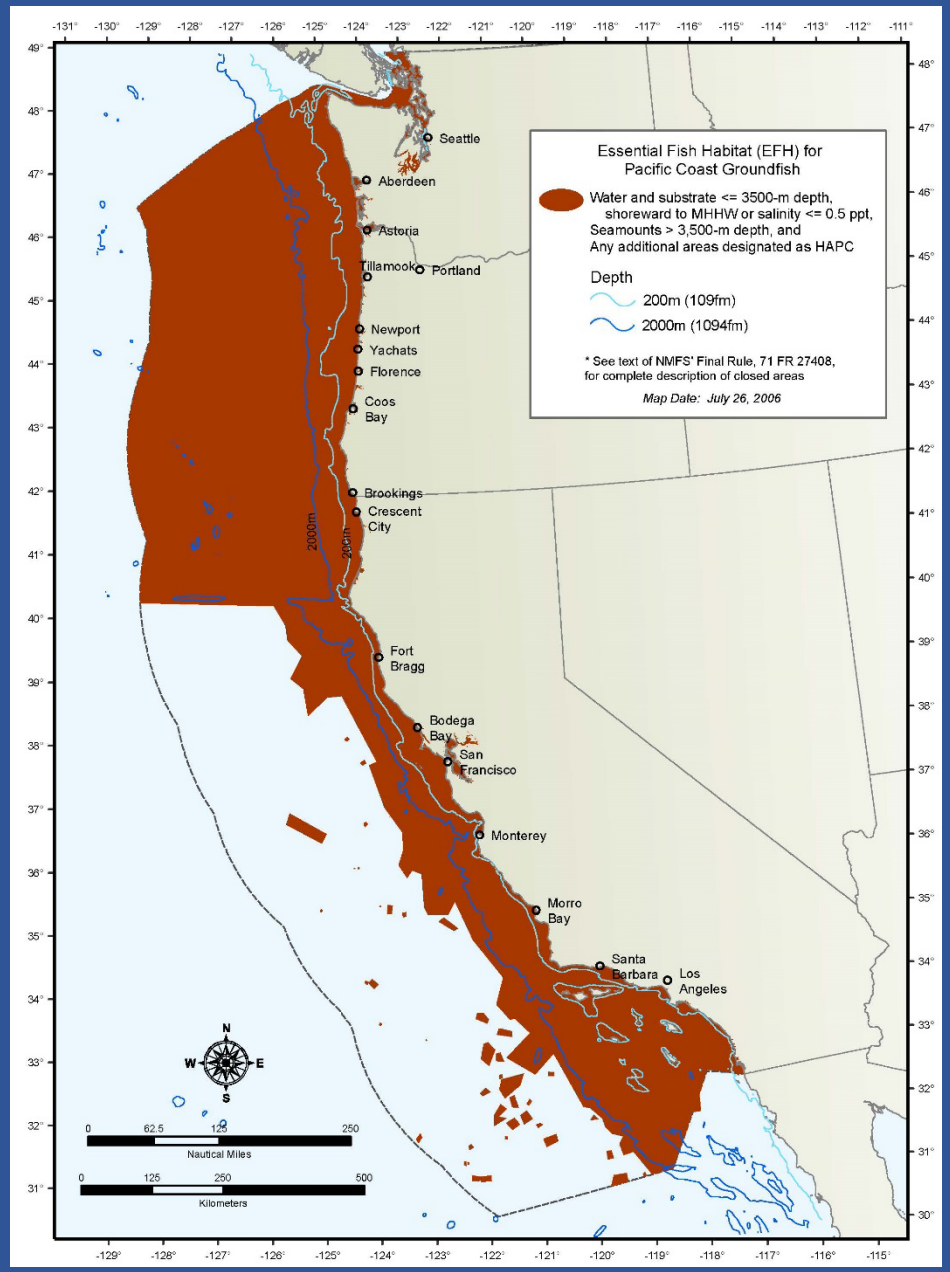
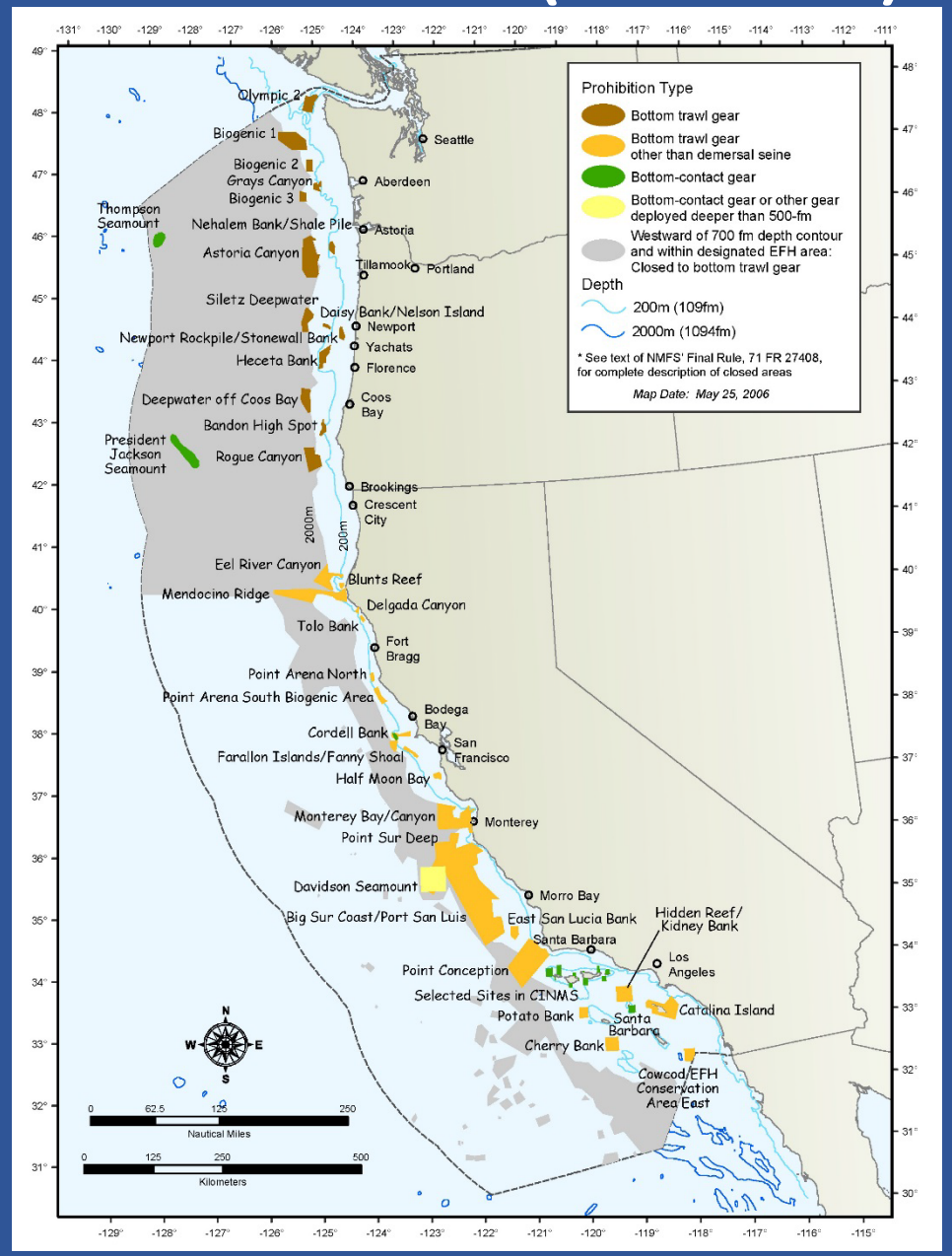
Pacific Coast Groundfish

Consideration of Modifying Essential Fish Habitat and Rockfish Conservation Areas

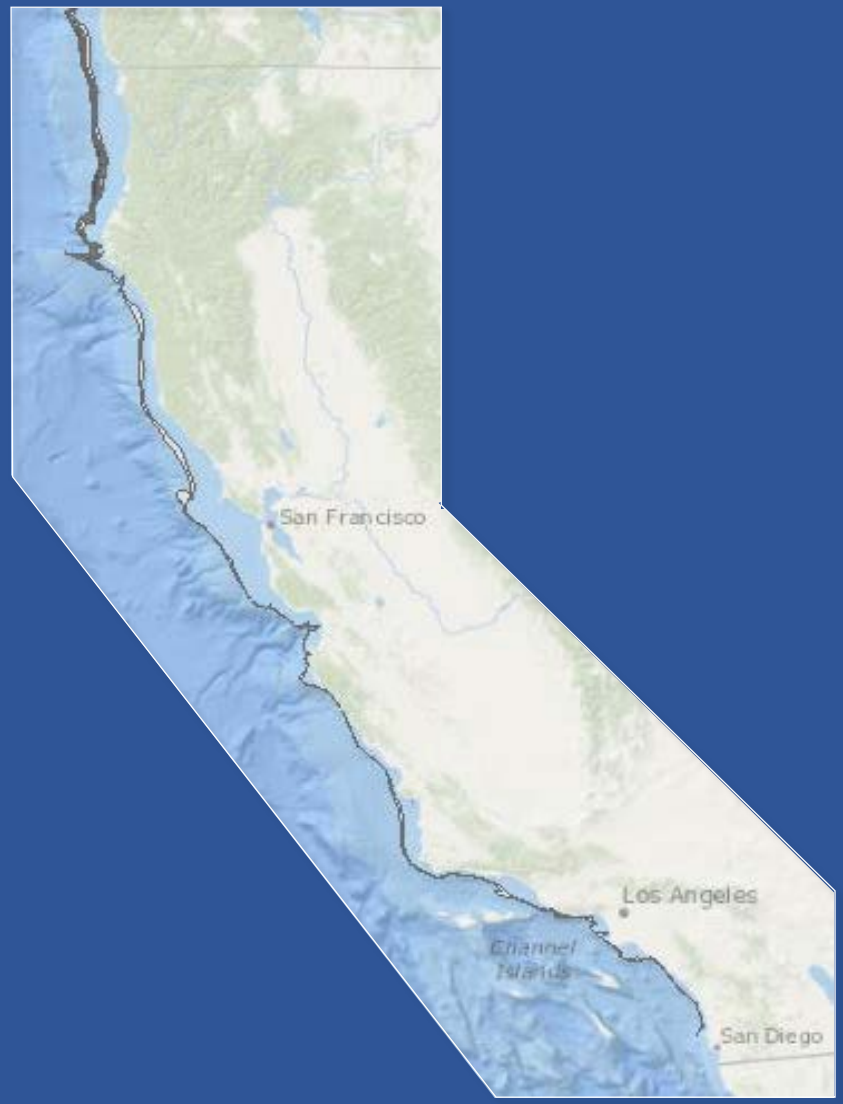
- Background/Overview
- Alternatives
- Analytical Approach
- Progress Report
- Guidance & Next Steps

Current EFH & EFH Conservation Areas (EFHCAs)





Trawl Rockfish Conservation Areas



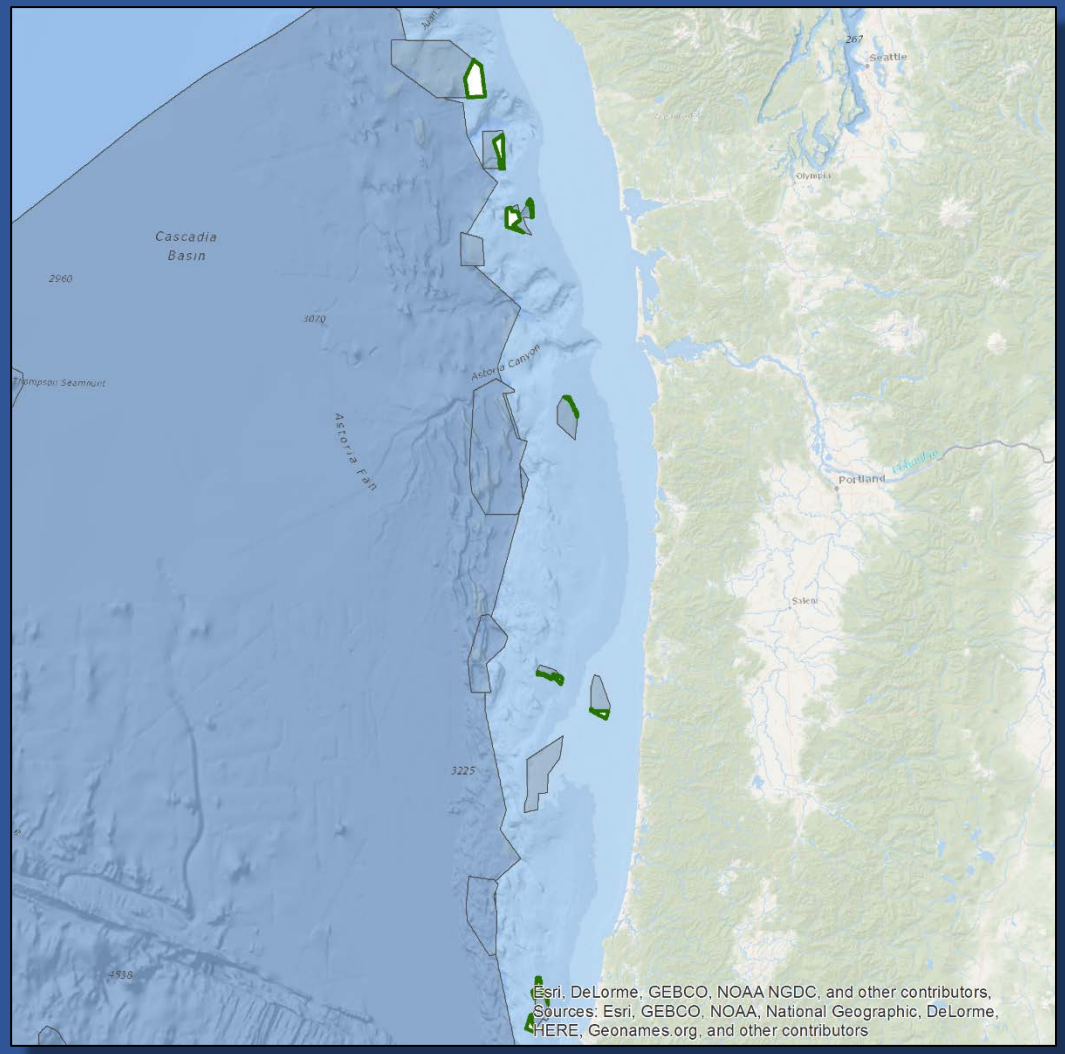
Alternatives: Fishery Management Actions

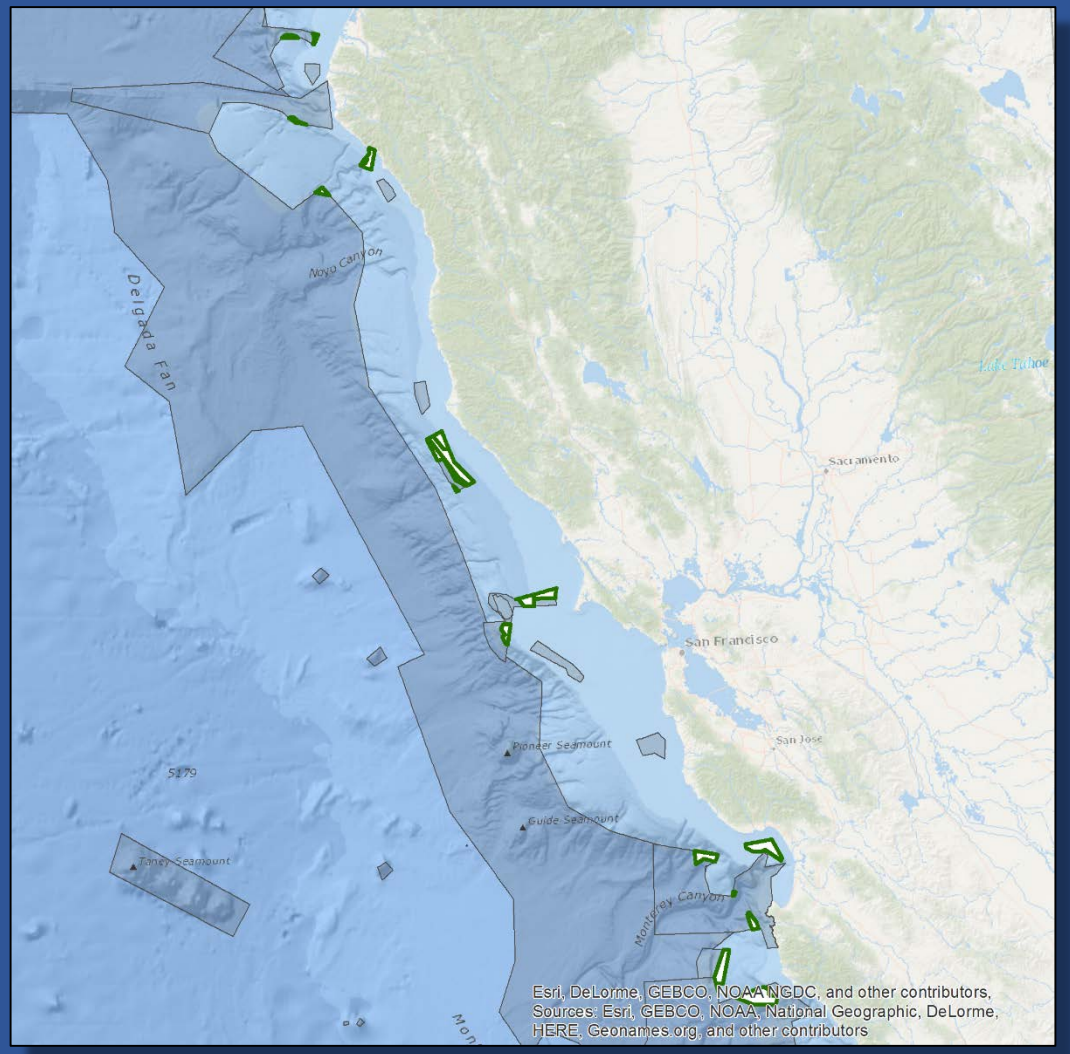
Subject Area	ALTERNATIVES								
1. EFHCA changes contained in public proposals (re-openings and new closures)	1.a No Action	1.b Open some or all of EFHCAs	1.c Collaborative	1.d Greenpeace	1.e MCI	1.f Oceana, et al.	1.g FMA	1.h GFNMS	1.i MBNMS
		1.b.i Open some or all of EFHCAs exclusive of the U&A	1.c.i Collaborative, exclusive of the U&A	1.d.i Greenpeace, exclusive of the U&A	1.e.i MCI, exclusive of the U&A	1.f.i Oceana, et al. , exclusive of the U&A			
2. New EFHCAs within current RCAs	2.a No Action	2.b Add new EFHCAs within the trawl RCA, based on verification of the presence of priority habitats			2.c Add new EFHCAs within the trawl RCA, where there is either verification of priority habitats, or when modeling indicates the likelihood of priority habitats.				
		2.b.i Add new EFHCAs within the trawl RCA, based on verification of the presence of priority habitats, exclusive of the U&A			2.c.i Add new EFHCAs within the trawl RCA, where there is either verification of priority habitats, or when modeling indicates the likelihood of priority habitats, exclusive of the U&A.				

Alternatives: Fishery Management Actions 2

Subject Area	ALTERNATIVES			
3. Adjustments to Trawl RCA*	3.a No Action	3.b Remove the trawl RCA	3c Discrete area closures for overfished species	3.d Block area closures for overfished species and non-overfished species,
4. Use MSA Sec. 303(b) discretionary authorities	4.a No Action	4.b Use MSA Sec. 303(b)(2)(A), 303(b)(2)(B), or 303(b)(12) to close waters deeper than 3,500 m to bottom contact gear, consistent with September 2015 Agenda Item H.8.a, Supplemental NMFS Report.		

Alternative 1b: Open some or all of the EFHCAs identified for opening in the public proposals





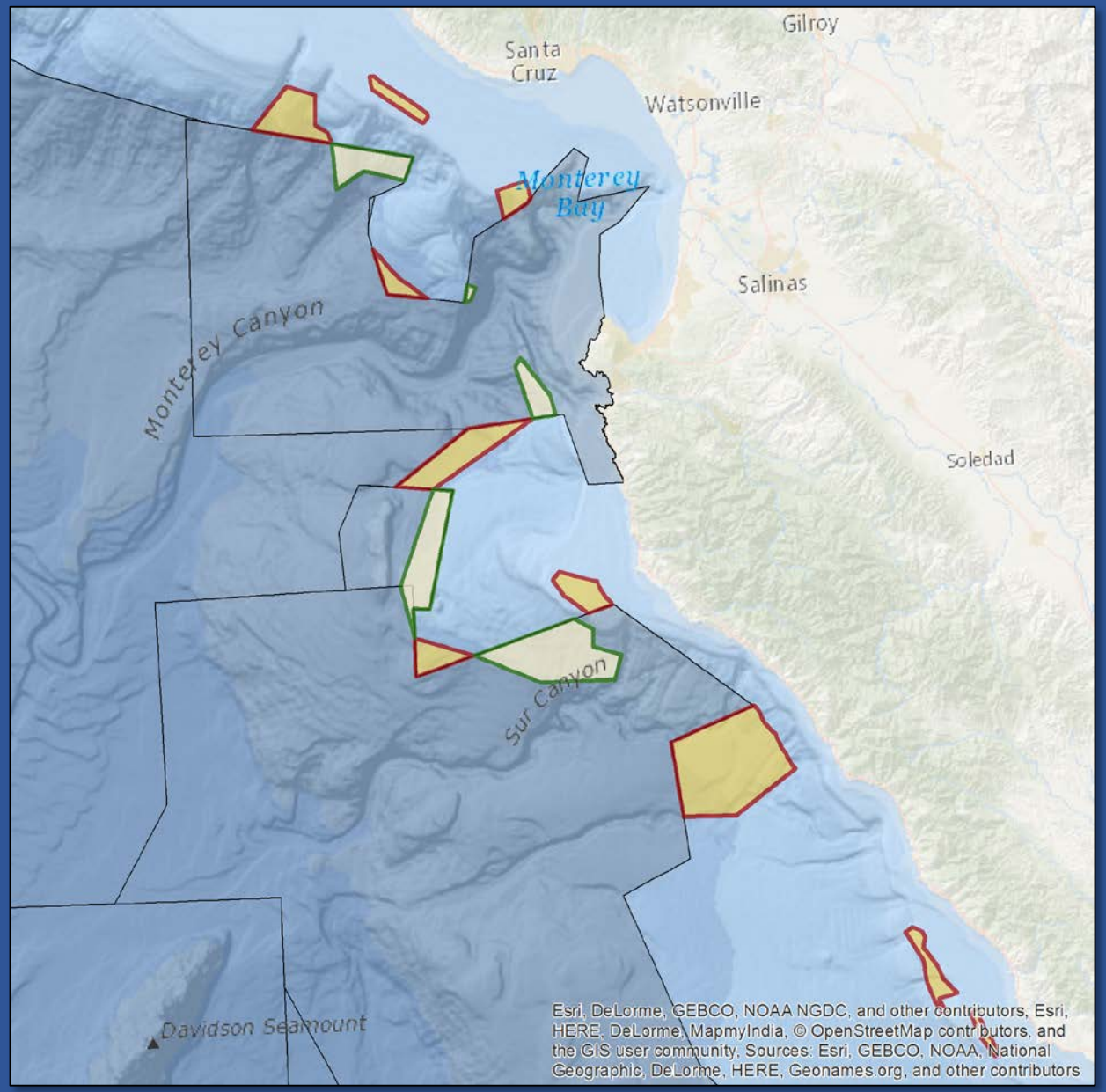
Alternatives 1.c – 1.i: Public Proposals

- ftp://ftp.pcouncil.org/pub/EFH_Proposals_2013
- 4 Coastwide – 2 alternatives each
  - Collaborative Group (Alt 1.c and 1.c.i)
  - Greenpeace (Alt 1.d and 1.d.i)
  - Marine Conservation Institute (Alt 1.e and 1.e.i)
  - Oceana/NRDC/OC (Alt 1.f and 1.f.i)
- 3 Small Scale
  - Fishermen's Marketing Association (Alt 1.g)
  - Gulf of the Farallones NMS (Alt 1.h)
  - Monterey Bay NMS (Alt 1.i)

Alternatives 1.c-1.f: Each Proposal as Stand Alone Alternative

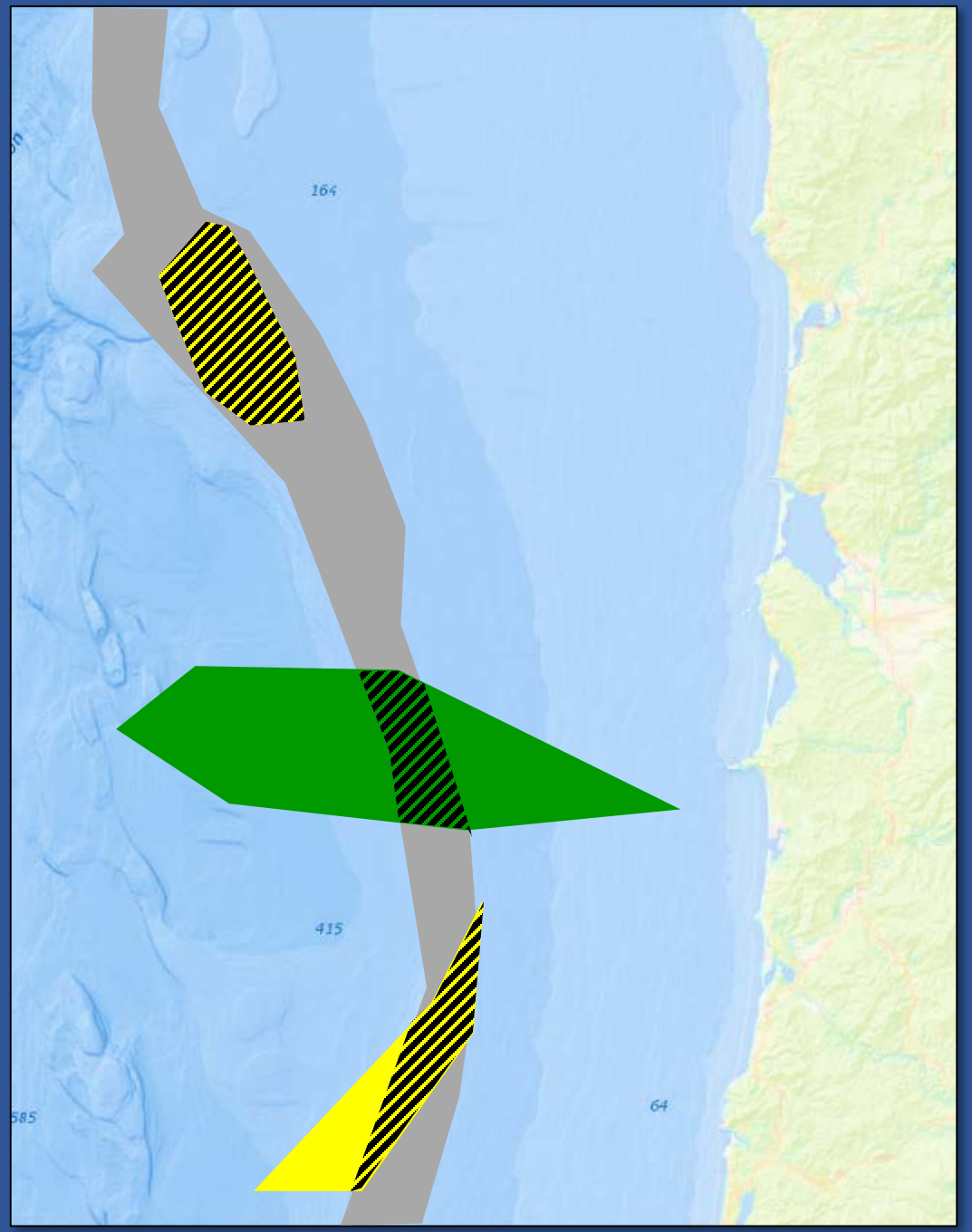
Example: MBNMS

- Proposed Closure
- Proposed Opening
- Existing EFHCA



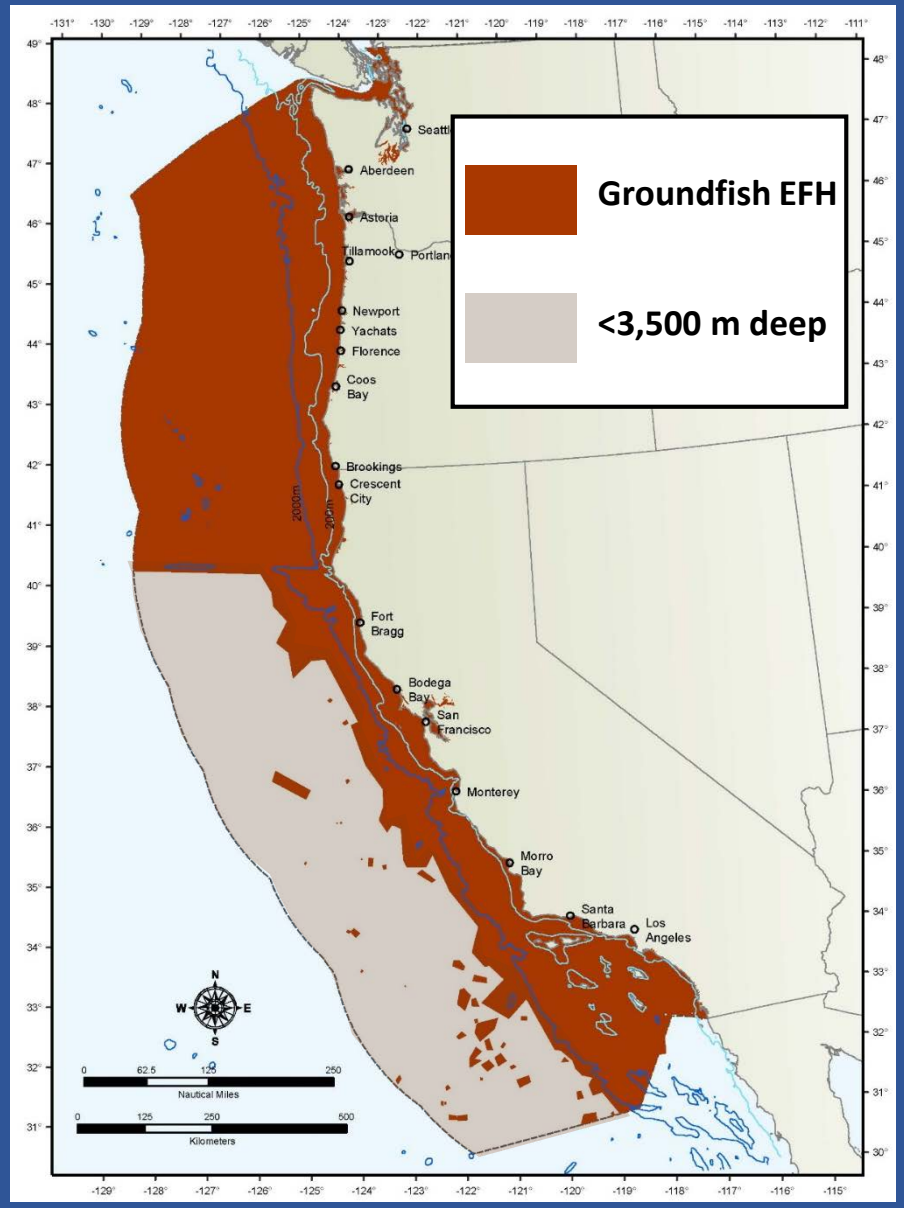
Alternatives 2b and 2c
New EFHCS in the Trawl RCA

- Trawl RCA (100-150 fm)
- Verified priority habitats
- Modeled priority habitats
- Potential new EFHCA



Alternative 4: MSA 303(b) Discretionary Authorities

- **303(b)(2)(A):** designate zones where, and periods when, fishing is limited, not allowed, or allowed only by specific types of gear
- **303(b)(12):** implement management measures to conserve target or non-target species and habitats
- Close > 3,500 m to bottom contact gear
  - Not EFH
  - Exempted fishing permit required



Administrative Alternatives

5. Groundfish FMP Appendix B	5.a No Action	5.b Update/revise information in Groundfish FMP Appendix B of the FMP to reflect new information on Pacific Coast Groundfish life history descriptions, text descriptions of groundfish EFH, and major prey items.
6. Groundfish FMP Appendix C Part 2	6.a No Action	6.b Revise fishing gear effects described in Groundfish FMP Appendix C Part 2.
7. Groundfish FMP Appendix D	7.a No Action	7.b Update Groundfish FMP Appendix D with new information and add descriptions and conservation measures for new non-fishing activities that may adversely affect EFH.
8. Groundfish FMP EFH Information and Research Needs	8.a No Action	8.b Revise groundfish EFH Information and Research Needs section of the FMP and move to an appendix.
9. Groundfish FMP EFH Review and Revision Process	9.a No Action	9.b Update groundfish EFH review and revision process and describe elsewhere (e.g., COP). Include criteria prior to each review.
10. Clarifications and Corrections	10.a No Action	10.b Provide clarifications and correct minor errors from Amendment 19.

Metrics for analysis – Closures and Openings

- Spatial extent
- Physical substrate composition
- Overlap with other alternatives
- Bottom trawl effort displaced/restored
- Catch composition displaced/restored
- Ex-vessel value of the catch displaced/restored
- Biogenic habitat
- Conservation value (pending)
- Effects on protected resources (pending)
- Overlap with combined tribal U&As

Analytical Approach

- Level 1 (current step): Develop metrics at “alternative wide” level
  - Big Picture
  - Use to narrow the range of alternatives

- Level 2 (next step): Develop each individual closure/opening
  - Detailed analysis
  - Use to develop PPA

Analysis of EFHCAs to Date

Analysis of proposals only
Most of the “Level 1” metrics

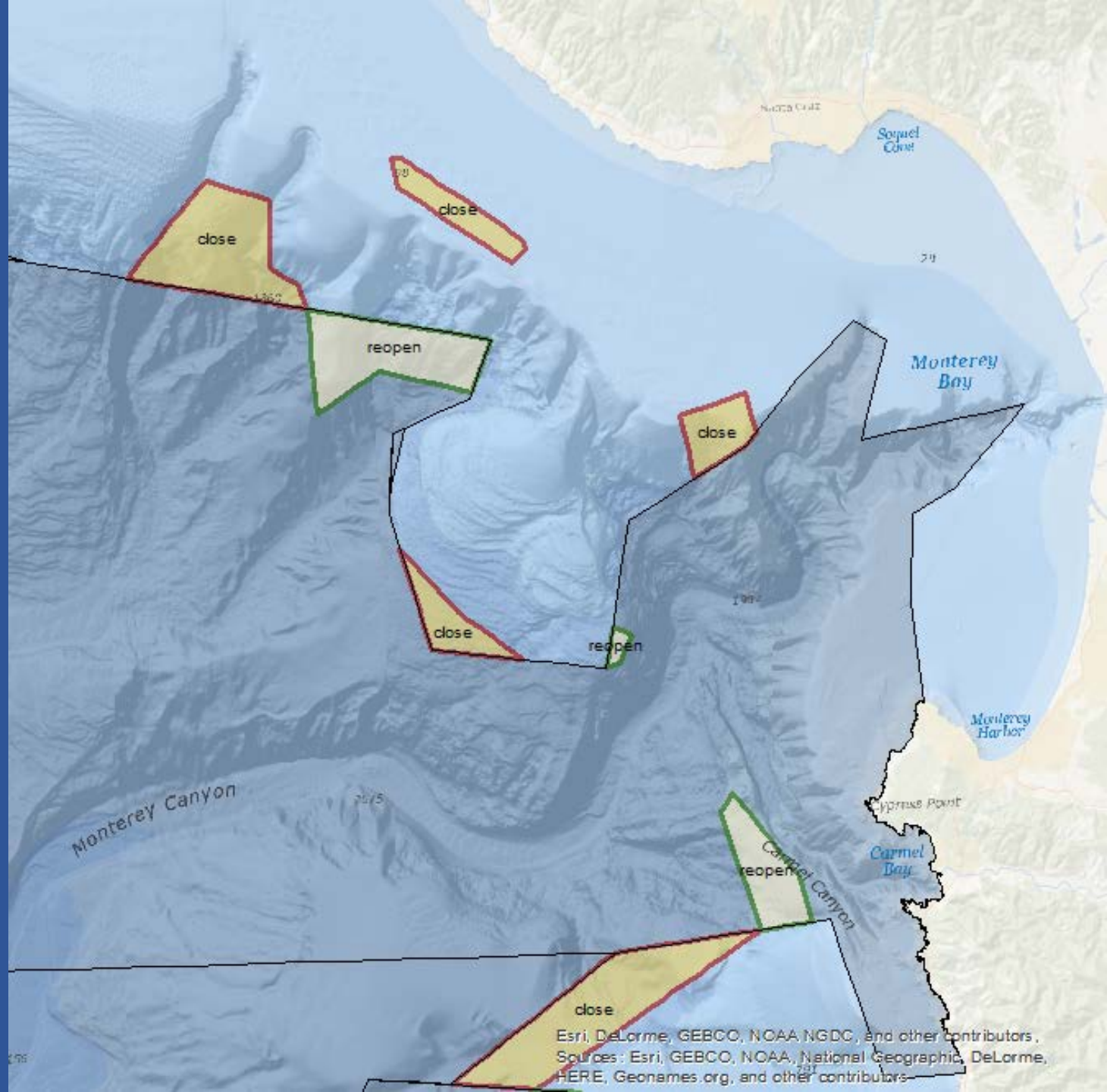
Area (nm^2) and Percent of EFH Proposed for Modification

Proposal	Close			Reopen			Net Change
	Area (nm^2)	#	% EFH	Area (nm^2)	#	% EFH	Area (nm^2)
Collab	1,144	57	0.83	280	23	0.20	864
FMA	0	0	0.00	2	1	0.00	-2
GFNMS	53	3	0.04	0	0	0.00	53
GP	5,021	9	3.52	0	0	0.00	5,021
MBNMS	127	10	0.09	75	5	0.05	52
MCI	3,270	29	2.40	0	0	0.00	3,270
ONO	15,614	65	11.28	127	9	0.09	15,487

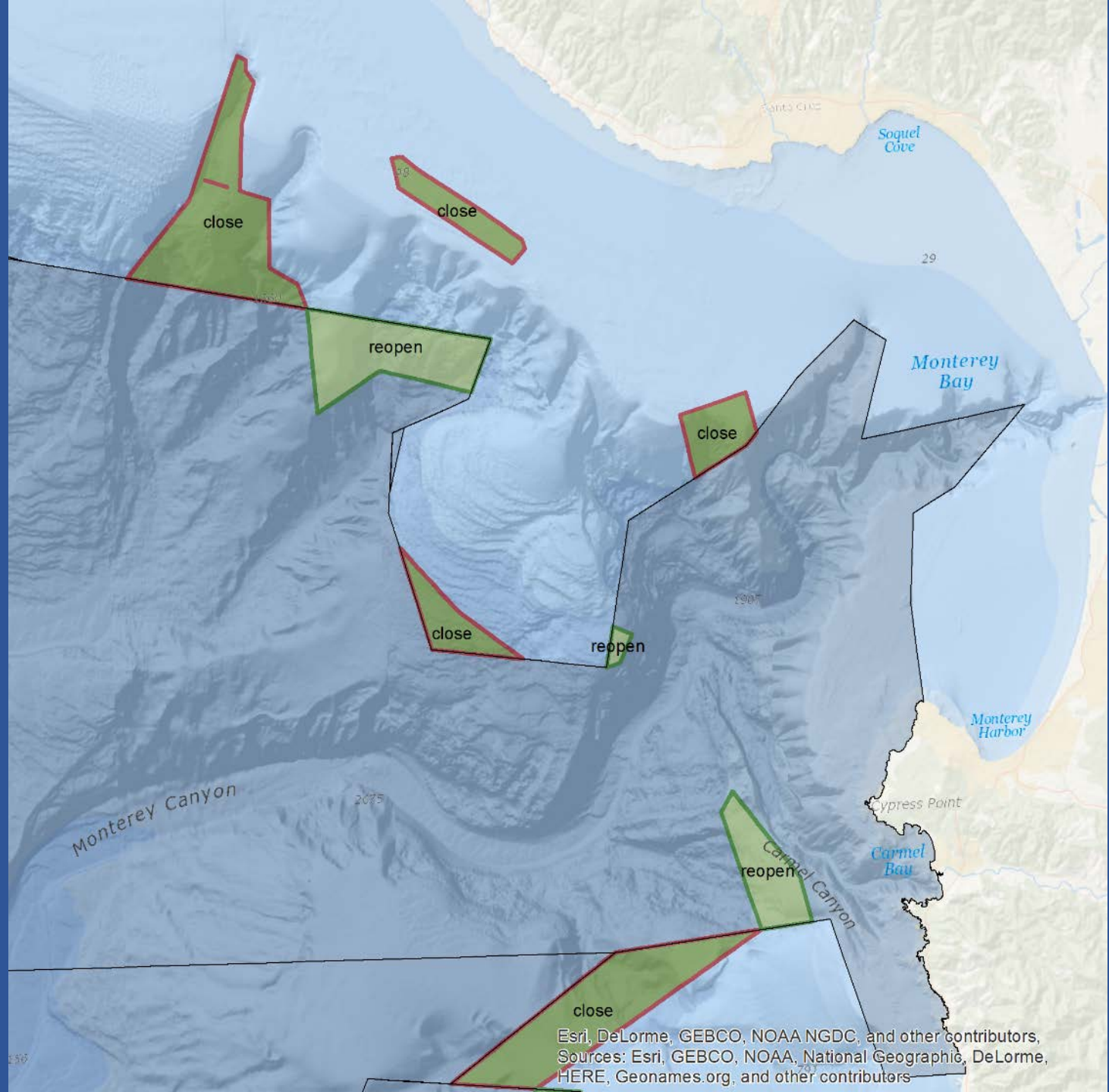
Spatial Extent (nm^2) of Habitat Types

		Proposal						
Action	Sediment type	Collab	FMA	GFNMS	GP	MBNMS	MCI	ONO
Close	Hard	164	0	3	301	21	334	968
	Mixed	96	0	0	141	0	33	203
	Soft	884	0	50	4,579	106	2,165	14,412
	Unknown	0	0	0	0	0	739	31
Open	Hard	4	0	0	0	0	0	0
	Mixed	1	0	0	0	0	0	0
	Soft	274	2	0	0	75	0	127
	Unknown	0	0	0	0	0	0	0
Net	Hard	160	0	3	301	20	334	968
	Mixed	95	0	0	141	0	33	203
	Soft	610	-2	50	4,579	32	2,165	14,285
	Unknown	0	0	0	0	0	739	31

Overlap with Other Proposals



Overlap with Other Proposals



Percent Overlap of Closures with Other Proposals

Proponent	Collab	FMA	GFNMS	GP	MBNMS	MCI	ONO
Collab	-	-	82.9%	11.5%	100%	6.8%	6.2%
FMA	-	-	-	-	-	-	-
GFNMS	3.9%	-	-	1.1%	0.0%	1.5%	0.3%
GP	50.4%	-	100%	-	65.8%	33.1%	8.8%
MBNMS	11.1%	-	0.0%	1.7%	-	0.5%	0.8%
MCI	19.3%	-	90.0%	21.6%	13.6%	-	6.1%
ONO	84.5%	-	98.8%	27.3%	99.8%	29.0%	-

Percent Spatial Overlap of Closures with Other Proposals

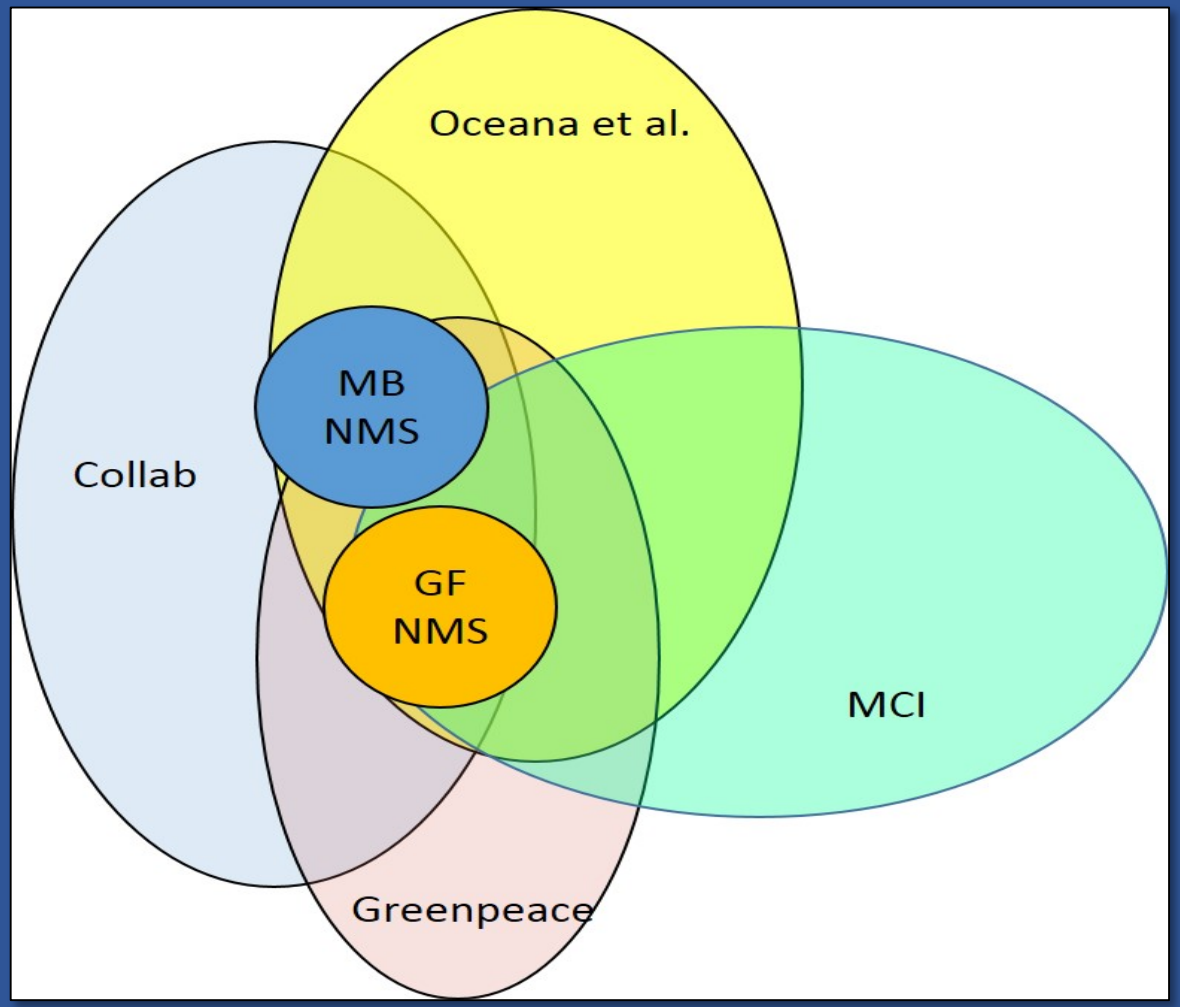
Proponent	Collab	FMA	GFNMS	GP	MBNMS	MCI	ONO
Collab	-	-	82.9%	11.5%	100%	6.8%	6.2%
FMA	-	-	-	-	-	-	-
GFNMS	3.9%	-	-	1.1%	0.0%	1.5%	0.3%
GP	50.4%	-	100%	-	65.8%	33.1%	8.8%
MBNMS	11.1%	-	0.0%	1.7%	-	0.5%	0.8%
MCI	19.3%	-	90.0%	21.6%	13.6%	-	6.1%
ONO	84.5%	-	98.8%	27.3%	99.8%	29.0%	-

Percent Spatial Overlap of Openings with Other Proposals

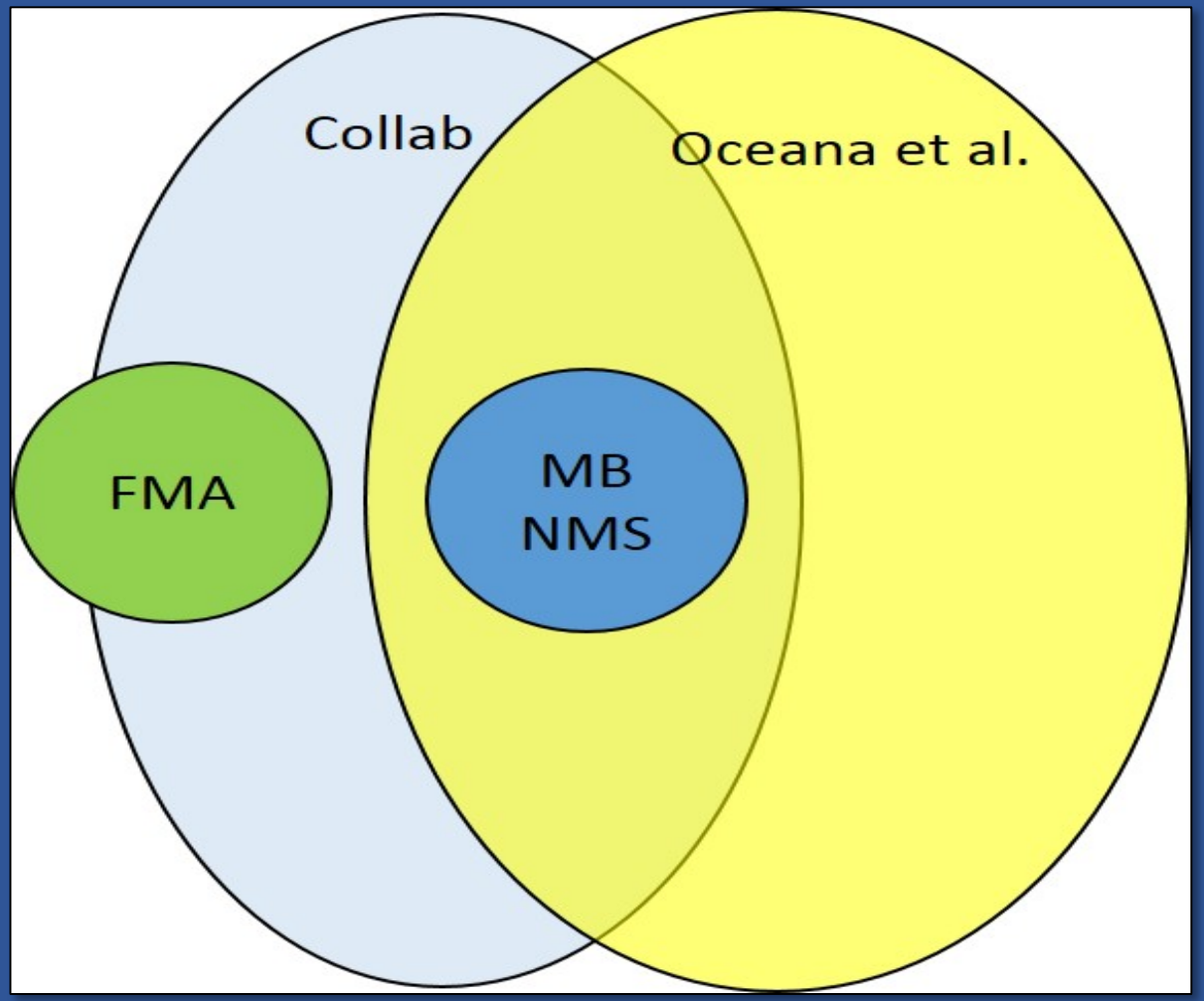
Proponent	Collab	FMA	MBNMS	ONO
Collab	-	77.3%	99.9%	87.1%
FMA	0.6%	-	0.0%	0.0%
MBNMS	26.8%	0.0%	-	59.0%
ONO	39.5%	0.0%	100.0%	-

Spatial Overlap of Proposals

Closures



Openings



Not to scale

Coastwide Trawl Effort
Logbook data: 2011-2014 (Close) 2002-2006 (Open)

Proponent	Close		Open		Net Change %
	Length (km)	%	Length (km)	%	
Collab	1,410	0.3%	4,444	0.5%	0.2%
FMA	-	-	38	0.0%	0.0%
GFNMS	5	0.0%	-	-	0.0%
GP	110,155	25.0%	-	-	-25.0%
MBNMS	3	0.0%	553	0.1%	0.1%
MCI	65,119	14.8%	-	-	-14.8%
ONO	10,722	2.4%	811	0.1%	-2.3%

4-Year Aggregated Catch Composition (1000 Kg) WCGOP Data 2011-2014

Proponent	Rockfishes	Flatfishes	Roundfishes[1]	Sharks[2]	Misc.	All Groundfishes
Collab	61.9	28.1	177.4	388	0	306.3
GFNMS	Conf.	Conf.	Conf.	Conf.	Conf.	Conf.
GP	3,249.0	1,323.2	10,801.6	2,295.7	7.0	17,676.5
MBNMS	0.3	0.3	0.3	0.2	0	1.1
MCI	1,724.3	1,077.0	9,367.3	1,532.3	3.4	13,704.3
ONO	522.7	102.2	1,227.5	323.5	0	2,176.0

[1] For the purpose of this analysis, roundfishes include cabezon, kelp greenling, lingcod, Pacific cod, Pacific hake, sablefish, grenadiers, and morids.

[2] For the purposes of analysis, sharks include sharks, skates, and ratfishes.

Annual Ex-vessel Value

Thousands of dollars adjusted for inflation to 2015 dollars

WCGOP Data 2011-2014

Proposal		Category					
		Rockfish	Flatfish	Roundfish[1]	Sharks[2]	Misc.	Total
Collab	**Total**	17.5	42.9	36.2	3.7	0.1	**100.5**
	In U&A	5.7	3.0	11	0.4	0	**20.2**
GFNMS	**Total**	Conf.	Conf.	Conf.	Conf.	0	**Conf**
GP	**Total**	946.1	2,665.6	1,864.3	178.6	3.4	**5,658.0**
	In U&A	102.6	264.9	182.6	35.2	0.2	**585.5**
MBNMS	**Total**	0.3	0	0.1	0	Conf.	**0.5**
MCI	**Total**	465.1	2,181.5	1,437.5	136.4	2.3	**4,222.8**
	In U&A	101.0	408.5	339.3	46.9	0.2	**895.9**
ONO	**Total**	166.7	310.9	327.4	12.7	0.5	**818.1**
	In U&A	13.2	24.3	28.6	2.2	0	**68.4**

[1] For the purpose of this analysis, roundfishes include cabezon, kelp greenling, lingcod, Pacific cod, Pacific hake, sablefish, grenadiers, and morids.

[2] For the purposes of analysis, sharks include sharks, skates, and ratfishes.

Biogenic Habitat

- All proposals contain closures with observations of biogenic habitat
- FMA proposal – single observation of sea pens

Conservation Value

- Pending
- In discussions with NWFSC to develop

Effects on Protected Resources

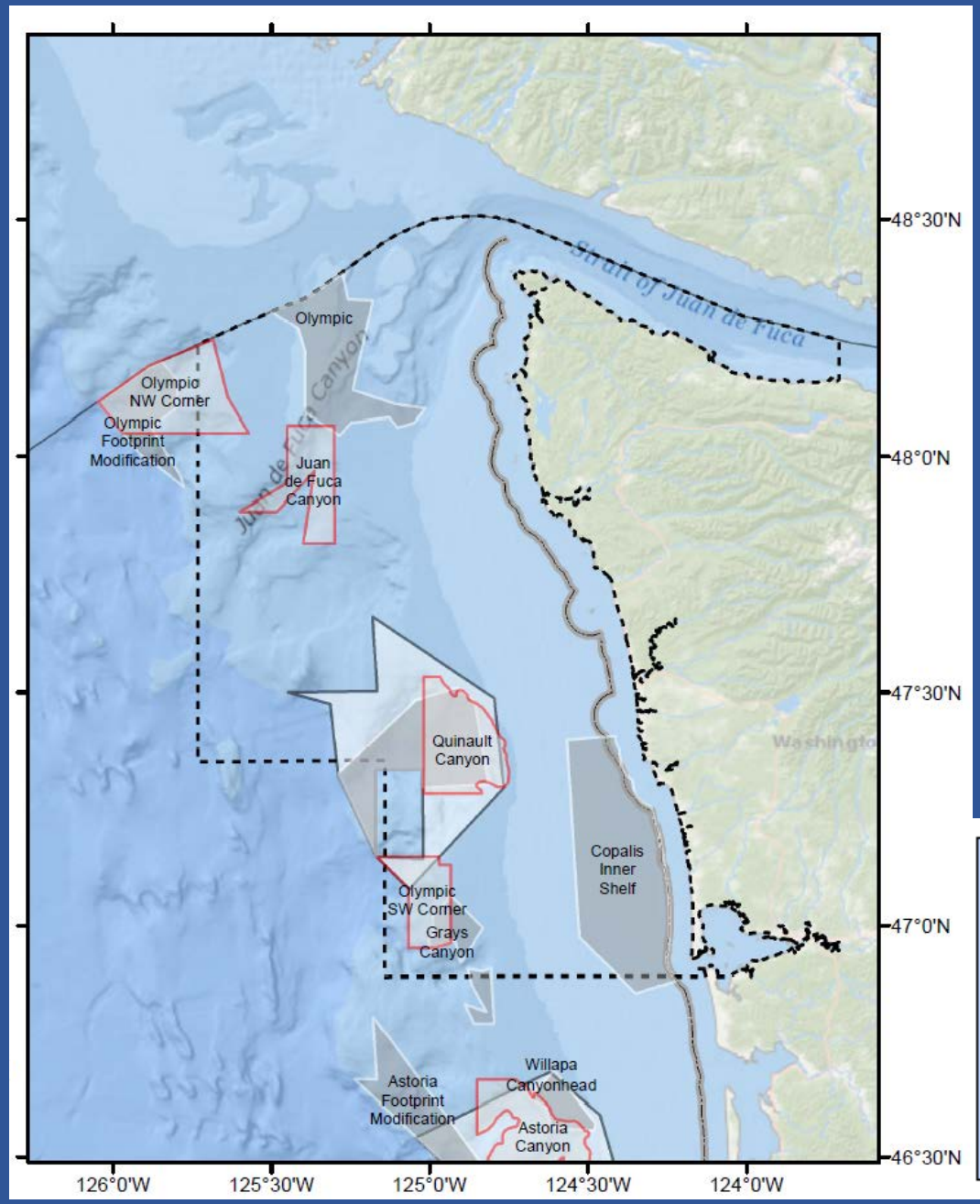
- Pending

Changes to the EFHCAs in the Tribal U&A

4 Coastwide proposals

Collaborative proposal is not displayed

- Both closures and openings in U&A



Overlap with Tribal U&As

		Proponent			
Action		**Collab**	**GP**	**MCI**	**ONO**
Close	**Area (nm^2)**	239	373	321	619
	Tribal U&A %	6.5%	10.1%	8.7%	16.7%
Open	**Area (nm^2)**	80	0	0	0
	Tribal U&A %	2.2%	0.0%	0.0%	0.0%

Workload and EFHCA Range of Alternatives

- 19 separate alternatives to analyze for changes to EFHCAs
- Without narrowing ROA, likely cannot meet September, 2016 deadline for analysis
  - If not narrowed, push to April, 2017
- Some may not meet NEPA Purpose and Need
  - Classify as “considered but not analyzed in detail”
  - Components can be analyzed separately for inclusion in PPA, but not analyzed as stand-alone alternative
- Alternatives that are fully encompassed, or nearly so, in PPA
  - Classify as “considered but not analyzed in detail”
- Can provide level 2 analysis of these alternatives in an appendix
  - Could be used to “tweak” the preferred alternative

Range of Trawl RCA Alternatives
(see Table 1 in Agenda Item F.5.a)

3a. No Action – Retain the existing trawl RCA

3b. Remove the trawl RCA

3c. Discrete area closures for overfished species

3d. Area closures for overfished and non-overfished species

All action alternatives have sub-options that make no changes in the Tribal U&A

3a. No Action

- Current RCA would remain
- Routine inseason adjustments to reduce catch of a particular species or species complex
- Additional catch controls for vessels using trawl gear within the shorebased IFQ program include
  - IFQ for 29 stocks and stock complexes
  - IBQ for Pacific halibut
  - Trip limits for non-IFQ species
  - NMFS authority to close the fishery to prevent the trawl sector in aggregate or the individual trawl sectors from exceeding a harvest specification or formal allocation

3a. No Action

- The shoreward area north of Cape Alava (48°10' N. lat.) would remain closed
- The shallowest seaward RCA boundary in the area between 45°46' N. latitude and 40°10' N. latitude would be the 200 fm modified petrale line

	JAN-FEB	MAR-APR	MAY-AUG	SEPT-OCT	NOV-DEC
North of 48°10' N. lat.	shore - modified 200 fm	shore – 200 fm	shore – 150 fm	shore - 200 fm	shore – modified 200 fm
48°10' N. lat. - 45°46' N. lat.	100 fm - 150 fm				
45°46' N. lat. - 40°10' N. lat.	100 fm - modified 200 fm				
South of 40°10' N. lat.	100 fm - 150 fm				

Alternative 3b. Remove the Trawl RCA

- Current trawl RCA would be removed
- Primary catch controls for vessels using trawl gear within the shorebased IFQ program would be
  - IFQ for 29 stocks and stock complexes
  - IBQ for Pacific halibut
  - Trip limits for non-IFQ species
  - NMFS authority to close the fishery to prevent the trawl sector in aggregate or the individual trawl sectors from exceeding a harvest specification or formal allocation

Alternative 3c – Discrete Area Closures for Overfished Species

- Remove the trawl RCA
- Preseason or inseason, implement discrete closures in areas with high overfished species CPUE, as needed
- 2017-2018 overfished species include bocaccio, cowcod, darkblotched, Pacific ocean perch, and yelloweye
- Implemented via a Council recommendation or by NMFS automatic action authority when
  - the allocation is attained by a pre-specified percentage (value to be recommended by the Council)
  - if an overfished species ACL is attained by a pre-specified percentage (value to be recommended by the Council) or exceeded
- Same additional catch controls as under No Action

Alternative 3d Background

- September 2015 analysis evaluated discrete area closures for non-overfished species where the Council had recently considered additional catch controls for the shorebased IFQ program
- Analysis considered stocks that are
  - Managed in complexes with IFQ (blackgill, rougheye, shortraker)
  - Managed with trip limit species (longnose skate, spiny dogfish)
- None of the species identified and analyzed were recommended for discrete area closures

Alternative 3d – Council Guidance

- Reevaluate with a focus as a catch control mechanism for non-overfished species intended to prevent exceeding an ACL or allocation
- Not specific to overfished species rebuilding
- Discuss at October 2015 GMT meeting
    - Stocks that lend themselves to spatial management
    - Stocks that have been recently rebuilt or verge of being rebuilt
    - Stocks with a risk of approaching or exceeding the ACL or allocation

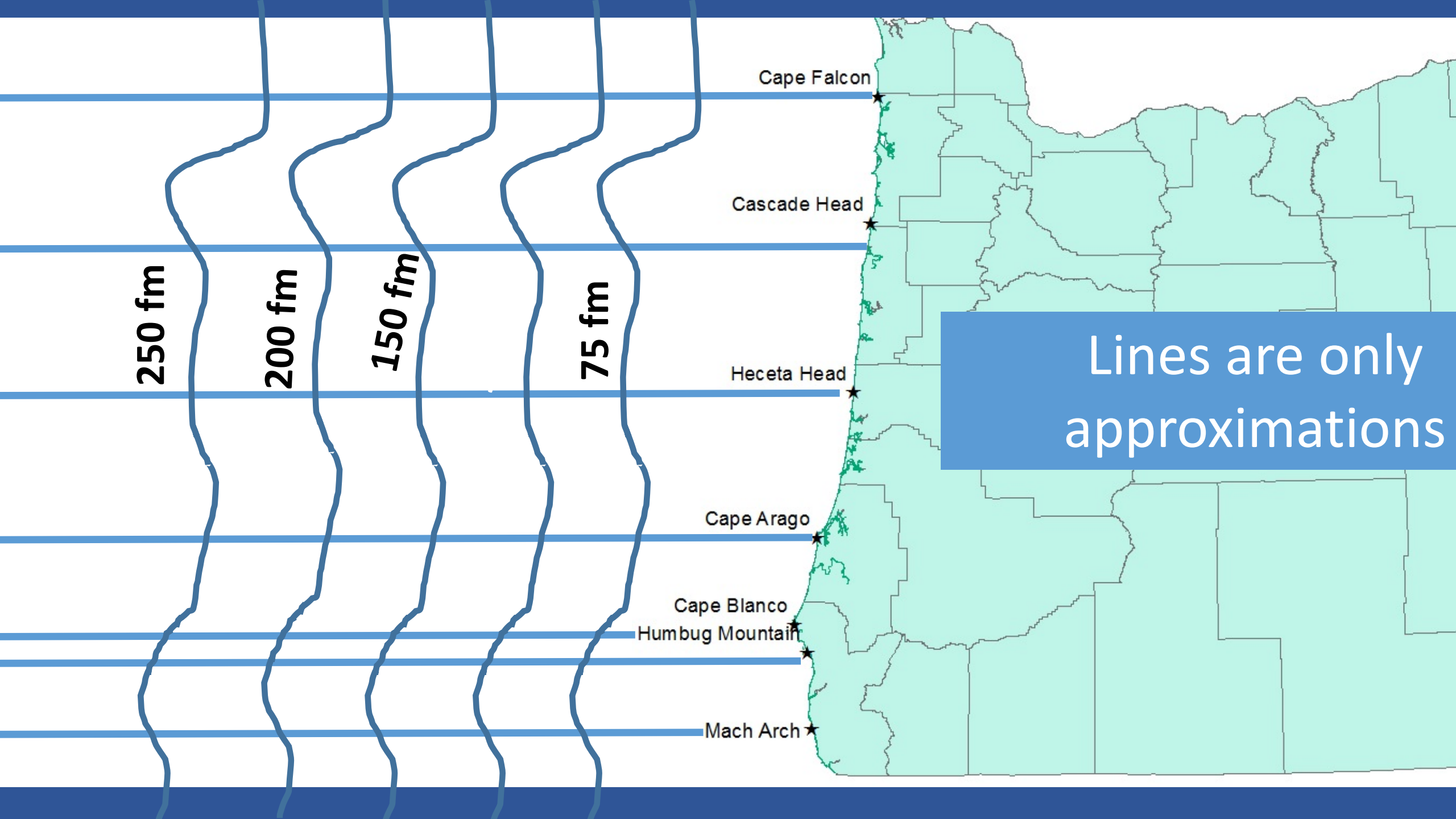
Alternative 3d – Alternative Development

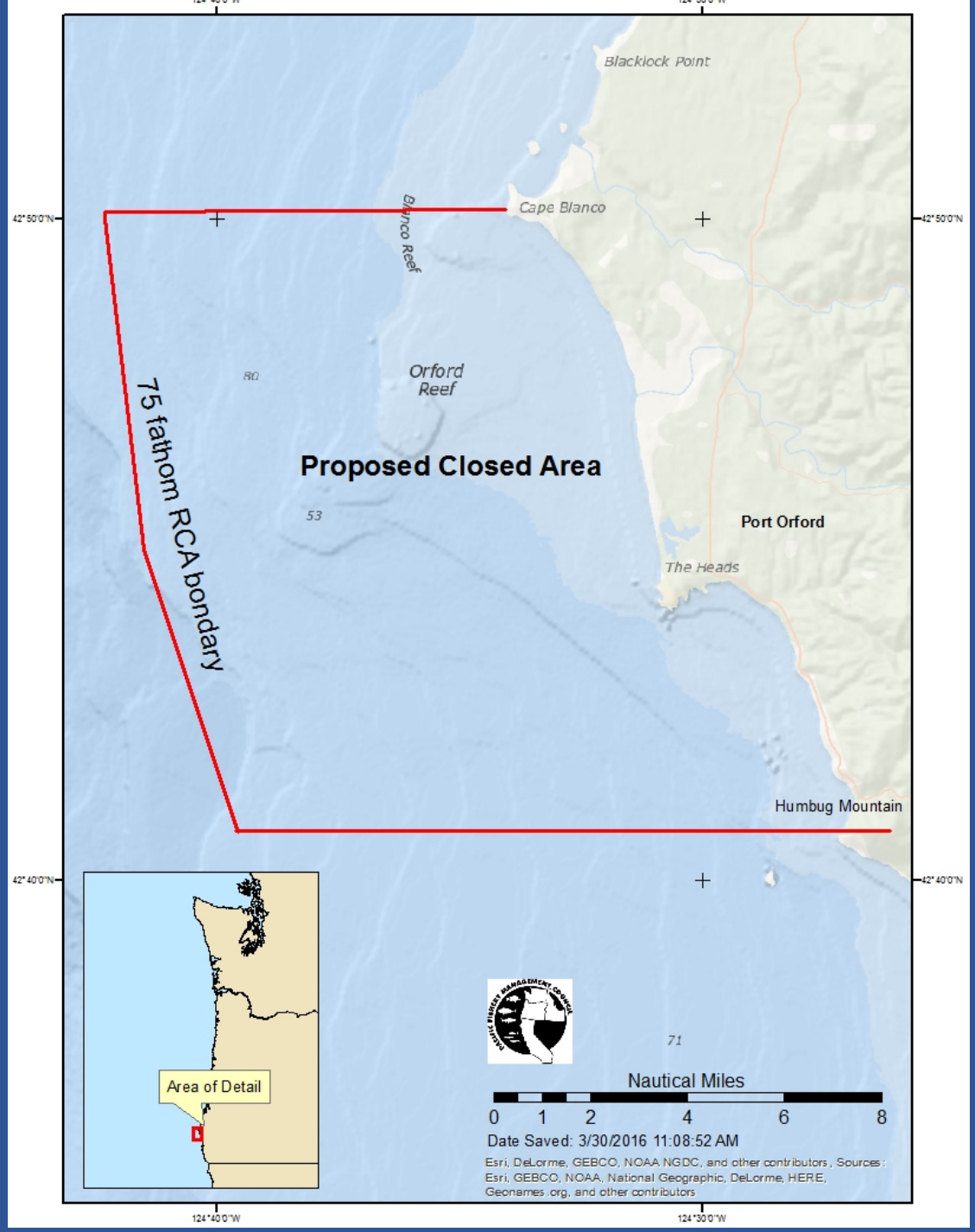
Goal: catch control mechanism for non-overfished species intended to prevent exceeding an ACL or allocation

Challenges: 100 plus species in the FMP

- Very few species have ACL attainment greater than 80 percent, only two caught in the trawl fishery (petrale and sablefish north of 36° N. lat.)
- Only petrale and sablefish north of 36° N. lat. have average allocation attainment rates greater than 80 percent, all others are 50 percent and lower
- Imprecise crystal ball

Solution: Use existing latitude and longitude coordinates in regulation, retain existing authorities, enhance analysis to support finer scale closures


250 fm
200 fm
150 fm
75 fm
Cape Falcon
Cascade Head
Heceta Head
Cape Arago
Cape Blanco
Humbug Mountain
Mach Arch
Lines are only approximations


Blacklock Point
Cape Blanco
Blanco Reef
Orford Reef
80
53
71
Proposed Closed Area
75 fathom RCA bondary
Port Orford
The Heads
Humbug Mountain
42°50'0"N
42°40'0"N
124°40'0"W
124°30'0"W
Area of Detail
Nautical Miles
0 1 2 4 6 8
Date Saved: 3/30/2016 11:08:52 AM
Esri, DeLorme, GEBCO, NOAA NGDC, and other contributors, Sources: Esri, GEBCO, NOAA, National Geographic, DeLorme, HERE, Geonames.org, and other contributors

Area	Years Used as RCA
Cape Flattery to Pt. Chehalis	
-Cape Alava	2007 to present
-Queets River	
Pt. Chehalis to Cape Blanco	
-Leadbetter Point	2007, 2008
-Columbia River	2007, 2008
-Cape Falcon	2008 to present
-Cape Lookout	
-Cascade Head	2007
-Heceta Head	
-Cape Arago	2007, 2008
Cape Blanco to Cape Mendocino	
-Humbug Mountain	2007, 2008
-Mach Arch	
-OR/CA	
Cape Mendocino to Point Conception	
-North/South	2002 to present
-Cape Vizcaino	
-Point Arena	2003, 2006, 2007
-Point San Pedro	
-Pigeon Point	
-Ano Nuevo	
-Point Lopez	
South of Point Conception	2003 to present

Area	Nearshore (0-30 fm)	Shelf (30 to 150 fm)	Slope (>150 fm)
Cape Flattery to Pt. Chehalis			
Pt. Chehalis to Cape Blanco			
Cape Blanco to Cape Mendocino			
Cape Mendocino to Point Conception			
South of Point Conception			

Alternative 3d – Block Area Closures

Concept similar to

- Pacific Whiting Bycatch Reduction Areas which provide for routine and automatic action to close areas shoreward of the 75 fm, 100 fm, and 150 fm depth contours when NMFS projects that a sector will exceed an allocation for a non-whiting groundfish species specified for that sector before the sector's whiting allocation is projected to be reached
- Ocean Salmon Conservation Zone which prohibits Pacific whiting fishing shoreward of the 100 fm depth contour when NMFS projects the Pacific whiting fishery may take in excess of 11,000 Chinook

Alternative 3d – Block Area Closures

- Remove the trawl RCA; implement area closures preseason or inseason, as needed
- Implemented via a Council recommendation or by NMFS automatic action authority when
  - the allocation is attained by a pre-specified percentage (value to be recommended by the Council)
  - if an overfished species ACL is attained by a pre-specified percentage (value to be recommended by the Council) or exceeded
- The catch controls would also include
  - IFQ and IBQ
  - trip limits for non-IFQ species
  - NMFS authority to close the fishery to prevent the trawl sector in aggregate or the individual trawl sectors from exceeding a harvest specification or formal allocation

Questions?