

DRAFT
**Environmental Assessment/Regulatory Impact Review/
Regulatory Flexibility Analysis/MSA Analysis
for a Proposed Amendment
to the Pacific Groundfish Fishery Management Plan for
Non-Trawl Sector Area Management Measures**

MARCH 2023

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Abstract: This draft environmental analysis and proposed measures were developed to provide fishery access to areas that are currently closed to groundfish fishing inside the Non-Trawl Rockfish Conservation Area (NT_ RCA) and the East and West Cowcod Conservation Areas (CCAs). The proposed actions would increase the overall potential economic value of the groundfish fishery and help diversify fishing strategies when there are restrictive opportunities in other groundfish and non-groundfish fisheries. These actions would also provide a more stable, year-round fishing opportunity, expand opportunities to supply seafood, and increase potential financial benefit to fishermen, communities, and the infrastructures they support. The proposed actions include modifying the existing NT_RCA boundaries, relaxing restrictions on gear regulations inside the NT_RCA, removal of the CCAs, the development of new closed areas that may restrict some fishing activity, and the development of a block area closure tool for preseason or inseason bycatch management.

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List of Acronyms and Abbreviations

Acronym or Abbreviation	Meaning
ACL	annual catch limit
ACT	annual catch target
AMP	adaptive management plan
BAC	Block Area Closure
CCA	Cowcod Conservation Area
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
Council	Pacific Fishery Management Council
E.O.	Executive Order
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	essential fish habitat
EFHCA	essential fish habitat conservation area
ESA	Endangered Species Act
FMP	fishery management plan
GAP	Groundfish Advisory Subpanel
GCA	Groundfish Conservation Area
GEA	Groundfish Exclusion Area
GESW	Groundfish Endangered Species Workgroup
GMT	Groundfish Management Team
HAPC	Habitat area of particular concern
IBQ	Individual bycatch quota
IFQ	Individual fishing quota
IOA	incidental open access
IPHC	International Pacific Halibut Commission

Acronym or Abbreviation	Meaning
ITS	Incidental Take Statement
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MMPA	Marine Mammal Protection Act
NEPA	National Environmental Policy Act
NMFS	National Marine Fishery Service
NOAA	National Oceanic and Atmospheric Administration
QP	Quota pound
QS	Quota share
RCA	Rockfish Conservation Area
RFA	Regulatory Flexibility Act
RIR	Regulatory Impact Review
VMS	vessel monitoring system
WCGOP	West Coast Groundfish Observer Program
YRCA	Yelloweye Rockfish Conservation Area

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Introduction

This draft Environmental Assessment/Regulatory Impact Review/Regulatory Flexibility Act Analysis/Magnuson-Stevens Act Analysis (EA/RIR/RFAA/MSA; hereafter referred to as the “integrated analysis”) provides assessments of the environmental impacts of a proposed action and its reasonable alternatives (the EA), the benefits and costs of the alternatives and the distribution of impacts (the RIR), identification of the small entities that may be affected by the alternatives (RFAA), and analysis of how the alternatives align with the National Standards (MSA). This integrated analysis addresses the statutory requirements of the MSA, the National Environmental Policy Act (NEPA), Presidential Executive Order 12866, and the RFAA. An integrated analysis is a standard document produced by the Pacific Fishery Management Council (Council) and the National Marine Fisheries Service (NMFS) West Coast Region to provide the analytical background for decision-making.

This EA is being prepared using the 2020 Council of Environmental Quality (CEQ) NEPA Regulations. The effective date of the 2020 CEQ NEPA Regulations was September 14, 2020 and reviews begun after these dates are required to apply the 2020 regulations unless there is a clear and fundamental conflict with an applicable statute. 85 Fed. Reg. at 43372-73 (§§ 1506.13, 1507.3(a)). This EA began on May 3, 2022 and accordingly proceeds under the 2020 regulations.

The proposed measures described were developed to provide access to areas that are currently closed to groundfish and halibut fishing inside the Non-Trawl Rockfish Conservation Area (NT_RCA) and the East and West Cowcod Conservation Areas (CCA). The proposed actions would increase the overall economic value of the groundfish fishery and help diversify fishing strategies considering restrictive opportunities in other groundfish and non-groundfish fisheries. These actions would also provide a more stable, year-round fishing opportunity, expand opportunities to supply seafood, and increase potential financial benefit to fishermen, communities, and the infrastructures they support. The actions proposed include moving the existing NT_RCA boundaries, relaxing gear regulations inside the NT_RCA, removal of the CCA, the development of new closed areas that may restrict some fishing activity to protect habitat, and development of a block area closure (BAC) tool for preseason or inseason management of bycatch.

1.1 Purpose and Need

The following purpose and need statement was adopted in September 2022:

“The purpose of the proposed actions are to provide additional access in some areas that are currently closed to groundfish fishing inside the Non-Trawl Rockfish Conservation Area (RCA) and Cowcod Conservation Area (CCA). In doing so, measures were developed to address adverse effects on designated Essential Fish Habitat (EFH) and sensitive benthic habitats exposed to fishing activity under the proposed actions and mitigate bycatch of groundfish and protected and prohibited species.

The non-trawl sector is presently unable to access many target species where they are most abundant. The actions are needed to provide increased access to non-overfished shelf rockfish stocks and other important target stocks that can be found in the existing non-trawl groundfish conservation areas (GCAs), thereby increasing the overall potential economic value of the groundfish and non-tribal directed commercial Pacific halibut fishery. The actions are also needed to help diversify fishing strategies in light of restrictive opportunities in other groundfish and non-groundfish fisheries, and to provide more stable, year-round fishing opportunity, expand opportunities to supply seafood, and increase potential financial benefit to fishermen, communities, and the infrastructures they support. The proposed actions include moving or modifying the existing NT_RCA, allowing groundfish fishing inside the NT_RCA using only select gears that minimize bottom contact, removal of the CCAs, the development of new closed areas that may restrict some fishing activity, and the development of a block area closure tool for preseason or inseason bycatch

management. The discretionary authorities under Section 303(b)(2)(A)&(B) of the Magnuson-Stevens Act may be used to protect species and habitats, including deep-sea corals and overfished species.”

1.2 History of this Action

In November 2019, the Council directed the Groundfish Advisory Subpanel (GAP) to develop the scope of action and draft a purpose and need statement for non-trawl area management modifications during the GAP’s March and April 2020 meetings. The GAP then submitted [Informational Report 4](#) in June 2020 for Council consideration and scheduling of further scoping of the issues. In April 2021, the Council initiated a scoping process to address modifying the existing NT_RCA and developing measures to allow groundfish fishing inside the NT_RCA using only select gears that minimize bottom contact ([Agenda Item F.3, Attachment 2](#)).

At that meeting, the Council adopted a draft [purpose and need statement](#) and directed staff to analyze items related to relaxing restrictions in the NT_RCA as specified in [Agenda Item F.3 Motion 3](#) to: 1) allow limited entry fixed gear (LEFG) and/or open access (OA) fishery sectors to operate within the current boundaries of the NT_RCA with approved hook-and-line gear, and; 2) modify the current seaward and shoreward boundaries of the NT_RCA in specific management areas and allow LEFG vessels to fish within those boundaries.

In [November 2021](#) and [April 2022](#) the Council further refined the purpose and need statement as well as the range of alternatives (ROA). The Council expanded the action to include changes to the CCA (East and West) off California, including commercial and recreational fisheries, added specific measures that would include access to the NT_RCA off Washington, and included consideration of new closed areas and consideration of changes to EFHCAs that may be exposed to fishing activity under the alternatives.

At the April 2022 meeting, the Council eliminated an alternative which would have removed the NT_RCA from 46° 16’ N. lat. to 34° 27’ N. lat. from the ROA due to the lack of data available for analysis. This alternative was moved to the groundfish workload prioritization list instead, for consideration at a later date. Additionally, the Council recommended developing BACs for non-trawl gears for mitigating bycatch of other groundfish stocks, as well as protected or prohibited species. The Council also recommended that staff revise the Purpose and Need Statement to reflect the development of new area management measures that provide for the protection and conservation of sensitive habitats and considers potential measures that would be applicable to the non-tribal directed commercial halibut fishery.

The Council made some adjustments to the suboptions and selected its Preliminary Preferred Alternatives (PPA) at its [September 2022 Council meeting](#). The Council also removed an alternative from further analysis that would have moved portions of the seaward boundary of the NT_RCA off Washington for pot gear only.

This document provides a description of the current ROA with an impact analysis to assist the Council in the selection of its final preferred alternatives (FPA). We include maps that will assist the Council and the public to see the current area management measures available (i.e., NT_RCA, yelloweye rockfish conservation areas [YRCAs], EFHCAs, and CCAs) as well as proposed areas that would be opened under all alternatives and new closed areas. Additionally, we provide maps and some statistics that show the overlap between the NT_RCA and the CCA with EFHCAs and habitat substrate that may be exposed to fishing if portions of the NT_RCA are removed and if the CCA is repealed. An [interactive mapping tool](#) was developed to provide reviewers an opportunity to interact with different regulatory layers being used to examine the potential changes and differing substrate layers.

1.3 Description of Management Area

Generally, the action area is the United States Exclusive Economic Zone (EEZ), seaward of Washington, Oregon, and California state territorial waters (3 nautical miles from shore; herein referred to as “state waters”), with some exceptions. The EEZ and state waters can be seen in Figure 1. Some areas within the EEZ are not considered part of the action area because direct and indirect impacts are not anticipated from any of the alternatives described in Chapter 2. Because the Council relies on depth-based closures that do not necessarily align with the EEZ, there are some areas of the NT_RCA and the CCAs that are closed under Federal regulation and areas inside state waters that are closed under state regulation through conforming state actions. This action only includes changes in the EEZ, though the states may take conforming action to adopt similar modifications to those contemplated here.

The Council and NMFS do not intend for any of the action alternatives described in Chapter 2 to revise state-issued regulations for state-managed species in state waters. Additionally, the Council and NMFS do not intend for any of the action alternatives described in Chapter 2 to apply to tribal fisheries in usual and accustomed fishing areas off Washington.

1.4 Current Area-based Management Tools

The Council has several different management tools that are based on closing defined areas off to specific fishing activities (i.e., gear types, sectors) to mitigate impacts to groundfish, protected species, or habitat. This section provides an overview of the two main area-based management tools applicable to non-trawl fisheries that are proposed for change under this action (NT_RCA and CCA) as well as two other area-based tools that are used for mitigating impacts to certain groundfish species (YRCAs) and habitat (EFHCAs).

1.4.1 Non-Trawl Rockfish Conservation Area

The NT_RCA was initiated as part of an [emergency rule in January 2003](#) to mitigate impacts to overfished groundfish species (Section 6.8 of the Groundfish Fishery Management Plan (FMP)). As of July 2022, with one exception, the groundfish species that were the main driver for creation of the NT_RCA have been rebuilt. The only species currently under a rebuilding plan is yelloweye rockfish and, based on the most recent stock assessment, it is projected to be rebuilt by 2029. Additionally, while the NT_RCA was not designed to mitigate impacts to habitat, it is likely this closure has had a positive impact on habitat.

The NT_RCA is a coastwide, contiguous area bounded by specific latitude and longitude coordinates that approximate depth contours along the West Coast continental shelf and around the islands off California (Figure 1).¹ NT_RCA boundaries are not consistent along the coast, varying by management area with some portions in state waters. At present, the NT_RCA covers approximately 12,313 sq. mi. of the West Coast continental shelf, where it largely prohibits Directed OA, LEFG and individual fishing quota (IFQ) gear switching fishing operations from fishing on groundfish stocks, mainly midwater and shelf rockfish stocks.

The depth range covered by the NT_RCA varies by management area. Washington has the widest depth closure range, from the shoreward boundary of the EEZ to 100 fm, whereas the area south of 34° 27' N. lat. has the narrowest closure range, from 100-150 fm. However, as shown in Table 1, the depth range does not necessarily equate to area coverage as shelf width varies along the coast. For example, just south of Cape Mendocino, CA, the NT_RCA is approximately 0.75 mile wide whereas at Pt St. George, CA, the

¹ NT_RCA coordinates that approximate depth contours specified at [CFR 50 §§ 660.71-660.74](#).

NT_RCA is approximately 10 miles wide. These two geographic points are within the same management area, approximately 90 miles apart.

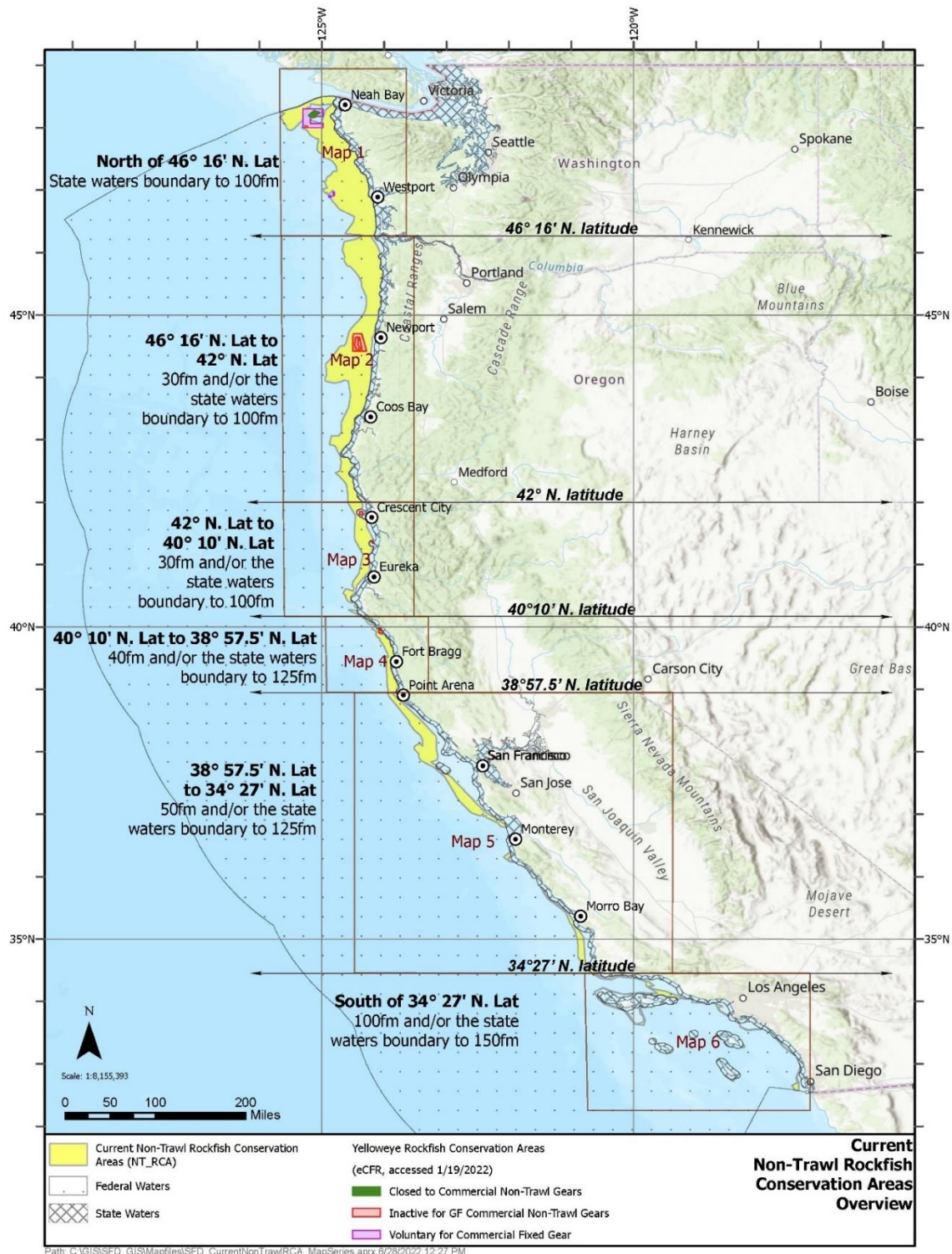


Figure 1. Current NT_RCA Boundary by management area

Table 1. Non-trawl management areas and the current (2023) NT_RCA boundaries.

Management Area	Current NT_RCA boundaries a/	Approximate Area of NT_RCA (sq mi)	Map Area
North of 46°16' N. lat.	Shoreline (0 fm) to 100fm	3,616	1
46°16' N. lat. to 42° N. lat.	30 fm to 100 fm	4,940	2
42° N. lat. to 40°10' N. lat.	30 fm to 100 fm	907	3
40°10' N. lat. to 38°57.5' N. lat.	40 fm to 125 fm	460	4
38°57.5' N. lat. to 34°27' N. lat.	50 fm to 125 fm	1,905	5
South of 34°27' N. lat. b/	100 fm to 150 fm	486	6

a/ Current NT_RCA boundary coordinates at 86 Federal Register 14379, see Tables 2 & 3 -coordinates at §§ 660.71-660.74; the shoreward boundary of the NT_RCA will be the designated fathom line or the state waters boundary, whichever is more seaward.
b/ Also applies around islands.

1.4.2 Cowcod Conservation Area

The CCA is composed of two distinct areas- the Western and Eastern CCA (Figure 2) and apply to both non-trawl and trawl fisheries. In 2001, both CCAs were first established in Federal regulations as an overfished species rebuilding measure. They were then formally incorporated into the FMP (Section 4.5.4.6) via Amendment 16-3 and established in Federal regulation in 2005 to reduce the bycatch of cowcod taken incidentally in all commercial and recreational fisheries for groundfish. Boundaries of the CCA have not changed since their implementation.

Within the CCA, recreational and non-trawl commercial vessels are prohibited from fishing outside of 40 fathoms from the islands. However, fishing for other flatfish is permitted within the CCA with hook and line gear only (see 50 CFR 660.230(d)(10)(i) and 50 CFR 660.330(d)(11)(i)). Similar to the NT_RCA, the species that caused the implementation (i.e., cowcod) was declared rebuilt in 2019 and while the CCA was not designed for habitat mitigation, it has also resulted in habitat protection for these areas for nearly two decades. [Agenda Item G.6.a, Supplemental CDFW Report 1, June 2021](#) notes that the current boundaries of the CCA “include a considerable portion of the Southern California Bight, and many species of healthy fish stocks live there that could be accessed if the CCAs are repealed.” Note that trawl vessels are also prohibited from fishing in the CCA and may only continuously transit through the corridor defined in Western CCA as defined at 50 CFR 660.70(o)(2). The entire CCA region overlaps with the Southern California Bight EFHCA and other EFHCAs (e.g., Cowcod EFHCA East, 700-fm coastwide EFHCA), which prohibits bottom trawling across all fisheries.

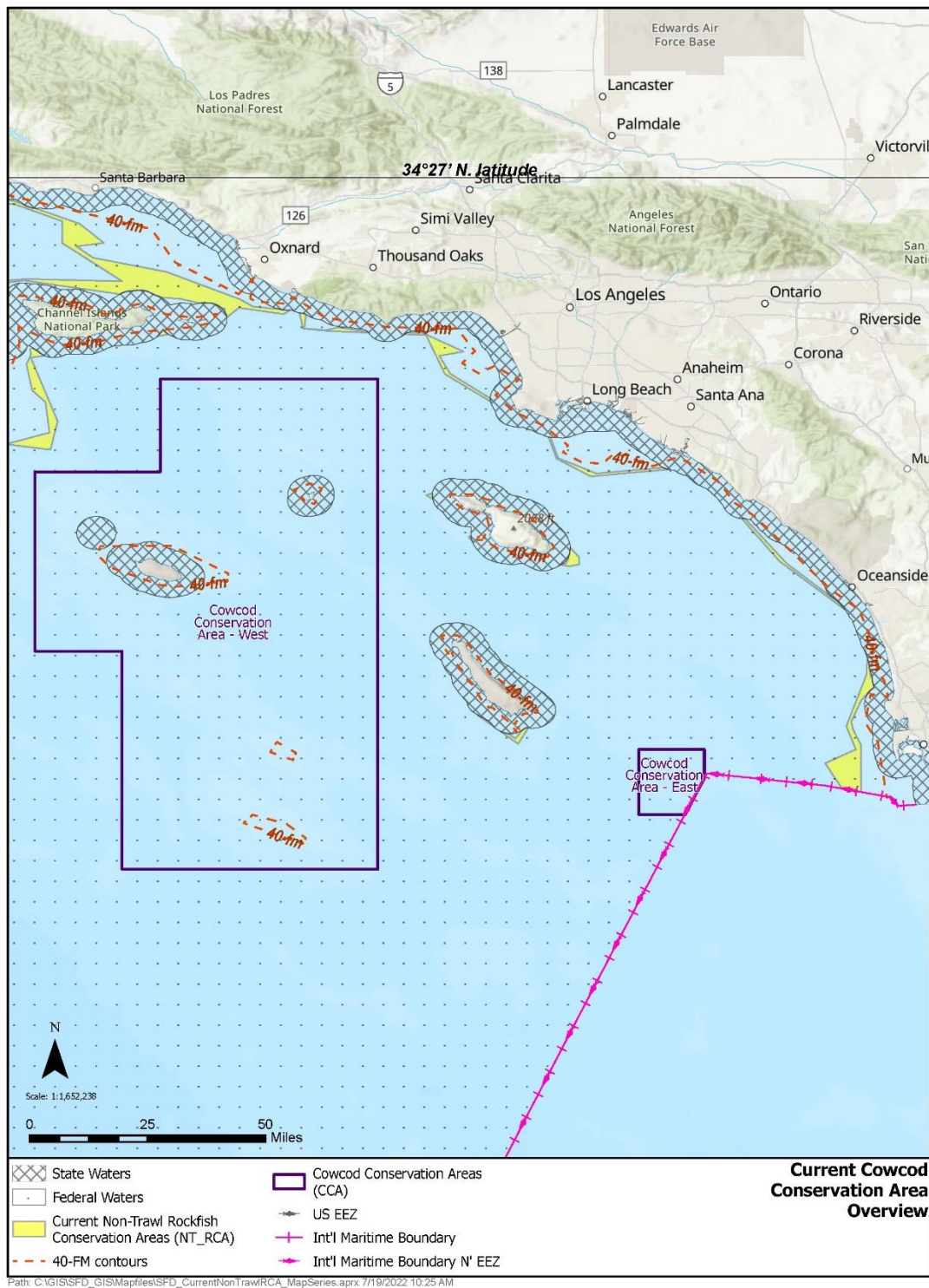


Figure 2. Western and Eastern CCA Boundaries

1.4.3 Yelloweye Rockfish Conservation Areas

YRCAs were first established via Federal Register notice in 2003 and then formally established in the groundfish FMP and Federal regulation in 2005 to assist in the conservation and rebuilding of yelloweye rockfish as an overfished species rebuilding measure. While the primary purpose for these closures is yelloweye protection, they may also provide additional conservation benefits to protect other depleted species.

The first YRCA to be established was the “C-Shaped” North Coast Recreational YRCA off the north Washington coast for recreational fisheries in 2004. A YRCA has been in place on Stonewall Bank off Oregon since 2006 and was expanded under the 2009-2010 biennial specifications ([2009-2010 Final Environmental Impact Statement](#)); currently, the Stonewall Bank YRCAs only prohibit recreational fishing for groundfish and Pacific halibut in the area. The North Coast Commercial YRCA was implemented in 2007 and fixed gear vessels have been prohibited from fishing in this area since that time. The South Coast and Westport Recreational YRCAs were developed during the 2007-2008 harvest specifications. In addition, the Council developed the salmon troll YRCA off Washington in the southeast corner of the North Coast Recreational YRCA that only prohibits salmon trolling at the same time ([2007-2008 Final Environmental Impact Statement](#)). In 2008, four YRCAs off California (Point St. George, South Reef, Reading Rock, and Point Delgada North & South) were adopted as management tools in the 2009-2010 biennial specifications. However, these area management measures have never been implemented in California. Some of these YRCAs occur either partially or wholly in state waters and would require state action to be in effect.

Under the 2021-2022 groundfish specifications final rule, the South Coast and Westport Offshore YRCAs off Washington were re-opened to allow for year-round recreational fishing for groundfish and Pacific halibut ([85 FR 79880](#)). However, the commercial fixed gear fisheries are still asked to voluntarily avoid these areas to prevent impacts to yelloweye rockfish.

Figure 3 through Figure 6 show the YRCAs available to the Council in three general categories: 1) YRCAs that are closed to commercial groundfish non-trawl gear; 2) YRCAs that are areas to be voluntarily avoided by commercial fixed gear fishermen; and 3) YRCAs that are available for the Council and NMFS to implement, but not currently active, for commercial groundfish non-trawl gear. Only one YRCA is currently active for the fisheries affected by this action, the North Coast Commercial YRCA (Figure 3). This YRCA is located off Washington and would not be affected by any of the proposed alternatives. Also, it is important to note that the Stonewall Bank YRCA is within the boundaries of the NT_RCA and currently not listed as an available YRCA for commercial non-trawl gear; it is only available to recreational gear. If the NT_RCA were opened in this area in the future, then this YRCA could be incorporated into the Federal regulations for commercial LEFG and OA fisheries as an available mitigation measure to protect yelloweye rockfish. Note that no YRCAs exist south of 38° 57.5' N. lat. as that area is south of the primary range of yelloweye rockfish.

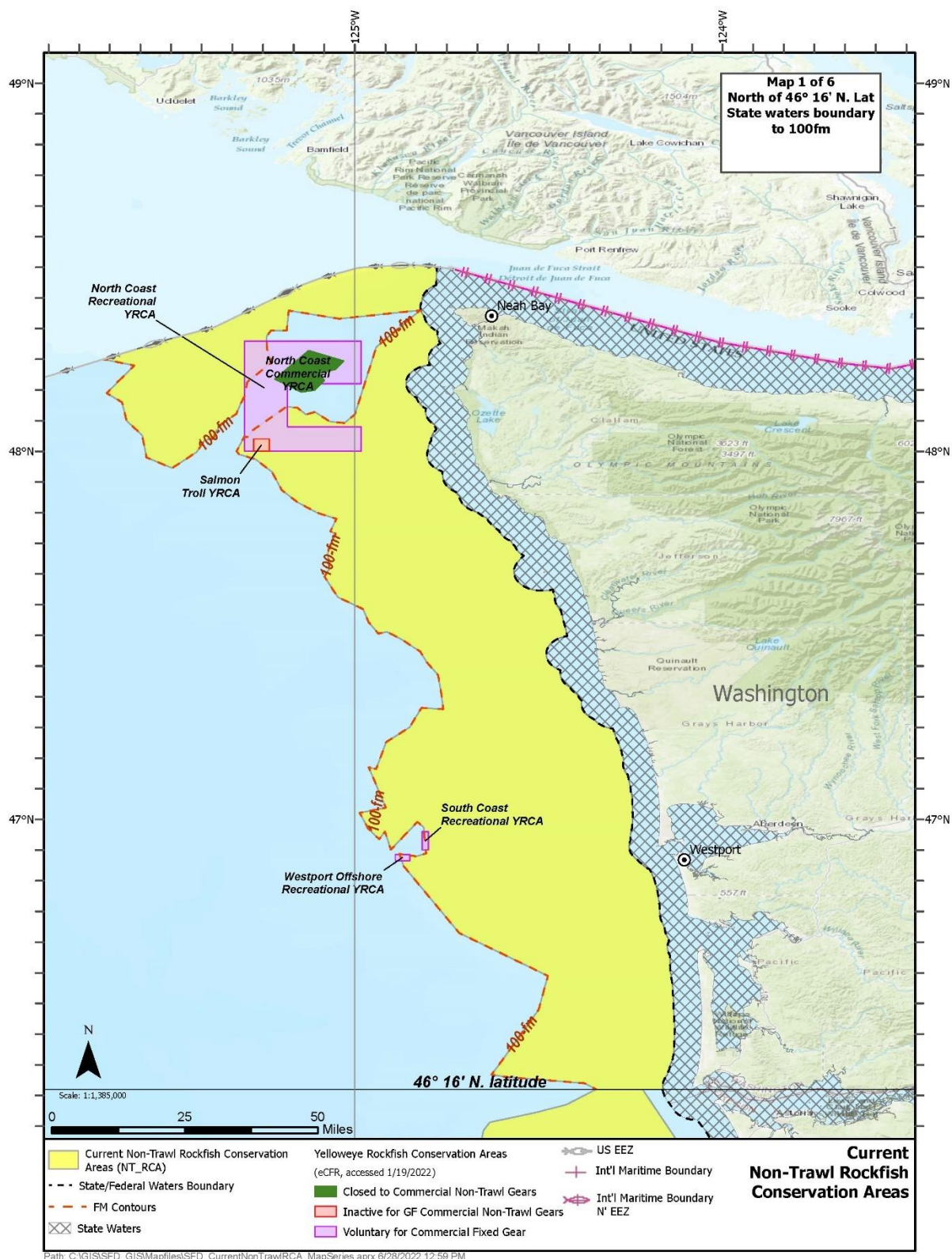


Figure 3. Current NT_RCA boundary and YRCAs available in regulation off Washington

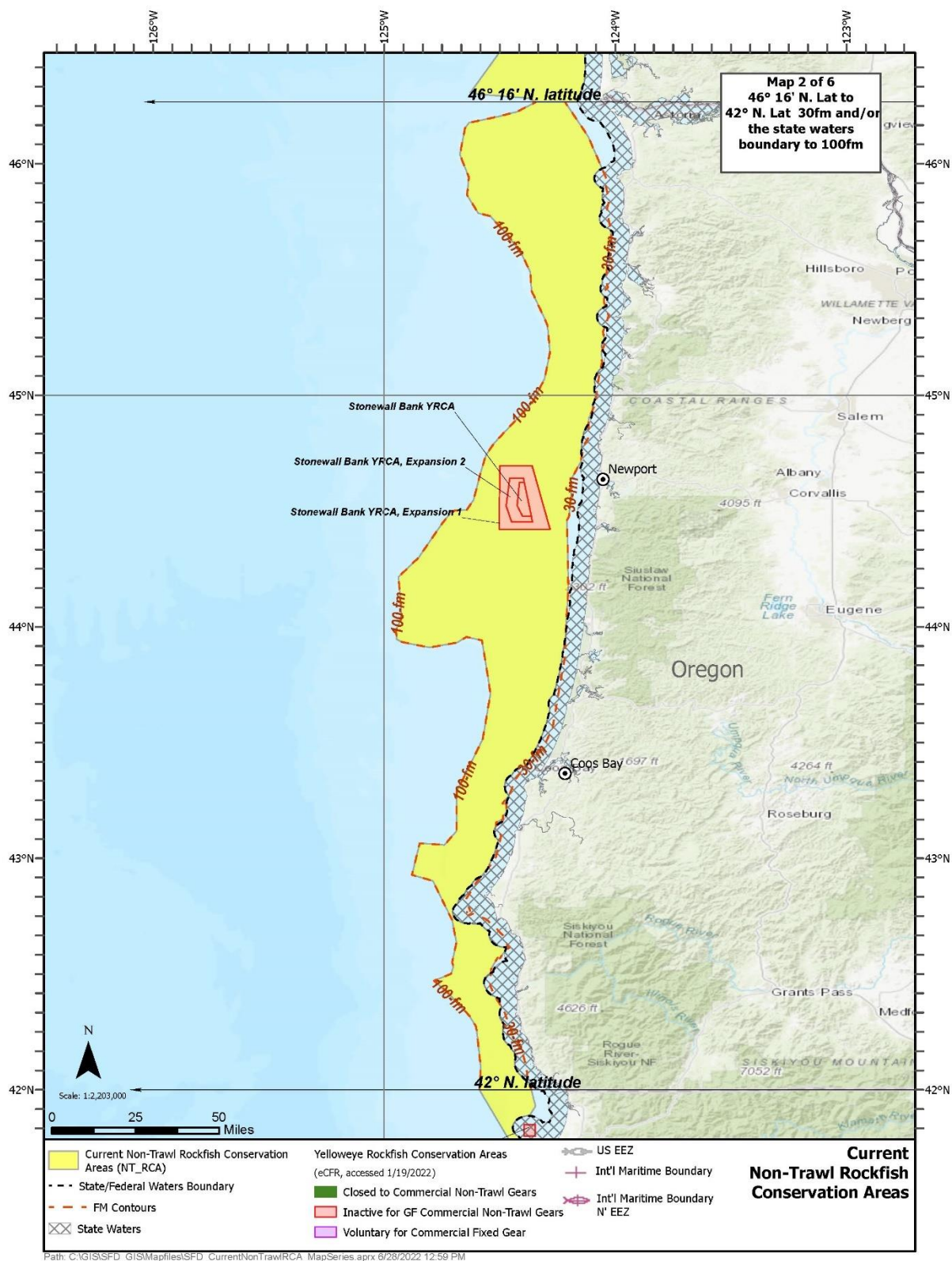


Figure 4. Current NT_RCA boundary and YRCAs available in regulation off Oregon from 46° 16' to 42° N. lat.

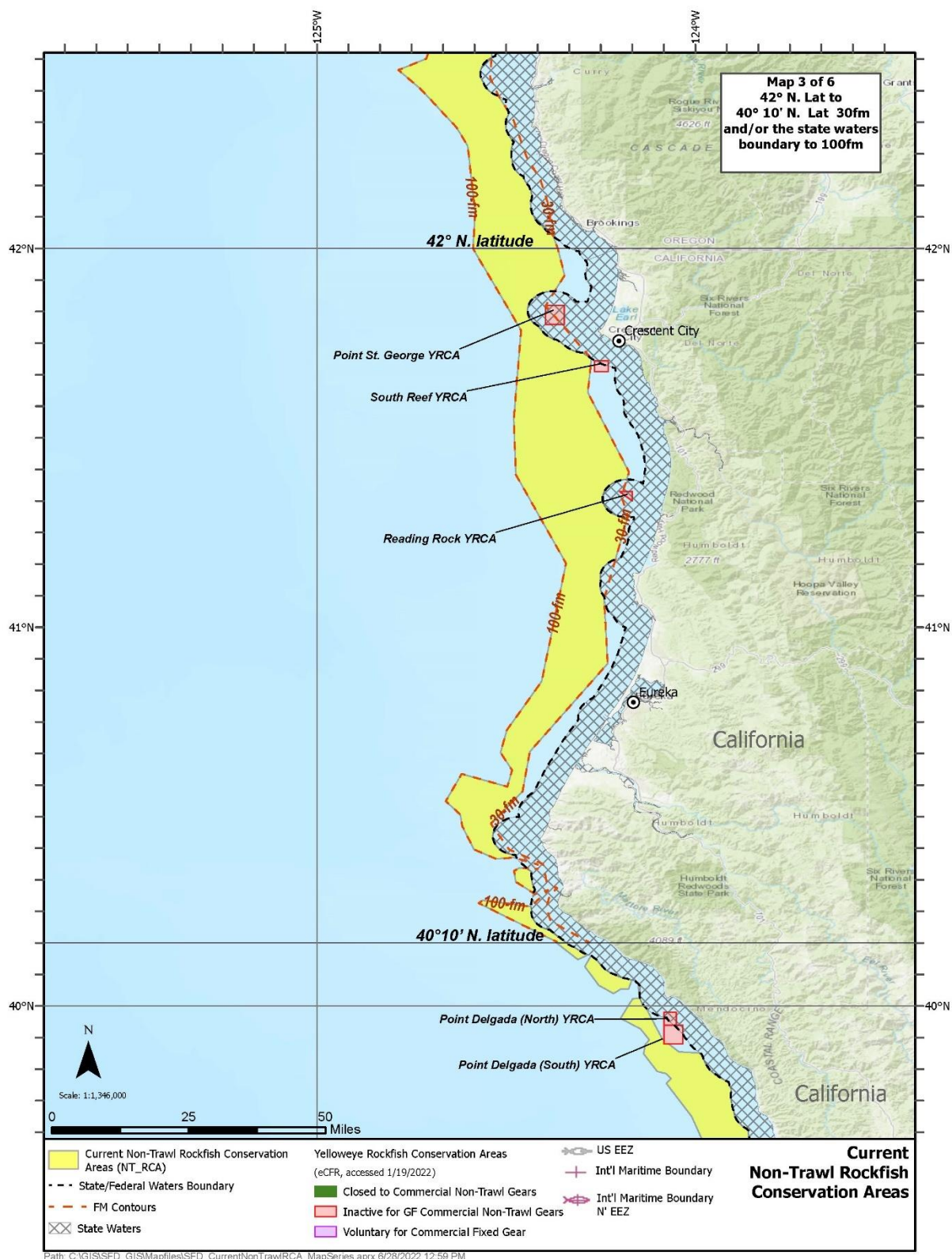


Figure 5. Current NT_RCA boundary and YRCAs available in regulation off California from 42° to 40° 10' N. lat.

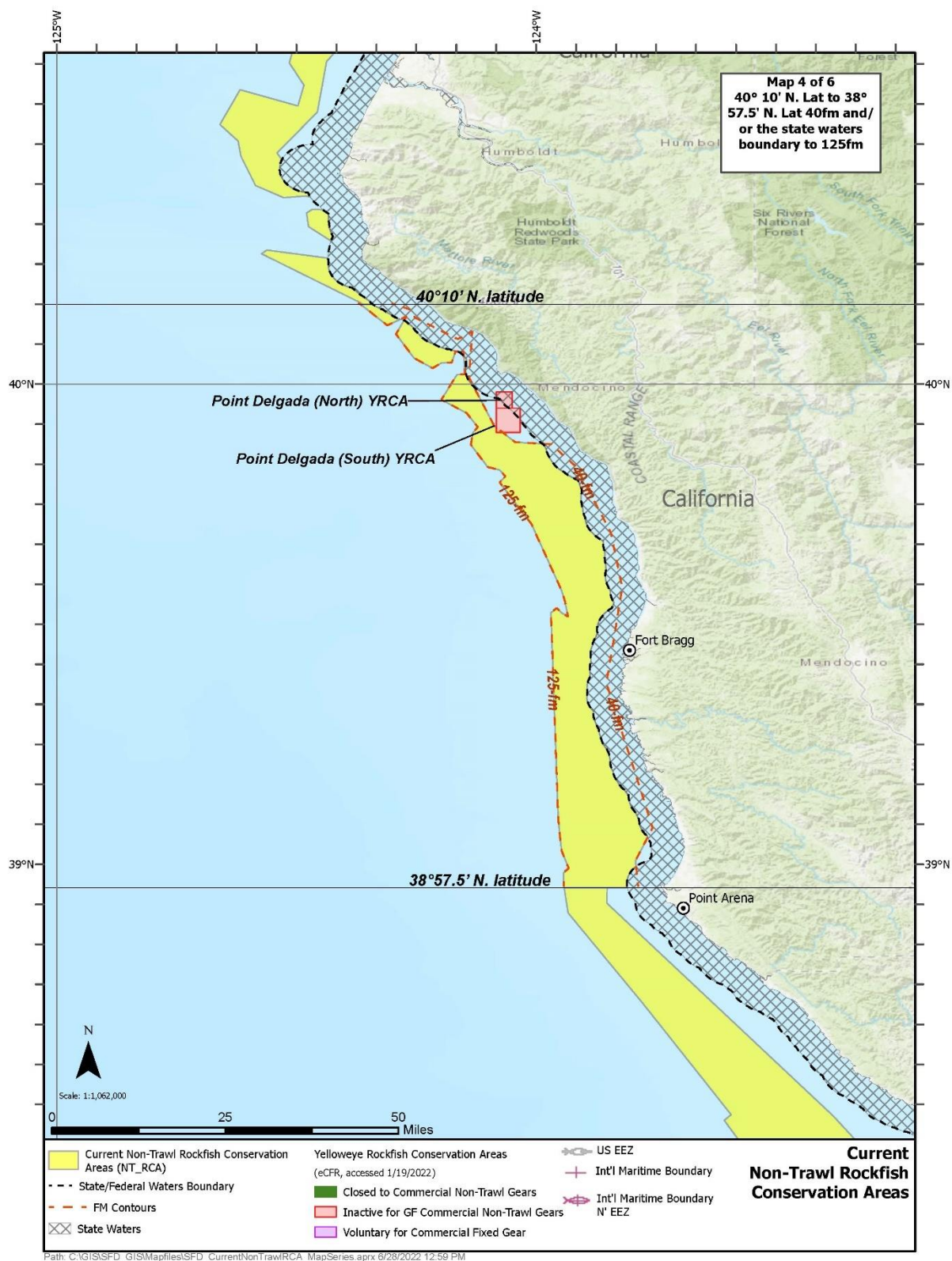


Figure 6. Current NT_RCA boundary and YRCAs available in regulation off California from 40° 10' to 38° 57.5' N. lat.

1.4.4 Essential Fish Habitat Conservation Areas (EFHCAs)

The Council has a primary tool available for use to mitigate habitat impact, EFHCAs. EFHCAs are areas closed to certain types of fishing for the purpose of conserving and protecting designated EFH. The Council has identified and created these discrete area closures starting in 2005 to mitigate the adverse effects of fishing on groundfish EFH ([FMP Section 6.86](#)), established under [Amendment 19](#).

There are two types of EFHCAs that are currently in place on the West Coast- bottom trawl and bottom contact. These gear prohibitions apply across all fisheries and are not groundfish specific. Bottom trawl fishing is prohibited in EFHCAs² defined at 50 CFR 660.112(a)(5)(ii), 50 CFR 660.112(a)(5)(v), and 50 CFR 660.112(a)(5)(vi) and were most recently assessed during the development of Amendment 28 ([Amendment 28 EIS](#)). The non-trawl fisheries under consideration in this proposed action would be permitted to fish in bottom trawl EFHCAs if the area were exposed to non-trawl fishing under an Alternative (e.g., if a NT_RCA boundary change were to newly expose part of a bottom trawl EFHCA to non-trawl gear). Bottom contact gear as defined at § 660.11 is prohibited in the following EFHCAs (defined at §§ 660.78 and 660.79): Thompson Seamount, President Jackson Seamount, Cordell Bank (50-fm (91-m) isobath), Harris Point, Richardson Rock, Scorpion, Painted Cave, Anacapa Island, Carrington Point, Judith Rock, Skunk Point, Footprint, Gull Island, South Point, and Santa Barbara and deeper than 500-fm (914-m), within the Davidson Seamount. Bottom contact EFHCAs would be opened only to non-bottom contact gears (e.g., groundfish troll gear) under this action. In other words, if a bottom contact EFHCA were exposed through a boundary change to the NT_RCA, pot or longline gear (i.e., bottom contact gears) would not be allowed to be fished in that area. There are only a select number of bottom contact EFHCAs currently defined in regulation and were last assessed during the development of Amendment 19. The Council is expected to take up a holistic view of EFHCAs during the next required EFH review process which is estimated to begin sometime in 2025. However, as described in Section 2.3, the Council is considering adding additional EFHCA designations in certain bottom trawl EFHCAs to provide continued habitat protection from non-trawl fishing for select areas. In those considerations, the Council may want to look at the proposed substrate types that may be opened to fishing activity and what elements within current bottom trawl EFHCAs should continue to be protected (see section 3.7.2.1 for more discussion and maps).

1.5 Fishery Sector Overview

Within the broader non-trawl sector, there are multiple fishery sectors that may be affected by this action. This section attempts to characterize each of those sectors and provide an overview of key management measures that regulate those sectors.

1.5.1 Limited Entry Fixed Gear Fishery Sector

To fish in the LEFG sector, vessels are required to be registered to an LEFG permit. Each LEFG permit has a gear endorsement which designates the allowable gear type(s), longline or pot/trap ([§660.25\(3\)\(ii\)](#)), that can be used by the vessel. Meaning, if an LEFG vessel is to harvest the LEFG trip limit for a particular

² 700-fm bottom trawl closure (coastwide), Olympic 2, Biogenic 1, Biogenic 2, Quinalt Canyon, Grays Canyon, Willapa Canyonhead, Willapa Deep, Biogenic 3, Astoria Deep, Astoria Canyon, Nehalem Bank/Shale Pile, Garibaldi Reef North, Garibaldi Reef South, Siletz Deepwater, Daisy Bank/Nelson Island, Newport Rockpile/Stonewall Bank, Hydrate Ridge, Heceta Bank, Deepwater off Coos Bay, Arago Reef, Bandon High Spot, Rogue Canyon, and Rogue River Reef, Brush Patch, Trinidad Canyon, Mad River Rough Patch, Samoa Deepwater, Eel River Canyon, Blunts Reef, Mendocino Ridge, Delgada Canyon, Tolo Bank, Navarro Canyon, Point Arena North, Point Arena South Biogenic Area, The Football, Gobbler's Knob, Point Reyes Reef, Cordell Bank/Biogenic Area, Rittenburg Bank, Farallon Islands/Fanny Shoal/Cochrane Bank, Farallon Escarpment, Half Moon Bay, Pescadero Reef, Pigeon Point Reef, Ascension Canyonhead, South of Davenport, Monterey Bay/Canyon, West of Sobranes Point, Point Sur Deep, Big Sur Coast/Port San Luis, La Cruz Canyon, West of Piedras Blancas State Marine Conservation Area, East San Lucia Bank, Point Conception, Hidden Reef/Kidney Bank (within Cowcod Conservation Area West), Catalina Island, Potato Bank (within Cowcod Conservation Area West), Cherry Bank (within Cowcod Conservation Area West), Cowcod EFHCA Conservation Area East, and Southern California Bight.

species or complex, it must use the gear for which it is endorsed. Specific management measures for the LEFG sector are defined at [50 CFR subpart E](#) with LEFG groundfish trip limits found under the same subpart in [Table 2 North](#) and [Table 2 South](#) and are summarized in Table 2 below.³ There are two fisheries within the LEFG sector:

1. LEFG sablefish primary (tier) fishery, which is managed with tier limits (§660.25(b)(vi)(A)) rather than cumulative trip limits (§[660.231](#))
2. LEFG trip limit fishery, which is managed by cumulative trip limits.⁴

In addition to endorsed longline and pot gear, LEFG vessels can fish with non-trawl “open access gear to target groundfish, such as vertical hook-and-line” ([§660.11](#)⁵, [§660.330 \(b\)](#)). For clarity, OA gear is defined under §660.11 as “all gear types except 1) longline or trap (or pot) gear fished with a vessel that has a limited entry permit affixed with a gear endorsement for that gear 2) Groundfish trawl.” However, if an LEFG vessel switches to an OA gear when fishing, or only fishes OA gear on a trip, crossover provisions apply ([§660.60\(h\)\(7\)](#)). This means that if vessels registered to an LEFG permit fish with OA gear at any time, they would be subject to the lower, more restrictive trip limit for that period. In most cases, this would be the OA trip limits ([§660.230 \(b\)\(2\)](#)). In select situations, if the OA trip limit is higher than the LEFG limit, LEFG vessels would be restricted to the LEFG trip limit([§660.60\(h\)\(7\)\(ii\)](#)).

Regardless of the gear type used by a vessel registered to an LEFG permit, any groundfish retained while using OA gear and/or during a crossover trip would count against the allocation ([§660.60\(h\)\(7\)\(ii\)\(A\)](#)). Finally, vessels are not allowed to retain two separate (i.e., LEFG and OA) trip limits (§660.60(h)(7)(ii)(A)) on the same trip. For example, if an LEFG vessel targets sablefish using its endorsed gear (e.g., longline) and then switches to OA gear (e.g., hook-and-line gear) to target yellowtail rockfish on the same trip, the vessel could only retain the OA trip limit of yellowtail and sablefish (if applicable) (§660.60(h)(7)(ii)(A)).

LEFG fishery participants are prohibited from operating within the boundaries of the NT_RCA and other specified GCAs and EFHCAs regardless of gear type, unless transiting (§§660.212(c) and 660.230(d)(11)(iii)) or fishing for the “other flatfish complex” in the NT_RCA (§660.330(d)(12)(iv)). Vessels may also fish within the CCA boundaries shoreward of the 40-fathom depth contour for rockfish and lingcod. Under [§660.230\(d\)](#), LEFG vessels allowed to operate “within a GCA (e.g., fishing for “other flatfish” with hook-and-line gear only) may not simultaneously have other gear on board the vessel that is unlawful to use in the [LEFG] fishery.” LEFG vessels are required to use vessel monitoring systems (VMS; [§660.14\(b\)\(1\)](#)) as a well as carry an observer if selected for coverage ([§660.18](#)).

³ See [§660.11 Conservation Measures 1\(vi\)\(B\)](#)

⁴ See [Agenda Item G2, Attachment 1, June 2021](#) for a complete description of the primary tier fishery and its relationship with other fisheries, including the daily trip limit (DTL) fisheries.

⁵ Refer to open access gear in the definitions list.

Table 2. Summary of LEFG fishery management measures in 2023.

Category	Regulation
Cumulative limits	<ul style="list-style-type: none"> • Cumulative trip limits for most species, specific to geographic area (See regulations Table 2 North and South to Part 660, Subpart E). • Primary sablefish fishery managed with tier limits • Yelloweye rockfish landings prohibited coastwide • South of 40°10' N. lat. landings of cowcod and bronzespotted rockfish are prohibited
Size limits	<ul style="list-style-type: none"> • Lingcod north of 42° N. lat. minimum size limit 22 inches total length • Lingcod south of 42° N. lat. minimum size limit 24 inches total length
Gear restrictions and definitions	<ul style="list-style-type: none"> • Longline, trap or pot marked at the surface, at each terminal end, with a pole, flag, light, radar reflector, and a buoy • Buoy used to mark gear must be marked with number clearly identifying the owner or operator of vessel • Must be attended at least once every seven days • Traps must have biodegradable escape panels <p>Fishing gear, including bottom contact gear, defined at 50 CFR § 660.11⁶</p>
Seasons	<ul style="list-style-type: none"> • Primary sablefish fishery from noon 4/1 to noon 12/31 • Permit stacking of up to 3 permits is allowed in primary sablefish fishery • Limited exemptions available for ownership limit of three limited entry sablefish endorsed permits <p>Additional seasonal restrictions may be implemented via routine action or the fishery may “close” for some species or some areas during the year through inseason action to keep landings within previously announced harvest levels.</p>
GCA: YRCA (active)	<ul style="list-style-type: none"> • North Coast Commercial YRCA (WA) closed to commercial fixed gears • North Coast Recreational YRCA (WA) is a voluntary area to be avoided by commercial fixed gears • Westport Offshore Recreational YRCA (WA) is a voluntary area to be avoided by commercial fixed gears
GCA: CCA	<p>Fishing is prohibited in CCAs with the following exceptions:</p> <ul style="list-style-type: none"> • Fishing for “Other Flatfish” with hook-and-line gear only • Fishing for rockfish, cabezon, greenling, California scorpionfish and lingcod shoreward of 40 fm
GCA: Other	<ul style="list-style-type: none"> • Farallon Islands: Commercial fishing for groundfish is prohibited shoreward of 10 fm with the following exceptions: Fishing for “Other Flatfish” with hook-and-line gear only • Cordell Bank: Commercial fishing for groundfish is prohibited in depths less than 100 fm with the following exceptions: Fishing for “Other Flatfish” with hook-and-line gear only
EHFCA	<ul style="list-style-type: none"> • Fishing with bottom contact gear is not permitted within the EEZ in the following EFHCAs (50 CFR §§ 660.78 and 660.79): Thompson Seamount, President Jackson Seamount, Cordell Banks (50-fm (91-m) isobath), Harris Point, Richardson Rock, Scorpion, Painted Cave, Anacapa Island, Carrington Point, Judith Rock, Skunk Point, Footprint, Gull Island, South Point, and Santa Barbara Island • Fishing with bottom contact gear or any other gear that is deployed deeper than 500-fm (914-m) is not permitted within the Davidson Seamount EFHCA (50 CFR § 660.79). • Fishing with bottom contact gear is not permitted in the DECA, 50 CFR § 660.11).
Monitoring and Reporting	<ul style="list-style-type: none"> • VMS required in Federal waters⁷ • West Coast Groundfish Observer Program (WCGOP) observer when selected for coverage • Electronic fish tickets within 24-hour reporting required when sablefish are landed. • Logbooks

1.5.2 Open Access Fishery Sector

OA commercial fishing vessels are those that are not registered to an LE permit “which takes and retains, possesses or lands groundfish.”⁸ The OA sector is poorly delineated, as this sector is comprised of vessels fishing multiple gear types (§660.330(b)), ranging from non-groundfish trawl gear to fixed gear and includes both directed groundfish operations and incidental open access fisheries (IOA). Therefore, any vessel certified to commercially fish on the West Coast can fish under the OA trip limit regulations. Additionally, each state may have specific licensing requirements for OA vessels (e.g., state nearshore permits, salmon troll) that may further classify vessels in those states.

The following fisheries may fish under the category of OA and either target groundfish or retain groundfish incidentally:

- a. Directed Open Access⁹
- b. Incidental Open Access
 - ii. Salmon Troll
 - iii. Non-tribal Directed Commercial Pacific Halibut Fishery
 - iv. Non-groundfish trawl (pink shrimp, ridgeback prawn, California halibut, and sea cucumbers)

The OA sector has specific trip limits that, in general, are lower than LEFG trip limits; however, the OA sector can fish to those limits with a wider variety of gear types (§660.30(b)). The current OA sector management measures and regulations are found at [50 CFR 660 subpart F](#) with trip limits found in [Table 3-North](#) and [Table 3-South](#) under the same subpart and summarize here in Table 3. OA vessels are also subject to crossover provisions (§660.60(h)(7)) though vessels cannot fish to LEFG limits without an LEFG permit.

Similar to LEFG vessels, directed groundfish OA vessels are prohibited from operating within the NT_RCA, and applicable GCAs (§660.330(d)(1-11) unless transiting (§660.33(d)(12)(i & ii)), or fishing for “other flatfish” complex (§660.330(d)(12)(iv)) with hook-and-line gear. OA vessels may also fish within the CCA boundaries shoreward of the 40-fathom depth contour for rockfish and lingcod. Additionally, OA vessels are required to carry an observer when fishing groundfish in the EEZ ([§660.14\(b\)\(3\)](#)) if selected for coverage by WCGOP ([§660.18](#) and [§660.316](#)) and must also use a VMS if fishing in Federal waters ([§660.14](#)).

IOA fisheries are fisheries that do not directly fish on or target groundfish but can retain groundfish incidentally caught. These incidental fisheries include both Federal-managed and state-managed fisheries. The pink shrimp, sea cucumber, ridgeback prawn, and CA halibut fisheries are not restricted by the NT_RCA; therefore, changes to the NT_RCA would not affect their fishing operations (i.e., fishing locations, available harvest, or effort). Consequently, we eliminated these fisheries from further discussion.

⁶ Bottom contact gear means fishing gear designed or modified to make contact with the bottom. This includes, but is not limited to, beam trawl, bottom trawl, dredge, fixed gear, set net, demersal seine, dinglebar gear, and other gear (including experimental gear) designed or modified to make contact with the bottom.

⁷ When fishing in Federal waters or transiting through Federal waters with groundfish on board.

⁸ [§660.11](#) Open Access fishery means the fishery composed of commercial vessels using open access gear fished pursuant to the harvest guidelines, quotas, and other management measures governing the harvest of open access allocations (detailed in §660.55) or governing the fishing activities of open access vessels (detailed in subpart F of this part). Any commercial vessel that is not registered to a limited entry permit and which takes and retains, possesses or lands groundfish is a participant in the open access groundfish fishery.

⁹ Directed Open Access means that a fishing vessel is target fishing for groundfish under the requirements of 50 CFR 660 Subpart F, is only declared into an open access groundfish gear type or sector as defined at 50 CFR 660.13(d)(4)(iv)(A) and has not declared into any other gear type or sector.

Two IOA fisheries may be impacted through this action with potential modifications of the NT_RCA boundaries - salmon troll and non-tribal directed halibut fishery. Salmon troll vessels are allowed to retain incidental limits of yellowtail rockfish while fishing both inside and outside the NT_RCA coastwide, lingcod while fishing inside the NT_RCA north of 40° 10' N. lat., and are subject to OA trip limits when retaining groundfish on trips completely outside of the NT_RCA. Salmon troll vessels cannot participate in the salmon troll fishery within the NT_RCA and then fish in the OA groundfish fishery or retain groundfish other than lingcod or yellowtail on the same trip (660.330(d)(12)(iii)). If retaining groundfish, vessels are required to have VMS.

The non-tribal directed halibut fishery is managed by NMFS with trip limits and closure of the fishery is based on attainment of the available harvest that is set by the International Pacific Halibut Commission (IPHC). The directed halibut fishery is prosecuted in the area south of Point Chehalis, WA (46°53.30' N lat.) and may incidentally catch and retain groundfish. The fishery is managed through a series of fishing periods with fishing period limits based on the directed commercial fishery allocation distributed by vessel class. In recent years, the fishery has operated under 58-hour openings every other week starting the fourth week in June. The fishery is also prohibited from fishing in the NT-RCA under the Federal regulations implemented via the Northern Pacific Halibut Act of 1982 (Halibut Act; [50 CFR 300.63\(e\)\(1\)](#))) and must abide by continuous transit rules when traveling through the NT_RCA. As with salmon trollers, if the vessel retains any groundfish, they must have VMS.

Table 3. Summary of open access fishery management measures in 2023.

Category	Regulation
Cumulative limits	<ul style="list-style-type: none"> • Cumulative trip limits for most species, specific to gear type and geographic area (See regulations Table 3 North and South to Part 660, Subpart E) • Yelloweye rockfish landings prohibited coastwide • South of 40°10' N. lat. landings of cowcod and bronzespotted rockfish prohibited
Size limits	<ul style="list-style-type: none"> • Lingcod north of 42° N. lat. minimum size limit 22 inches total length • Lingcod south of 42° N. lat. minimum size limit 24 inches total length
Gear restrictions and definitions	<ul style="list-style-type: none"> • Longline, trap, pot, hook-and-line (fixed or mobile), setnet (anchored gillnet or trammel net (south of 38° N. lat. only), spear, and non-groundfish trawl gear for: pink shrimp, ridgeback prawn, and California halibut or sea cucumbers (south of Pt. 38° 57.50' N. lat.) • Non-groundfish trawl gear is exempt from the limited entry trawl gear restrictions; however, footrope (<19") is prohibited in EFH closed areas. • Fishing gear, including bottom contact gear, is defined at 50 CFR § 660.11¹⁰ • Fixed gear <ul style="list-style-type: none"> ○ Must be marked at the surface, at each terminal end, with a pole, flag, light, radar reflector, and a buoy; vertical hook-and-line gear that is closely tended may be marked only with a single buoy of sufficient size to float the gear ○ Must be attended at least once every 7 days ○ Fishing for groundfish with set nets is prohibited in the area north of 38° N. lat. ○ Traps must have biodegradable escape panels
Seasons	Seasonal restrictions may be implemented via routine action or the fishery may “close” for some species or some areas during the year through inseason action to keep landings within previously announced harvest levels.
GCA: YRCA (active)	<ul style="list-style-type: none"> • North Coast Commercial YRCA (WA) closed to commercial fixed gears • North Coast Recreational YRCA (WA) is a voluntary area to be avoided by commercial fixed gears • Westport Offshore Recreational YRCA (WA) is a voluntary area to be avoided by commercial fixed gears
GCA: CCA	<p>Fishing is prohibited in CCAs with the following exceptions:</p> <ul style="list-style-type: none"> • Fishing for “Other Flatfish” with hook-and-line gear only • Fishing for rockfish, cabezon, greenling, California scorpionfish, and lingcod shoreward of 40 fm
GCA: Other	<ul style="list-style-type: none"> • Farallon Islands: commercial fishing for groundfish is prohibited shoreward of 10 fm with the following exceptions: Fishing for “Other Flatfish” with hook-and-line gear only • Cordell Bank: Commercial fishing for groundfish is prohibited in depths less than 100 fm with the following exceptions: Fishing for “Other Flatfish” with hook-and-line gear only
EHFCA	<ul style="list-style-type: none"> • Fishing with bottom contact gear is not permitted within the EEZ in the following EFHCAs (50 CFR §§ 660.78 and 660.79): Thompson Seamount, President Jackson Seamount, Cordell Bank (50-fm (91-m) isobath), Harris Point, Richardson Rock, Scorpion, Painted Cave, Anacapa Island, Carrington Point, Judith Rock, Skunk Point, Footprint, Gull Island, South Point, and Santa Barbara Island • Fishing with bottom contact gear or any other gear that is deployed deeper than 500-fm (914-m) is not permitted within the Davidson Seamount EFHCA (§ 660.79). • Fishing with bottom contact gear is not permitted in the DECA, (§ 660.11).
Monitoring and Reporting	<ul style="list-style-type: none"> • VMS required in Federal waters¹¹ • WCGOP observer coverage when vessel selected by NMFS • Electronic fish tickets within 24-hour reporting required when sablefish are landed. • Logbooks

1.5.3 Shorebased IFQ Gear Switching

Shorebased IFQ trawl vessels utilizing non-trawl gear (i.e., “gear switchers”) may also be impacted by this action ([§660.24\(k\)](#)). These vessels may use any legal non-trawl gear to participate in the trawl groundfish fishery but do not need fixed gear endorsements as do LEFG vessels. Gear switching vessels are required to follow the same prohibitions ([§616.212](#)) and management measures ([§660.230\(d\)](#)) in place for LEFG vessels, including any applicable gear restrictions (§§[660.219](#) and [660.230\(b\)](#)). These vessels are subject to GCA fixed gear provisions, including the NT_RCA, when fishing with the non-trawl gear. However, gear switching vessels are subject to other provisions that are required of the Shorebased IFQ program, including 100 percent monitoring (see [660.140\(k\)](#)).

¹⁰ Bottom contact gear means fishing gear designed or modified to make contact with the bottom. This includes, but is not limited to, beam trawl, bottom trawl, dredge, fixed gear, set net, demersal seine, dinglebar gear, and other gear (including experimental gear) designed or modified to make contact with the bottom.

¹¹ When fishing in Federal waters or transiting through Federal waters with groundfish on board.

Table 3. Summary of IFQ fishery management measures for gear switching vessels in 2023.

Category	Management Measure
Catch controls	Individual Bycatch Quota (IBQ) for Pacific halibut north of 40° 10' N. lat. and IFQ quota pounds are debited from IFQ vessel accounts based on any catch that is landed or discarded. “Survival credits” are provided for Pacific halibut, lingcod, and sablefish discards. Vessels are prohibited from participating in the IFQ fishery if the vessel exceeded any quota allocation for the prior year. The vessel must purchase QPs to fill the deficit from the previous year in order to fish the following year.
Landing limits	Cumulative bi-monthly landing limits (hereinafter “trip limits”) for non-IFQ species and Pacific whiting outside of the primary season dates apply to each vessel. Once a vessel reaches a limit, the species or species complex can no longer be retained and sold.
Accumulation limits	The maximum number of quota share (QS) and quota pounds (QPs) an entity may control in the shorebased IFQ fishery and the maximum amount of QP in a vessel account (used and unused) are limited by accumulation limits (defined in regulation at 50 §CFR 660.111). These limits vary according to the stock or stock complex.
Adaptive Management Program (AMP) pass throughs	Ten percent of the non-whiting QS is to be reserved for the AMP and each year the QP issued for that QS is available for use in the AMP. AMP-related criteria for AMP-QP distribution has not been developed, it is issued (i.e., passed through) to permit owners in proportion to their non-whiting QS.
Carryover provision	Allows a limited amount of surplus QP or IBQ pounds in a vessel account to be carried over from one year to the next or allows a deficit in a vessel account in one year to be covered with QP or IBQ pounds from a subsequent year, up to a carryover limit. The eligible percentages used for the carryover provision may be modified during the biennial specifications and management measures process or based on a Council inseason recommendation, pending NMFS approval. Species eligible for potential issuance of surplus carryover include those where the acceptable biological catch (ABC) is larger than the annual catch limit (ACL) and issuance of surplus carryover can occur up to the level where ACL = ABC.
Monitoring and reporting	100 percent of trips in the shorebased IFQ fishery are monitored at sea by either WCGOP observers or on-board electronic monitoring, landings are tracked by electronic fish tickets and verified by catch monitors. Logbooks must be submitted that show estimated catch and discards for each haul and trip.
RCAs	Vessels harvesting IFQ stocks must abide by applicable RCA closures, which are specified by gear type. “Gear switching” vessels in the Shorebased IFQ fishery using non-trawl gear to catch IFQ QP are subject to the NT_RCA.
Other GCAs	Other GCAs exist to protect overfished species and habitat, including EFHCAs, a deep-water (>700 fathom) bottom trawl closure area, bottom contact closure areas, CCAs, and YRCAs.

1.5.4 Recreational Fishery off California

While recreational fisheries are not subject to the NT_RCA described in Section 1.4.1 above, recreational vessels participating in southern California would be impacted by Alternative 3 and are therefore discussed here. Recreational vessels may be private vessels or commercial passenger fishing vessels (CPFVs). Currently, recreational fishing is prohibited within the CCA, except for petrale sole, starry flounder, and the other flatfish complex (as specified in 50 CFR 660.360(c)(3)(iv)). Similar to commercial vessels, recreational participants may fish within the 40 fathom depth contours when permitted for nearshore rockfish, cabezon, kelp greenling, lingcod, California scorpionfish, and shelf rockfish. State regulations also permit the retention of California sheephead, ocean whitefish, and all greens of the genus

Hexagrammos in this area when the rockfish-cabezon-greenling complex is open for fishing. Vessels targeting groundfish typically use hook-and-line gear such as rod and reel.

1.5.5 Applicable Gear Types

The NT_RCA is applicable to vessels utilizing any legal non-trawl gear, including fixed gears and hook-and-line gear (Table 4).

Table 4. Non-Trawl Gears Used to Catch Groundfish (directed and incidentally) and Pacific Halibut.

Gear	Definition	Types
Bottom Contact Gear	Gear designed, or modified, to make contact with the bottom	Includes, but not limited to: <ul style="list-style-type: none"> • Fixed gear • Set net • Dinglebar gear • Experimental gear designed/modified to make contact with the bottom
Fixed Gear	Anchored non-trawl gear	<ul style="list-style-type: none"> • Longline • Trap or pot • Set net • Stationary hook-and-line (includes vertical hook-and-line)
Hook-and-Line Gear	Gear with one or more hooks attached to one or more lines, may be stationary or trolled.	<ul style="list-style-type: none"> • Bottom longline ^{a/ b/} • Commercial vertical hook-and-line • Dinglebar • Troll gear for salmon • Non-bottom contact hook-and-line gear (groundfish troll gear and vertical stationary jig gear)

a/ Means a stationary, buoyed, and anchored groundline with hooks attached, so as to fish along the seabed. It does not include pelagic hook-and-line or troll gear.

b/ Snap gear means a type of bottom longline gear where the hook and gangion are attached to the groundline using a mechanical fastener or snap.

Starting in 2023, non-bottom contact hook-and-line gear is defined in the groundfish regulations ([50 CFR 660.11 \(12\)](#)). Legal non-bottom contact hook-and-line gear means stationary vertical jig gear not anchored to the bottom, and groundfish troll gear (§ 660.330(b)(3)). The following requirements apply to stationary vertical jig gear: 1) must be a minimum of 50 feet between the bottom weight and the lowest fishing hook; 2) no more than 4 vertical mainlines may be used at one time with no more than 25 hooks on each mainline; and 3) no more than 100 hooks may be in the water at one time, with no more than 25 extra hooks on board the vessel.

Groundfish troll gear includes a horizontally suspended monofilament mainline attached to a troll wire. The following requirements apply to groundfish troll gear: 1) must be a minimum of 50 feet between the bottom weight and the troll wire's connection to the horizontal mainline; 2) no more than 1 mainline may be used at one time, and 3) no more than 500 hooks may be in the water at one time, with no more than 25 extra hooks on board the vessel; hooks must be spaced apart by a visible marker (e.g., floats, line wraps, colored

lines splices), with no more than 25 hooks between each marker and no more than 20 markers on the mainline. Both stationary vertical jig gear and groundfish troll gear must be equipped with artificial lures and flies.

Description of Alternatives

The following sections describe the No Action (Status Quo), the ROA adopted by the Council, and the PPA selected by the Council.

2.1 No Action

The No Action alternative would retain the current suite of GCAs (See Tables 1 through 3, [50 CFR 660.330\(d\)](#)) including Cordell Bank, CCAs, Farallon Islands, YRCAs and all rockfish conservation areas (trawl, non-trawl, non-groundfish trawl, and recreational). The non-trawl groundfish regulations are incorporated by reference, though are found in detail at [660 Subpart E](#) and [Subpart F](#). Under No Action, non-trawl groundfish and non-tribal directed halibut fishing would remain prohibited in the NT_RCA unless specified.

The No Action alternative would retain the current NT_RCA configuration coastwide from U.S./Canada border to the U.S./Mexico border to control the bycatch of overfished species and other groundfish species (see Figure 1 and Table 1). Fisheries currently subject to the restrictions of the NT_RCA are commercial groundfish vessels using non-trawl gears (Directed OA, LEFG, IFQ gear switching) and the directed halibut fishery.¹² As of January 1, 2023, the Directed OA groundfish fleet fishing off Oregon and California is allowed to access the NT_RCA when using allowable non-bottom contact gear (i.e., stationary vertical jig gear as defined at [50 CFR 660.330\(b\)\(3\)\(i\)](#) and groundfish troll gear (as defined in [50 CFR 660.330\(b\)\(3\)\(ii\)](#)) on a declared trip and when using artificial bait. Vessels declared into the Directed OA fishery are allowed to carry only one type of approved non-bottom contact hook-and-line gear on-board a vessel when fishing occurs in the NT_RCA; vessels that fish in the LEFG fishery and gear switching vessels under the IFQ program are allowed to utilize this measure only if they declared into the Directed OA fishery and are subject to the lower OA trip limits (except in limited circumstances when the LEFG limit is lower). In addition, vessels are allowed to operate inside and outside the current NT_RCA boundaries (Table 1, Figure 1) on the same trip but must carry only the declared type of approved hook-and-line gear and fish with artificial bait, not switch gears during a fishing trip, and must declare their intent to fish within the NT_RCA prior to departure. All other gear types are prohibited from use in the NT_RCA. Directed halibut vessels will still operate under the same regulations and process described above in Section 1.5.2, including being restricted outside of the NT_RCA and any applicable bottom contact EFHCAs.

Under No Action, regulations relating to VMS, declaration, observer coverage, continuous transiting, etc. are not expected to change. Further, regulations that prohibit fishing inside the NT_RCA off Washington would remain in place.

In addition, No Action would retain all EFHCAs and the DECA. A description of EFHCAs on the West Coast can be found in Section 1.4.4. The DECA prohibits bottom contact gear within the EEZ deeper than 3,500 m.

2.2 Alternative 1 (PPA)

Alternative 1: Modify gear specifications and catch restrictions applicable to fishing inside the NT_RCA between 46 16' N. and the U.S./Mexico border for the Directed OA, LEFG, and IFQ gear switching fishery sectors. This could include one or multiple of the below suboptions:

¹² See discussion of exceptions in Section 1.5.2

Suboption 1 (PPA): Allow LEFG vessels to fish up to LEFG trip limits in the NT_RCA when using stationary vertical jig gear or groundfish troll gear , and allow IFQ gear switching vessels to fish under their QPs in the NT_RCA using stationary vertical jig gear or groundfish troll gear .

Suboption 2 (PPA): Allow only those vessels using vertical stationary jig gear to use natural bait.

Suboption 3: Allow vertical stationary jig gear to be suspended no less than 30 feet from the bottom.

As contemplated during the PPA, Alternative 1 included providing fishing access to the NT_RCA for the Directed OA and LEFG sectors with specific non-bottom contact gear configurations tested through Exempted Fishing Permit (EFP) projects (i.e., the Emley-Platt and Real Good Fish EFPs). To achieve faster implementation, this provision was analyzed and legalized as a management measure through the 2023-2024 Groundfish Harvest Specifications and Management Measures EA/RIR and rulemaking ([87 FR 77007](#)), which became effective on January 1, 2023. The Council chose to retain this provision in the scope of Alternative 1 for this action at the PPA stage in the unlikely event that the 2023-24 Harvest Specifications and Management Measures action was delayed. However, now that the 2023-24 Harvest Specifications and Management Measures action is implemented, the Directed OA, LEFG, and IFQ gear switching sectors all have fishing access to the NT_RCA under current regulations, albeit only declared into the Directed OA sector, which limits the utility of this provision for the LEFG and IFQ gear switching sectors. Given that the provision is already implemented, in this analytical document, we only analyzed the remaining provisions of Alternative 1 that were not implemented in the 2023-24 Harvest Specifications and Management Measures action.

The following provides additional details on the suboptions available for Alternative 1:

Suboption 1 (PPA): Allow LEFG vessels to fish up to LEFG trip limits and allow IFQ gear switching vessels to fish using their QPs in the NT_RCA using stationary vertical jig gear or groundfish troll gear.

This suboption, included in the PPA, would allow LEFG vessels to fish up to their LEFG limits and IFQ gear switching vessels to utilize their QPs when using the two approved hook-and-line gear types in the NT_RCA. Under current regulations, crossover provisions require LEFG to fish to the lower limits when fishing with OA gear. LEFG trip limits would remain consistent with current regulations and continue to prohibit the retention of prohibited species (e.g., cowcod, yelloweye rockfish, etc.). IFQ management measures would remain consistent as well. Additionally, regulations relating to VMS, fishery declaration, observer coverage, continuous transiting, etc. are expected to remain in place.

Suboption 1 would require a regulatory amendment to implement the action to allow LEFG vessels to fish up to their limits using the approved hook-and-line gear through changes to the crossover provisions (([50 CFR 660.60\(h\)\(7\)\(ii\)\(A\)\)](#)) and the creation of new declaration codes. We do not expect any changes to the groundfish FMP under this suboption.

Suboption 2 (PPA): Allow only those vessels using vertical stationary jig gear may use natural bait.

This suboption would allow vessels using vertical stationary jig gear to use natural bait when fishing inside and outside the NT_RCA. This suboption would also require a regulatory amendment to amend the description of vertical stationary jig gear.

Suboption 3: Allow vertical stationary jig gear be suspended no less than 30 feet from the bottom.

This suboption could be added to the PPA to require stationary jig gear be suspended no less than 30 feet from the bottom as compared to 50 feet as allowed under No Action. This gear is used to target midwater rockfish species such as yellowtail. This suboption would also require a regulatory amendment to change the definition of vertical stationary jig gear.

2.3 Alternative 2 (PPA)

Alternative 2: Adjust the seaward boundary of the NT_RCA to 75 fathoms from 46° 16' North Latitude to 34° 27' North Latitude for both commercial groundfish and directed halibut fishing activity (Figures 7 through 13). Some areas may overlap with state waters and require conforming action to enforce any boundaries in state waters.

- **Suboption 1a:** Prohibit all non-trawl bottom contact gear in bottom trawl EFHCAs that would otherwise be reopened under this action (applicable to any relevant EFHCA).
- **Suboption 1b:** Prohibit all non-trawl bottom contact gear in the entire EFHCA for bottom trawl EFHCAs with small portions outside the existing non-trawl RCA seaward boundary (applicable to any relevant EFHCA).
- **Suboption 1c:** Create a non-trawl bottom contact EFHCA over the entire bottom trawl EFHCA both in the area to be exposed and in the current NT_RCA (i.e., EFHCA areas not exposed, applicable to any relevant EFHCA).
- **Suboption 1d (PPA):** Create a non-trawl bottom contact EFHCA that prohibits groundfish and directed halibut fishing in bottom trawl EFHCAs that would otherwise be reopened under this action for Nehalem Bank and Bandon High Spot (i.e., Suboption 1a above applied to Nehalem Bank and Bandon High Spot EFHCAs only).
- **Suboption 1e (PPA):** Create a non-trawl bottom contact EFHCA that prohibits groundfish and directed halibut fishing over the entire bottom trawl EFHCA for Garibaldi Reef North, Garibaldi Reef South, and Arago Reef (i.e., Suboption 1c above applied to Garibaldi Reef North, Garibaldi Reef South, and Arago Reef EFHCAs only).
- **Suboption 2 (PPA):** Implement a YRCA that prohibits non-trawl groundfish and directed halibut bottom contact gear in the area west of the Heceta Bank EFHCA which would be active when this action is implemented (Figure 14).
- **Suboption 3 (PPA):** Create YRCAs as described in Table 7 that prohibit non-trawl groundfish and directed halibut bottom contact gear that could be used to mitigate impacts to yelloweye rockfish.

Under Alternative 2, the seaward boundary of the NT_RCA would be changed to 75 fathoms from 46° 16' N. lat. to 34° 27' N. lat. (see Figure 7 for overview). The seaward boundaries in areas to the north (off the coast of Washington; Figure 8) and south of that range in the Southern California Bight (Figure 13) would not change. Overall, Alternative 2 would open 2,351 square miles to fishing with legal non-trawl groundfish and non-tribal directed Pacific halibut gear.¹³ This action would allow vessels fishing in the

¹³ This statistic includes 62.33 sq. mi. that would remain closed to groundfish fishing in the portion of the Cordell Bank GCA that overlaps with the proposed area to be opened under Alternative 2.

Directed OA, LEFG, IFQ gear switching, and directed halibut fishery to fish in this area. Salmon troll vessels retaining groundfish in the NT_RCA would still be held to current trip limits; however, there would be additional fishing area (e.g., from 75-100 fm or 75-125 fm) where salmon troll vessels would be subject only to OA trip limit regulations as currently allowed outside the NT_RCA. Vessels would continue to be subject to any bottom contact EFHCA restrictions (i.e., Cordell Bank (50-fm (91-m) isobath)) or other GCAs (i.e., Cordell Bank) in areas that are exposed by adjustment of the boundary; however, vessels *would* be allowed to fish in areas of bottom trawl EFHCAs that are exposed that are not otherwise closed to fishing.

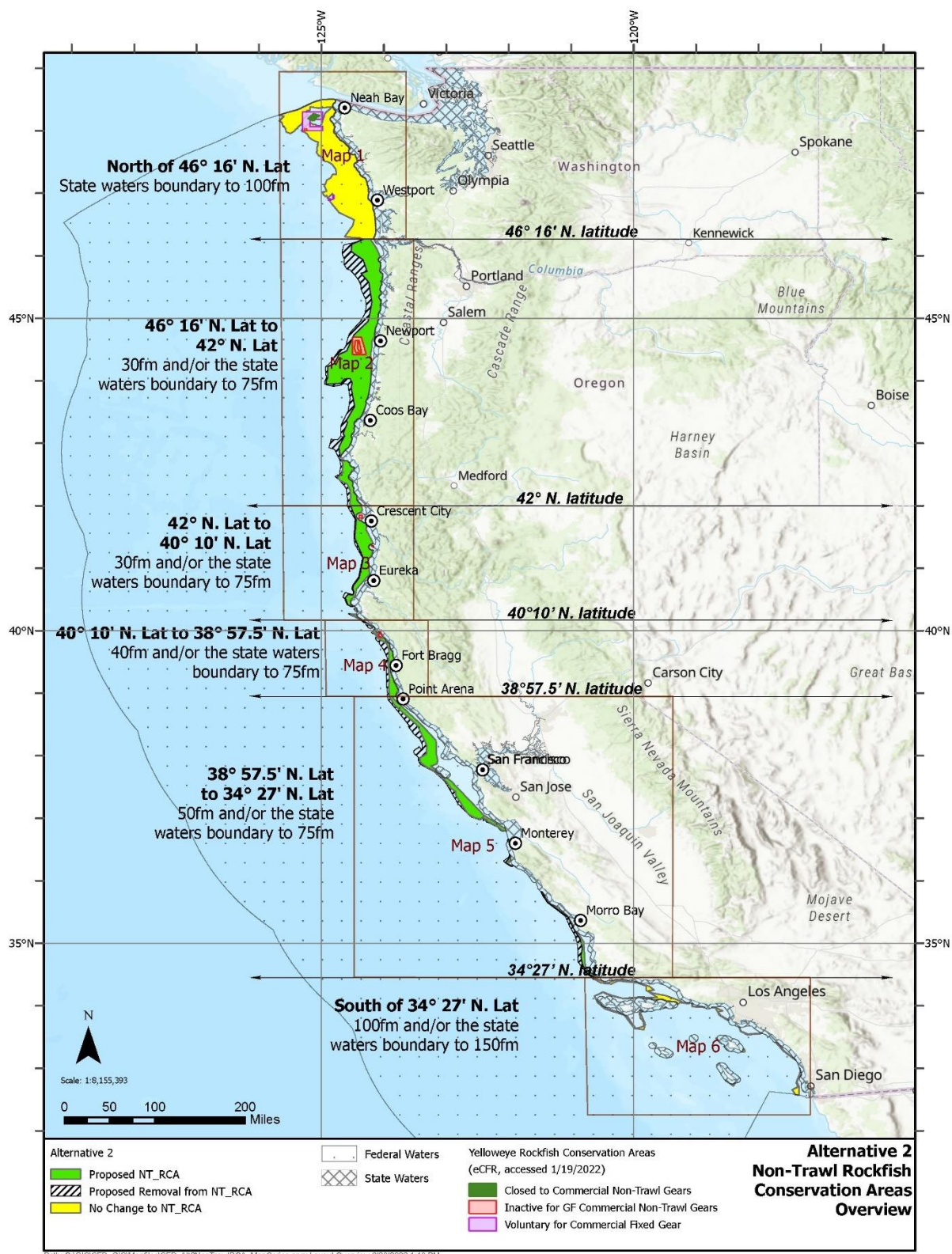


Figure 7. Overview of Alternative 2

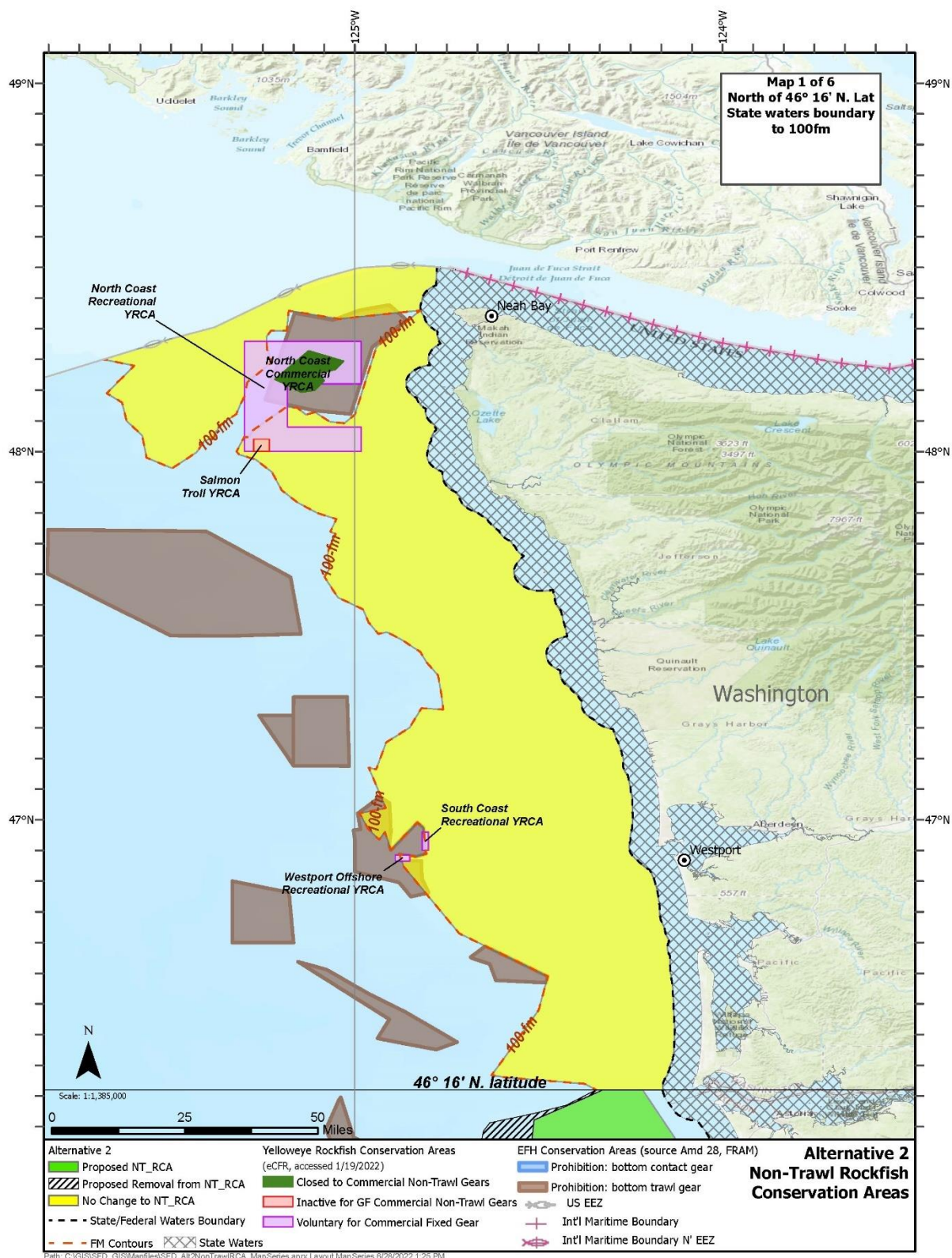


Figure 8. Alternative 2 - Off Washington (No Changes Proposed)

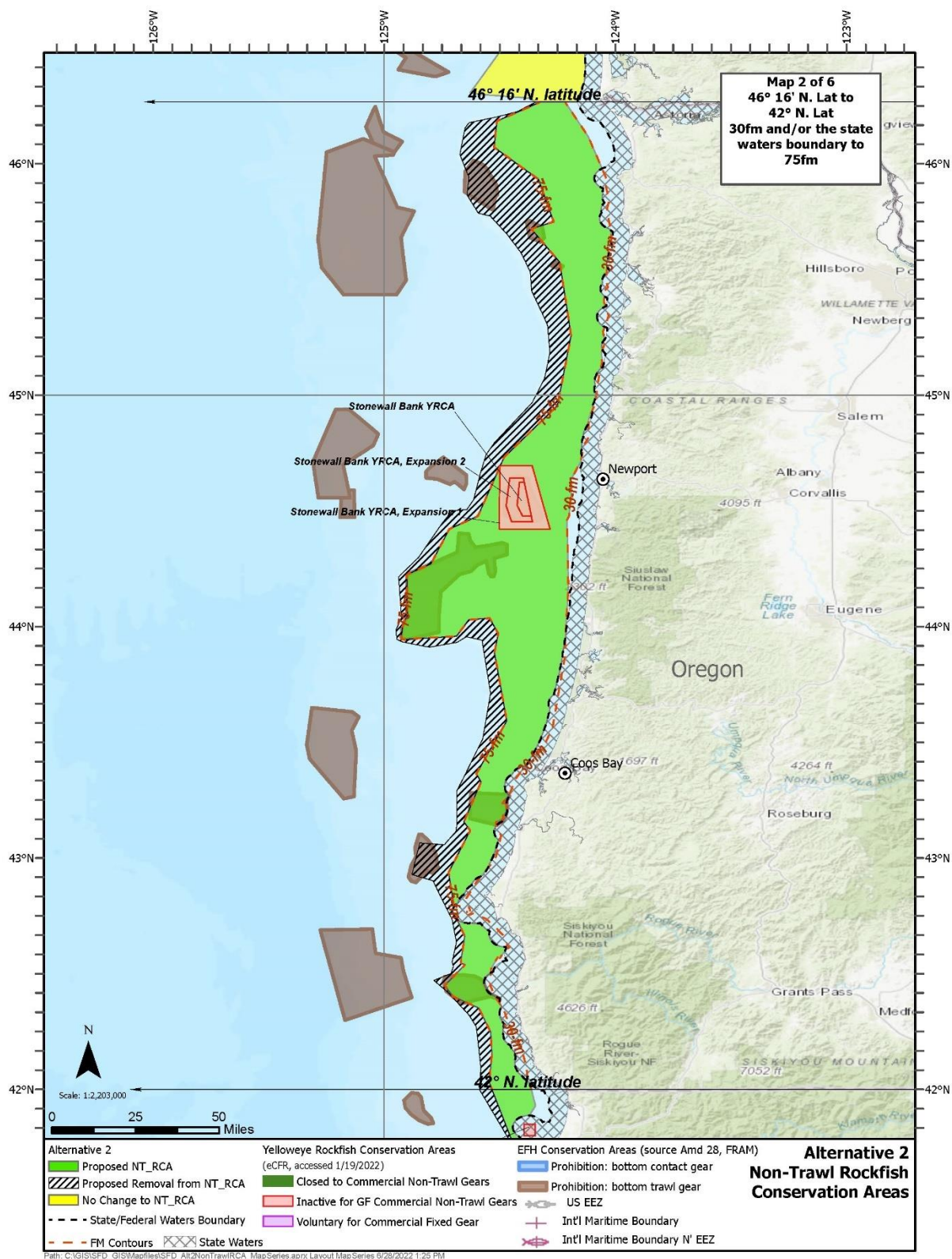


Figure 9. Alternative 2- Proposed Changes to NT_RCA off Oregon (46° 16' to 42° N. lat.)

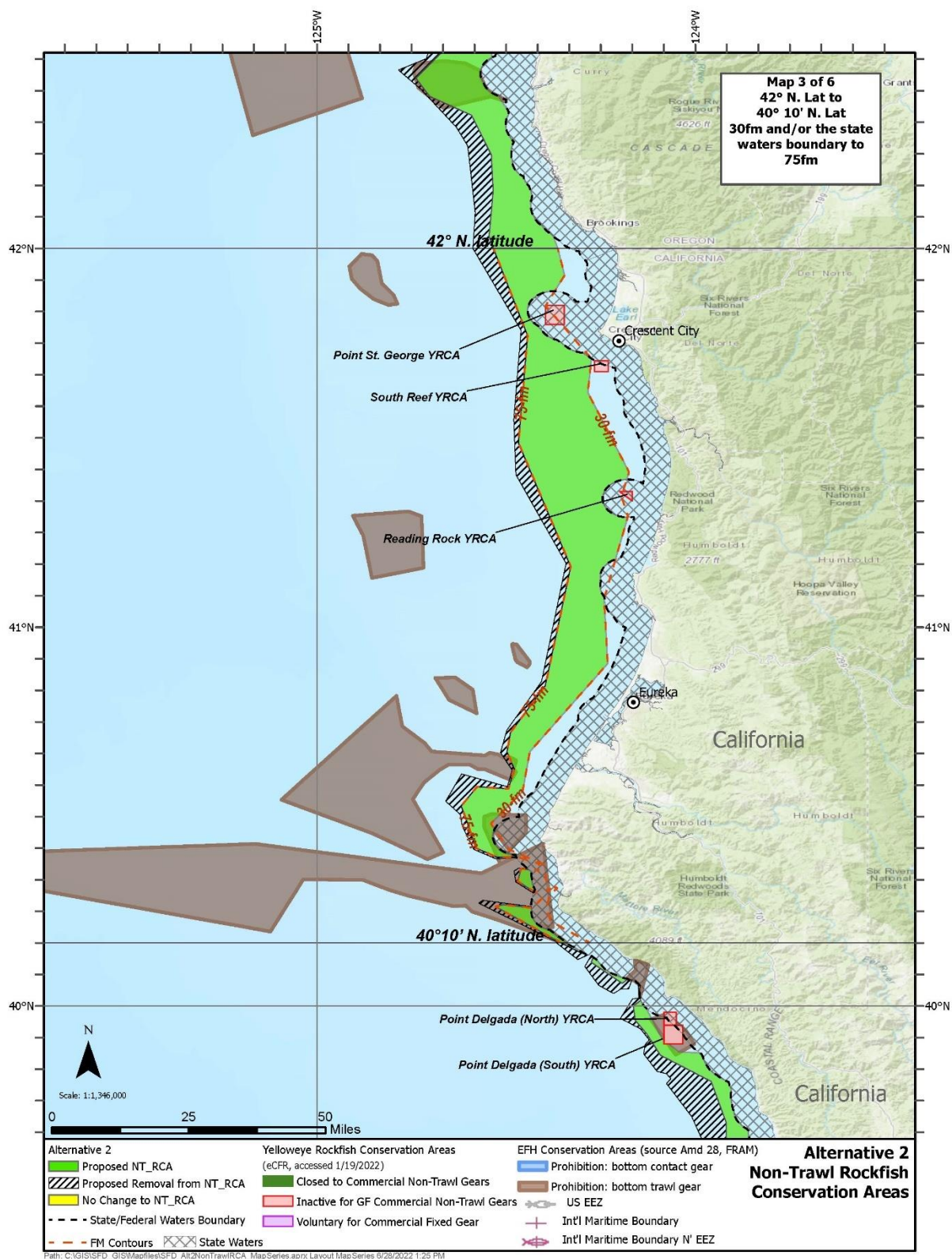


Figure 10. Alternative 2- Proposed changes to NT_RCA off California from 42° to 40° 10' N. lat.

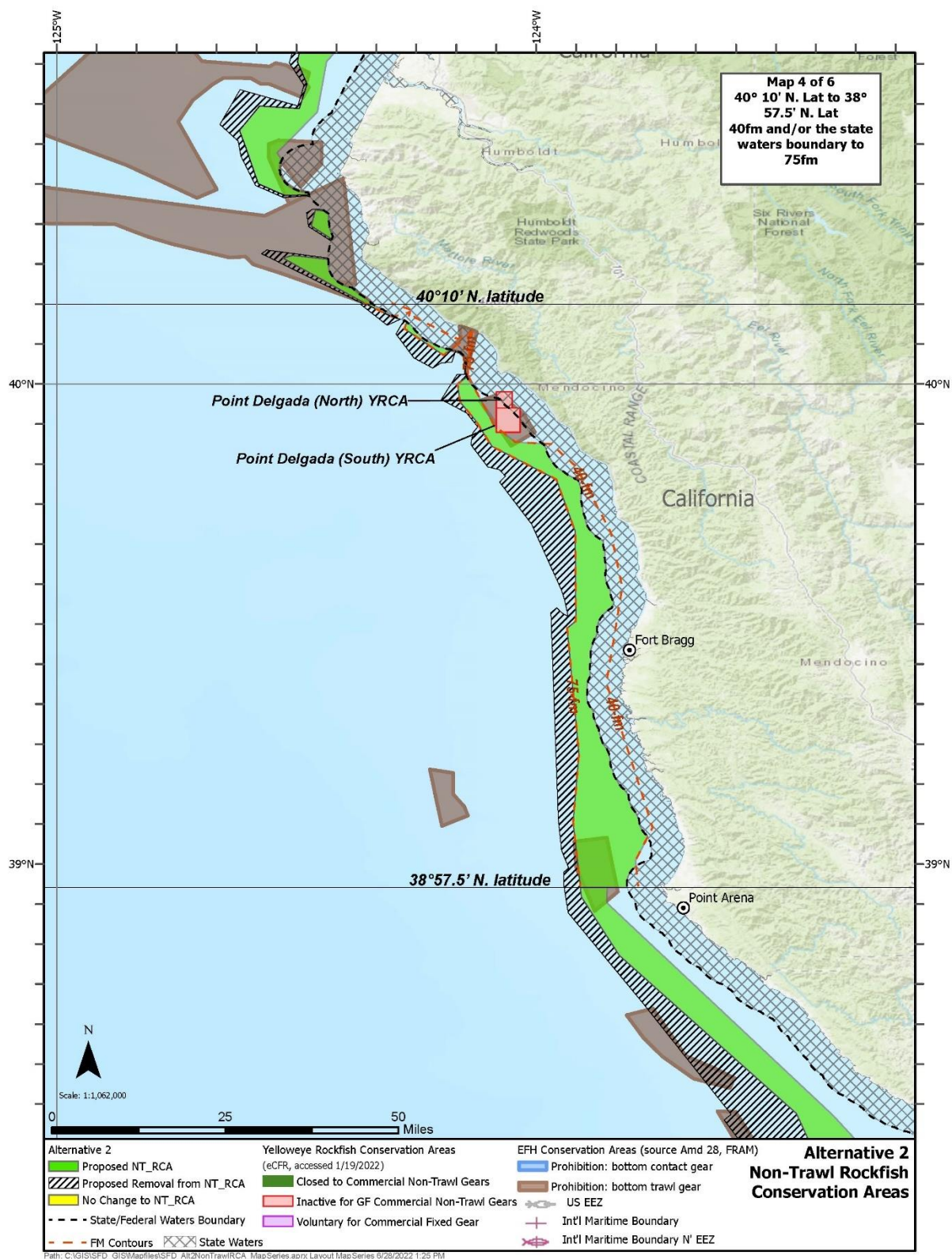


Figure 11. Alternative 2- Proposed changes to NT_RCA off California from 40° 10' to 38° 57.5' N. lat.

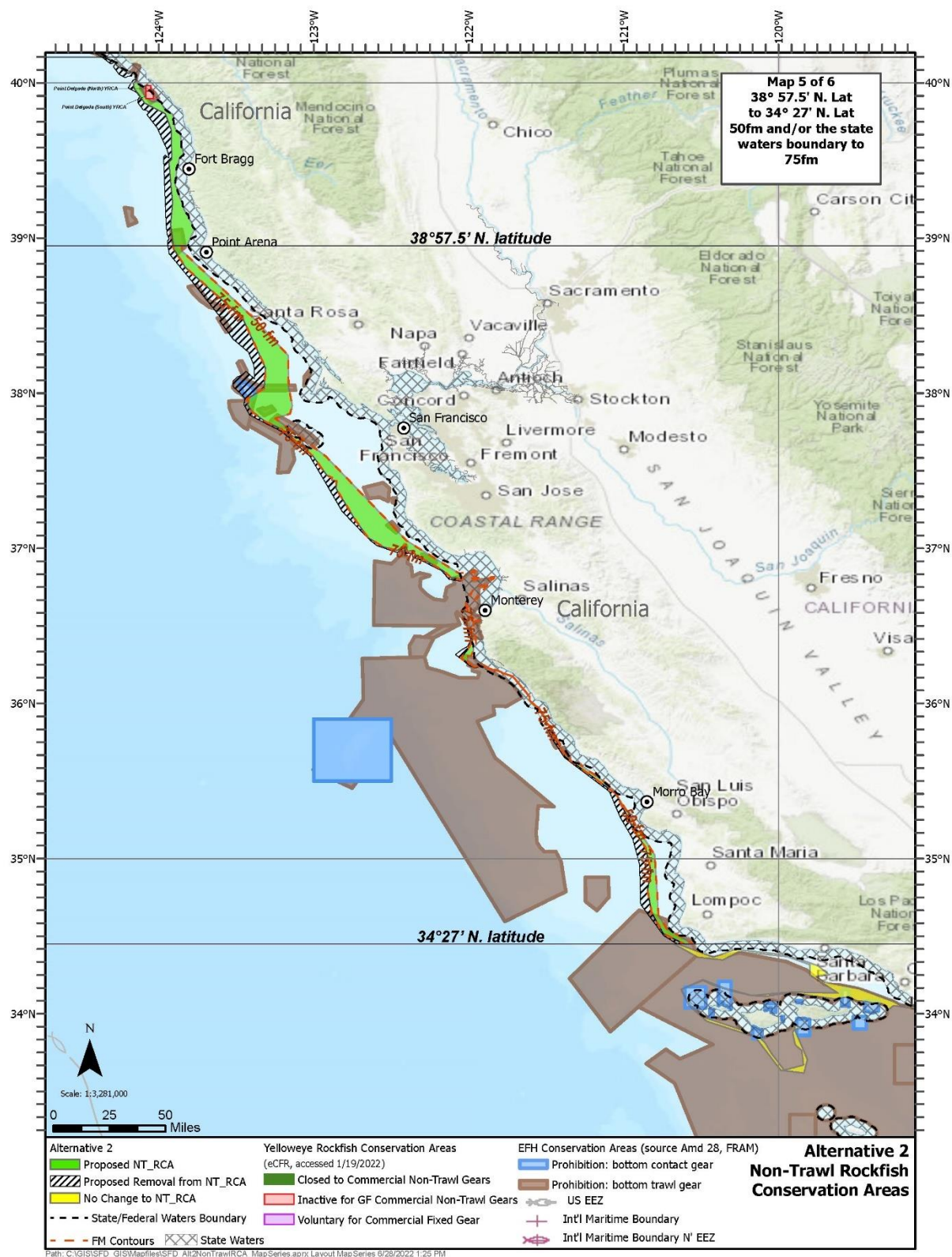


Figure 12. Alternative 2 - Proposed changes to NT_RCA off California from 38° 57.5' to 34° 27' N. lat.

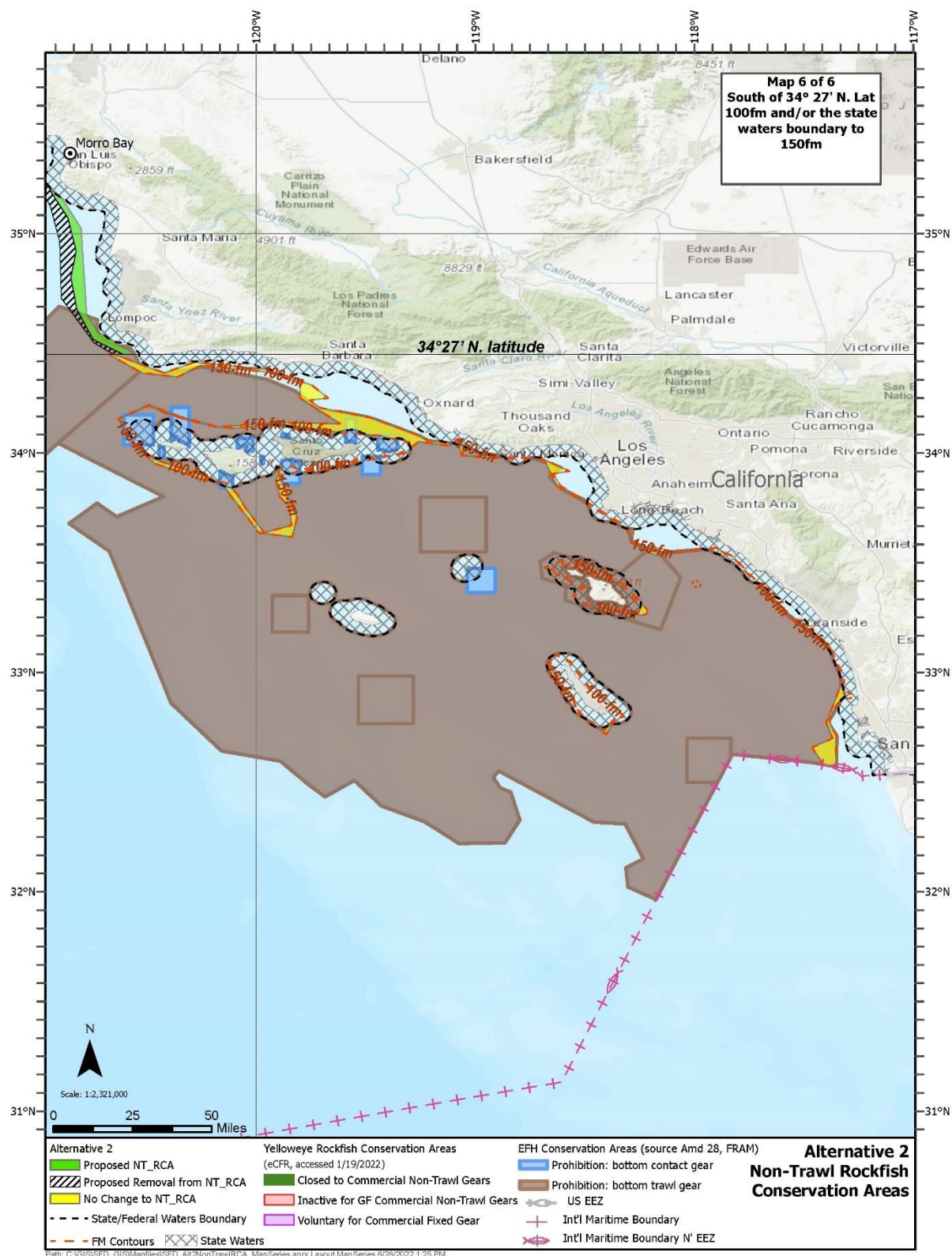


Figure 13. Alternative 2 - Off California south of 34° 27' N. lat. (No Changes Proposed)

Alternative 2 includes several suboptions to protect habitat and/or rebuilding species in areas exposed by the NT_RCA boundary changes; therefore, we expect that the inclusion of any of these new closed areas (as in the PPA) would require an FMP amendment to establish language that identifies the new closed areas, explains the purpose of them, and provides the authority for the Council to implement the closures through a preseason or inseason action. In addition, Federal regulations would be developed to define the areas with coordinates and the fishery prohibitions that would apply for each area.

The directed halibut fishery is managed under regulations at 50 CFR 300 promulgated in accordance with the Northern Pacific Halibut Act of 1982; therefore, implementation of Alternative 2 and any suboption chosen would require an amendment of Federal regulations through the authority of the Act. In addition, it's expected that the Council's Pacific Halibut Catch Sharing Plan may need to be updated to reflect these changes.

Suboption 1a

In many instances, moving the seaward NT_RCA boundary exposes portions of EFHCAs that are closed only to bottom trawl gear, but received default protection from non-trawl gears because of their overlap with the NT_RCA. This suboption would prohibit non-trawl bottom contact groundfish or directed halibut gear from being used inside those specific portions of bottom trawl EFHCAs that are exposed via movement of seaward boundary of the NT_RCA to 75 fm. A new type of EFHCA would be implemented only on the "overlapping area" (See Figure 30 – Garibaldi Reef North outlined in red) that would prohibit the use of non-trawl bottom contact gears (e.g., pot) for groundfish and directed halibut only. However, coordinates of these areas may not always be sufficient for the purposes of effective management or enforcement to meet the objectives of the closed area. Further discussion and identification of the closed areas that meet the intent of this suboption is provided in Section 3.7.2.1.

Bottom contact gear that would be prohibited in the new closed areas include fixed gear (including bottom longline, trap, pot, stationary hook-and-line (includes vertical hook-and-line that is anchored to the bottom)), set net, dinglebar, and experimental gear designed/modified to make contact with the bottom. Only legal non-bottom contact hook-and-line gear (i.e. vertical stationary jig gear and groundfish troll gear as defined at [50 CFR 660.330\(b\)\(3\)](#)) would be permitted.

Suboption 1b

This suboption is similar to suboption 1a in that non-trawl bottom contact groundfish or directed halibut gear would be prohibited from being used inside of bottom trawl EFHCAs that are exposed through movement of seaward boundary of the NT_RCA fathom line to 75 fm. As noted in suboption 1a, prohibited gear would include fixed gear (including bottom longline, trap, pot, stationary hook-and-line (includes vertical hook-and-line that is anchored to the bottom)), set net, dinglebar, and experimental gear designed/modified to make contact with the bottom. Stationary vertical jig gear and groundfish troll gear would be permitted.

However, under Suboption 1b, bottom trawl EFHCAs that are exposed under Alternative 2 would close the *entire* bottom trawl EFHCA to non-trawl bottom contact gears versus just the areas that are exposed when only "small" areas were outside the current NT_RCA. In other words, if removal of the NT_RCA exposes the majority of an EFHCA but a small portion was already exposed to non-trawl fishing prior to the boundary move, then the new closure would apply to the entire EFHCA (See Figure 34-Bandon High Spot). Application of this suboption would therefore potentially close small areas of existing non-trawl fishing grounds. Further discussion and identification of the closed areas that meet the intent of this suboption is provided in Section 3.7.2.1.

Suboption 1c

In development of the September 2022 analysis, staff identified a third suboption (1c). Suboption 1c would create a non-trawl bottom contact groundfish and directed halibut EFHCA over the entire bottom trawl EFHCA, both in the area to be exposed and in the current NT_RCA (i.e., not exposed) with the idea that this would lead to less enforcement and administrative burden as the closure boundary would remain as currently described in regulation. Further, if the Council were to change the seaward boundary of the NT_RCA in the future, these protections would already be in place, resulting in fewer complexities in determining how to protect any exposed areas. Discussion of this option can be found in Section 3.7.2.1 and 4.5.3.

Suboption 1d (PPA)

This PPA suboption would apply suboption 1a (i.e., a non-trawl bottom contact EFHCA in bottom trawl EFHCAs that would otherwise be reopened under this action) for Nehalem Bank/Shale Pile (Figure 14) and Bandon High Spot (Figure 15) bottom trawl EFHCAs only. These new EFHCAs would be applicable to both groundfish and directed halibut vessels. Coordinates for these EFHCAs (proposed as Nehalem Bank East and Bandon High Spot East EFHCA) are defined in Table 5, with the polygon beginning and ending at the first point.

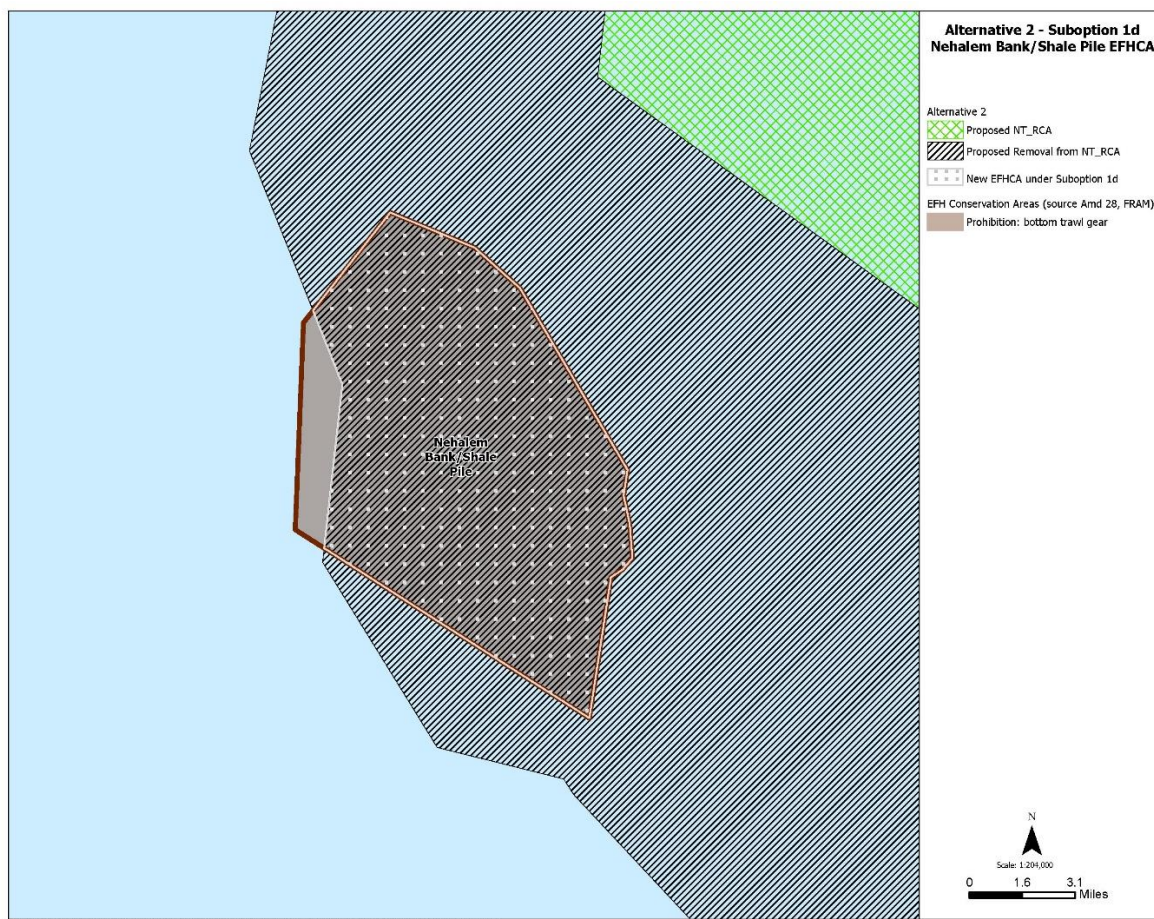


Figure 14. Nehalem Bank East EFHCA- Proposed non-bottom contact groundfish and directed halibut EFHCA at Nehalem Bank/Shale Pile under the PPA (Alternative 2, Suboption 1d).

Table 5. Proposed waypoint coordinates for Suboption 1d.

Proposed EFHCA	Point	Latitude (N)	Longitude (W)
Nehalem Bank East	1	45° 51.53'	-124° 31.15'
	2	45° 47.95'	-124° 38.70'
	3	45° 52.28'	-124° 38.46'
	4	45° 56.45'	-124° 38.00'
	5	45° 58.33'	-124° 38.75'
	6	46° 00.83'	-124° 36.78'
	7	45° 59.94'	-124° 34.63'
	8	45° 58.90'	-124° 33.47'
	9	45° 54.27'	-124° 30.73'
	10	45° 53.62'	-124° 30.83'
	11	45° 52.90'	-124° 30.67'
	12	45° 52.03'	-124° 30.60'
	13	45° 51.74'	-124° 30.85'
Bandon High Spot East	1	42° 57.18'	-124° 46.01'
	2	42° 56.10'	-124° 47.48'
	3	42° 56.66'	-124° 48.79'
	4	42° 55.02'	-124° 50.45'
	5	42° 55.70'	-124° 52.79'
	6	43° 03.91'	-124° 50.81'
	7	43° 03.70'	-124° 47.91'
	8	43° 03.20'	-124° 47.52'
	9	43° 00.94'	-124° 46.57'

Suboption 1e (PPA)

This PPA suboption would apply suboption 1c (i.e., create a non-trawl bottom contact EFHCA over the entire bottom trawl EFHCA) for Garibaldi Reef North, Garibaldi Reef South, and Arago Reef (see Figure 16 and Figure 17). These new EFHCAs would be applicable to both groundfish and directed halibut vessels and would be in effect at the time of implementation of this action under the PPA. Note that a portion of the EFHCA for Arago Reef extends shoreward of the NT_RCA boundary but is within federal waters and therefore under the PPA would close areas currently open to non-trawl gears.

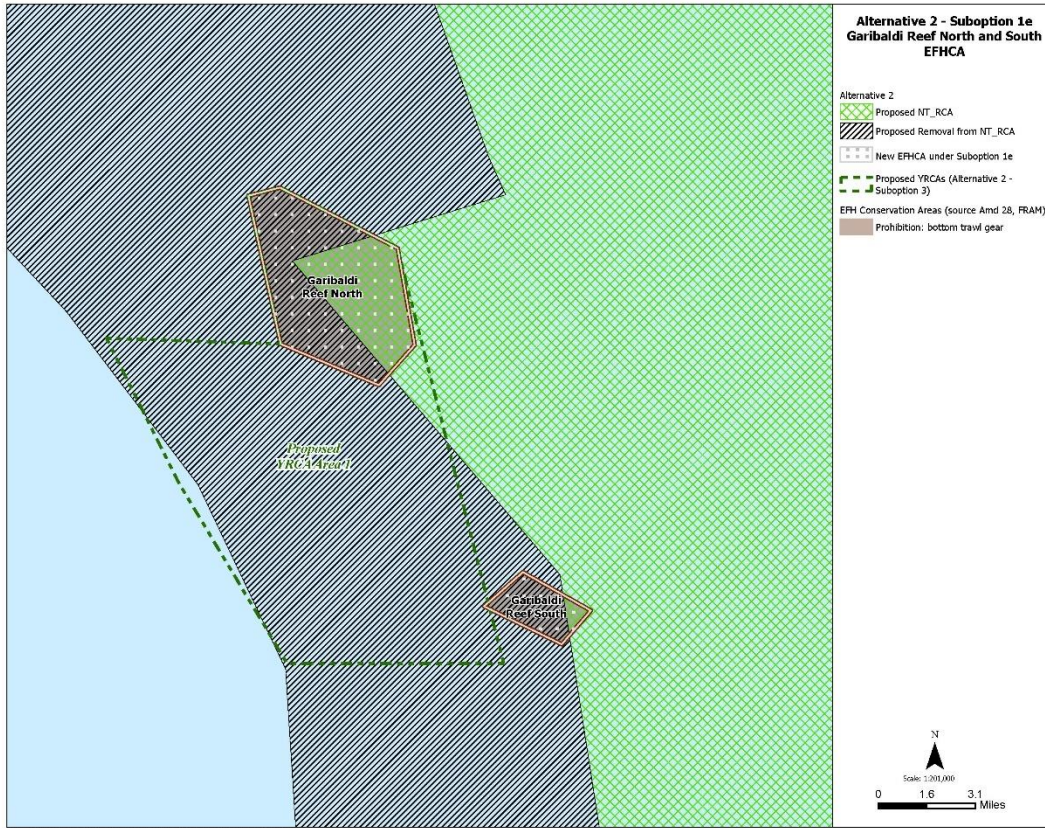
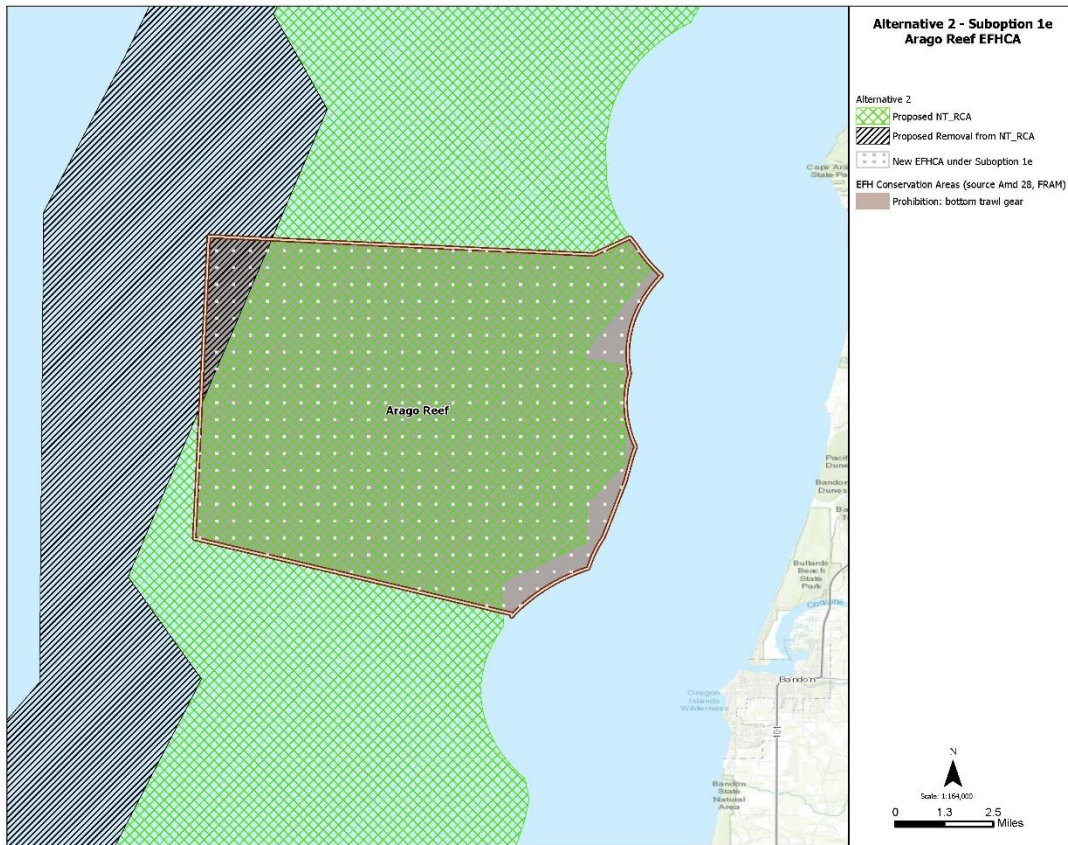


Figure 16. Proposed non-bottom contact groundfish and directed halibut EFHCAs at Garibaldi Reef North and Garibaldi Reef South under the PPA (Alternative 2, Suboption 1e).



Suboption 2 (PPA)

This suboption would create a YRCA to prohibit commercial groundfish and non-tribal directed halibut fishing with non-trawl bottom contact gear in the area west of the Heceta Bank EFHCA. (Figure 18). Prohibited gears include fixed gear (including bottom longline, trap, pot, stationary hook-and-line (includes vertical hook-and-line that is anchored to the bottom)), set net, dinglebar, and experimental gear designed/modified to make contact with the bottom. Allowable gear in the new closed areas would be non-bottom contact hook-and-line gear (stationary vertical jig gear and groundfish troll gear). The Council's PPA included NMFS implementing the YRCA in this area. However, if the Council wanted to change the boundaries of this YRCA or remove it in the future, it could be changed or removed inseason for groundfish but it would require a separate rulemaking to be removed for directed halibut vessels.¹⁴

¹⁴ Under the groundfish regulations, there is inseason authority to adjust the boundaries, implement, or remove a YRCA; however the halibut regulations do not have this authority.

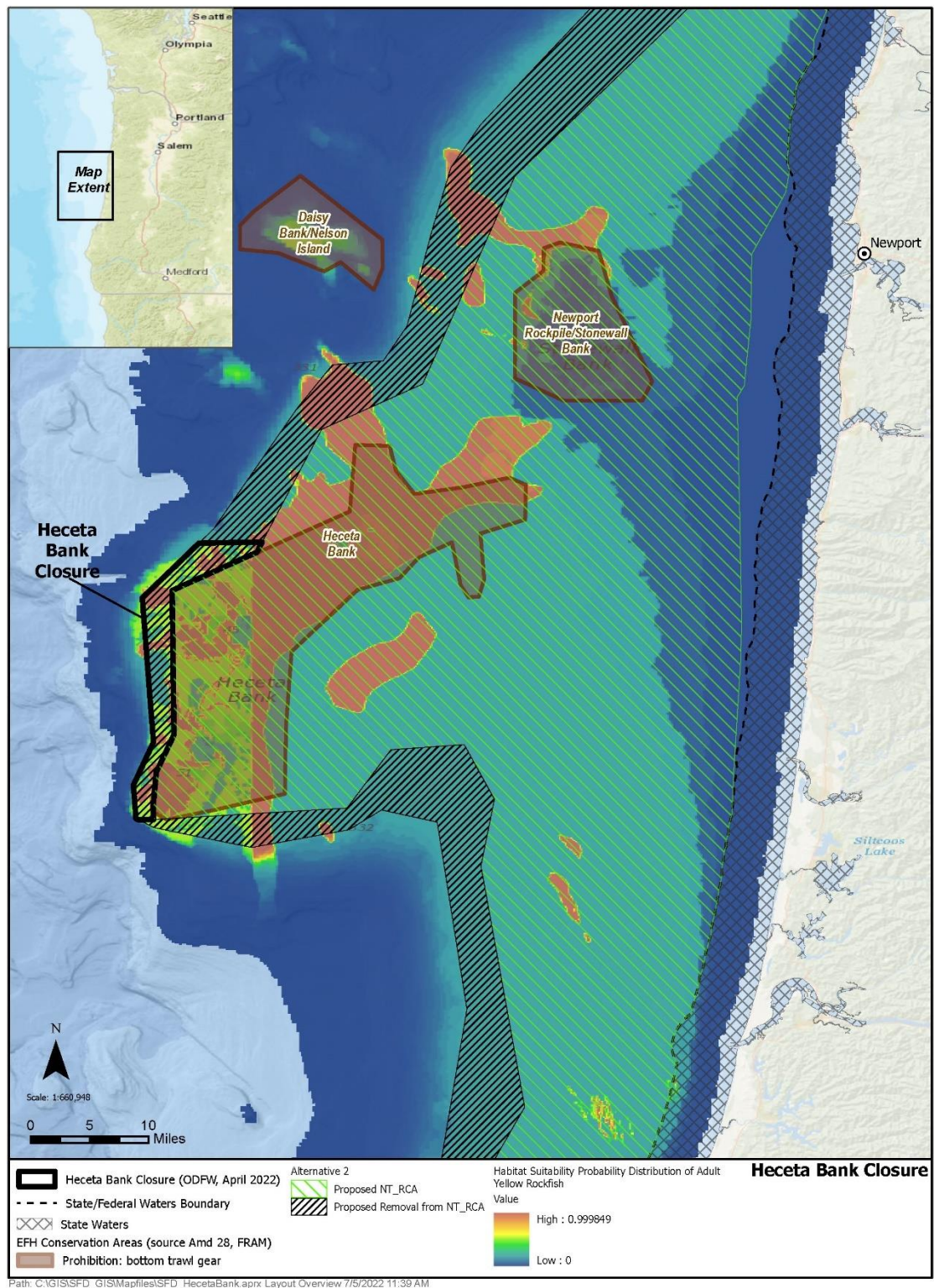


Figure 18. Proposed YRCA for Heceta Bank under Alternative 2, Suboption 2

Table 6. Coordinates for proposed Heceta Bank YRCA (Suboption 2)

Point	Latitude	Longitude
1	44°16.284' N	124°47.862' W
2	44°15.381' N	124°49.856' W
3	44°14.494' N	124°51.815' W
4	44°14.010' N	124°52.883' W
5	44°13.470' N	124°54.078' W
6	44°12.716' N	124°54.069' W
7	44°11.534' N	124°54.056' W
8	44°08.717' N	124°54.024' W
9	44°06.681' N	124°54.001' W
10	44°05.342' N	124°53.985' W
11	44°02.880' N	124°53.958' W
12	44°02.176' N	124°54.289' W
13	44°00.138' N	124°55.248' W
14	43°58.357' N	124°55.417' W
15	43°57.678' N	124°55.482' W
16	43°56.655' N	124°55.446' W
17	43°56.654' N	124°55.494' W
18	43°56.637' N	124°56.533' W
19	43°56.742' N	124°56.742' W
20	43°59.178' N	124°56.940' W
21	44°00.447' N	124°56.345' W
22	44°02.340' N	124°55.458' W
23	44°04.805' N	124°55.649' W
24	44°06.447' N	124°55.777' W
25	44°08.474' N	124°55.934' W
26	44°09.850' N	124°56.041' W
27	44°11.341' N	124°56.157' W
28	44°12.918' N	124°56.280' W
29	44°14.064' N	124°55.095' W
30	44°15.323' N	124°53.794' W
31	44°16.901' N	124°52.164' W
32	44°16.956' N	124°52.107' W
33	44°16.955' N	124°51.950' W
34	44°17.018' N	124°48.021' W
35	44°17.024' N	124°47.469' W
36	44°16.284' N	124°47.862' W

Suboption 3 (PPA)

This suboption develops potential new YRCAs that could be used to mitigate impacts to yelloweye rockfish in areas that would be open to fishing via movement of the seaward boundary of the NT_RCA line to 75

fm (Figure 19; coordinates listed in Table 7). Staff defined the YRCA's coordinates based on presence of yelloweye habitat suitability modeling¹⁵, overlap with areas that may be impacted via the removal of the NT_RCA, overlap with existing bottom trawl EFHCA areas, and enforceability of the area. Each area would be developed to prohibit non-trawl groundfish and directed halibut fishing with bottom contact gear. Preliminarily, the Council indicated its intent to establish the areas in regulation but not implement the closures in those areas. These new YRCAs could be implemented when setting biennial harvest specifications and management measures for groundfish via a rulemaking package (for a certain period of time or permanently) or be implemented through a Council-recommended inseason action for groundfish.

In addition, YRCAs could be implemented under a rulemaking via the Halibut Act but would remain in place until another rulemaking removed it and could not be adjusted inseason as described for groundfish. The Council may choose to close the YRCAs for a particular sector (i.e., groundfish or Pacific halibut) under future actions for the conservation of yelloweye rockfish habitat and to reduce the potential catch of yelloweye rockfish. Note that each YRCA would extend to areas outside of the NT_RCA area proposed to be opened.

¹⁵ For description of the model, please see [Appendix B, Part 2 of the Groundfish FMP, June 2019](#)

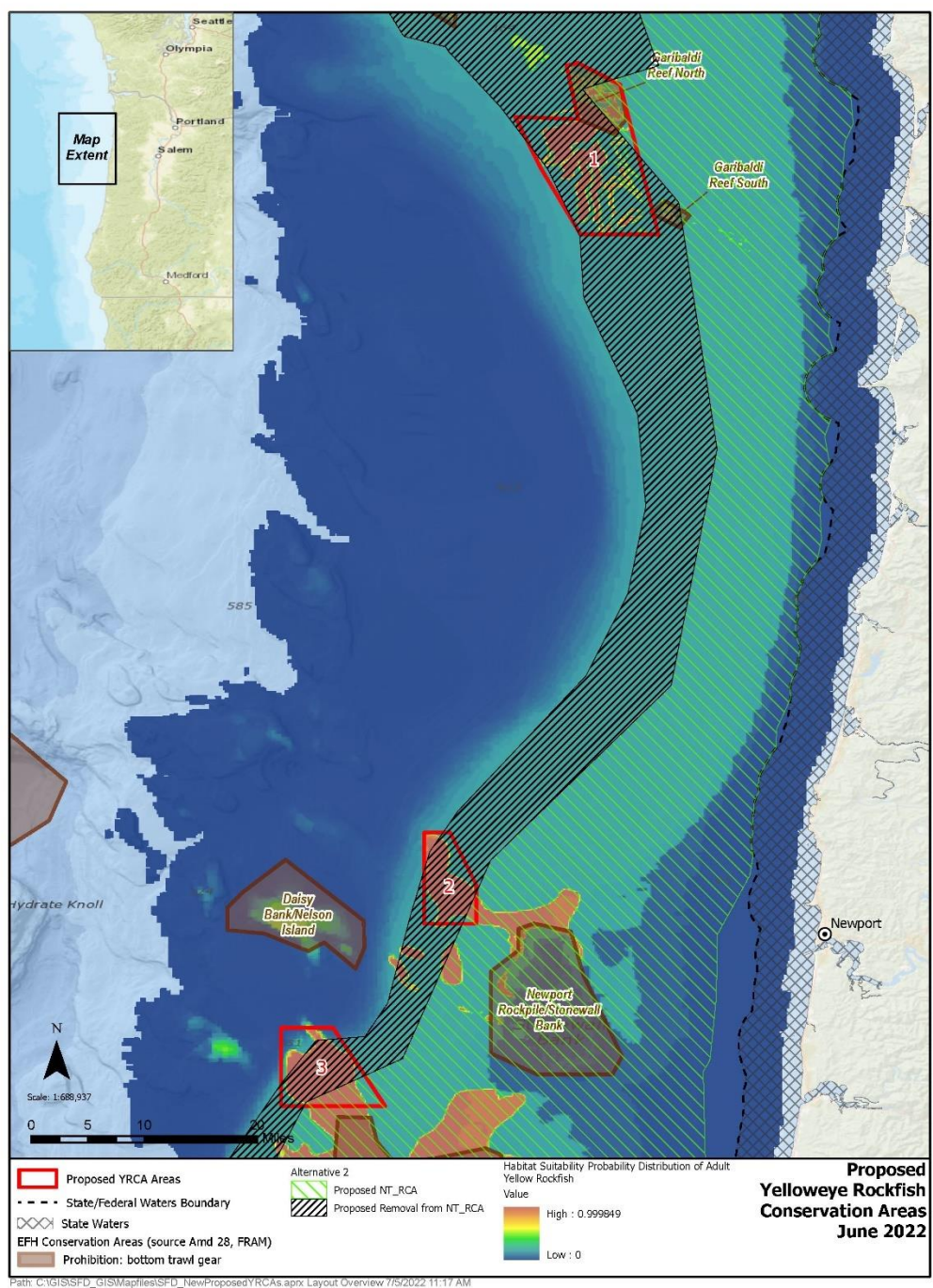


Figure 19. Staff-proposed YRCAs for development under Alternative 2, Suboption 3

Table 7. Coordinates for Staff-Proposed YRCAs under Alternative 2, Suboption 3

YRCA	Latitude	Longitude
1	45°40.999' N	124°27.000' W
	45°37.000' N	124°25.000' W
	45°31.999' N	124°22.000' W
	45°31.999' N	124°16.000' W
	45°43.489' N	124°18.940' W
	45°45.169' N	124°22.189' W
	45°44.940' N	124°23.070' W
	45°40.840' N	124°22.170' W
2	44°46.000' N	124°34.000' W
	44°39.000' N	124°34.000' W
	44°39.000' N	124°30.000' W
	44°42.000' N	124°30.000' W
	44°46.000' N	124°31.999' W
3	44°25.000' N	124°45.000' W
	44°31.000' N	124°45.000' W
	44°31.000' N	124°40.999' W
	44°25.000' N	124°37.000' W

2.4 Alternative 3 (PPA)

Alternative 3: Repeal the Cowcod Conservation Areas (CCA) for Commercial and Recreational Fisheries.

- 1) Include development of new NT_RCA lines around islands and banks for management within the current boundaries of the CCA
- 2) Create groundfish exclusion areas (GEAs) for a) Hidden Reef, b) West of Santa Barbara Island c) Potato Bank, d) 107/118 Bank, e) Cherry Bank, f) Seamount 109, g) Northeast Bank, and h) the 43-Fathom Spot.
- 3) The following restrictions would be applied in the GEAs:
 - a) Allow continuous transit through the proposed closed areas with groundfish onboard provided gear is stowed (commercial) or not deployed (recreational).
 - b) Maintain the ability to fish for non-groundfish species in these closed areas without groundfish aboard the vessel.

Alternative 3 would remove both East and West CCAs from use for non-trawl commercial and recreational fisheries off California (Figure 20). The CCAs (and related regulations) would remain in place for trawl

vessels. Non-trawl fishing is currently allowed shoreward of the 40 fm lines around the islands and banks within the current boundaries of the CCA. With the removal of the CCA, the 40 fm restriction would no longer be in place (i.e., vessels could operate anywhere in the area, subject to pre-existing area closures). However, the intent of developing new NT_RCA lines around the islands is to provide flexible fisheries management and restrict fishing seaward or shoreward of the new lines as needed to prevent interactions with certain nearshore species or control catch (see Figure 21 through Figure 24; coordinates can be found in Tables 18 through 24 of [E.5.a., Supplemental CDFW Report 1](#)). As with any NT_RCA line, the lines could be implemented pre-season or in-season and would be available for both commercial and recreational fisheries. These lines would not be implemented as a part of this proposed action but would be available to the Council and NMFS in the future.

The new GEAs would restrict fishing around seamounts, banks, and shallow reefs. They include: Hidden Reef, West of Santa Barbara Island, Potato Bank, 107/118 Bank, Cherry Bank, Seamount 109, Northeast Bank, and the 43-Fathom Spot. Based on the CDFW proposal and the [September 2022 Council motion](#), these GEAs would prohibit all non-trawl commercial and recreational groundfish fishing activity to protect sensitive areas upon removal of the CCA as described in [E.5.a., Supplemental CDFW Report 1](#) and identified in [F.6.a., CDFW Report 1](#). Under the current PPA, the current allowance for fishing for other flatfish with hook and line gear within the boundaries of the CCA would also be repealed for those areas defined as GEAs. All other areas within the boundaries of the CCA would be opened to any non-trawl fishing.

This alternative would require an FMP amendment to remove references to the CCA, establish language that identifies the GEAs, and explains the purpose of them. The Council already has the authority to implement NT_RCA lines through a pre-season or in-season action so long as designation and adoption of new potential RCA boundary lines are done through either a specifications and management-measures rulemaking (Section 6.2 C of the GF FMP) or a full rulemaking (Section 6.2 D of the GF FMP). In addition, Federal regulations for the CCA (including the 40-fathom depth contour restriction and allowance for other flatfish) would be removed at 50 CFR 660.330(d)(11)(i) and 50 CFR 660.360(c)(3)(i)(B)), new regulations added to define the GEAs, and fishery prohibitions developed for each area. It must be noted that NT_RCA coordinates would be placed in Federal regulations; however, coordinates that are in state waters would need to be enforced by the state of California. In other words, any portion of a newly designated NT_RCA fathom line that straddles both state and Federal waters would only be enforceable by NMFS in Federal waters. California would need to take conforming action to enforce any NT_RCA boundaries in state waters. Due to the rapid change in depth off the islands, all potential fathom lines straddle both state and Federal waters (Figure 20-Figure 24). Additionally, any fishing restrictions associated with the Channel Islands National Marine Sanctuary (around Santa Barbara Island) or marine reserves (e.g., Begg Rock) would remain in place.

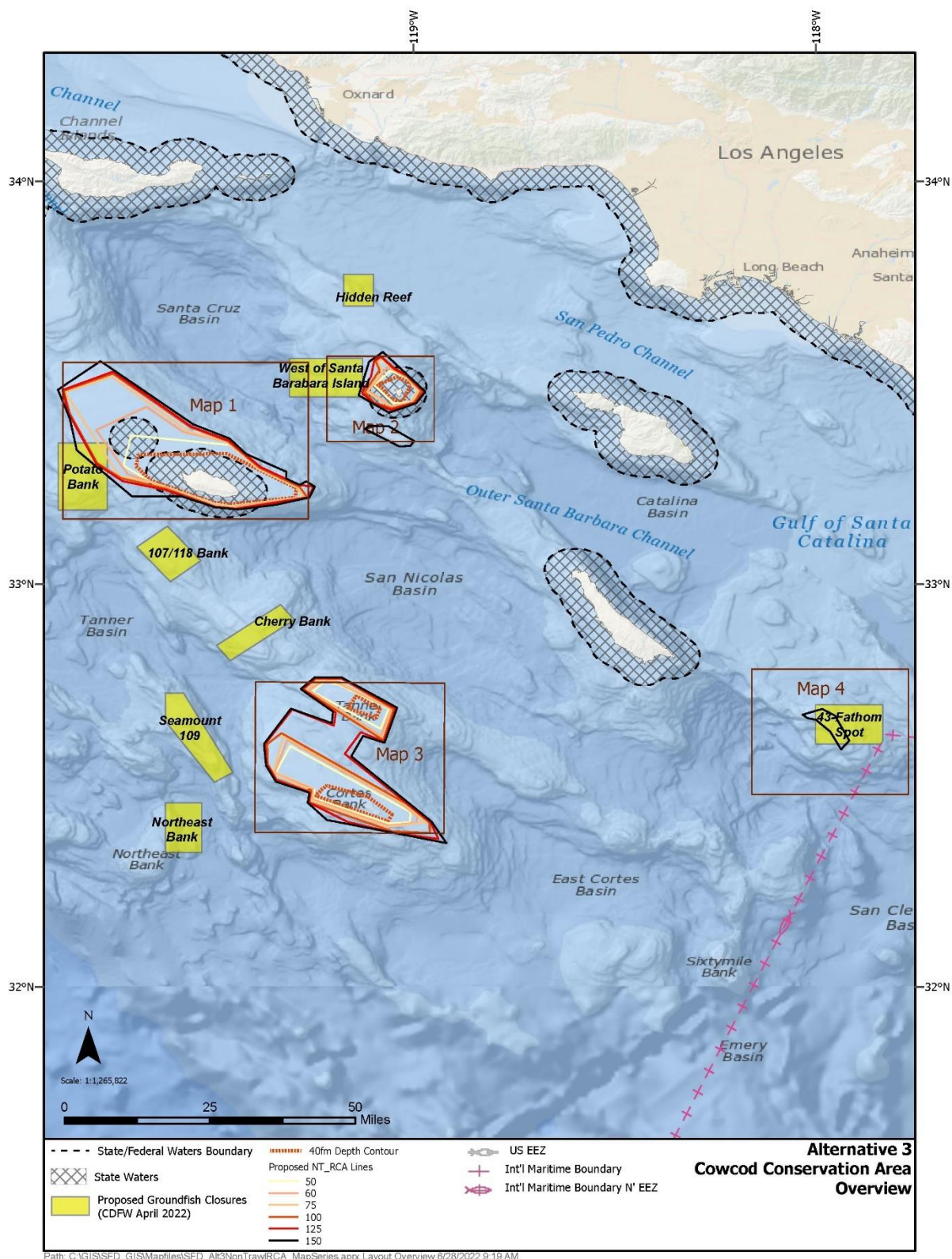


Figure 20. Alternative 3 Overview

Note: "Proposed Groundfish Closures" are now called Groundfish Exclusion Areas (GEAs).

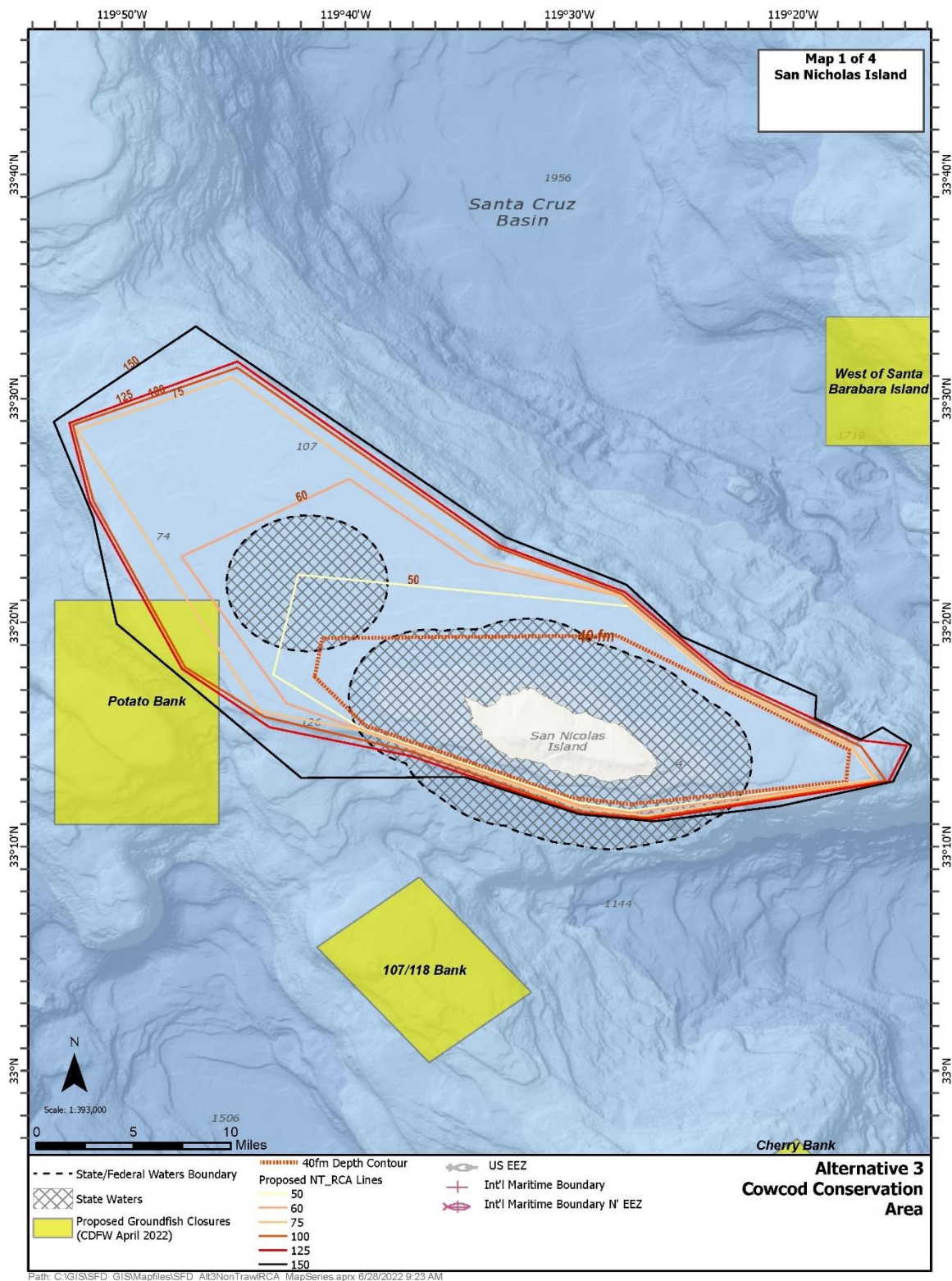


Figure 21. Alternative 3- Proposed NT_RCA lines around San Nicolas Island

Note: "Proposed Groundfish Closures" are now called Groundfish Exclusion Areas (GEAs).

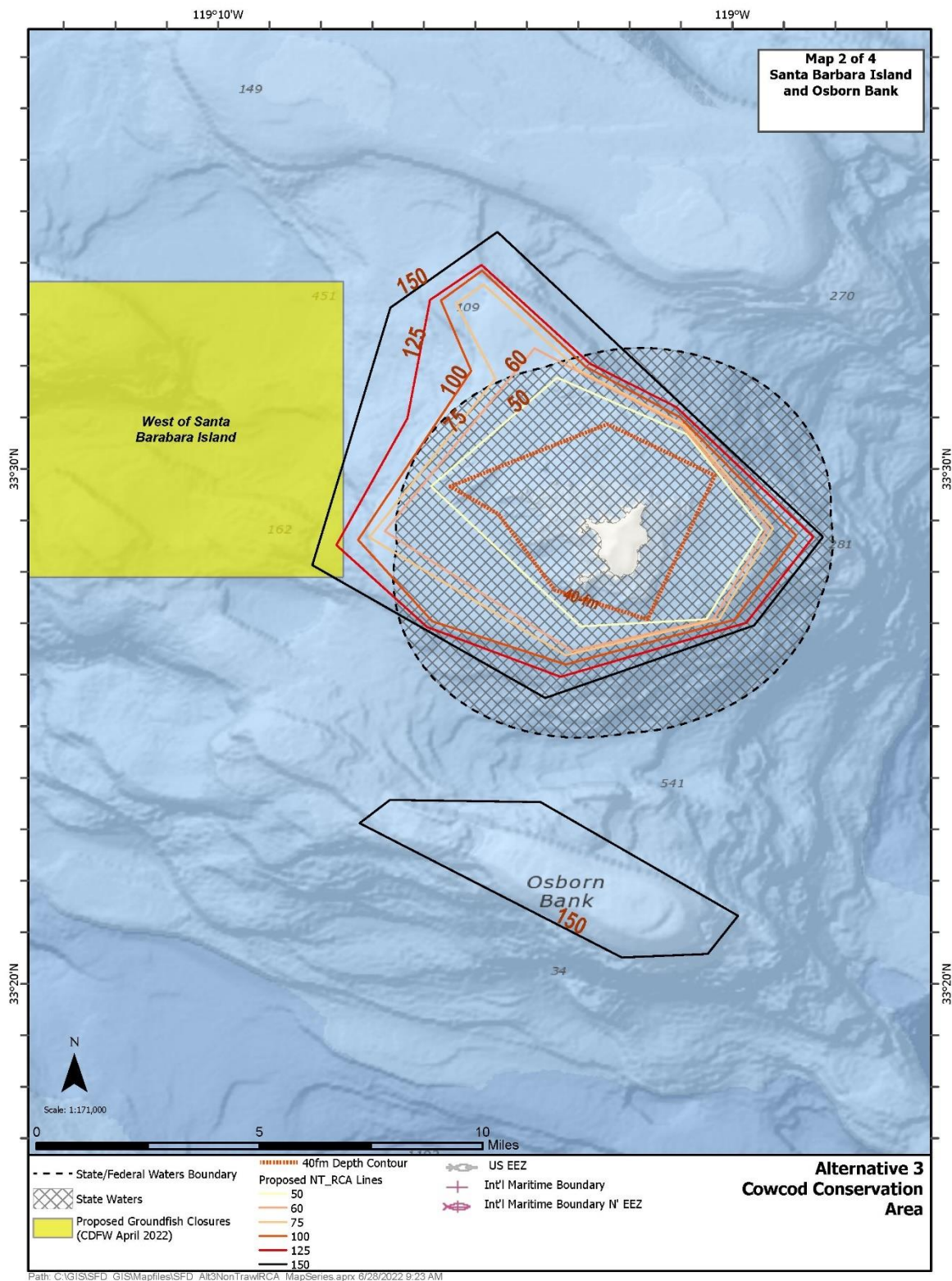


Figure 22. Alternative 3- Proposed NT_RCA lines around Santa Barbara Island and Osborn Bank

Note: "Proposed Groundfish Closures" are now called Groundfish Exclusion Areas (GEAs).

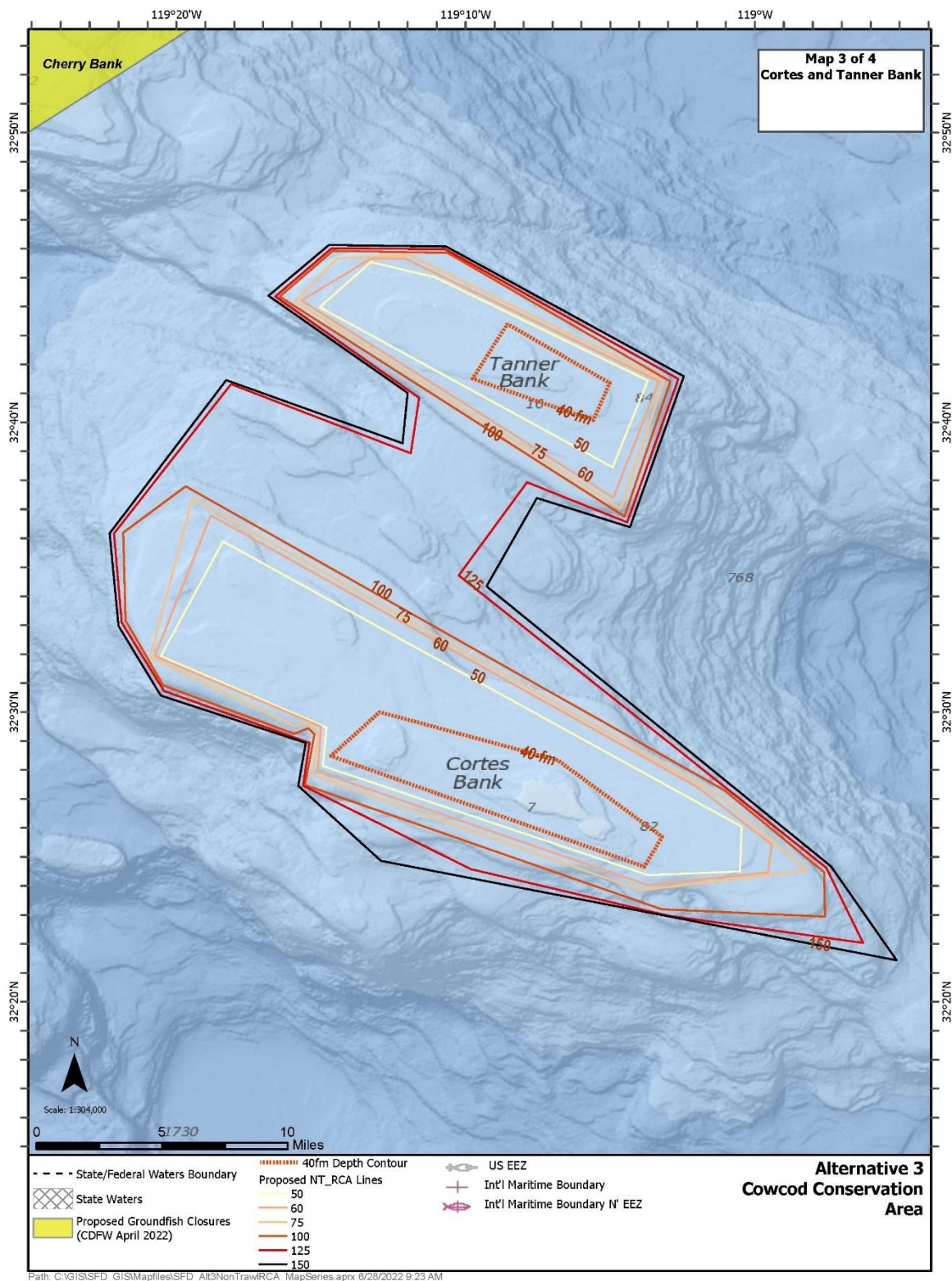


Figure 23. Alternative 3- Proposed NT_RCA lines around Cortes and Tanner Bank

Note: "Proposed Groundfish Closures" are now called Groundfish Exclusion Areas (GEAs).

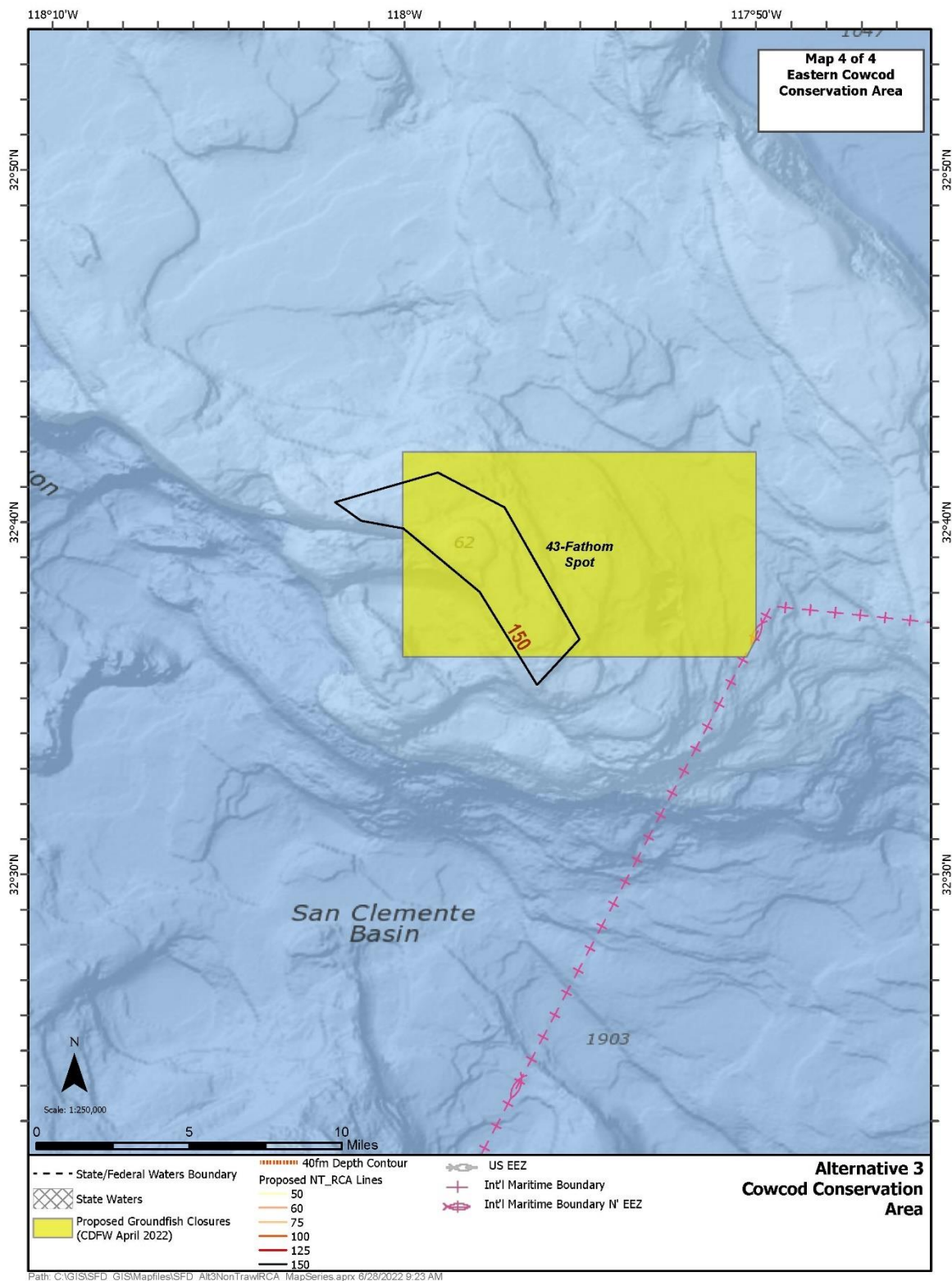


Figure 24. Alternative 3- Proposed NT_RCA line in the Eastern CCA area

Note: "Proposed Groundfish Closures" are now called Groundfish Exclusion Areas (GEAs).

2.5 Alternative 4 (PPA)

Alternative 4: Develop Block Area Closure Management Tool

This alternative creates a mechanism for the Council to implement a BAC to mitigate bycatch of groundfish stocks, as well as protected or prohibited species in the directed OA, LEFG, or IFQ gear switching sectors. BACs would not be available for recreational or non-tribal directed halibut fisheries. The alternative can be implemented as a stand-alone measure. The alternative could be used under any alternative that is selected by the Council (Alternatives 1 through 3) and can be used coastwide as needed in select areas either preseason or inseason.

BACs are a type of GCA, defined at § 660.111, bounded on the north and south by commonly used geographic coordinates and on the east and west by the EEZ, and boundary lines approximating depth contours. As of January 1, 2023, BACs may be implemented in the EEZ coastwide for vessels using limited entry bottom trawl or midwater trawl gear for groundfish or prohibited species mitigation. This alternative would create a new type of BAC that could be implemented for commercial fishing vessels using non-trawl gears and could be implemented by sector (i.e., directed OA or LEFG) or by gear (e.g., bottom contact). BACs, if developed coastwide, could be used to restrict activity within the current bounds of the NT_RCA or CCA to curb mortality closer to that seen under the current state of the fisheries and no changes to the regulations (i.e., status quo). However, it is important to consider the data available for BACs for non-trawl fisheries. As discussed during the development of the ROA, there is currently limited inseason data available for commercial non-trawl fisheries ([Agenda Item F.6, Attachment 1, April 2022](#)). Forthcoming logbook data may provide additional data, but the timeliness of that data and use in management still needs to be examined.

This alternative would require an amendment of the groundfish FMP to incorporate the description and authority to use this management tool for non-trawl fisheries. Additionally, a regulatory amendment would be required.

2.6 Comparison of Alternatives

Table 8. Summary of alternatives and major impacts.

Alternative	No Action	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Description	No Action	Modify gear specifications and catch restrictions for fishing inside the NT_RCA with one or more suboptions- 1. allow LEFG vessels to fish up to LEFG trip limits and IFQ gear switching vessels to use QPs; 2. Vert. jig use of bait; 3. Vert jig 30 ft from bottom	Adjust the seaward boundary of the NT_RCA to be 75 fm - suboptions include new groundfish bottom contact EFHCAs and YRCA closures for certain areas	Remove the CCA and develop new RCA lines and new groundfish exclusion areas.	Implement Block Area Closures
Scope	Coastwide	46° 16' N. lat. to U.S./Mex border	46° 16' to 34° 27' N. lat.	S of 34° 27' N. lat.	Coastwide
Differences in Alternatives					
Increase In Allowable Fishing Areas	No	No	Yes. Allows non-trawl groundfish and directed halibut vessels access to newly opened areas via removal of a portion of the NT_RCA.	Yes, Allows commercial non-trawl and recreational groundfish fishery access via removal of CCAs.	No
New Closed Areas	None	No	Yes, suboptions implement certain types of specific closed areas along the coast (EFHCAs, YRCAs)	Yes, implements certain types of groundfish closed areas off California for commercial non-trawl and recreational vessels.	Yes, develops a tool that can close areas to groundfish fishing preseason or inseason
Size of New Allowable Fishing Areas if PPAs are selected	0	0	2,418 square miles	4,663 square miles	0
Environmental Impacts (as compared to impacts previously described in the 2023-2024 Harvest Specifications EA)					
Target species	None	Possible increases in mortality for midwater rockfish	Likely increases in mortality for midwater rockfish, sablefish, shelf rockfish	Increases in mortality for shelf rockfish S, slope rockfish S, shortspine thornyheads, and sablefish S	None
Non-Target Species	None	Minimal, not significant	Additional impacts to yelloweye (Suboptions would mitigate YE impact)	Potential increase in impact to bronzespotted and Cowcod rockfish ¹⁶	None
Prohibited Species	None	None expected	None expected	None expected	None
Marine mammals	None	None expected	Potential increased exposure to gear	None expected	None
Seabirds	None	None expected	None expected	None expected	None
Habitat	None	None expected	Potential increased impact via bottom contact gear	Potential increased impact via bottom contact gear	None
Ecosystem	None	None expected	None expected	None expected	None
Economic Impacts					
Fishing effort	None	Minor increase expected	Shift in effort expected	Nominal increase expected	None
Gross Revenue at Risk	None	Increased revenue expected	Increased revenue expected	Increased revenue expected	None

2.7 Alternatives Considered but not Analyzed Further

The Council considered an alternative that fully removed the NT_RCA from 46° 16' to 34°27' N. lat.; however, based on Council discussion of the uncertainty for potential impacts to non-target species such as yelloweye rockfish, the Council removed this alternative from further analysis (See [F.6.a, Attachment 1](#) for description of Alternative 4). During the April 2022 Council meeting, the Council revised its range of alternatives to remove this alternative based on rationale provided by the Groundfish Management Team (GMT) in [Agenda Item F.6.a, Supplemental GMT Report 1](#). The GMT noted there is a lack of data to make an informed decision on whether removal of the NT_RCA is appropriate at this time.

In September 2022, the Council also removed the NT_RCA adjustment alternative off Washington. This alternative proposed to open areas within the NT_RCA generally located seaward of the 75 fm line to pot gear off of Washington but may be defined by coordinates that do not necessarily follow a single depth contour. This alternative will be refined in the future to ensure the open areas would satisfy the objectives described in [Agenda Item E.6.a, Supplemental WDFW Report 1, November 2021](#).

¹⁶ Retention of bronzespotted and cowcod is prohibited.

Environmental Assessment

The National Oceanic and Atmospheric Administration (NOAA) NEPA Companion Manual to NOAA Administrative Order 216-6 lists four required components for an environmental assessment. The purpose and need for the proposal is described in Chapter 1.1 and the alternatives in “Description of Alternatives”. This chapter addresses the probable environmental impacts of the proposed action and alternatives, along with an analysis of the economic impacts in the RIR. A list of agencies and persons consulted is included in “Preparers and Persons Consulted”.

For each resource component, the analysis identifies information necessary to understand the affected environment, the potential impacts of each alternative, and criteria to evaluate the significance of these impacts.

3.1 Methods

3.1.1 Resource Components Addressed in the Analysis

Table 9 shows the components of the human environment and whether the proposed action and its alternatives have the potential to impact that resource component and thus require further analysis.

The effects of the alternatives on the resource components would be caused by increased harvest of underutilized groundfish species, changes in allowable fishing gear, increased area of fishing grounds, and mitigation of impacts through the development of specified closed areas. The alternatives have the potential to affect target and non-target groundfish species, habitat, marine mammals, seabirds, and social and economic components.

No effects are expected on protected species, ecosystem component species, cultural and public health, and safety from the proposed action. No effect is anticipated from the proposed action for protected and ecosystem component species because current effort and harvest of these species is not expected to change as these species are already harvested in relatively low amounts. In addition, the proposed action would not change the allowable harvest for important prey species. Moreover, the proposed action would not change trip limits for targeted species. No effects from the proposed action are presumed for cultural and public health and safety because the alternatives would not change where fish are landed or encourage fishers to fish in unsafe waters or create a race to fish.

Table 9. Resources potentially affected by the proposed action and alternatives.

Resource	Yes	No	Resource	Yes	No
Target Fish	X		Ecosystem Component Species		X
Non-Target Fish	X		Habitat	X	
Prohibited Species		X	Social	X	
Marine Mammals	X		Economic	X	
Seabirds	X		Cultural		X
Turtles	X		Public Health / Safety		X

N = no impact anticipated by each alternative on the component.

Y = an impact is possible if each alternative is implemented.

3.1.2 Cumulative Effects Analysis

This EA analyzes the impact on each resource that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions (RFFA) regardless of what agency (Federal or nonfederal) or person undertakes such other action.

The geographic scope for habitat, fish resources, and protected resources is the West Coast EEZ. For socioeconomic resources, the geographic scope is those United States fishing communities directly involved in the harvest or processing of Council-managed resources, particularly those of the states of Washington, Oregon, and California.

The temporal scope of selecting past and present actions for the affected resources encompasses actions that occurred since the Groundfish FMP, the LEFG Sablefish Primary Fishery, and the Trawl Catch Share program were implemented. The temporal scope of selecting reasonably foreseeable future actions is based on the following two criteria.

1. Actions in the West Coast EEZ that affect the same resources impacted by the proposed action. Administrative fishery management actions that have no discernible effect are not included.
2. Actions that are not speculative, in that the action is defined to an extent that it can be analyzed and that some concrete step has been taken toward implementation. This includes actions for which the Council has at least decided on a preliminary proposed alternative or if NMFS is anticipating publication of a proposed rule or issuance of a permit. Actions only “under consideration” have not generally been included, because they may change substantially or may not be adopted, and so cannot be reasonably described, predicted, or foreseen.

The Council is monitoring the development and sighting of offshore wind energy farms and ocean aquaculture programs. Although offshore wind energy development is in the beginning stages and is not a Council-driven process, the Federal government and the Bureau of Ocean Energy Management (BOEM) seek to establish energy production by the year 2030. The timeframe for ocean aquaculture is not known at this time but interest is building and some presentations to the Council have occurred, including areas of interest along the West Coast. Therefore, the timeframe for these distant, non-speculative actions are set to be 2030; however, it’s likely that this timeframe is aggressive, and the timeframe may be extended. Both actions will impact fisheries that the Council currently manages and will be incorporated into future, Council-driven actions.

The anticipated effects of these actions, as they pertain to fisheries, extend into the future and are unlikely to decrease in magnitude. The direct, indirect, and cumulative effects of substantive future fishery actions,

such as gear switching actions for the Trawl Catch Share Program will be analyzed in future NEPA documents. Therefore, we do not quantify a temporal scope for the effects of the RFFA.

The following sections summarize the relevant past, present, and RFFA that contribute to cumulative effects on the same resource components analyzed in this document. The selection of actions to include is guided by the same criteria listed above for selecting the temporal scope of the actions (impacts the same resources as this proposed action and are reasonably foreseeable). Actions are understood to be human actions (e.g., a designation of northern right whale critical habitat in the Pacific Ocean), as distinguished from natural events (e.g., an ecological regime shift). CEQ regulations require consideration of actions, whether taken by a government or by private persons, that are reasonably foreseeable. In addition to these actions, the cumulative effects analysis includes the effects of climate change.

Past and present actions that are considered in the cumulative effects section in this chapter include:

1. Implementation of the Trawl Catch Share Program applies to area of the U.S. EEZ, Past Action, and effective date January 2011.
2. 2023-2024 Groundfish Specifications and Management Measures, applies to area of the U.S. EEZ, Sets harvest levels and includes fishery-specific management actions such as bag limits, size limits, and changes to fishery management lines, and effective date was January 1, 2023. The 2023-2024 harvest specifications provided fishing access to the NT_RCA for the Directed OA and LEFG sectors with specific non-bottom contact gear configurations.

Reasonably foreseeable future actions that are considered in the cumulative effects section in this chapter include:

1. Gear Switching Action for Trawl Catch Share Program, applies to the U.S. EEZ, may change allocations/harvest limits for individual vessels/permits operating under the Catch Share program, effective date is not known at this time.

3.2 Target Species

3.2.1 Status/Affected Environment

Non-trawl fisheries, both commercial and recreational, can target a suite of different groundfish species depending on the area fished and gear allowances. All alternatives (apart from Alternative 4) would be expected to increase attainment of groundfish species, including midwater rockfish, shelf rockfish, and sablefish. Recent attainment and stock status information can be found in the [2022 Stock Assessment and Fisheries Evaluation document](#). Impacts to Pacific halibut, particularly under Alternative 2, are considered and analyzed under this action; however, any regulations that implement the Council's recommendations would be promulgated under the Halibut Act.

3.2.2 Effects of the Alternatives

Impacts to target stocks for all alternatives, including No Action, would be within those described in the 2023-2024 Groundfish Specifications EA as this action does not change harvest specifications from those implemented in the 2023-2024 harvest specification. That analysis assumes that full ACLs are harvested for each stock within the fishery and NMFS issued a Finding of No Significant Impact for that action (see [page 64 of 2023-2024 EA](#)). Management measures will be implemented to keep catch within specified ACLs and allocations. This section therefore attempts to provide the Council and its advisory bodies with a relative sense of which species may see increased attainment under each alternative.

Under Alternative 1 suboption 1, there would likely be some increases in mortality for midwater rockfish if LEFG and IFQ gear switching vessels utilize the gear flexibility and if LEFG vessels were able to fish up to their higher trip limits. Two of the suboptions would also allow for additional configurations with vertical stationary jig gear- live bait (suboption 2) and a minimum distance of 30 feet off the bottom (suboption 3). As noted in [Agenda Item F.6.a, Supplemental GMT Report 3, June 2022](#), natural bait is anticipated to increase mortality rates for some species, particularly canary rockfish. The EFP director also requested an increased allocation for lingcod in anticipation of a potential increase in mortality. Other demersal species may have increased interactions with a shorter distance requirement off the bottom.

One source of data that may provide some information would be the Oregon longleader EFP, which is recreational gear fished in the same manner as the commercial stationary vertical jig gear. This EFP, and now operational gear in the Oregon recreational fishery, permits the gear to be suspended 30 ft off the bottom. As described in [Agenda Item H.6.a, Supplemental ODFW Report 1, November 2022](#), between 95-98 percent of total annual catch since 2018 has been comprised of yellowtail, widow, and canary rockfishes- all of which are underutilized in the non-trawl fisheries and would continue to be managed under trip limits and respective allocations. However, longleader gear is only permitted for use with artificial bait as at the time of implementation, there were concerns about increased catches of canary rockfish (overfished at the time) based on research by ODFW in the 2000s. Even if canary rockfish catches were to increase with the use of natural bait, it would still be managed within the allocations and ACL.

For Alternative 2, vessels would be permitted to use all non-trawl gear types in areas open to fishing between 75 and 100 fathoms from 46° 16' N. lat. to 34° 27' N. lat. In addition to targeting midwater rockfish, it is likely that vessels may also target sablefish or other shelf rockfish. As described in 1.4.1, the NT_RCA generally prohibits non-trawl vessels from accessing midwater or shelf rockfish stocks and therefore with the opening of depths outside of 75 fm in the NT_RCA, it is expected that vessels (likely directed OA or LEFG) would shift into these areas to access these fish. Therefore, attainment of these species allocations and ACLs is likely to increase to some degree depending on the trip limits and level of effort in the various sectors. For vessels targeting sablefish north, it is likely that attainment will be like No Action (as it is already a highly attained species). Vessels participating in the directed commercial Pacific halibut fishery would also be permitted to fish in this area. Attainment for the directed fishery is typically already high, and therefore, no significant changes are expected compared to No Action.

Under Alternative 3, there would likely be increases in mortality for shelf rockfish south, slope rockfish south, shortspine thornyheads, and sablefish south of 36° N. lat. as key fishing grounds for these stocks are currently closed to fishing operations with the CCA. By removing the CCA and the 40 fm depth restrictions, vessels would be able to target these underutilized stocks. In the commercial fisheries, sablefish, shortspine thornyheads, blackgill rockfish, and bank rockfish are thought to be the likely primary targets (pers. Comm., Gerry Richter). If there were to be any targeting of shelf or midwater stocks after implementation of this alternative, it would likely be for chilipepper rockfish or bocaccio which co-occur. For recreational fisheries, vessels are likely to target shelf rockfish (vermillion, olive, yellowtail, sunset, Mexican), widow rockfish, and bocaccio (pers. Comm., Louis Zimm and Merit McCrea). Attainment for all of these species would increase to some degree, but would be managed within their respective allocations and ACLs through various management measures including new NT_RCA lines, trip limit adjustments, and bag limit adjustments.

To provide some information around the potential species to be encountered in the reopened CCA, staff examined catch data from the Southern California Hook and Line Survey which uses rod and reel gear to sample both inside and outside of the CCA (since 2014) to help inform stock assessments. For details on the survey, please visit <https://www.fisheries.noaa.gov/west-coast/science-data/southern-california-shelf-rockfish-hook-and-line-survey>.

Using data from 2019 and 2021 (no survey in 2020), there were 79 sites sampled within the CCA in each year and 122 (2019) and 119 (2021) outside the CCA. Of the hooks sampled in the CCA, approximately 53 percent were positive for catch. Table 10 below describes the number of species caught inside and outside the CCA in 2019 and 2021 and the management complex to which they belong (if applicable). Groundfish species that saw a higher number of encounters inside the CCA on average compared to outside the CCA included bank rockfish, chilipepper, cowcod, greenstriped rockfish, rosy rockfish, and speckled rockfish.

Table 10. Hook-and-line survey catch from 2019 and 2021 from inside and outside the CCA.

Species Common Name	Complex	Outside CCA		Inside CCA	
		2019	2021	2019	2021
Bank Rockfish	Slope rockfish south	86	70	336	240
Blue Rockfish	Nearshore rockfish south	39	7	11	6
Bocaccio		769	602	617	369
Bronzespotted Rockfish	Shelf rockfish south	0	1	1	3
Calico Rockfish	Nearshore rockfish south	4	3	0	0
California Scorpionfish		0	3	0	1
California Sheephead		1	1	5	0
Canary Rockfish		41	12	0	0
Chilipepper		124	46	156	88
Copper Rockfish	Nearshore rockfish south	48	25	19	9
Cowcod		38	26	55	72
Flag Rockfish	Shelf rockfish south	9	6	0	2
Freckled Rockfish	Shelf rockfish south	0	1	0	0
Greenblotched Rockfish	Shelf rockfish south	18	13	1	7
Greenspotted Rockfish	Shelf rockfish south	253	225	97	183
Greenstriped Rockfish	Shelf rockfish south	52	48	47	88
Halfbanded Rockfish	Shelf rockfish south	83	104	10	4
Honeycomb Rockfish	Shelf rockfish south	3	7	4	8
Lingcod		20	11	24	12
Lizardfish		0	1	0	0
Mexican Rockfish	Shelf rockfish south	3	48	2	8
Ocean Whitefish		33	40	110	179
Olive Rockfish	Nearshore rockfish south	40	28	32	19
Pacific Jack Mackerel		1	0	0	0
Pacific Mackerel		14	26	8	0
Pacific Sardine		1	0	0	0
Petrable Sole		0	0	1	0
Pink Rockfish	Shelf rockfish south	0	1	11	17
Pinkrose Rockfish	Shelf rockfish south	0	0	2	2
Rosethorn Rockfish	Shelf rockfish south	2	0	0	1
Rosy Rockfish	Shelf rockfish south	29	31	74	100
Sharpchin Rockfish	Slope rockfish south	0	0	4	2
Silvergray Rockfish	Shelf rockfish south	0	0	1	0
Speckled Rockfish	Shelf rockfish south	159	145	190	156

Spiny Dogfish		0	1	0	0
Squarespot Rockfish	Shelf rockfish south	80	169	112	150
Starry Rockfish	Shelf rockfish south	147	150	182	270
Star-studded Grouper		0	1	0	0
Swordspine Rockfish	Shelf rockfish south	109	143	153	120
Treefish	Nearshore rockfish south	1	0	1	0
Vermilion Rockfish	Shelf rockfish south	1531	1388	745	937
Whitespeckled Rockfish		0	0	1	0
Widow Rockfish		12	42	11	6
Yelloweye Rockfish		5	5	12	19
Yellowtail Rockfish	Shelf rockfish south	69	95	2	0

Under Alternative 4, BACs could be used inseason or preseason to close off an area to fishing by non-trawl vessels. No impacts would result from the development of this measure and assessment of the impacts to target species would occur at the time of implementation, therefore are not discussed here.

Overall, there is no significant impact on target species under any of the considered alternatives, as all target species would continue to be managed within their respective catch limits.

Cumulative Effects on Target Species

RFFAs have and are likely to continue to have an impact on the multiple target species within the action area and timeframe. All adverse effects in the Limited Entry Trawl fishery will continue to be constrained by the introduction of the trawl catch share program (Past Action #1) that ensures individual accountability of target fish catch. The current biennial harvest specifications (Past Action #2) management measures maintain stocks well below the overfishing limit. The Gear Switching Action item (Future Action #1) is not yet final but if measures are implemented, the available quotas and catch associated with them would not exceed the available harvest levels under the trawl catch share program.

Considering the direct and indirect impacts of the proposed action when added to the impacts of past and present actions on target species and the anticipated impacts of the reasonably foreseeable future actions listed above, the cumulative impacts of the proposed action are determined to be not significant because all catch would continue to be managed to stay within the respective allocations and ACLs. The anticipated impacts of the proposed action are expected to contribute to the cumulative impact on target and actively managed species of rockfish because we expect additional harvest. However, we don't anticipate the additional harvest to negatively impact already healthy and well-managed fish stocks as under the proposed action, harvest would continue to be managed to achieve but not exceed the ACLs.

3.3 Non-target fish species

3.3.1 Status/Affected Environment

Impacts to non-target groundfish stocks for all alternatives are expected to be within those described in the 2023-2024 EA, as this action does not change harvest levels from those implemented in the 2023-2024 harvest specifications. That analysis assumes that full ACLs are harvested for each stock within the fishery. Management measures would be implemented to keep catch within specified allocations and ACLs. As with the target species above, this section therefore attempts to provide a relative sense of which species

may see impacts under each alternative. Recent attainment and stock status information can be found in the 2022 SAFE document.

3.3.2 Effects of the Alternatives

Under No Action, impacts to non-target groundfish species would be within those described in the 2023-24 EA.

For Alternative 1, there are likely minimal impacts to non-target groundfish (i.e. yelloweye rockfish, copper rockfish) compared to No Action as was previously described in [Agenda Item F.6, Attachment 1, April 2022](#). The only permitted gear types would be those permitted in the 2023-2024 harvest specifications. If LEFG or IFQ gear switching vessels utilized the gear flexibility under their sector specific limits (suboption 1), there could be slightly higher instances of encounters with non-target species; however, it is likely that little to no effort will occur in the IFQ sector, limiting the overall likelihood. Vessels that gear switch in the shorebased IFQ fishery typically harvest sablefish with pot or longline gear (see discussion in [Agenda Item H.2., Attachment 3, November 2022](#)) and therefore, unless those opportunities declined (as discussed in Section 4.5.2), it is unlikely that they will utilize the non-bottom contact gear types.

Two of the suboptions under Alternative 1 would allow for additional gear configuration options for the vertical stationary jig gear, including natural bait (suboption 2) and a minimum 30-foot distance off the bottom (suboption 3). As noted above, natural bait could lead to some increased mortality in some midwater rockfish stocks. The degree to which mortality could increase for yelloweye rockfish is uncertain. On one hand, [ODFW research](#) conducted in the late 2000s on the longleader gear did note that it was not effective at reducing catch rates for yelloweye when used with natural bait. Yet, the authors also concluded that these results should be used with caution in applying to management given issues with the experimental design.

The lower depth allowance of 30 ft also could impact the mortality of non-target species, like yelloweye rockfish which are more demersal. The Emley-Platt EFP, which was used to test this gear type prior to going into regulation starting on January 1, 2023, did not include the allowance for natural bait but did have a 30 ft requirement in the first few years of the EFP.¹⁷ In 2013-2014, yelloweye rockfish ACLs were 3.7 times lower than 2023-2024 (18 mt in 2014 and 2015 compared to 66 mt in 2023-2024) and the EFP at that time was only allocated 0.01 mt. Therefore, when the EFP caught two yelloweye in each year (averaging 3.3 kg or 0.003 mt each) resulting in 2/3rds of the set aside being taken, the EFP manager told participating vessels to raise the minimum depth to 50 ft to limit yelloweye catch in order to ensure the EFP could continue.

Again, the Oregon longleader EFP may provide some information on the impacts to non-target species, like yelloweye rockfish, under suboption 3. Where target stocks like yellowtail, widow, and canary rockfish averaged 1.3-5.7 fish per trip, yelloweye rockfish averaged 0.04 fish per trip- which was over 30x less than the lower end of the target species range ([Agenda Item H.6.a, Supplemental ODFW Report 1, November 2022](#)). Further, as described in the EA, it was concluded “that the low catch of yelloweye [in the EFPs] was due to the long-leader gear’s selectivity as yelloweye are commonly caught in greater numbers when standard gear is used.”

Overall, given the change in yelloweye rockfish stock status since the mid-2010s when the stationary vertical jig gear EFPs started, and the evidence provided by the Oregon longleader fishery, it is likely that while there could be some additional mortality to yelloweye rockfish with the 30 ft requirement, the gear type is overall effective at targeting midwater rockfish and limiting yelloweye rockfish. If the Council

¹⁷ While the terms and conditions of the EFP did not change, EFP applicants informed NMFS staff that they fished above 50 ft off the bottom starting in the fall of 2014.

includes Alternative 4 in the FPA, BACs could be used to close areas to select sectors and gear types to minimize bycatch; however, as discussed in Section 2.5, there would be limited data to inform the particular configuration leading to increased yelloweye bycatch.

Under Alternative 2, there could be additional impacts to yelloweye rockfish, but those impacts are still expected to remain within what was disclosed in the 2023-2024 Harvest Specifications EA. Yelloweye rockfish are managed with Annual Catch Targets (ACTs) and harvest guidelines for the non-trawl sectors and with QPs for the IFQ sector. Yelloweye rockfish are prohibited from retention in the non-trawl sectors, and catch has stayed within the trawl and non-trawl allocations, and non-trawl ACTs/harvest guidelines in recent years ([Table 8-8 through Table 8-10 of Agenda Item F.6, Attachment 2, June 2022](#)).

As described above in Section 1.4.1, the NT_RCA was implemented to protect overfished species, including yelloweye rockfish. Yelloweye rockfish are known to inhabit the depths of the current NT_RCA, and models do indicate that yelloweye are likely to inhabit specific areas to be opened. Therefore, if vessels actively fish within the newly opened areas, there could be increased encounters and therefore mortality of yelloweye rockfish. The degree to which there would be increased mortality would depend on the amount of effort shift from areas with lower yelloweye rockfish bycatch rates to higher rates and the type of gear used (e.g., longline gear typically has a higher bycatch rate than pot gear- see discussion on page 70 of [Agenda Item F.6, Attachment 1, April 2022](#)).

Of the area to be opened under Alternative 2, there are currently no YRCAs available in regulation that the Council could consider implementing pre-season or inseason to control catch in any or all of the non-trawl sectors. Suboptions 1a-1e may mitigate potential impacts to yelloweye as it would keep areas known as yelloweye rockfish habitat closed to any type of bottom contact gear. Yelloweye rockfish impacts could also be mitigated with the use of YRCAs, both currently in regulation outside the NT_RCA (e.g., Point Delgada North and South, Point St. George & South Reef) or if the Council were to develop new YRCAs under Alternative 2, suboption 2 (Heceta Bank, Figure 18) or suboption 3 (Figure 15) which could be implemented as part of this action or in the future as under the PPA.

For halibut fisheries, yelloweye rockfish are accounted for via an off-the-top deduction within the broader “incidental open access” sector, which includes fisheries such as salmon troll or sea cucumber that are targeting other species but may incidentally retain groundfish. Directed halibut fisheries have been observed by the WCGOP since 2017 and the table below shows the yelloweye rockfish mortality for that fishery since that time. Yelloweye rockfish mortality has varied considerably in the last five years.

Table 11. Yelloweye rockfish mortality (mt) in the directed halibut fishery, 2017-2021 (source: WCGOP GEMM).

Year	2017	2018	2019	2020	2021
Total Mortality (mt)	0.67	0.01	7.37	2.62	1.13

As directed halibut fisheries are subject to the NT_RCA as well, research data from the IPHC annual Pacific halibut stock assessment survey could provide some insight on the potential for yelloweye rockfish encounters within the 75-100 fathom bin. The IPHC survey samples 118 stations off the West Coast ranging in depths from 20 to 275 fathoms, including within the NT_RCA. For a detailed description of the survey protocols and station locations, please see the [IPHC sampling manual](#).

In the proposed action area off Oregon and California, the number of stations and survey information available varies. Between 46 and 60 stations are sampled off Oregon annually, depending on the sample design in the year, with 2019 and 2021 only having 46 samples. Sampling off Northern California has occurred only in 2013 (27 stations) and 2017 (42 stations with an extension south to the San Francisco Bay

area). While this data set provides a limited sample set compared to utilizing coastwide sampling data (i.e., including Washington), given the known northerly distribution of yelloweye rockfish and the proposed action area, this data set was believed to be the most representative of the potential fishery interactions.

From 2011-2021 (no survey in 2020) in the stations sampled off Oregon and California, yelloweye rockfish are typically caught between two and seven stations annually with an average of 3.22 yelloweye rockfish (or approximately 22 pounds) being caught per skate on those positive stations.

Table 12. IPHC stations with yelloweye bycatch and average number per unit effort (NPUE) for positive stations, 2011-2021.

Year	Number of Stations with Yelloweye Rockfish Bycatch	Average NPUE for positive stations (number of yelloweye per skate a/)
2011	5	2.03
2012	4	4.06
2013	5	3.83
2014	7	3.81
2015	5	3.10
2016	2	1.25
2017	6	2.68
2018	4	1.26
2019	4	2.97
2020	No survey conducted off West Coast	
2021	4	4.10

a/ Skate=100 hooks

Of that bycatch observed, an average of 47.6 percent of the catch (extrapolated) occurred within the 75-100 fathom depth bin (Table 13). However, as shown in the far-right hand column, the proportion of catch varied by year, with 2016 seeing no positive skates in the 75-100 fathom depth bin and the previous year seeing almost 84 percent of the total yelloweye catch in the depth bin. This does suggest that there could be additional impacts to yelloweye rockfish with the expansion of the directed halibut fishery into shallower depths; however, given the interannual variability in the bycatch of the survey and the directed halibut fishery in the current depths, it is uncertain the degree to which yelloweye rockfish bycatch may change under Alternative 2. Halibut quotas, season length, and the continued rebuilding of yelloweye rockfish may all play a factor in the overall bycatch in the fishery.

Table 13. Percentage of extrapolated catch of yelloweye rockfish on IPHC survey, 2011-2021.

Year	Number of yelloweye (extrapolated)		Percentage of Extrapolated Catch in 75-100 fathoms
	Outside of 75-100 fathoms	Within 75-100 fathoms	
2011	27.6	30.0	52.1%
2012	51.3	10.0	16.3%
2013	65.0	50.0	43.5%
2014	111.1	75.8	40.6%
2015	13.3	69.0	83.8%
2016	15.0	0.0	0.0%
2017	40.0	52.8	56.9%
2018	9.9	30.1	75.2%
2019	55.0	40.0	42.1%
2020	No survey conducted off West Coast		
2021	40.0	75.0	65.2%

YRCAs are currently not available for use in the directed Pacific halibut. As a part of this action, the Council has included as a part of its PPA a new YRCA that would be closed to the halibut fishery (suboption 2) and YRCAs that could be used in the future to mitigate yelloweye bycatch in the halibut fishery (suboption 3). However, as described previously, the ability to implement any YRCA through an inseason action would require a separate process outside of this action in order to develop the mechanism in the Federal halibut regulations similar to that for recreational fisheries at [50 CFR 300.63\(I\)](#).

While there could be additional impacts to yelloweye rockfish or other non-target species under this alternative, there is likely not significant impacts, especially with additional mitigation measures (i.e., YRCAs) available and impacts are expected to remain within those analyzed in the 2023-2024 harvest specifications.

Under Alternative 3, there could be impacts to species such as bronzespotted and cowcod rockfishes. Bronzespotted and cowcod are expected to remain species that are prohibited from retention; however, opening the CCA to additional fishing would likely increase the encounters with these species as they are found within these depths, leading to increased mortality (as depths where they would be encountered would result in 100 percent mortality even if descended). Mortality could be mitigated by implementing one of the new proposed NT_RCA lines described under the alternative.

Using the same Southern California Hook and Line Survey data described above in Section 3.2.2 and Table 10, this analysis also looked at potential impacts to non-target species. For cowcod, there was a higher average catch per unit effort inside the CCA (1.1 fish per every 100 hooks) compared to outside the CCA (0.36 per every 100 hooks)- which aligns with the idea that the CCA was designed to protect cowcod and its habitat. For bronzespotted, there was also a higher average catch per unit effort (0.03 per 100 hooks compared to 0.006 per 100 hooks outside the CCA)- but overall, there were only five caught in total in both survey years. Again, retention of these species will remain prohibited, but may have higher mortality with the opening of the CCA at the depths in which they are released. One species that has seen increasing levels of bycatch over time in the CCA has been yelloweye rockfish. Yelloweye rockfish is managed within the shelf rockfish south complex south of 40° 10' N. lat. and has seen an increasing number of encounters, particularly within the bounds of the eastern CCA in recent years. Note that while the hook-and-line survey information provides some information on which species may be more likely to be caught within the CCA, it does not take into account seasonality of fishing, management restrictions, etc.

Overall, Alternative 3 is not expected to have significant impacts on any non-target stocks as the Council can mitigate catch inseason with new NT_RCA lines, trip or bag limit adjustments, BACs (if adopted) and the additional proposed GEAs. For example, while yelloweye bycatch has seen increased bycatch in recent years in the eastern CCA, a large portion of the area will remain closed to groundfish fishing through the 43-Fathom Spot GEA. It is likely that there will be some increase in mortality of non-target species, but it will be dependent on the shift in effort to the newly reopened areas and the gear types used. With inseason monitoring and available mitigation measures, it is expected that impacts should be within those analyzed in the 2023-2024 Harvest Specifications EA.

Under Alternative 4, BACs could be used inseason or preseason to close off an area to fishing by non-trawl vessels and could ensure impacts to non-target fish species remain within the environmental impacts assessed in the 2023-2024 Harvest Specifications EA. No impacts would result from the development of this measure and assessment of the impacts to non-target species would occur at the time of implementation and therefore are not discussed here.

Cumulative Effects on Non-Target Species

Considering the direct and indirect impacts of the proposed action when added to the impacts of past and present actions on non-target species and the anticipated impacts of the RFFA as described under Cumulative Effects on Target Species, the cumulative impacts of the proposed action are determined to be not significant because all catch would continue to be managed to stay within the respective allocations and ACLs to prevent exceedance of overfishing limits.

The anticipated impacts of the proposed action are expected to add a minor contribution to the cumulative impact on non-target species because we expect some additional harvest as part of fishers targeting certain species and fishing in areas that have previously been protected for yelloweye and cowcod. However, we don't anticipate the additional harvest to negatively impact the status of fish stocks beyond the level anticipated and analyzed in the 2023-2024 harvest specifications. Again, these stocks are actively monitored and managed through existing tools (i.e., NT_RCA lines) and new tools being developed under Alternative 4.

3.4 Prohibited Species

3.4.1 Status/Affected Environment

Non-trawl gear types have historically had little or no mortality of any prohibited or protected species, and even with the expansion of opportunities for non-trawl fisheries through this action, mortality is expected to still be negligible. Recent estimates of bycatch of Endangered Species Act (ESA) listed species can be found in the [June 2021 Groundfish Endangered Species Workgroup Reports](#) or salmon bycatch scorecard. For other prohibited species (halibut, Dungeness crab), estimates can be found in [Agenda Item C.1.b, NMFS Report 1, June 2021](#) and [Agenda Item C.1.b, NMFS Report 3, June 2021](#).

3.4.2 Effects of the Alternatives

Under each of the proposed alternatives, there are likely no significant impacts associated with prohibited or protected species including salmon, Dungeness crab, eulachon, and green sturgeon given the limited encounters and mortality associated with non-trawl fisheries. None of the alternatives are expected to change the non-trawl fisheries in a way that would significantly impact the encounter rate with these prohibited or protected species. While effort may increase or shift from one area or fishery to another, the gear types permitted under any of the alternatives have not historically been associated with significant mortality or encounters with the species mentioned above.

Cumulative Effects on Prohibited Species

Overall impacts from the Proposed Action, when combined with the effects of past, present, and reasonably foreseeable future actions, the incremental effect of the action will not result in significant cumulative impacts on prohibited species.

3.5 Marine Mammals / Turtles

3.5.1 Status/Affected Environment

NMFS manages marine mammals and turtles that are primarily affected by fisheries through interactions with fishing gear, disturbance by fishing activity or vessel movement, or prey competition.

Marine mammal stocks, including those currently listed as endangered or threatened under the ESA or depleted or strategic under the Marine Mammal Protection Act (MMPA) that may be affected by the proposed action are shown in Table 14 and in NMFS annual [List of Fisheries \(LOF\)](#). The LOF classifies each commercial fishery into one of three categories under the MMPA based upon the level of mortality and serious injury of marine mammals that occurs incidental to each fishery. The classification of a fishery on the LOF determines whether participants in that fishery are subject to certain provisions of the MMPA, such as registration, observer coverage, and take reduction plan requirements. Category II species are those with a “occasional incidental mortality and serious injury of marine mammals” while Category III species are those with a “remote likelihood of/no known incidental death or serious injury of marine mammals”. Species in Category III are not discussed further in this analysis as no changes are expected under any alternative and thus, we do not anticipate any impact from any alternative on marine mammals.

Table 14. 2022 List of Fisheries under this action that may impact marine mammals.

Species	Fishery	Status
Humpback Whale	WA/OR/CA sablefish pot fishery	Category II
Bottlenose dolphin	WA/OR/CA Groundfish, bottom longline/setline WA/OR/CA Groundfish, Pacific Halibut longline ¹⁸ WA/OR/CA groundfish/finfish hook-and-line AK/WA/OR/CA commercial passenger fishing vessel	Category III
California Sea Lion		
Northern elephant seal, California breeding		
Sperm whale		
Stellar Sea Lion		
Killer Whale		

As shown in Table 14, the sablefish pot fishery has been determined to be a category II fishery due to entanglements with humpback whales. The [2020 BiOp](#) concluded that the take of humpback whales would likely occur through entanglement of fishing gear, and specifically, the sablefish pot gear fishery. The

¹⁸ None documented to be incidentally killed or injured.

incidental take limit for the groundfish fishery is no more than 5 humpback whales in one year are observed or estimated to have been incidentally captured, or if the 5-year running average of humpback whale bycatch exceeds 2.34 per year. There have been two documented takes of humpback whales in the groundfish fishery- one in the LEFG sablefish pot fishery in 2014 and the OA pot fishery in 2016. Based on the most recent report, the estimated fleet-wide entanglements/takes in the combined pot sectors were not above the five-year running average threshold ([Agenda Item G.4.a, NMFS Report 4, June 2021](#)).

Leatherback sea turtles are managed under the [2012 BiOp for the Pacific Coast Groundfish Fishery](#). The Incidental Take Statement (ITS) states that the take limit of leatherback turtles is 0.38 turtles/year over a 5-year average not exceeding 1 turtle/yr. There have been no observed takes of turtles from 2015-2019. ([Agenda Item G.4.a, NMFS Report 5, June 2021](#)) The only observed take in the groundfish fishery was in the OA pot fishery in 2008.

3.5.2 Effects on Marine Mammals/Turtles

Alternative 1 is expected to have little to no additional impact to marine mammals or turtles outside of No Action (see discussion on [page 32 of 2023-2024 Biennial Harvest Specifications and Management EA](#)) as it would only expand the potential use of non-bottom contact hook-and-line gear configurations to the LEFG and IFQ gear switching fisheries and add two gear modifications (natural bait and a 30 ft distance off bottom requirement) to the stationary vertical jig gear permitted in the NT_RCA. Hook-and-line gear has no documented impacts to humpback whales or sea turtles. Pot gear would still be prohibited in the NT_RCAs under Alternative 1.

Under Alternative 2, there would be more area opened to pot gear compared to No Action, most of which resides in the critical habitat for humpback whales and/or leatherback sea turtles (see Figure 25). However, it is the amount of gear in the water rather than the amount of area or habitat designation that affects potential entanglement risk for whales and turtles. This action does not change the overall amount of sablefish (i.e., the primary species targeted by pot gear) that can be caught by the fishery, which was analyzed as part of the 2023-2024 Biennial Harvest Specifications and Management Measures EA. As such, we do not anticipate an increase in fishery participants or gear in the water, as this alternative only opens up new fishing grounds. The density of fishing gear (including pot gear) both shoreward and seaward of the NT_RCA will likely lessen, as some vessels will likely shift some of their effort to the newly opened depth bin. This will increase the spatial distribution of pot gear, but not change the overall amount of effort nor concentrate effort in a particular area, including critical habitat. Opening shallower areas could increase the overlap in humpback feeding grounds, but there is no evidence to suggest that 75-100 or 75-125 fathoms would be more impactful to the species compared to 100-125 or greater which is already opened to fishing. There is expected to be no impacts to the prey of humpbacks given that their typical prey of krill or smaller fish are not selected by the gear types being considered under this action.

Alternative 2 would increase fishable areas that overlap with critical habitat for leatherback sea turtles; however, interactions and sightings continue to be rare (see [Agenda item I.4.a NMFS Report 5, June 2019](#)). Since only one leatherback turtle has been observed to be killed by the sablefish pot fishery between 2003 and 2017, the likelihood of the fishery affecting the leatherback turtle population is low. In addition, the fisheries are unlikely to impact leatherback prey (i.e., jellyfish)

Based on this information, Alternative 2 is not expected to change interactions with humpbacks or turtles from what is disclosed in the 23-24 EA nor cause exceedance of the incidental take statements for humpback whales and Pacific leatherback sea turtles.

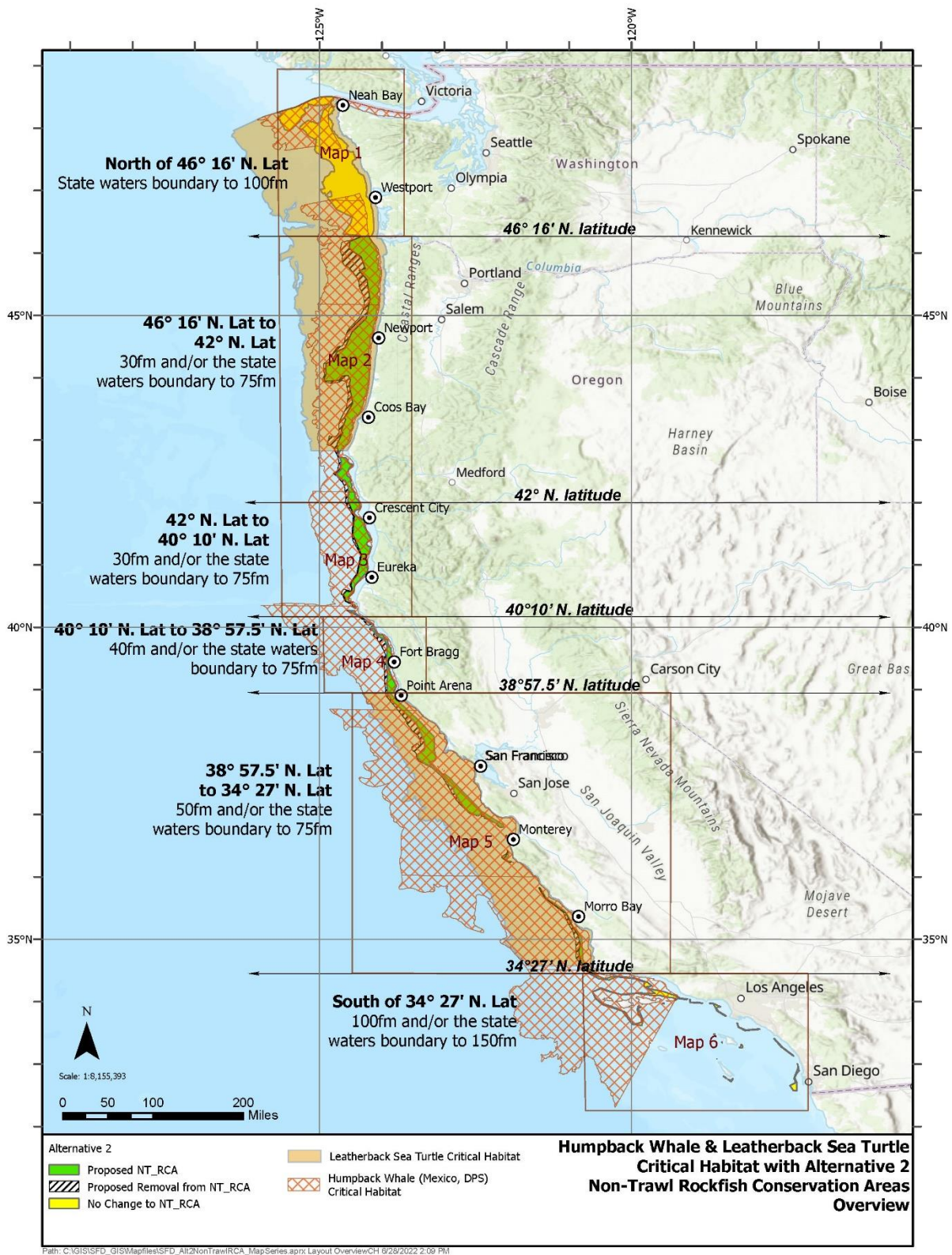


Figure 25. Humpback whale and leatherback critical habitat overview with Alternative 2

Alternative 3 is not expected to change interactions with humpbacks or turtles from what is disclosed in the 23-24 EA. Under Alternative 3, there would be more area opened to groundfish fishing gear (commercial and recreational) compared to No Action. Some area would overlap with humpback whale critical habitat (Figure 26). However, it is the amount of gear in the water rather than the amount of area or habitat designation that affects potential entanglement risk for whales and turtles. In the assessment of the critical habitat for humpback whales, the Critical Habitat Review Team determined that the southern California area (noted as Unit 19 in the draft biological report) did not contain “Biologically Important Areas”, which consists of reproductive areas, feeding areas, migratory corridors, and small and resident populations, for humpback whales ([NMFS 2019](#)). However, the Critical Habitat Review Team did note that the area “is predicted to support high densities of whales in the winter/spring months...[which] may stem from the fact that some of the whales sighted in this area may be transiting through the area, rather than occupying the area as a feeding destination.”

Therefore, there could be some increased risk for interactions within the spring and winter months, but would be dependent on the location (i.e., where the whales are transiting versus fishing occurring) and amount and type of gear in the water (commercial or recreational). For leatherbacks, the critical habitat does not extend down to the action area for Alternative 3, as the most dense concentrations of foraging leatherbacks are known to occur off central California from Point Arena to Point Pinos in nearshore waters ([CA Entanglement Risk Assessment and Mitigation Program and Draft Conservation Plan](#)). Therefore, we do not expect Alternative 3 to result in an increase in interactions with humpback whales or leatherback sea turtles.

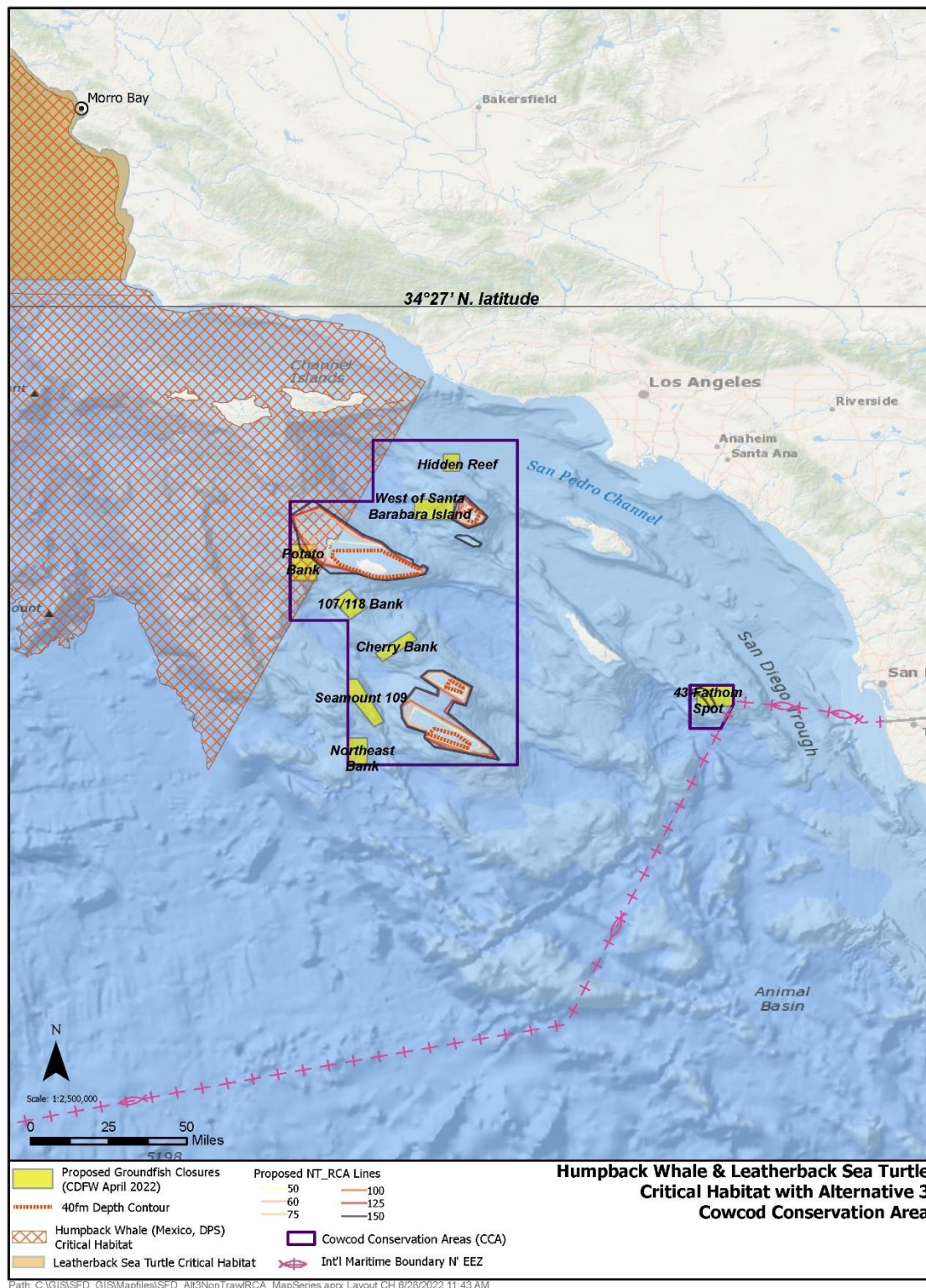


Figure 26. Humpback whale and leatherback critical habitat overview with Alternative 3

Alternative 4 is not expected to have any significant impacts on marine mammals or turtles as it would not be increasing the total amount of gear in the water, but only potentially moving effort to different areas. Overall impacts would be assessed when implementing a BAC preseason or inseason. However, similar conclusions in this analysis regarding the potential risk of interactions based on effort and type of gear would likely apply. BACs are not expected to concentrate effort in a way that would increase impacts humpback whales or sea turtles.

Cumulative Effects on Marine Mammals/Turtles

Under Amendment 31, the LEFG primary tier fishery season end date was extended from October 31 to December 31 starting with the 2023 fishing season. As noted in the 2023-2024 Harvest Specifications EA, “extending the season would be unlikely to have an additive effect on how much gear is in the water but would more likely keep the gear amount at a status quo level.” Given that the primary tier fishery is a highly attained fishery with a limit on pot gear permits, we would continue to not expect an increased risk of entanglement with Alternative 2 (i.e., the only alternative that would potentially change where the tier fishery could operate) and the season extension. The fishery is expected to operate in a similar manner as the current season structure, just potentially in slightly shallower depths (i.e., into 75 fathoms) and no new gear would be used that would negatively impact whales or sea turtles. The fishery will continue to be constrained by the amount or extent of take and the non-discretionary terms and conditions documented in the ITS accompanying the biological opinions for the effect of the groundfish fishery on ESA listed humpback whales and sea turtles. If an ITS is exceeded, it’s likely that a new biological opinion would be developed for a particular fishery and potential mitigation measures would be implemented in the future.

3.6 Seabirds

Seabirds are protected under the Migratory Bird Treaty Act. Additionally, some species are listed under the ESA. Seabirds are generally affected by fishing through interactions with fishing gear, disturbance by fishing activity or vessel activity, and prey competition.

3.6.1 Status/Affected Environment

Table 15 describes the identified seabird species with estimated mortality in West Coast non-trawl groundfish and directed halibut fisheries from 2012-2018.¹⁹ For a full description of all seabirds found on the West Coast, please see Janet, et.al. 2021. With regards to this action, the primary species of concern likely to interact with the non-trawl and directed halibut fisheries is short-tailed albatross, which is listed under the ESA. Short-tailed albatross are managed in the groundfish fishery with a take threshold of five estimated or one observed albatross over a two-year period, neither of which have been exceeded based on the last status report ([Agenda Item G.4.a, NMFS Report 6, June 2021](#)). The only observed take of short tailed albatross was in 2011 in the longline LEFG sablefish fishery.

¹⁹ Unidentified species not listed in table, see WCGOP report for estimated mortalities by type of seabird.

Table 15. Seabird species with estimated mortality in West Coast Non-Trawl Groundfish and Directed Halibut Fisheries

Type	Common name	Status ²⁰
Albatrosses	Black-footed	Near threatened
	Short-tailed	Endangered
	Laysan	Near threatened
Fulmars	Northern fulmar	Least concern
Shearwaters	Sooty	Near threatened
	Pink-footed	Vulnerable
Pelican	Brown pelican	Least concern
Cormorant	Brandts	Least concern
	Double-crested	Least concern
Loon	Common	Least concern
Phalarope	Red-necked	Least concern
Gulls	Glaucous-winged	Least concern
	Mew	Least concern
	Western	Least concern
	Arctic herring	Least concern
	California	Least concern
	Ring-billed	Least concern
Murres	Common	Least concern

(Source: WCGOP Seabird Bycatch Report 2002-2018)

3.6.2 Effects on Seabirds

Impacts to seabirds under No Action can be found in Section 8.4 of 2023-2024 Harvest Specifications EA. The 2023-2024 EA describes that there have been no seabird interactions observed through the EFPs (Emley-Platt and Real Good Fish) that tested non-bottom contact gear configurations legalized for use in the NT_RCA starting in 2023, supporting the assumption of lower risk of seabird bycatch than other gear types. During the review and approval process for those EFPs, NMFS concluded the risk of seabird interactions with these hook-and-line gear configurations are expected to be lower than with bottom longline and determined, in part, that non bottom contact hook and line gear types are not expected to cause the fishery to exceed take limits for short-tailed albatross. Additionally, all vessels greater than or equal to 26 ft (7.9 m) LOA engaged in commercial fishing for groundfish with bottom longline gear in the non-trawl sectors would still be required under No Action and any of the below alternatives to implement mitigation measures to prevent seabird interactions ([§ 660.21](#)).

Under Alternative 1 and suboption 1, impacts to seabirds are likely the same as No Action given that suboption 1 would only allow vessels fishing in the LEFG and IFQ GS to fish in their designated sectors without declaring into the directed OA fishery and fishing up to their limits in their respective sectors. Gear allowances would only be those allowed for under No Action (i.e., legal non bottom contact hook and line gear with artificial bait only). Suboption 3, which would permit stationary vertical jig gear to be fished a minimum of 30 ft rather than 50 ft off the seafloor would also not have any impacts as it does not change the bait type or way the gear is fished from the surface. However, suboption 2 would permit vessels using stationary vertical jig gear to use natural bait. While other gear types (e.g., bottom longline) are permitted to use natural bait, they are also subject to mitigation measures such as streamer lines or night setting. This type of gear, which is like rod and reel type gear, is thought to be a lower concern with the use of natural bait given the fishing method of the gear. As described in the Seabird BiOp, rod and reel type gear is unlikely to affect short-tailed albatross in part because of how the nature of a rod and tackle limits the exposure of the gear to seabirds. The activity is conducted close to the vessel usually in the proximity of humans, causing the line and bait to be less attractive to seabirds than other hook-and-line gear that tends

²⁰ Endangered under ESA; all other categories are International Union for the Conservation of Nature

to sink slowly for a comparatively long distance aft of the vessel. Therefore, there are no significant impacts to seabirds expected with suboption 2.

Under Alternative 2, while there would be additional area opened on the shelf for non-trawl gears, and longline gear in particular (i.e., the primary gear type that interacts with seabirds) to be used, mitigation measures would still apply as described under No Action. There have been no known takes of short-tailed albatross in the groundfish fishery since the mitigation measure requirements were implemented. However, the most recent NMFS report on seabird bycatch notes that “the continuing use of longlines with floats remains a potential risk to short-tailed albatross, especially for those fishers unwilling or unable to fish at night.” ([Agenda Item G.4.a, NMFS Report 6, June 2021](#)) Vessels participating in the directed halibut fishery are not subject to these mitigation measure requirements unless they are retaining groundfish (50 CFR 660.21(c)). Given that most halibut vessels retain groundfish and therefore would be subject to the measures (see analysis in Section 4.5.3) and that the directed halibut fishery only runs for a few days, even without mitigation measures, it is unlikely that the newly opened areas proposed under this alternative would significantly increase the likelihood of seabird encounters. Overall, even with the opening of the shelf to fishing activity, Alternative 2 is thought to have no significant impacts on seabirds with the continuation of mitigation measures. Additionally, the Council will continue to review new information through the Groundfish Endangered Species Workgroup (GESW) reports.

There are no expected impacts to short-tailed albatross under Alternative 3 given that the CCA is south of the known current range of the species. Vessels fishing south of 36° N. lat. are not subject to the mitigation measure requirements. The GESW noted in their most recent statement at the June 2021 Council meeting that there have been no sightings of short-tailed albatross in the area from 2011-2020 and no new telemetry or sightings data in the area; however, it is important to note that observer coverage is lower on these vessels. ([Agenda Item G.4.a, GESW Report 1, June 2021](#)) Additionally at that meeting, it was noted that there was a juvenile observed by a commercial fishing vessel south of 36° N. lat. in June 2021 (i.e. after the time series considered in the GESW report; [Public Comment, June 2021](#)) The Council will revisit any new information on the issue in 2023 under the routine GESW agenda item ([June 2021 Decision Document](#)).

Alternative 4 is not expected to have any significant impacts on seabirds as it would not be increasing the total amount of gear in the water, but only potentially moving effort to different areas. Overall impacts would be assessed when implementing a BAC preseason or inseason.

Cumulative Effects on Seabirds

Considering the direct and indirect impacts of the proposed action when added to the impacts of past and present actions on non-target species and the anticipated impacts of the RFFA as described under Cumulative Effects on Target Species, the cumulative impacts of the proposed action are determined to be not significant because seabird-specific mitigation measures would still be in place. Further, the GESW would continue to monitor potential impacts to seabirds on a biannual basis.

The anticipated impacts of the proposed action are expected to add a minor contribution to the cumulative impact on seabirds because of the allowance of natural bait on stationary vertical jig gear and the shifting of fishing effort onto the shelf in the proposed openings of the NT_RCA. However, we don't anticipate the impact to significantly impact seabirds outside of the proposed terms of the current BiOp given the mitigation measures in place and the routine monitoring and assessment of the fishery against the ITS.

3.7 Habitat

3.7.1 Status/Affected Environment

Fishing operations may change the abundance or availability of certain habitat features used by managed fish species to spawn, breed, feed, and grow to maturity. These changes may reduce or alter the abundance, distribution, or productivity of species. The effects of fishing on habitat depend on the intensity of fishing, the distribution of fishing with different gears across habitats, and the sensitivity and recovery rates of specific habitat features.

The Council and NMFS have updated available habitat information, and their understanding of the impacts of fishing on habitat, in periodic 5-year reviews of the EFH components in the Council FMP (Appendix B and C). Maps and descriptions of EFH for groundfish species are available in the groundfish FMP.

As described in the FMP Appendix C, habitat sensitivity and recovery time vary between habitat type. Table 16 provides an overview of the impacts from non-trawl gear and Figure 27 shows the substrate types present along the West Coast compared to the NT_RCA and CCA configurations under the alternatives. Each gear type has a different impact and recovery time on bottom substrate types. Across all bottom types, average impacts in terms of both habitat sensitivity for all types of non-trawl gear fall under the “minor impacts” category (see [Table 3A and Table 3B of Appendix C](#)). Within the non-trawl gear types (and those with research available), habitat is more sensitive and incurs a longer recovery time from interaction with longline and pot gear than other types of fixed gear types (e.g., hook-and-line). Of the three general bottom type categories (hard, mixed, soft), hard bottom is the most sensitive to fixed gear compared to the other two bottom types. Hook-and-line style gears are thought to have similar impacts across habitat types. Though counter to sensitivity, recovery time is lowest for hard substrates and highest for soft bottom.

Table 16. Summary of non-trawl gears used in the groundfish and directed halibut fishery and their effects on habitat, from Appendix C-1 of the Groundfish FMP.

Gear types subject to the NT_RCA	Method of fishing	Gear components that impact substrate	Substrates generally fished	Potential effects to habitat
Bottom longline	deployed on bottom	Anchors, weights, mainline.	Soft and hard bottom	Overturn, undercut, crush, break habitat and organisms, displace/disturb biogenic habitat
Pots/traps	deployed on bottom	pot, line.	Soft and hard bottom	Smother organisms, crush, biogenic habitat
Hook-and-line gears				
Dinglebar gear	Bounces on bottom	Dinglebar, hooks, line	Hard bottom, rocky reef	Overturn, undercut, crush, break habitat and organisms, displace/disturb biogenic habitat
Troll Gear	Trolling in upper water column	Weights	Primarily fished in water column	Crush/break biogenic habitat (from weights), entanglement
Vertical Longline (single or multi hook gangion, and weight)	Drift fishing “jigging” or trolled	Weights, hooks, line	All bottom types and water column	Damage to and displacement of biogenic habitat damage; entanglement

In the following sections, an analysis is presented on the potential impacts to seafloor habitat. Seafloor substrate data was developed by Oregon State University, Active Tectonics and Seafloor Mapping Lab, NOAA Fisheries, and BOEM. Due to the location of the EFHCAs potentially exposed by the proposed action, these series of maps focus on rocky reef habitat rather than all groundfish Habitat Areas of Particular Concern (HAPCs) which do not overlap.²¹ There are additional HAPC areas of interest due to unique geological and ecological features, including seamounts which are described throughout the analysis if present. Deep sea corals and sponge observation data was obtained from the [NOAA Deep-Sea Coral and Sponge Map Portal](#) (description of the database and sources can be found in the [NOAA Technical Memorandum NOS NCCOS 191](#)). To facilitate ease of understanding, all observations were grouped into three main categories as was done under Amendment 28: corals, sponges, and sea pens. Note that [habitat suitability models are available on the Deep Sea Coral and Sponge Portal](#) for a variety of coral and sponge species and were used in development of the GEAs proposed under Alternative 3 by CDFW and stakeholders. The analysis presented below does not include those layers at this time.

²¹ Groundfish HAPCs are defined in [Section 7.3 of the groundfish FMP](#) and include estuaries, canopy kelp, seagrass, and rocky reefs.

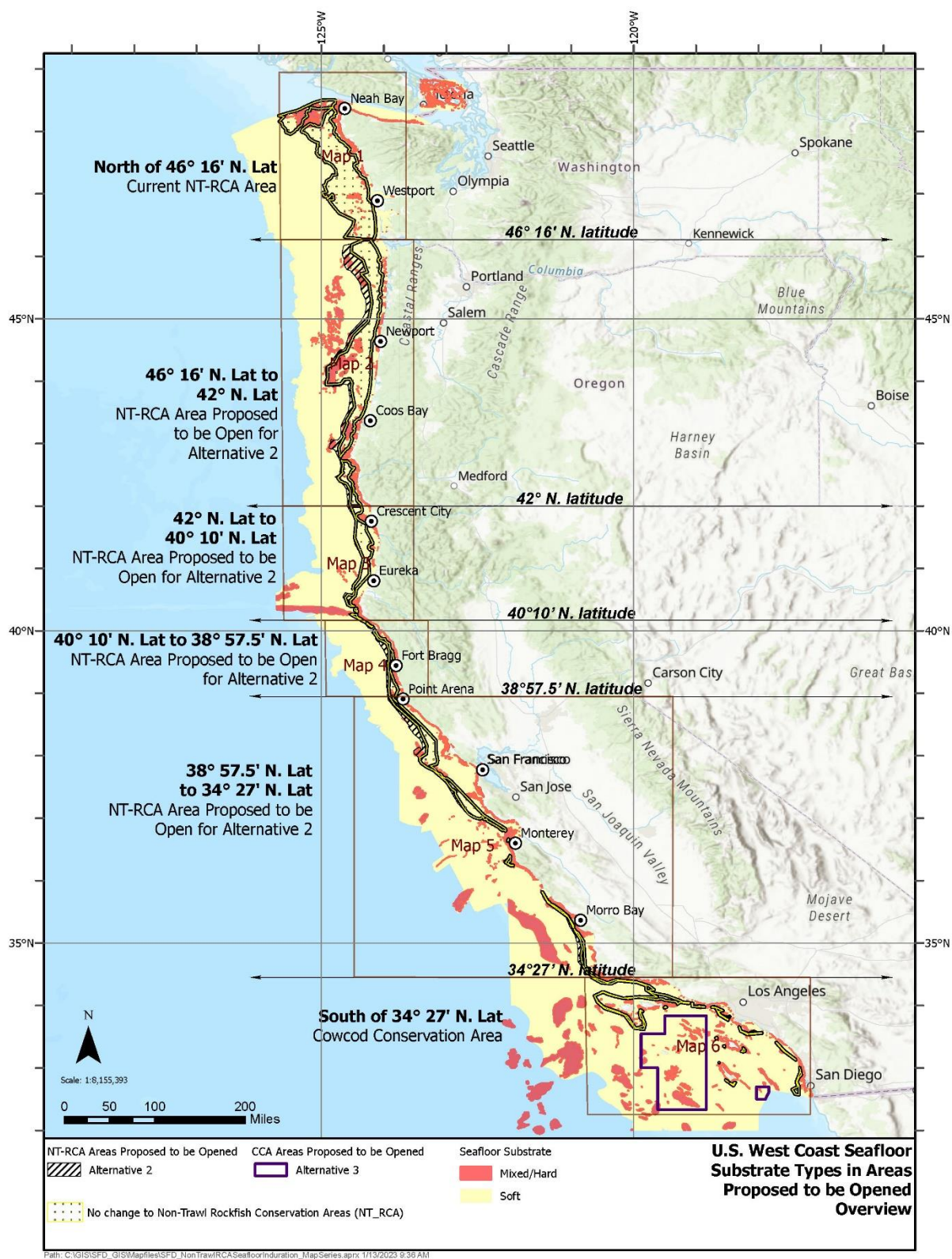


Figure 27. Substrate Type Compared to Action Alternatives

3.7.2 Effects of the Alternatives

Under No Action, habitat impacts would be the same as those described in Section 8 of the 2023-24 Harvest Specifications EA in that there would be no expected habitat impacts. Therefore, no further discussion regarding impacts is provided.

For Alternative 1, impacts are likely similar to that as described in the 2023-24 Harvest Specifications EA. The only differences in gear configuration for legal non-bottom contact gear under Alternative 1 would be the potential allowance for natural bait and a 30 ft distance off bottom (compared to 50 foot under No Action) for stationary vertical jig gear. Natural bait would have no associated habitat impacts. While a 30 ft restriction would have a higher degree of likelihood of interacting with the seafloor compared to 50 ft, the style of gear would still be considered to have limited habitat impact. As noted by the GAP in September 2022, “Maintaining at least a 30-foot leader is in the fisherman’s best interest to keep the fishing gear well off the bottom to avoid any snags that would threaten loss of very expensive fishing gear.” ([Agenda Item G.6.a, Supplemental GAP Report 1, September 2022](#)) Therefore, there is likely no significant impacts to habitat with Alternative 1 and the suboptions compared to No Action and no further discussion regarding impacts is provided.

Alternative 4 has no associated habitat impacts under this action since implementation of a BAC would exclude fishing from an area; however, it could have indirect positive benefits if implemented in the future on the area where fishing pressure is restricted or indirect negative impacts if it resulted in effort moving to an area with more sensitive habitat than the closed area. This would need to be considered at the time of implementation. Therefore, no further discussion regarding habitat impacts is provided.

Overall, Alternatives 2 and 3 are likely to have negative impacts on habitat compared to No Action as each alternative is proposed to open areas to additional fishing effort with non-trawl gear. The scale of impact depends on the suboptions chosen under Alternative 2 and the new GEAs under Alternative 3 since each alternative considers these potential mitigation measures in conserving sensitive areas. A detailed discussion is provided for Alternatives 2 and 3 in the following sections.

3.7.2.1 Alternative 2

3.7.2.1.1 Summary of Impacts Regarding Adjustment of the NT_RCA

Opening the area seaward of 75 fm to non-trawl groundfish and directed halibut fishing between 46° 16' N. lat. and 34° 27' N. lat. would result in 2,418 sq. mi. being opened to fishing, including approximately 203 sq. mi. of area currently closed to all bottom trawl gear in EFHCAs. In the area to be exposed to fishing, there are a variety of habitat types (see Figure 28, Figure 36, Figure 40, and Figure 43) and biogenic features. The majority of the area to be opened seaward of the 75 fm line of the NT_RCA is soft substrate with some areas that include mixed/hard substrate with habitat forming invertebrates (such as corals, basketstars, brittlestars, demosponges, gooseneck barnacles, sea anemones, sea lilies, sea urchins, sea whips, tube worms, and vase sponges). These mixed/hard areas largely fall within currently identified EFHCAs for bottom trawl.

When fishing outside the NT_RCA, fishermen tend to avoid hard substrates with high relief. This avoids gear entanglements and gear loss when fishing with longline and pot gear. Based on this, we assume vessels would continue to fish in areas that contain soft substrate or low relief under Alternative 2. Since we cannot anticipate what type of gear would be used or the location and intensity of the fishing effort, it is not possible to accurately predict or quantitatively assess impacts on habitat (substrate), biogenic features or biota with any certainty under Alternative 2. However, we qualitatively discuss the potential impacts that could occur and the effects of fishing in these habitats should effort shift. As noted earlier, impacts on these habitats would depend on the type of gear used (e.g., pot, longline or non-bottom contact) and the type of habitat fished. We anticipate that non-bottom contact gear (i.e., groundfish troll or stationary vertical jig gear)

would have negligible to no impact on habitats since, aside from lost gear, the gear usually does not touch the bottom. Recovery rates for these types of gear is less than two months (see “Fixed Gear Point” columns in [Table 3A and 3B FMP Appendix C](#)). Based on this, the following discussion is focused on pot and longline gear impacts.

Soft substrates, which make up the vast majority of the NT_RCA is resilient and quick to recover from impacts, with full recovery possible in less than six months (see “Fixed Gear Distance” columns in [Table 3A and 3B FMP Appendix C](#)). We assume that most of the soft substrate in the opened area has not been disturbed by non-trawl fishing activity; however, the newly opened areas may not be pristine or untouched since much of this area is open to bottom trawl fishing activity and some state managed fisheries through Amendment 28 and the removal of the Trawl RCA. Some fishing areas may overlap between the fisheries once the area is open to the non-trawl fleet. If the allowable fishing area is expanded and non-trawl effort shifts to new areas, it will affect the habitat through disturbance. However, we expect the disturbance to be temporary and for the habitat to recover. It’s also possible that when fisheries move to areas within the NT_RCA proposed to be opened under Alternative 2 that the recovery rate for those areas that were consistently fished outside the NT_RCA by non-trawl and bottom trawl fisheries will recover quicker. Overall, we anticipate that any fishing effort with pot and longline in soft substrate would have minimal, short-term impacts on the habitat.

Hard substrate may be negatively affected by pot and longline gear, especially in bottom trawl EFHCAs that are exposed. However, these areas are resilient to non-trawl gears and are likely to recover in less six months (see [Table 3A and 3B FMP Appendix C](#)). Non-trawl gear can crush or kill any biogenic features, especially if fishing is conducted in areas with habitat forming invertebrates (HFI such as coral and sponges). It’s unclear exactly how many square miles of habitat include HFI in the areas that would be exposed to bottom contact gear and the amount of effort that currently impacts hard substrate to estimate current and future impacts under Alternative 2. However, we note that a majority of the hard substrate within the NT-RCA and many of the EFHCAs that would be exposed (other than the areas included under suboptions 1d and 1e that may remain closed) may not include large concentrations of deep-sea coral or sponges (See Figure 28 through Figure 55). There are some EFHCAs that are shown to have high concentrations, but these areas are likely to be unfishable with pot or longline gears due to high relief (Figure 52. Monterey Bay/Canyon EFHCA and Figure 55. Point Conception EFHCA). Finally, entanglement of line gear on outcrops and contact with biogenic habitat and species growing on the habitat can be damaged when the gear is recovered, dragged, or lost. Lost gear in the newly opened areas can affect habitat in the short term prior to the gear being degraded by the sea or becomes temporary habitat, but it’s not possible to know the amount of gear that may be lost in these areas nor the long-term effect on habitat.

Effort in the fishery is shown through heat maps in Figures 28, 29, 35 of [NOAA Technical Memorandum NMFS-NWFSC-174](#). Fishing does occur near and in current bottom trawl EFHCAs outside of the NT_RCA and shoreward and seaward of the current NT_RCA, but it’s unclear which particular EFHCAs or areas in the NT-RCA that would be opened to non-trawl fishing are of interest to the fleet. However, we expect that the opening of the EFHCAs to non-trawl fishing activity would likely encourage vessels to shift their effort into areas that are fishable. Based on this information, we anticipate effort to be redistributed to other areas and expect negative impacts to habitat under Alternative 2 through adjustment of the NT_RCA, particularly in bottom trawl EFHCAs compared to No Action. However, we do not expect overall effort to increase and expect recovery time of the substrate to be less than six months. Therefore, impacts to habitat in these areas would not be substantial under Alternative 2 to adjust the NT_RCA.

3.7.2.1.2 Summary of Impacts Regarding Suboption Implementation

If the NT_RCA is adjusted, then the majority of the hard substrate that could be exposed under Alternative 2 would be within bottom trawl EFHCAs. As discussed under the previous section 3.7.2.1.1, there would be negative impacts to habitat under Alternative 2 without any mitigation measures via the Council’s

suboptions. The following sections provide a qualitative assessment of the effects on habitat if each suboption (1a through 1e, 2 and 3) is implemented. Additionally, we provide discussion, statistics, applicability of the closure criteria, enforceability, and other information the Council considered when selecting and developing PPAs.

Suboptions 1a through 1e aim to protect habitat important to all groundfish species and suboptions 2 and 3 aim to conserve yelloweye rockfish and their habitat. Overall, the implementation of any suboption would have positive effects through continued protection of habitat and mitigate impacts if the NT_RCA is adjusted. We expect that ecosystem functions that control the fluxes of energy, nutrients, and organic matter within an EFHCA or a YRCA would be the same as No Action if an area remains closed to bottom contact fishing (or is closed in the future under suboption 3 to implement a YRCA).

Regarding suboption 3, nearly all three areas are within the existing NT_RCA; therefore, if the NT_RCA is adjusted under the proposed action, we anticipate effort to redistribute to these areas and expect negative impacts to habitat compared to No Action in the proposed YRCAs that would not be active when this action is implemented. However, similar to the impact discussed in section 3.7.2.1.1 we do not expect overall effort to increase and expect recovery time of the substrate to be less than 6 months. Therefore, impacts to habitat in these areas would not be substantial under suboption 3.

3.7.2.1.2.1 Suboption 1a Through 1e EFHCA Analysis

There are a total of 23 bottom trawl EFHCAs that would be partially or entirely exposed if the NT_RCA is adjusted under Alternative 2. Table 17 was presented in September 2022 to provide staff's assessment of each suboption's (1a, 1b, and 1c) applicability to each EFHCA area exposed under Alternative 2. Each EFHCA exposed by Alternative 2 is listed (first column) and the amount of habitat that could be opened to fishing in the EFHCA in the second column. The next three columns describe whether a suboption, as assessed by staff, may be applicable or not to a particular area. Applicability was staff's assessment of if an area contained relevant habitat features (e.g., rocky reefs) and was enforceable; however, it was and is not a recommendation in terms of whether or not a suboption could be applied by the Council. If the suboption was not applicable, we labeled it as 'Not Applicable' and if there was sufficient information available to consider developing a closure we marked it as 'Applicable'. Note that some assessments include a '*', which denotes complexities with enforcement. A close-up of each of the EFHCAs exposed by Alternative 2 and the rocky reef substrate (a HAPC) and deep-sea coral and sponge occurrences in the area are provided in Figure 28 through Figure 55 and cross-referenced in Table 17.

In September 2022, the Council reviewed staff's assessment of applicability to develop and adopted two new suboptions as PPAs: suboption 1d - Nehalem Bank/Shale Pile and Bandon High Spot and suboption 1e - Garibaldi Reef North, Garibaldi Reef South, and Arago Reef. The Council signaled through their PPA that they are not developing any new EFHCAs off of California for non-trawl bottom contact groundfish or directed halibut gear in this action and will consider any modifications to these areas in the next EFH review, currently expected to start in 2025. The far-right hand column of Table 17 now includes the PPA selection for each EFHCA.

Table 17. Assessment of Applicability of Alternative 2 Suboptions for EFHCAs exposed under Alternative 2

EFHCA name	Map Reference	Approximate Amount of EFHCA to be exposed under Alternative 2 (sq. mi)	Suboption 1a: Prohibit all non-trawl bottom contact gear in bottom trawl EFHCAs that would otherwise be reopened under this action. (* denotes areas that may have enforcement complexity)	Suboption 1b: Prohibit all non-trawl bottom contact gear in the entire EFHCA for bottom trawl EFHCAs with small portions outside the existing non-trawl RCA seaward boundary	Suboption 1c: Create a non-trawl bottom contact EFHCA over the entire bottom trawl EFHCA- both in the area to be exposed and in the current NT_RCA	Preliminary Preferred Alternative
Nehalem Bank/Shale Pile	Figure 29	60.44	Applicable	Applicable	Applicable	Suboption 1d
Garibaldi Reef North	Figure 30	8.48	Applicable	Not Applicable	Applicable	Suboption 1e
Garibaldi Reef South	Figure 31	2.32	Applicable	Not Applicable	Applicable	Suboption 1e
Heceta Bank	Figure 32	Negligible	Not Applicable	Not Applicable	Not Applicable	No Action
Arago Reef	Figure 33	2.54	Not Applicable*	Not Applicable	Applicable	Suboption 1e
Bandon High Spot	Figure 34	39.72	Applicable	Applicable	Applicable	Suboption 1d
Rogue River Reef	Figure 35	5.69	Not Applicable*	Not Applicable	Applicable	No Action
Eel River Canyon	Figure 37	0.28	Not Applicable *	Not Applicable	Not Applicable	No Action
Blunts Reef	Figure 38	0.50	Not Applicable	Not Applicable	Applicable	No Action
Mendocino Ridge	Figure 39	11.56	Not Applicable *	Not Applicable	Not Applicable	No Action
Delgada Canyon	Figure 41	Negligible	Not Applicable	Not Applicable	Not Applicable	No Action
Point Arena North	Figure 42	0.76	Not Applicable	Not Applicable	Applicable	No Action
Point Arena South Biogenic Area	Figure 44	11.77	Not Applicable *	Not Applicable	Not Applicable	No Action
The Football	Figure 45	8.91	Applicable	Applicable	Applicable	No Action
Gobblers Knob	Figure 46	1.64	Applicable	Not Applicable	Not Applicable	No Action
Cordell Bank/Biogenic Area	Figure 47	12.52 a/	Not Applicable	Not Applicable	Not Applicable	No Action

Cordell Bank (50-fathom isobath)	Figure 48	0.41	Bottom Contact EFHCA (Suboptions Not Applicable)			
Farallon Islands/Fanny Shoal/Cochrane Bank	Figure 49	1.20	Not Applicable*	Not Applicable	Applicable	No Action
Farallon Escarpment	Figure 50	1.47	Not Applicable*	Not Applicable	Not Applicable	No Action
Ascension Canyonhead	Figure 51	0.98	Not Applicable*	Not Applicable	Not Applicable	No Action
Monterey Bay/Canyon	Figure 52	3.41	Not Applicable*	Not Applicable	Not Applicable	No Action
Big Sur Coast/Port San Luis	Figure 53	2.21	Not Applicable*	Not Applicable	Not Applicable	No Action
La Cruz Canyon	Figure 54	5.80	Applicable	Applicable	Applicable	No Action
Point Conception	Figure 55	17.92	Not Applicable*	Not Applicable	Not Applicable	No Action

a/ Cordell Bank/Biogenic Area bottom trawl EFHCA overlaps with the Cordell Bank (50-fathom isobath) bottom contact EFHCA and therefore, only 12.11sq. mi. of area would be opened to groundfish non-trawl bottom contact gears.

3.7.2.1.3 Habitat Protection Considerations Regarding Applicable Suboptions

Sections 3.7.2.1.3 through 3.7.2.1.3.4 provide discussion, statistics, applicability of the closure criteria, enforceability and other information the Council considered when selecting and developing PPAs in September 2022. For those EFHCAs in which a PPA was selected (1d or 1e), additional discussion has been augmented since the September analysis. Each section discusses the EFHCAs listed in Table 17 and provides detailed figures that display applicable closures, habitat, and observations of deep-sea coral, sponges, and sea pens.

For the majority of bottom trawl EFHCAs with portions exposed under Alternative 2, closing those exposed portions (1a) would be difficult to enforce due to their small size. Based on discussion with NOAA's Office of Law Enforcement (pers. Comm. Greg Busch), area closures typically need to be at least 1 mile wide in any direction to be enforced effectively with VMS reporting every 15 minutes, depending on the shape of the area and the specific fishery. Areas that do not meet this standard for most of the proposed area to be opened are identified by an asterisk (*) in Table 17. Based on these criteria, staff assumed that EFHCAs with less than one sq. mi. of proposed opened area in total would not be applicable for suboption 1a. Based on the absolute size of the proposed closure, Heceta Bank, Blunts Reef, Delgada Canyon, and Point Arena North appear to not be suitable for suboption 1a. Eleven additional bottom trawl EFHCAs were also assessed to have minimal sensitive habitats present in the areas proposed to be open and potential enforcement complexities based on the 1-mile criteria, and therefore suboption 1a was determined not to be applicable.

For suboption 1b, staff identified the following EFHCAs that would have portions exposed, but already have small portions outside of the current seaward NT_RCA boundary: Nehalem Bank/Shale Pile (Figure 29), Bandon High Spot (Figure 34), The Football (Figure 31), and La Cruz Canyon (Figure 42). If the Council chose to implement suboption 1b for these four EFHCAs, it would result in an additional 24.35 sq. mi. being closed to groundfish bottom contact gear that could currently be used by industry.

Suboption 1c would create a groundfish bottom contact EFHCA over the entire bottom trawl EFHCA- both in the area to be exposed and in the current NT_RCA (i.e., not exposed) with the idea that this would lead to less enforcement and administrative burden as the closure boundary would remain as currently described in regulation. In addition, if the Council chose to move NT_RCA boundaries again in a future action (therefore exposing additional area to non-trawl fishing, then these areas would already be protected via suboption 1c. In some situations, the result of suboption 1c would be the same as suboption 1b (i.e., adding a groundfish bottom contact closure over the entire EFHCA area). While there could be some efficiencies gained with suboption 1c, the Council should also consider whether these additional habitat protections should be dealt with in the broader groundfish EFH review process.

Suboption 1d, the PPA, applied suboption 1a to two EFHCAs off of Oregon: Nehalem Bank/Shale Pile and the Bandon High Spot EFHCA. This suboption was determined to be applicable by staff during the consideration of the PPA for both EFHCAs.

Suboption 1e, the PPA, applies suboption 1c to three EFHCAs off of Oregon: Garibaldi Reef North, Garibaldi Reef South, and Arago Reef. This suboption was determined to be applicable by staff during the consideration of the PPA. However, in development of this document for March 2023, staff determined that a portion of Arago Reef EFHCA extends shoreward of the NT_RCA boundary and therefore this suboption would close areas currently opened to non-bottom contact fishing activity.

3.7.2.1.3.1 Discussion of Alternative 2 for EFHCAs off Oregon (46° 16' to 42° N. lat.)

Off the coast of Oregon, there are six bottom trawl EFHCAs that would be all or partially exposed under Alternative 2 that cover a variety of substrate types (Figure 28) as well as HAPCs and coral and sponges.

Nehalem Bank/Shale Pile: For the Nehalem Bank/Shale Pile EFHCA, there would be approximately 60.4 sq. mi. of area opened to non-trawl fishing consisting of hard substrate/rocky reefs and some sponge observations (Figure 29). Approximately 4.5 sq. mi. of the EFHCA is already exposed to non-trawl bottom contact gear outside of the current NT_RCA configuration. In September 2022, the Council recommended that a groundfish and halibut bottom contact EFHCA be implemented for the portion of the EFHCA opened to non-trawl fishing under Alternative 2 (suboption 1d) which is outlined in red in the figures below.

As noted in the [Habitat Committee report](#) and referenced in Council discussion,

“In addition to rocky reef HAPC throughout this area, ODFW has long term study sites at Nehalem Bank since 2007, investigating macroinvertebrate response to the bottom trawl closure. Study sites are inside and outside Nehalem Bank EFHCA. The study primarily examines shrimp trawl areas (primarily mud habitat) but also surveys rocky habitat. Disturbance to these areas by new bottom contact gear activity could compromise this long-term study.”

Council discussions also noted how the area outside of the current NT_RCA boundary appears to have a negligible amount of rock and therefore would not affect the ODFW survey sites, leading to the choice of suboption 1d as the PPA (i.e. suboption 1a for this EFHCA) compared to 1b or 1c. ([September 2022 Council Meeting Transcripts](#))

Garibaldi Reef North: For Garibaldi Reef North EFHCA, approximately 8.6 sq. mi. of area would be opened to non-trawl fishing (Figure 30). While there are no coral or sponge observations in this area, it does consist of rocky reef habitat. This EFHCA is completely within the current boundaries of the NT_RCA. The Council selected suboption 1e (i.e. 1c applied to this EFHCA) to mitigate potential habitat impacts in the area, which would extend the groundfish and directed halibut bottom contact EFHCA by approximately 6.4 sq. mi.

Garibaldi Reef South: Similar to Garibaldi Reef North, Garibaldi Reef South EFHCA (Figure 31) is fully within the bounds of the current NT_RCA and less than 0.4 sq. mi. would remain closed to non-trawl fishing in the NT_RCA boundary under Alternative 2. Suboption 1e was also selected as the PPA for this EFHCA. The PPA is intended “to protect a substantial amount of rocky habitat” ([September 2022 Council Meeting Transcripts](#)).

Heceta Bank: A negligible amount of area would be exposed at Heceta Bank EFHCA; therefore, no suboptions are likely to be applicable (Figure 32). However, the area to the west of this EFHCA (which would include any residual area opened in the EFHCA and the new seaward boundary) would be included within the proposed YRCA under suboption 2.

Arago Reef: For Arago Reef EFHCA, 2.54 sq. mi. of area would be exposed to non-trawl fishing gear under Alternative 2 with only minimal rocky reef habitat present (Figure 33). Additionally, given the small size of the exposure, it would be likely hard to enforce the closure under suboption 1a making that option not applicable. The Council selected suboption 1c for this EFHCA (now designated as 1e) which would extend into the NT_RCA and into currently opened waters shoreward of the NT RCA boundary.

Bandon High Spot: Under Alternative 2, the entire Bandon High Spot EFHCA would now be exposed to non-trawl fishing gear (Figure 34). Currently, less than 27 percent (~14.5 sq. mi.) is subject to fishing outside of the NT_RCA boundaries. In September 2022, the Council elected to keep the portion of the EFHCA currently closed to non-trawl fishing closed as a new groundfish and halibut bottom contact EFHCA (suboption 1d). Similar to Nehalem Bank, Bandon High Spot is the focus of a long term ODFW research study. Agenda Item G.6.a,

Supplemental HC Report, September 2022 notes that,

“In the absence of sustained fishing pressure from bottom contact gear, benthic habitats appear to be returning to pre-RCA condition. For example, surveys conducted by NOAA’s Deep-Sea Coral Research and Technology Program at Coquille Bank (Bandon High Spot EFHCA) found significant recruitment of gorgonian coral after more than a decade of closure to bottom contact gear, with coral density increased by 1,400 percent (from 2 to 28 corals per 10m²) as well as increased fish abundance. Maintaining the bottom-contact gear closure at the Bandon High Spot EFHCA provides opportunity for further recovery and a unique opportunity to study longterm effects of bottom-contact gear closures on habitat recovery, a Council research priority.”

The Council elected to keep fishing opportunities for non-trawl gears open outside of the current NT_RCA boundaries.

Rogue River Reef: Rogue River Reef EFHCA would open approximately 5.7 sq. mi. of area to non-trawl fishing gear, with the majority of the EFHCA remaining in the NT_RCA (or state waters; Figure 35). Due to the size of the opening, suboption 1a may be difficult to enforce and would offer minimal habitat protection to HAPCs suggesting that this suboption is not applicable to the area. The Council could consider suboption 1c; however, due to the extent of the area within the NT_RCA and that it would close areas currently opened to fishing shoreward of the NT_RCA boundary, the Council may want to consider forgoing any additional habitat protects here in favor of waiting for the more holistic EFH review for the area.

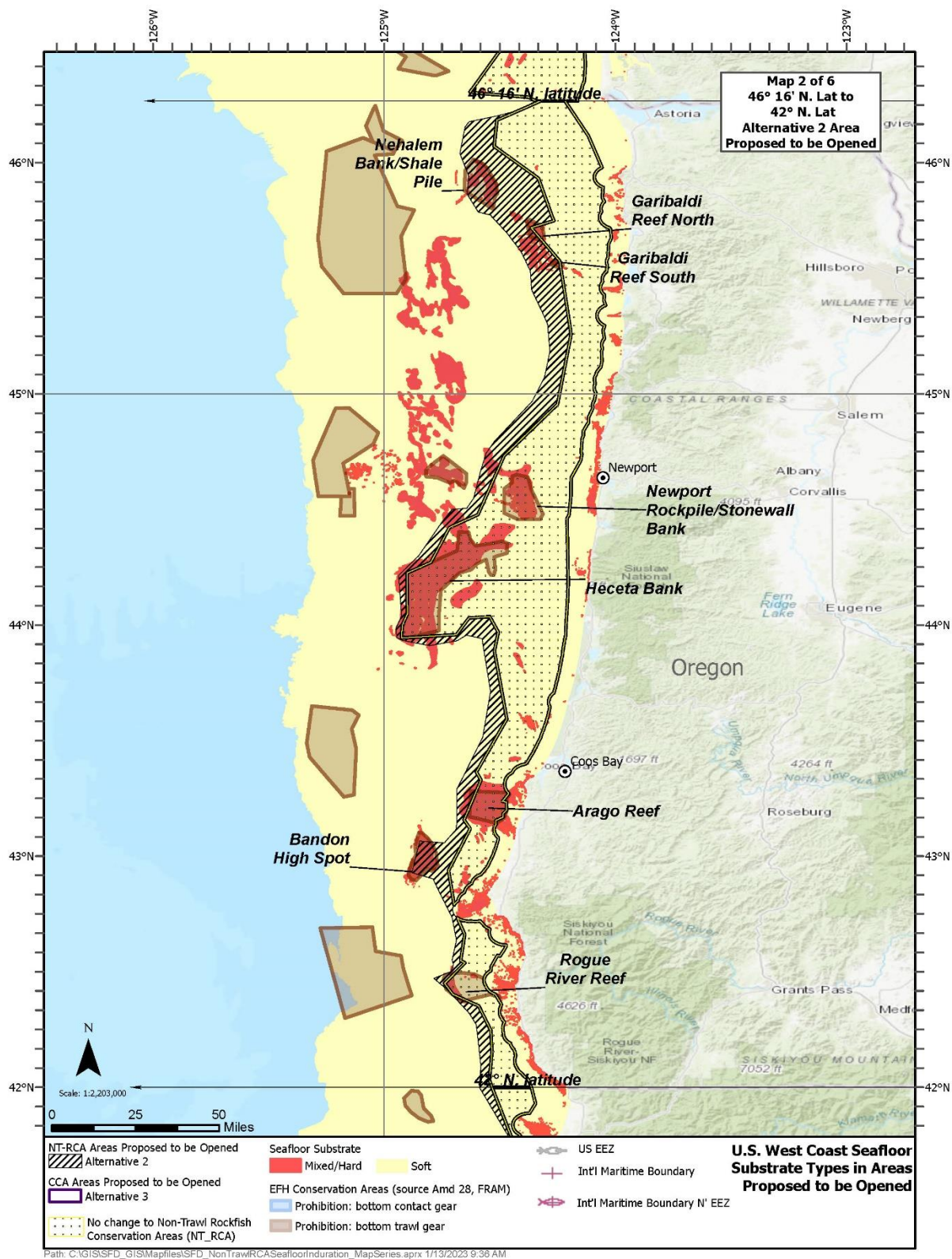


Figure 28. Substrate type in area to be opened under Alternative 2 from 46° 16' N. lat. to 42° N. lat.

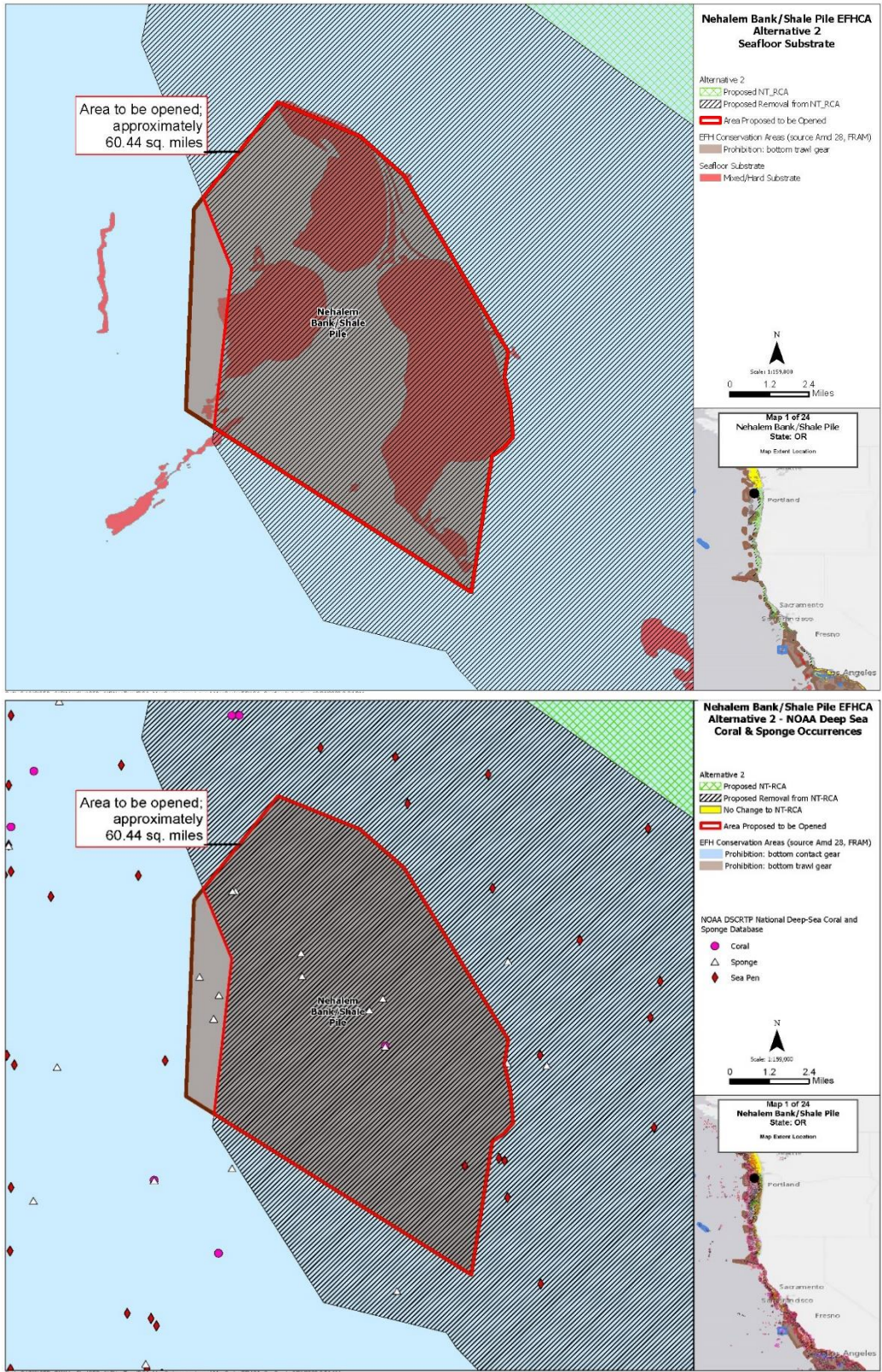


Figure 29. Nehalem Bank/Shale Pile EFHCA

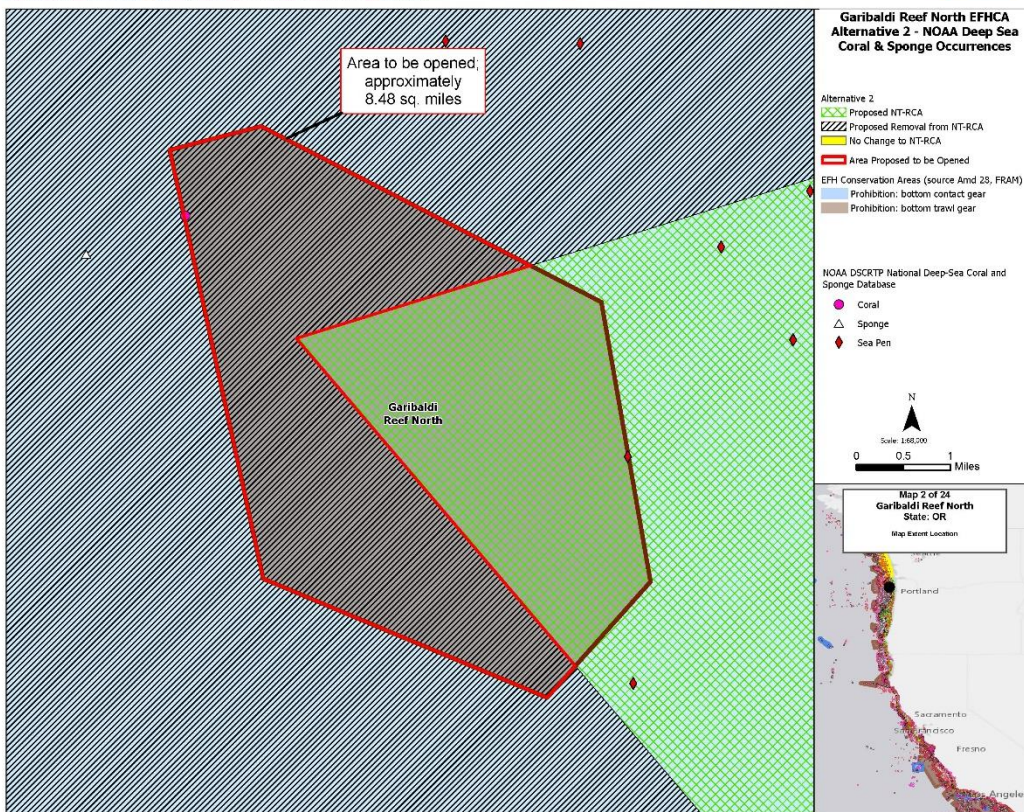
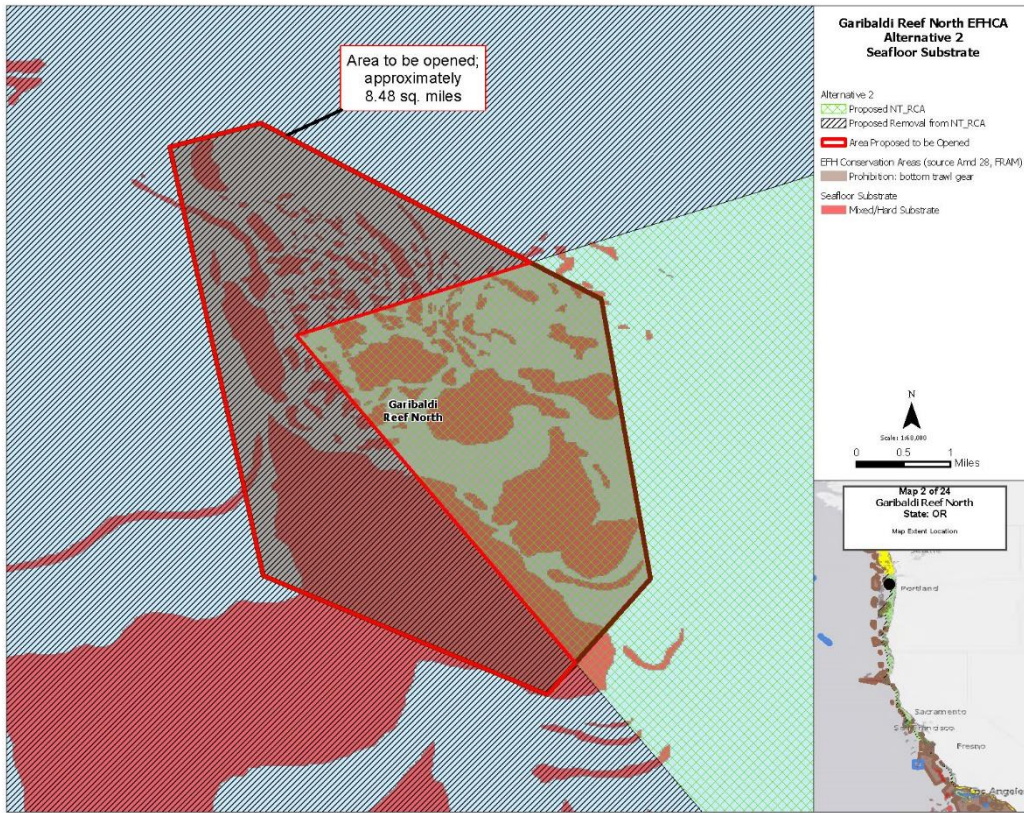


Figure 30. Garibaldi Reef North

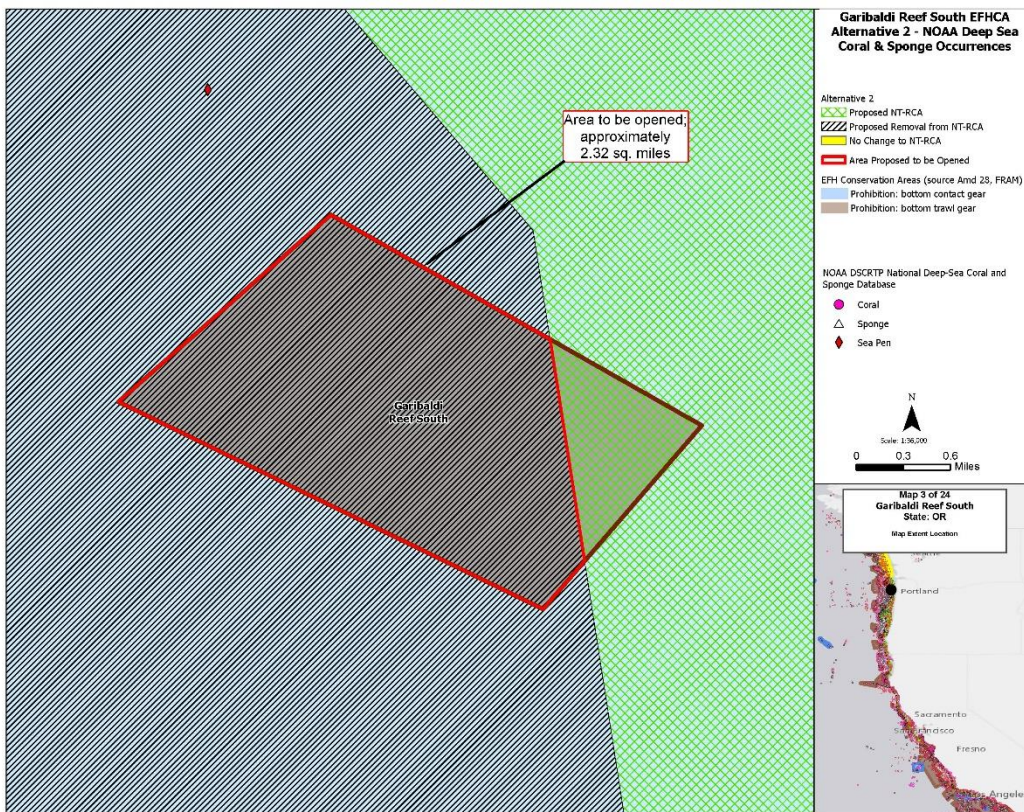
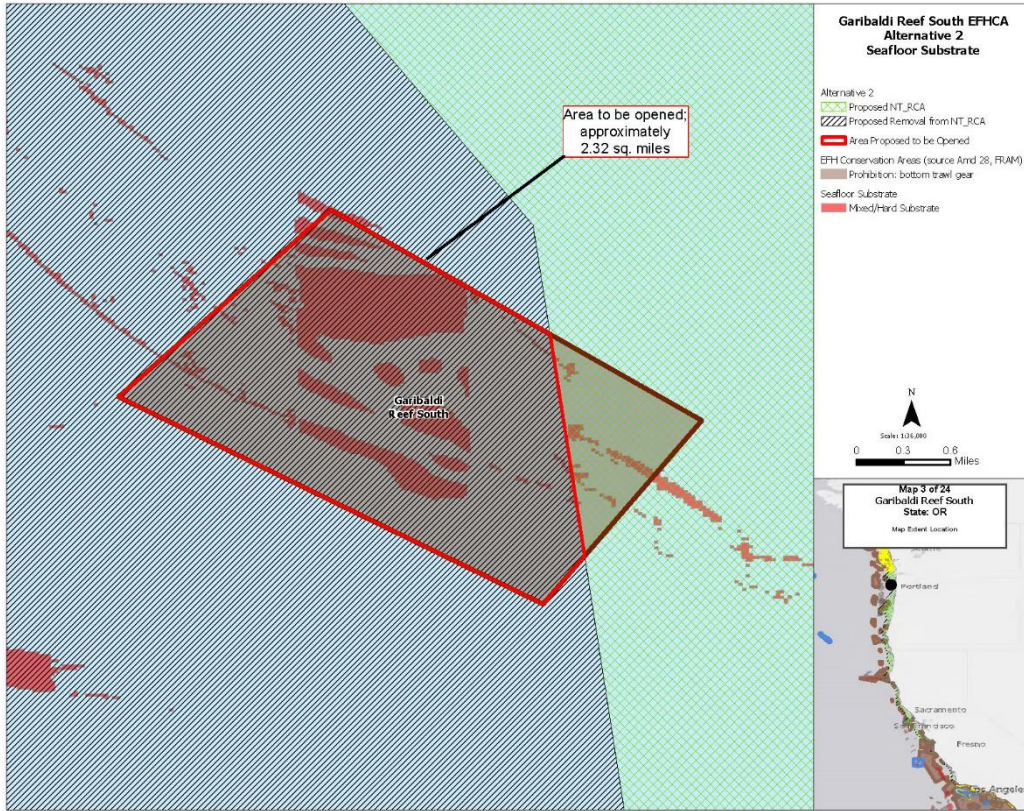


Figure 31. Garibaldi Reef South

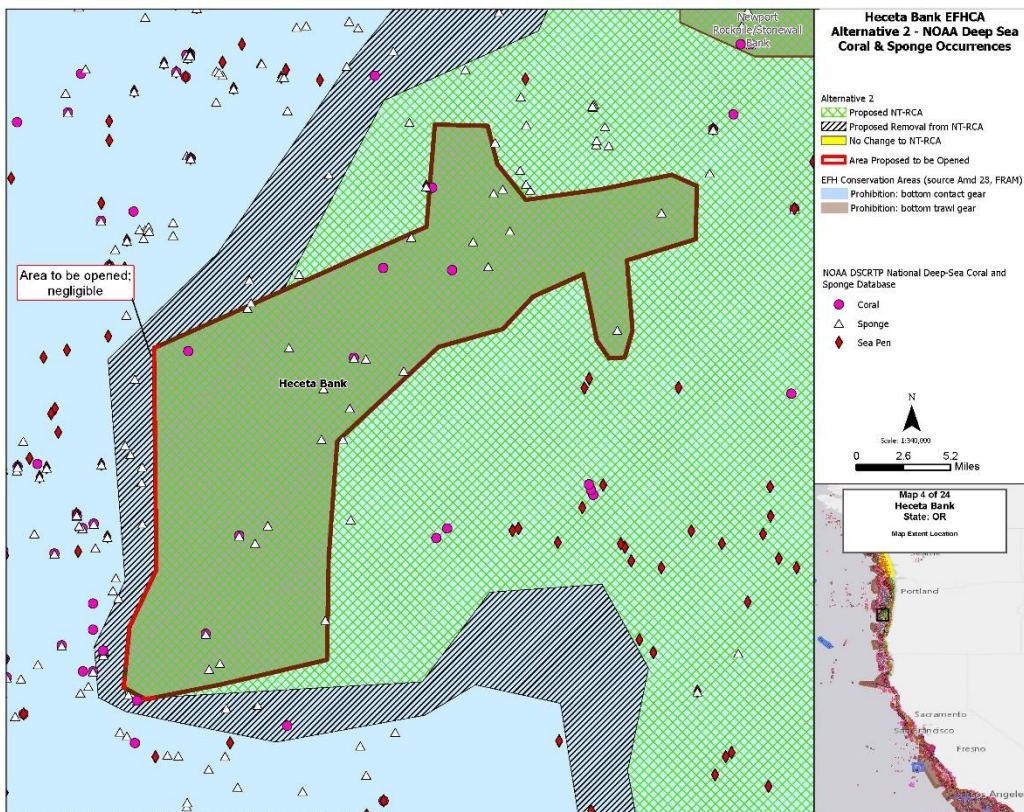
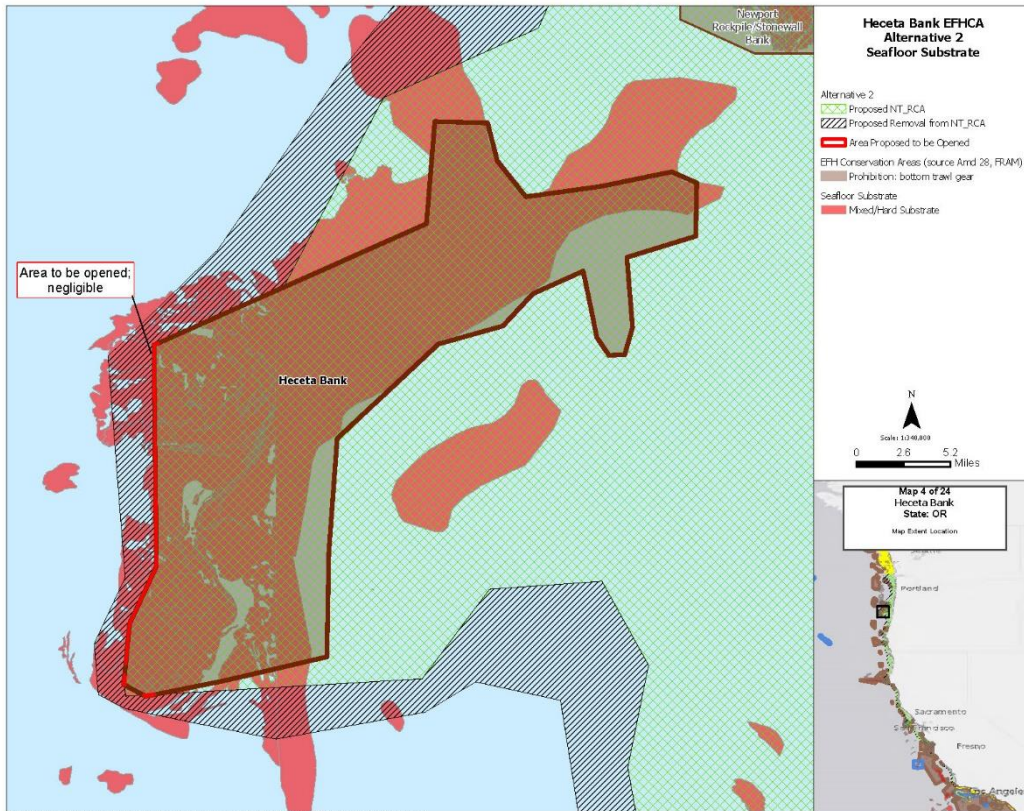


Figure 32. Heceta Bank EFHCA

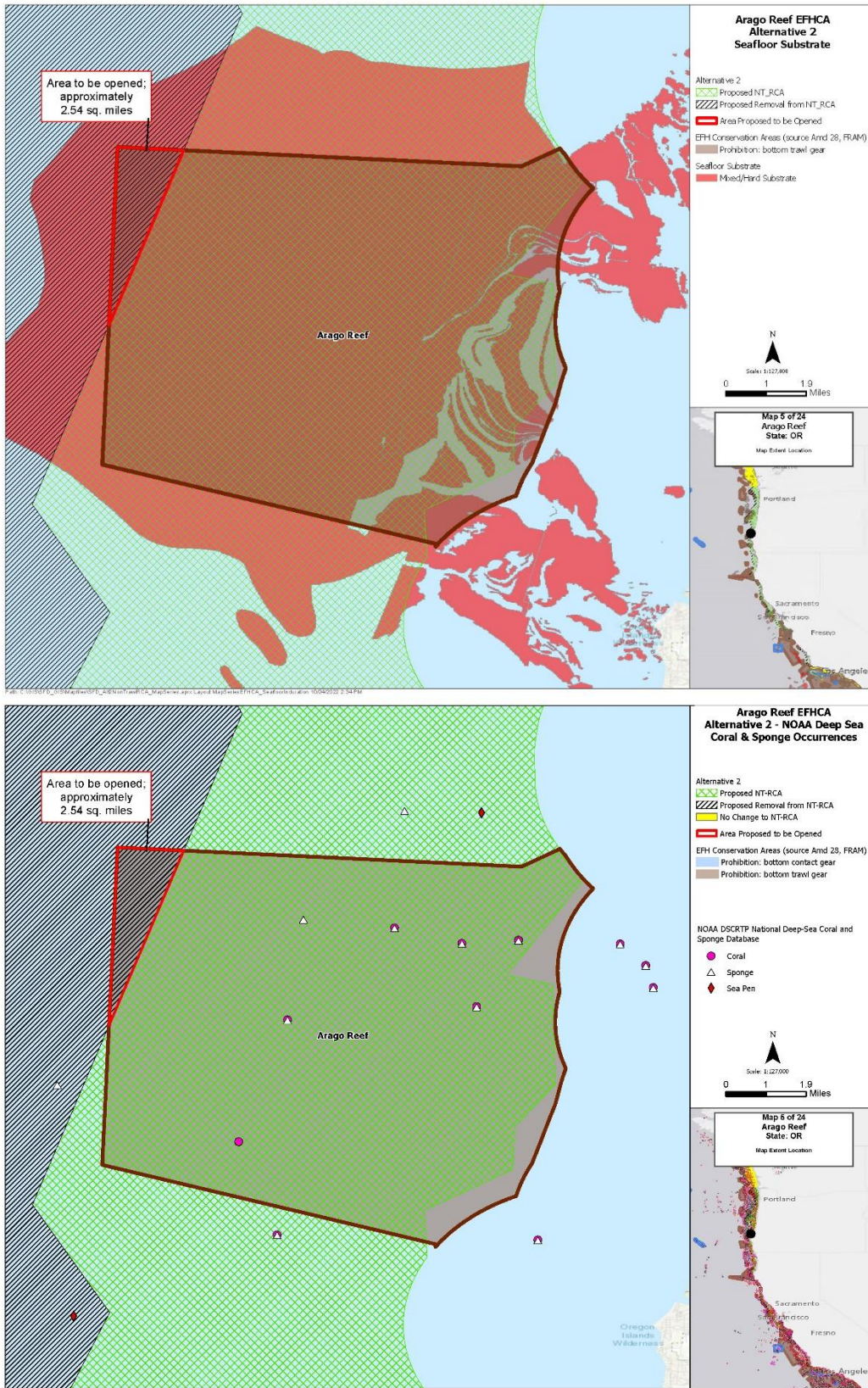


Figure 33. Arago Reef EFHCA

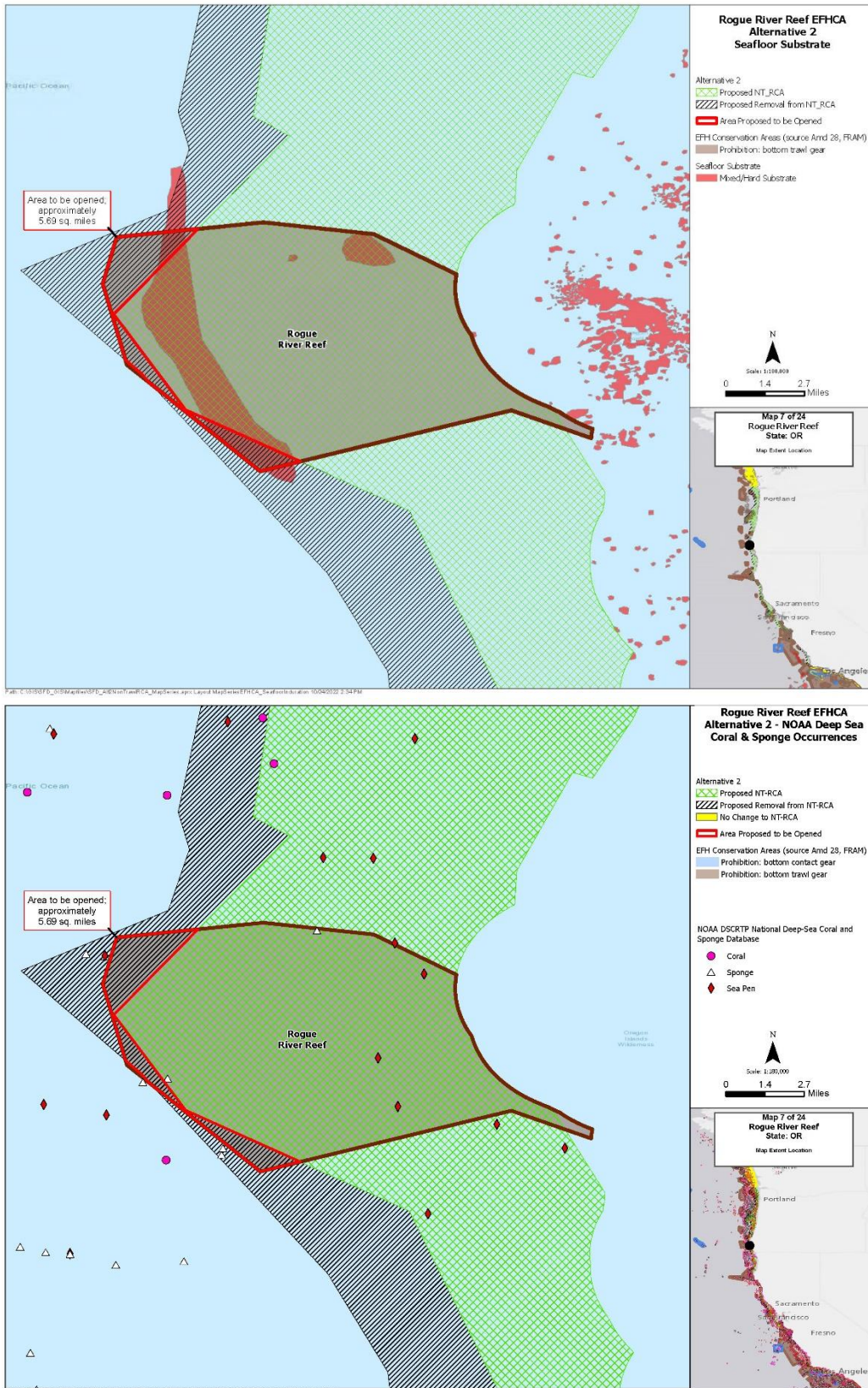


Figure 35. Rogue River Reef EFHCA

3.7.2.1.3.2 Discussion of Alternative 2 for EFHCAs off California from 42° to 40° 10' N. lat.

Off the coast of Northern California, there are three bottom trawl EFHCAs that would be exposed under Alternative 2 to non-trawl fishing gear (Figure 36). There were no additional EFHCAs proposed to be developed under the PPA.

Eel River Canyon: Eel River Canyon EFHCA would have less than 2 sq. mi. open to non-trawl gear activity, with the majority of the EFHCA already outside of the NT_RCA (Figure 37). There appears to be no known HAPCs or coral/sponge occurrence in the area, suggesting that Alternative 2 would not have any significant habitat impact in the area. Suboption 1a would likely be difficult to enforce due to the small size and suboptions 1b and 1c would not be applicable. Therefore, the Council may want to consider No Action in this area.

Blunts Reef: Approximately 0.5 sq. mi. of Blunts Reef EFHCA would be exposed to non-trawl gear under Alternative 2 (Figure 38). The majority of the EFHCA will remain inside the NT_RCA or within state waters. Currently, there is around 1 sq. mi. open to groundfish and halibut non-trawl gear. Neither that currently opened area or the area proposed to be opened contain any observed HAPC or coral/sponge observation. Suboption 1a would likely be difficult to enforce, and given the lack of sensitive habitat presence, appears not to be applicable. However, suboption 1b or 1c (which would have the same result in this situation) would close the entire EFHCA to groundfish bottom contact gear. As described above, if the Council chose suboption 1b or 1c, California would need to take conforming action to close the areas in state waters to groundfish bottom contact gear. At the time of this analysis, it is unknown if any fisheries operate in those areas. The Council therefore may want to consider No Action and review any EFHCA designations at the next review.

Mendocino Ridge: The Mendocino Ridge EFHCA would have approximately 11.6 sq. mi. exposed to non-trawl gear under Alternative 2 (Figure 39). While there are minimal rocky reef habitat and no coral/sponge observations in the proposed opened area, the Mendocino Ridge is a designated HAPC of special interest and occurs in much of the exposed area (not shown on map). Opening of the area could result in some negative habitat impacts, however, suboption 1a would likely be hard to enforce due to the segmented nature of the opened areas and the small width of the openings. Suboptions 1b and 1c would not apply given the majority of the EFHCA is already outside of the NT_RCA.



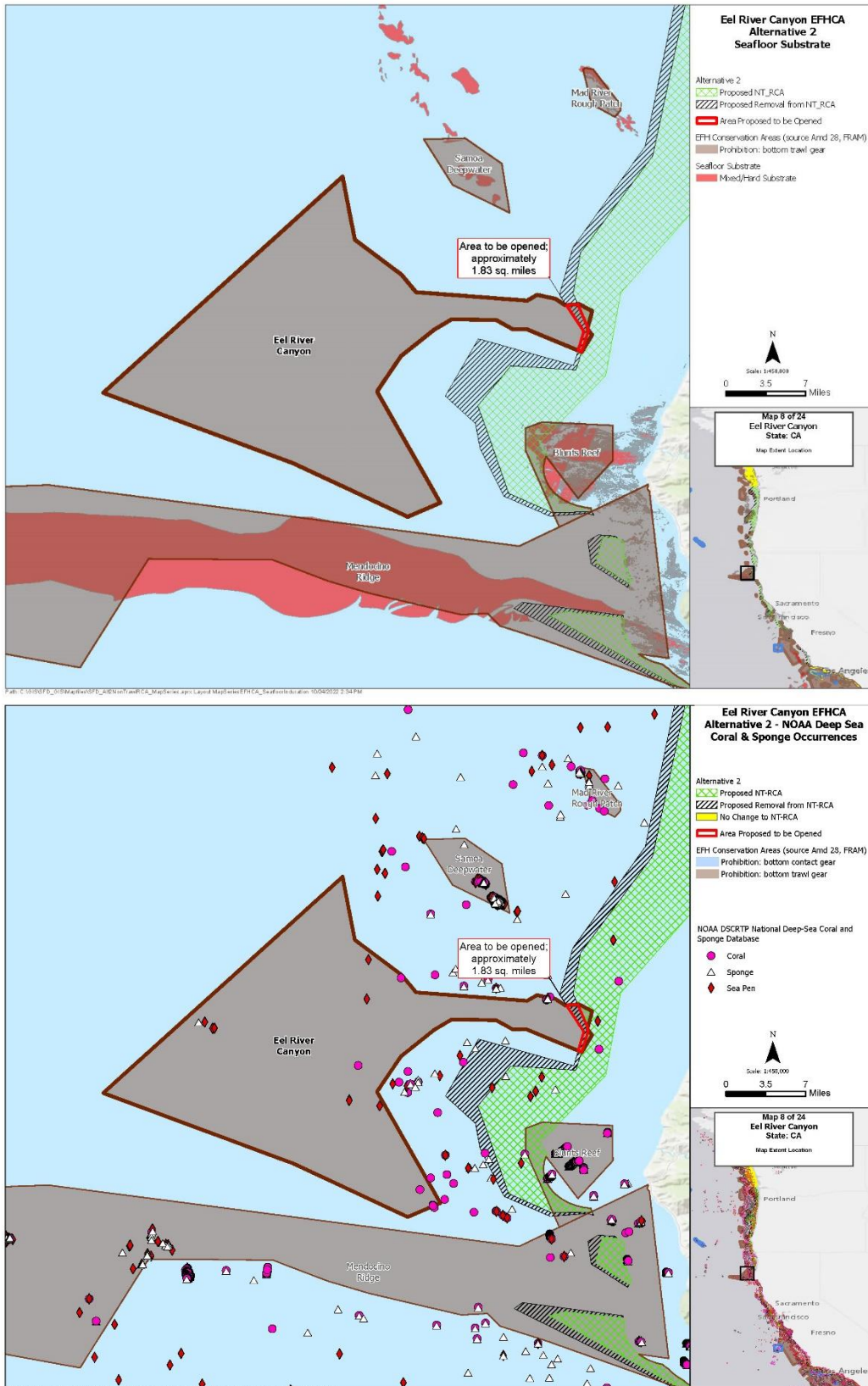


Figure 37. Eel River Canyon EFHCA

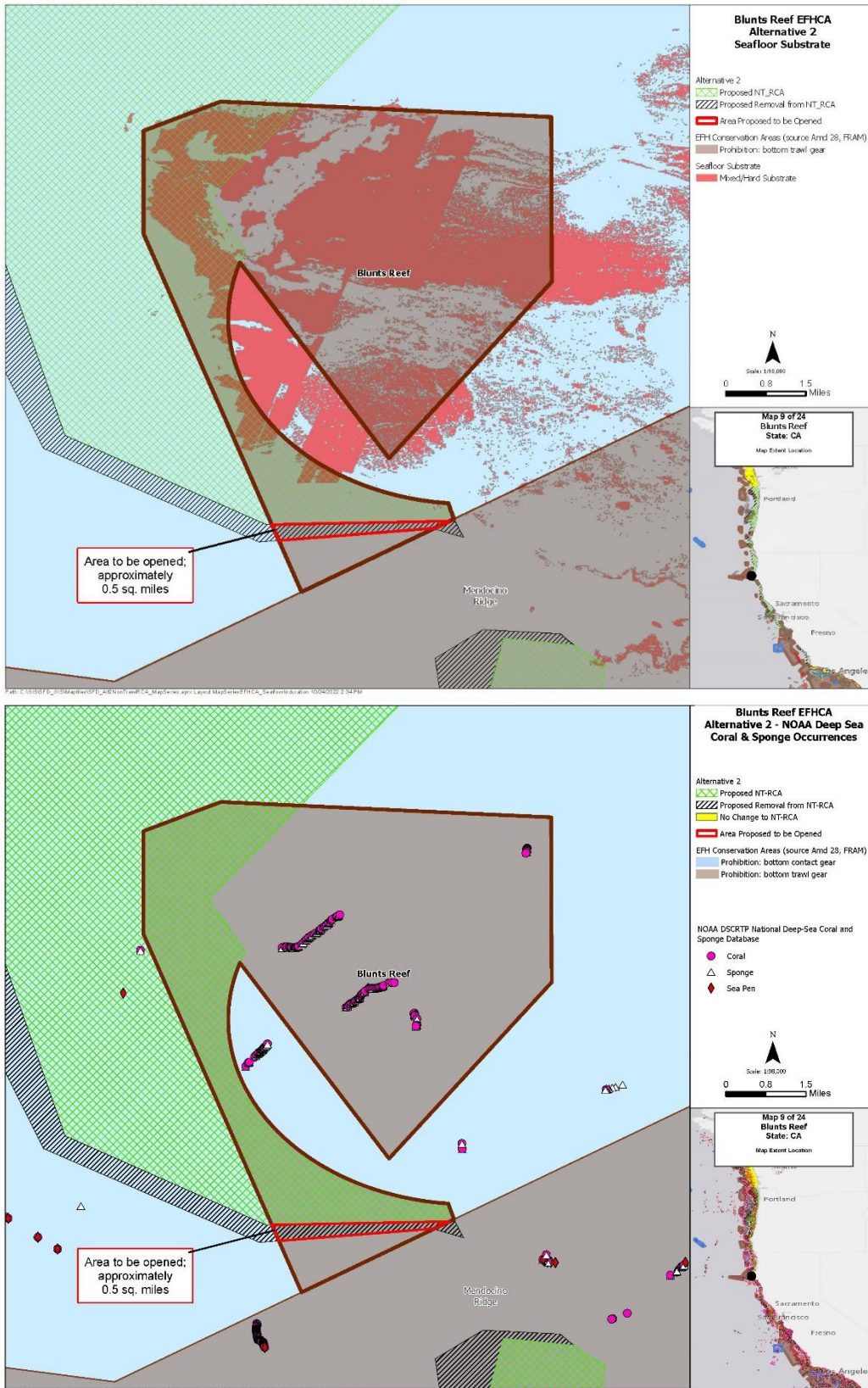


Figure 38. Blunts Reef EFHCA

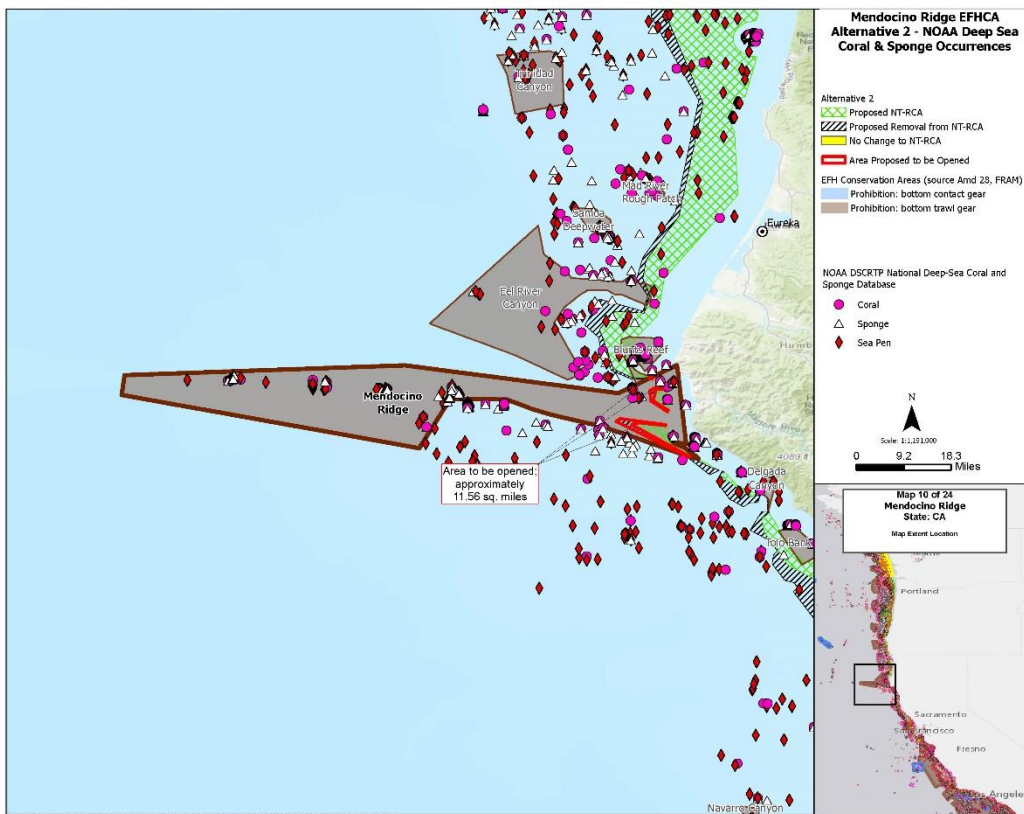
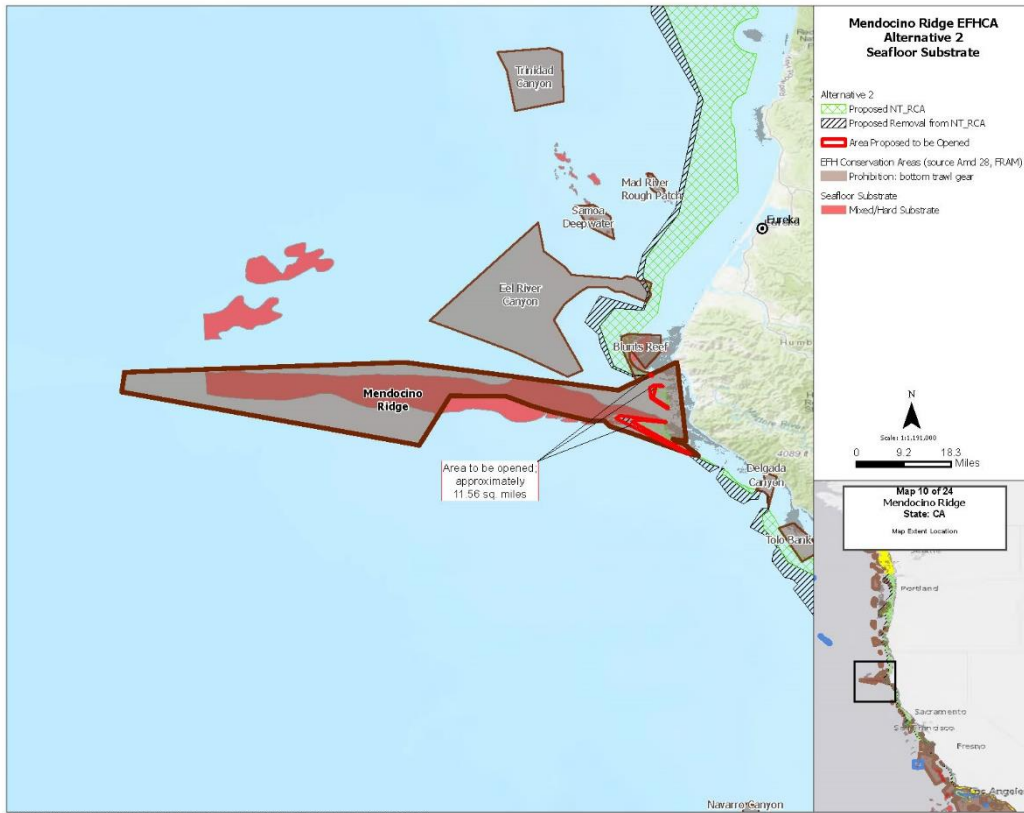


Figure 39. Mendocino Ridge EFHCA

3.7.2.1.3.3 Discussion of Alternative 2 EFHCAs off California between 40° 10' and 38° 57.5' N. lat.

There are only two bottom trawl EFHCAs that may be exposed under Alternative 2- Delgada Canyon and Point Arena North (Figure 40). There were no additional EFHCAs proposed to be developed under the PPA.

Delgada Canyon: With the movement of the seaward boundary to 75 fathoms, Delgada Canyon would see a negligible amount of area exposed to non-trawl fishing (Figure 41). The overwhelming majority of the EFHCA sits within California state waters. Therefore, the only option that appears to be applicable would be suboption 1c; however, the impacts of this suboption would be like No Action unless California took conforming state action to limit groundfish bottom contact fishing in the area. At the time of this analysis, it is unknown whether groundfish fisheries operate in this area. Therefore, the Council should consider if No Action may be most appropriate.

Point Arena North: Point Arena North would see less than 1 sq. mi. opened to groundfish and directed halibut non-trawl fishing effort, with the majority of the EFHCA remaining within the NT_RCA boundaries (Figure 42). No significant habitat impacts are expected by opening this area to fishing (no HAPC or sponge/coral occurrences). Suboption 1a would likely not be applicable given the size of the opening and lack of sensitive habitat. After the September 2022 analysis, staff determined that a portion of the Point Arena North EFHCA extends shoreward of the NT_RCA, but not into state waters, and therefore suboption 1c would close areas opened to non-trawl fishing. However, given the small area and lack of HAPCs and deep-sea corals and sponges, the conclusion of staff in September 2022 that No Action may be the most appropriate action still applies.

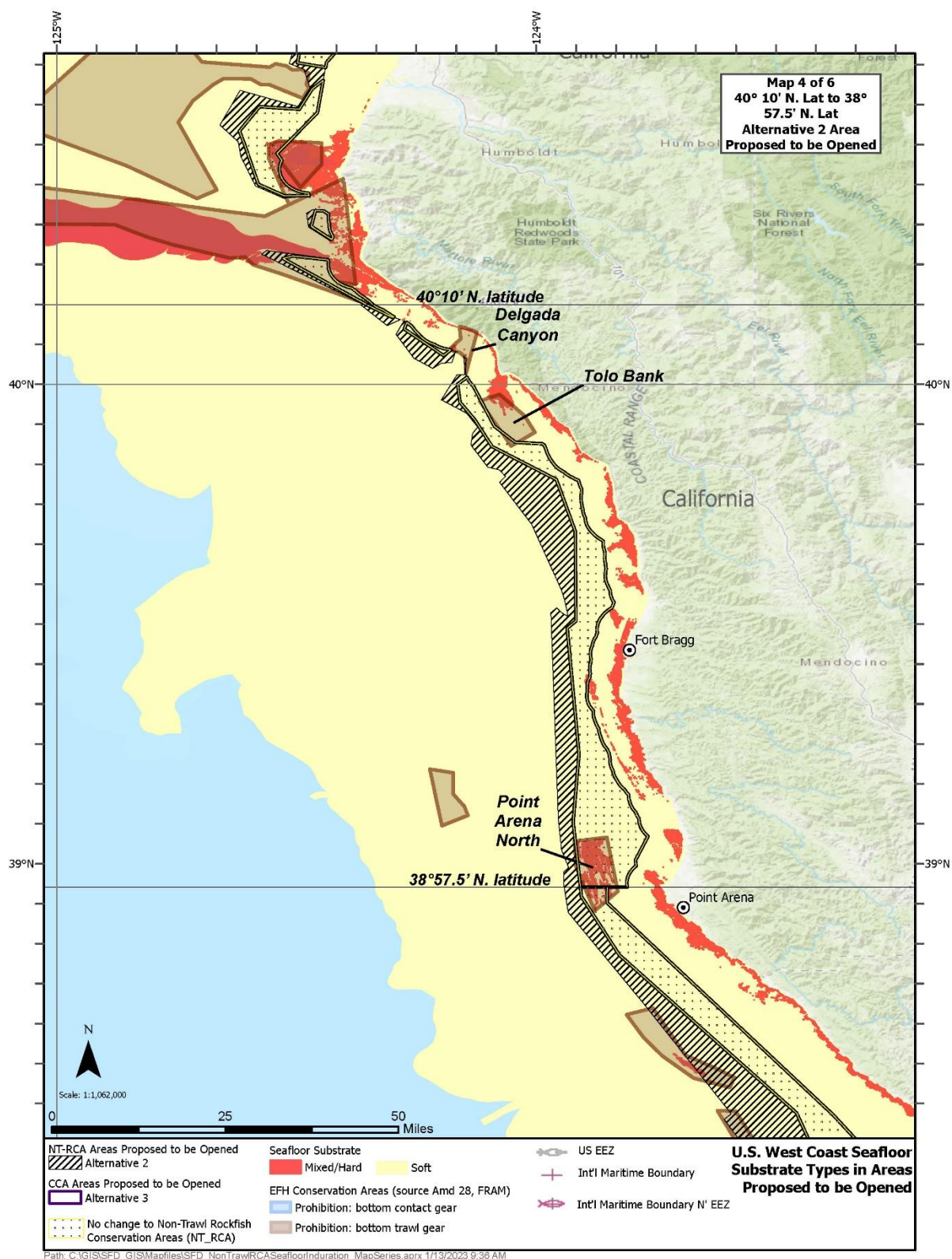


Figure 40. Substrate type in area to be opened under Alternative 2 from 40° 10' N. lat. to 38° 57.5' N. lat.

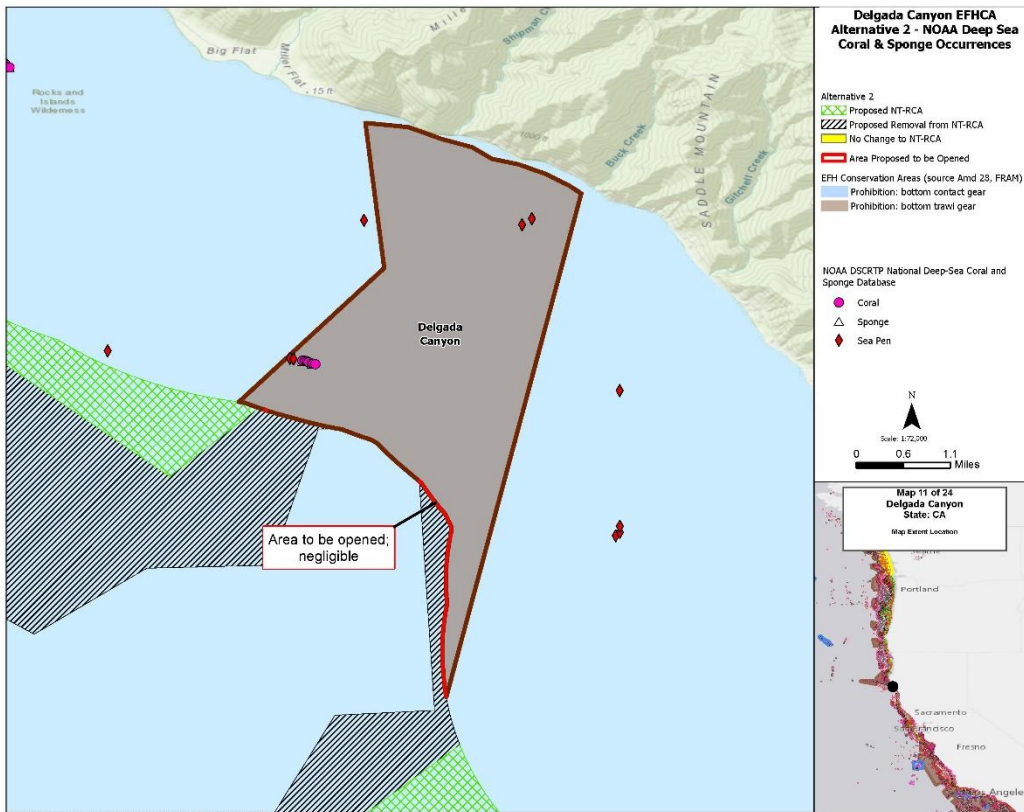
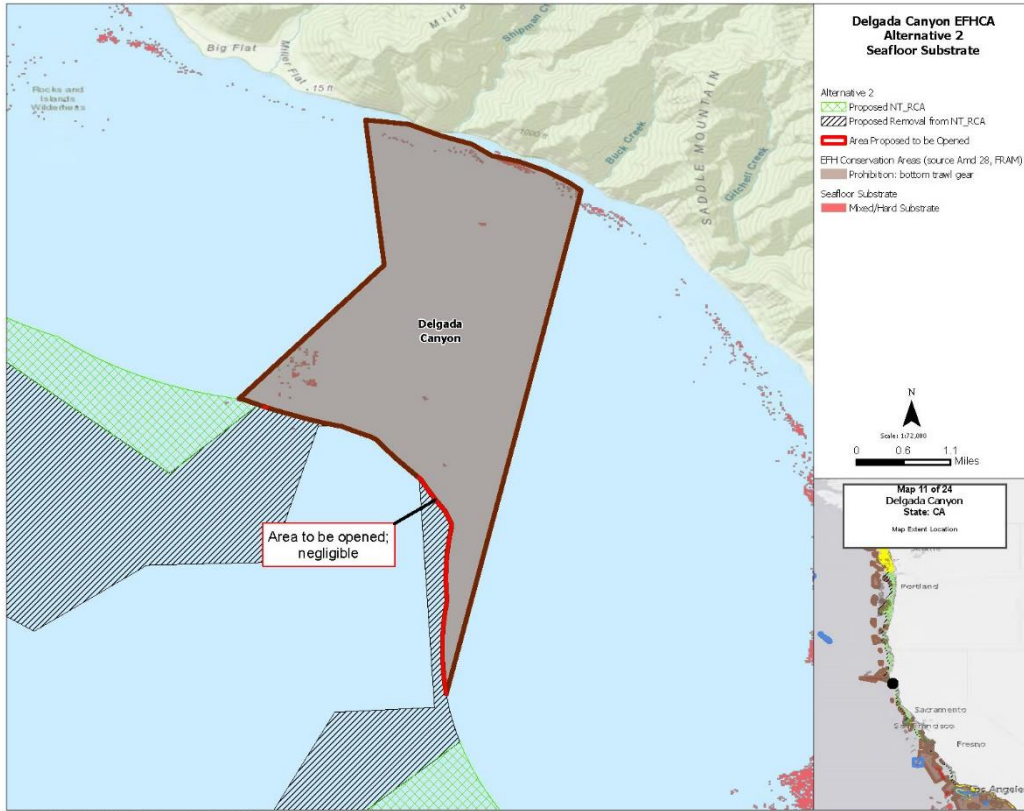


Figure 41. Delgada Canyon

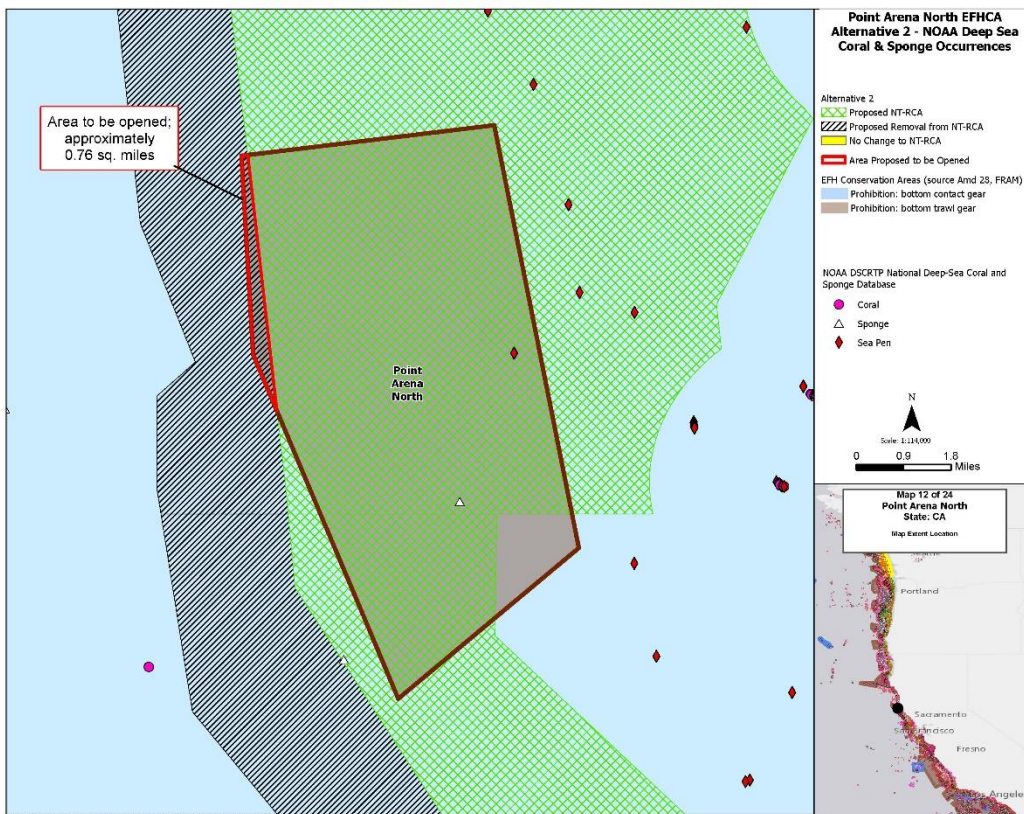
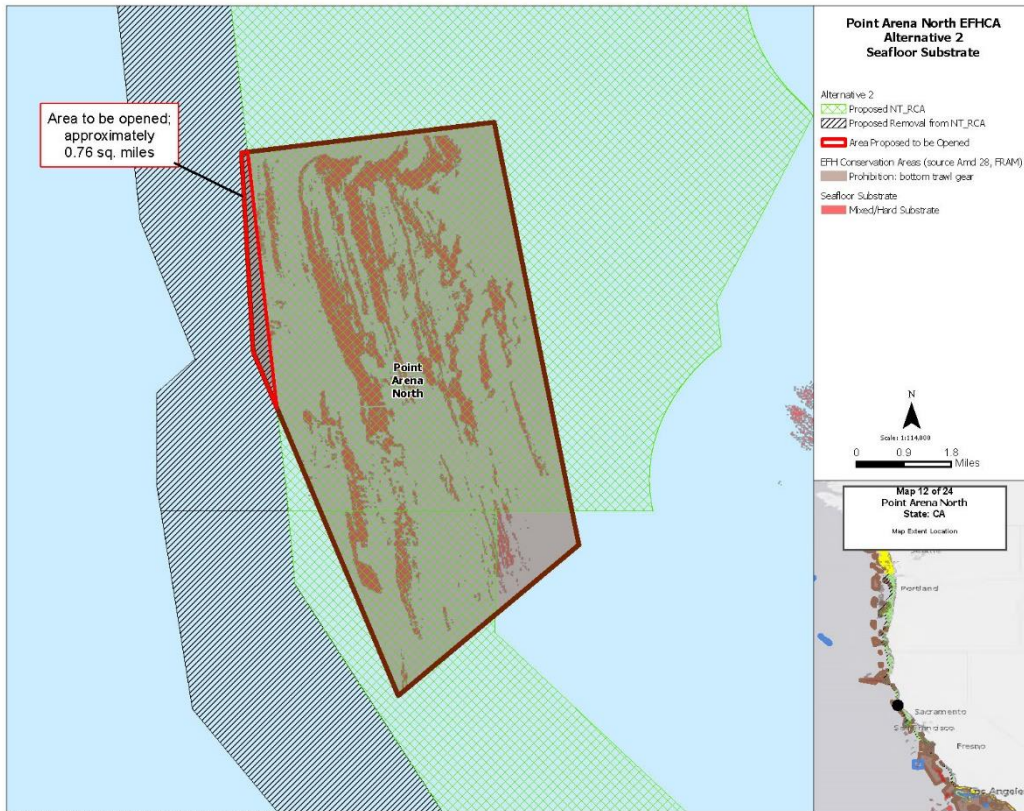


Figure 42. Point Arena North

3.7.2.1.3.4 Discussion of Alternative 2 EFHCAs off California between 38° 57.5' and 34° 27' N. lat.

Under Alternative 2, there would be eleven bottom trawl EFHCAs and one bottom contact EFHCA that would be exposed to potential fishing effort. There were no additional EFHCAs proposed to be developed under the PPA.

Point Arena South: Point Arena South EFHCA would have approximately 11.77 sq. mi. exposed to non-trawl groundfish and halibut gear, including some areas of known rocky reef habitat and coral and sponge occurrences. The majority of Point Arena South (around two-thirds) exists outside of the NT_RCA and could be fished by commercial non-trawl operations. The Council could consider suboption 1a; however, it may be difficult to enforce due to the size and shape of the polygon. Suboptions 1b and 1c are not applicable.

The Football: Under Alternative 2, the Football EFHCA would have just under nine sq. mi. exposed to fishing, including areas of known coral/sponge occurrences (Figure 45). Approximately four sq. mi. of the EFHCA already is open to fishing seaward of the current NT_RCA boundary. All three suboptions would be applicable (with suboptions 1b and 1c resulting in the same impact) and would provide some positive habitat impact.

Gobbler's Knob: Gobbler's Knob EFHCA would see approximately 1.6 sq. mi. of area opened under Alternative 2. The remainder of the EFHCA is currently exposed to non-trawl fishing activity outside of the NT_RCA boundaries. There are no known HAPCs or coral/sponge occurrences within the proposed area to be opened, and therefore the suboptions appear to not be applicable.

Cordell Bank/Biogenic Area and Cordell Bank (50-fm isobath): The area around Cordell Bank contains several fishing area restrictions within the bounds of the area to be exposed within Alternative 2: Cordell Bank/Biogenic Area bottom trawl EFHCA, Cordell Bank (50-fm isobath) bottom contact EFHCA, and the Cordell Bank GCA. Under Alternative 2, the area within the Cordell Bank GCA would remain closed to all groundfish fishing (shown in the green dashed outline). Therefore, there would only be approximately 12.1 sq. mi. of area exposed under Alternative 2 for the Cordell Bank/Biogenic Area bottom trawl EFHCA (Figure 47) that is outside of both the Cordell Bank GCA and the Cordell Bank (50-fm isobath) bottom contact EFHCA (Figure 48). There are no known HAPCs in the area proposed to be opened to fishing in the bottom trawl EFHCA, but there are some known sea pen and coral occurrences. The majority of the rocky reef habitat and coral/sponges would remain protected from fixed gear impacts due to the bottom contact EFHCA and in an indirect manner through the Cordell Bank GCA. However, it is also important to consider that a majority of the Cordell Bank/Biogenic Area bottom trawl EFHCA also covers the Cordell Bank- which is designated as an HAPC area of interest (not pictured). Given the shape and extent of the proposed openings, suboption 1a may not be applicable. Approximately 60 sq. mi. of the EFHCA exists seaward of the current NT_RCA boundary and therefore is likely not "small" enough to be considered for suboption 1b (or 1c). For the Cordell Bank (50-fm isobath) bottom contact EFHCA, there would be approximately 0.4 sq. mi. of the EFHCA open to non-bottom contact gear types.

Farallon Islands/Fanny Shores/Cochrane Bank: Farallon Islands/Fanny Shores/Cochrane Bank bottom trawl EFHCA would have 1.2 sq. mi. of area with some coral/sponge presence exposed to potential non-trawl groundfish and directed halibut gear under Alternative 2 (Figure 49). The majority of the EFHCA would remain within the NT_RCA or is in state waters. Given the size of the proposed opening, suboption 1a would likely not be enforceable and is therefore not applicable. Suboption 1c would provide the same habitat benefit as 1a under Alternative 2, however the majority of the EFHCA lies within California state waters. It is unknown the fishing effort that occurs in this area. The Council may want to consider if No Action is appropriate at this time with a more holistic look at the area under the next EFH review.

Farallon Escarpment: Farallon Escarpment EFHCA currently exists primarily outside of the NT_RCA, with only 1.5 sq. mi. existing within the NT_RCA and proposed to be opened under Alternative 2 (Figure 50). There appears to be no known HAPCs or coral/sponge occurrences within the proposed area to be opened. Therefore, none of the suboptions would be likely to provide significant habitat benefit or be applicable.

Ascension Canyonhead: Approximately 1.2 sq. mi. of the Ascension Canyonhead EFHCA would be exposed under Alternative 2, which includes some known sponge occurrence (Figure 51). The majority of EFHCA is outside of the current NT_RCA boundaries. Suboption 1a would provide increased habitat protections; however, the enforceability may be challenging given the small area and therefore is not applicable. Suboptions 1b and 1c would not apply.

Monterey Bay/Canyon: Monterey Bay/Canyon EFHCA would have just over 3 sq. mi. exposed to potential directed halibut and non-trawl groundfish operations in two discrete sections that occur within the 75-125 fathom depth contours of the NT_RCA (Figure 52). There are rocky reefs, corals, and sponges present in the area to be opened and the entire area is considered a HAPC of special interest (Monterey Canyon), therefore suboption 1a would provide positive habitat benefits. However, it is likely difficult to enforce given the size of the openings and therefore may not be applicable. Suboptions 1b and 1c are not applicable. A portion of the EFHCA exists within California state waters and would require conforming action if suboption 1c were selected by the Council; this would close currently opened areas to fishing.

Big Sure Coast/Port San Luis: Less than 2 sq. mi. would be opened under Alternative 2 for Big Sur Coast/Port San Luis EFHCA, with the overwhelming majority of the EFHCA currently seaward of the NT_RCA and opened to directed halibut and non-trawl groundfish fishing (Figure 53). Rocky reefs and coral/sponge are known to exist in the area to be opened, suggesting that suboption 1a would provide habitat protection and benefits. However, the small size is likely difficult to enforce. Suboptions 1b and 1c are not applicable.

La Cruz Canyon: La Cruz Canyon EFHCA would have nearly 6 sq. mi. of area exposed to non-trawl groundfish and directed halibut fishing under Alternative 2 (Figure 54). Approximately 2.7 sq. mi. of the EFHCA exists outside of the NT_RCA currently, with a small part proposed to remain within the NT_RCA and state waters. The majority of the EFCHA covers rocky reef habitat and therefore any of the suboptions would provide positive habitat impacts, with suboption 1a providing the least amount of the three and suboptions 1b and 1c being the same in terms of protection.

Point Conception: Approximately 18 sq. mi. of the Point Conception EFHCA would be exposed to non-trawl groundfish and directed halibut under Alternative 2 (Figure 55). The majority of the EFHCA is seaward of the current NT_RCA boundary and already exposed to non-trawl impacts. There are known coral/sponge/sea pen observations in the area proposed to be opened, suggesting that suboption 1a would provide positive habitat impacts; however, given the shape of the proposed area, it may be difficult to enforce. Suboptions 1b and 1c are not applicable to this area.

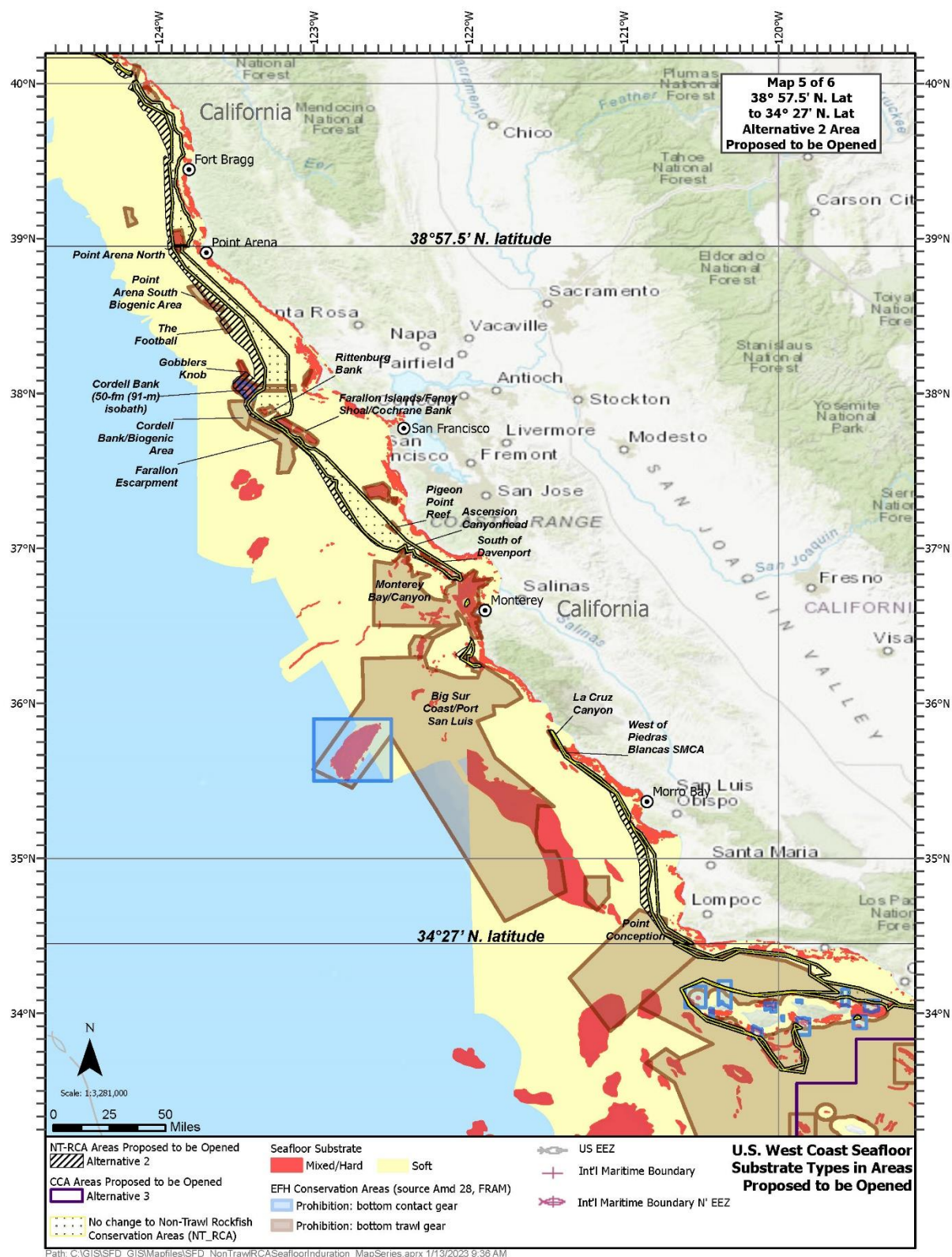


Figure 43. Substrate type in area to be opened under Alternative 2 from 38° 57.5' N. lat. to 34° 27' N. lat.

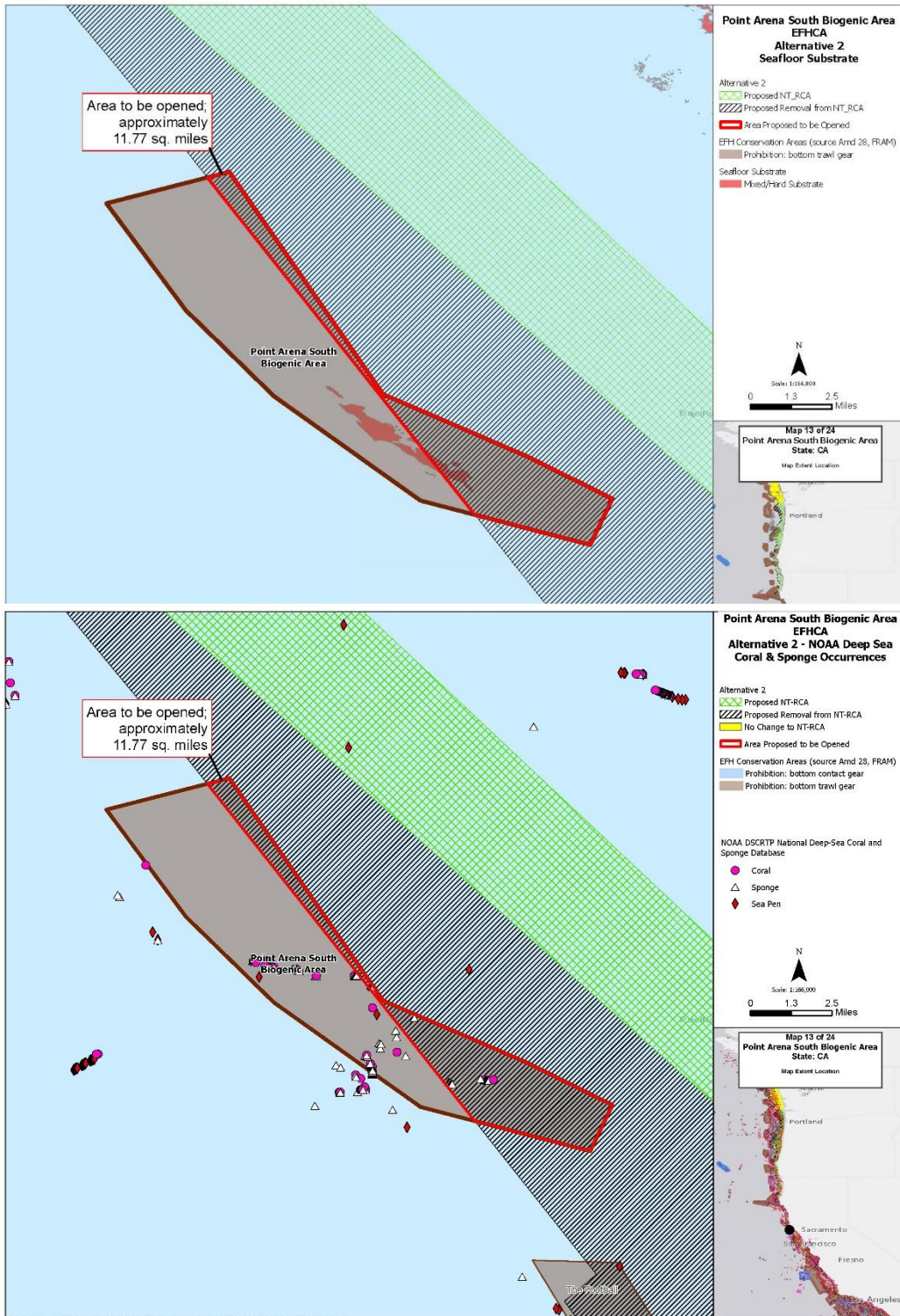


Figure 44. Point Arena South Biogenic Area

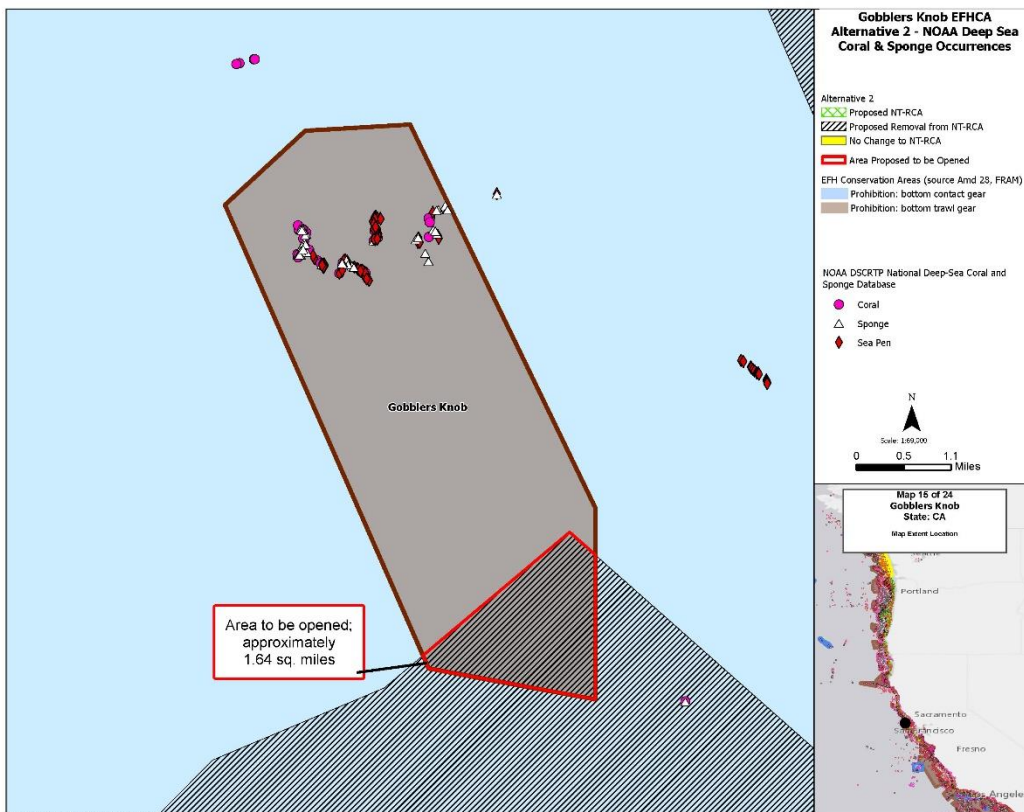
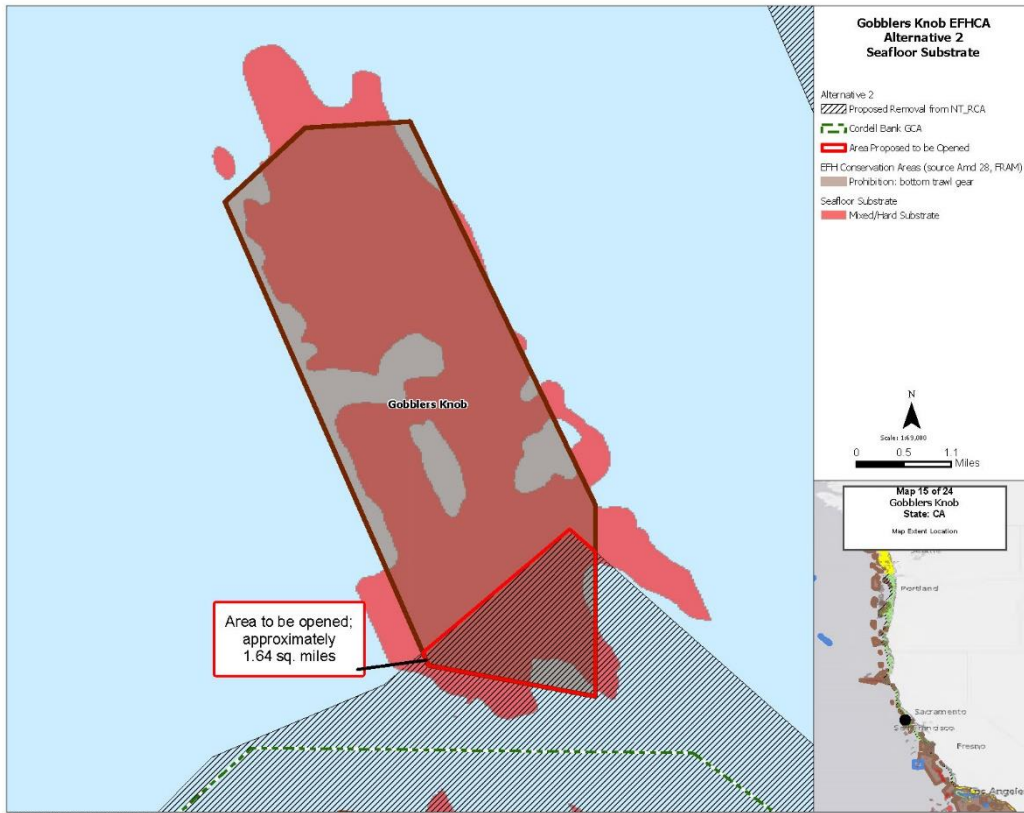
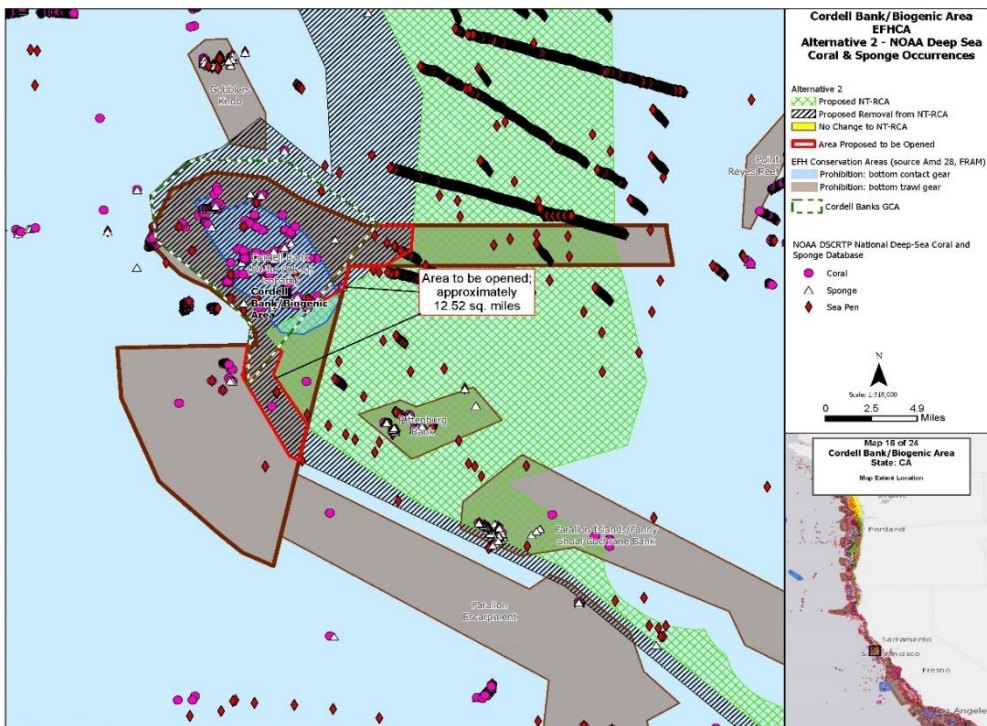
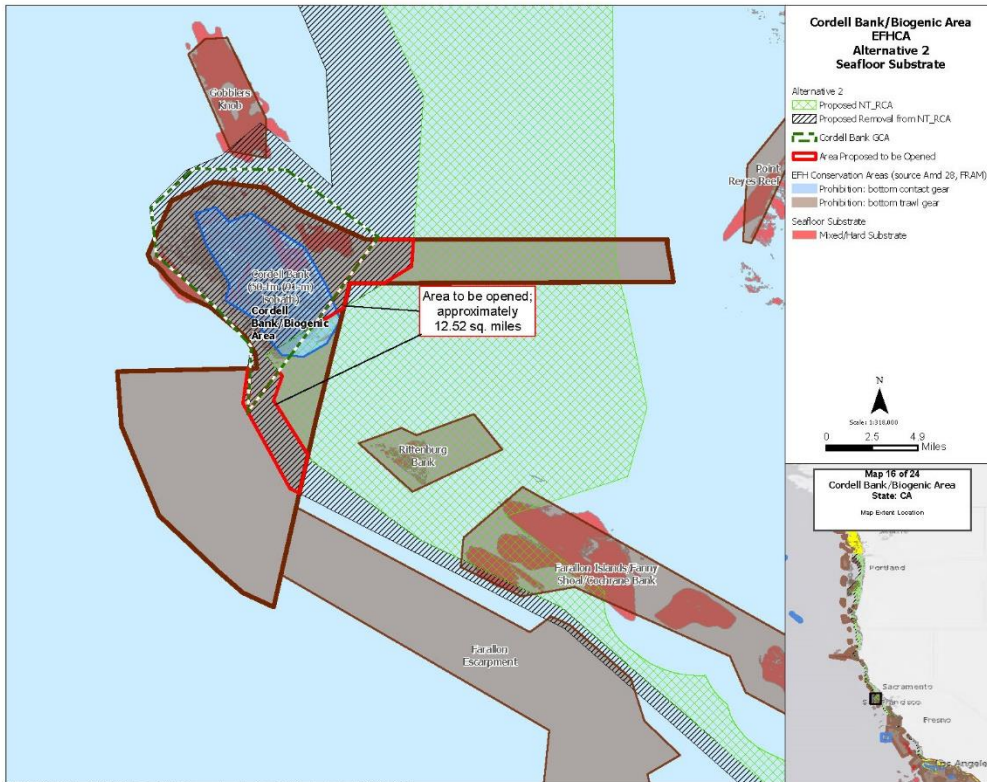


Figure 46. Gobblers Knob EFHCA



Note: The area proposed to be opened outlined in red includes a portion of the Cordell Bank (50-fathom isobath) bottom contact EFHCA (shown in blue) and would remain closed to all bottom contact gear types under Alternative 2.

Figure 47. Cordell Bank/Biogenic Area EFHCA.

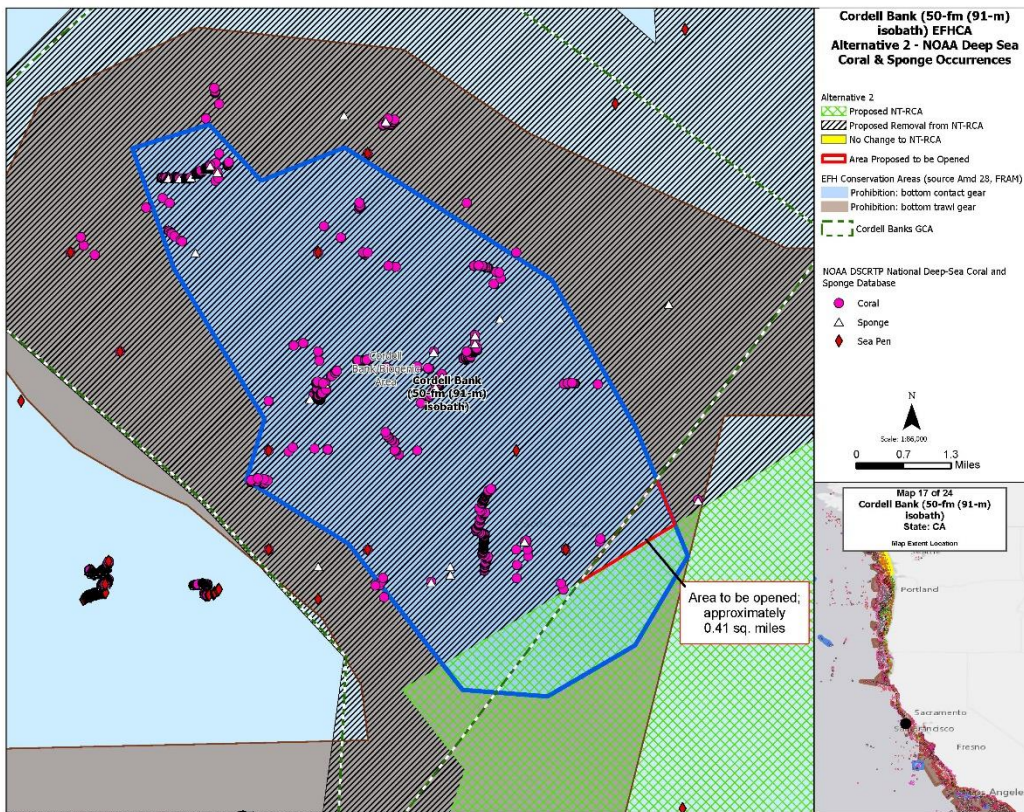
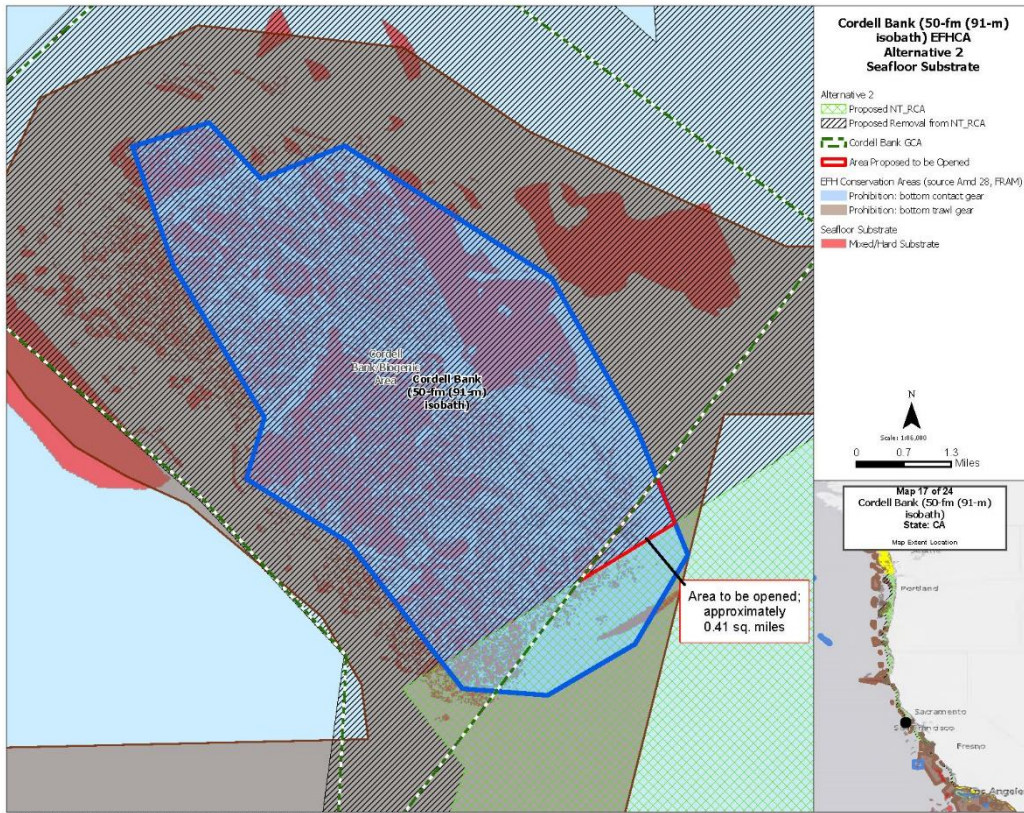


Figure 48. Cordell Bank (50-fathom isobath) bottom contact EFHCA

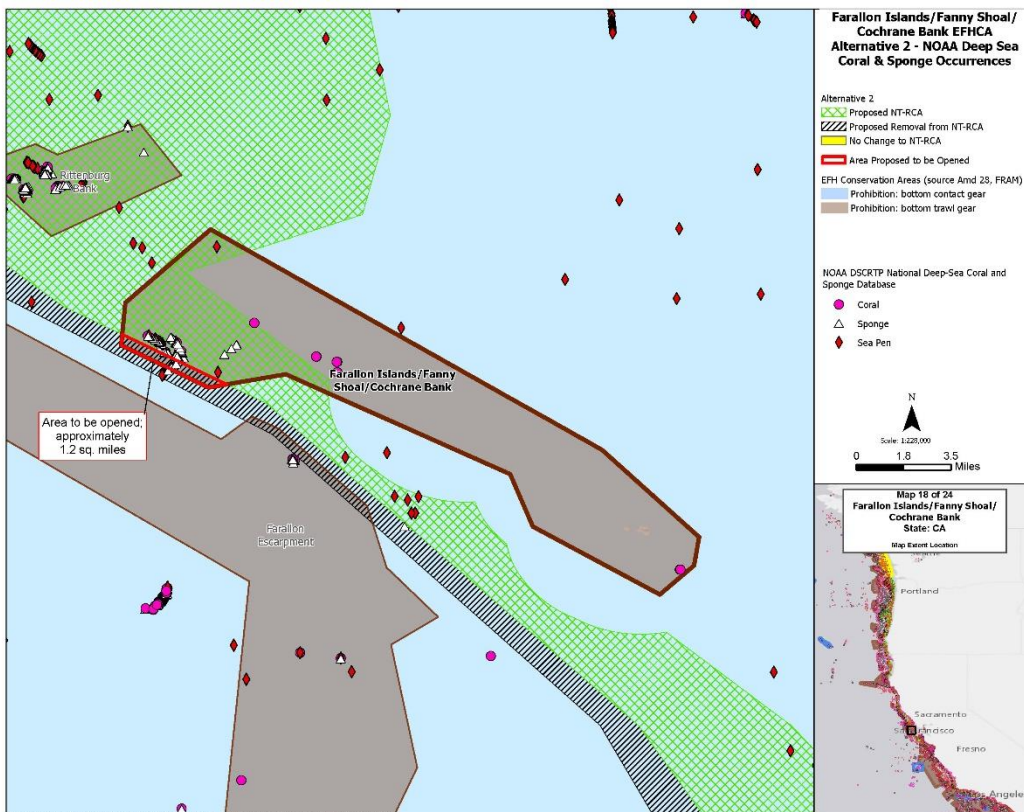
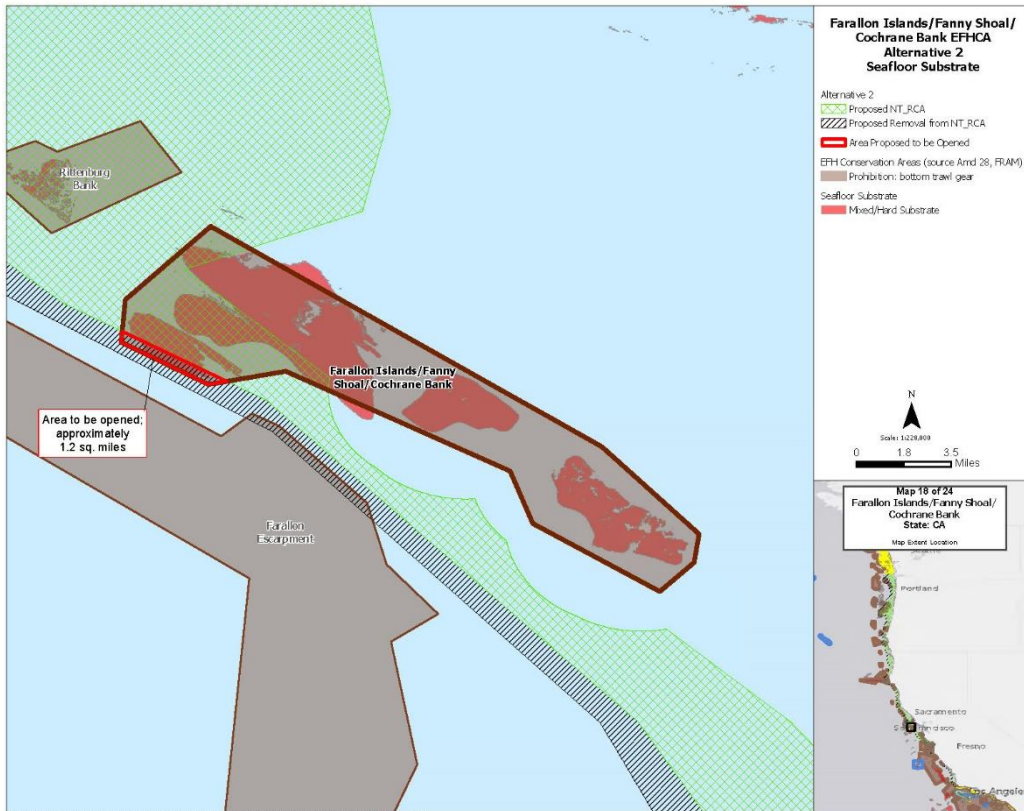


Figure 49. Farallon Islands/Fanny Shoal/Cochrane Bank EFHCA

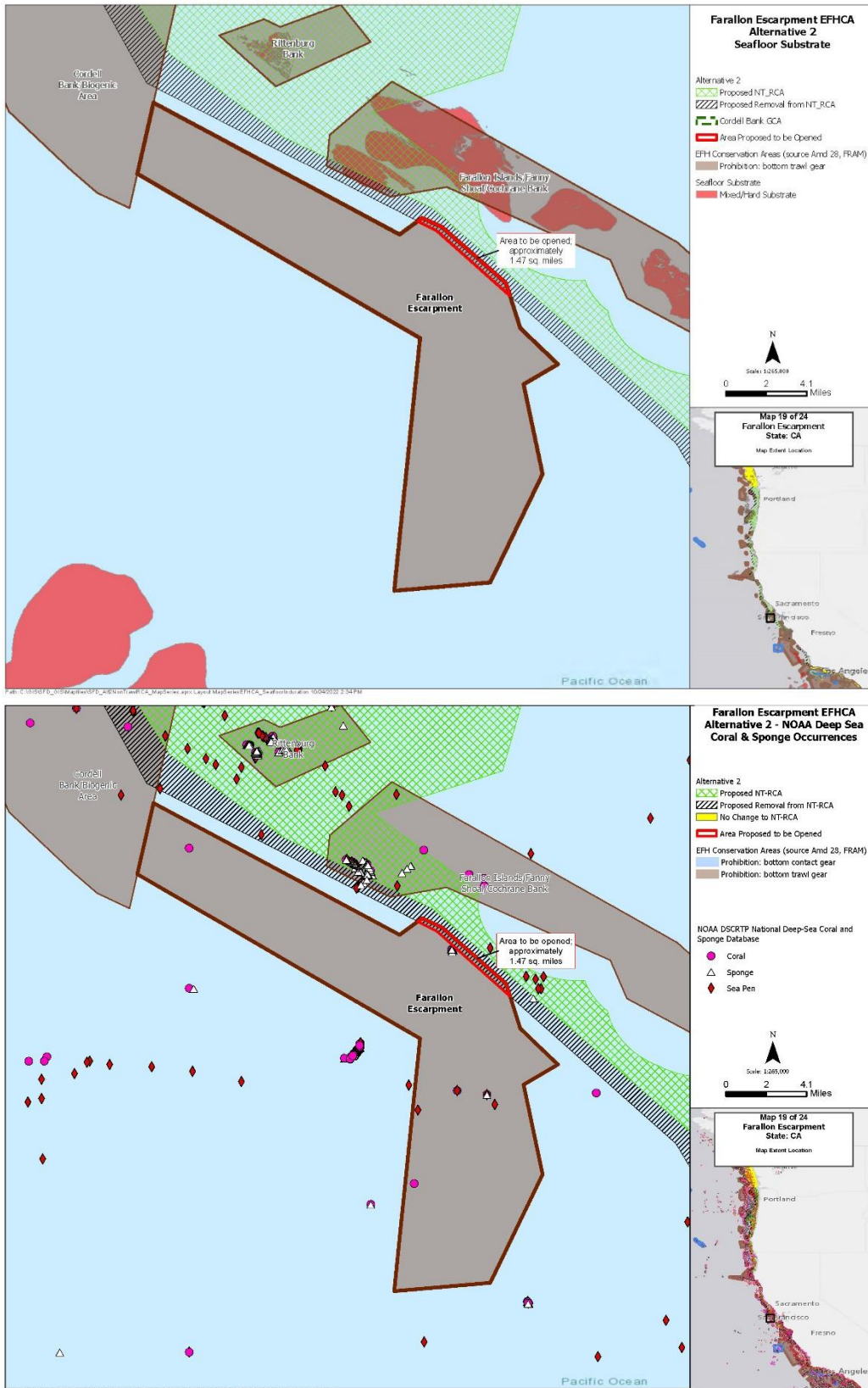


Figure 50. Farallon Escarpment EFHCA

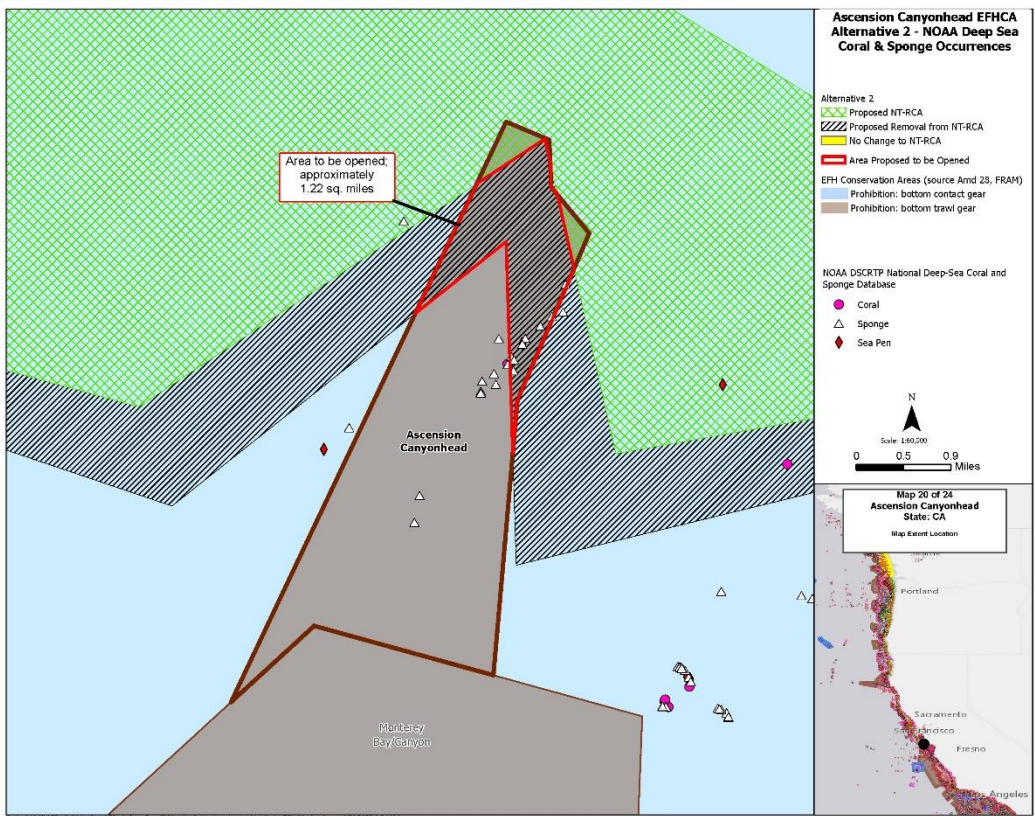
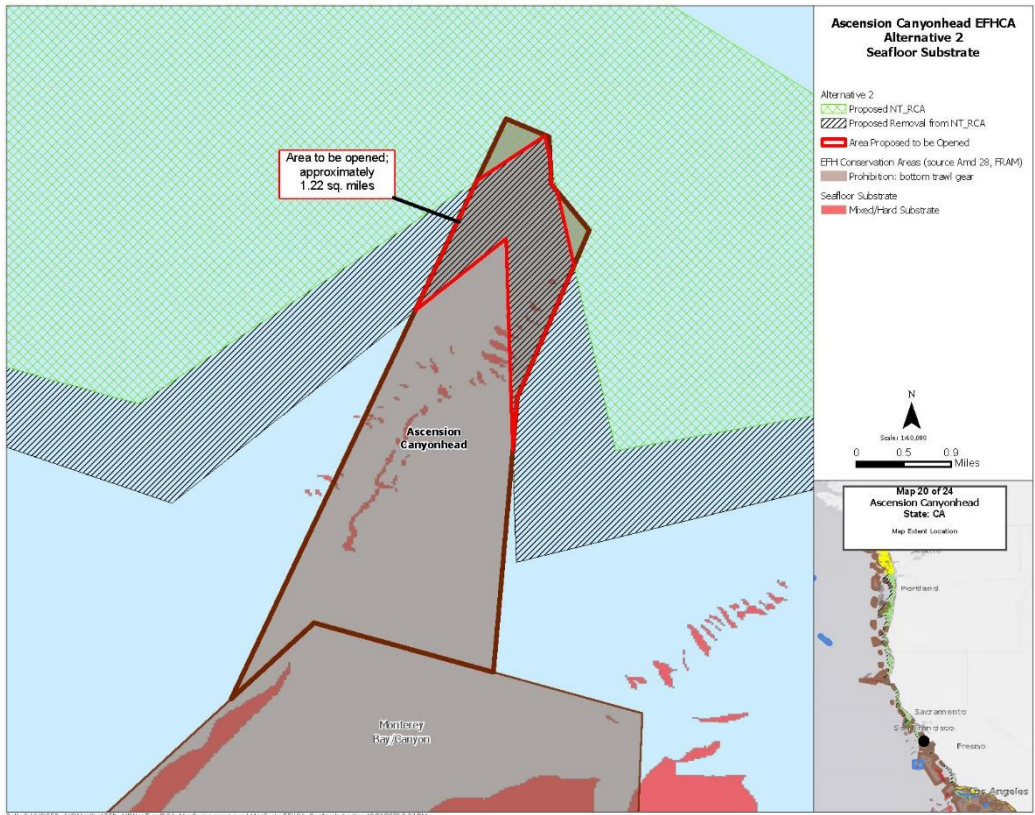


Figure 51. Ascension Canyonhead EFHCA

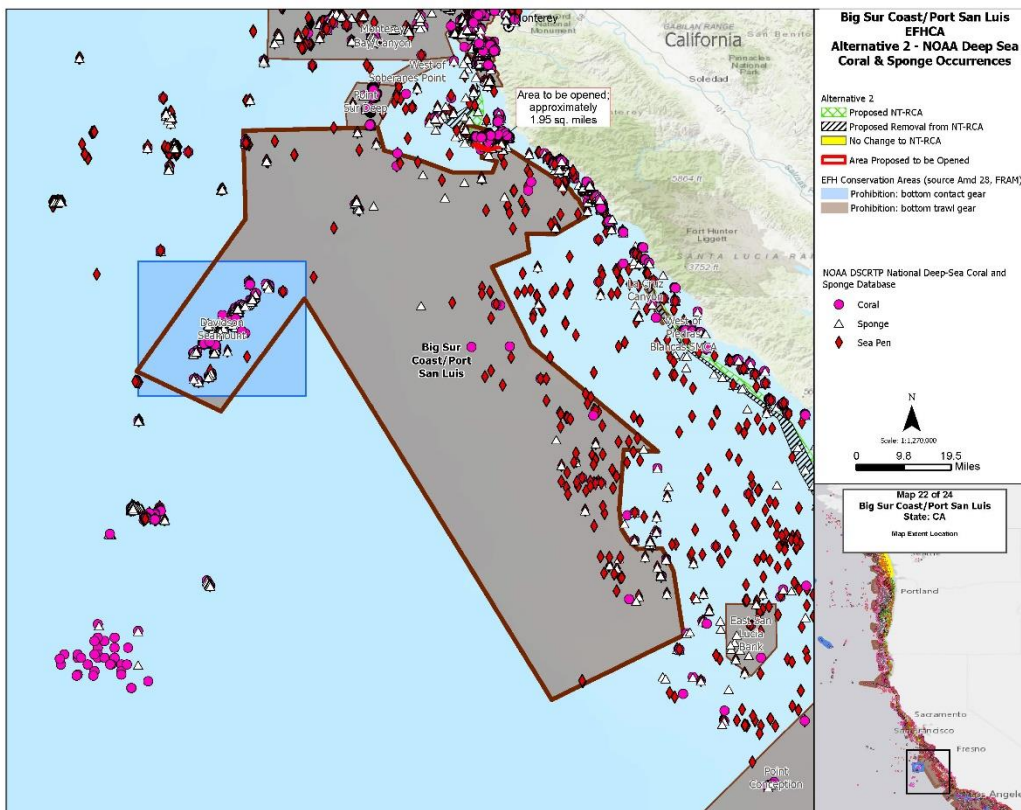
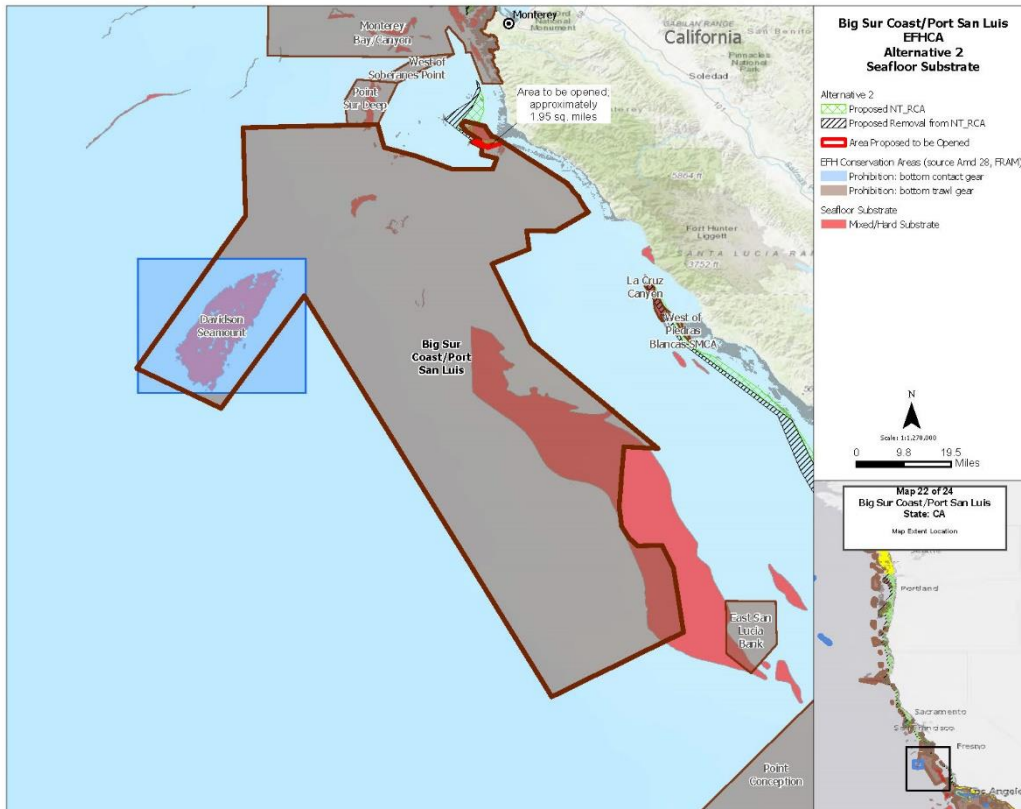


Figure 53. Big Sur Coast/Port San Luis EFHCA

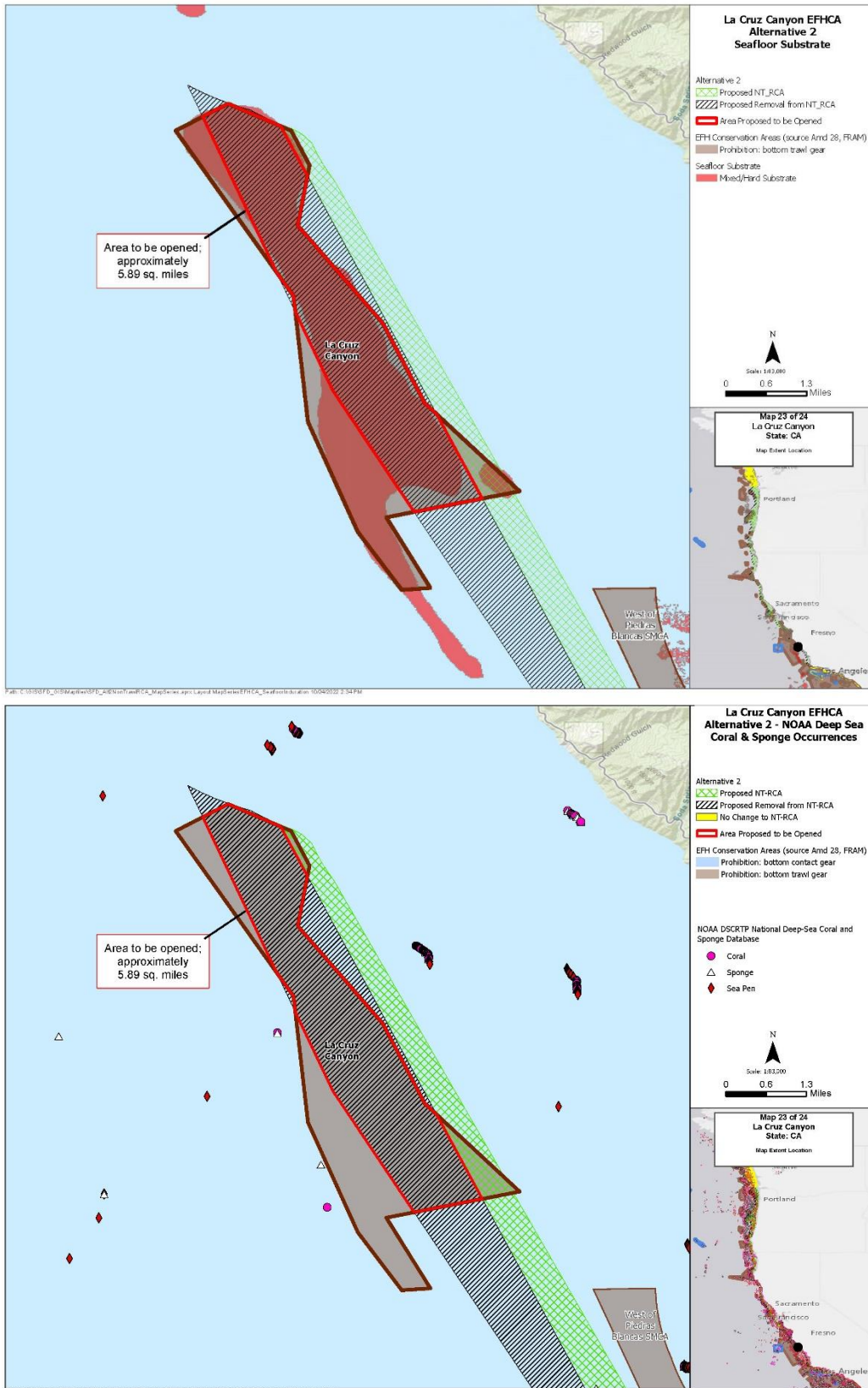


Figure 54. La Cruz Canyon EFHCA

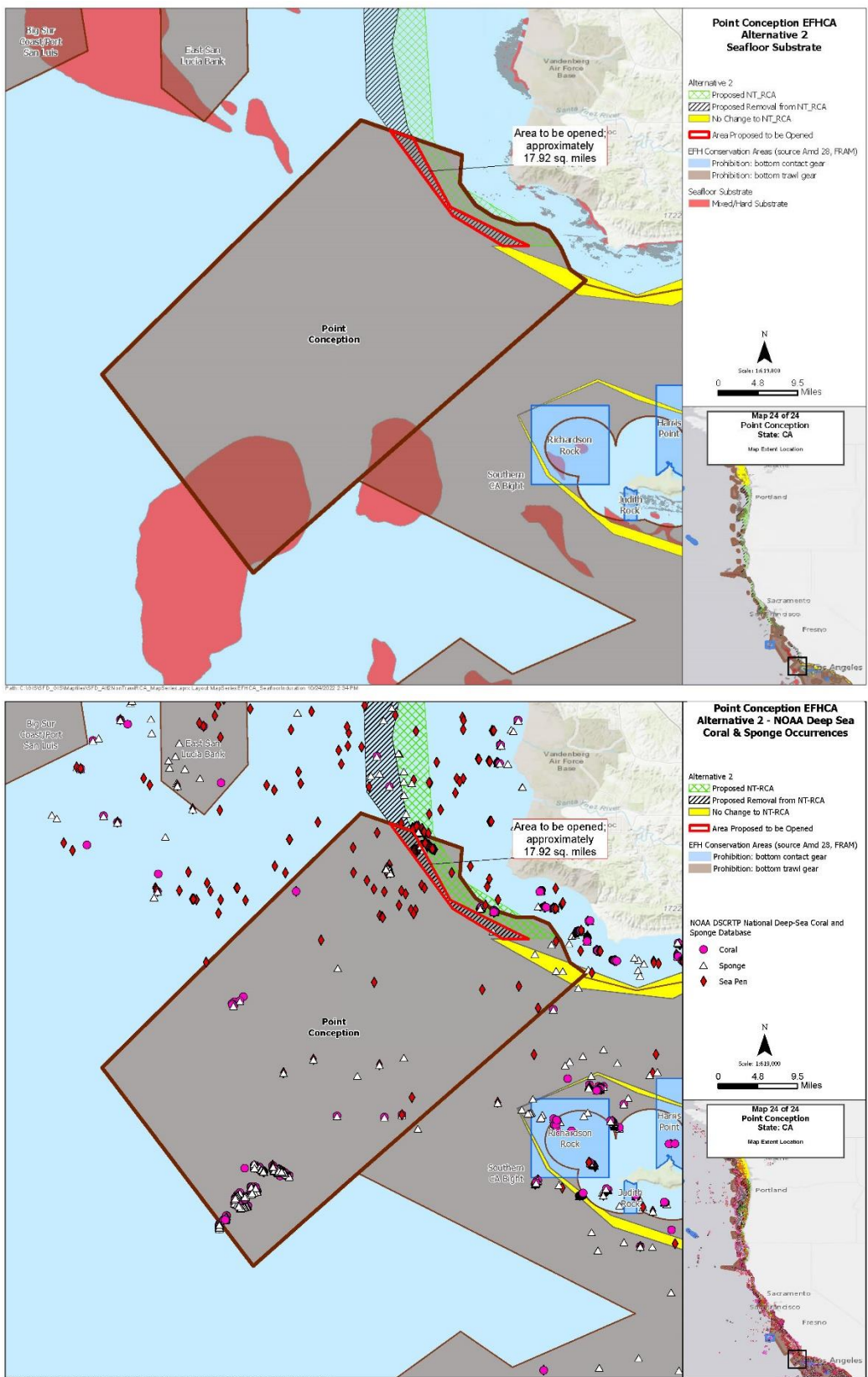


Figure 55. Point Conception EFHCA

3.7.2.2 Alternative 3

Alternative 3 would remove the CCA and implement eight area closures (hereafter known as groundfish exclusion areas, or GEAs) to all groundfish vessels (non-trawl commercial and recreational) with the purpose of protecting sensitive areas([Agenda Item F.6.a, CDFW Report 1, April 2022](#)). Fishing effort would not be restricted outside of those areas unless an NT_RCA line were implemented around the islands and banks. The removal of the CCA would open 5,091 sq. mi. to fishing²², of which nearly all (5,078 sq. mi.) is currently closed to bottom trawling through the Southern California Bight EFHCA (see Figure 56). Note that the Santa Barbara bottom contact EFHCA would continue to prohibit pot or longline gears from fishing in that area, although non-bottom contact gear types would be permitted. The GEAs would keep approximately 428 sq. mi. closed to non-trawl fishing effort under Alternative 3. All the GEAs overlap with the current bottom trawl EFHCAs. As described above, habitat impacts vary based on the substrate type present (Figure 57).

²² Does not include any areas prohibited by the Channel Island National Marine Sanctuary around Santa Barbara Island.

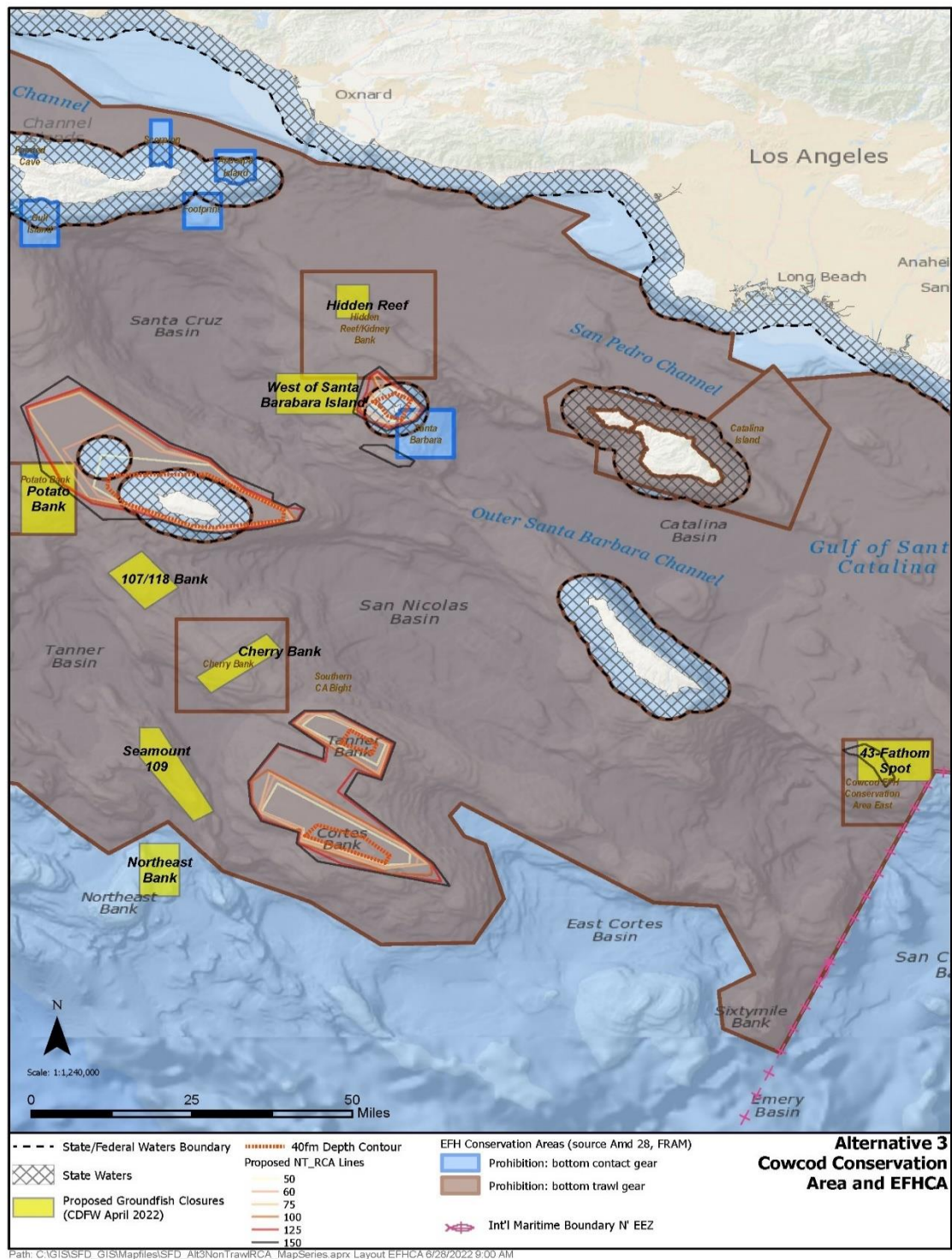


Figure 56. Alternative 3 overview with EFHCAs.

Note: "Proposed Groundfish Closures" are now called Groundfish Exclusion Areas (GEAs).

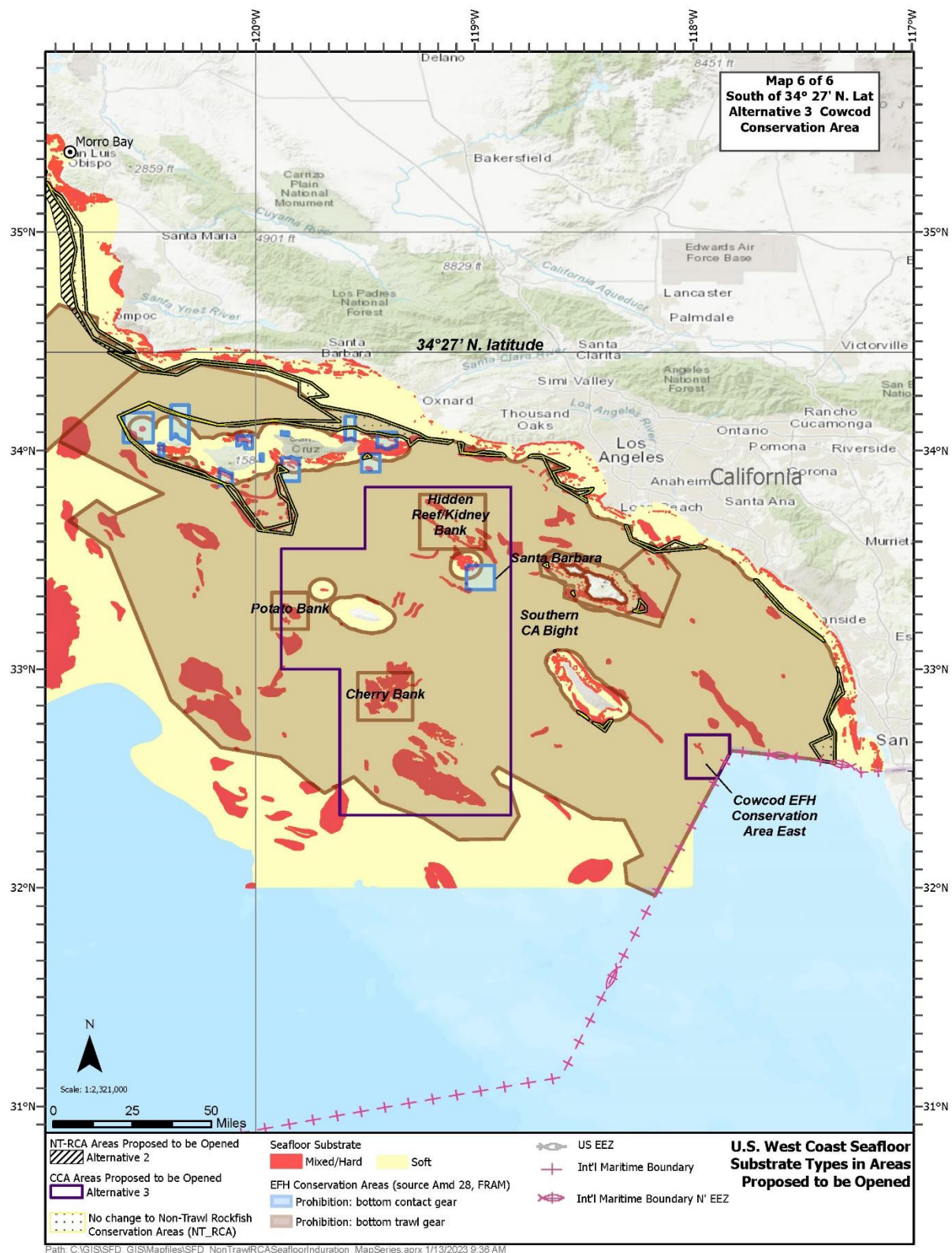


Figure 57. Substrate type in area to be opened under Alternative 3.

Figure 58 and Figure 59 show an overview of the proposed areas to be opened and deep sea corals and sponges and substrate types with the GEAs noted in yellow. Figure 60 through Figure 64 provide a closer look at each of the map areas shown on Figures 29 and 30. Compared to No Action, there would be areas with rocky reef habitat (a HAPC) and coral/sponge presence that may be exposed to fishing depending on the configuration of the NT_RCAs around the islands. For example, there is a large amount of rocky reef and coral/sponge occurrences northeast of Santa Barbara Island and outside of the GEAs (see Figure 61). Overall, however, there are proposed protections for coral/sponges and rocky reef habitats in the CCA boundaries which would mitigate the overall impacts to habitat. Non-trawl gear types are also likely to have fewer impacts to habitat types compared to bottom trawl gears, which would remain prohibited as described above. Overall, it is expected that Alternative 3 would not have a significant impact on habitat given the proposed mitigation measures and the gear types that would be permitted in the opened area.

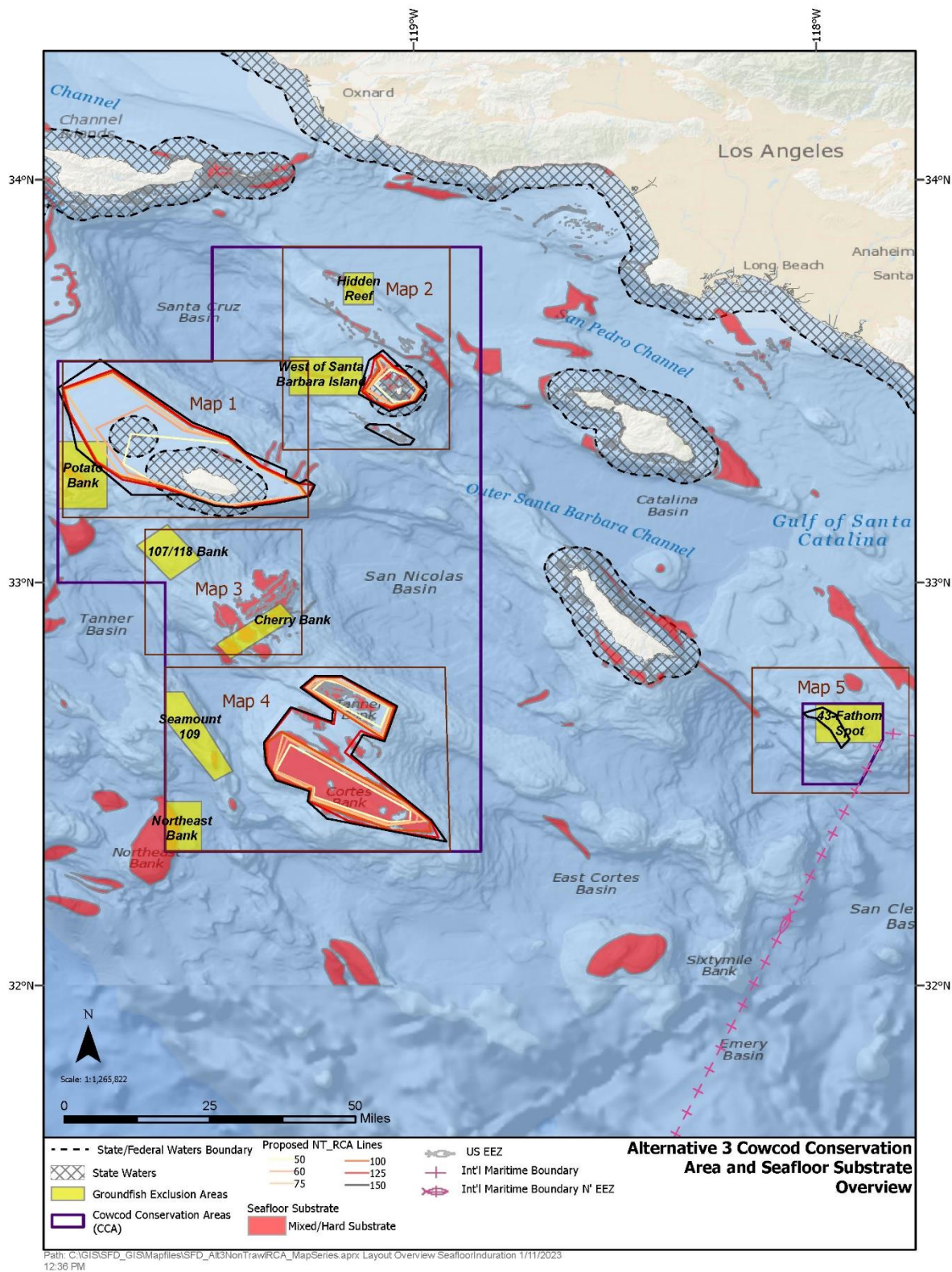


Figure 58. Overlay of Mixed/Hard Substrate with Alternative 3

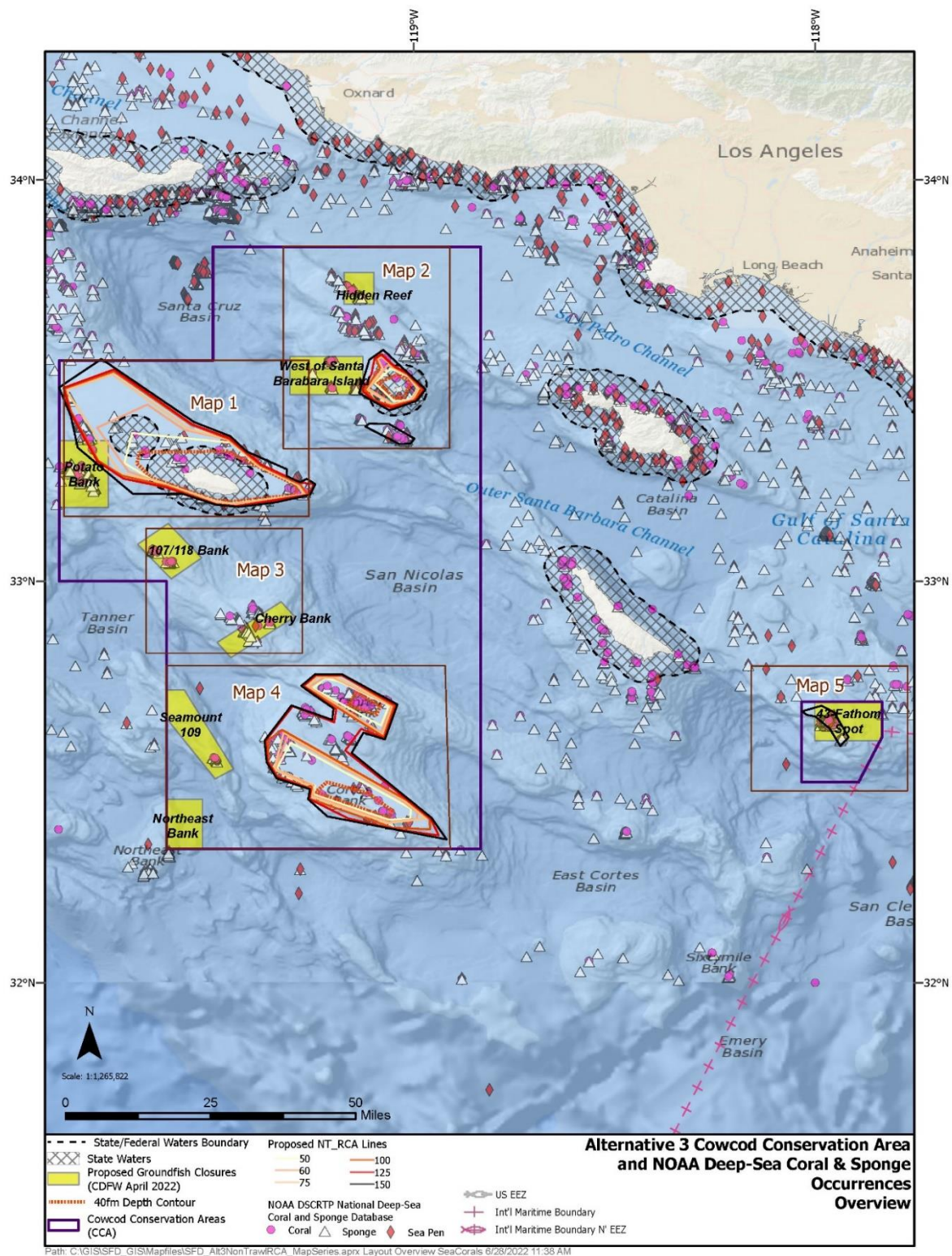


Figure 59. Deep sea coral and sponge occurrences within the Alternative 3 action area

Note: "Proposed Groundfish Closures" are now called Groundfish Exclusion Areas (GEAs).

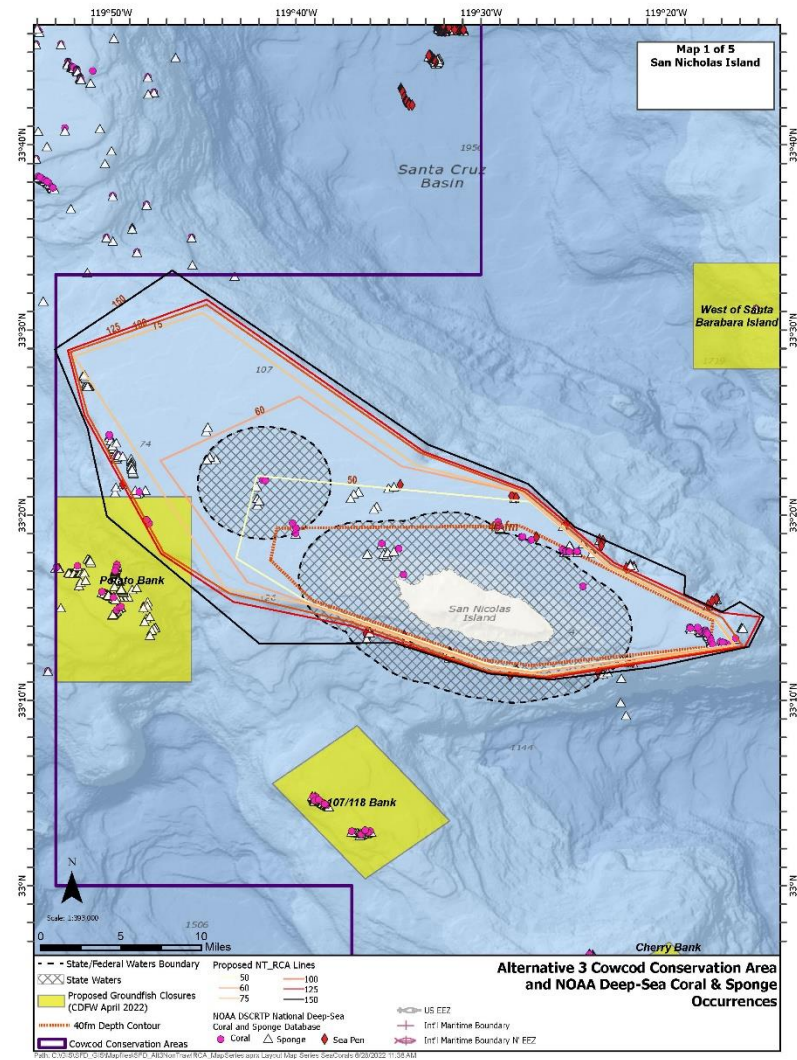
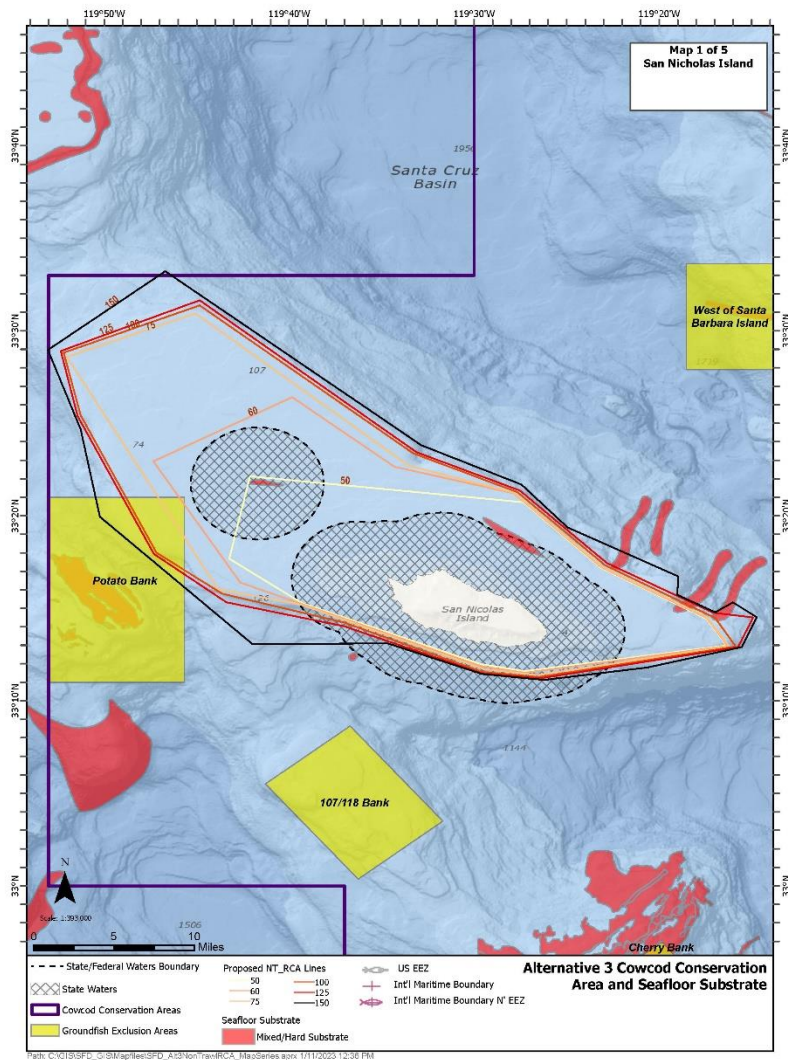


Figure 60. Alternative 3- Presence of rocky reef HAPC and deep-sea corals/sponges around San Nicholas Island

Note: "Proposed Groundfish Closures" are now called Groundfish Exclusion Areas (GEAs).

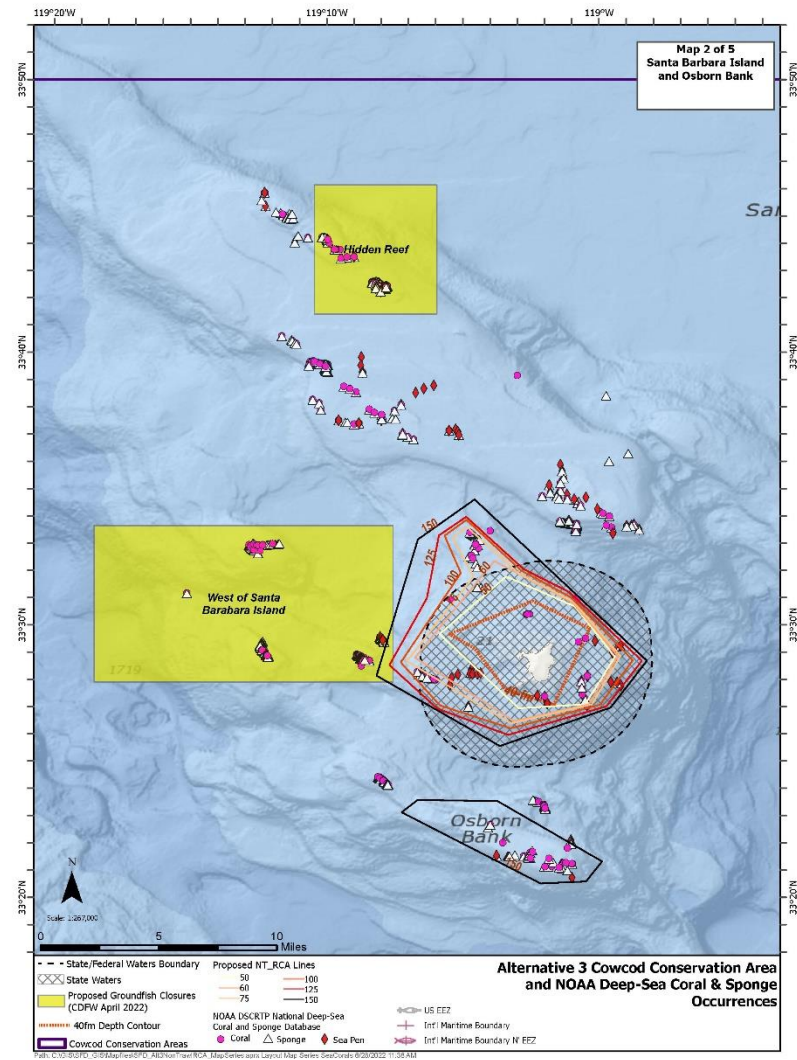
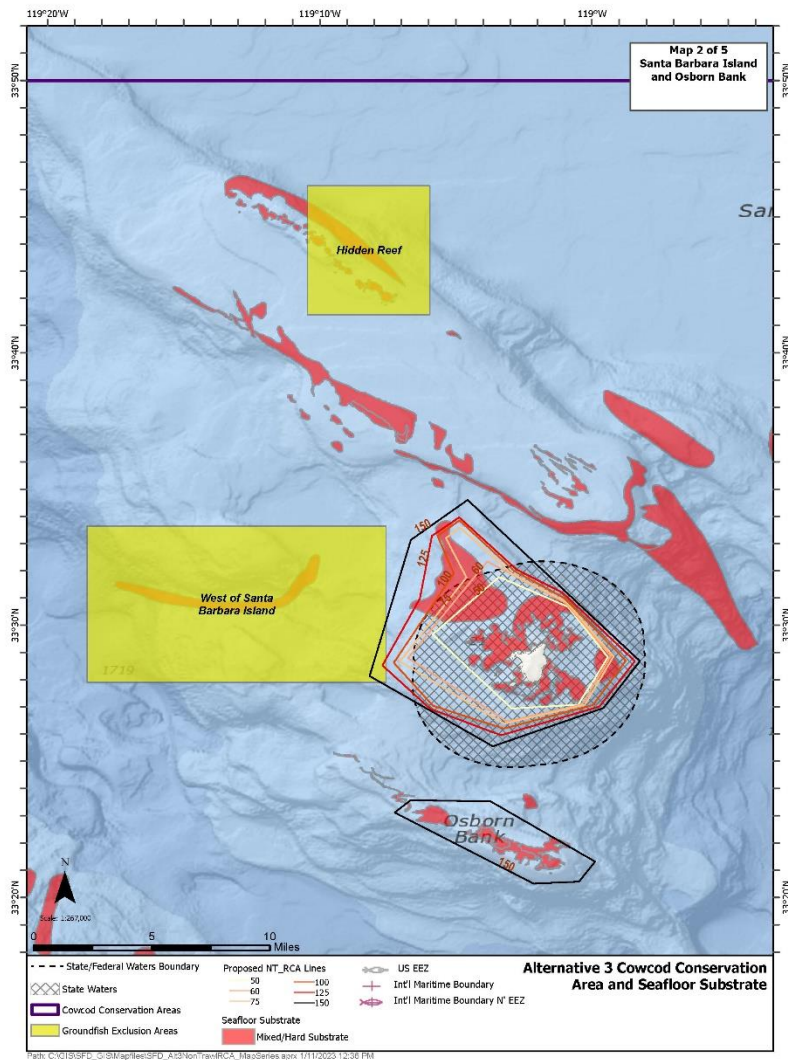


Figure 61. Alternative 3- Presence of rocky reef HAPC and deep-sea corals/sponges around Santa Barbara Island and Osborn Bank

Note: "Proposed Groundfish Closures" are now called Groundfish Exclusion Areas (GEAs).

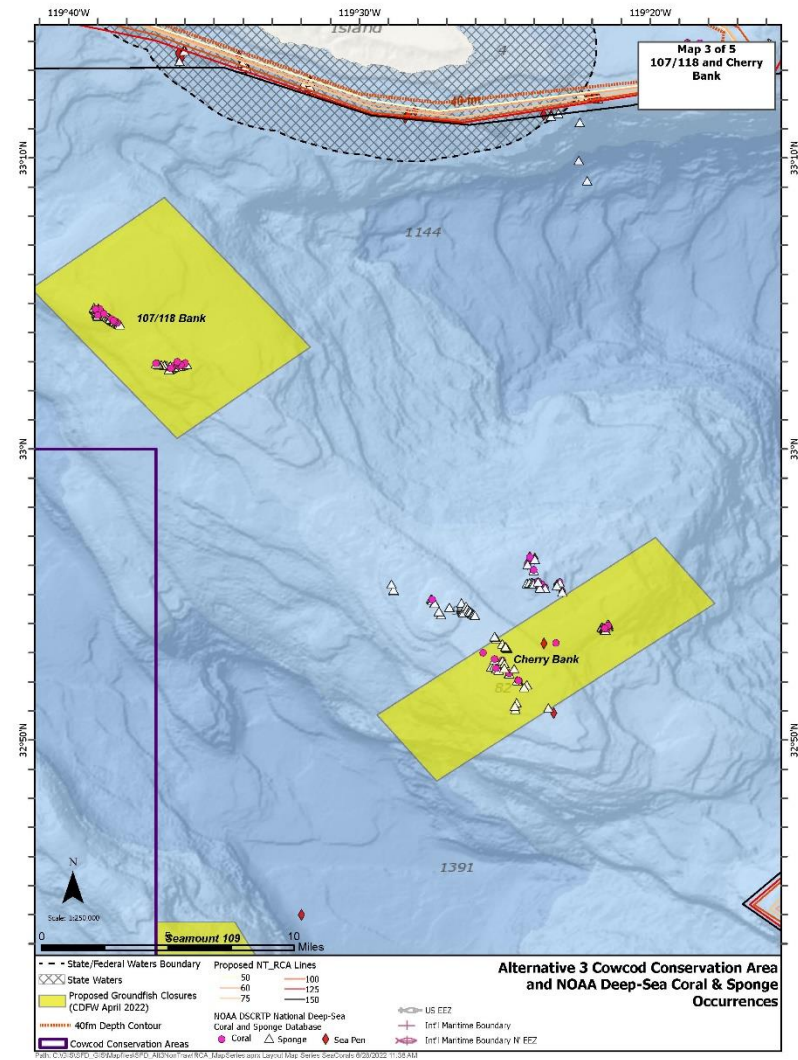
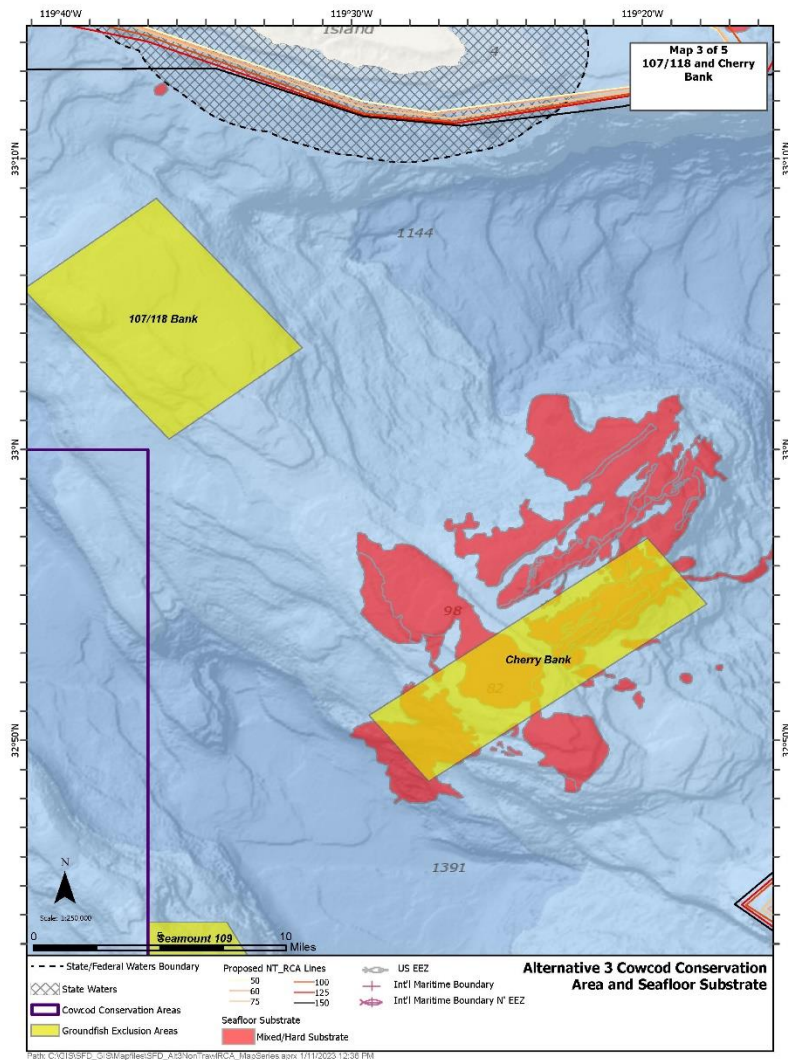


Figure 62. Alternative 3- Presence of rocky reef HAPC and deep-sea corals/sponges around 107/118 and Cherry Bank

Note: "Proposed Groundfish Closures" are now called Groundfish Exclusion Areas (GEAs).

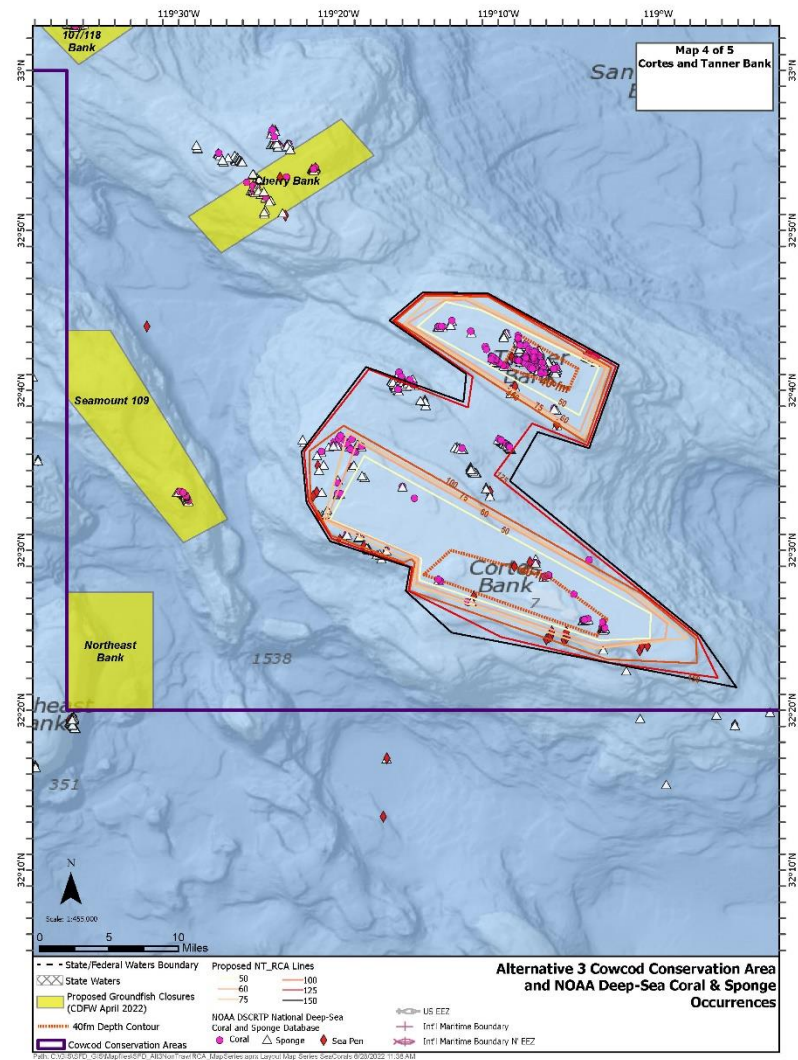
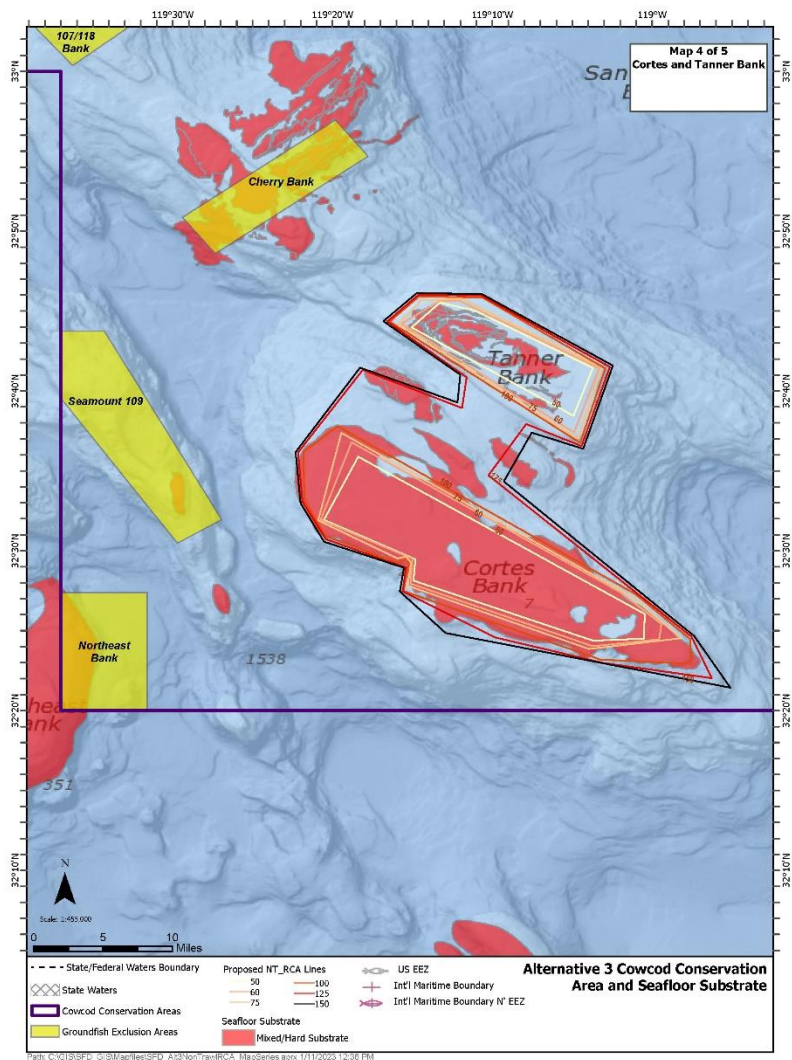


Figure 63. Alternative 3- Presence of rocky reef HAPC and deep-sea corals/sponges around Cortes and Tanner Bank

Note: "Proposed Groundfish Closures" are now called Groundfish Exclusion Areas (GEAs).

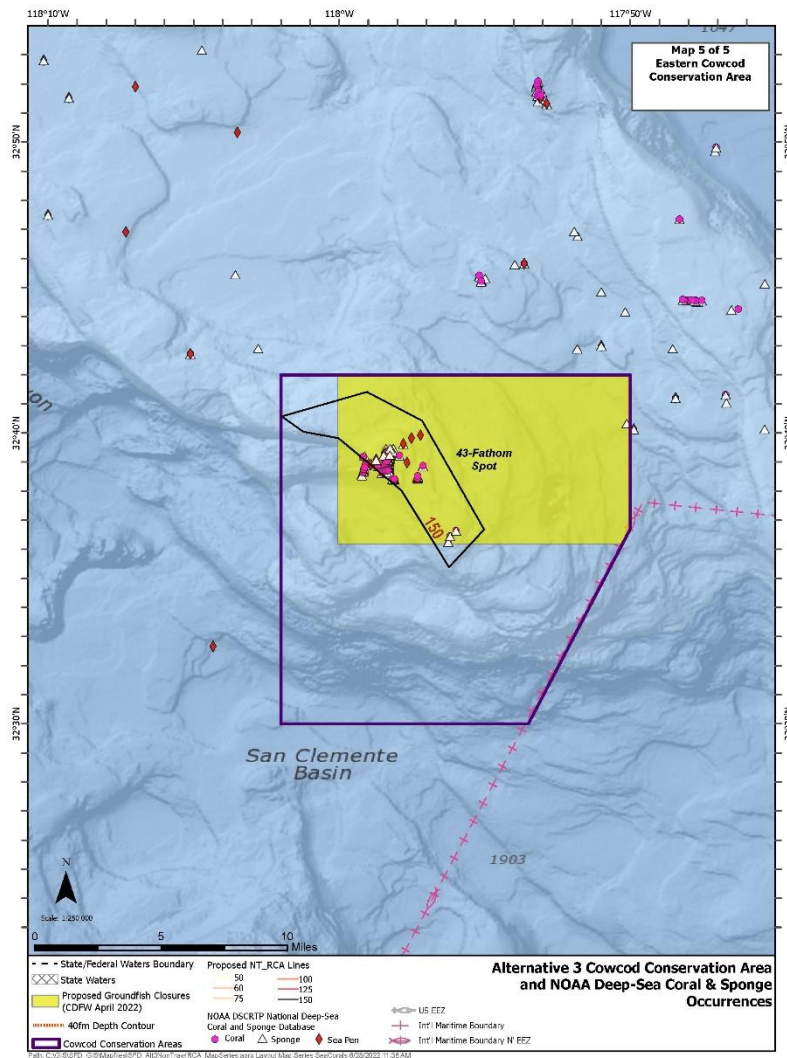
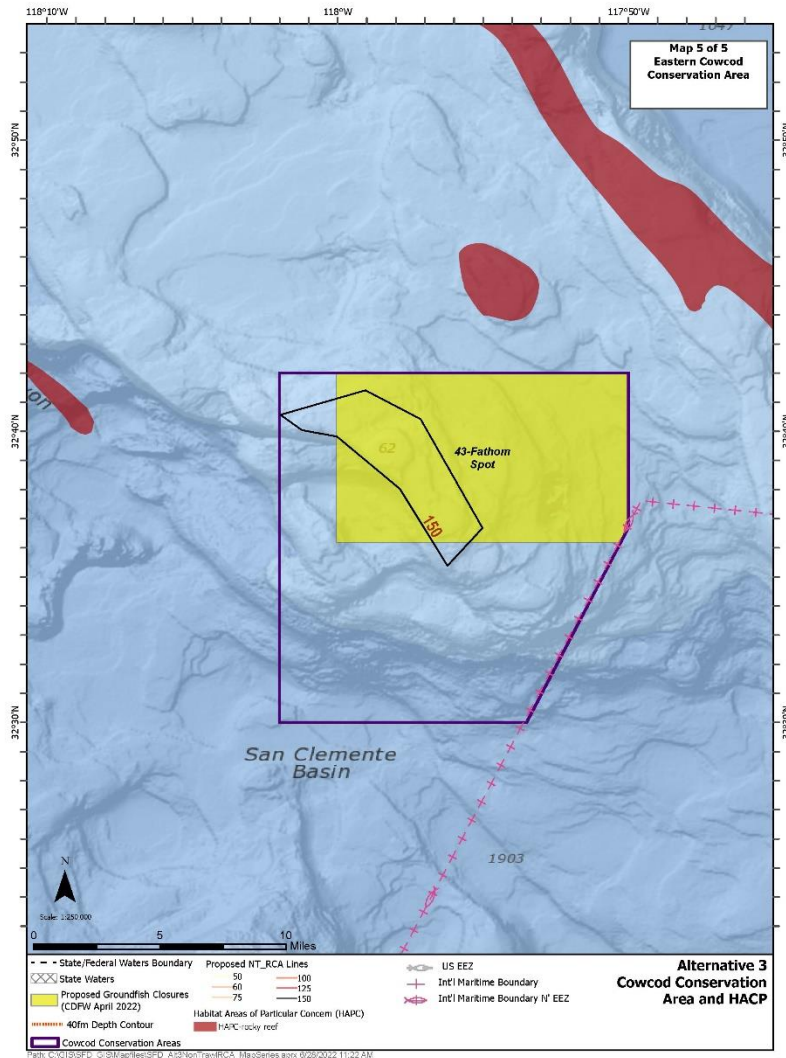


Figure 64. Alternative 3- Presence of HAPCs and deep-sea corals/sponges around Eastern CCA

Note: "Proposed Groundfish Closures" are now called Groundfish Exclusion Areas (GEAs).

Cumulative Effects on Habitat

Overall, the impacts to habitat under Alternatives 1 and 4 are like those described under the 2023-2024 Harvest Specification EA, as they are not proposing opening any additional areas to fishing. Alternative 1 would potentially allow for stationary vertical jig gear to be fished closer to the bottom, however, as described above, the intent behind the gear is for it not to contact the seafloor. For Alternatives 2 and 3, there may be some impact to habitat with the reopening of the NT_RCA and CCA to fishing effort, particularly with bottom contact gear. However, it is important to consider that while the alternatives are potentially opening up areas to non-trawl groundfish or directed halibut fishing under these alternatives, there are already state-managed fisheries (and other Federal fisheries) operating in these areas and the mitigation measures being considered (e.g., groundfish bottom contact EFHCAs or GEAs) would limit substrate interactions.

[Tables 11 and 12 of Agenda Item F.6, Attachment 1, April 2022](#) describe the state-managed fisheries off Oregon and California that occur within the depths and areas proposed to be opened under Alternatives 2 and 3 respectively. In the area proposed to be opened under Alternative 2, the Dungeness crab and hagfish fisheries primarily fish with pot gear; therefore, habitat in this area is likely already impacted by these fisheries. Additionally, these fisheries are only subject to bottom contact EFHCA closures as described in Section 1.5.2, so there are likely already some impacts to the habitat within the bottom trawl EFHCAs proposed to be exposed. Outside of the bottom trawl EFHCAs, the groundfish bottom trawl fishery can operate with the removal of the trawl RCA starting in 2020 off Oregon and California. Overall, there may be a slightly negative cumulative impact on habitat with Alternative 2, but it is likely to not be significant, especially with the proposed mitigation measures.

In the current boundaries of the CCA, there are several state fisheries that operate with bottom contact gear, including box crab, hagfish, and spot prawn. These fisheries would not be impacted by this alternative and therefore there could be additional cumulative impacts under Alternative 3. However, it is likely that the overall impacts would not be significant, particularly with the proposed mitigation measures

3.8 Ecosystem

3.8.1 Status/Affected Environment

Ecosystems consist of communities of organisms interacting with their physical environment. Within marine ecosystems, competition, predation, and environmental disturbance cause natural variation in recruitment, survivorship, and growth of fish stocks. Human activities, including commercial and recreational fishing, can also influence the structure and function of marine ecosystems. Fishing may change predator-prey relationships and community structure, introduce foreign species, affect trophic diversity, alter genetic diversity, alter habitat, and damage benthic habitats.

Section 3.4.3 of the 2015 Environmental Impact Statement (of which the 2023-2024 EA tiers off of) discusses the impacts of the groundfish fishery sectors on the ecosystem. We incorporate those documents by reference.

3.8.2 Effects of the Alternatives

3.8.2.1 Ecosystem

Under all of the alternatives, the impacts to the ecosystem are the same as those discussed in the 2023-2024 EA, which concluded that there would be no significant impacts on the California Current Ecosystem (CCE). All of the alternatives would add to the adaptive management system that manages the groundfish fishery that continuously optimizes fishery and ecosystem protections.

3.8.2.2 Climate

As described in the 2023-2024 Harvest Specifications EA, “NMFS ‘should consider (1) the potential effects of proposed actions on climate change as indicated by assessing the estimated greenhouse gas (GHG) emissions of the proposed action, and (2) the effects of climate change on proposed actions and their environmental impacts.’ (NOAA, 2017).” Similar to the proposed action for the harvest specification, these alternatives do not regulate individual fishermen’s decisions as to how far to travel and what engines to use. However, by changing the seaward boundary of the NT_RCA (Alternative 2), some vessels may choose to fish closer to shore (decreasing fuel consumption). On the other hand, Alternative 3 would open up areas previously closed to fishermen, resulting in fishing farther offshore which may increase that individual’s fuel consumption if they would have otherwise fished closer to shore. However, overall, we do not expect any of the proposed alternatives to substantially change the scale, intensity, or degree of fishing; the fleet’s overall fuel use would depend more on external factors (fuel price, market conditions, oceanographic changes affecting the location of the target groundfish, etc.). Therefore, we do not discuss further the effects of emissions on climate change.

With respect to how climate change could affect the proposed action, the Council annually assesses the ecosystem’s current status and climate change indicators in the California Current Integrated Ecosystem Assessment (IEA). As described in the 2023-2024 Harvest Specifications EA, the IEA reports and other materials provide the Council with information on likely groundfish responses to climate change. In the short term, there would likely be no impacts of climate change on the proposed actions; however, as ocean conditions change and stocks potentially move to more suitable habitats, the species encountered in the proposed area openings may change. The biennial specifications process and the ability to use BACs as described under the PPA would allow for the Council to respond to these changes and keep harvest levels within proposed specifications.

Cumulative Effects on the Ecosystem

Overall impacts from the Proposed Action and alternatives, when combined with the effects of past, present, and reasonably foreseeable future actions, will not result in significant cumulative impacts on the ecosystem.

Regulatory Impact Review

The President of the United States signed Executive Order (E.O.) 12866, “Regulatory Planning and Review,” on September 30, 1993. This order established guidelines for promulgating new regulations and reviewing existing regulations. The E.O. covers a variety of regulatory policy considerations and establishes procedural requirements for analysis of the benefits and costs of regulatory actions. The E.O. stresses that in deciding whether and how to regulate, agencies should assess all of the costs and benefits of available regulatory alternatives. Based on this analysis, they should choose those approaches that maximize net benefits to the Nation, unless a statute requires another regulatory approach.

NMFS satisfies the requirements of E.O. 12866 through the preparation of an RIR. The RIR provides a review of the potential economic effects of a proposed regulatory action in order to gauge the net benefits to the Nation associated with the proposed action. The analysis also provides a review of the problem and policy objectives prompting the regulatory proposal and an evaluation of the available alternatives that could be used to solve the problem.

The RIR provides an assessment that can be used by the Office of Management and Budget to determine whether the proposed action could be considered a significant regulatory action under E.O. 12866. E.O. 12866 defines what qualifies as a “significant regulatory action” and requires agencies to provide analyses of the costs and benefits of such action and of potentially effective and reasonably feasible alternatives. An action may be considered significant if it is expected to:

- Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local or tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in E.O. 12866.

4.1 Statement of the Problem

A statement of the problem is available above in Section 1.1 titled “Purpose and Need”.

4.2 Description of the Management Goals and Objectives

A description of the management goals and objectives can be found in Section 1.1 title “Purpose and Need”.

4.3 Description of Fisheries and Other Affected Entities

A detailed description of the fishery and affected entities is available in the [Section 1.4.1.2 of the SAFE document](#). This includes a summary of historic harvests, description of management, and economic characteristics of harvesting vessels, processors, and communities. Section 1.5 above describe the sectors affected by the action. For a description of the directed halibut fishery, please see the [2022 EA for the Area 2A Pacific Halibut Fishery Management in 2022 and Beyond](#).

4.4 Description of the Alternatives

A description of the Alternatives is available in Section 2.

4.5 An Economic Analysis of the Expected Effects of Each Selected Alternative Relative to the No Action Alternative

4.5.1 Analysis of Expected Effects: No Action

No Action would continue to prohibit LEFG and IFQ gear switching vessels from utilizing legal non-bottom contact hook-and-line gears within their sectors (i.e., would need to declare into directed OA) to target rebuilt, underutilized groundfish stocks in areas closed for the past two decades for conservation. Vessels utilizing stationary vertical jig gear would be prohibited from using natural bait unless fishing under an EFP and would be required to fish a minimum of 50 ft off the bottom. In addition, vessels targeting Pacific halibut would continue to be restricted from accessing the NT_RCA. Impacts under No Action can best be described by Section 11 of the 2023-2024 Harvest Specifications EA analytical document where the impacts of allowing fishing within the 40 fm boundary of islands in the CCA and allowing the use of non-bottom contact gears inside the NT_RCA were analyzed. As described in Section 2.1 of this document, under No Action, the NT_RCA and CCA would remain closed to fishing outside of that permitted by the 2023-2024 Harvest Specifications in select areas or by select gear types. Certain vessels would continue to be restricted from targeting healthy, underutilized stocks that inhabit the NT_RCA and CCA and have been closed off for over two decades. The NT_RCA and CCA were put into place to protect overfished species. In 2022, all but one species (yelloweye rockfish) is rebuilt and other stocks such as canary, widow, yellowtail, and cowcod are underutilized by the non-trawl sectors. While initially put into place to protect shelf rockfish species, the NT_RCA and CCA also prohibited access to other stocks such as sablefish and other slope species in the deeper depths of the two closures.

4.5.2 Analysis of Expected Effects: Alternative 1

Alternative 1 would expand the gear and catch provisions applicable to fishing inside the NT_RCA. Included in the proposed action is a suboption which would extend the opportunity to LEFG vessels to fish up to their LEFG trip limits and gear switching vessels in the IFQ sector to utilize their QPs rather than declaring into the directed OA sector. Alternative 1 could allow vessels using stationary vertical jig gear to utilize natural bait and fish closer to the bottom (30 ft versus 50 ft under No Action).

Suboption 1 would have a positive impact to LEFG or IFQ gear switching vessels that chose to fish non-bottom contact gear as they would be permitted to fish within their sector and up to their respective limits. Participation in this fishery would be driven by several factors including opportunities in other fisheries, gear investments, permitting requirements, vessel design, and infrastructure (as described in [Agenda Item F.4, Attachment 2, April 2022](#)). There would be a positive impact for LEFG vessels under Suboption 1, which would permit vessels to harvest up to their LEFG limits. As described above, under No Action, LEFG vessels that wish to participate in the non-bottom contact hook-and-line fishery as a directed OA vessel would be subject to the lower trip limits typical of OA fisheries. While there is limited activity in this fishery currently with the crossover provisions in place, it is likely that southern port groups would benefit the most from this action (see [Agenda Item F.4, Attachment 2, April 2022](#)).

Vessels in the shorebased IFQ fishery that gear switch may be unlikely to use non-bottom contact hook and line gears given that the primary target of “gear switchers” is sablefish, which are primarily targeted with pot or longline gears. However, as described in [Agenda Item F.6, Attachment 1, April 2022](#), if sablefish

fishing opportunities were to decline either through the consideration of gear switching limitations or if the stock status were to decline, this could provide an additional opportunity for those vessels to supplement their incomes with high value fish. Vessels would still be required to obtain necessary QPs to cover catch. Given the high attainments of widow and yellowtail rockfish in recent years, it may be unlikely for vessels to enter the fishery in areas off northern California or Oregon. However, off select portions of California, where the trawl fishery is primarily composed of gear switching vessels, species such as bocaccio, chilipepper, or other southern shelf rockfish species may be targeted in these areas.

Under Suboption 2, which would permit the use of natural bait while using stationary vertical jig gear, it is likely that there could be positive socioeconomic benefits compared to No Action as vessels could see an increase in catch of different species or overall increase in catch. For the directed OA fishery, based on the April 2022 analysis, the port communities of Brookings and Morro Bay would be most likely to benefit as they have the largest amount of groundfish landed in the non-sablefish hook-and-line fisheries (i.e., the likely sector to utilize this gear), involvement (measured as the ex-vessel value in a port as share of coastwide ex-vessel value), and dependence (measured as a percent of each port's total landings revenue from all fisheries) of those communities on the sector as a whole (see Attachment 2, April 2022, Figure 11-1, Table 11-14, Figure 11-2). LEFG and IFQ GS may also see positive benefits if they chose to utilize the gear and natural bait provisions.

Suboption 3, which would allow the stationary vertical jig gear to be fished 30 ft rather than 50 ft off the bottom, could have similar impacts as suboption 2 assuming that this allowed for catch of different species or overall increase in catch compared to No Action.

4.5.3 Analysis of Expected Effects: Alternative 2

Under Alternative 2, vessels participating in the groundfish and directed halibut fisheries would be permitted to fish in the area seaward of 75 fathoms in the current NT_RCA from the OR/WA border to 34° 27' N. lat. using any legal non-trawl gear types. Previous analyses have focused on the impacts to the fleets in terms of the groups most likely to benefit in the non-sablefish targeted fisheries. While all West Coast communities in the action area would likely see some benefits, the port groups of Morro Bay, Brookings, and Monterey were identified as the most likely to benefit ([Agenda Item E.6, Attachment 1, November 2021](#)).

It is likely that vessels targeting sablefish might also benefit from the movement of the NT_RCA seaward boundary if larger sablefish are present, as has been suggested in previous discussions for the area off Washington ([Agenda Item E.6.a, Supplemental WDFW Report, November 2021](#)). As was described in Table 22 of the [LEFG catch shares program review](#), sablefish of larger size tend to receive a higher price per pound on average.

In addition to potentially receiving a higher price per pound for the sablefish caught, vessels could also see increased revenues from lower variable costs associated with fuel. Vessels would no longer have to travel out to 100 or 125 fm to fish for sablefish but could travel a shorter distance to find larger sablefish, leading to overall increased profits. Any potential benefits would be constrained by the available allocations for sablefish. Sablefish north of 36° N. lat. has historically been a highly attained species; however, upcoming biennia are expected to see higher allocations than in the past.

While the proposed action only impacts the NT_RCA boundary south of the Oregon-Washington border, vessels participating in the fishery may travel from Washington off Oregon to find sablefish. From 2017-2021, approximately a quarter of sablefish north landings into Washington by IFQ gear switching and LE trip limit vessels were caught in Oregon waters. This compares to more than half of all open access landings but less than 10 percent of primary LEFG landings.

Looking at all sablefish landings coastwide, the ports most involved in each sector (defined as the proportion of sablefish landings into a port group compared to coastwide sablefish landings in that sector) and dependent in the fishery by sector (defined as the amount of ex-vessel revenue produced by a fishery in a port compared to all other fisheries delivered into that port) are ranked in Table 18 and Table 19 respectively. Due to confidentiality issues, landings and revenue for several port group and sector combinations were unable to be shown. Rankings are provided to show a relative view of the involvement and dependence on each sector by each port group on the West Coast. For some perspective, [Table 27 of Agenda Item F.4, Attachment 1, November 2022](#) provides an overall view of the scale of the landings and ex-vessel value that groundfish brings to each port group and ports within that broader group. Overall, while some groups may be more involved in a particular sablefish fishery compared to other ports, the ports dependence on the fishery may be relatively less. For example, the Fort Bragg/Bodega Bay port group is the most involved in the OA fishery compared to other West Coast port groups and they have the highest degree of dependence on average on the fishery coastwide. On the other hand, Washington port groups tend to rank high in involvement in all three sablefish sectors, yet, rank in the lower half of the ports dependent on LEFG and OA fisheries given the volumes of other fisheries landed into those ports (e.g., whiting, crab).

Table 18. Ranking of Involvement of Port Groups in Sablefish Sectors

IFQ GS	LEFG	OA
Newport	WA Ports	Fort Bragg/Bodega Bay
Astoria/Tillamook	Newport	Brookings/Coos Bay
Washington Ports	Brookings/Coos Bay	San Francisco
Morro Bay	Santa Barbara	WA Ports
Brookings/Coos Bay	Fort Bragg/Bodega Bay	Monterey
San Francisco	Monterey	Crescent City/Eureka
Monterey	Crescent City/Eureka	Newport
Fort Bragg/Bodega Bay	Astoria/Tillamook	San Diego
Crescent City/Eureka	Morro Bay	Astoria/Tillamook
	San Diego	Santa Barbara
	Los Angeles	Los Angeles
	San Francisco	Morro Bay

Table 19. Ranking of Dependence of Port Groups in Sablefish Sectors

IFQ GS	LEFG	OA
Morro Bay	Morro Bay	Fort Bragg/Bodega Bay
Newport	Fort Bragg/Bodega Bay	San Francisco
Astoria/Tillamook	San Diego	San Diego
WA Ports	Newport	Monterey
San Francisco	Monterey	Brookings/Coos Bay
Brookings/Coos Bay	Santa Barbara	Crescent City/Eureka
Monterey	Brookings/Coos Bay	Morro Bay
Fort Bragg/Bodega Bay	WA Ports	WA Ports
Crescent City/Eureka	Crescent City/Eureka	Astoria/Tillamook
	Los Angeles	Newport
	Astoria/Tillamook	Los Angeles
	San Francisco	Santa Barbara

Directed halibut vessels would also be impacted by this alternative and be able to fish within the 75 to 100 fathom area currently closed to fishing within the NT_RCA. Participants in the fishery would also see similar benefits in terms of fuel saving if halibut can be found between 75 to 100 fathoms at the desired size and weight.

From 2017-2021, between 63 and 91 vessels have participated in the non-tribal directed halibut fishery. On average, 78 percent of directed halibut trips landed some amount of groundfish, but given that over 66 percent of trip revenues were from halibut, those landings could be incidental and to help vessels cover other costs such as fuel. Vessels might be able to take trip limits of other species within the 75-100 or 75-125 fm bin if opened to directed halibut, however, it would likely only be those vessels currently landing groundfish as they already are fishing with VMS.

Similar to the situation described above for sablefish, vessels participating in the fishery may travel from Washington off Oregon to find halibut. From 2017-2021, the percentage of directed halibut caught off Oregon and delivered into Washington ports ranged from 26 percent in 2017 to a high of 64 percent in 2020. Therefore, communities in Washington may also benefit from this action. The most involved port groups in the directed halibut fishery include Coos Bay, Newport, and Washington ports. California ports tend to be the least involved in the fishery.

Under Alternative 2, there are several suboptions available to protect sensitive benthic habitats in current bottom trawl EFHCAs. Suboption 1a would have a negligible impact to industry compared to No Action

as groundfish bottom contact gear would continue to be prohibited in the areas exposed in current bottom trawl EFHCAs. This would mean that only non-bottom contact groundfish gears (such as troll gear) would be permitted in those specific openings. Directed halibut vessels (regardless if groundfish is retained or not) would also be subject to these closures on the few days of that fishery. Overall, there would still be positive socio-economic benefits under Alternative 2 with suboption 1a by opening a section of the NT_RCA to fishing, even if certain areas were to remain closed to bottom contact gear. While the Council could recommend suboption 1a for any of the exposed EFHCA areas, including those that staff identified as “Not applicable”, it should be considered that enforcement costs would likely increase for any additional protections added. Suboption 1a would also potentially lead to administrative costs of having to monitor the EFHCAs for specific gear type usage.

Suboption 1b would close the entire bottom trawl EFHCAs to all groundfish bottom contact gear and directed halibut that have small areas exposed outside the seaward boundary of the NT_RCA. As described in Section 3.7.2.1 above, this suboption would likely only apply in select circumstances. Staff identified four EFHCAs where this suboption may apply: Nehalem Bank/Shale Pile (Figure 29), Bandon High Spot (Figure 34), The Football (Figure 31), and La Cruz Canyon (Figure 42). It is possible that closing those areas outside the current NT_RCA boundaries could impact current fishing operations if vessels fish in those areas. However, these vessels would be gaining more fishing grounds overall under Alternative 2. This suboption may increase costs associated with enforcement due to the increase in the number of discrete closures with gear-specific restrictions; however, the exact amounts are not quantifiable.

Suboption 1c would add a groundfish and directed halibut bottom contact EFHCA to the entire bottom trawl EFHCA area, including that remaining within the proposed NT_RCA boundary. The impact to industry in the short term would be the same as under Suboption 1a or 1b (depending on the EFHCA area), as the area within the proposed NT_RCA boundary would remain closed to all groundfish non-trawl and directed halibut fisheries; however, on the enforcement perspective this would be less burdensome as the regulatory boundaries would be the same as those currently in place for bottom trawl gear. Additionally, this may create some efficiencies for the Council in future decision-makings, as the areas would already be closed to groundfish bottom contact gear if the Council chose to move the seaward boundary of the NT_RCA shallower. In other words, the Council would not need to consider additional closures for the groundfish fisheries in those areas as they would under Suboptions 1a or 1b that would be exposed under a future boundary move. However, if the Council chose suboption 1c for an EFHCA that extended into state waters, the states would need to take conforming action to prohibit groundfish bottom contact gear. Additionally, some EFHCAs that extend shoreward of the NT_RCA boundary, but within federal waters, would be closed to current operations under suboption 1c. It is unknown of the impacts of taking this action on industry.

Suboption 1d, which would apply suboption 1a to the Nehalem Bank and Bandon High Spot EFHCAs under the PPA, would have negligible impact on industry as it would only keep those two areas closed to bottom contact fishing that are already closed within the NT_RCA.

Suboption 1e would apply suboption 1c to Garibaldi Reef North, Garibaldi Reef South, and Arago Reef under the PPA. Garibaldi Reef North and South would have no impact to industry as the areas that would remain closed to fishing are within the current bounds of the NT_RCA and portions would remain in the NT_RCA. However, suboption 1e could have negative impacts to industry as it would be closing off current areas open to fishing on the shoreward side of the NT_RCA. The majority of area proposed to continue to be closed is within the current NT_RCA boundaries and will remain within the PPA NT_RCA configuration. 3.4 of the 67.3 sq. mi. total area of the bottom trawl EFHCA does exist in currently open fishing grounds to bottom contact gears (see Figure 17). Overall, the amount of fishing area opened to non-trawl vessels would be significantly greater than this small closure, which could still be fished with non-bottom contact gear types. Additionally, by including the entire EFHCA, as opposed to 1a (just the exposed portion under Alternative 2) or the portion of the EFHCA that is within the current bounds of the NT_RCA,

there would be a benefit to enforcement as it would result in a singular polygon to enforce restrictions rather than having small areas within the larger EFHCA area that would be opened.

Suboption 2 would prohibit all groundfish and directed halibut bottom contact gear in Heceta Bank area through a YRCA (see Figure 18). As described for Suboption 1a, this would likely have little impact to industry compared to No Action, as this area would remain closed to groundfish and directed halibut bottom contact gear, allowing only legal non-bottom contact gear configurations in the area. This would be another area for enforcement to monitor; however, the costs associated are unable to be quantified.

Suboption 3 would develop additional new YRCAs that could be used in the future for groundfish or halibut vessels. Impacts to industry of implementing a YRCA would need to be considered at the time of implementation. As discussed above, YRCAs could only be implemented inseason for groundfish vessels or directed halibut vessels retaining groundfish, as the mechanism is currently not available for directed halibut in the Halibut Act regulations. Implementing the YRCAs for directed halibut would require a full rulemaking. If any or all of these YRCAs were implemented, this would lead to additional enforcement costs which are again, unable to be quantified at this time and would be considered at the time of implementation.

There are no impacts to vessel safety expected with this alternative.

4.5.4 Analysis of Expected Effects: Alternative 3

Under Alternative 3, both the Western and Eastern CCA would be removed allowing recreational and non-trawl commercial fishing in the area. Select areas (GEAs) are proposed to remain closed to all groundfish vessels- both recreational and non-trawl commercial.

Overall, this action is expected to have economic benefits to participants that have been prohibited from fishing in the area for over two decades. As described in Section 3.2.2 above, vessels are expected to be able to target sablefish as well as vermillion, bocaccio, and other shelf stocks. It is difficult to project any quantitative benefits of this opening given the length of the closure and unknown number of participants that may take up the opportunity in both the commercial and recreational sectors. However, given the limited opportunities in the nearshore due to restrictions on quillback rockfish (see 2023-2024 Harvest Specifications EA), it is likely that this alternative may become a main area of fishing effort for participants in southern California. For commercial vessels, external factors such as markets, fuel prices, and infrastructure will drive the overall level of benefit to the fishery of being able to fish in the former CCA. While there may be some loss in opportunity in select areas within the GEAs that would be restricted from harvesting other flatfish with hook and line gears, the overall increase in the amount of area and new fishing opportunity is believed to outweigh those minor lost opportunities. On the recreational side, this will be a crucial additional opportunity, especially in times where the fishery is closed shoreward of 50 fathoms and vessels are looking to provide customers with a full day's catch on a tuna trip for example. Vessels would be allowed to continuously transit through the GEAs with groundfish on-board provided that gear is stowed for commercial vessels or gears not deployed recreational. Additionally, vessels would maintain the ability to fish for non-groundfish species in these closed areas as long as groundfish was not aboard the vessel. The allowance for continuous transit and to fish for non-groundfish (e.g., HMS) would provide benefits to both the commercial and recreational fleets. For example, recreational vessels could provide customers with opportunities for a full day(s) fishing trip by fishing for HMS on the way out and then completing the trip with groundfish prior to heading back to shore. Additionally, there would likely be cost savings for vessels not having to transit around the closed areas (if gear is stowed and groundfish is onboard). However, recreational vessels are not required to have VMS and therefore any monitoring of the areas offshore would require on-the-water observations- leading to increased costs to enforcement.

There are no impacts to vessel safety expected under this alternative because the alternative does not create a “race to fish” nor force fishermen offshore to gain access to fish. Vessel captains will retain the ability to choose when and where to fish based on sea conditions and weather. Additionally, by providing the allowance for continuous transit, vessels would not be forced to go around the closure if inclement conditions arose.

4.5.5 Analysis of Expected Effects: Alternative 4

Alternative 4 would develop BACs for use in controlling catch or bycatch of groundfish or other prohibited species in the non-trawl sectors. BACs could be implemented preseason or inseason at the lines described in Section 2.5.

The impacts to the fleet on implementing a BAC would be assessed with the most up to date information when the Council considers a specific BAC. While BACs could provide a mechanism for reducing impacts to groundfish or other species, like salmon, it is important to consider the inseason data that is, or rather isn’t, available for non-trawl fisheries. Unlike the at-sea whiting fisheries, there is no inseason reporting of set-level data that could be used to determine areas of high bycatch by non-trawl vessels. The earliest that data could be analyzed to determine potential areas of high bycatch would be the following fall when WCGOP data is released. However, the non-trawl sectors (outside of IFQ gear switching vessels) are not required to have 100 percent observer coverage; therefore, the Council would be assessing implementing BACs on a limited data set, particularly if the concern was in the OA fisheries. While forthcoming logbook data may provide some additional insight into bycatch locations, further investigation into the timeliness of that data being available would need to occur once logbooks are implemented in the fishery. BACs, if developed coastwide, could be used to restrict activity within the current bounds of the NT_RCA or CCA to curb mortality closer to that seen under the current state of the fisheries and no changes to the regulations (i.e., status quo).

Overall, the socio-economic impacts of implementing a BAC would need to be determined at the time of implementation. Compared to No Action, BACs offer more flexibility than the current management measures available: modifying the NT_RCA boundaries or changing the fishing allowances within the CCA (e.g., move the 40-fathom line into 30 fathoms). If the Council were to select one or all of the other alternatives proposed under this action, BACs would also allow for vessels to fish in newly opened areas but could close off specific areas of high bycatch to a specific sector or sectors.

While there are no expected costs to NMFS or enforcement with development of BACs for non-trawl gears, there could be costs during the implementation of the BAC. Specifically with regards to enforcement, this would result in additional area closures to enforce- particularly if the BAC is for only a specific gear or sector. There are no impacts to vessel safety expected under this alternative.

4.6 Summation of the Alternatives with Respect to Net Benefit to the Nation

The action alternatives described below are not mutually exclusive.

- No Action would continue to restrict vessels from accessing healthy and underutilized midwater rockfish stocks within the NT_RCA and CCA unless fishing with legal non-bottom contact gears in the directed OA sector in the NT_RCA. This will continue to inhibit attainment of non-trawl allocations and limit benefits to coastal fishing communities dependent on commercial and recreational fisheries.
- Alternative 1 with the suboptions would provide additional flexibility for vessels using legal non-bottom contact hook-and-line gear to target healthy and underutilized midwater rockfish stocks. Under Suboption 1, LEFG vessels would be able to target at their higher trip limits and IFQ gear

switching vessels to use their QPs within the bounds of the NT_RCA to fish these stocks. Vessels using stationary vertical jig gear could also target different species or have greater catch with the allowance of natural bait (suboption 2) and the ability to fish deeper (suboption 3). The PPA would likely increase annual revenue and the support of fishing communities.

- Alternative 2 would reduce the size of the NT_RCA and allow non-trawl groundfish and non-tribal directed halibut vessels increased access to targeted groundfish stocks or halibut closer to shore (resulting in reduced operational costs). While there could be potential impacts to both non-target (i.e., yelloweye rockfish) and benthic habitat in opening the NT_RCA, which has served as de facto habitat protection for nearly two decades, mitigation measures are being considered to limit these impacts overall. Overall, the PPA would likely increase landings and revenue for the commercial non-trawl fleet, support fishing communities, and provide opportunities for supplying seafood to consumers.
- Alternative 3 would remove the CCA, develop new NT_RCA lines, and implement a series of GEAs to protect sensitive areas. Overall, this would provide considerable opportunity to both commercial and recreational vessels in southern California to target underutilized shelf and slope stocks. The PPA would likely increase fishery revenue and the support of commercial and recreational fishing communities.
- Alternative 4 would create a tool for the Council to implement BACs and could help mitigate bycatch of groundfish or prohibited and/or protected species either preseason or inseason. This could result in extension of fishing opportunity to a fleet (by preventing fishing in an area for groundfish) or to assist in preventing exceedance of annual catch limits or limits for protected species such as salmon.

4.7 Determination of Significant Impact

As noted above, under E.O. 12866, a regulation is a “significant regulatory action” if it is likely to: (1) have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in this Executive Order. At the time of this analysis, the Office of Management and Budget has not determined if this action is significant.

Regulatory Flexibility Analysis

For any rule subject to notice and comment rulemaking, the Regulatory Flexibility Act (RFA) requires Federal agencies to prepare, and make available for public comment, both an initial and final regulatory flexibility analysis, unless the agency can certify that the proposed and/or final rule would not have a “significant economic impact on a substantial number of small entities”. These analyses describe the impact on small businesses, non-profit enterprises, local governments, and other small entities as defined by the RFA (5 U.S.C. § 603). This analysis is to inform the agency and the public of the expected economic effects of the alternatives, and aid the agency in considering any significant regulatory alternatives that would accomplish the applicable objectives and minimize the economic impact on affected small entities. The RFA does not require the alternative with the least cost or with the least adverse effect on small entities be chosen as the preferred alternative.

The IRFA must only address the effects of a proposed rule on entities subject to the regulation (i.e., entities to which the rule will directly apply) rather than all entities affected by the regulation, which would include entities to which the rule will indirectly apply.

Part 121 of Title 13, Code of Federal Regulations (CFR), sets forth, by North American Industry Classification System (NAICS) categories, the maximum number of employees or average annual gross receipts a business may have to be considered a small entity for RFAA purposes. See 13 C.F.R. § 121.201. Under this provision, the U.S. Small Business Administration established criteria for businesses in the fishery sector to qualify as small entities. Standards are expressed either in number of employees, or annual receipts in millions of dollars. The number of employees or annual receipts indicates the maximum allowed for a concern and its affiliates to be considered small (13 C.F.R. § 121.201).

- A fish and seafood merchant wholesaler (NAICS 424460) primarily engaged in servicing the fishing industry is a small business if it employs 100 or fewer persons on a full time, part time, temporary, or other basis, at all its affiliated operations worldwide.
- A business primarily engaged in Seafood Product Preparation and Packaging (NAICS 311710) is a small business if it employs 750 or fewer persons on a full time, part time, temporary, or other basis (13 CFR § 121.106), at all its affiliated operations.
- The SBA size standard for Subsector 487, “Scenic and Sightseeing Transportation, Water”, which includes charter fishing, is \$14 million in gross receipts (13 CFR § 121.201).

In addition to small businesses, the RFA recognizes and defines two other kinds of small entities: small governmental jurisdictions and small organizations. A small governmental jurisdiction is any government or district with a population of less than 50,000 persons. A small organization is any not-for-profit enterprise that is independently owned and operated and not dominant in its field, while. (5 U.S.C. § 601). There is no available guidance beyond this statutory language regarding how to determine if non-profit organizations are “small” for RFA purposes. The Small Business Administration (SBA) does have provisions for determining whether a business is “small” for RFA purposes and whether it is “dominant in its field,” and those provisions can inform how NMFS classifies non-profit organizations for the purposes of RFA analyses in rulemaking. After consultation with the SBA, NOAA Fisheries has decided to use SBA’s size standards for non-profit organizations to determine whether a non-profit organization is “small” and, in turn, whether it is “dominant in its field,” to apply the statutory definition of a “small organization” in practice:

A nonprofit organization is determined to be “not dominant in its field” if it is considered “small” under SBA size standards:

- Environmental, conservation, or professional organizations (NAICS 813312, 813920): Combined annual receipts of \$19.5 million or less.

- Other organizations (NAICS 813319, 813410, 813910, 813930, 813940, 813990): Combined annual receipts of \$13.5 million or less.

Provision is made under SBA's regulations for an agency to develop its own industry-specific size standards after consultation with Advocacy and an opportunity for public comment (see 13 CFR 121.903(c)). NMFS has established a small business size standard for businesses, including their affiliates, whose primary industry is commercial fishing (80 FR 81194, December 29, 2015). This standard is only for use by NMFS and only for the purpose of conducting an analysis of economic effects in fulfillment of the agency's obligations under the RFA.

NMFS' small business size standard for businesses, including their affiliates, whose primary industry is commercial fishing is \$11 million in annual gross receipts. This standard applies to all businesses classified under North American Industry Classification System (NAICS) code 11411 for commercial fishing, including all businesses classified as commercial finfish fishing (NAICS 114111), commercial shellfish fishing (NAICS 114112), and other commercial marine fishing (NAICS 114119) businesses. (50 C.F.R. § 200.2; 13 C.F.R. § 121.201).

5.1 Description of why action by the agency is being considered

The reasons why agency action is being considered are explained in Section 1.1 ("Purpose and Need") above.

5.2 Statement of the objectives of, and legal basis for, the proposed rule

The statement of the objectives of the proposed rule are explained in the Section 1.1 ("Purpose and Need") above.

Under the MSA (16 U.S.C. 1801, *et seq.*), the United States has exclusive fishery management authority over all marine fishery resources found within the EEZ. The management of these marine resources is vested in the Secretary of Commerce (Secretary) and in the regional fishery management councils. In the West Coast Region, the Council has the responsibility for preparing FMPs and FMP amendments for the marine fisheries that require conservation and management, and for submitting its recommendations to the Secretary. Upon approval by the Secretary, NMFS is charged with carrying out the Federal mandates of the Department of Commerce with regard to marine and anadromous fish.

The non-trawl fisheries (directed OA, LEFG, IFQ GS, and recreational fisheries off California) in the EEZ off the West Coast are managed under the Pacific Coast Groundfish Fishery Management Plan. The non-tribal directed halibut fishery is managed under regulations promulgated in accordance with the Northern Pacific Halibut Act of 1982. The proposed action under consideration would amend this FMP and Federal regulations at § 50 C.F.R. 300.63(e). Actions taken to amend FMPs or implement regulations governing these fisheries must meet the requirements of applicable Federal laws, regulations, and Executive Orders.

5.3 A description and, where feasible, estimate of the number of small entities to which the proposed rule will apply; and a description and estimate of economic effects on entities, by entity size and industry.

All vessels affected by the proposed action are classified as small entities based on the criteria provided in Section 4.3. Table 20 shows the range and average number of vessels participating in each sector from

2019-2022 that would potentially be affected by one or more of the action alternatives. Note that there is not a strict one-to-one correlation between vessels and entities, therefore some persons or firms likely have ownership interests in more than one vessel or participate in multiple fisheries. Additionally, while it is difficult to determine the number of vessels that participate in the private angler recreational fishery in the southern California management area impacted by Alternative 3, there are an estimated 54,562 to 87,952 trips annually that have occurred in the same time period. Given these factors, the actual number of entities regulated by this action could be lower than the preceding estimates.

Table 20. Range and average number of vessels and dealers in each fishery that may be impacted by the PPA.

Fishery	Vessels (n)		Dealers (n)	
	Range	Average	Range	Average
Open Access	573-681	614	271-342	295
Limited Entry Fixed Gear	113-138	123	112-149	124
IFQ- Gear Switching	9-16	12	8-10	10
Directed Halibut	81-99	88	39-59	47
CA Recreational (CPFV)	178-195	97	N/A	N/A

5.4 An explanation of the criteria used to evaluate whether the rule would impose “significant” economic effects.

The impact of the proposed action would be neutral to positive for small entities, given that the PPA (excluding Alternative 4) would be expanding fishing opportunity and not limiting areas, gear, or other regulatory mechanisms that are not otherwise currently restricted. Alternative 4, the development of BACs, would have a neutral impact on small entities as this action is creating the tool and not implementing any BAC at the time of implementation. Any impact would need to be considered at the time of future implementation.

5.5 An explanation of the criteria used to evaluate whether the rule would impose effects on “a substantial number” of small entities.

Given that this action would apply to the entirety of all of the entities fishing with non-trawl gear who may now choose to access previously closed areas, and that all are considered small entities, this rule would have an impact on a substantial number of small entities.

5.6 A description of, and an explanation of the basis for, assumptions used.

PacFIN was used in determining the number of vessels that participated in each of the commercial fisheries potentially affected by this action. Vessel numbers were estimated using the VESSEL_NUM field and if at least one fish ticket was landed in the associated fishery. CDFW provided the number of CPFV vessels and private angling trips in the southern management area that may be impacted by

Alternative 3 and removal of the CCA. It is likely that far fewer vessels will be impacted by this action as not all vessels will participate in the new opportunities that would be made available if implemented.

5.7 Reporting and recordkeeping requirements

New declarations would be required for Alternative 1 for LEFG and IFQ GS vessels that would utilize legal non-bottom contact gear in the NT RCA. Currently, under No Action, vessels that typically fish within these fisheries and wanted to fish in the NT RCA with groundfish troll or stationary vertical jig gear would need to declare into the OA fishery. New declaration codes for the OA fishery were developed in the 2023-2024 harvest specification rulemaking (see 50 CFR 660.13(d)(4)(iv)). However, under Alternative 1 and suboption 1, LEFG and IFQ GS vessels would be able to fish up to their limits (LEFG) or use quota pounds (IFQ GS) while utilizing the two gear types in the NT RCA and would therefore need similar declaration codes as the OA fishery. Given that all of these participants are likely small entities as shown in Table 20, they would be subject to this requirement. However, there would be no additional costs to the participants as they are already required to submit a declaration code when operating.

5.8 Relevant Federal rules that may duplicate, overlap or conflict with the proposed rule:

There are no relevant federal rules that duplicate, overlap, or conflict with the proposed rule.

5.9 Certification statement by the head of the agency.

The agency finds per 5 U.S.C. § 605 (the RFA) that “the proposed rule, if promulgated, will not have a significant economic impact on a substantial number of small entities.” The agency request comments on the decision to certify this rule based on the conclusions laid out in the analysis above.

Magnuson-Stevens Act and FMP Considerations

6.1 Magnuson-Stevens Act National Standards

Below are the 10 National Standards as contained in the MSA, and a brief discussion of how each alternative is consistent with the National Standards, where applicable. In recommending a preferred alternative, the Council must consider how to balance the national standards.

National Standard 1 — Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.

The biennial harvest specifications and management measures undertaken and described in the 2023-2024 Biennial Harvest Specifications and Management Measures EA, establish harvest levels consistent with National Standard 1 and the harvest management framework described in Chapter 4 of the Groundfish FMP. This action does not revise the harvest management framework, or groundfish harvest limits. Proposed EFHCAs and YRCAs under Alternatives 2 and GEAs under Alternative 3 protect groundfish habitat (either directly or indirectly) within the proposed opened areas. These areas contribute to productive fish populations and may help prevent a stock from becoming overfished due to loss of, or damage to, habitat. As these areas are primarily within current closed areas under the PPA (with the exception of Alternative 2, suboption 1e and some fisheries within Alternative 3), it would not displace much fishing effort, and would be unlikely, therefore, to prevent the non-trawl fishery from achieving optimum yield. Alternatives 1, 2, and 3 will provide opportunities for the groundfish fishery to achieve optimum yield through increases in catch. Alternative 4 would develop BACs as a management tool for commercial non-trawl fisheries that could be used in the future to prevent overfishing.

National Standard 2 — Conservation and management measures shall be based upon the best scientific information available.

The best scientific information available standard applies to the following areas relative to this proposed action: benthic habitat mapping and methods for determining habitat suitability, biological fishery information, and socioeconomic fishery information. The seafloor habitat maps used to conduct the habitat impacts analysis, as described in Section 3.7, incorporate the best scientific information available, which includes substrate maps and deep-sea coral and sponge occurrences.

The best scientific information available includes non-trawl fish ticket and observer data and survey data from the IPHC and California hook-and-line survey. This data is used to estimate impacts of the proposed action on the socioeconomic environment, fish resources, and protected resources. As discussed in Section 4.5, there is less robust information about areas proposed for reopening because of the lack of recent fishing activity in those (currently closed) areas. In these cases, the available historic fish ticket data is used, and are the best indicators of historic importance of an area to the fishery.

National Standard 3 — To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

The Council develops and designates management units for groundfish, which include stocks, stock complexes, or geographic subdivisions thereof. The proposed action does not change any management units for groundfish. This EA contemplates groundfish habitat protections and fishery management actions in a coastwide context, encompassing the geographic ranges for all groundfish stocks in the FMP. The alternatives considered would not result in stocks being managed differently throughout their range, nor would they likely fail to manage stocks as a unit.

National Standard 4 — Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be; (A) fair and equitable to all such fishermen, (B) reasonably calculated to promote conservation, and (C) carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

Section 4.5 describes the impacts of the alternatives and, where possible, presents impacts on a state-by-state basis and port-group basis. None of the alternatives would discriminate between residents of different states. While some alternatives are considering opening areas off specific states (i.e., Oregon and California), there is no restriction outside of proximity from preventing vessels from Washington from taking advantage of the new fishing area opportunities. As described in 4.5.3, vessels from Washington do fish off the Oregon coast. Decision-making occurs through the Council process, which facilitates substantial participation by state representatives and the public. For the preferred alternative, state-specific Council recommendations were crafted and integrated from an initial range of alternatives, designed to meet each state's priority management objectives and needs.

National Standard 5 — Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources, except that no such measure shall have economic allocation as its sole purpose.

Given that all of the EFHCAs or GEAs would be within current closed areas, there is likely no impact on efficiency or utilization of the resource in Alternatives 2 and 3. Groundfish bottom contact EFHCAs or the GEAs could have a negative impact on utilization of fishery resources in the non-trawl groundfish and directed halibut fisheries depending on the suboption selected (e.g. closing a portion of a bottom trawl EFHCA outside the current NT_RCA to groundfish fishing under suboption 1b or 1e under Alternative 2). However, the NT_RCA and CCA reopening would likely more than offset any negative impacts on utilization in this fishery.

National Standard 6 — Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

EFHCAs and the new GEAs in Alternative 3 are management measures to conserve and to protect groundfish EFH and other important benthic habitat like corals and sponges. The results of the impacts analysis are described in Section 3.7. Groundfish EFH is reviewed approximately every five years, which provides opportunities to re-evaluate available information and revise EFHCAs to respond to new information and variations, including information on fisheries, fishery resources, and catches. Alternatives 2 and 3 that contemplate changes to the NT_RCA and CCA consider and allow for variation and contingencies relating to fisheries, fishery resources, and catches. NT_RCA lines and BACs are management measures to control catch of groundfish and incidentally caught species by imposing time/area closures for vessels harvesting groundfish with non-trawl gear. Also, NT_RCA lines and BACs are time/area closures that can be closed, reopened, or modified pre-season or in-season to be responsive to the management needs of the fishery, based on most recently available information regarding the fishery, fishery resources, and catches.

National Standard 7 — Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

Generally, by the Council and NMFS coordinating management, monitoring, and enforcement activities between the three West Coast states, duplication and, thus, cost are minimized. This action contemplates changes to the suites of spatial management tools relating to groundfish EFH and rebuilding overfished rockfish species. Adding new closures may increase the burden on enforcement resources, and removal of closures may decrease the burden on enforcement resources. In general, the boundaries of new and revised

closed areas have been developed in consultation with enforcement consultants' expertise to optimize enforceability and avoid duplication.

National Standard 8 — Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirements of National Standard 2, in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

West Coast fishing communities depend on a portfolio of commercial and recreational fisheries to support year-round operations. Recent coastwide declines in commercial and recreational fishery opportunity for groundfish (e.g., copper and quillback) and non-groundfish species due to changing environmental conditions and changes in management have created considerable instability for many communities. Protecting and conserving groundfish EFH, relieving fishing restrictions, and enabling flexibility in management measures are anticipated to contribute to sustained participation by, and increased stability in, coastal fishing communities. All the alternatives take the importance of the fishery resources to West Coast fishing communities into account. The habitat protections and NT_RCA and CCA changes considered in this EA balance the conservation of fishery resources and habitat with providing for sustained participation for coastal fishing communities.

National Standard 9 — Conservation and management measures shall, to the extent practicable, (A) minimize bycatch, and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

There are no expected impacts outside of No Action as described in the 2023-2024 Harvest Specifications EA. Mitigation measures currently available and proposed to be developed under this action (i.e., YRCAs, BACs) would provide additional tools to allow for minimization of bycatch. All species are projected to stay within their associated ACLs.

National Standard 10 — Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

There is no expected impact to the safety of human life at sea outside of that described in the 2023-2024 Harvest Specifications EA.

6.2 Section 303(a)(9) Fisheries Impact Statement

Section 303(a)(9) of the Magnuson-Stevens Act requires that a fishery impact statement be prepared for each FMP or FMP amendment. A fishery impact statement is required to assess, specify, and analyze the likely effects, if any, including the cumulative conservation, economic, and social impacts, of the conservation and management measures on, and possible mitigation measures for (a) participants in the fisheries and fishing communities affected by the plan amendment; (b) participants in the fisheries conducted in adjacent areas under the authority of another Council; and (c) the safety of human life at sea, including whether and to what extent such measures may affect the safety of participants in the fishery.

The EA/RIR prepared for this plan amendment constitutes the fishery impact statement. The likely effects of the proposed action are analyzed and described throughout the EA/RIR. The effects on participants in the fisheries and fishing communities are analyzed in the RIR chapter of the analysis (Chapter 4). The effects of the proposed action on safety of human life at sea are evaluated in Section 4.6, and above under National Standard 10, in Section 6.

The proposed action affects the groundfish fisheries in the EEZ off the West Coast, which are under the jurisdiction of the Pacific Fishery Management Council. Impacts on participants in fisheries conducted in adjacent areas under the jurisdiction of other Councils are not anticipated as a result of this action.

Other Applicable Laws

Executive Order 13175 Consultation and Coordination with Indian Tribal Governments

Executive Order 13175 is intended to ensure regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes.

The Secretary of Commerce recognizes the sovereign status and co-manager role of Indian tribes over shared Federal and tribal fishery resources. At Section 302(b)(5), the MSA reserves a seat on the Council for a representative of an Indian tribe with Federally-recognized fishing rights from California, Oregon, Washington, or Idaho.

The proposed actions and other alternatives were developed through the Council process and, based on the enclosed analysis are not likely to affect the tribal fishery operations. Through the tribal representative on the Council and tribal comments submitted to NMFS and the Council, the Tribes have a role in the developing the proposed action and analyzing the effects of the alternatives; therefore, at this time the proposed action is consistent with EO 13175.

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