

NORTH CAROLINA HURRICANE FLORENCE COMMERCIAL FISHERY ASSISTANCE PROGRAM

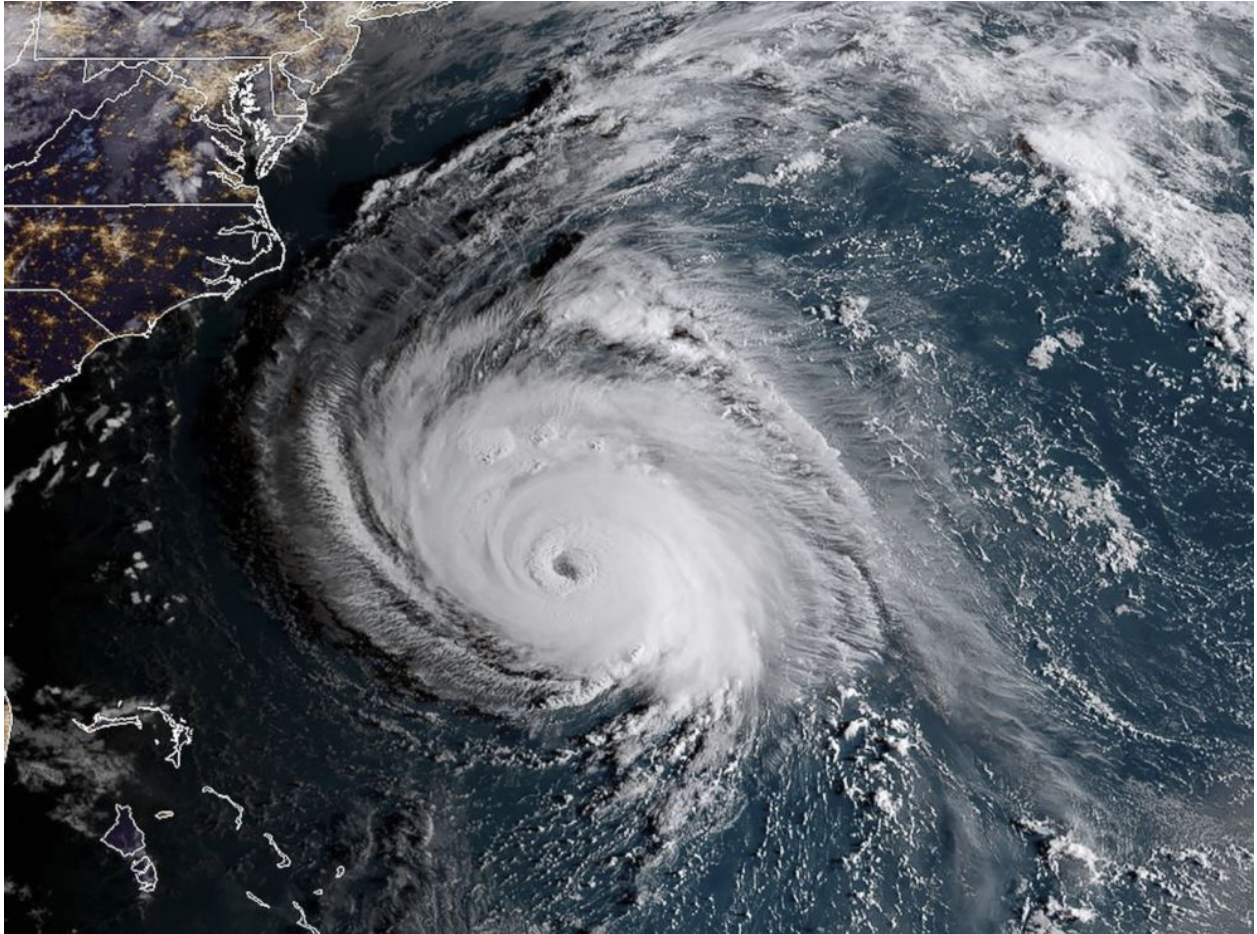


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FINAL REPORT

August 2019

North Carolina Hurricane Florence Commercial Fishery Assistance Program

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ABSTRACT

Hurricane Florence made landfall in North Carolina on September 14th, 2018. With its landfall, Hurricane Florence brought record breaking levels of rainfall to eastern North Carolina, historic storm surge levels, and high winds which caused extensive property damage to the area. After the storm, the North Carolina General Assembly passed two session laws (2018-136 and 2018-138) which allocated a total of \$11.6 million of aid for the commercial fishing industry. Eligibility requirements to receive aid were defined in Session Law 2018-138. Based on these requirements, the North Carolina Trip Ticket Program distributed aid to eligible commercial fishermen based on their potential losses due to Hurricane Florence in September, October, and November 2018 compared to their average landings in September, October, and November of 2015 to 2017. Distribution of aid occurred in two phases, losses that were incurred during September and losses that were incurred during October and November combined. The distribution of funds occurred over multiple check writes as late responders and disputes were processed and approved. In total, 1,176 participants across 39 different counties received aid. Carteret County had the highest number of fishermen that received aid (246 participants), while those in Dare County received the highest amount of aid (over \$2.3 million).



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TABLE OF CONTENTS

ABSTRACT.....	i
INTRODUCTION	1
HURRICANE FLORENCE.....	1
GOALS AND OBJECTIVES	2
ELIGIBILITY.....	2
ELIGIBILITY REQUIREMENTS	2
ESTIMATING LOSS.....	3
MAILINGS	4
COMMERCIAL LANDINGS VALIDATION	4
DISBURSEMENT	4
TIMELINE	4
SEPTEMBER DISBURSEMENT PHASE	5
SEPTEMBER DISPUTE CATEGORIZATION	6
OCTOBER/NOVEMBER DISBURSEMENT PHASE	7
OCTOBER/NOVEMBER DISPUTE CATEGORIZATION.....	8
FINAL DISBURSEMENT PHASE.....	9
SUMMARY	9
FEDERAL FISHERY DISASTER RELIEF	9
LITERATURE CITED	11
TABLES	12
FIGURES.....	13
APPENDIX.....	16
APPENDIX A: SHELLFISHING PROCLAMATIONS.....	16
APPENDIX B: HURRICANE FLORENCE PARTICIPANT PACKET.....	18
APPENDIX C: FEDERAL FISHERY DISASTER REQUEST LETTER FROM GOVERNOR COOPER.....	24
APPENDIX D: FEDERAL FISHERY DISASTER DETERMINATION LETTER	26



INTRODUCTION

HURRICANE FLORENCE

The hurricane season in 2018 was above normal and featured 15 named tropical cyclones, eight of which developed into hurricanes, with two of those hurricanes strengthening to major hurricanes (Category 3 or higher on the Saffir-Simpson Scale; National Hurricane Center 2018). Hurricane Florence developed as a tropical wave off the coast of Africa on August 31, 2018 before moving across the Atlantic. By September 4th it was upgraded to a hurricane. As Hurricane Florence moved across the Atlantic, it went through several transitions. It reached major hurricane strength before weakening to tropical storm strength only to strengthen once again into a Category 4 hurricane. As Hurricane Florence approached the coast of North Carolina, shallow waters and a weak eyewall resulted in an overall weakening of the hurricane just before landfall. On September 14, 2018 Hurricane Florence made landfall in North Carolina around Wrightsville Beach ranked at the upper end of a Category 1 hurricane (Figure 1; National Hurricane Center 2019).

Hurricane Florence set new rainfall records in North Carolina, surpassing those previously set by Hurricane Floyd in 1999 and Hurricane Matthew in 2016. Rainfall totals in Elizabethtown, NC reached nearly 36 inches, the highest recorded amount throughout the duration of Hurricane Florence. Other notable rainfall amounts included 34 inches in Swansboro, nearly 27 inches in Wilmington, 25 inches in Jacksonville and Newport, 21 inches in Morehead City, and almost 17 inches in New Bern. This increased rainfall compounded with record-breaking storm surge generated by Hurricane Florence resulted in devastating impacts. Storm surge levels reached nine to eleven feet over much of coastal North Carolina. The hardest hit communities included New Bern, Newport, Belhaven, Oriental, North Topsail Beach, Jacksonville, and Down East Carteret County. Maximum wind gusts reached 106 miles per hour at Cape Lookout and 105 miles per hour in Wilmington (National Weather Service 2019). Damages from wind and rain were widespread across the entire state of North Carolina. A total of 15 fatalities occurred as a direct result of Hurricane Florence, of which 11 were due to freshwater flooding and 4 resulted from wind (National Hurricane Center 2019).

Hurricane Florence resulted in historic rainfall totals across many parts of the state because it was an extremely slow-moving system. Eastern North Carolina was already experiencing an above average rainfall prior to Hurricane Florence's arrival. With the ground already saturated, additional rainfall from Hurricane Florence caused substantial sewer flooding, wastewater treatment plant flooding, and agricultural runoff. Anticipating increased levels of bacteria in runoff, widespread closures of shellfish harvest areas along the entire coast occurred just prior to landfall. Proclamation PA-105-2018 issued on September 13, 2018 closed all coastal waters to shell fishing in Brunswick, New Hanover, Pender, Onslow, Carteret, Craven, Pamlico, Beaufort, Hyde, and Dare Counties. In the month and a half following Hurricane Florence, fourteen proclamations were issued to re-open coastal waters. All coastal waters were completely re-opened to shell fishing by October 27, 2018 after 43 days (Appendix A).



GOALS AND OBJECTIVES

The North Carolina Division of Marine Fisheries (NCDMF) reached out to commercial seafood dealers in late September and early October 2018 to determine the initial impacts of Hurricane Florence. Commercial port agents of the NCDMF called seafood dealers to inquire about preliminary damages and losses they incurred from the storm and encouraged dealers to report damages and losses with their monthly data submissions. Preliminary estimates ranged from minor flooding that caused a few thousand dollars-worth of damages to estimates of over \$600,000 due to damaged infrastructure and loss of seafood product.

In October 2018, a special session of the North Carolina General Assembly convened to discuss relief efforts for Hurricane Florence. As a result, North Carolina Session Law 2018-136 was signed on October 16, 2018. This law allotted \$1.6 million dollars of relief funds to the North Carolina commercial fishing industry to be distributed by the Division of Marine Fisheries. An additional special session was convened in December 2018 where North Carolina Session Law 2018-138 was approved and signed. This law added another \$10 million dollars to relief monies for the North Carolina commercial fishing industry.

The goal of the Hurricane Florence Fishery Assistance Program was to disperse funds to the commercial fishing industry. There were three primary objectives:

1. Establish eligibility criteria based on the guidance provided in Session Law
2. Validate trip ticket landings for eligible commercial fishermen
3. Determine and distribute final assistance award amounts

ELIGIBILITY

ELIGIBILITY REQUIREMENTS

Session Law 2018-138 was specific about several factors that would determine eligibility for the Hurricane Florence Commercial Fishing Assistance Program. Based on these requirements, eligible fishermen included “persons holding a Standard Commercial Fishing License, a Retired Standard Commercial Fishing License, or a North Carolina Resident Shellfish License for all or part of the period from September 1, 2018, through November 30, 2018” (S.L. 2018-138). Funds would be used to reimburse these fishermen for “reductions in landings demonstrated from trip ticket data or other verified landing compared with average landings over a prior comparable period determined by the Division of Marine Fisheries” (S.L. 2018-138). The NCDMF, with agreement from the Department of Environmental Quality, chose 2015–2017 as the period to use



for calculating average landings. This period was chosen because it represented a set of recent years containing a non-hurricane year (2015), a year affected by a hurricane (2016; Hurricane Matthew), and then a year with potential indirect effects from the previous year's storm (2017). The \$1.6 million allocated by Session Law 2018-136 did not have guidance on how to disperse the money as stated in Session Law 2018-138 for the additional \$10 million that was later allocated so the same set of criteria was used for the entire \$11.6 million dollars of relief funds.

In addition to the eligibility requirements set forth in Session Law 2018-138, to be eligible for assistance under this program, fishermen had to be a North Carolina resident and had to have an established history of commercial landings during September, October, and/or November in the years of 2015, 2016, and/or 2017. Traditional summer flounder trips (trips that landed 1,000 pounds or more) were also excluded because these trips occur in out of state waters and this fishery was likely not impacted by Hurricane Florence.

ESTIMATING LOSS

Data from the North Carolina Trip Ticket Program (NCTTP) was used to estimate the losses commercial fishermen experienced due to Hurricane Florence. The NCTTP is mandated through North Carolina General Statute and thus all North Carolina seafood dealers are required to fill out trip tickets and submit them monthly to NCDMF. Completed trip tickets must be sent to the NCTTP by the 10th of the following month (e.g., all January trip tickets would be due on February 10th). North Carolina seafood dealers can only purchase seafood from properly licensed commercial fishermen and commercial fishermen can only sell to properly licensed seafood dealers. The NCTTP operates using trip ticket forms that are filled out by seafood dealers after each trip is completed by a commercial fisherman. Seafood dealers can complete paper trip ticket forms or can choose to report their data electronically with a specially designed trip ticket software program. The paper forms and the trip ticket software program are free of charge and are distributed upon request or requirement.

Data collected on trip ticket forms include species landed by market grade and condition (e.g., whole, gutted, carcass), gear type used, waterbody where the commercial fishing occurred, license information for the seafood dealer, commercial fisherman name and license number, commercial fishing vessel, the start and landing date of the trip, crew size, and the quantity landed for each species. Since the trip ticket program started in 1994, there have been a few modifications to these forms. For example, the starting date of a trip and the crew size fields were not added to trip tickets until 1999. The NCTTP has also added new gear codes over time primarily based on the needs of the commercial fishery and fisheries management biologists. Paper trip ticket forms take NCTTP staff longer to process than electronically submitted data. It generally takes close to a month to process paper trip ticket forms. To help distribute aid as quickly as possible, NCTTP staff put a priority on getting paper tickets processed for September, October, and November of 2018 to make the data available for the assistance program.



MAILINGS

Two separate mailings were sent during the program: one covered the information for potential losses in September 2018 and another covered the information for potential losses in October and November 2018. Each mailing was composed of a package that included an introductory letter explaining the Hurricane Florence Commercial Fishing Assistance program, a response form that indicated if the fisherman wanted to participate in the program and/or if they had concerns about their landings data, a summarized printout of landings data that covered the years of 2015-2018 by month for September-November for review and validation, and a Substitute W-9 form (Appendix B). The mailings were sent via certified mail through the United States Postal Service which required participants to sign for their letter, providing proof of receipt. Commercial fishermen who received mailings were given three weeks to review their packages and return the completed response form indicating their decision to participate or opt out of the program and a completed Substitute W-9 if they did choose to participate.

Mailings for the September disbursement phase consisted of all eligible fishermen under the program regardless of registered loss. The October-November disbursement phase was amended, and mailings were only sent to eligible fishermen who registered a loss during the two months. Commercial fishermen who participated in the first disbursement phase for September were not required to send in an additional Substitute W-9 form.

COMMERCIAL LANDINGS VALIDATION

Once loss was determined, commercial landings needed to be validated to ensure loss estimates were accurate. A summarized printout of landings data that covered the years of 2015-2018 by month for September-November was included in the packets that were sent out to commercial fishermen. Fishermen who had concerns with their landings data were instructed to submit any missing trip tickets or provide receipts to document and acknowledge any discrepancies. If the fisherman and dealer agreed about a discrepancy, the data was corrected. During the initial mailing of September information, some commercial fishermen misunderstood the information provided on their summarized landings report. Therefore, slight modifications were made for the second mailings based on feedback received. For the second mailing, additional information and explanations were included to help clarify the summarized landings and the data were organized in a different format.

DISBURSEMENT

TIMELINE

Disbursement occurred across three main phases. The first phase covered the month of September alone and occurred over multiple check writes between January 31st and May 13th, 2019. The second phase which occurred between April 3rd and May 13th, 2019 combined the months of October and November to save on time and postage and ensure all eligible fishermen received aid as soon as possible. The third and final phase covered the months of September– November and



was sent out to exhaust the remaining funds from the assistance program. Checks for the final phase were sent out June 12th, 2019 and no subsequent check writes were necessary. Based on the average value from 2015–2017 by month for September (31% of total average value), October (37%) and November (32%), the \$11.6 million allocated by the state can be split into three phases of disbursement, after a \$250,000 set aside for administrative costs. The initial breakdown of funding by month to be distributed was as follows:

- **September:** \$3,518,500
- **October:** \$4,199,500
- **November:** \$3,632,000

One final disbursement phase was sent to exhaust any remaining funds and used Sept-Nov to calculate totals.

SEPTEMBER DISBURSEMENT PHASE

Commercial fishermen who were residents of North Carolina and held a valid, current Standard or Retired Standard Commercial Fishing License or a Shellfish License for North Carolina Residents without a Standard Commercial Fishing License during the months of September–November 2018 were eligible for compensation under this program if they had landings in September between 2015 and 2017. Ex-vessel value was used to determine the economic loss of each fisherman’s landings and is an estimated average value paid to the fisherman by the dealer based on species and market grade. Ex-vessel value for September 2018 was compared to the average ex-vessel value from 2015–2017 for each fisherman who had a prior landings history in 2015, 2016, or 2017. 2018 ex-vessel values were based on 2017 prices since 2018 prices were not available during this program. The loss in value per fisherman was compared to the total loss over all fishermen to determine each fisherman’s percentage of the total lost value from landings due to Hurricane Florence. Monies allocated to each fisherman were based on this percentage.

During the September disbursement phase, 1,782 certified letters with return-receipt were mailed in December 2018 to eligible commercial fishermen for the month of September. The letters explained the program, asked commercial fishermen to verify their September landings data, and to reply if they wanted to participate in the program or not. Out of the 1,782 participants that were sent letters, only 1,425 of them had losses in landings value. A total of 1,603 participants signed for receipt of their certified letter: 879 indicated they wanted to participate with no dispute (697 of those had losses), 89 indicated they did not want to participate in the program, and 34 indicated they wanted to participate but disputed the accuracy of some of the data. An additional six disputes arose from fishermen that did not originally receive a certified letter. Late responses were accepted and 46 fishermen that responded late indicated they wished to participate in the program.

Of the \$3.5 million set aside for the September disbursement phase, \$300,000 was held in reserve for fishermen with losses who did not respond by the deadline or fishermen waiting on disputes to be resolved. A total of \$3,216,699.94 was distributed to eligible fishermen during the first round



of assistance for September and covered 85.54% of all losses incurred. A minimum amount of \$50 was set for any participant who showed a loss of \$50 or less. A total of 664 checks were cut on January 31, 2019 totaling \$3,216,699.94. Multiple check writes ensued due to disputes and late responders. This included a second check write on February 18, 2019 with nine checks totaling \$42,943.31. The third and fourth check writes are combined, due to confidential information, and included five checks distributed on March 19, 2019 totaling \$21,524.72. A fifth check write occurred on April 24, 2019 with four checks totaling \$3,046.42. Late deliveries and most undeliverable packages occurred because of increase USPS mail traffic as the holiday season approached and continued displacement of fishermen from their homes after the hurricane. A total of 46 eligible fishermen submitted response packets late and their checks were processed on May 13, 2019 in a sixth and final check write totaling \$282,363.34 in aid. The total number of checks sent out across all subsequent check writes for September was 728 totaling \$3,566,577.73. The average check amount for September was \$4,905.88.

SEPTEMBER DISPUTE CATEGORIZATION

The September disbursement phase resulted in a total of 40 disputes, all of which were resolved. The majority of disputes (17 disputes; 42.5%) were due to a misunderstanding either from the letter recipient indicating they both “agreed to participate with no dispute” and “agreed to participate but disputed their landings” by mistake on the response form (indicating no grounds for a dispute) or because the recipient thought the attached September landings were representative of the entire year as opposed to just one month. Eleven of the disputes (27.5%) were related to some form of missing data. The following is a breakdown of the disputes involving missing data.

Two disputes were due to a lack of properly completed trip tickets for sales to a dealer. Another two disputes resulted from missing trip tickets which were not provided by the dealer. Two disputes were due to a dealer clicking ‘Purchase Only’ in the electronic trip ticket program causing the data to go to the Federal Government but not to the state. This happens when the fisherman is also a dealer so has already filled out trip tickets but then sold his catch to another dealer. If the catch requires a federal dealer permit, the second buying dealer is still required to report to the federal government. In these cases, there was no original dealer (fisherman was not a dealer) so the tickets were categorized incorrectly and were never received by NCDMF. Four disputes resulted from non-reporting or late submissions of trip tickets/landings. The last dispute was due to no response from a fisherman after a request for a dispute of landings. The remaining twelve disputes were due to a variety of reasons including:

- **Duplicate Landings:** copies of the same landings sent in by both the license holder (as a fisherman dealer) and dealer were entered
- **Entry Error:** landings were entered incorrectly, or records did not match between license holders and dealers
- **Death:** the death of a license holder which involved the transference of the license to another individual



- ***Military Deployment:*** a license holder who was deployed or on military orders during one or all the years analyzed for the program, resulting in no landings
- ***Partnerships:*** license holders who worked together may have had landings listed under only one partner's license instead of being split between both partners.
- ***Transfers:*** late transfers of licenses to family members or other license holders which resulted in landings under different names
- ***Unknown:*** either the license holder was unwilling to cooperate or could not be contacted after the initial dispute

OCTOBER/NOVEMBER DISBURSEMENT PHASE

Commercial fishermen who were residents of North Carolina and held a valid, current Standard or Retired Standard Commercial Fishing License or a Shellfish License for North Carolina Residents without a Standard Commercial Fishing License during the months of September–November 2018 were eligible for compensation under this program if they had landings in October or November between 2015 and 2017. Ex-vessel value was used to determine the economic loss of each fisherman's landings and is an estimated average value paid to the fisherman by the dealer based on species and market grade. Ex-vessel value for October and November 2018 was compared to the average ex-vessel value from 2015–2017 for each fisherman who had a prior landings history in 2015, 2016, or 2017. Ex-vessel values for 2018 were based on 2017 prices since 2018 prices were not available during this program. The loss in value per fisherman was compared to the total loss over all fishermen to determine each fisherman's percentage of the total lost value from landings due to Hurricane Florence. Monies allocated to each fisherman were based on this percentage.

During the October-November disbursement phase, 1,829 certified letters with return-receipt were mailed to eligible commercial fishermen for the months of October and/or November. All of these eligible fishermen had losses in landings value. The letters asked commercial fishermen to verify their October and/or November landings data and to reply whether they wanted to participate in the program. A total of 1,729 participants signed for receipt of their certified letter: 1,011 indicated they wanted to participate with no dispute, 126 declined to participate in the program, 27 indicated they wanted to participate but disputed the landings, and 48 participants responded late. Of the late responses, 32 indicated they would like to participate in the program and 16 indicated they would not like to participate.

Of the \$7,831,500 million slated for the combined October-November disbursement phase, \$600,000 (\$300,000 for each month) was held in reserve for fishermen with losses who did not respond by the deadline or fishermen waiting on the disputes to be resolved. A remaining balance of \$7,231,500 was distributed to 1,001 eligible fishermen on April 4, 2019, during the first round of assistance distribution for October and November. A minimum amount of \$50 was set for any participant who showed a loss of \$50 or less. A total of eight checks were held back from the initial check write due to pending disputes or missing information and were processed in a second check write totaling \$45,476.09 on April 24, 2019. The continued displacement of fishermen from



their homes after the hurricane resulted in many late deliveries or undeliverable packages. A total of 32 checks were processed in a third and final check write for all the late responses occurred on May 13, 2019 and totaled \$179,049.90 in aid. The total number of checks sent out across all subsequent check writes for the October and November was 1,041 totaling \$7,456,025.99 and covered 91.76% of all losses incurred. The average check amount for October and November was \$7,163.71.

OCTOBER/NOVEMBER DISPUTE CATEGORIZATION

The October-November disbursement phase resulted in a total of 30 disputes, all of which were resolved. The majority of disputes were either due to a misunderstanding (9 disputes; 30%) or some form of missing data (8 disputes; 27%). Misunderstandings resulted either from the letter recipient indicating they both “agreed to participate with no dispute” and “agreed to participate but disputed their landings” by mistake on the response form (indicating no grounds for a dispute) or because the recipient thought the attached October-November landings were representative of the entire year as opposed to just one month. Disputes involving missing data were varied and the following is a breakdown of the disputes.

Four disputes resulted from missing trip tickets which were not provided by the dealer; two of these instances were because landings were recorded under the wrong license number. One dispute was due to missing dock tickets which needed to be provided by the dealer while another dispute resulted from a dealer who was uncooperative and did not provide copies of trip tickets for license holders who sold to them. Another dispute was due to landings reported under the license number for an individual as opposed to the fishing company and the last dispute was due to an error between a license holder mistaken as a dealer which resulted in trip tickets not being generated. The remaining thirteen disputes were due to a variety of reasons, including:

- **Death:** the death of a license holder which involved the transference of the license to another individual
- **Duplicate Landings:** copies of the same landings sent in by both the license holder and dealer were entered
- **Military Deployment:** a license holder who was deployed or on military orders during one or all the months analyzed for the program, resulting in no landings
- **Non-Reporting:** an individual who holds a license for fishing and dealing who fails to fill out trip tickets for their own landings
- **Partnerships:** license holders who worked together may have had landings listed under another license
- **Transfers:** late transfers of licenses to family members or other license holders which resulted in landings under different names
- **Dealer Report Error:** dealers who had issues properly filling out trip tickets ranging from reporting the wrong license number to entering the wrong species code



FINAL DISBURSEMENT PHASE

By May 20, 2019, both phases of the assistance program were complete, and checks were distributed to eligible participants. On June 12, 2019, remaining funds in the amount of \$450,000 dollars were distributed to all fishermen that chose to participate in one of the disbursement phases (a total of 1,176 participants), bringing a close to the program and marking the final distribution of funds that Governor Cooper signed into law for commercial fishing relief after Hurricane Florence at \$11,472,603.72 (Table 1). During the final disbursement, a minimum amount of \$20 was set for any participant who showed a loss of \$20 or less. The average check amount was \$382.65 and 3.52% of each individual fisherman's losses were covered.

SUMMARY

After the completion of both phases of the Hurricane Florence Commercial Fishery Assistance Program, aid totaling \$11,472,603.72 was distributed to eligible fishermen across the State of North Carolina. The funds were distributed to fishermen in 39 counties and 1,176 total participants (Table 1). Dare County received the most funding from the program (\$2.3 million) which was distributed to 161 fishermen residing within the county. Fishermen in Carteret County received the second highest amount of funding with roughly \$1.7 million distributed amongst 246 participants. Based on statewide ex-vessel values for 2018, landings from September–November compared to the statewide average ex-vessel value for the same months in 2015–2017, the initial estimated net loss to the commercial fishing industry in North Carolina after Hurricane Florence was about \$9 million; however, the total loss across fishermen that qualified for the program and sustained lost commercial fishing income in those months in 2018 based on trip ticket data was estimated at almost \$15 million. The money allocated to the Hurricane Florence Commercial Fishing Assistance Program allowed fishermen to be compensated for around 77% of their average revenue from commercial fishing between September and November.

An analysis of the NCTTP data for the months of September to November for participants who received aid showed that Hurricane Florence had a negative impact on several commercial fisheries including the blue crab pot, shrimp trawl, ocean gill net, flounder pound net, oyster, and hard clam fisheries (Figures 2 and 3). Most of these fisheries are based in estuarine waters (except for ocean gill net) and tend to be highly productive during the late summer and fall months. The 2018 landings in the blue crab pot and shrimp fisheries declined by nearly 50% compared to the average of 2015–2017. The hard clam fishery was impacted more severely, with over a 70% reduction. The oyster, flounder pound net, and ocean gill net fisheries showed reductions of 25% to 35% in landings when compared to the average landings from 2015–2017.

FEDERAL FISHERY DISASTER RELIEF

On November 1, 2018, North Carolina Governor Roy Cooper submitted a letter to the United States Secretary of Commerce, Wilbur Ross, requesting a federal fishery resources disaster declaration and federal aid be granted to North Carolina to help the state recover from the effects



of Hurricane Florence (Appendix C). Included in this request was around \$20 million in fisheries disaster assistance through the National Oceanic and Atmospheric Administration (NOAA).

On December 6, 2018, Secretary Ross granted Governor Cooper's request determining that North Carolina had experienced a commercial fishery failure due to Hurricane Florence. This determination was needed before Congress could appropriate disaster relief funds to the State. Federal funds are made available to states experiencing a fishery failure under the Magnuson-Stevens Fishery Conservation and Management Act and the Interjurisdictional Fisheries Act.

Through collaboration with NCDMF, NOAA staff produced an economic report outlining the damages sustained to commercial fishermen, seafood dealers, for-hire fishermen, and bait and tackle stores within North Carolina as a result of Hurricane Florence. This report will inform Congress on how much to allocate to North Carolina for disaster relief.

On June 6, 2019, House Resolution 2157 was signed into law allocating \$150 million for commercial fishery failures due to Hurricanes Florence and Michael, and Typhoons Yutu and Mangkhut. It is unclear what portion of that money will be distributed to North Carolina and NCDMF is still waiting to receive the completed economic impact report from NOAA. Once money is designated to North Carolina for disaster relief, the State will be required to submit a proposal defining how it plans to spend the allocated funds. The proposals must be submitted to and approved by NOAA before any money can be disbursed. The NCDMF plans to reach out to stakeholders to determine the best way to allocate and distribute federal funds to affected user groups that have been approved for assistance.



LITERATURE CITED

- National Hurricane Center. (2018). *Monthly Atlantic Tropical Weather Summary*. Retrieved from: <https://www.nhc.noaa.gov/text/MIATWSAT.shtml>. Accessed on: December 15, 2018.
- National Hurricane Center. (2019). *Tropical Cyclone Report: Hurricane Florence*. (Report No. AL062018) Retrieved from: https://www.nhc.noaa.gov/data/tcr/AL062018_Florence.pdf. Accessed on: June 14, 2019.
- National Oceanic and Atmospheric Administration. 2018. Photo credit: This NOAA/RAMMB satellite image taken at 6:00 AM ET on Sept. 12, 2018, shows Hurricane Florence off the US east coast in the Atlantic Ocean. Downloaded from: <https://abcnews.go.com/US/hurricane-florence-space-chilling-images-show-colossal-storm/story?id=57769871> On December 15, 2018
- National Weather Service. (2019). *Historic Hurricane Florence, September 12-15, 2018*. Retrieved from: <https://www.weather.gov/mhx/Florence2018>. Accessed on: January 15, 2019.
- N.C. General Assembly. *Session Law 2018-136*. Third Extra Session 2018. (2018). Accessible From: <https://www.ncleg.net/enactedlegislation/sessionlaws/pdf/2017-2018/sl2018-136.pdf>
- N.C. General Assembly. *Session Law 2018-138 Senate Bill 823*. Session 2017. (2018). Accessible From: <https://www.ncleg.net/Sessions/2017/Bills/Senate/HTML/S823v5.html>



TABLES

Table 1. Total check counts and amounts by county for the Hurricane Florence Assistance Program in dollars.

Mailing County	Total Number of Participants	Total Amount Paid
Beaufort	77	\$904,898.46
Bertie	2	***
Brunswick	87	\$339,468.93
Camden	25	\$663,635.07
Carteret	246	\$1,743,520.16
Chatham	1	***
Chowan	8	\$12,679.69
Columbus	3	\$7,282.43
Craven	23	\$438,427.65
Currituck	31	\$221,524.92
Dare	161	\$2,305,882.11
Duplin	3	\$1,483.92
Durham	1	***
Edgecombe	1	***
Forsyth	3	\$18,429.19
Greene	1	***
Hoke	2	***
Hyde	69	1,318,951.38
Iredell	1	***
Johnston	1	***
Jones	2	***
Lenoir	1	***
Martin	1	***
Mecklenburg	1	***
Montgomery	2	***
New Hanover	70	\$247,324.06
Onslow	137	\$1,445,687.72
Pamlico	57	\$774,074.18
Pasquotank	23	\$203,831.31
Pender	53	\$235,671.96
Perquimans	28	\$130,119.15
Pitt	10	\$72,533.32
Randolph	1	***
Tyrrell	25	\$301,105.00
Union	1	***
Wake	4	\$1,744.26
Washington	8	\$26,588.90
Wayne	4	\$1,580.43
Wilson	2	***
Grand total	1,176	\$11,472,603.72



FIGURES

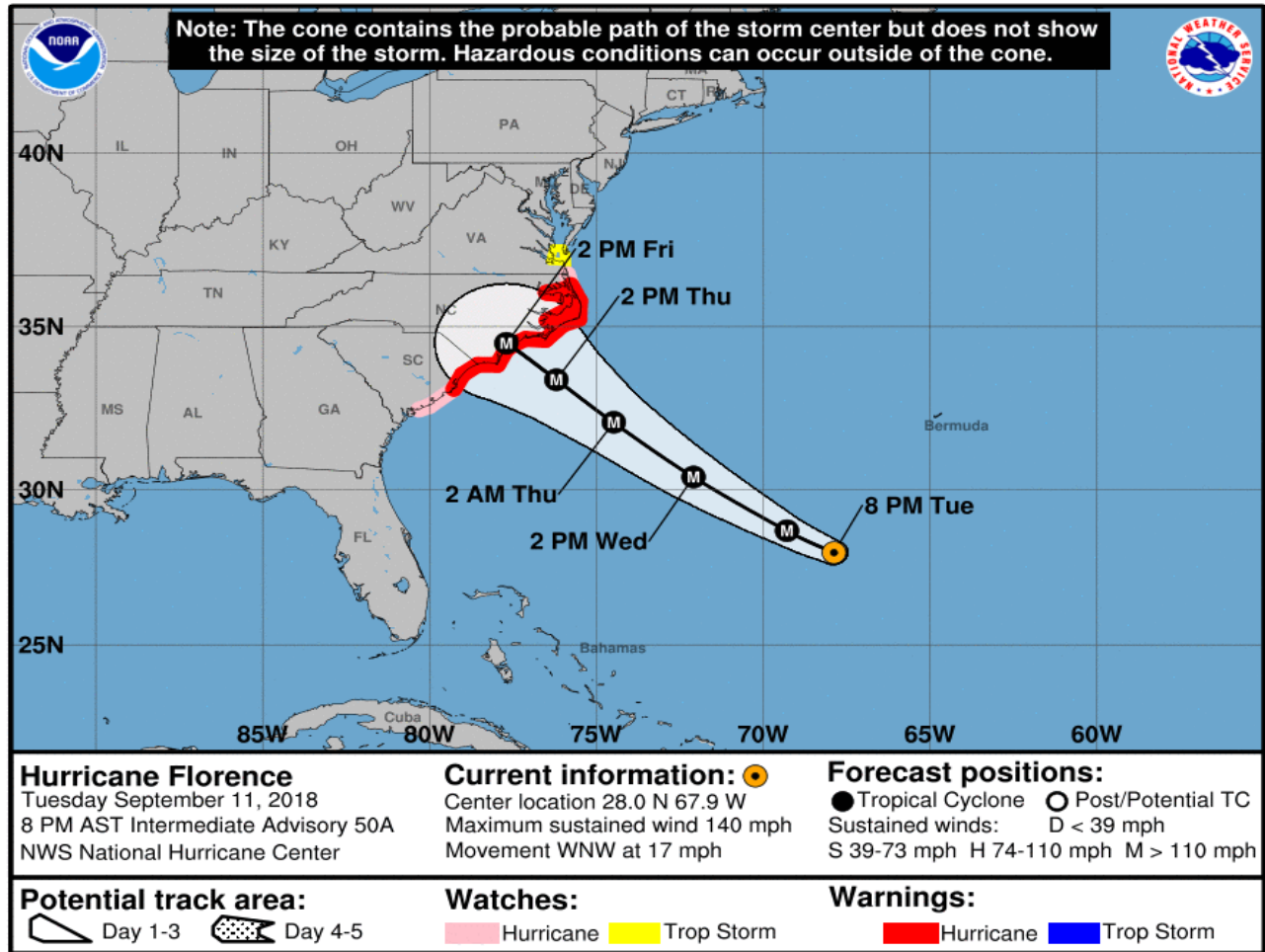


Figure 1. Trajectory of Hurricane Florence before landfall (National Hurricane Center 2019).



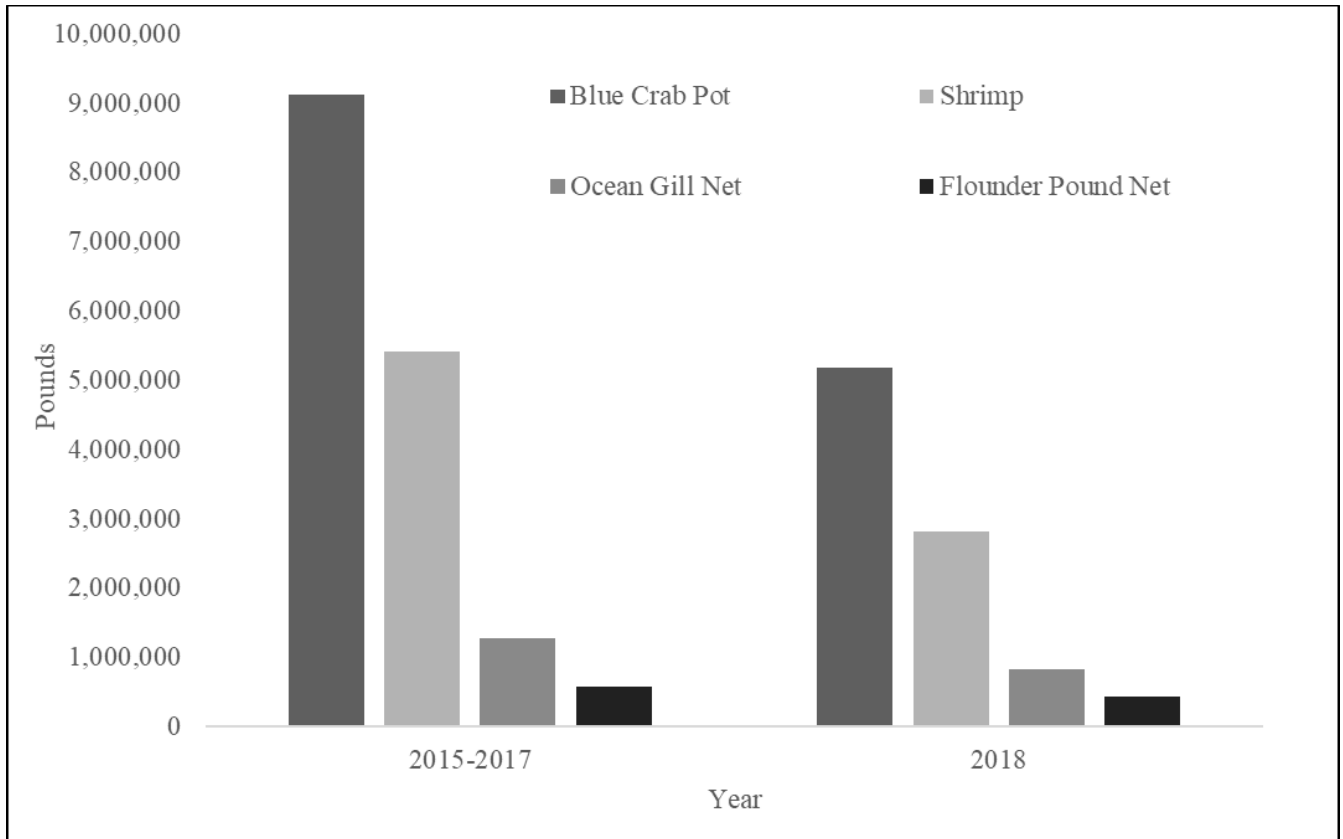


Figure 2. Average landings (2015–2017) for September through November compared to 2018 landings for participants who received aid for the blue crab pot, shrimp, ocean gill net, and flounder pound net fisheries.



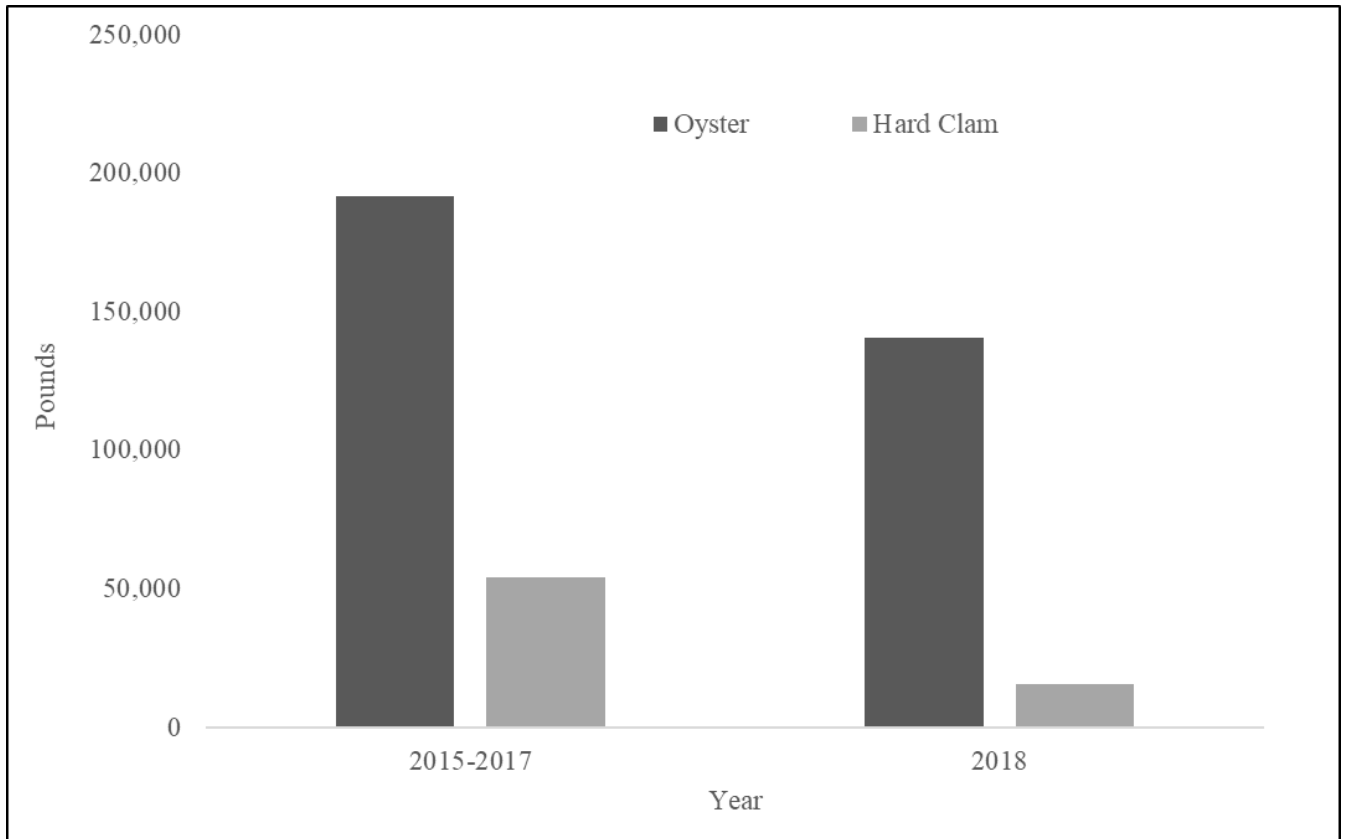


Figure 3. Average landings (2015–2017) for September through November compared to 2018 landings for participants who received aid for the oyster and hard clam fisheries.



APPENDIX

APPENDIX A: SHELLFISHING PROCLAMATIONS

PA-105-2018- CLOSURE: Brunswick/ New Hanover/ Pender/ Onslow/ Carteret/ Craven/ Pamlico/ Beaufort/ Hyde/ Dare Counties. Temporary closures will take effect at sunrise on Thursday, September 13, 2018.

PA-106-2018- OPENING: Hyde/ Dare Counties. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Saturday, September 29, 2018.

PA-107-2018- OPENING: Carteret County. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Thursday, October 4, 2018.

PA-108-2018- OPENING: Carteret County. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Wednesday, October 23, 2018.

PA-109-2018- OPENING: Carteret/ Pamlico/ Hyde/ Dare Counties. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Friday, October 5, 2018.

PA-110-2018- OPENING: Carteret/ Onslow Counties. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Saturday, October 6, 2018.

PA-111-2018- OPENING: New Hanover/ Pender/ Onslow/ Carteret Counties. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Wednesday, October 10, 2018.

PA-112-2018- OPENING: Pamlico/ Beaufort/ Hyde/ Dare Counties. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Thursday, October 11, 2018.

PA-113-2018- OPENING: Brunswick/ Carteret Counties. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Wednesday, October 17, 2018.

PA-114-2018- OPENING: Onslow/ Carteret Counties. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Thursday, October 18, 2018.

PA-115-2018- OPENING: Onslow/ Pamlico Counties. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Friday, October 19, 2018.

PA-116-2018- OPENING: Onslow/ Carteret Counties. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Saturday, October 20, 2018.

PA-117-2018- OPENING: New Hanover/ Pamlico Counties. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Wednesday, October 24, 2018.

PA-119-2018- OPENING: Brunswick County. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Friday, October 26, 2018.



PA-120-2018- OPENING: New Hanover County. Temporary closures will return to the status in existence immediately prior to September 13, 2018, taking effect at sunrise on Saturday, October 27, 2018.

***For more detailed information about shellfishing closures and proclamations, visit the NCDMF Shellfish Sanitation website: <http://portal.ncdenr.org/web/mf/proclamations-polluted-areas>*



APPENDIX B: HURRICANE FLORENCE PARTICIPANT PACKET

Form 1: Informational letter explaining the program to the participant for the September phase.



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

December 11, 2018

Participant ID#
Name
Mailing Address
City, State, Zip Code

Dear Commercial Fisherman,

As you may know, under recently enacted state law, commercial fishing assistance is being made available to commercial fishermen and shellfish harvesters for income losses due to harvest reductions sustained from Hurricane Florence. Commercial fishermen who are residents of North Carolina who held a valid, current Standard or Retired Standard Commercial Fishing License, or a Shellfish License for North Carolina Residents without a Standard Commercial Fishing License, during the month of September 2018 are eligible for compensation under this program.

A detailed report of your September landings for 2015–2018 is enclosed. You are eligible for compensation based on these amounts.

Please complete the enclosed response form verifying your correct mailing address and phone number. Also, please complete and enclose the attached State of North Carolina Substitute W-9 Form if you are participating in the program. Failure to return to the Division of Marine Fisheries a completed and signed response form and W-9 by January 4, 2019 shall be considered a decision not to participate in the Hurricane Florence commercial fishing assistance program. If our records are in error, please provide copies of relevant North Carolina trip tickets to document your landings along with your response form.

To ensure that all funds available for assistance are disbursed to eligible program participants, no funds will be disbursed until the Division of Marine Fisheries resolves all landings disputes submitted in this program. The total amount of funds designated for individual assistance will be divided proportionally by percent among eligible licensed fishermen who elect to participate in the program, ultimately with the goal of exhausting all assistance.

Please complete the attached response form and W-9 form, and return it by January 4, 2019 in the enclosed self-addressed postage paid envelope. If you have any questions, please call Brandi Salmon at the Division of Marine Fisheries in Morehead City, NC at 1-800-682-2632 (toll-free in NC only) or (252) 726-7021.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen W. Murphey".

Stephen W. Murphey
Director

State of North Carolina | Division of Marine Fisheries
3441 Arendell Street | P.O. Box 769 | Morehead City, North Carolina 28557
252-726-7021



Form 3: Informational letter explaining the program to the participant for the October-November phase.



ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
STEPHEN W. MURPHEY
Director

February 25, 2019

Participant ID#
NAME
MAILING ADDRESS
CITY, STATE, ZIP CODE

Dear Aaron Abbott,

Under recently enacted state law, commercial fishing assistance is being made available to commercial fishermen and shellfish harvesters for income losses due to harvest reductions sustained from Hurricane Florence. Commercial fishermen who are residents of North Carolina who held a valid, current Standard or Retired Standard Commercial Fishing License, or a Shellfish License for North Carolina Residents without a Standard Commercial Fishing License, during the months of October and/or November 2018 are eligible for compensation under this program.

A detailed report of your October and/or November landings for 2015–2018 is enclosed. You may be eligible for compensation based on these amounts.

Please complete the enclosed response form verifying your correct mailing address and phone number. Also, please complete and enclose the attached State of North Carolina Substitute W-9 Form if you are participating in the program. Failure to return to the Division of Marine Fisheries a completed and signed response form and W-9 by March 15th, 2019 shall be considered a decision not to participate in the Hurricane Florence commercial fishing assistance program. Please note, if you have already filled out a W-9 Form as part of this program you are not required to complete another W-9 form but still must send in your response form if you want to participate. If our landings records are in error, please provide copies of relevant North Carolina trip tickets to document your landings along with your response form.

The Division of Marine Fisheries will attempt to resolve all landings disputes submitted in this program before funds are disbursed. The total amount of funds designated for individual assistance will be divided proportionally by percent among eligible licensed fishermen who elect to participate in the program, ultimately with the goal of exhausting all assistance.

Please complete the attached response form and W-9 form (if applicable) and return it by March 15th, 2019 in the enclosed self-addressed postage paid envelope. If you have any questions, please call Brandi Salmon at the Division of Marine Fisheries in Morehead City, NC at 1-800-682-2632 (toll-free in NC only) or (252) 726-7021.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen W. Murphey".

Stephen W. Murphey
Director

State of North Carolina | Division of Marine Fisheries
3441 Arendell Street | P.O. Box 769 | Morehead City, North Carolina 28557
252-726-7021



Form 5: Informational letter explaining the program to the participant for the final disbursement phase.



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

STEPHEN W. MURPHEY
Director

June 11, 2019

Dear Sir/Ma'am,

Over the past several months, the state of North Carolina distributed over \$11 million to commercial fishermen and shellfish harvesters to compensate for income losses due to harvest reductions sustained from Hurricane Florence. You are receiving this letter and one final check as a result of your participation in the Hurricane Florence Commercial Fishing Assistance Program. The fishing assistance program is coming to a close and the enclosed check to you, along with checks to other participating fishermen, represents the final disbursements which exhaust the original \$11.6 million in state funding.

As with the disbursements for September and October/November, this check is based on each fisherman's loss compared to the total loss across all participants in the program. Losses used in the calculation include September through November 2018. Thank you for participating in the Hurricane Florence Commercial Fishing Assistance Program and we thank you for your patience while this program was under way. If you have any questions, please call Brandi Salmon at the Division of Marine Fisheries in Morehead City, NC at 1-800-682-2632 (toll-free in NC only) or (252) 726-7021.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen W. Murphey".

Stephen W. Murphey
Director

State of North Carolina | Division of Marine Fisheries
3441 Arendell Street | P.O. Box 769 | Morehead City, North Carolina 28557
252-726-7021



APPENDIX C: FEDERAL FISHERY DISASTER REQUEST LETTER FROM GOVERNOR COOPER

Office of the Governor State of North Carolina

Roy Cooper
Governor



20301 Mail Service Center
Raleigh, N.C. 27699-0301

November 1, 2018

Mr. Wilbur Ross, Secretary
U.S. Department of Commerce
1401 Constitution Avenue NW
Washington, D.C. 20230

Dear Secretary Ross:

Hurricane Florence struck North Carolina on September 14, 2018. The powerful storm stalled over the Wilmington area resulting in unprecedented continuous rainfall for almost four consecutive days. Some coastal areas withstood the brunt of an implausible 20 plus inches of rainfall. Coupled with a strong storm surge, the storm caused historic and widespread flooding overwhelming significant portions of the North Carolina estuarine and ocean coastline.

This was the storm of a lifetime for many coastal communities. The damaging economic impact to the state's fisheries was, and continues to be, significant. While state appropriations will begin to afford some limited initial relief, much more is needed. Federal fisheries disaster assistance can provide the means to a longer-term recovery that North Carolinian fishermen so desperately need. Therefore, I respectfully request that you declare a federal fishery resources disaster as outlined in the Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. §§ 1861a and 1864, and the Interjurisdictional Fisheries Act, 16 U.S.C. § 4107.

Fisheries are an essential part of local coastal markets and contribute considerably to North Carolina's economy. Behind North Carolina's fragile strand of barrier islands lie shallow waters where the land and sea gradually merge forming estuaries, brackish swamps and mud flats that serve as nursery areas for shrimp, crabs, finfish and shellfish. Traditionally ranked in the top-10 seafood producing states, North Carolina has over 4,000 miles of shoreline and 2.9 million acres of marine ocean and estuarine waters. Latest estimates show that more than 6,000 licensed commercial fishermen and 1 million licensed recreational anglers enjoy the bounty of the state's marine resources.

*Location: The State Capitol Building, Raleigh, N. C. 27602
Phone: 919-814-2100*



Secretary Wilbur Ross
November 1, 2018
Page 2

The scale of harm to recreational and commercial fisheries along the North Carolina coast from Hurricane Florence is devastating and puts those fisheries at clear risk of failure. Lost income from compromised fishing grounds, damaged or destroyed gear and vessels, power outages and other infrastructure disruptions have all further combined to amplify the impact. Water quality issues resulting from record rainfall runoff compounded the devastation causing suspension of shellfish harvesting in many affected areas. Serious disruption affecting future production in the harvestable biomass is anticipated.

Local recovery efforts are underway but additional resources and funding are desperately needed. State fishery managers are evaluating landing and other data to assess estimated revenue declines and evidence of economic harm. The State of North Carolina stands ready to provide any information that you need to assist you in your determination to declare a federal fishery resources disaster. I appreciate your timely consideration to this urgent request.

With kind regards, I am

Very truly yours,



Roy Cooper

RAC/sm



APPENDIX D: FEDERAL FISHERY DISASTER DETERMINATION LETTER



UNITED STATES DEPARTMENT OF COMMERCE
The Secretary of Commerce
Washington, D.C. 20230

December 6, 2018

The Honorable Roy Cooper
Governor of North Carolina
Raleigh, NC 27699

Dear Governor Cooper:

Thank you for your letter requesting a commercial fishery failure due to a fishery resource disaster caused by Hurricane Florence. Based on the National Oceanic and Atmospheric Administration's National Marine Fisheries Service's (NMFS) initial understanding of impacts due to Hurricane Florence on North Carolina fisheries under Section 312(a) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and Section 308(b) of the Interjurisdictional Fisheries Act (IFA), I have determined that a commercial fishery failure due to a fishery resource disaster has occurred.

We will work with you and your communities to further estimate and assess Hurricane Florence's impacts on your state's fisheries and associated processing infrastructure. We will use these assessments to evaluate the need for fishery disaster assistance that cannot be met through other existing Federal relief programs.

This determination provides the basis for Congress to appropriate disaster relief funding under both the IFA and MSA. Should Congress appropriate funds for disaster assistance, NMFS will work with your state to develop a spend plan to assist with the recovery of North Carolina's fishing industry and fishing communities. Additionally, eligible businesses and other entities in North Carolina may be able to access other loan/funding programs within the Department of Commerce (e.g., Economic Development Administration grants) or through other Federal relief programs (e.g., Small Business Administration loans).

If you have any further questions, please contact Michael Platt, Jr., Assistant Secretary for Legislative and Intergovernmental Affairs, at (202) 482-3663.

Sincerely,

A handwritten signature in black ink that reads "Wilbur Ross".

Wilbur Ross

