Pacific Fishery Management Council

7700 NE Ambassador Place, Suite 101 Portland, OR 97220-1384
Phone 503-820-2280 | Toll free 866-806-7204 | Fax 503-820-2299 | www.pcouncil.org
Marc Gorelnik, Chair | Merrick J. Burden, Executive Director

December 22, 2022

Mr. Richard Yarde
Office of the Environment
BOEM Pacific Region
760 Paseo Camarillo, Suite 102
Camarillo, CA 93010

Submitted via the Federal Register

RE: *Programmatic Environmental Impact Statement for Oil and Gas Decommissioning Activities on the Pacific Outer Continental Shelf*

Dear Mr. Yarde,

The Pacific Fishery Management Council (Council) submits the following comments in response to the Bureau of Safety and Environmental Enforcement's (BSEE) Draft Programmatic Environmental Impact Statement (PEIS) for Oil and Gas (O&G) Decommissioning Activities on the Pacific Outer Continental Shelf (POCS). The Bureau of Ocean Energy Management (BOEM) is assisting BSEE in the preparation of this environmental analysis.

Council Authorities and Responsibilities

The Council is one of eight Regional Fishery Management Councils established by the Magnuson-Stevens Fishery Conservation and Management Act of 1976 (MSA). The Council is charged with sustainably managing West Coast fisheries, including protection of essential fish habitat, and develops fisheries management actions for Federal fisheries off Washington, Oregon, and California. The Council is required to achieve optimum yield for public trust marine fishery resources. Optimizing the yield of our nation's fisheries requires safeguarding these resources, their habitats, and the fishing communities that rely on their harvest.

Essential Fish Habitat

The MSA requires fishery management councils to describe, identify, conserve, and enhance the essential fish habitat (EFH) for managed species that are under a fishery management plan (FMP). EFH is defined in the MSA as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 U.S.C. §1802(10)). The MSA authorizes the Council to comment on Federal or state actions or activities that may affect the EFH of a fishery resource under its authority and requires such comments for an activity that is likely to substantially affect the habitat of anadromous fishery resources. Habitat Areas of Particular Concern (HAPC) are a subset of EFH that provide important ecological function, are rare, sensitive, or especially vulnerable to degradation. Rocky reefs, estuaries, canopy kelp, seagrass, and several unique geological structures such as seamounts and canyons are designated as HAPCs for Pacific Coast

groundfish species. HAPCs for Pacific salmon species relevant to this action are canopy kelp, submerged aquatic vegetation, and estuaries.

The Council submitted a comment letter to BOEM on the Notice of Intent (NOI) to prepare a PEIS on October 14, 2021. This letter included specific recommendations for analyzing impacts to the marine environment and fishing communities. We ask that our previous letter be incorporated by reference. In addition, we reiterate some of our previously expressed concerns here as many of our concerns have not been adequately addressed.

Analysis and Proposed Mitigation

The Council understands that the intent of the PEIS is to provide an analysis from which future, site-specific National Environmental Policy Act (NEPA) analyses may tier. There are currently 23 O&G platforms that will be decommissioned in the foreseeable future. The platforms vary in water depth (95–1,198 ft), distance from shore (3.7–10.5 mi), surrounding habitats, currents, associated species assemblages, and size. Since impacts to the marine environment from decommissioning activities are expected to vary across platforms and decommissioning methods will also vary, the Council supports BSEE and BOEM's intent for site-specific analyses and individual NEPA determinations for proposed decommissioning projects. However, the Draft PEIS does not provide a sufficient environmental analysis of impacts from which site-specific analyses can tier from, nor specify requirements for future site-specific NEPA analyses. In general, impacts to marine habitats and species described for the different decommissioning alternatives (summarized in Table 4.3-1) are too broad, not well supported by the information presented in the Draft PEIS, and require further analysis. The threshold for significance used to evaluate the level of impacts is also not described. Additionally, the mitigation measures (summarized in Table 4.1-3) lack detail and enforceability to offset impacts.

Specific comments are provided below regarding analysis and mitigation for impacts to marine habitat and species. The Council **recommends** the PEIS distinguish between activities and mitigation measures that are being analyzed under the programmatic analysis and which activities will trigger additional project-level analysis. The Council understands there are specific platforms that are already in the beginning stages of decommissioning (Platforms Gail, Grace, Habitat, Harvest, Hermosa, Hidalgo, Hogan, and Houchin). The Council **recommends** the PEIS clearly describe the stage of decommissioning these platforms are at, the analyses that have already been completed, and the level of analysis that will be required for site-specific platform decommissioning NEPA analyses. The Council **recommends** the PEIS require the analyses and mitigation measures described below for future site-specific NEPA analyses.

Impacts of Decommissioning Activities on EFH and Benthic Habitat

The O&G platforms, pipelines, and power cables are within designated EFH for federally managed Pacific Coast groundfish, coastal pelagic species (CPS), and highly migratory species, as well as Pacific Coast salmon for those platforms north of Point Conception. The Draft PEIS estimates 43,747 acres of EFH, including groundfish HAPCs, could be disturbed by decommissioning all the platforms, pipelines, and power cables (Table 4.2.5-1). This analysis considers impacts from turbidity and sedimentation from anchoring, jacket footer jetting/excavation, shell mound excavation, pipeline removal, and site clearing. However, other decommissioning activities that could result in potentially significant impacts to surrounding habitats that are not considered in the analysis include conductor removal, cleaning and discharge of marine growth from platform

structures, oil and hazardous material spills, and increased vessel traffic. For instance, conductor removal involves a high-pressure abrasive cutting to sever the conductor tubing. It is estimated that a typical conductor cut would require about seven hours of cutting and use about 1,600 kg (3,500 lb) of iron silicate abrasive, which would be discharged to the ocean. There are a total of 818 conductors and 254 jacket sections for all 23 platforms (Table 2-2). We recognize that conductor removal for platforms Hidalgo, Harvest, Hermosa, Grace, and Gail are analyzed in Appendices B and C, which conclude impacts to the benthic environment to be minor, localized, and temporary. However, the Draft PEIS does not describe the cumulative impacts from conductor cuts and iron silicate abrasive discharged to surrounding habitats, including EFH and rocky reef HAPC.

Appendix B discusses scraping all marine life from the Hidalgo, Harvest, and Hermosa platform conductors using 4,000 pounds of garnet abrasive grains and a clamshell scraper, noting that all materials will fall to the seafloor and that the rapid accumulation of abrasive grains combined with marine growth could alter benthic habitat, but is unlikely to induce hypoxia. The Draft PEIS and Appendix B assert that conditions would be similar to shellfish aquaculture in which hypoxia was not induced (Grant et al. 1995). Marine geochemical science has advanced considerably since 1995 and the Council remains concerned that rapid accumulation of thousands of pounds of dense material and marine growth in a short amount of time would create hypoxic conditions (Christensen et al. 2003, Newell 2004, Rabouille et al. 2021, Skoog et al. 2001). Additionally, Appendix B does not discuss methods for retrieving the debris from the seafloor, nor impacts to benthic species and habitats (discussed further below).

The analysis of impacts to EFH assumes a 610 m (2,000 ft) buffer around platforms and a 76.2 m (250 ft) wide corridor along the associated pipelines and cables. However, as mentioned in the Draft PEIS, drilling materials have been found to deposit and affect sediments at distances over 2,000 m (6,562 ft) from platforms (Gillett et al. 2020; MMS 1991, 2001), which suggests a 2,000 ft buffer will be insufficient for some platforms. Likewise, Appendix B notes that discharges of grouted abrasive fluids from 13,000 barrels over 39 days will produce particulates and mud depositions that can travel a distance of 3.7 miles (6,000 m) from the platform, affecting water quality across that path, which includes three nearby reefs. Project-level assessments of disturbance from decommissioning activities to EFH for each of the alternatives should consider appropriate buffers based on local currents and other environmental considerations. For some platforms, it is expected that larger buffers will be required to analyze impacts to the surrounding habitats.

The Draft PEIS does not evaluate impacts to other sensitive benthic habitat features such as deep-sea corals, sponges, and hard substrates. The Council is especially concerned with impacts to sensitive habitats from an activity described in the Draft PEIS as “trawling” during final site clean-up. The Council believes such activities are more correctly described as dredging, because trawling is generally defined as a fishing activity and would not likely result in removal of manmade materials. The Pacific Coast Groundfish Fishery Management Plan Section 6.6.1.2 includes a description of trawling (PFMC 2022). The Draft PEIS should be modified to more adequately define the proposed activity and the potential impacts. The Draft PEIS lacks details on the expected area to be affected, impacts of dredging on benthic habitat and species (including release of contaminants from suspended sediment), or proposed monitoring for impacts to benthic habitat and water quality. The Draft PEIS states this activity is required for site clearance verification in

water depths less than 91 m (300 ft), and that alternative methods, such as divers or remotely operated vehicles (ROVs), may be utilized in deeper waters. Additionally, impacts to EFH and other sensitive benthic habitats that might occur during transportation and disposal of platform structures to an artificial reef location under Alternative 3 are not considered.

The Council **recommends** the PEIS include or require the analyses and mitigation measures below to identify, avoid and/or minimize impacts to EFH and other sensitive benthic habitats during decommissioning activities:

- Avoid anchoring and/or mooring in HAPCs and other sensitive benthic habitats.
- Avoid using bottom dredging (defined as "trawling" in the PEIS) for site clearing in HAPCs and other sensitive benthic habitats. Prioritize alternative methods for removal of debris and site clearance verification that are less destructive than dredging, such as divers or ROVs.
- Conduct high-resolution seafloor mapping and visual surveys of the potential area of impact (including the 'drift zone' of various debris materials) to identify important habitats such as biogenic habitats, or areas where fish species congregate, to inform decommissioning activities (e.g., debris removal activities).
- Detailed maps of individual platforms that delineate expected disturbance to EFH and other sensitive benthic habitats from decommissioning activities. Project-level assessments of disturbance from decommissioning activities to EFH for each of the alternatives should consider appropriate buffers based on local currents and other environmental considerations.
- Implementation of setbacks from HAPCs and other sensitive benthic habitats for all decommissioning activities (e.g., anchoring/mooring of vessels, dredging during site cleanup, etc.).
- Pre- and post-decommissioning monitoring of benthic habitat to assess whether the proposed setbacks from HAPCs and other sensitive benthic habitats are sufficient to avoid impacts.
- An updated analysis that describes and quantifies the impacts to EFH and other sensitive benthic habitats that includes discharge from conductor cutting, discharge from cleaning marine growth off platform structures, the potential for oil and hazardous material spills (as discussed below), and increased vessel traffic. The analysis should evaluate and quantify the potential impacts to EFH sequentially as decommissioning activities would proceed and compare impacts to EFH across alternatives more explicitly. The EFH analysis should include impacts to Pacific Salmon EFH.
- A more thorough analysis of water quality issues and the potential for smothering benthic organisms from the discharges of abrasive fluids, including an analysis of alternative methods for discharging abrasive fluids to ameliorate such impacts.
- An initial in-situ analyses at a test site to assess the effects of rapid accumulation of abrasive grains from cutting in combination with removal of marine growth on benthic habitat and species, and whether an alternate strategy that disperses material over a longer duration is less impactful (i.e., reduces risk of smothering and hypoxic conditions).
- Expand Table 2-2 to include the estimated number of in-water workdays and amount of abrasive material discharged from cutting conductors and jackets for each platform and compare impacts across alternatives.

Impacts to Marine Species

Impacts of platform decommissioning on local or regional fish populations should be analyzed for each platform, as fish species and densities vary across platforms due to differences in platform depth, distance to shore, proximity to other habitats (other platforms, reefs), size/structure, and local environmental conditions (Bull and Love 2019, Claisse et al. 2015). O&G platforms off southern California are suggested to support the highest secondary fish production per unit area of seafloor, primarily due to recruitment and subsequent growth of rockfish (Claisse et al. 2014). The Draft PEIS suggests that impacts to marine fish will be "negligible" or "localized moderate" for Alternatives 1 and 2. However, it is expected that impacts will vary across species and platforms. The Draft PEIS asserts that Alternative 3 will result in a positive impact by creation of new hard bottom habitat without discussing relevant factors, such as the location and depth where placement would occur, potential recruitment of fish to that location, and the potential displacement of fish from adjacent reefs and habitats. Additionally, the Draft PEIS does not analyze potential impacts to marine species and habitats from the leaching of toxic chemicals, heavy metals, and hydrocarbon compounds from debris that is left in and around these structures under Alternatives 2 and 3.

Appendix B notes that invertebrate communities are not well described on platforms Hidalgo, Harvest, and Hermosa, but that distinct invertebrate communities occur at nearby platforms where video surveys confirmed structure-forming corals and sponges. As discussed in Appendix B, video surveys are more effective for mapping and identifying the extent of shell debris and habitat-forming species associated with the debris than remote sensing surveys.

Most of the decommissioning activities identified in the previous section (Impacts to EFH and Benthic Habitats) are also applicable to marine species. The Council **recommends** the PEIS include or require the analyses and mitigation measures below to avoid and/or minimize impacts to marine species during decommissioning activities:

- Analysis of the effects of the decommissioning activities noted throughout this letter on marine fish and invertebrate species inhabiting the platform structures and in the vicinity of the structures. The analysis should quantify species displacement for both partial and full removal. The analysis should consider how fish productivity on platforms is influenced by platform attributes (depth, distance from shore, proximity to other platforms or natural reefs, etc.).
- Pre- and post-decommissioning monitoring using detailed visual surveys of platforms and associated shell mounds should be required to characterize and quantify the invertebrate and fish communities, and to accurately assess the impacts of full and partial removal on biogenic habitat.
- Species-specific work windows to minimize impacts to species from construction activities (e.g., discharge, noise, sedimentation).
- Measures to minimize in-water construction and maximize onshore dismantling to reduce construction impacts (e.g., noise, sedimentation) to marine species.

Shell Mounds and Contaminated Sediment

Proposed methods for shell mound removal include dredging, trawling, and excavating. Shell mound characteristics for 16 of the platforms are summarized in Table 3.5.3. Again, the Draft PEIS

conflates "trawling" with "dredging" as it would be unlikely for conventional fisheries trawls to be effective at removing shell mounds. Of the platforms analyzed, shell mound height ranges from <0.6-6.7 m and volume ranges from <382 to 9,557 m^3. The distribution of chemical constituents and risk of contamination from shell mounds is expected to vary across platforms. Contaminants of particular concern include polychlorinated biphenyls, various heavy metals, and polycyclic aromatic hydrocarbons. The Draft PEIS states that comprehensive characterization (including vibracore and grab sampling) will be completed prior to excavation but does not describe which platform shell mounds may contain higher contamination levels, or the methods likely to be used to analyze contamination levels prior to shell mound excavation. Furthermore, the proposed decommissioning analyses of environmental hazards done at the time of platform installation predates the Clean Water Act (CWA). Those analyses should be redone with CWA standards in mind.

The Draft PEIS discusses "bottom trawling" as a method for cleaning decommissioning debris from the seafloor but does not describe the method intended (which is more likely to be dredging), the area proposed (distance around the platform, power cables, and pipelines that will be trawled), nor include an environmental analysis of the potential release of contaminants from suspended sediment that could occur if bottom trawl (or dredge) equipment is used for cleaning up decommissioning debris from the seafloor. The Draft PEIS also does not provide sufficient mitigation measures to avoid or minimize the release of contamination from shell mounds or surrounding sediments. The Draft PEIS only mentions potentially capping in place if dredging of shell mounds would produce unacceptable impacts from the release of toxic materials. However, the Draft PEIS does not define "unacceptable impacts" nor the methods that would be implemented to cap in place.

The Council **recommends** the PEIS include or require the analyses and mitigation measures below to avoid and/or minimize impacts from contaminated shell mounds and surrounding sediments during decommissioning activities:

- Site-specific analyses should be required to understand the depth, volume, and concentrations of contamination of shell mounds at each platform. The analyses should consider the potential spread of contamination based on local currents and other environmental conditions. The PEIS should describe the sampling protocol that will be utilized for sampling contamination within the shell mounds and surrounding sediments, including the depths of samples, number of samples, reference areas, and thresholds of significance for contaminants.
- Site-specific biological surveys of shell mounds and surrounding sediments should be required to quantify the potential impact to benthic species from shell mound excavation, dredging, and release of contaminants. The biological community utilizing the shell mounds and surrounding sediments should be considered in determining the least impactful removal and site-clearing methods. Additionally, the PEIS should include details on how impacts to water quality will be analyzed and monitored during shell mound excavation and site clearing (e.g., dredging, excavating).
- Describe measures to avoid, minimize, mitigate, or otherwise offset the release of contamination during shell mound excavation and site clearing.

Oil Spills and Hazardous Materials
The Draft PEIS states that spillage of lubricating oils, hydraulic fluids, waste oils, or other contaminants from vessels or platforms could result in a minor impact on the marine environment due to the small volume of such spills, the onsite oil spill response capability, and other spill response resources in the immediate area. However, the risk factor and impact potential of spills will vary across platforms. The PEIS should evaluate a worst-case spill scenario and estimate the volume for each decommissioning alternative and describe/quantify the effects on the local environment.

The Council **recommends** the PEIS include or require the analyses and mitigation measures below to avoid and/or minimize impacts from oil spills and other hazardous materials during decommissioning activities:

- Worst-case scenario analysis (with estimated volumes) of oil and other hazardous material spills, the potential adverse effects on species, habitats, and fisheries in the event of a spill, and the spill prevention and response measures that will be taken to effectively mitigate potential impacts of each proposed alternative. Sources of accidental spills or discharges that should be evaluated in the PEIS include construction vessels and/or from materials released during disassembly of the platform deck as well as machinery and storage tanks that contained oil and other hazardous materials.
- Since some platforms are at greater risk of oil and other hazardous material spills during decommissioning, site-specific measures should be described to minimize those risks.

Spread of Aquatic Invasive Species
The platform biofouling community would be removed and deposited on the seafloor, potentially causing spread or proliferation of invasive species that have colonized the rigs. Surveys of invasive species inhabiting the platforms are incomplete; the Draft PEIS does not provide information on species of concern and how likely they are to establish, proliferate, or spread from decommissioning activities. There is no discussion within the Draft PEIS of the potential spread of invasive species to ports, harbors, or other habitats following removal, transportation, and disposal of platform structures.

Of particular concern are invasive species of bryozoan (*Watersipora* sp.*)*. Studies suggest that adjusting the timing of maintenance cleaning can help manage the establishment of invasive *Watersipora* on offshore oil platforms. For example, maintenance cleaning can be timed to occur shortly after the *Watersipora* peak reproductive period in late summer/fall to remove newly settled *Watersipora* recruits and allow native species to colonize (Page et al. 2019).

The Council **recommends** the PEIS include or require the analyses and mitigation measures below to avoid and/or minimize the spread of aquatic invasive species during decommissioning activities:

- Require site-specific surveys of the biofouling community, including surveys of invasive species and the depths at which they occur.
- Include measures that will ensure all invasive species are removed from structures prior to transportation and that invasive species are disposed of appropriately to prevent spreading to new areas.

- Include mitigation measures to minimize the establishment of invasive species on platforms disposed of in the marine environment.
- Monitoring of structures disposed of in the marine environment (Alternative 2 and 3) to manage the potential spread of invasive species.

Impacts to Harbors, Ports, and Bays from Decommissioning
Under Alternative 1, approximately 431,000 tons of material from the 23 platforms would be disposed of on land. It is assumed that all topside and jacket infrastructure pieces weighing less than 50 tons would be taken to the Port of Los Angeles for transport to onshore processing facilities and pieces greater than 50 tons would be barged through the Panama Canal to handling facilities in the Gulf of Mexico. The PEIS does not adequately analyze potential impacts to harbors, ports, or other areas where decommissioning materials will be disposed of.

The Council **recommends** the PEIS include the analyses and mitigation measures below to avoid and/or minimize the impacts to harbors, ports, and bays during decommissioning activities:

- Analysis of potential impacts to harbors, ports, bays, or other areas from on land disposal including impacts to water quality and potential spread of invasive species.
- Describe mitigation measures to avoid, minimize, mitigate, or otherwise offset these impacts.

Fishing and Fisheries Impacts
The Council is concerned with impacts to recreational and commercial fisheries from decommissioning activities, including impacts associated with sedimentation, water quality, increased vessel traffic, and accidental oil spills. The Council is also concerned with temporary and permanent impacts to fisheries from exclusionary zones around the platforms and pipelines.

The gear types included in the Commercial Fisheries section (3.10.1) are incomplete (pg. 3-65, see recommendations below). Additionally, the total annual reported landing weights and landing values for commercial fisheries in Santa Barbara and Los Angeles areas (Table 3.10-1; years 2015-2019) and the reported estimated landing weights and revenues by species (Table 3.10-2; years 2017-2021) are primarily from a time period when the directed Pacific Sardine fishery was closed. When open, the Pacific Sardine fishery accounts for significant landings and revenues to the Santa Barbara (SB) and Los Angeles (LA) port complexes, as shown in Table 1 below.

Table 1: CPS landings and revenues in selected ports (preliminary values). *Source: California Department of Fish & Wildlife landings reports*

Pacific Sardine	SB – Weights (lbs)	SB – Ex-vessel revenues	LA – Weights (lbs)	LA – Ex-vessel revenues
2010	3,359,908	$116,744	61,307,461	$3,603,578
2011	88,930	$16,268	38,777,246	$3,373,003
2012	2,121,258	$232,371	39,117,092	$3,086,479

2013	488,407	$47,613	13,285,938	$1,288,931
2014	211,861	$24,059	3,152,561	$303,582
2015	227,037	$18,960	1,898,733	$187,053
2016	89,334	$4,316	321,561	$27,171

*Note that this table includes research landings but does not include sardines harvested for live bait purposes, which supports a thriving recreational fishery in the Southern California Bight.

The Draft PEIS describes the California halibut fishery as one of the most important commercial fisheries that may be affected by decommissioning. Depending on the decommissioning alternative, other important commercial fisheries may be affected as well. For example, complete removal could open previously closed areas to new gear types, such as the California market squid purse seine fishery. Alternatively, if platforms are left as artificial reefs, those structures could elevate the risk of interaction with certain gear types.

The Council **recommends** the PEIS include or require the analyses and mitigation measures below to avoid and/or minimize impacts to fishing and fisheries during decommissioning activities:

- Define exclusionary zones around platforms and pipelines (including time windows) and analysis of impacts to fishing vessels.
- Analysis of impacts to harvestable species (e.g., reduced biomass) from sedimentation of nearby reefs caused by decommissioning activities.
- Analysis of impacts to coastal pelagic fisheries from temporary water quality impacts.
- Reduction in fish productivity following full or partial removal, including young of the year rockfish recruitment.
- The following gear types should be included in the Commercial Fisheries section (3.10.1): “purse seine” to catch tuna, “pole-and-line” to catch tuna and rockfish, and state managed “gill net fisheries (set and drift)” for California halibut, yellowtail, and white seabass, as well as federally managed gill net fisheries for sharks and swordfish.
- Expand the timeframe in the reported landing weights and landing values for commercial fisheries in Santa Barbara and Los Angeles reporting areas (Tables 3.10-1 and 3.10-2) to include additional years (e.g., 2010-present) when the Pacific Sardine fishery was open.
- Analysis of all potentially impacted commercial fisheries under section 3.10.1 (rather than just focusing on California halibut).
- Mitigation measures to reduce potential hazards to active fishing vessels from increased vessel traffic in routes from staging areas to platforms.

Other Impacts

The impacts on air and water quality, above water noise (Appendix D deals only with underwater acoustic impacts) and energy consumption (carbon footprint) from the number and frequency of vessel transits during the decommissioning (individually and cumulatively) should be discussed and ways to decrease this footprint should be analyzed. The Draft PEIS should analyze the speed

and transit routes to and from ports and include measures to reduce collision risk with endangered marine mammals and sea turtles.

Long-term Management and Monitoring
The PEIS should specify which platforms will be prioritized for removal, how many platforms might be removed simultaneously, and specify how platforms will be monitored and managed in the future (under Alternatives 2 and 3). For Alternatives 2 and 3, the Council recommends long-term monitoring of platforms to assess impacts and changes to species assemblages, benthic habitat, and water quality.

Cumulative Impacts of Decommissioning and Other Ocean Activities
The PEIS should evaluate the cumulative impacts of successive and overlapping actions to remove all platforms in addition to other ongoing and foreseeable activities in the Project area. For example, conductor removal and discharge of iron silicate abrasive that is being evaluated on a site-specific basis should be included in the cumulative impacts section.

Future Engagement and Consultation with the Council
The Council values timely and effective communication and consultation regarding decommissioning activities. We encourage BSEE and BOEM to work with us as these projects move forward, recognizing that the Council and advisory body agendas are set well in advance of each Council meeting, and that the Council's meeting schedule does not always align with public comment periods of other Federal agencies' public processes. The Council, National Marine Fisheries Service, state fishery management agencies, and fishery stakeholders must be informed and engaged in this process. We ask that you take this into account when setting public comment periods in the future, and we appreciate the extension of the comment period for this notice. We recommend that mapping and other data collected during the development of NEPA analysis and during any decommission processes be provided to the public in a timely and accessible manner. Thank you for your consideration of our comments, and feel free to contact us should issues arise outside your public comment window.

Sincerely,

Marc Gorelnik
Council Chair

CHF:ael

Cc: Council Members
Corianna Flannery
Correigh Greene
Scott Heppell
Mike Conroy
Susan Chambers

References

Bull, A.S. and Love, M.S., 2019. Worldwide oil and gas platform decommissioning: a review of practices and reefing options. *Ocean & coastal management*, *168*, pp.274-306.

Christensen, P.B., Glud, R.N., Dalsgaard, T. and Gillespie, P., 2003. Impacts of longline mussel farming on oxygen and nitrogen dynamics and biological communities of coastal sediments. *Aquaculture*, *218*(1-4), pp.567-588.

Claisse, J.T., Pondella, D.J., Love, M., Zahn, L.A., Williams, C.M., Williams, J.P. and Bull, A.S., 2014. Oil platforms off California are among the most productive marine fish habitats globally. *Proceedings of the National Academy of Sciences*, *111*(43), pp.15462-15467.

Claisse, J.T., Pondella, D.J., Love, M., Zahn, L.A., Williams, C.M. and Bull, A.S., 2015. Impacts from partial removal of decommissioned oil and gas platforms on fish biomass and production on the remaining platform structure and surrounding shell mounds. *PloS one*, *10*(9), p.e0135812.

Grant, J., Hatcher, A., Scott, D.B., Pocklington, P., Schafer, C.T. and Winters, G.V., 1995. A multidisciplinary approach to evaluating impacts of shellfish aquaculture on benthic communities. *Estuaries*, *18*(1), pp.124-144.

Gillett, D.J., Gilbane, L. and Schiff, K.C., 2020. Benthic habitat condition of the continental shelf surrounding oil and gas platforms in the Santa Barbara Channel, Southern California. *Marine Pollution Bulletin*, *160*, p.111662.

MMS (Minerals Management Service), 1991. California OCS phase II monitoring program, Final Report, MMS 91-0083, U.S. Department of the Interior, Pacific Outer Continental Shelf Region, Camarillo, CA. 29 30

MMS, 2001. Delineation Drilling Activities in Federal Waters Offshore Santa Barbara County, California Draft Environmental Impact Statement, MMS 2001-046, U.S. Department of the Interior, Pacific Outer Continental Shelf Region.

Newell, R.I., 2004. Ecosystem influences of natural and cultivated populations of suspension-feeding bivalve molluscs: a review. *Journal of Shellfish research*, *23*(1), pp.51-62.

Page, H.M., Dugan, J., Miller, R., Simons, R. and Viola, S., 2019. Understanding the role of offshore structures in managing potential Watersipora invasions. *Camarillo, CA: US Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM*, *1*, p.102.

PFMC , 2022. Pacific Coast Groundfish Fishery Management Plan. Pacific Fishery Management Council, 2022.

Rabouille, C., Lansard, B., Owings, S.M., Rabalais, N.N., Bombled, B., Metzger, E., Richirt, J., Eitel, E.M., Boever, A.D., Beckler, J.S. and Taillefert, M., 2021. Early Diagenesis in the Hypoxic and Acidified Zone of the Northern Gulf of Mexico: Is Organic Matter Recycling in Sediments Disconnected From the Water Column? *Frontiers in Marine Science*, *8*, p.604330.

Skoog, A., Lara, R. and Kattner, G., 2001. Spring–summer cycling of DOC, DON and inorganic N in a highly seasonal system encompassing the Northeast Water Polynya, 1993. *Deep Sea Research Part I: Oceanographic Research Papers*, *48*(12), pp.2613-2629.