Continuation of Management Measures to Reduce Reef Fish Release Mortality

Abbreviated Framework Action to continue management measures to reduce reef fish release mortality

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ABBREVIATIONS USED IN THIS DOCUMENT

CFR	code of federal regulations
CFpA	net cash flow per angler
CS	consumer surplus
Council	Gulf Council
E.O.	Executive Order
EEZ	exclusive economic zone
FL	fork length
GMFMC	Gulf of Mexico Fishery Management Council
Gulf	Gulf of America (Formerly Gulf of Mexico)
IFQ	individual fishing quota
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
PS	producer surplus
RIR	Regulatory Impact Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office
SRHS	Southeast Regional Headboat Survey
TNR	trip net revenue
lw	landed weight
mp	million pounds
ww	whole weight

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CHAPTER 1. INTRODUCTION

1.1 Background

National Standard 9 of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) states that 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. One source of mortality is barotrauma. Barotrauma refers to injuries caused by the change of pressure associated with being reeled up from depth. Signs of barotrauma include:

- Stomach protruding from the mouth
- Bulging eyes
- Bloated midsection or distended intestines
- Sluggish swimming or inability to swim downward
- Lifted or bubbly scales.

A variety of tools are available to help mitigate barotrauma and increase survival of released reef fish, including venting tools, which release the gasses from the fish's abdominal cavity, and descending devices, which lower the fish to a depth at which the effects of barotrauma are reduced, and the fish can swim away. Recent literature has shown a decrease in discard mortality of reef fish in the Gulf of America (Gulf) and South Atlantic experiencing barotrauma when using a descending device (Sauls et al. 2014; Runde and Buckel 2018; Bohaboy et al. 2020; Drymon et al. 2020; Runde et al. 2021; Runde et al. 2022).

The Direct Enhancement of Snapper Conservation and the Economy through Novel Devices Act (DESCEND) Act of 2020 (HR 5126 2020) became effective on January 13, 2022, and NOAA Fisheries implemented a final rule clarifying the definitions of a venting tool and descending device on February 14, 2022 (87 FR 2355). The DESCEND Act implemented the requirement for people fishing aboard commercial or recreational vessels fishing for reef fish to possess a venting tool or descending device that is rigged and ready for use when fishing in the Gulf. The DESCEND Act was proposed based on literature that supported the reduced discard mortality of fishes experiencing barotrauma, when released using a venting or descending device. The DESCEND Act is set to expire in January 2026. As the expiration date approaches, numerous recreational advocacy groups have written to the Council and provided public comment during meetings expressing their support for the continuation of DESCEND Act. This prompted the Council to direct staff in April 2025[1] to initiate the development of a document to continue the regulatory requirement for a venting/descending device to be rigged and ready when fishing for reef fish in the Gulf.

[1] April 2025 Council Motion, April 2025 Reef Fish Committee Minutes.

1.2 Purpose and Need

The purpose of this action is to implement the regulatory requirements for commercial and recreational fishermen to possess a venting tool or descending device that is rigged and ready for use when fishing for reef fish in the Gulf EEZ.

The need for this action is to continue regulatory requirements established under the DESCEND Act, and implementing regulations, given the Act is set to expire in January 2026. Research studies have shown the use of descending devices or venting tools reduce discard mortality of many reef fish, resulting in increased conservation and sustainability of reef fish stocks.

1.3 History of Management

Reef Fish Amendment 27/ Shrimp Amendment 14 (GMFMC 2007) required reef fish fishermen to use non-stainless steel circle hooks when using natural baits, as well as venting tools and dehooking devices to reduce mortality of released fish. The requirement to "use" venting tools did not specify when venting should be used, the rule was interpreted to mean that fish should always be vented when released. As a result, fishermen would sometimes vent reef fish that were not in need of venting. This requirement also either precluded the use of alternative tools such as descending devices or subjected the fish to additional unnecessary handling stress. For this reason, the venting tool requirement was repealed in 2013 (GMFMC 2013).

Reef Fish Framework action (GMFMC 2013) to remove the requirement for venting tools aboard commercial and recreational reef fish vessels given unintended consequences inducing unnecessary handling stress. The elimination of this requirement was to reduce reef fish injury associated with improper venting technique and allowed the use of "novel" devices, such as descending devices.

DESCEND Act (HR 5126 2020) became effective on January 13, 2022. NOAA Fisheries implemented clarifying regulations in February 2022 (87 FR 2355). The DESCEND Act added a new section 321 to the Magnuson-Stevens Fishery Conservation and Management Act, requiring persons on commercial, for-hire, and private recreational vessels to have a venting tool or descending device rigged and ready to use when fishing for reef fish species in the Gulf Exclusive Economic Zone (EEZ). Regulations at 50 CFR 622.30(c) clarified the definitions for a descending device and venting tool.

1.4 Continuation of Management Measures to Reduce Reef Fish Release Mortality

The Council shall implement a regulatory requirement for commercial and recreational fishermen to possess a venting tool or descending device that is rigged and ready for use when fishing for reef fish in the Gulf EEZ, as previously required by the DESCEND Act, and regulations implementing the Act, with no expiration.

1.4.1 Discussion

Release mortality estimates for reef fish vary depending on the type of gear, depth of capture, surface water temperature, handling time, and the presence of predators (Campbell et al. 2014; Pulver et al. 2017; Hyman et al. 2025). Venting tools and descending devices, when used properly, have been shown to increase survival of released reef fish species (Sauls et al. 2014; Runde and Buckel 2018; Bohaboy et al. 2020; Drymon et al. 2020; Runde et al. 2021; Runde et al. 2022). Venting tools and descending devices can be either commercially manufactured or home-made. Regulations at 50 CFR 622.30(c) defined venting and descending devices as:

> (1) ***Descending device.*** A descending device is an instrument capable of releasing a fish at the depth from which the fish was caught.
>
> (i) The descending device must be a weighted hook, lip clamp, or container that will hold the fish while it is lowered to depth. The device must be capable of releasing the fish automatically, by actions of the operator of the device, or by allowing the fish to escape on its own when at depth.
>
> (ii) The descending device must use a minimum of a 16-ounce (454-gram) weight and a minimum of a 60-ft (15.2-m) length of line.
>
> (2) ***Venting tool.*** A venting tool is a device capable of penetrating the abdomen of a fish to release the excess gases accumulated in the body cavity when a fish is retrieved from depth. A venting tool must be a sharpened, hollow instrument that allows air to escape, such as a hypodermic syringe with the plunger removed. A 16-gauge needle, which has an outside diameter of 0.065 inches (1.65 mm), is the minimum diameter hollow tube that must be used. A larger diameter hollow needle is preferred to allow more air to escape from a fish rapidly. A device that is not hollow, such as a knife or an ice pick, is not a venting tool and will cause additional damage to a fish.

Many descending devices need to be rigged to a rod and reel to be used. If not pre-rigged, the time needed to rig the device may contribute to mortality of the fish. As such, when descending devices are required, they shall be rigged and ready for use while fishing for reef fish is occurring. Commercially available descending devices, range in price from ~$18.99 for the Shelton Fish Descender to ~$62.99 for the SeaQualizer. In 2022, the Return 'em Right[2] program launched a wide-spread effort with anglers to educate on the importance of descending devices, and distribute descending devices, free of charge to anglers who participate in the education module. Since the initiation of the program, 47,232 anglers have participated in the Return 'em Right program, 97% identified as private recreational anglers, 2% identified as State For-hire participants, and 1% identified as Federal For-Hire participants (owner/operator/crew). Through the Return 'em Right program, anglers participated in an education module on the best releasing mechanisms and the overarching importance of using descending devices to reduce the effects of barotrauma, and

[2] https://returnemright.org/. Return 'Em Right's project partners include Florida Sea Grant, University of Florida, Gulf States Marine Fisheries Commission, NOAA and a coalition of anglers, industry groups, state agencies, universities, government and non-government organizations.

reduce discard mortality. Anglers across all Gulf states have participated in the program, but a vast majority identified being based out of Florida (Table 1.4.1)

Table 1.4.1. Number of individuals who have participated in the Return 'Em Right Educational module and received a Descending device by sector and state as of October 2025. Anglers self-identify the sector in which they participate in as well as the Gulf state they fish from.

Return 'Em Right Angler Participation	MS	LA	AL	TX	FL	Total
Private Recreational Angler	893	2,219	3,250	3,966	35,467	45,795
Federal For Hire	8	19	63	77	447	614
State For Hire	14	30	36	86	657	823
Total						47,232

Source: Personal communication N. Haddad Return 'Em Right Communications Manager 2025

Table 1.4.2 displays the Southeast Regional Headboat Survey number of discards, by species for January 2024- October 2025. Of those discards, the number of those that were descended ranged from 1.3% - 21.7% while the percentage of those fish that were vented ranged from 0.1% - 60.3%. These data are self-reported by the headboat fleet and displays that many headboat charters have already become accustomed to descending/venting reef fishes who are experiencing barotrauma. As such, extending the current regulatory requirements is unlikely to increase the burden for captains and crew members/deck hands. Additionally, given widespread participation amongst the headboat fleet, it is unlikely that additional costs will be burdensome for the sector.

Table 1.4.2 Southeast Regional Headboat Survey reporting from operators within the Gulf on species released from January 2024 - October 2025. Of those released, the number and percentage of those fishes that were descended or vented.

Species	Total Released	# Descended	% Descended	# Vented	% Vented
GRAY TRIGGERFISH	155,685	3,478	2.2	39,382	25.3
RED SNAPPER	122,632	18,606	15.2	73918	60.3
WHITE GRUNT	85,935	2,986	3.5	47	0.1
RED GROUPER	72,615	7,294	10	11,495	15.8
VERMILION SNAPPER	52,665	9,135	17.3	6,047	11.5
LANE SNAPPER	24,272	5,273	21.7	951	3.9
GAG	22,307	2,630	11.8	3,143	14.1
GRAY SNAPPER	10,753	1,851	17.2	1,582	14.7
BLACK SEA BASS	7,168	94	1.3	18	0.3
HOGFISH	4,414	1,125	25.5	284	6.4

Source: Personal Communications C. Robertson Gulf States Marine Fisheries Commission 2025

While there are no self-reported data from the recreational sector of released descended/vented reef fish, there has been nearly universal support voiced by recreational anglers during public meetings for continuing these gear requirements. Based on the number of private recreational anglers (45,795) who have participated in the Return 'Em Right education module and program (Table 1.4.1), it is likely that the recreational community is broadly aware of the benefits to reef fish as a result of using descending/venting tools, and are likely to comply with regulations for requirement of such tools, as they have done so from 2022-2025 since the DESCEND Act was implemented. Return 'Em Right is an ongoing educational program and continues to engage in outreach with the recreational fishing sector, there is likely no additional need for NMFS or the Council to engage in additional outreach programs extending beyond support for the Return 'Em Right program, further reducing the burden on NMFS and Council staff. Additionally, given the widespread buy-in from the community, and further support from stakeholders, it is anticipated that a regulatory requirement for descending/venting tools will be broadly accepted by the community, as noted in the Recreational Working Group report[3], and several other comment letters supporting the continuation of the DESCEND Act. The overall regulatory burden and economic effects of this action are likely minimal and offset by the biological benefits and increased fishing opportunities associated with reducing release mortality. Implementing a long-standing requirement for descending/venting tools is a permanent extension of what has already been in place for the previous 4 years. Additionally, descending/venting tools are also required for reef fish in the South Atlantic (85 FR 36171) and proposed for the Caribbean (89 FR 79492).

[3] Recreational Working Group Final Report detailing working group recommendations for management actions, including continuation of the regulations required under the DESCEND Act.

CHAPTER 2. REGULATORY IMPACT REVIEW

2.1 Introduction

The National Marine Fisheries Service (NMFS) requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. The RIR does three things: 1) it provides a comprehensive review of the level and incidence of impacts associated with a proposed or final regulatory action; 2) it provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problem; and, 3) it ensures that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost-effective way. The RIR also serves as the basis for determining whether the regulations are a "significant regulatory action" under the criteria provided in Executive Order (E.O.) 12866. This RIR analyzes the impacts this action would be expected to have on the Gulf reef fish fishery.

2.2 Problems and Objectives

The problems and objectives addressed by this action are discussed in Chapter 1.

2.3 Description of the Fishery

The proposed action is not expected to affect effort or landings for commercial fishermen and recreational anglers targeting reef fish species in the Gulf. Moreover, this action would not impact reef fish dealers' operations or reef fish imports into the country. Therefore, the description of the fishery provided in this section is mainly limited to a discussion of the number of commercial and for-hire entities harvesting reef fish and their respective revenue profiles. A detailed description of the recreational and commercial sectors of the reef fish fishery, which is incorporated here by reference, is provided in Final Amendment 48 to the Fishery Management Plan for Reef Fish Resources of the Gulf of Mexico and Amendment 5 to the Fishery Management Plan for the Red Drum Fishery of the Gulf of Mexico (GMFMC 2021).

2.3.1 Commercial Reef Fish Sector

Permits

Fishing vessels harvesting and selling reef fish from the Gulf exclusive economic zone (EEZ) must have a valid Gulf federal reef fish commercial permit. Commercial Gulf reef fish permits are a limited access permit. After a permit expires, it can be renewed or transferred up to one year after the date of expiration. As shown in Table 2.3.1.1, the number of permits that were valid at any point in a given year decreased steadily from 2016-2020. There were approximately 2% fewer valid permits in 2020 relative to 2016.

Table 2.3.1.1. Number of valid Gulf federal commercial reef fish permits (2016-2020).

Year	Number of Permits
2016	852
2017	850
2018	845
2019	842
2020	837

Source: NMFS SERO Sustainable Fisheries Access permits database.

Vessels

Not all holders of Gulf commercial permits for reef fish are active each year. Table 2.3.1.2 provides the reef fish landings and revenues for vessels which, during the 2018-2022 timeframe, possessed a valid or renewable commercial Gulf reef fish permit and were actively fishing. The number of permitted commercial Gulf reef fish vessels actively fishing each year has declined overall from 2018-2022, with an 18% decline in active vessels in 2022, relative to 2018. Total landings of reef fish species also declined during this time period, by 6% in 2022 relative to 2018. Overall, dockside revenue from reef fish species landed by permitted commercial Gulf reef fish vessels declined slightly during this period, by less than a percent in 2022 relative to 2018.

Table 2.3.1.2. Number of vessels, reef fish landings (lb whole weight [ww]) and revenues, by year for permitted commercial Gulf reef fish vessels. Average (mean) and maximum (max) are of per vessel landings for each year.

Year	Number of Vessels	Statistic	Reef Fish Landings	Reef Fish Revenue
2018	519	Max	402,188	$2,377,078
		Mean	22,765	$115,156
		Total	12,498,242	$63,220,721
2019	516	Max	420,962	$2,540,735
		Mean	24,803	$129,172
		Total	12,798,571	$66,652,723
2020	496	Max	625,764	$3,410,762
		Mean	24,530	$123,040
		Total	12,166,825	$61,027,622
2021	466	Max	593,944	$3,275,932
		Mean	27,726	$141,016
		Total	12,920,310	$65,713,318
2022	427	Max	632,298	$3,637,256
		Mean	27,532	$147,744
		Total	11,756,096	$63,086,897

Source: Southeast Fisheries Science Center Social Science Research Group Socioeconomic Panel. Revenues in $2022. (Aug 2023 version).

Table 2.3.1.3 provides estimates of the important economic variables, including estimates of economic returns, at the annual level for all commercial trips with Gulf reef fish landings from 2014 through 2018. Net revenue from operations most closely represents economic profits to the owner(s). Net cash flow is total annual revenue minus the costs for fuel, other supplies, hired crew, vessel repair and maintenance, insurance, overhead, loan payments, and purchases of annual allocation. Between 2014 and 2018, net cash flow and net revenue averaged 38% and 51% of total revenue, respectively.

Table 2.3.1.3. Economic characteristics of Gulf Commercial Reef Fish trips 2014-2018 (2022$).

	2014	2015	2016	2017	2018	Average
Number of Observations	1,237	1,787	1,955	1,943	1,448	
Response Rate (%)	78%	85%	94%	95%	94%	
Trips						
Owner-Operated	73%	65%	68%	61%	70%	67.4%
Fuel Used per Day at Sea (gallons/day)	46	46	40	49	46	45
Total Revenue	100%	100%	100%	100%	100%	100%
Costs (% of Revenue)						
Fuel	6.8%	4.9%	4.3%	5.1%	5.8%	5.4%
Bait	3.1%	3.4%	3.6%	4.1%	3.9%	3.6%
Ice	1.4%	1.5%	1.7%	1.6%	1.6%	2%
Groceries	2.4%	2.4%	3.1%	3.2%	2.7%	2.8%
Miscellaneous	2.5%	2.4%	3.0%	2.5%	2.5%	2.6%
Hired Crew	28.2%	25.9%	27.0%	27.6%	23.8%	26.5%
IFQ Purchase	15%	27%	19%	19%	20%	20%
Owner-Captain Time	6.5%	6.2%	7.4%	6.4%	7.1%	6.7%
Trip Net Cash Flow	41%	33.0%	38.8%	36.8%	39.5%	38%
Trip Net Revenue	49%	53.2%	49.8%	49.5%	52%	51%
Labor - Hired & Owner	35%	32.1%	34.4%	33.9%	30.9%	33.3%
Fuel & Supplies	16%	14.7%	15.7%	16.6%	16.6%	16%
Input Prices						
Fuel Price (per gallon)	$4.50	$3.21	$2.56	$2.76	$3.09	$3.23
Hire Crew Wage (per crew-day)	$421	$354	$314	$351	$281	$344
Productivity Measures						
Landings/Fuel Use (lb/gallon)	13.3	12.6	11.4	10.7	10.5	12
Landings/Labor Use (lbs/crew-day)	221	204	169	196	176	193

Source: Liese (2023). $values in $2022

2.3.2 Recreational Reef Fish Sector

The recreational sector is comprised of the private and for-hire modes. The private mode includes anglers fishing from shore (all land-based structures) and private/rental boats. The for-hire mode is composed of charter boats and headboats (also called party boats). Charter boats generally carry fewer passengers and charge a fee on an entire vessel basis, whereas headboats carry more passengers and payment is per person. The type of service, from a vessel- or passenger-size perspective, affects the flexibility to search different fishing locations during the course of a trip and target different species since larger concentrations of fish are required to satisfy larger groups of anglers.

Permits

There are no specific federal permitting requirements for private recreational anglers to fish for or harvest reef fish. The same is true of private recreational vessel owners. Instead, private anglers are required to possess either a state recreational fishing permit that authorizes saltwater fishing in general, or to be registered in the federal National Saltwater Angler Registry system, subject to appropriate exemptions. As a result, it is not possible to identify with available data how many individual private anglers or private recreational vessels would be expected to be affected by the actions in this framework action.

Charter vessel/headboat vessels in the Gulf are required to have a limited access charter vessel/headboat for reef fish permit (Gulf Reef for-hire permit) to fish for or possess reef fish species. As of August 26, 2021, there were 1,273 valid or renewable charter vessel/headboat reef fish permits. The total number of valid or renewable Gulf Reef for-hire permits has been relatively stable with less than 1% change in valid or renewable Gulf Reef for-hire permits from year to year (Table 2.3.2.1.).

Although the permit application collects information on the primary method of operation, the permit itself does not identify the permitted vessel as either a headboat or a charter vessel and vessels may operate in both capacities. However, if a vessel meets the selection criteria used by the SRHS and is selected to report by the Science Research Director of the Southeast Fisheries Science Center (SEFSC), it is determined to operate primarily as a headboat and is required to submit harvest and effort information to the SRHS.

Table 2.3.2.1. Number of valid or renewable Gulf Reef for-hire permits, 2016-2019.

Year	Number of Permits
2016	1,282
2017	1,280
2018	1,279
2019	1,277

Source: NMFS SERO Sustainable Fisheries Access permits database.

Economic Value

Economic value can be measured in the form of consumer surplus (CS) per additional reef fish kept on a trip for anglers (the amount of money that an angler would be willing to pay for a fish in excess of the cost to harvest the fish). Carter, Lovell and Liese (2020) used a 2014 mail survey of recreational anglers fishing in the Gulf to produce values of the CS for increasing the aggregate snapper (which are used as proxy for reef fish) bag limit from 5 fish to 10 fish for private boat anglers which was $19 (2022$). Carter and Liese (2022) used the same 2014 mail survey of recreational anglers to produce values of the CS for increasing the aggregate snapper bag limit from 5 fish to 10 fish for charter boat anglers which was $25 (2022$). Carter and Liese (2022) divide the option price for the 5 to 10 fish snapper bag limit increment by a factor of 0.52 to derive the expected value of a one-unit snapper harvest increment of $60.01. This factor is based on the distribution of snapper catch per angler for charter trips. If we assume the distribution of catch per angler is similar on private boat trips, then we can also apply this factor to the option price estimate for snapper on private boats to get the expected value of a one fish change in snapper harvest of $36.26.

Economic value for the for-hire component of the recreational sector can be measured in many ways. According to Savolainen et al. (2012), the average charter vessel operating in the Gulf is estimated to receive approximately $101,421 (2022$) in gross revenue and $28,122 (2022$) in net income (gross revenue minus variable and fixed costs) annually. The average headboat is estimated to receive approximately $306,491 (2022$) in gross revenue and $89,161 (2022$) in net income annually. More recent estimates of average annual gross revenue for Gulf headboats are provided in Abbott and Willard (2017) and D. Carter, SEFSC pers. comm. 2018. Abbott and Willard (2017) suggest that Savolainen, et al.'s estimate of average annual gross revenue for headboats may be an underestimate, as data in the former suggest that average gross revenue in 2009 for the vessels in their sample was about $541,653 (2022$). Further, their data suggest average annual gross revenue per vessel had increased to about $654,218 (2022$) by 2014. However, Abbott and Willard's estimates are based on a sample of 17 headboats that chose to participate in the headboat Collaborative Program in 2014, while Savolainen, et al.'s are based on a random sample of 20 headboats. The headboats that participated in the Collaborative may be economic highliners, in which case Abbott and Willard's estimates would overestimate average annual gross revenue for Gulf headboats. D. Carter, SEFSC, pers. comm. 2018 recently estimated that average annual gross revenue for Gulf headboats were approximately $482,421 (2022$) in 2017. This estimate is likely the best current estimate of annual gross revenue for Gulf headboats, as it is based on a relatively large sample of 63 boats, or more than 90% of the active fleet, and is more recent.

However, gross revenues overstate the annual economic value and profits generated by for-hire vessels. Economic value for for-hire vessels can be measured by PS per passenger trip (the amount of money that a vessel owner earns in excess of the cost of providing the trip). Estimates of revenue, costs, and trip net revenue trips taken by headboats and charter vessels in 2017 are available from Souza and Liese (2019). They also provide estimates of trip net cash flow per angler trip, which approximate PS per angler trip. After accounting for transactions fees, supply costs, and labor costs, net revenue per trip was 42% of revenue for Gulf charter vessels and 54%

of revenue for Southeast headboats,[4] or $880 and $2,044 (2022 dollars), respectively (Table 2.3.2.8). Trip net revenue (TNR), which is the return used to pay all labor wages, returns to capital. When TNR is divided by the number of anglers on a trip, it represents cash flow per angler trip (CFpA). The estimated CFpA value for an average Gulf charter angler trip is $160 (2022$) and the estimated CFpA value for an average Gulf headboat angler trip is $72 (2022$) (Souza and Liese 2019).

Table 2.3.2.8. Trip economics for offshore trips by Gulf charter vessels and Southeast headboats in 2017.

	Gulf Charter Vessels	Southeast Headboats
Revenue	100%	100%
Transaction Fees (% of revenue)	3%	6%
Supply Costs (% of revenue)	27%	19%
Labor Costs (% of revenue)	27%	22%
Net Revenue per trip including Labor costs (% of revenue)	42%	54%
Net Revenue per Trip	$880	$2,044
Average # of Anglers per Trip	5.5	28.2
Trip Net Cash Flow per Angler Trip	$160	$72

Source: Souza and Liese (2019). $values in $2022

2.4 Impacts of Management Measures

The continuation of gear requirements, which require commercial and recreational fishermen to possess a venting tool or descending device that is rigged and ready for use when fishing for reef fish in the Gulf EEZ, is not expected to affect commercial or recreational reef fish landings and effort. However, this action is expected to positively benefit reef fish that are released, by reducing mortality associated with barotrauma. This action is expected to result in direct economic costs due to the expenses borne by commercial fishermen and recreational anglers who purchase a venting tool or descending device. On average, a descending device, and necessary accessories to make it rigged and ready for use retails for about $100. This estimate is based on data from the Seaqualizer website (https://www.seaqualizer.com/products/sportsmans-package), which offers a Sportsman's package valued at $99.95. The package includes a descending device and accessories needed for proper use. On average, the price of a venting tool kit including replacement needles ranges from about $20 to $40 (Amazon.com : fish venting tool). Economic costs that would result from this management action would be derived by multiplying the per unit cost of the device selected by the number of devices purchased. Although the total number of devices to be bought in response to this action is unknown, it can be inferred that the number of devices that will be purchased each year should decline. Furthermore, it is likely that, rather than

[4] Southeast headboats include headboats operating either the Gulf or South Atlantic. Souza and Liese (2019) state "the sample size available for head boats is limited (n=30) and, hence, the results are presented at an overall SE aggregation."

incurring the civil penalties that would result from non-compliance with the DESCEND Act, most commercial fishermen and for-hire operators with a federal reef permit have already acquired a descending device or venting tool. Return 'Em Right, an organization working "to increase the survival of reef fish that are caught and released in the Gulf" distributes descending device kits in exchange for the completion of a training course. As of October 2025, the organization has trained and distributed kits to more than 47,000 reef fish fishermen in the Gulf, including 614 federally permitted for-hire operators (Table 1.4.1). Prior to the implementation of the DESCEND Act, the Congressional Budget Office (CBO) estimated the cost of requiring descending devices or venting tools in the Gulf at less than $2 million in the first year (https://www.cbo.gov/system/files?file=2020-06/hr5126.pdf). The CBO also indicated that costs would decrease in subsequent years. Costs are expected to further decrease because of the tens of thousands devices already distributed free of charge by Return 'Em Right and those already purchased by commercial fishermen and private anglers since the inception of the DESCEND Act. Direct costs to fishermen are expected to be much lower given the continuation of work conducted by Return 'Em Right. Return 'Em Right will likely continue to conduct education and outreach on best release practices for reef fish and other species groups for the next 15 years, as outlined in the Deepwater Horizon Open Ocean Trustee Implementation Group Final Restoration Plan 4 with continuation through ~2040.

Increases in the survival rates of reef fish caught and released due to the proper use of descending devices or venting tools are expected to result in improvements to reef fish stocks, which in turn would be translated into additional fishing opportunities for commercial fishermen and private anglers prosecuting reef fish in the Gulf. Therefore, this management action is expected to result in indirect economic benefits due to increased fishing opportunities to fish for reef fish. Although the magnitude of these economic benefits cannot be quantified at this time, they will be commensurate with the resulting additional reef fish fishing opportunities for recreational anglers and commercial fishermen.

2.5 Determination of Significant Regulatory Action

Pursuant to E.O. 12866, a regulation is considered a "significant regulatory action" if it is likely to result in: 1) an annual effect of $200 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 or obligations of recipients thereof; or 4) raise legal or policy issues for which centralized review would meaningfully further the President's priorities or the principles set forth in this Executive order, as specifically authorized in a timely manner by the Administrator of OIRA in each case. Based on the information provided above, this action has been determined to not be economically significant for the purposes of E.O. 12866.

CHAPTER 3. LIST OF PREPARERS

PREPARERS

Name	Expertise	Responsibility	Agency
Sarah Gardiner	Fishery Biologist	Team Lead; Abbreviated Framework Action Development	Gulf Council
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REVIEWERS (Preparers also serve as reviewers)

Name	Expertise	Responsibility	Agency
Mara Levy	Attorney	Legal Review	NOAA GC
Carrie Simmons	Fishery Biologist	Review	Gulf Council
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Frank Helies	Fishery Biologist	Review	SERO

NOAA GC = National Oceanic and Atmospheric Administration General Counsel; SEFSC = Southeast Fisheries Science Center; SERO = Southeast Regional Office of the National Marine Fisheries Service.

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