



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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Lafayette, Louisiana
70504

July 15, 1976

Randolph J. Clement, Associate Planner
City of New Orleans Planning Commission
9th Floor - City Hall, Civic Center
New Orleans, Louisiana 70112

Dear Randy:

Reference is made to your letter of May 27, 1976, in which you requested an estimate of the monetary losses of fish and wildlife resources associated with the authorized Lake Pontchartrain, Louisiana, and Vicinity Hurricane Protection project. The following information is submitted on a technical assistance basis only, and does not necessarily constitute the official views of the Fish and Wildlife Service.

The amounts and types of lands to be affected by the project are shown in Table 1. As indicated, major areas of marsh, swamp, and open water will be affected in the St. Charles Parish, New Orleans East, Chalmette, and Lake Pontchartrain Barrier portions of the project. The New Orleans Corps District has deferred indefinitely the construction of the St. Charles Parish feature, which contains two streams (Bayous LaBranche and Trepaignier) included in the Louisiana Natural and Scenic Streams System. Several streams contained in this system are also located in the Chalmette portion, but levees in this reach will, with the exception of an estimated 750 acres, be constructed on existing spoil disposal areas adjacent to the Mississippi River - Gulf Outlet channel. The marshes in the New Orleans East portion of the project area are presently enclosed by existing levee systems. However, as indicated in our previous correspondence, these marshes are still extremely valuable as habitat for freshwater fishes, migratory waterfowl, furbearers, and numerous non-game birds. These marshes also have limited value

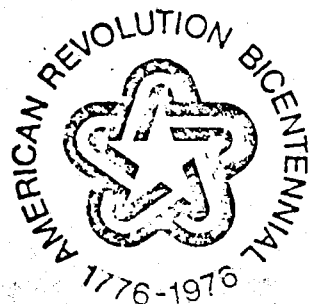


TABLE 1 - ACRES AND TYPES OF LANDS AFFECTED BY LAKE PONTCHARTRAIN, LA.,
AND VICINITY HURRICANE PROTECTION PROJECT¹

Segment	Total	<u>Leveed</u>				<u>Unleveed</u>			
		Marsh	Swamp	Water	Other ²	Marsh	Swamp	Water	Other ²
St. Charles Parish ³	29,600					6,600	15,210	2,960	4,830
Jefferson Parish	21,500				21,500				
New Orleans	16,800				16,800				
Citrus	14,800		1,230		13,570				
New Orleans East	22,375	14,009	630	1,265	6,471				
Chalmette	49,050				17,150	16,312	12,386	2,322	880
Lake Pontchartrain Barrier	2,056					1,946		110	
Total	156,181	14,009	1,860	1,265	75,491	24,858	27,596	5,392	5,260

Industrial, residential, commercial, agricultural, and non-swamp wooded lands

¹ Modified from Table 47 of Final EIS, Lake Pontchartrain and Vicinity, La., Hurricane Protection Project (August 1974)

² Industrial, residential, commercial, agricultural, and non-swamp wooded lands

³ Construction of this project feature has been deferred indefinitely by the New Orleans Corps District.

to marine and estuarine fishes and shellfishes, as they provide plant detritus to adjacent estuarine waters. We have assumed that these wetlands contribute to commercial fisheries production at a rate of 25% of that of adjacent undiked wetlands.

Estimated annual fish and wildlife values in the waters and wetlands located in the above-listed project segments are presented in Table 2. We have only listed values for those segments where substantial losses will occur. Commercial fisheries production represents from 69% to 91% of the total annual fish and wildlife production values in the project segments listed. Estimated annual per-acre values range from \$12 in the New Orleans East portion to \$42 in Chalmette. Per-acre values for the Lake Pontchartrain Barrier and St. Charles Parish portions are \$37 and \$40, respectively. It must be emphasized that the present state of the art with regard to estimating fish and wildlife production values of wetland areas is relatively unrefined. The values we have arrived at are only crude estimates at best. The figures utilized in computing monetary values are within the limits prescribed by Senate Document 97, as the project was authorized in 1965 when these limits were applicable. It should be pointed out that recent studies have shown the value of tidal marshes to be much greater than those shown here. For instance, in computing the commercial fisheries value of tidal marsh, investigators¹ have added 75% of the ex-vessel (dockside) price to account for value added in processing. These researchers have also estimated that tidal marsh has a potential value of \$2,500 per acre for waste treatment. It should be pointed out that the cost of producing the amount of protein contributed annually by estuarine waters and adjacent tidal marsh by intensive agriculture is extremely high, especially when we realize that natural fisheries production is virtually free. The future needs projected for food demands that such natural production areas be preserved.

Project impacts on fish and wildlife resources will be both direct and secondary. Direct losses are associated primarily with the destruction of marsh and water areas by dredging and filling required for project construction and maintenance. Table 3 illustrates these direct losses for the various project segments.

The greatest direct losses would occur with the construction of the St. Charles Parish portion of the project. The levee constructed

¹ Gosselink, J. G., E. P. Odum, and R. M. Pope. 1974. The value of the tidal marsh. Center for Wetland Resources, Louisiana State University, Baton Rouge, Louisiana. Publication No. LSU-SG-74-03. 30p.

TABLE 2 - ANNUAL FISH AND WILDLIFE PRODUCTION AND VALUES

PROJECT SEGMENT	COMMERCIAL FISHERIES ¹	FURBEARERS	SPORT-HUNTING	WILDLIFE OBSERV.	SPORT FISHING	TOTAL VALUE VALUE/ACRE
St. Charles Parish	7,530,000 lbs. \$828,300	\$49,500	19,800 man-days \$83,200	9,900 m-d \$19,800	10,400 m-days \$15,500	\$996,300 \$40
Lake Pontchartrain Barrier	608,000 lbs. \$66,900	\$4,000	*	800 man-days \$1600	385 man-days \$578	\$173,078 \$37
Chalmette	9,430,100 lbs. \$1,045,400	\$62,000	24,800 man-days \$104,200	12,000 m-d \$24,000	8,100 m-days \$12,150	\$1,247,750 \$42
New Orleans East	1,064,000 lbs. \$117,000	\$28,000	*	5600 m-days \$11,200	9,100 m-days \$13,650	\$169,850 \$12

¹ Value based on 1973 exvessel price of \$0.11/lb.

*No hunting permitted.

TABLE 3 - ESTIMATED ANNUAL DIRECT LOSSES OF FISH AND WILDLIFE ATTRIBUTABLE
TO LAKE PONTCHARTRAIN, LA., AND VICINITY HURRICANE PROTECTION PROJECT

PROJECT SEGMENT	ACREAGE REQUIRED	COMM. FISHERIES ²	FURBEARERS	HUNTING	WILDLIFE OBSERV.	SPORT-FISHING	TOTAL
St. Charles Parish	916 ¹	5,752,700 lbs. \$632,800	\$18,300	730 man-days \$3,080	380 m-d \$760	Negligible	\$654,940
Lake Pontchartrain Barrier	2,000	608,000 lbs. \$66,900	\$4,000	*	800 m-d \$1600	385 man-days \$578	\$73,078
Chalmette	750	228,000 lbs. \$25,100	\$1500	600 man-days \$2500	300 m-d \$600	Negligible	\$29,700
New Orleans East	600	45,600 lbs. \$5,015	\$1200	*	240 m-d \$360	Negligible	\$6,575
GRAND TOTAL							\$764,293

* No hunting permitted

¹ Levee will result in an estimated 75% reduction in marine and estuarine fish production in remainder of 24,770 acre area affected in St. Charles segment.

² Value based on average 1973 ex-vessel price of \$0.11/lb.

along the edge of Lake Pontchartrain would preclude access by marine and estuarine organisms to the nursery areas contained in this area, and would significantly reduce the flow of organic detritus into Lake Pontchartrain from the enclosed wetlands. The result would be an immediate loss in commercial fisheries production in the area estimated at 75%, or 5,752,700 lbs. worth \$632,800. This represents approximately 83% of the total direct project losses of fish and wildlife. Estimated annual fish and wildlife losses in the project segments include St. Charles Parish, \$654,940; Lake Pontchartrain Barrier, \$73,078; Chalmette, \$29,700; and New Orleans East, \$6,575. These losses total to \$764,293. However, failure to construct the St. Charles Parish segment will reduce this figure to \$109,353.

The most important secondary project impact is the acceleration of development in the wetlands to be enclosed by the proposed levee systems. These impacts are extremely difficult to quantify, since it is anticipated that development of these wetlands will be permitted to occur both with and without the project. The main effect of the project will be to accelerate this development and resultant elimination of valuable fish and wildlife resources.

We have, to date, been unable to obtain "with" and "without" the project projections on development of wetlands. However, we have learned that the New Orleans Corps District is presently conducting a detailed economic re-analysis of the project. The results of this analysis should contain land use projections needed to assess secondary losses of fish and wildlife production. However, it will take at least several weeks before this information is available. We therefore suggest that this information be obtained by your office when available, and that you use annual fish and wildlife production figures presented in Table 2 in order to predict project losses over the 100 year project life, estimated to extend to the year 2080.

Another source of concern is the installation of the barrier structures to be located in the Chef Menteur and Rigolets Passes. These structures may adversely affect movement of marine organisms into and out of Lake Pontchartrain, an important feeding and nursery area. However, insufficient biological information exists at present to project secondary damages that these features may have on fishery resources. However, we have quantified the direct damages associated with the loss of estuarine habitat which will be lost by construction of the structures (see Table 3).

I hope that this information will be useful. If we can be of further assistance, do not hesitate to contact us.

Sincerely yours,

Joseph E. Burgess, Jr.
Biologist-in-Charge