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TIMELY INFORMATION
ALABAMA COOPERATIVE EXTENSION SERVICE/AUBURN UNIVERSITY/AUBURN, ALABAMA

HURRICANE FREDERIC

Preliminary Damage Assessment

COMMERCIAL SEAFOOD INDUSTRY

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STATUS OF THE INDUSTRY: PRE-FREDERIC

The Alabama coastline is relatively small in comparison with many other states, but the length of the coast belies the importance of the commercial fishing and seafood industry to the economy of the State and the nation. Alabama is located in the center of the North Central region of the Gulf of Mexico, an area which is the source of 33 percent of the nation's seafood.

Based on the value of product landed, in 1978 Alabama's two major seafood ports--Bayou La Batre and Bon Secour/Gulf Shores--were ranked 14th and 30th, respectively, in the nation. Expressed in terms of dollars, the dockside value of seafood landings was $25.1 million at Bayou La Batre and $10.0 million at Bon Secour/Gulf Shores. The annual economic impact of the Alabama seafood industry on the State and the nation has been estimated to be in excess of $140 million.

The more than 400 Alabama-based shrimp boats and other Alabama commercial fishing vessels provide jobs for nearly 2,000 commercial fishermen. The seafood products landed in our State supply 57 processing plants that employ both year-round and seasonal workers. It has been estimated that approximately 2,500 full-time job equivalents are provided by the shrimp, fish, crab, and oyster processing plants in the two-county area. These figures do not include the employment generated, both locally and at distant points, by the production of fishing vessels, engines, winches, refrigeration and electronics equipment, or the transportation services required by the commercial fishing industry.

Although each segment of the industry (shrimp: finfish, oyster, and crab) adds to both revenue and employment, shrimp is the mainstay of the commercial fishing industry accounting for approximately 70 percent of the volume and 90 percent of the value of all seafood product landings in Alabama.

STATUS OF THE INDUSTRY: POST- FREDERIC

The following information is provided as a preliminary assessment of the damage suffered by the commercial fishing and seafood industry because of "Hurricane Frederic". The reader is cautioned that any conclusions or decisions based on the information contained herein may require revision when more complete and accurate data becomes available.

Every effort has been made to present an accurate and realistic assessment of the damage suffered, but because of the short time since Frederic's occurrence and the lack of complete information, the data given in this report should not be considered as definitive. The final hurricane damage assessment, based on documented and complete information, is not expected to be available for another three to six months.

Dollar values cited were obtained from personal conversations with representatives of several long-established insurance firms that specialize in marine and commercial coverage. These firms provide coverage for vessels, shoreside facilities, processing plants, etc. for approximately 80 percent of the commercial fishing interests and allied industries on the Alabama coast. It should be noted that all dollar figures given include both wind and water damage.

The physical loss figures given are known to be somewhat understated. The understatement can be attributed to several factors, the lack of information on the settlement values still to be negotiated for many claims, and the particular nature of the damage. For example, electric motors that had been immersed in saltwater can either be baked to remove the moisture or they may be considered as totally destroyed. Earlier experiences, e.g. Hurricane Camille, indicate that baked motors may or may not operate. Those which appear salvageable and are returned to service often fail within three to six months after being placed in operation. Similar situations arise with other equipment.

DAMAGE ASSESSMENT

Because of the hurricane's path and differing geographical characteristics in the two coastal counties, there is little comparison between the damage. Baldwin County marine and seafood related industries sustained relatively minor physical damage. Vessel damage in both counties was also reported as very minor to the larger "Gulf Boats" and minor to the smaller "Bay shrimpers". The total physical damage estimate for Baldwin's processing facilities and commercial fishing vessels is only $200,000. Except when specifically indicated otherwise, the remainder of this report deals with the losses and damage in Mobile County.

For purposes of discussion, losses and damage will be categorized as follows: (1) Resource Loss, (2) Physical Damage, (3) Production Loss, and (4) Market Loss. Further subdivision will be made in the Physical Loss category to examine the Seafood Industry and the necessary Support Industries associated with it.

RESOURCE LOSS

As indicated earlier in this report, Alabama is extremely fortunate to be located near one of the most fertile and productive fishing areas of the United States. The principal seafood resources are shrimp, oysters, blue crab, and various species of finfish.

The shrimp and the finfish industries have suffered no apparent resource damage. Reports indicate that, in fact, landings in both the shrimp and finfish industries are running at normal or above-normal for this season of the year. This fact seems to verify the old adage that fishing improves after a heavy storm.

Although no current data is available on crab landings, it appears that the crab industry was not hurt by the onslaught of Hurricane Frederic. The greatest majority of crab fishermen returned to work shortly after the storm and are successfully taking crabs, thus indicating that the resource itself was not substantially damaged.

Alabama's oyster resources appear to have borne the brunt of the seafood resource damage. All preliminary information indicates that much of this resource no longer exists. A thorough evaluation, utilizing Scuba divers to view the oyster reefs has not been made because of Health Department prohibitions on humans entering the polluted coastal waters. It is expected that the underwater evaluation, when conducted, will verify the present assessment.

Alabama's oyster resources were severely depleted earlier this year due to spring floods which lowered the salinity of the reef areas and impaired the reproductive and survival capacity of the oysters. Because of the flooding, $1.25 million in federal funds were made available to the State for shell planting. It is anticipated that additional funds to help alleviate the destruction of the hurricane will be made available under PL-88-309, Section 4-B, the Commercial Fisheries Resource Disaster Assistance Program.

The magnitude of the shell-planting program that will be required to return Alabama's oyster resources to former conditions will far surpass all earlier shell planting efforts in this area. In order for survival to occur, a hard shell bottom on which the juvenile oysters or "spat" can develop must be available during the spring reproductive cycle. Under favorable conditions, a minimum of two years will be required before these oysters reach harvestable size.

Thus, the majority of Alabama's oystermen will face nearly a three-year hiatus in harvesting operations. This portion of Alabama's commercial seafood industry employs nearly 350 persons in harvesting who will be facing massive job dislocations during this period. The seriousness of this situation must be realized. Expectations are that there will be virtually no oyster fishery in Alabama waters for the next three years.

It is conceivable that at least some of the oyster processing houses can continue to operate by purchasing oysters taken out-of-state, but only by incurring additional transportation costs. These costs may make it unprofitable for some firms to continue to operate.

PHYSICAL DAMAGE: Seafood Industry

Bayou La Batre, Mobile County's seafood port, suffered extensive damage to both commercial and residential areas. This area experienced not only hurricane-force winds, but also was faced with an 8 to 12-foot rise in water level. Numerous structures that withstood the force of the winds with only minor damage were inundated by the rising waters.

The degree of damage inflicted upon the shoreside facilities varied dramatically from complete devastation to minor damage with every conceivable intermediate amount. For purposes of discussion, physical damage to the seafood industry will be considered as: (1) Vessel Damage, (2) Inventory Loss, (3) Plant and Equipment Damage.

Vessel Damage was confined primarily to the smaller and older "Bay boats" and other small boats. In some instances, these boats were capsized or had their bottoms torn out when they were driven ashore. Losses from damage to these types of vessels has been estimated at approximately $200,000 in the two-county area. This does not include the numerous smaller and predominately uninsured vessels that were damaged or destroyed.

The larger and generally newer "Gulf boats" received only very minor damage. One local underwriter who insures more than 200 Gulf shrimp boats reported that he had not received one claim for vessel damage due to Frederic.

Some of the Gulf boats left the Alabama area and rode out the storm in calmer waters. In numerous instances, crewmen on those boats remaining in the Bayou brought their families aboard to ride out the storm's fury.

Inventory Loss occurred not only due to the rising tide, but also because of loss of electricity to freezer and refrigeration storage facilities. These losses included frozen product, chilled product, and raw product that had not been processed. Numerous firms owning refrigerated or freezer trucks removed as much product from their plant storage area as possible and moved it to higher ground, thus reducing their product losses. Despite these attempts, it has been estimated that nearly $250,000 of product was lost. These losses were confined to a small number of firms. One firm alone sustained $100,000 in product loss that was not covered by insurance--because the loss was due to power outage.

Plant and Equipment Damage varied considerably with some firms sustaining severe damage. In general, the newer and more sturdily constructed

plants received lesser amounts of wind damage but were subjected to water damage.

Although most of the larger processing plants were adequately insured, with a combination of conventional and federal flood insurance coverage, many of the smaller firms did not have sufficient coverage. It is quite possible that several of the smaller operations will cease to exist due to their inability to absorb losses that were not covered by insurance.

Certain types of costs incurred because of the hurricane constitute an uninsurable loss. These include clean-up cost, the cost of replacing drive-ways and parking areas, and the cost generated by disposal of damaged supplies, product, and equipment. Clean-up efforts were hampered for a short period because of a shortage of labor. Laborers who were normally employed by seafood processing plants at relatively low wage rates found it more profitable to work on a daily basis for considerably higher wages in other disaster-related employment. Not all firms were faced with this labor shortage, but in several instances it did substantially retard the processors' efforts to return to normal operation.

Estimates of insured damage to seafood industry plants and equipment in Mobile County total $1,980,000. Losses not covered by insurance (including product loss and other physical loss) are estimated at $350,000.

It is expected that these totals will require upward revision as more information becomes available.

PHYSICAL DAMAGE: Support Industries

Many firms, both large and small, are needed to provide highly specialized equipment and services to the commercial fishing and seafood industry. A large number of these support industries are located in the same area as the industry they supply and consequently were also severely damaged by the hurricane.

Support industries include such diverse groups as shipbuilding and repair, electronics equipment dealers and repair shops, net and board shops, and marine supply firms. Dependent upon the nature of their business, great variation in the amount of damage to both inventory and facilities occurred.

For example, it was initially thought that the shipbuilding industry had only minor losses other than clean-up costs. Although this industry had few major losses due to hull damage on partially completed boats, it did sustain losses on equipment, components that had not yet been installed on vessels under construction, and damage to buildings.

Due to the unavailability of a sufficient amount of information, damage to the component industries that comprise the support industry group can not be fully determined.

Estimates based on the available claims data indicate an expected loss of nearly $1.2 million. Unlike the seafood industry where uninsured losses comprised only 15 percent of all losses, the support industry was woefully underinsured. Slightly less than 50 percent of the total losses in the support industries were covered by insurance.

This lack of insurance coverage can be partially attributed to the large number of individual firms in the area. Many of these firms are quite small and may have chosen to use their limited financial resources in other ways. A number of the smaller firms may not be able to remain in business because of the uninsured losses they experienced.

PRODUCTION LOSS

Although no completely accurate means of estimating the loss in seafood production due to the hurricane exists, the following information is presented in an effort to arrive at a realistic value. Many seafood processing plants in Bayou La Batre did not resume operations for three-to-four weeks because of the effects of the hurricane. A small number of plants were able to begin operations sooner, but generally only on a small scale utilizing a smaller work force and processed only the amount of product that they could readily handle and market. In addition to the physical damage that had to be repaired and the clean-up operations that were required, the processors also faced the problem of the quality of the water used in processing. In some cases, firms that had repaired their physical facilities were unable to resume their operations because of questions on the purity of the water supply by the Health Department.

Many of the vessels that normally unload in Bayou La Batre did continue to operate during this period, but they were forced to find buyers for their product elsewhere. This had the effect of causing them to operate in unfamiliar waters and thus possibly decreasing their catch. Almost all the boats based in Bayou La Batre lost fishing time due to the hurricane, both because of the weather and because their help was needed to repair damage suffered at the crew's homes. Vessels were reluctant to land their product in Bayou La Batre until the processors had re-established their ability to handle normal landings.

Not all seafood production from Alabama's waters was halted due to the hurricane, but major losses occurred during the approximate four-week period when many of the processors did not operate. One seafood resource, the oyster reefs, was virtually destroyed. Alabama oyster landings for 1977 and 1978 had an average annual value of $1,197,000. This amount does not include the value added by oyster processing. Very little production from this valuable resource is expected for the next two or three years.

At this time, the information necessary to fully assess the effects of the hurricane on estuarine and marsh habitat areas is not available. These spawning and nursery grounds are vitally important to the production of many commercially valuable seafood resources. The impact of the storm on these areas may possibly have far-reaching effects on the availability of certain seafood resources in future years.

The oystermen, the oyster processors, the shrimpers and commercial fishermen, and the shrimp and fish processing plants all suffered losses because of Hurricane Frederic. As stated earlier, there is presently no accurate way in which to estimate these losses but as a conservative estimate of the value of production lost, the average value of Alabama seafood landings for September 1977 and 1978 was chosen. The average value of Alabama's September landings in these two years totals $3,548,000.

MARKET LOSS

Although no value can be estimated for this loss category, the reader should be aware of its existence. Market loss includes two distinct areas, one in which the effects have already been felt and a second that could potentially be more harmful.

As mentioned earlier, many processors saved most of their product by transporting it to areas less affected by the storm. In most cases, this product had to be sold quickly thereby depressing prices. These lower prices on substantial quantities of product caused varying degrees of financial loss to the processors. No estimate of the dollar amount of this loss has been made.

Because of the inability of processors to meet commitment to buyers, the buyers were forced to find other sources of supply. It is possible that when normality returns to the Alabama seafood industry, some of these buyers and market areas will have been lost or the quantities purchased will be diminished.

At present, there is no evidence of the existence of this situation, but the possibility should be considered. If it does occur, this situation could be damaging to the Alabama seafood industry.

SUMMARY

Alabama's commercial seafood industry was severely damaged by Hurricane Frederic. Much of the known damage can and will be repaired shortly. The total extent of damage to our natural resources, however, is not yet known. Recovery from damage to our resources promises to be a long-term and complex task.

Resource Loss: Although it is not possible to fully assess the effects of the storm on marine resources, the expected loss of oyster production for the next three years provides an indication of the magnitudes involved. Alabama oyster landings have had an annual value of nearly $1.2 million. If this production is lost for three years, the resource loss expected will be $3.6 million.

Production and Market Loss: As explained in the main body of this report, production loss has been estimated to be the value of one month of seafood landings during this season of the year. This may be understated, but still results in an estimated loss of $3.5 million.

Because it is uncertain if substantial market loss will occur, no value has been estimated.

Physical Damage: A summary of the physical damage sustained by the industry is given below. Estimates of physical damage total $3.6 million.

Total Loss: Projected total losses and damage to the commercial seafood industry are estimated at $10.7 million.

Estimated Physical Damage, ALabama Seafood Industry

	Insured	Uninsured		
		Product	Other	
Seafood Industry	$2,105,000	$250,000	$100,000	
Seafood Support Industry	580,000		590,000	
Total	$2,685,000	$250,000	$690,000	
			GRAND TOTAL	$3,625,000