Hurricane Harvey Fisheries Damage Assessment — Preliminary Results

HURRICANE HARVEY made landfall near Rockport, Texas on **August 25, 2017** as a **Category 4** storm with damaging winds of 130 mph. Further, prolonged heavy rains associated with the storm resulted in extreme flooding events throughout Texas and into Louisiana. Texas Governor Greg Abbott estimated the damage from Hurricane Harvey at **$150 billion to $180 billion** for his state alone.

Damaged docks in Rockport, Texas over 5 weeks after Hurricane Harvey.
Photo Credit: NOAA Fisheries

THIS STUDY

Texas Parks & Wildlife Department, with assistance from NOAA Fisheries, conducted a rapid appraisal of damage from Hurricane Harvey through in-person, online and phone surveys along the Texas coast from Nueces to Jefferson County. A total of **817 businesses and individuals** participated in the surveys through November 17, 2017. Of those businesses that participated **53%** reported some damage and **23%** of vessel owners had damages. Total damages estimated to vessels and businesses **exceeded $58 million**.

WHAT'S AT STAKE?

Commercial and recreational fisheries are an important economic driver of many Texas coastal communities. In 2016, commercial fishing alone accounted for **$195 million in landings revenue** and saltwater anglers spent **$425 million on fishing trips**.

WHAT WERE THE DAMAGES TO FISHING OPERATIONS AND FISHING-RELATED BUSINESSES?

Operation / Business Type		Vessel / Facilities Damages		Immediate Job Losses	Total Revenue Losses
		% Damaged	Total Damages		
Commercial & Fishing Businesses	Commercial Fishing Operations	25%	$12.2 million	673	$16.6 million
	Seafood Processors & Dealers	30%	$11.2 million	380	$6.7 million
	Seafood Retailers	26%	$0.7 million	152	$0.6 million
For-Hire & Recreational Fishing Businesses	For-Hire Businesses	21%	$27.7 million	266	$9.1 million
	Bait & Tackle Shops	54%	$3.3 million	193	$1.7 million
	Marinas & Other Related Businesses	41%	$2.8 million	42	$1.4 million
Total Damages & Job Losses			**$58.0 million**	**1,705**	**$36.2 million**

Commercial Fishing & Seafood Businesses

WHAT'S AT STAKE?

The Texas commercial and seafood industry had **revenues of $1 billion** in 2016 and directly employed **16,000 workers**. The commercial fishing fleet employed **3,400 fishermen**.

P J Shrimp Co in Fulton, Texas over 5 weeks after Hurricane Harvey. **Photo Credit:** NOAA Fisheries

DAMAGES BY OPERATION / BUSINESS TYPE

Type	Summary	Reported Damages
Commercial Fishing Operations	Commercial fishing operations that were affected by Hurricane Harvey included a few Gulf fishing vessels that sustained damage or sunk, but the larger impact was upon the small inshore fishing fleet that saw many more vessels damaged, sank or destroyed. Commercial vessels surveyed had an average damage of $10,000/vessel. One of the primary concerns for many oyster fishermen was whether they would have their vessel ready for the November 1st opening of the oyster season. Interviews with those fishermen who had damaged vessels suggested that difficulty in finding funds to repair their vessel in time was a primary obstacle as most vessels lacked insurance and applying for a disaster loan from the Small Business Association was too cumbersome or required documentation they did not possess.	Vessels & Gear **$5.7 M** Facilities **$6.5 M**
Seafood Dealers & Processors	Seafood dealers and processors suffered losses from Hurricane Harvey through damage to facilities, loss of seafood, damage to equipment and piers and docks. However, some of the higher losses from expected revenue loss may continue to grow as a result of lack of product being available. Many oyster businesses are projecting even larger losses in the future as oyster reefs were devastated by freshwater inflows and may take years to recover. Some dealers lost power and lost product as a result of the storm. Overall, those surveyed saw average total damages of $82,000 and average revenue loss of $106,000.	Facilities **$1.6 M** Seafood **$7.4 M** Equipment **$1.3 M** Pier / Dock **$0.9 M**
Seafood Retailers	Seafood market and restaurants were one of the least impacted business sectors included in the surveys and were a small portion of the total sample. Retail seafood businesses that were affected saw power outages affecting refrigerated and frozen product and had an average of $9,000 in total damages and $25,000 in lost revenue.	Facilities **$0.0 M** Seafood **$0.6 M** Equipment **$0.1 M**

M = million

For-Hire & Recreational Fishing Businesses

WHAT'S AT STAKE?

Saltwater anglers spent **$425 million on fishing trips** in 2016, which directly supported **3,600 jobs**. For hire operations alone directly employed **500 workers**.

Aransas Bait Co in Fulton, Texas over 5 weeks after Hurricane Harvey. **Photo Credit:** NOAA Fisheries

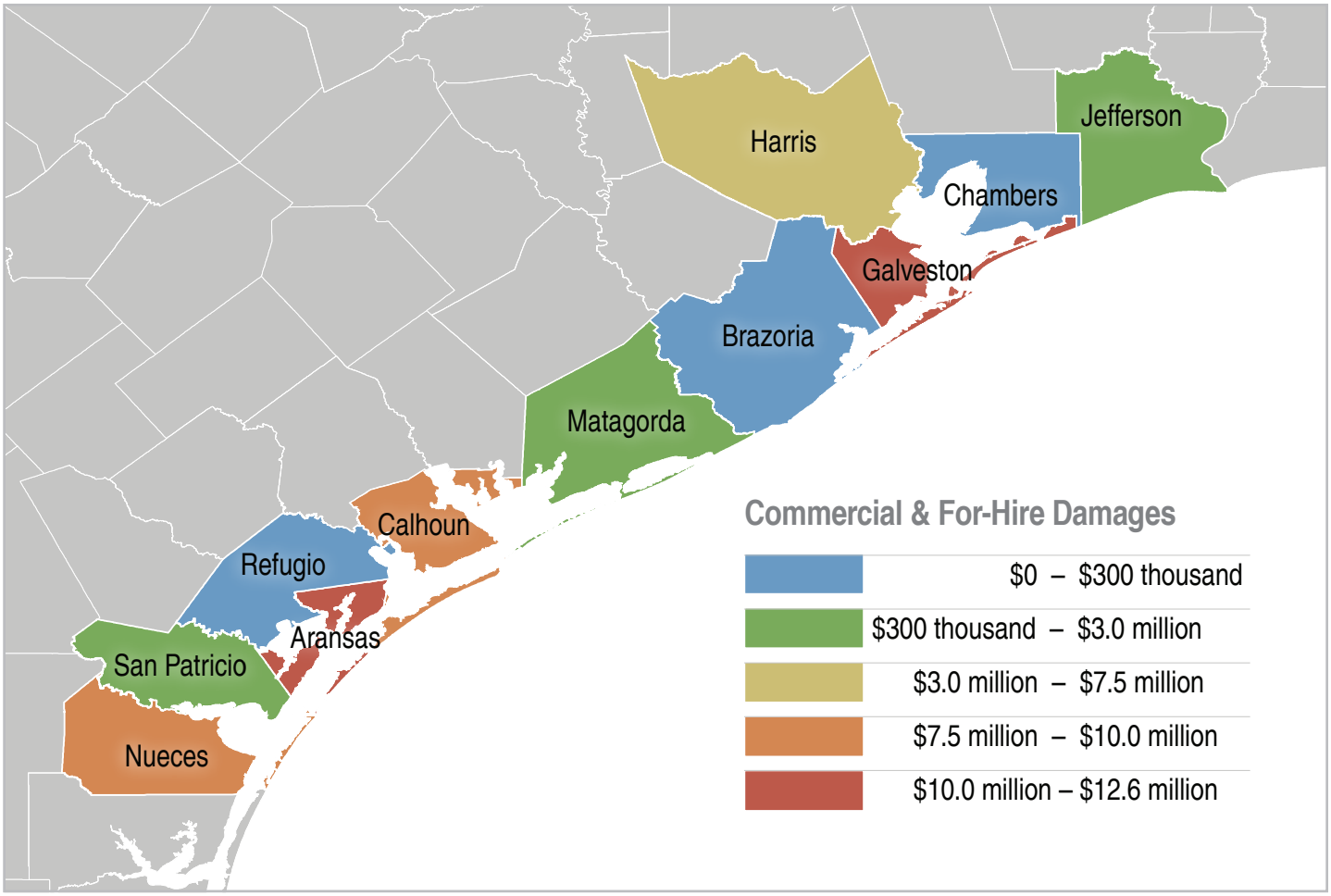
DAMAGES BY OPERATION / BUSINESS TYPE

Type	Summary	Reported Damages
For-Hire Businesses	The Texas' for-hire fleet surveyed sustained damages averaging $27,000/vessel. Hurricane Harvey had a significant impact upon fishing operations as many experienced a high number of cancellations in the wake of the storm. Damaged docks and a lack of fuel and bait further curtailed fishing operations. Overall, respondents indicated that they were shut down an average of 32 days, with many respondents indicating they were not open over the lucrative Labor Day Weekend. With many docks and marinas and hotels still not repaired or re-built, these losses may continue to mount.	Vessels & Gear **$4.1 M** Facilities **$23.6 M**
Bait & Tackle Shops	At least 54% of bait and tackle shops surveyed sustained damages, with damages averaging $56,000 per shop. These damages were often not covered by insurance due to either lack of insurance, wrong insurance or high deductibles that exceeded the damage level. In addition, 92% of shops surveyed were closed in the days immediately following the storm. On average, shops were closed for 22 days resulting in a $28,000 loss in revenue.[1]	Facilities **$1.9 M** Bait & Seafood **$0.3 M** Equipment **$0.3 M** Pier / Dock **$0.8 M**
Marinas & Other Related Businesses	Marinas and other businesses were very sparse in the sample, so figures here may not be representative of complete impacts along the coast. These businesses included marinas, large charter fishing operations, boatyards and marine supply along with other related business types. Approximately 41% of the businesses in the survey sustained damages, with building damages averaging $134,000 per business and pier and dock damages averaging $119,000. Substantial damage was seen to have occurred to dry storage facilities along the coast primarily in Aransas and Calhoun Counties. On average, marinas and related businesses reported a $94,400 loss in revenue.	Facilities **$1.2 M** Bait & Seafood **$0.1 M** Equipment **$0.8 M** Pier / Dock **$0.7 M**

[1] This is a lower bound estimate; excludes a number of shops that were totally destroyed but no damage estimate was available.

M = million

Total Damages by County



Map Credit: NOAA Fisheries

Over 5 weeks after Hurricane Harvey: A handmade sign on Seaworthy Marine Supply in Fulton, Texas (left); Debris in a residential area in Rockport, Texas (middle); A semi-trailer truck hauls away debris in Port Aransas, Texas. **Photo Credit:** NOAA Fisheries