

The Commonwealth of Massachusetts Division of Marine Fisheries

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MEMORANDUM

TO: Marine Fisheries Advisory Commission (MFAC)

FROM: Daniel J. McKiernan, Director

DATE: December 14, 2023

SUBJECT: State Waters Groundfish: Proposal to Decrease Spatial Extent of May Commercial

Groundfish Closure; Review of Recent Fishery Performance and Expectations for

FY24; and Considerations Regarding Future Management

This memorandum serves to: (1) provide the Marine Fisheries Advisory Commission (MFAC) with an overview of the state waters groundfish fishery in the Gulf of Maine (GOM) management area (i.e, all state waters north of 42° 00 north latitude and Cape Cod Bay); (2) describe the recent performance of this fishery relative to federally allocated state-waters sub-components; and (3) review a DMF public hearing proposal—based on a request from a commercial fisher—to amend the southern boundary of the May commercial groundfish closure so as to shrink it by five minutes latitude and have it occur from Nahant (42°25'N) to New Hampshire rather than Boston (42°20'N) to New Hampshire.

Background

Under the Magnuson Stevens Fishery Conservation and Management Act (MSA), states are authorized to regulate federally managed species—such as those within the northeast multispecies groundfish complex—within their jurisdictional waters provided state action does not undermine federal conservation and management programs (16 U.S.C. 1856). DMF accomplishes this through a series of input and output controls (e.g., trip limits, size limits, spatio-temporal closures, spawning protections) subject to MFAC approval. Additionally, overall fishing effort is constrained through a limited entry permitting scheme that limits the use of certain gears (e.g., trawls and gillnets) and the harvest of groundfish species by non-federal permit holders (State Waters Groundfish Endorsement or "GE")¹.

Under the federal Northeast Multispecies (Groundfish) Fishery Management Plan (FMP), NOAA Fisheries accounts for the portion of a stock's Total Annual Catch Limit² (ACL) caught in state waters by non-federal vessels by approving a State Waters Sub-Component³ ("sub-component"). These state waters sub-components cover expected catch for all New England states (i.e., not state-specific) and are based generally on the most recent three-year average of catch. The sub-components are neither allocations nor hard quotas with real-time monitoring. However, NOAA Fisheries and the New England states conduct

¹ Federal groundfish permit holders may fish within the waters under the jurisdiction of the Commonwealth under their federal permit and in compliance with all relevant state fishing regulations (e.g., trip limits, closures) and gear permitting requirements (e.g., must hold Coastal Access Permit to fish mobile gear or gillnet permit to fish gillnet gear).

² NOAA Fisheries describes the annual catch limit or ACL as "a level of catch intended to ensure overfishing does not occur. ACLs are set less than or equal to the overfishing limit and acceptable biological catch."

³Sub-components are implemented for those stocks with catch in state waters, offshore stocks like Georges Bank yellowtail flounder do not have a state waters sub-component.

annual year-end⁴ catch accounting to reconcile groundfish catch reporting and determine what catch is attributable to the state-waters-only fishery and the utilization against the sub-components. Payback of any overage is not required of the New England states should their aggregate catch of any stock exceed that stock's sub-component. In the event of a sub-component overage, there is no impact if the ACL is underutilized, but should an ACL be exceeded, then federal accountability measures are triggered potentially affecting federal permit holders and the recreational fishery⁵. Therefore, the expectation is that states will manage their state-waters-only fisheries in a conservative manner to ensure sub-components are not exceeded, particularly for certain highly utilized stocks given the potential for triggering accountability measures.

Massachusetts state waters groundfish fishery occurs primarily in the GOM management area; groundfish catch in the Southern New England Management Area (i.e, all state waters south of 42° 00 north latitude excluding Cape Cod Bay) by Massachusetts fishers is generally limited to a nominal harvest of winter flounder caught incidentally in the commercial trawl fisheries in Nantucket and Vineyard Sound. While these sub-components are for all the New England states, state-waters-only catch from other states is nominal. In the GOM, Massachusetts is the only state with a commercially viable inshore groundfish resource and a fleet of state-waters-only vessels to harvest them.

The management of the state waters groundfish fishery in Massachusetts is a complicated partnership. Massachusetts has long championed the closure of spring and winter cod spawning grounds in state and federal waters. Those closures continue to evolve and Massachusetts has adopted complementary measures for any federally driven changes. To support federal conservation and management objectives, DMF generally adopts trip limits that, along with spatio-temporal closures, constrain state waters catch. Additionally, we must manage the fishery to address conditions that are specific to Massachusetts state waters and our state waters fleet. The result is a highly complex regulatory environment.

The state waters only fishery involves a small number of participants and activity has waned in recent years. This reduced activity is likely the product of limited state-waters groundfish fishing opportunities, economics favoring other fishing activity (e.g., lobster, scallops), and the non-transferable status of the state gillnet endorsement. Much of the landings occur in the summer months and are driven primarily by the few remaining gillnet fishers (four were active in FY22, which is half those active in FY19) and a handful of trawlers. While there is some trawl fishing effort as well, many of the previously active trawlers have either stopped fishing or now fish under a federal groundfish permit. More recently, hook fishing activity has increased, but it still remains a small component of overall landings. Effort from the existing fleet is expected to continue to decline as permit holders retire out or pursue other state or federal fishing opportunities. Given this low level of activity, the activation of new fishing effort in this fishery can demonstrably impact landings and create situations whereby sub-components may be exceeded and this latent effort is a concern⁶.

Public Hearing Proposal

DMF intends to hold a public hearing this winter to propose a nominal reduction in the spatial footprint of the May commercial groundfish closure in Massachusetts Bay. At present, this commercial groundfish closure occurs from May 1 - May 31 within those state waters between the Massachusetts-New Hampshire maritime border and 42° 20' north latitude (Boston). The proposal would shrink the closure by moving the southern boundary northward to 42° 25' north latitude (Nahant). See Figure 1.

⁴ The federal fishing year runs from May 1 – April 30.

⁵ The commercial sector fishery is subject to pound-for-pound payback and the recreational fishery is subject to rule changes to constrain catch.

⁶ For example, the trawlers who have switched to primarily federal fishing still separately retain a state-only vessel and associated GE and can readily move back into the state waters fishery.

Rationale

In recent years, Chris Chadwick, a prominent North Shore state waters gillnet fisher has requested DMF move northward the southern boundary of the May commercial groundfish closure. His argument is that such an action would provide fishers with improved access to the sub-components for certain flatfish stocks, primarily GOM winter flounder, while also reducing seasonal steaming times and resulting overhead costs for North Shore fishers. Initially, Chadwick's request was for DMF to roll back the closure to 42° 30' north latitude (Marblehead). However, DMF denied this request given the poor status of the GOM cod resource and the presence of known spawning cod aggregations on Eagle Ridge (east of Marblehead). In 2023, Chadwick revised his request so that the closure would only be rolled up to 42° 25' north latitude (Nahant), thereby maintaining protections for the Eagle Ridge spawning aggregation. DMF received the request too late for it to be evaluated and implemented for May 2023, but informed Chadwick it would be considered for 2024. Based on this following evaluation, I support adopting Chadwick's request for this coming fishing year.

The likely negative impacts of this opening on the resource are negligible. As described above, catch and effort in the state waters fishery has been steadily declining—a trend that is likely to continue. Should this area be open, there are also a variety of other regulatory controls constraining fishing effort and protecting spawning fish (both during May and throughout the calendar year). These include mobile gear closures north of Cape Cod (Figure 2); broad and fine scale seasonal groundfish closures to protect spawning cod (Figures 3-8); a February 1 – May 31 winter flounder spawning closure that prohibits most commercial groundfish fishing nearshore (Figure 9), and a seasonal state-wide gillnet closure to protect right whales that is annually lifted between May 1 and May 15⁷. Catch and effort may be additionally limited by fishable bottom and the seasonal presence of target groundfish species. I strongly anticipate this proposed action will only provide a limited number of North Shore-based gillnetters and hook fishers with a small additional area to target flatfish closer to port during May (particularly the latter half when the gillnet closure to protect right whales is likely lifted). I do not anticipate new trawl fishing effort in this area given the limited availability of towable bottom seaward of the mobile gear closures. I am doubtful that this proposed change will expose existing springtime spawning cod aggregations to commercial fishing effort. While this area (i.e., state waters between 42° 20 and 42° 25' north latitude) may have historically hosted spring spawning cod aggregations—including as recently as the period of 2003 – 2007 when DMF conducted its first Industry Based Survey (IBS1) —the most recent Industry Based Surveys (IBS2) conducted from 2007 - 2019—did not observe spawning cod in this area. Moreover, the proposed closure will be maintained to the north protecting the spawning cod aggregation on Eagle Ridge, which were observed during both IBS1 and IBS2. Lastly, should this proposal be adopted, I do not expect our state waters landings will approach the state waters sub-component for any stock. As the current fishing year (FY23) remains ongoing, DMF must rely on FY22 catch data to inform decision making. In comparing the FY22 catch data to the FY24 and FY25 state waters sub-components for key GOM groundfish stocks (Table 1) 8, it is my estimation that there should be ample fish available to accommodate whatever additional landings may be realized because of this proposed change.

Expectations for State Waters Groundfish Fishery for FY24 and FY25

Sub-components are reviewed generally after an assessment and the GOM stocks of interest in state waters (e.g., cod, haddock, and certain flounders) are typically assessed in even years. Despite this (2023) being an odd year, the Council is reviewing GOM haddock limits given recent emergency actions and pending Science and Statistical Committee (SSC) advice to set annual catch limits for FY24. These and other sub-components subject to review were finalized as part of Framework 66 by the New England

⁷ 322 CMR 12.04(1) establishes a January 1 – May 15 closure of all state waters to commercial gillnet fishing to protect right whales. This closure may be extended past May 15 or rescinded after April 30 based on the presence or absence of right whales.
⁸ The FY22 catch data is aggregated for all New England states to avoid potential data confidentiality issues that may arise by exclusively depicting Massachusetts state waters only catch. However, most of the reported catch for these stocks is attributable to Massachusetts' state waters only fishery.

Fishery Management Council (NEFMC) on December 7th. See Tables 1-3 for a summary of proposed FY2024 and FY2025 sub-components and expected utilization as well as historical catch.

The state waters sub-component for Gulf of Maine cod will not change for FY24. Under status quo effort, we would expect utilization to remain well below the sub-component for FY24—GOM cod catch has been around 50,000 pounds since 2019, as targeted fishing is limited in time and space by spawning closures. FY25 is uncertain as the NEFMC will not set those specifications until December 2024.

GOM haddock catch limits, including the state waters sub-component, have been trending downwards as the exceptional 2017 year-class aged out of the fishery. The fishery is now relying on the uncertain strength of the 2021 year-class and management is trying to balance this against the fact that overfishing is now found to be occurring. The very low FY22 sub-component (83,776 pounds) jumped up in FY23 (127,868 pounds) due to the setting of overall catch limits off an Acceptable Biological Catch⁹ (ABC) value of 100% Fmsy. As the fishery moves off this emergency action, the limits will once again decline as they will now be based on an ABC of 90% Fmsy and will likely move back down to 75% Fmsy in the near future. GOM haddock utilization is high in the federal fishery given the drastic declines in ACLs, putting pressure on the state waters fishery to avoid contributing to overfishing and perhaps mitigate impacts in the federal fishery. Despite the more complicated management context, we can also expect status quo effort in state waters to keep catch well below the sub-components for GOM haddock.

The sub-components for GOM yellowtail flounder and American plaice were previously approved in Framework 65 and are set to experience nominal cutbacks based on approved reductions in ABC for FY24 and FY25¹⁰. Status quo utilization for GOM yellowtail flounder is the highest of any of the inshore stocks of interest to the GE fishery (68% in FY25) but still results in more than a quarter of the sub-component going unutilized. American plaice is barely utilized at under 15 percent of the sub-component for either FY24 and FY25.

The sub-components for GOM winter flounder and witch flounder ("grey sole") will remain status quo based on constant ABCs approved previously in Framework 65. GOM winter flounder catch has fluctuated annually with changes in effort, but catch has been under 200,000 pounds since 2019. Additionally, catch of the other flatfish species has been well within their set asides. Neither stock is likely to tip over 50% utilization in FY24 or FY25 based on status quo effort.

Given these expected sub-components and recent performance (Tables 1-3), I do not anticipate the state waters catch (driven by Massachusetts) will approach the federally allocated sub-components for any stocks of interest to the state waters only fishery in the GOM under status quo regulation. Indeed, analysis shows allowance for some nominal and well-constrained growth.

GOM haddock is the only potential stock of concern. As recently as FY19, state waters catch exceeded its sub-component (which was buffered by underutilization of the overall ACL). Additionally, catch in FY20 exceeded the anticipated state waters set asides for FY23 and FY24. However, as stock conditions wane, we can expect haddock to be less available in state waters, as it is less suitable habitat (Brodziak and Tarsus, 2005). Moreover, a large portion of the landings in FY19 and FY20 were attributable to a single inshore dragger who is no longer active in the fishery. I would not expect additional fishing access in May favoring gillnet and hook fishing to produce a large increase in haddock landings, given inshore

⁹ NOAA Fisheries defines Acceptable Biological Catch or ABC as, "a scientific calculation of the sustainable harvest level for a species or species group, and is used to set the upper limit on the range of potential total allowable catch."

¹⁰ The current state waters sub-components for GOM yellowtail flounder and American plaice are 34 metric tons (74,957 pounds) and 29 metric tons (63,934 pounds), respectively. Per draft Framework 66, the proposed sub-components for FY24 and FY25 for GOM yellowtail flounder are 30 metric tons (66,139 pounds) and 28 metric tons (61,729 pounds), and for American Plaice, the FY24 and FY25 proposed sub-components are 28 (61,729 pounds) metric tons and 26 metric tons (57,320 pounds).

availability at that time of year and catchability with a gillnet gear given the state's minimum gillnet net mesh size (6.5-inches).

Considerations for Future Management

Federal groundfish rebuilding efforts remain protracted and likely impacted by broader environmental factors. Choke stocks¹¹ can shift with annual changes in catch limits causing run-on impacts in the quota leasing market, shoreside infrastructure, and maintaining market demand. Accordingly, redistribution of underutilized sub-components and sub-ACLs is a frequent topic at the New England Fishery Management Council. This raises several concerns for DMF.

First, our state waters only fishery is small both in the number of active participants and our sub-components for target stocks. Slight changes in effort may have substantial impacts on catch. While there are a number of fishers who participate in this fishery year in and year out, there are also several fishers who may participate in the fishery intermittently to tie a fishing year together. While we do anticipate continued attrition in the state waters only fishery, maintaining viable sub-components to the few inshore stocks accessible in state waters is a priority so that small dayboat fishers can be afforded the diversity of fishing opportunities needed to maintain their profitability from year-to-year.

Second, there is very little opportunity to increase spatio-temporal access to the state waters groundfish resource without undermining broader conservation goals. As Figures 3-6 show, broad scale spawning cod protections limit fishing opportunities during times of years when fish have historically been available inshore. This is not coincidental, as groundfish stocks—particularly GOM cod—use state waters as spawning grounds. Any action that would substantially increase spatio-temporal access to groundfish would likely involve rolling back critical spawning protections. Work by senior DMF biologist, Micah Dean, has demonstrated there are two discrete sub-populations of GOM cod that exhibit different seasonal peaks in spawning activity—the so-called "spring spawners" and the so-called "winter spawners." The relative importance of these two cohorts to the overall stock has changed over time. At present, nearly all recruitment comes from the winter-spawning cohort, but as recently as the early 2000s, the spring spawning cohort accounted for most recruitment. Conserving both cohorts is critical for the recovery of the GOM cod stock.

In turn, adjusting trip limits becomes the primary mechanism to increase opportunities to harvest the available sub-components. DMF staff have recently spoken with several Cape Cod based dayboat draggers who are interested in enhancing opportunities for dayboat trawl fleet to address difficult economic conditions¹². One interest is increasing the winter flounder trip limit from 500 pounds up to as high as 750 pounds. DMF cannot take this action unilaterally, as the stock is managed through an interstate fishery management plan at the Atlantic States Marine Fisheries Commission. Specifications for 2024 are already in place with a 500-pound maximum trip limit. The soonest any such change could be accommodated is 2025. While this is an item I intend to investigate, it is not without potential downside. Offshore shifts in abundance and the metapopulation structure of stocks should be considered. Moreover, prior history indicates that changes to the winter flounder trip limits will foster a negative reaction among certain recreational fishers—among these anglers there is a prevailing sentiment that commercial fishing (and the 2013 trip limit increase to 500 pounds) has had a deleterious impact on availability, particularly around Boston Harbor.

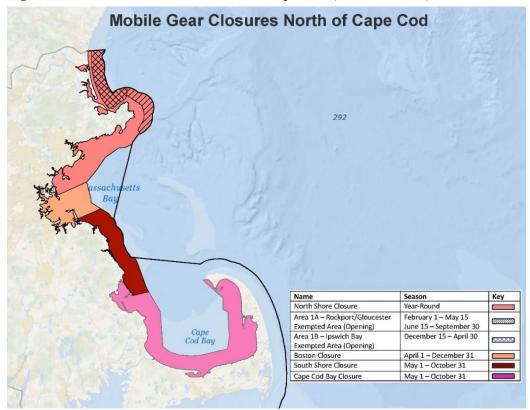
¹¹ Choke stocks are those with limited ACLs that can restrict the ability of fishers to fully catch or access other stocks.

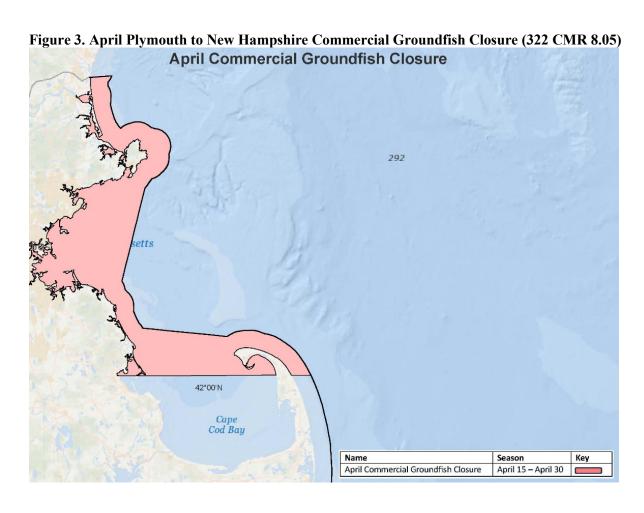
¹² DMF intends to schedule a public meeting with the inshore trawl fleet in early January in New Bedford to discuss a variety of concerns and interests. Time and date to be determined. DMF will then work through the MFAC to address these issues throughout 2024 and beyond.

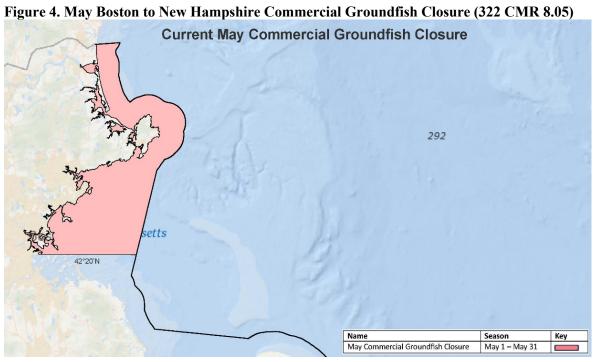


Figure 1. May Commercial Groundfish Management Closure Amendment Proposal









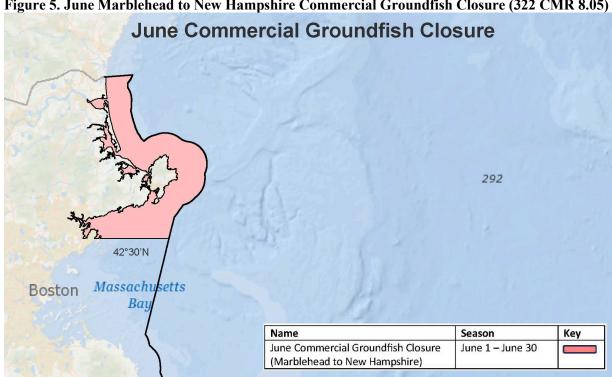
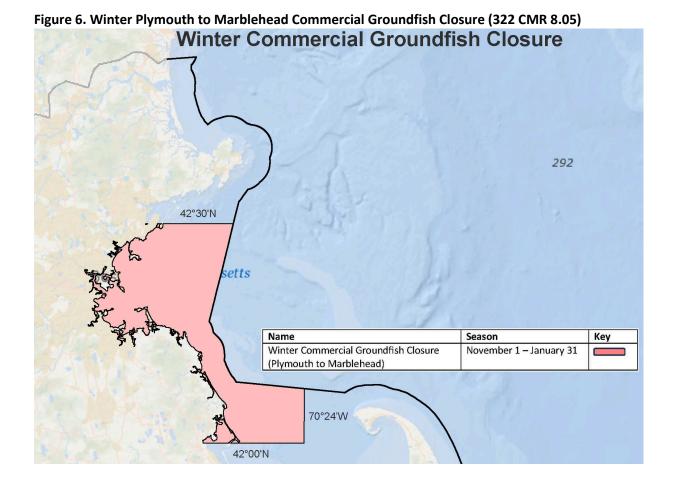


Figure 5. June Marblehead to New Hampshire Commercial Groundfish Closure (322 CMR 8.05)



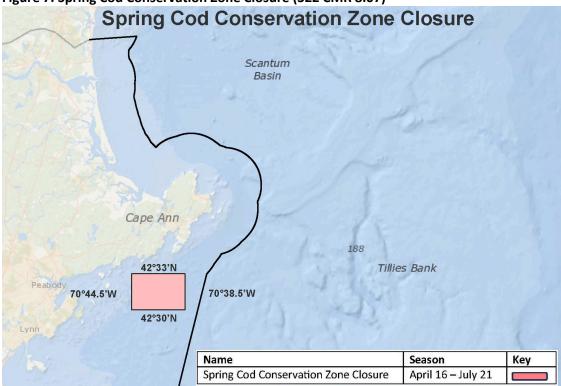
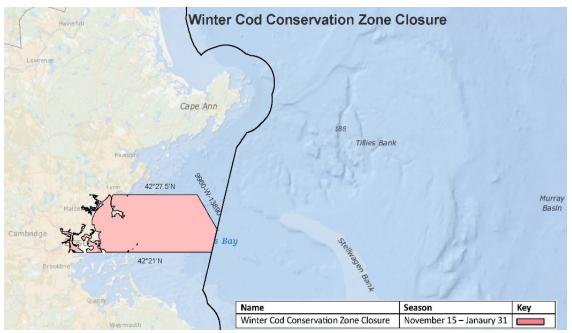


Figure 7. Spring Cod Conservation Zone Closure (322 CMR 8.07)





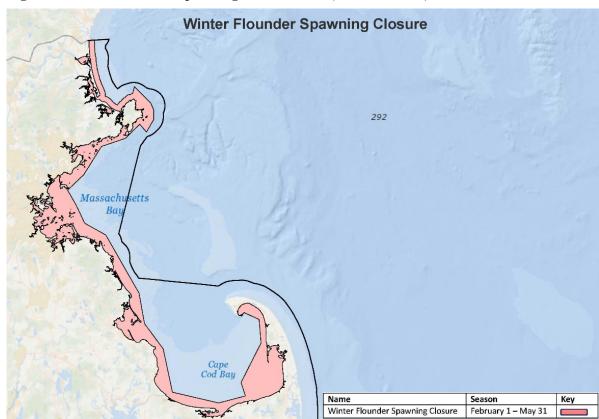


Figure 9. Winter Flounder Spawning Area Closure (322 CMR 8.04)

Table 1. FY22 state waters (SW) catch* compared to expected FY24 and FY25 sub-

components (pounds)

1	FY22 SW	FY24 Sub-	Percent	FY25 Sub-	Percent	
Stock	Catch*	Component	Utilization	Component	Utilization	
GOM Cod	54,454	105,822	51%	TBD	N/A	
GOM Haddock	64,154	105,822	61%	103,617	62%	
Witch Flounder	13,669	41,888	33%	41,888	33%	
GOM Winter Flounder	143,300	337,307	42%	337,307	42%	
GOM Yellowtail Flounder	41,888	66,139	63%	61,729	68%	
Plaice	7,055	61,729	11%	57,320	12%	

^{*}Source: NMFS Greater Atlantic Regional Fisheries Office Final Year End Report

September 26, 2023, run date of September 10, 2023

Table 2. State waters sub-components for FY23 – FY25 (pounds)

Stock	FY23 Sub- Component	FY24 Sub- Component	FY25 Sub- Component		
GOM Cod	105,822	105,822	TBD		
GOM Haddock*	127,868	105,822	103,617		
Witch Flounder	41,888	41,888	41,888		
GOM Winter Flounder	337,307	337,307	337,307		
GOM Yellowtail Flounder	74,957	66,139	61,729		
Plaice	63,934	61,729	57,320		

^{*} FY23 sub-component value based on federal emergency action setting GOM haddock ABC at value equal to 100%Fmsy.

Table 3. Performance of state waters catch against annual sub-components, FY19 – FY22 (pounds)

	FY22			FY21		FY20		FY19				
Stock	SW Sub- component	SW Catch	Percent Utilization	SW Sub- component	SW Catch	Percent Utilization	SW Sub- component	SW Catch	Percent Utilization	SW Sub- component	SW Catch	Percent Utilization
GOM Cod	105,822	54,454	51%	105,822	35,715	34%	105,822	33,290	31%	103,617	63,714	61%
GOM Haddock	83,776	64,154	77%	123,459	85,319	69%	143,300	113,979	80%	200,620	330,252	165%
Witch Flounder	97,003	13,669	14%	97,003	20,503	21%	97,003	39,904	41%	88,185	44,974	51%
GOM Winter Flounder	427,696	143,300	34%	427,696	177,472	41%	306,442	102,074	33%	147,710	186,952	127%
GOM Yellowtail Flounder	127,868	41,888	33%	127,868	57,982	45%	127,868	72,752	57%	112,436	93,917	84%
American Plaice	61,729	7,055	11%	63,934	16,094	25%	70,548	22,928	33%	70,548	27,117	38%