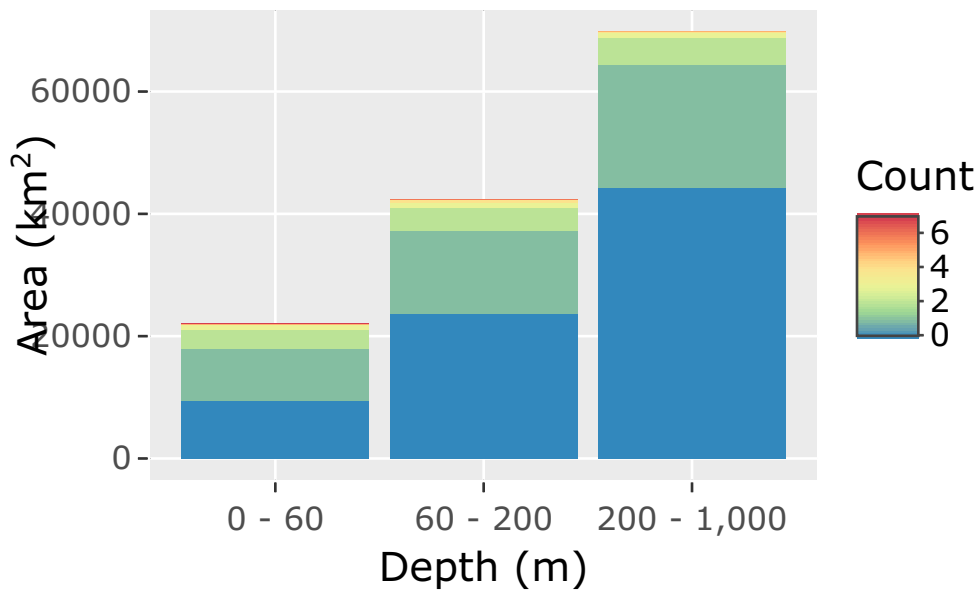


Figure 32: Area of Cumulative Ocean Use by Depth (m) for West region. Cumulative use are counted and summarized by Depth (m) and area.

West

West: Map of Uses

West: Map of Depth

West: Plot of Uses by Depth

West: Table of Uses by Depth

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Table 12: Area (km²) of Ocean Use by Depth (m) bin for West region. Width of gray horizontal bars from left of cell indicate percent area occupied in given depth bin.

Ocean Use			Area (km ²) by Depth (m)				Total	Rank
Category	Layer	Component	0 - 60	60 - 200	200 - 1,000			
	Total Area		22,032	42,357	69,766	134,156		0
Governance: Commercial Leases	Active Oil & Gas Leases		118	355	394	867		8
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	Bureau of Ocean Energy Management	26	100	100	227		12
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Estuarine Research Reserve System	45	0	0	45		14
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Fisheries Service	919	5,157	15,047	21,123		2
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Sanctuaries	5,758	11,132	7,556	24,446		1
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Park Service	357	81	2	440		11
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Wildlife Refuge System	195	9	2	206		13
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	State MPA	2,512	2,205	355	5,071		5
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	Canopy Kelp	818	27	1	847		9
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	Estuaries	3,307	968	77	4,352		6
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	Groundfish	2,256	1,052	2,322	5,630		4
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	Rocky Reefs	951	3,540	4,813	9,304		3
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	Seagrass	504	1	0	505		10
Ocean Uses: Transportation: Commercial Shipping	Shipping Lanes		215	971	1,256	2,442		7
	Aquaculture	Shellfish	3	0	0	3		15

Showing 1 to 16 of 16 entries

West: Map of Wind

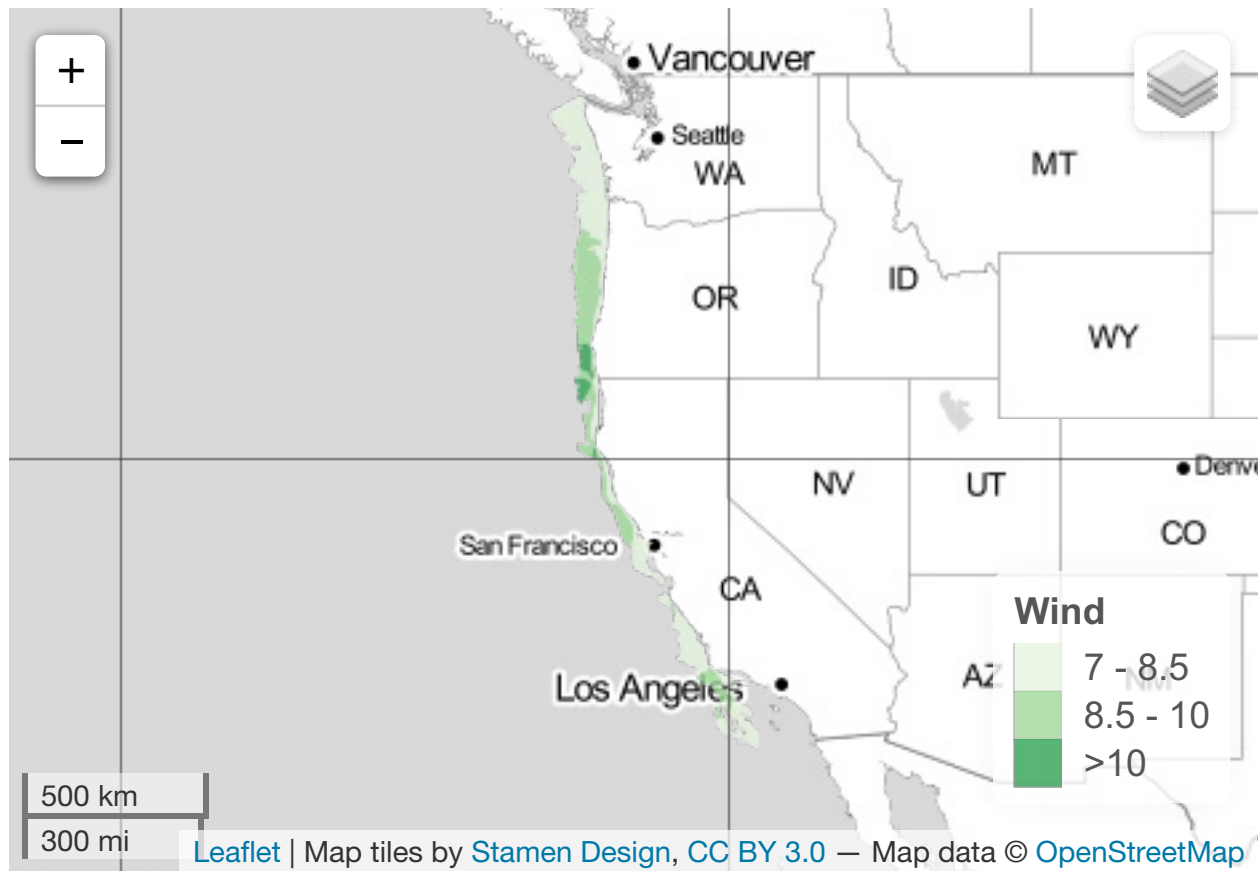


Figure 33: Map of viable wind in West region.

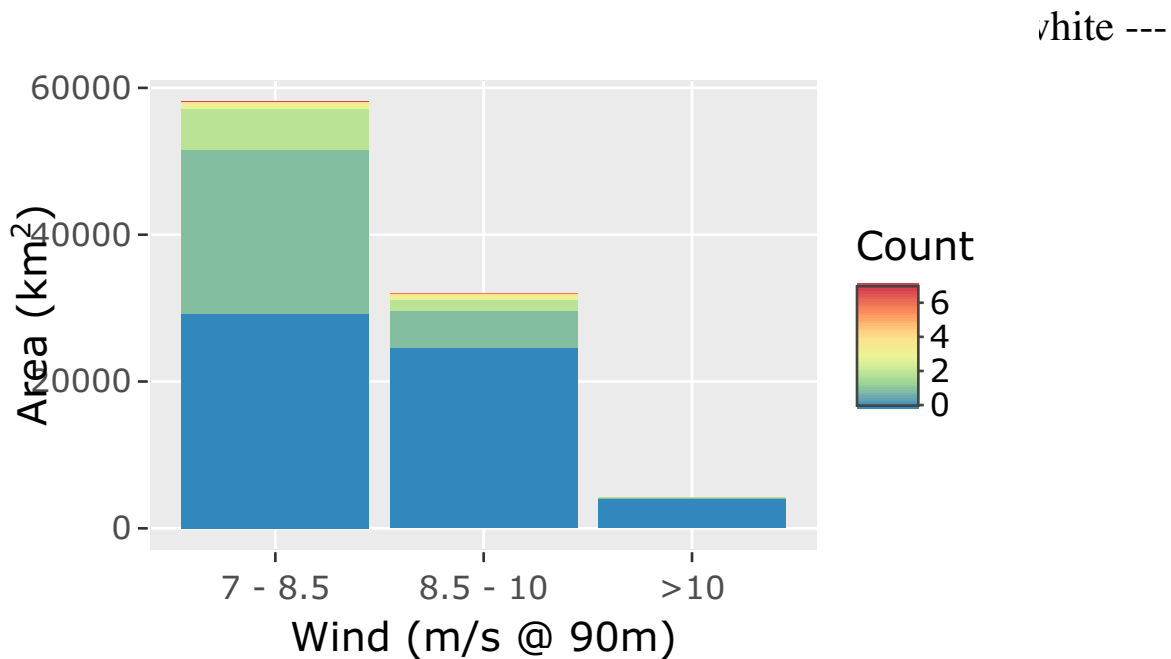


Figure 34: Area of Cumulative Ocean Use by Wind (m/s @ 90m) for West region. Cumulative use are counted and summarized by Wind (m/s @ 90m) and area.

West: Plot of Uses by Wind

West: Table of Uses by Wind

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Show 13 entries

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Table 13: Area (km²) of Ocean Use by Wind (m/s @ 90m) bin for West region. Width of gray horizontal bars from left of cell indicate percent area occupied in given depth bin.

Ocean Use			Area (km ²) by Wind (m/s @ 90m)					Total	Rank
Category	Layer	Component	7 - 8.5	8.5 - 10	>10				
	Total Area		58,121	32,006	4,231			94,357	0
Governance: Commercial Leases	Active Oil & Gas Leases		212	14	0			226	9
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Fisheries Service	10,171	3,645	9			13,826	2
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Marine Sanctuaries	16,754	2,879	0			19,634	1
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Park Service	208	66	0			274	8
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	National Wildlife Refuge System	4	0	0			4	12
Governance: Marine Protected Areas (MPAs)	Marine Protected Areas	State MPA	1,512	491	5			2,008	5
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	Canopy Kelp	138	29	0			167	10
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	Estuaries	34	387	0			387	7
Living Resources: Biological Occurrence: Fishes	Essential Fish Habitat	Groundfish	2,411	942	0			3,353	4