New England Fishery Management Council
50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116
E.F. "Terry" Stockwell III, *Chairman* | Thomas A. Nies, *Executive Director*

DRAFT MEETING SUMMARY

Habitat Committee

Hilton Garden Inn, Boston, MA
April 14, 2017

The Habitat Committee met to identify preferred alternatives for the Deep-Sea Coral Amendment. The Committee also received updates on other habitat-related issues.

MEETING ATTENDANCE

Committee: John Quinn (chair), Doug Grout (vice chair), Terry Alexander, Vincent Balzano, David Borden, Lou Chiarella, Peter deFur, Warren Elliot, Elizabeth Etrie, Mark Gibson, Mathew McKenzie, Eric Reid, Terry Stockwell

Others: Michelle Bachman and Rachel Feeney (NEFMC staff), Mitch MacDonald, David Stevenson, and Travis Ford (GARFO), Peter Auster (Habitat PDT), Chris McGuire (Habitat AP)

Approximately 10 members of the public attended.

KEY OUTCOMES

- The Committee recommended preferred alternatives for the Deep-Sea Coral Amendment.
- The Committee recommended updated coral zone boundaries for analysis in various locations: Mt. Desert Rock, Jordan Basin, Lindenkohl Knoll, modified broad zone at 600m minimum depth. These are recommended in addition to existing zones.
- The Committee discussed but did not reach a firm conclusion on whether to continue development of and seek public comment on alternatives overlapping the Northeast Canyons and Seamounts Marine National Monument.

BRIEFINGS/UPDATES OF GENERAL INTEREST

Omnibus Habitat Amendment 2: Regulations have been deemed, awaiting publication of amendment and proposed rule (former could be in early June). This would mean a record of decision in early September, prior to Council meeting. Affects timeline for trailing actions (i.e. Clam Framework).

Offshore wind updates: Noted unsolicited lease requests offshore New York.

The Committee flagged an Atlantic transmission cable project as something to follow. Few details available at present.

EFH designation updates, Mid-Atlantic: Ms. Bachman attended a workshop/FMAT meeting to consider approaches for revision Mid-Atlantic EFH designations. Many promising approaches. This work should be relevant to NEFMC over the next few years, many similar challenges and data sources between the two Councils.

Seagrass/saltmarsh habitat production models: Ms. Bachman and Mr. Chiarella attended a workshop in Savannah, GA hosted by NOAA and The Nature Conservancy to review production models for seagrass and saltmarsh habitats. These models will help those interested in habitat conservation (Councils, many others) to articulate the benefits of these habitats for managed and unmanaged (forage and other) species. Outputs are regionally- and species-specific production (kg) in either seagrass or saltmarsh above and beyond an adjacent un-vegetated habitat, for young (< ~1yr old) fishes and crustaceans. Could use these values combined with assumptions about mortality and growth beyond the young juvenile stage to estimate benefits to the fishery. Similar tools are presently available for oyster reefs. These new models should be rolled out next year.

Northeast Ocean Data Portal is hosting our draft coral zones. Should be helpful for people who want to visualize these areas over a chart, fishing effort data, and/or coral model outputs. Any thoughts about the presentation/format, pass along to Ms. Bachman and she will forward to portal team.

DEEP-SEA CORAL AMENDMENT

Ms. Bachman reviewed the workshop report. The Committee discussed the workshop at some length. Dr. Quinn emphasized the differences with the Mid-Atlantic workshop. In large part this relates to the consideration of lobster trap gear as part of the New England amendment. MAFMC did not consider restricting this gear type. Various Committee members agreed that the feedback provided during the workshops was informative and that they were grateful to participants for being involved.

Ms. Bachman pointed out the difference between degrees slope and percent grade.

She also noted that the three gears that are used in the offshore Gulf of Maine areas are trawls, lobster pots, and gillnets. Later in the meeting it was noted that hagfish pots are also fished in these areas.

She noted that any updated boundaries from the prior Committee meeting or the workshops had not yet been analyzed in the amendment document. In the canyon/slope region, the 550m zone suggested by industry members at the New Bedford workshop is intermediate to the 500m and

600m boundaries, and likely has intermediate impacts. The Gulf of Maine boundary adjustments make the areas smaller and more focused around areas where corals have been documented. In cases where high resolution depth and slope information are available, the areas were drawn using these data as well. Overall these updates likely reduce negative impacts to the fishery. Fishermen in Portsmouth commented that the revenue numbers seemed low.

Dr. McKenzie asked if the coral zones are being developed, if the Council is obligated to adhere to National Standard 2. Mr. MacDonald replied that yes, all Council plans must use the best available science.

Dr. Quinn asked if anyone in the audience wished to comment about the workshops. Audience member Gib Brogan (Oceana), who is a member of the Habitat AP, attended the New Bedford workshop. One of the goals was to collect info on fishing activity that would inform your decision. Very little of that happened. Very few came forward with real info. Squinting and looking at chart. They moved very quickly on to developing alternatives on what they could live with, without information. A lot of negotiating amongst themselves. There were buffers suggested. We need information to support claims. New Bedford workshop failed in data collection, but it was good for outreach. Since you still don't have good information, you need to rely on VTR and VMS data. The information that came from the workshop is not science. There have been some claims that people want to submit data to staff. Until that happens, you have to rely on the PDT's info. The workshop was a frustrating process. We were criticized for not engaging, though the workshop wasn't designed for us.

Dr. Quinn pushed back that he had asked the ENGO community to engage more fully. Mr. Brogan responded that they didn't see it was productive to continually say "there's no data" throughout the day. Mr. Borden took exception to the comments. Both groundfish and lobster fishermen provided confidential information on where they fish. One person even sat down with staff. There were facts presented.

Ms. Bachman noted that it was difficult to combine various sources of feedback from industry members. She suggested that fishermen submit written comments to the Council, perhaps including plots of tows/sets. Mr. McGuire asked if such data could be brought into GIS, and Ms. Bachman responded that yes it could, but with considerable effort. Perhaps a side by side comparison of plotter data and PDT maps could be a middle ground.

Mr. Stockwell noted that perhaps the reluctance of fishermen to share any additional data was related to the monument process. Mr. Reid was frustrated with the opposition to accepting anecdotal information, while on the other hand we are using a model with inherent uncertainties. Dr. McKenzie responded that models are not anecdotal.

Mr. Grout felt that the fishermen's comments in Portsmouth comported fairly well with the VTR-based maps. Dr. deFur asked where the PDT's analyses were consistent with or very different from industry comments. Ms. Bachman noted that they were generally consistent, but

that the data the PDT are working with to describe fishing activity are spatially imprecise, in many cases.

The Committee discussed the relationship between different zones and gear exemption options. For example, how does the MAFMC approach of 450m zone that allows lobster traps compared to a deeper zone where lobster traps are prohibited? Ms. Bachman commented that this comparison hasn't been made directly.

Next, Ms. Bachman gave an update on the development of the coral amendment document, reviewed PDT recommendations regarding boundaries for the Gulf of Maine coral zones (all except Outer Schoodic Ridge), and noted coral-related research priorities developed by the PDT.

Dr. deFur asked if NOAA office of law enforcement had given input on the modified Gulf of Maine zones. Ms. Bachman responded that the most recent updates had not been discussed with enforcement, but that earlier sets of boundaries had been. Depth contour-based approaches were clearly not possible, but boundaries based on straight lines between specific coordinates were generally acceptable. Mr. Reid suggested that any straight line boundaries can be plotted, but that the real question is whether the Coast Guard has the ability to truly enforce anything that far offshore, given limited equipment and personnel. He noted that the position of the vessel, not the gear, is what's being enforced, and Mr. Alexander agreed.

Ryan Laherty, a Stoningtom ME lobstermen, commented that vessels fish around coral habitats in the inshore Gulf of Maine on very fine scales. Vertical lines are 600 feet. They are required to fish 15 trap trawls outside 12 miles. In the Mt. Desert Rock area, they can fish 5-15 trap trawls. I fish the MDR area extensively with 49% of my traps. They avoid deep water edges, and very steep areas. We have caught corals in the areas, but at $3,000 per trawl, we avoid the areas of coral as much as possible. We want to protect our bottom to save our fishery.

Next, the Committee discussed preferred alternatives for the amendment. Dr. Quinn noted that the Committee could recommend that alternatives be added for analysis, removed from consideration, or identified as preferred. He reminded the group that final action was planned for June. Mr. Stockwell asked how additional alternatives would be incorporated. Ms. Bachman commented that the PDT will have a few weeks between the Council meeting and when public hearings would likely begin to make updates.

Mr. Borden asked if there was any additional legal advice on exempting lobster gear. He commented that his understanding was that permit holders had to be treated similarly in across different locations, and suggested that depending on the approach adopted in New England, there could be inconsistent management in the Mid-Atlantic and New England portions of the canyon/slope region.

Dr. Quinn commented that NOAA's advice on interpreting the discretionary authority has evolved over time to include the authority to regulate Commission managed fisheries, including

lobster. Mr. MacDonald noted that while National Standard 4 required equitability, it needs to be justified. If there are different conservation concerns in one area vs. another, or economic differences, two Councils could justifiably make different choices.

Ms. Bachman put some general questions before the Committee. These were not provided to the Committee in advance of the meeting, but have been raised throughout the process, and are embedded in the management alternatives. The questions included:

- What are the Committee's preferences in terms of exemptions for red crab or other trap fisheries? Does the answer to this question vary between the continental margin and the Gulf of Maine?
- Is the intent to freeze the footprint of fishing? What does freezing the footprint mean?
- Along the continental margin, is the Committee open to combining broad and discrete zones, with different measures in each?
- Is there a desire to designate coral management zones within the Marine National Monument?
- Should discrete zones be recommended in groups? Are the groupings laid out in the document useful for this purpose?
- Is there a desire to consider special access programs or exploratory fishing programs at this time? If no, should development of these programs be frameworkable?
- Is there a desire to track research activities via LOAs?
- What issues should be frameworkable in the context of deep-sea coral management?

Mr. Chiarella commented that the NOAA policy is to freeze the footprint. But what is the footprint and how do we freeze it? I'd like to see as shallow as possible, but have exemptions for traps. He clarified that he was concerned about having a relatively deep boundary that is the footprint of all gears combined, if it would allow some gears to expand their footprint in the future.

Mr. Alexander asked how deep the trawl fishery goes on the edge of the shelf. Mr. Reid responded 325fa (600m) monkfish; 200-210fa (400m) red shrimp. At the workshops, the trawl fishery commented it could work with 500m; deeper than this there are gear conflicts.

The Committee discussed the monument. Some felt it was important to put Council approaches forward, but others felt that it was confusing to propose measures for an area that is already closed. If anything changes in the future, for example if the boundary of the monument is adjusted, the Council can reevaluate the need for coral measures at that time.

By consensus, the Committee agreed that special access and exploratory fishing programs should be frameworkable.

Next the Committee discussed preferred alternatives.

Motion 1

Stockwell/Alexander: Recommend that the Council adopt sections 4.2.2.3.1 and 4.2.2.3.2 (Mt. Desert Rock and Outer Schoodic Ridge) and section 4.3, option 2 (prohibit MBTG only) as preferred alternatives.

Mr. Stockwell clarified that this motion applied to the original boundaries as analyzed in the amendment document to date.

Motion 1 carried 10/0/2

Rationale – would establish coral protections, but exempts lobster similar to the outcome in the Mid-Atlantic, and the right thing to do. I intend to bring supplemental data for the full Council meeting.

Patrick Shepherd (Maine Center for Coastal Fisheries) – in favor. We estimate 50 lobstermen fish in MDR and 60 in OSR area. Impact to 1,000 people. They stay away from corals and they actively avoid them. Economic impact of excluding the lobster fishery would be substantial. A lot of activity in fall and winter comes from there.

Lobstermen Ryan Laherty, from Stonington, ME, commented in support of the motion. He noted that to miss a day of fishing to attend the meeting was costly; ~$10,000 ex-vessel.

Patrice McCarron – I can't overstate how dependent Downeast Maine is on the lobster fishery. These coral zones have put the fear of God in these fishermen. We've heard from 15 ports, 50-60 guys per zone. November-March is important, but we've heard from people who depend year round. We've been begging lobstermen to say how they fish the areas. The areas are steep. Whale rules require sinking rope, so they would lose the gear if it got tied up in coral. Shifting effort into whale areas would be devastating if whales got caught in gear.

Ms. Bachman asked if we know what gear densities are typical in the areas. Mr. Stockwell stated data should be forthcoming.

Mr. Chiarella asked why option 2 (exclude MBTG) is preferable to option 1 with sub-options A and B (trap exemptions). Mr. Stockwell emphasized the intent is to freeze the footprint. There is a pilot longline fishery in the area.

Motion 2

Stockwell/Alexander: Recommend that the Council analyze the new PDT boundary for Mt. Desert Rock.

Intent is that the area proposed via the 2/24/17 committee would not move forward. See Map 1.

Motion 2 carried 12/0/0.

Motion 3

Alexander/Balzano: Recommend that the Council move to considered but rejected the original boundaries in Jordan Basin/Lindenkohl, and adopt for analysis the PDT boundaries in Jordan Basin/Lindenkohl.

Intent is that the areas proposed via the 2/24/17 Committee motion would not be further developed. Some of the areas in the 4/13/17 PDT memo remain as proposed by the Committee on 2/24/17. See Maps 2 and 3.

Audience member Greg Wells was opposed to removing the original boundaries –from the range of alternatives.

Mr. MacDonald asked about the rational for moving the original areas to considered but rejected. Mr. Alexander commented that the areas a huge and portions do not have corals. This approach minimizes economic impact. Mr. MacDonald stated that it was not essential to have three alternatives (i.e. no action and two sets of boundaries).

Ms. Bachman and Dr. Auster clarified for the PDT that locations outside the zone boundaries may have corals, and that larger areas would be more likely to encompass coral habitat, and would therefore be more precautionary. Ms. Bachman noted that the PDT struggled with how to define boundaries in the absence of high resolution seafloor terrain data. In the absence of data, it is useful to know what the patterns of fishing effort are. Dr. Auster suggested that perhaps setting an explicit buffer distance around the scientific dive sites where corals occurred would be a reasonable way to define the zone boundaries.

Ms. Etrie supported the motion. Mr. Alexander emphasized that in the GOM, freezing the footprint means taking no action. Boats are currently fishing these areas.

There was some discussion about the relationship between coral habitat and fishing effort on a fine scale. Dr. Auster emphasized that over time and with quality seafloor terrain data as a guide, we have a better understanding of how corals are distributed relative to seafloor features. We just don’t have detailed terrain data at all of the coral sites.

Audience member Gib Brogan commented that the NOAA strategy has two prongs, freezing the footprint, and preserving areas of known corals and prioritizing that for conservation. Areas of documented corals should be protected.

Dr. deFur commented that having more options during public comment is a good thing. Dr. McKenzie and Mr. Gibson agreed.

Motion to split:

Motion 3a

Grout/deFur: Recommend that the Council adopt for analysis the PDT boundaries (4/13/17 memo) in Jordan Basin/Lindenkohl.

Intent is that the areas proposed via the 2/24/17 Committee motion would not be further developed. Some of the areas in the PDT memo remain as proposed by the Committee on 2/24/17.

Motion 3a carried 11/0/1.

Motion 3b

Grout/deFur: Recommend that the Council move to considered but rejected the original boundaries in Jordan Basin/Lindenkohl.

Motion 3b failed 5/6/1.

Motion 4

Grout/Borden: For the areas in section 4.2.2.3 (offshore GOM), recommend that the Council adopt as a preferred alternative a prohibition on bottom-tending gear (option 1) with an exemption for trap fisheries (sub-option B).

Rationale – Trap fishery has been here for many years. There still seems to be coral there. Based on the workshop, they aren't fishing on the most structured habitat types.

Ms. Bachman clarified that option 1, sub-option B would prohibit gillnets and trawls.

Ms. Etrie was unable to support the motion, as it was not tied to specific areas, and because she was concerned about exempting one gear type while prohibiting others.

Ms. Bachman clarified in response to a question that hagfish/slime eel pots would be allowed under sub-option B.

A friendly amendment was offered to change the gear restriction measures:

Grout/Borden: For the areas in section 4.2.2.3 (offshore GOM), recommend that the Council adopt as a preferred alternative a prohibition on mobile bottom-tending gear (Option 2).

Motion 4 as amended carried 8/1/3.

Dr. deFur asked about red crab in the GOM. The preferred alternative approved in motion 4 would not restrict red crab as it applies to mobile gear only. While red crab are caught incidentally in the GOM, there is no directed fishery.

The Committee discussed what was implied by Motion 4 – did it suggest that an action alternative was being recommended? Or was the intent that Option 2 would be the gear restriction only if offshore GOM areas were designated?

Given this confusion, Mr. Alexander (seconded by Mr. Balzano) moved to reconsider Motion 4. The motion to reconsider carried 6/5/1.

As part of the reconsideration, Mr. Alexander made a motion to amend:

Alexander/Balzano: If coral zones are adopted in section 4.2.2.3 (offshore GOM), recommend that the Council adopt as a preferred alternative a prohibition on mobile bottom-tending gear (Option 2).

Motion to amend failed 4/5/3.

Original motion for revote:

For the areas in section 4.2.2.3 (offshore GOM), recommend that the Council adopt as a preferred alternative a prohibition on mobile bottom-tending gear (Option 2).

The original motion as modified by friendly amendment carried 7/3/2.

Dr. McKenzie suggested that the Committee not identify a preferred alternative for the offshore GOM.

Motion 5

McKenzie/no second: The Committee recommends that the Council not identify a preferred alternative in section 4.2.2.3

The motion was withdrawn.

Motion 6

Reid/Borden: Recommend that the Council adopt as a preferred alternative a broad coral protection zone boundary of 600m minimum depth. The use of all bottom tending gear,

both commercial and recreational, will be prohibited seaward of the boundary. However, the use of pot gear for red crab, and pelagic and midwater gear, shall be exempt under this alternative.

This represents a modification of broad zone option 4 in section 4.2.1, and gear restriction option 1, sub-option A, in section 4.3.

Rationale – industry needs a buffer for vessel operations rather than gear placement. Trawl gear are constrained by gear conflicts and depth. Buffer is needed for end lines. Red crab is a small fishery and MSE certified. In 5 canyons we already have protections, and the monument.

Gib Brogan – oppose. Doesn't achieve the goals of the amendment. Not based of the data. Would expand the trawl fishery. Not consistent with the NOAA national strategy.

Greg Wells – oppose, for same reasons. Would leave out important areas for coral habitat.

Mr. Chiarella asked which option this was most similar to that had already been analyzed. This motion is most similar to section 4.2.1, option 4, 600 meters, but that option could go as shallow as 550m, and this would have a minimum depth of 600, so it is a bit deeper.

Mr. Elliot clarified that the MAFMC zone is approximately 450m, shallower in some canyon heads.

Dr. McKenzie spoke in opposition. There's a lot of space between the areas fished and that boundary. We can be tighter to the current footprint if we stick to a 500m boundary.

Mr. McGuire asked why the motion was recommending something different than the New Bedford workshop recommendation of 550m.

Mr. Borden indicated the 600m would freeze the footprint.

Mr. Elliot asked why section 4.2.1., option 4 (600m) was not acceptable. Wanted to avoid creating a new option. Mr. Reid emphasized that he felt the two approaches were different and wanted a 600m minimum depth.

Borden – There's a lot of discussion of 500m, it cuts off existing lobster grounds. By going to 600, you freeze the footprint.

Motion 6 carried 8/1/3.

Ms. Bachman clarified that since this was the only motion for the canyon/slope region, she was assuming that the discrete canyons and seamount zones were not recommended. Ms. Etrie asked if discrete zones could be carved out via a later action, and Ms. Bachman suggested that yes, they could.

Motion 7

Etrie/Reid: Recommend that the Council adopt alternatives 2, 3, and 4 in section 4.5 (frameworkable items). Clarify that alternative 4 would allow for development of special access programs and exploratory fishing programs.

Rationale – can adjust management program later as new information becomes available. Recognize that substantial changes might need and EIS or amendment.

Mr. MacDonald asked whether the amendment included some specific information about what special access and exploratory fishing programs would entail. Ms. Bachman responded that it does.

Motion 7 carried 11/0/1.

Motion 8

Etrie/Alexander: In section 4.4, recommend that the Council select alternative 4 (letter of acknowledgement for research activities) as preferred.

Rationale – It's an extra process, but proactively tracking would be good.

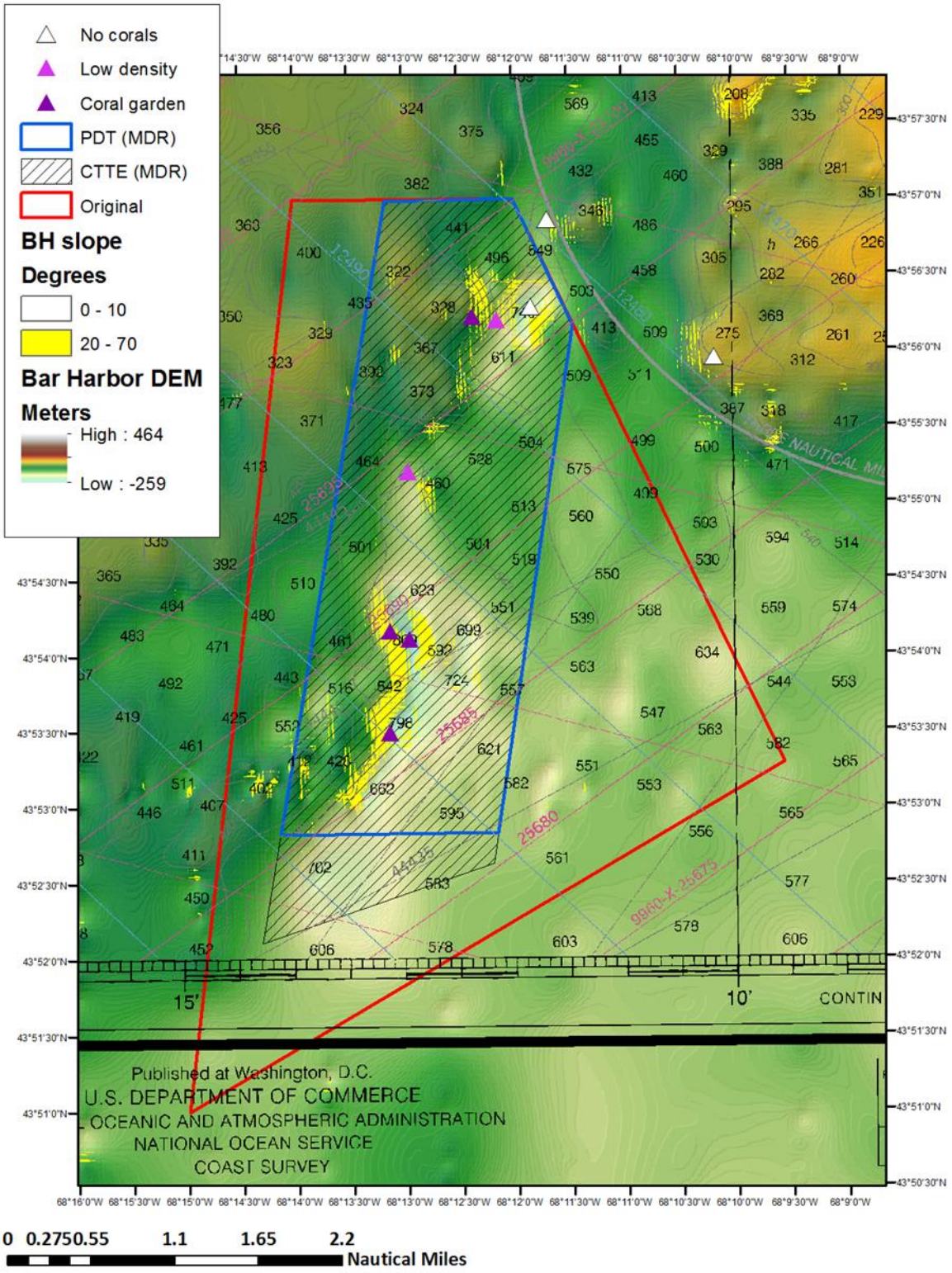
Motion 8 carried 11/0/1.

Regarding research priorities, Ms. Bachman commented that the basics of the list developed by the PDT are included already in the draft 5 year research priorities making their way through the Council. The additional details (see Appendix I) could be included in the coral amendment.

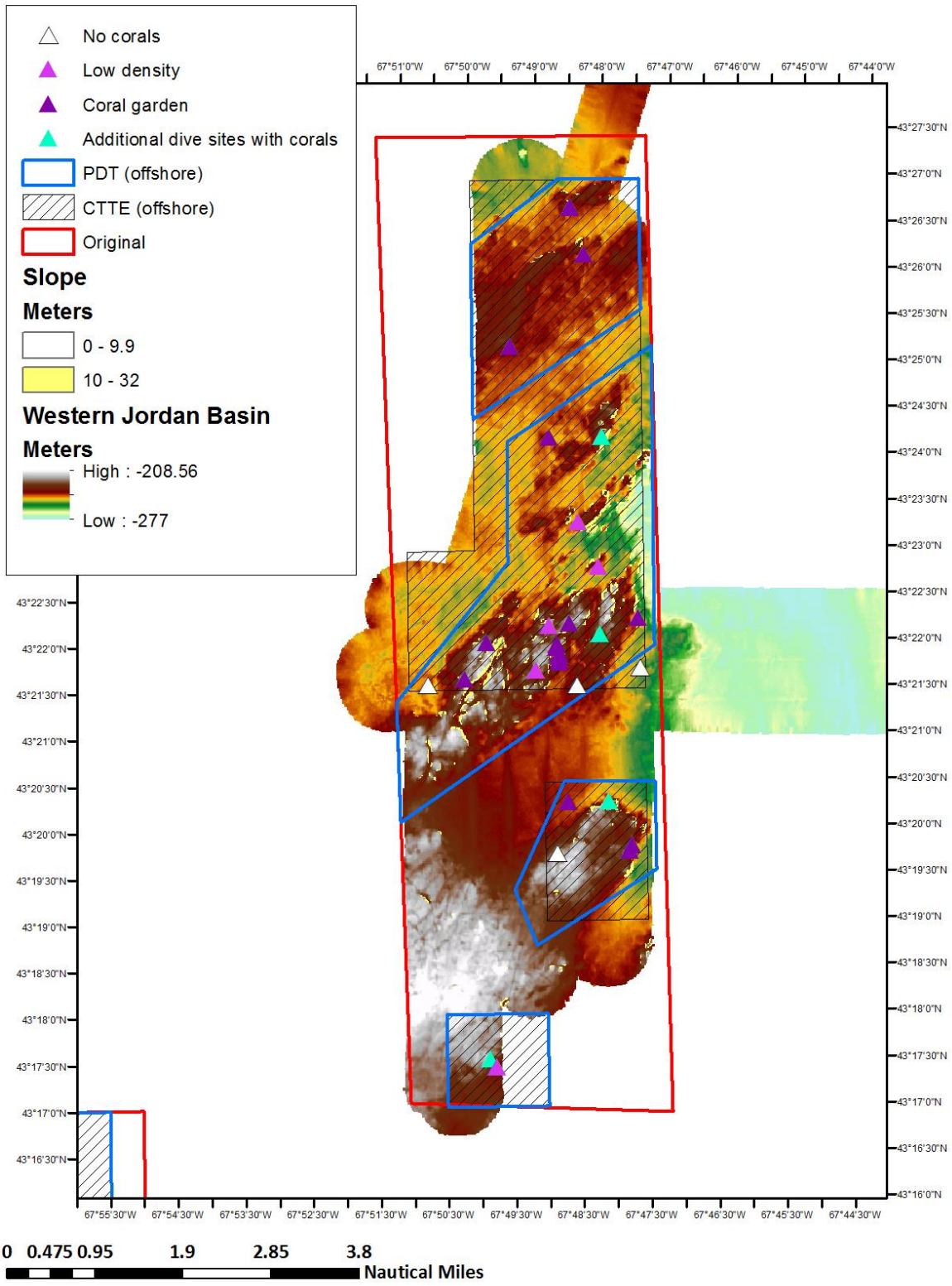
By consensus, the Committee recommend that the Council include the research priorities from the 4/13/17 PDT memo in the amendment.

The meeting adjourned at 2:00 p.m.

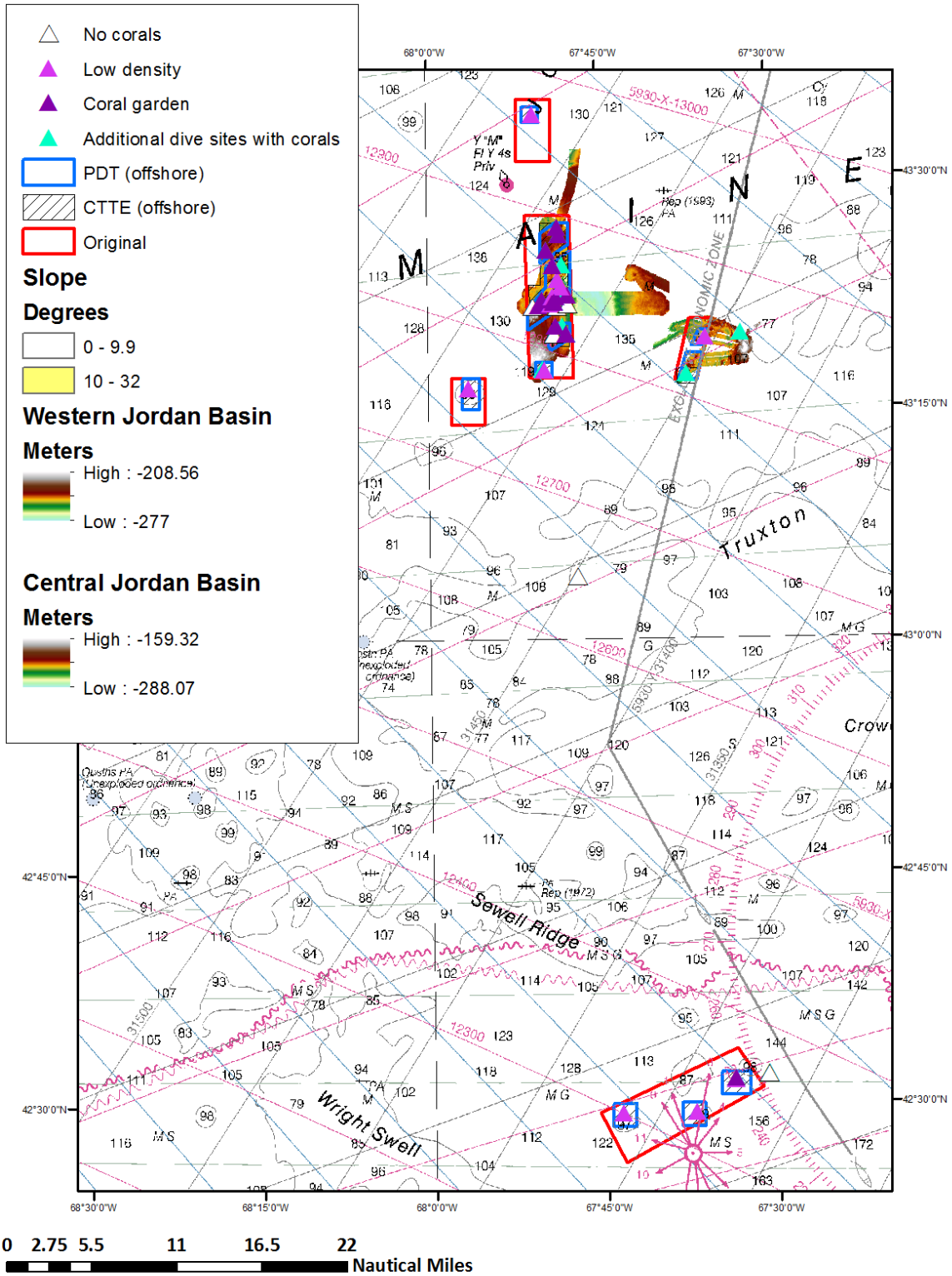
Map 1 – Mt. Desert Rock coral zone boundary approaches. Updated PDT recommendation outlined in blue.



Map 2 – 114 Fathom Bump site



Map 3 – Offshore GOM zones



Appendix I: PDT coral research priorities

Going forward after this amendment, any revisions to coral zones through a Council action will be supported by ongoing research. Continued efforts are needed to locate and characterize deep-sea corals and sponges. The PDT has developed the following list of research priorities related to deep-sea corals and recommends including it in the coral amendment.

Location and Characterization of Deep-Sea Corals and Sponges

1. Field work
    a. Habitat characterization: distribution and extent of coral habitats; coral presence/absence, abundance, density, associated megafauna
    b. Multibeam mapping
    c. Monitoring of water column properties: temperature, salinity, currents
2. Predictive modeling
3. Gap analysis and data mining

Additional intensive/extensive fieldwork. Multibeam sonar mapping, especially in the Gulf of Maine, is needed to better predict where corals communities could be located and the nature of seafloor substratum (based on backscatter and slope data). Deep-sea coral habitat characterization, high resolution digital terrain models, and associated oceanographic settings can be used to implement habitat suitability modelling and subsequently to ground-truth model predictions. Existing habitat suitability models for the Northeast region can be updated with additional coral records (dependent variable) as well as with improved predictor variable data sets. Such information can be used to refine spatial management alternatives. Gap analysis would help to guide future surveys and make efficient use of limited sea time.

Biology, Biodiversity and Ecology of Deep-Sea Corals and Sponges

1. Species identification (based on morphology and genetics)
2. Biological information important for management
    a. Age
    b. Growth rates
    c. Reproduction
    d. Dispersal/Recruitment/Connectivity
3. How do deep-sea corals contribute to productivity of managed species?

Continued efforts are needed to assess the functional role of deep-sea corals and sponges as habitat for managed species (e.g., shelter, flow refuge, feeding habitat) and associated prey. Variation of functional role in both space and time should be linked to seasonal and diel variation in use across life history stages of managed species and their prey. Information on reproduction, dispersal, recruitment and connectivity is needed to improve predictions of recovery potential. Further, information on genetic diversity is needed to assess management priorities in regards to the isolation of sub-populations of coral and sponge species.

Natural and Human Impacts on Deep-Sea Coral and Sponge Ecosystems

1. Understanding how human activities impact deep-sea corals
2. Estimating resiliency of coral communities to disturbance, and understanding recovery

Assess variation in both natural and human-caused disturbances to deep-sea coral and sponge communities and associated patterns of recovery. Disturbances can range from local-scale predation events to shifts in temperature and pH due to variation in oceanographic regimes. The details of direct human-caused disturbances from different types of fishing gears are needed to refine management measures. Information on recovery dynamics based on variation in patch size of disturbance is needed to link effects from different gear types and natural background disturbances.