

UNITED STATES ARMY

CORPS OF ENGINEERS

--:--

THE LAKE PONTCHARTRAIN, LOUISIANA,
AND VICINITY

HURRICANE PROTECTION PROJECT

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PUBLIC HEARING

SATURDAY, FEBRUARY 22, 1975

9:00 o'clock a.m.

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UNIVERSITY OF NEW ORLEANS
NEW ORLEANS, LOUISIANA

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P R O C E E D I N G S

A public hearing conducted by the United States Army, Corps of Engineers, New Orleans District, was held on Saturday, February 22, 1975, in the University Center Ballroom, University of New Orleans, New Orleans, Louisiana, at 9:00 o'clock a.m. and was called to order by Mr. Daniel V. Cresap, Chief Engineer of the State of Louisiana, Department of Public Works.

MR. DANIEL V. CRESAP: Good morning, ladies and gentlemen. I'm Daniel V. Cresap, the Chief Engineer of the Louisiana Department of Public Works, the agency designated to represent the State in the review and coordination of water resources studies and projects affecting Louisiana.

Our purpose this morning is to give you



an opportunity to present to the U. S. Army Corps of Engineers, and to my Department, your views on the Lake Pontchartrain Hurricane Protection Project. The meeting today will include a general discussion of the Hurricane Protection Project and will also describe the plans for the disposal of materials from dredging operations.

On July 22, 1974, the Corps of Engineers published, in the Federal Register, new regulations governing their administrative procedures for federal projects "involving the disposal of dredged material in navigable and ocean waters." In accordance with these requirements, the Corps issued public notices, on November 29, 1974, and January 22, 1975, notifying the public of its plan for the disposition of dredged material along the project, and soliciting comments on the plan and suggestions for alternate plans.

This hearing is being held at the request of interested citizens to provide the opportunity for all interested parties to participate in the proposals and to assist in the decision making processes for the disposal plan of this project.



Interested parties and concerned citizens having environmental and ecological information, as well as economic input, are earnestly solicited to make statements concerning these matters.

Colonel E. R. Heiberg, III, the New Orleans District Engineer of the U. S. Army Corps of Engineers, will conduct this hearing. He will call on those who have indicated on the attendance card a desire to present formal statements.

During these proceedings, please keep in mind that the Corps of Engineers constructs projects, such as this one, only at the request of local interests. Public meetings, such as this one, are held to elicit your views and opinions in the continuing effort of the Corps to develop plans which are truly responsive and which are responsible to applicable federal and state laws regulating dredging and disposal of materials, and to the problems and the needs of the area and the desires of its citizens.

At this time I would like to introduce some of the distinguished guests we have with us



today. Would you please stand up and be recognized. Representative Edward Scoggins; Representative Joseph Accardo, Jr.; A. Dennis Bechac, Councilman; Freddie Generoso, of the St. Charles Parish Police Jury; Joseph E. Burgess, U. S. Fish and Wildlife Service; Guy LeMieux, President of the Orleans Levee Board; Greg Lannes, Jr., of the Regional Planning Commission; Harold Kattner, of the City Planning Commission.

(Applause)

Are there any other public officials here that I don't have a list on? Would you please stand up and be recognized and state your name.

MR. FRANK CUSIMANO: Frank Cusimano, Mayor of the City of Slidell.

MR. CRESAP: Thank you.

MR. STEVE DIBENEDITTO: Steve Dibeneditto, Police Juror, St. Charles Parish.

(Applause)

MR. CRESAP: Thank you. Are there any others? Well, if not, I would like to also introduce the members of my staff who are here today.



Arthur Theis, the Assistant Chief Engineer; Earl Wagner, the District Engineer of the New Orleans District; and Al Simpson, his assistant.

(Applause)

It is now my pleasure to turn the meeting over to Colonel E. R. Heiberg, District Engineer, New Orleans District, U. S. Army Corps of Engineers, who will preside over this session. Colonel.

COLONEL E. R. HEIBERG: Good morning. I am Colonel E. R. Heiberg, District Engineer of the New Orleans District of the Corps of Engineers; and on my right is Mr. Jerry Baehr, who is of our Chief Engineering Division.

I would like to welcome you to this assembly for what I hope will be an informative exchange of comments on the project.

Today's opening presentation will be divided into two basic discussions. The first objective is designed to explain the Lake Pontchartrain Hurricane Protection Project, as authorized by the United States Congress. It should clarify specific aspects of the project. It is



important for you to understand why the Congress has approved this particular form of hurricane protection as the most suitable plan for the Pontchartrain Area. This portion of the meeting will also describe how this project affects the environment of the area.

The second objective today is narrower in scope. It focuses entirely on the matter of disposing of materials which are produced in dredging operations. The environmental concern of recent years has generated legislative directives which relate to all projects requiring the disposal of dredged materials in the nation's navigable waterways. The hearing is aimed at obtaining public views of our disposal plans. It is my responsibility to make your views known to appropriate regulatory agencies along with my recommendation before the dredging operations can begin. The views you present today will play a significant role in this regard and will become part of the public record to allow me, my superiors and the United States Environmental Protection Agency to arrive at a decision.



The Lake Pontchartrain Hurricane Protection Project is your project. The Corps' responsibility is to design it for you. The United States Congress directed that the project be undertaken and you will ultimately decide whether it shall be completed. The primary part of the project is supported by federal dollars appropriated by the Congress. Your presence today evidences your concern, and your active participation is encouraged whatever your views.

The development and implementation of a project occurs over a long period, and is not a one time event. It's a process, and that process may be reformed, re-analyzed, accelerated or interrupted. Every feature of the project reflects a response to a need and we are all well aware that needs change. To the greatest extent possible, we respond to these changes and a forum of this sort provides an efficient medium for discovering your desires.

In order to serve you well, the project must be flexible enough to meet many needs. Primary among these needs is flood protection, but



its function is not limited to this purpose. It must also serve environmental needs. We are committed to an environmental setting. We must allow for appropriate growth within that setting in our housing, industry, transportation and livelihoods. The project must not unreasonably restrict such growth. Environmental needs also require the preservation of the natural setting around us. This setting includes the highly complex ecosystem of Coastal Louisiana. We cannot afford the indiscriminate waste of valuable resources. Of paramount importance is that this project must dignify the purpose for which it was conceived and the people, and their children, who must ultimately bear its cost.

The harsh state of the nation's economy charges each of us with the responsibility of fiscal prudence. The recent concerns for preservation of our wetland resources charge us with the responsibility of environmental prudence. Our expenses toward this and other projects must be made wisely. The Corps, and the U. S. Congress, have concluded that this project beneficially



serves every dollar spent on it.

We are also aware that this project involves some tradeoffs which may directly or indirectly affect part or all of the community that it serves. We have made an earnest effort to fully assess the economic and environmental commitments and benefits of this undertaking and we will present them today. Each of you individually, and for persons you may represent, must make a similar assessment of these factors. Then you must make these views known.

Upon completion of today's session, the entire content of the proceedings will be compiled and assembled as a public record. I must review all that is presented in the record, and in my best professional judgment, present my recommendation for the disposition of the project.

As residents of this area, we are confronted with a serious problem. The Greater New Orleans Metropolitan Area, which includes Orleans, Jefferson, St. Bernard, St. Tammany, and St. Charles Parishes is periodically exposed to the devastating forces of hurricanes, and due to the



character of our region, we are highly flood prone. The Congress assigned the Corps of Engineers the task of developing and implementing a solution to this problem. We have a responsibility to you to provide, not only a workable solution, but to provide what we earnestly believe to be the best practical solution. We are equipped to accept this responsibility. We have an inter-disciplinary professional staff dedicated to serving you.

The project we are discussing is authorized, funded, and nearly 20% complete. But the most controversial section of the project concerns the Barrier Plan, and major construction on this section will begin no earlier than this coming August. I have discovered that many do not understand this plan. I realize we, the Corps of Engineers, are not always effective in explaining one of our projects. This is why I feel that it is important to discuss the overall project in enough detail to set the stage. This is my hearing, designed to provide me, and my superiors, through the written record, your views. But I



think it is important that before I listen to your views that I give you our current view of the project. Most people, it is my experience, offer their views in a spirit of helpfulness. Those views are most useful to the decision maker if they are offered in knowledge of the present project as it is now planned.

Please listen to our description of the project. If there are areas you do not understand, please talk to members of my staff who will be available at the breaks, or at the end of this meeting. If you do not agree, put your views on the record, orally or in writing.

No longer can we afford the massive flood damage and personal hardships that were suffered in the wake of Hurricane Betsy in 1965. We were extremely fortunate to have escaped Hurricane Camille that so badly ravaged our Gulf Coast neighbors in Mississippi, Alabama, and Plaquemines Parish. There is little we can do to affect our exposure to hurricanes which enter the gulf; but there is a lot we can do to prevent the extensive flood damage that normally accom-



panies such storms. That's what this project is all about.

We've got a lot of ground to cover today and I want today's session to flow as smoothly and as efficiently as possible. Before I call on my staff members, I would like to briefly describe the format that I tend to follow.

I have tailored the Corps' presentation to last about an hour. Our presentation will be followed by statements from elected officials or officials representing public agencies. I have been told by some parties that I should arrange to hear public views last. I have not concluded that this is in the public interest. Public officials have an obligation, if not a requirement, to express their views. Further, those views represent a large constituency, either a section of the electorate, or through a public body, an agent of the electorate. I conclude that it is in the full public interest for all of us to listen to those views before allowing individuals or private groups to make their views a matter of record.



The public official is representing an agency view, arrived at through many months or years of coordination. Regardless of this, however, I will cut short public agency views at noon today, and will begin to hear the views of the general public or private agencies or organizations at 1:00 o'clock this afternoon. If I have left some public officials unheard, I will call on them at 3:00 p.m. before hearing the remaining witnesses. I intend to limit oral presentations to five minutes each, in fairness to all of you who intend to speak today. I have made some exceptions which I will explain. I shall recess this meeting at noon for a one hour lunch break. After lunch, I shall call on interested citizens in completely random order for individual speeches. Everyone will be afforded an opportunity to be heard. I want to adhere to this format as rigidly as possible in complete fairness to all. Written statements may be submitted to me today, or mailed to me at the District up to March 24, which is a Monday, a month from today. Each written statement will be



included in the public record of this meeting and given the same weight in my review, and of my superiors, as if it had been presented orally. It is, therefore, not imperative that you make your views known orally. Last month, the Environmental Statement for this project was filed with the Council of Environmental Quality, as was required by law. This document is now public, and since it does relate to today's presentation, I shall append the Environmental Statement to the record of today's proceedings so it may be cited as a reference.

Therefore, all of the comments and criticisms that we received on the Environmental Statement are already a part of the public record. I shall be pleased to provide any interested person or group with a complete copy of the entire proceedings for the cost of reproduction. This record will require about two months from today to be compiled.

I thank each of you in advance for your attendance today, which amply supports your concern. I should now like to kick off the meeting.



I would like to introduce Mr. Rick Richter and Mr. Stan Shelton, both of whom are project engineers, to describe the project and its development.

MR. RICHARD RICHTER: Thank you very much, Colonel Heiberg. Good morning, ladies and gentlemen. My name is Rick Richter. Stan and I will describe the need for a suitable plan of protection, why we selected this particular plan, and how it will function. Afterwards, we'll describe the individual components of the plan.

Southeastern Louisiana is a coastal region. Our metropolitan area is separated from the Gulf of Mexico only by the delta marshes. Unfortunately, these marshes do not provide us with much protection against hurricanes. Accordingly, we are very vulnerable to the high winds, high tides and heavy rainfalls produced by these storms. Since nature hasn't given us the natural means to resist these forces, we must rely on artificial methods to protect ourselves. This project is one such method.

We've learned a lot about hurricanes,



and the way they affect our area, mostly from our past experiences with them. Understanding how a hurricane affects us is an important factor in developing a plan to protect ourselves. But, a hurricane is one of the most unpredictable forces in nature. It's impossible to predetermine the size or the path of a hurricane. For this reason, any storm which enters the Gulf of Mexico must be regarded as a potential threat to our area.

As a hurricane approaches the Louisiana coastline, we do know what to expect. Initially, the hurricane generates tides along the coastline rise far above normal elevations. Our coastline communities are the first to experience this rise and the initial flooding. The height of the rise varies according to the nature of each particular storm. For instance, during Hurricane Betsy tides ranged from about eight feet above mean sea level at Grand Isle and Biloxi to more than fourteen feet above mean sea level at Pointe-a-la-Hache, just south of New Orleans.

As the hurricane moves inshore, its high winds and heavy rains further aggravate the



— areas which had already felt the high tides. The high winds cause waves to develop on open bodies of water, and heavy rains may yet cause flooding in areas that were able to resist the high tides and waves.

To design against an unpredictable force we needed a start; we had to know more about hurricanes. So, we contacted the Hurricane Research Center of the National Weather Service. The Weather Service studied the many historical records available and they provided us with a design hurricane. We call this storm the "Standard Project Hurricane." This design hurricane is used, not only for this particular project, but used nationwide for all hurricane protection projects where the loss of human life is possible.

Next we had to determine how the "Standard Project Hurricane" would affect this metropolitan area. The area of our concern is essentially that which is adjacent to Lake Pontchartrain and Borgne. A hurricane threat to this metropolitan area will be generated from one or both of these lakes.



Under existing conditions, as a hurricane approaches the city from the gulf, the tides in advance of the storm begin to rise. The rate of this rise depends on the storm, but it's generally gradual. Due to the connections with the gulf waters at Chef Menteur Pass, the Rigolets, and at Seabrook, which is the junction of the Inner Harbor and Lake Pontchartrain, the water levels in Lake Pontchartrain would rise to above normal elevations. The extent of this rise depends on the hurricane's size and location.

If the design storm entered this shaded zone (illustrating on map), the water levels in Lake Pontchartrain would be about three to five feet above mean sea level. Lake Borgne would be slightly higher. Low lying, unprotected areas along the coast, Lake Borgne and Lake Pontchartrain would experience moderate flooding.

If the hurricane continued inshore into this next shaded area (illustrating on map), the water levels in Lake Pontchartrain would be about five to nine feet above mean sea level. Again, Lake Borgne would be somewhat higher and the gulf



waters would still be flowing into Lake Pontchartrain through the passes. At this time the metropolitan area would begin feeling the heavy rainfalls and hurricane winds. Waves created by the winds would be building up on Lake Pontchartrain and Lake Borgne. Unprotected areas adjacent to these lakes would experience significant flooding. But, within this zone (illustrating), there is an even more critical area. If the hurricane moved into this critical zone, our metropolitan area would feel the full thrust of the storm. The water levels in Lake Pontchartrain would rise from nine to thirteen feet above mean sea level. Once again, Lake Borgne would be even higher. There would be extreme flooding in the highly populated areas near the lakes. Greater New Orleans would be virtually surrounded by high water. Sustained hurricane winds would produce very large waves on top of the already high water levels in the lakes thereby worsening the flood threat.

Since the storm drainage system, as well as the natural draining systems of adjacent communities discharge into Lake Pontchartrain, the



high water level on the lake would deny adequate drainages, and the systems could not provide proper relief against the flooding from heavy rainfalls.

This slide shows some of the major storms that have threatened our area and their relationships within these zones. These include Betsy, Camille, Hilda, Flossy, Carmen, the Hurricane of 1915, and the 1947 Hurricane. But, if the "Standard Project Hurricane" passed through this critical zone, its effect on this metropolitan area would be more severe than any hurricane of record.

Lake Pontchartrain is a very large lake. It has a surface area of about 640 square miles. Although it is very large, it's relatively shallow. In one sense, it's like a large saucer full of water. Because it's so large and shallow it responds very quickly to high winds and waves can form very rapidly on its surface. As I mentioned earlier, when a hurricane moves progressively closer to our area, the water level in the lake continually rises; and this rise can range up to nine feet higher than normal, depending on the



location and the size of the storm.

Once the lake is exposed to the sustained hurricane winds it experiences a very unusual condition. This condition is called the "tilting effect." Because under sustained high winds the water surface in the lake would tilt against the windward shore.

In summary then, a severe threat of flooding to shoreline areas results from the combined influences of high tides, waves and this tilting condition. These combined conditions can produce lake levels up to thirteen feet above mean sea level at any location along the lake depending on the direction of the wind. This is the problem that must be dealt with in order to prevent widespread flood damages and possible loss of life. The Corps of Engineers had to develop a plan of protection that would best remedy this problem.

This was our challenge. We knew that the area was highly flood prone and why it was. Preventing the flooding, however, was very complex. One plan of protection that we studied was



called the high level plan. It seemed rather simple. Just raise all of the existing protection levees and construct additional high levees to a height that would prevent flooding of the developed areas. But detailed studies revealed that this plan had many drawbacks. First, the soils in our area will not easily support certain types of construction without excessive settlement. Therefore, to reach the high levels that would be required, levees would have to be overbuilt, or built in stages to compensate for the settling problem. That takes more time, and that means more exposure to hurricanes without full protection. To reach higher levels, the base of the levees would have to be widened requiring more land. In a city, where land areas are congested, this means that homes and persons would have to be relocated, and that means higher cost and personal hardships. And another serious problem is drainage. Our current pumping system would have to be drastically modified in order to pump over the high levees into the lake. Natural drainage systems would back up due to the high level of



the lake. Each of these factors means higher cost.

The high level plan would not reduce flooding along the Inner Harbor Navigation Canal. Flooding the many industries along that canal would severely disrupt the commerce of this area.

In view of these drawbacks, the Corps, in extensive coordination with many related agencies, tried to develop a better protective plan. We developed a plan that we are presenting today. It's called the "Barrier System."

The Barrier is, indeed, the most distinguishing element of the recommended hurricane protection plan. The Barrier consists of three basic features; namely, the Rigolets Complex, the Chef Menteur Complex, and the Seabrook Complex. Each of these complexes includes a gates flood control structure, a navigation structure, and a closure embankment.

The purpose of the Barrier is to control the water level in Lake Pontchartrain just before a hurricane strikes. As I stated earlier, when a hurricane approaches the Louisiana coastline, the



area in advance of the storm experiences a gradual tidal rise. For the design hurricane, this rise, combined with the tilting effect, could produce lake levels up to thirteen feet above normal elevations at any shore of the lake; not just the New Orleans shore, not just the Mandeville shore, but any shore of the lake.

The Barrier will prevent the lake from reaching such high levels. As a hurricane moves toward the city, the gated flood control structures at Chef Menteur Pass, the Rigolets and at Seabrook would be closed, thereby preventing the hurricane produced tides from entering and raising the lake to extreme heights. The Barrier would keep the lake near its normal level just prior to the passage of the storm. During the storm, some flow will be driven over the Barrier, but before this occurs, more than 90% of the water which would have entered the lake without the Barrier would have already been kept out of the lake. The water which does go over it will raise the lake level less than one foot.

The effect of the Barrier can be seen



on this slide (illustrating) comparing the hurricane's combined effect on the lake; first, without the barrier, and then with it. The Barrier will reduce the possibility of a flood threat that might come from Lake Pontchartrain.

The Barrier Plan has many important advantages over the high level plan. First, it affords a higher degree of protection to all land areas adjacent to Lake Pontchartrain, since the water level in the lake would be much lower with the Barrier Plan than with the high level plan. This factor, in itself, produces added benefits in several ways. Areas adjacent to the lake get storm drainage in two ways. The first way is by natural means through the city collector systems into nearby streams, bayous and rivers and then into the lake. The second way is through pumping systems. With the lake at a lower level, each of these systems can perform more efficiently, and that's a plus for interior drainage. Another added benefit is that the levees can be built to lower elevations with a Barrier Plan. That means less cost for construction, for the needed



rights-of-way and for relocating utilities, property and people. These savings will also apply to any future levee and drainage systems which might be built adjacent to the lake.

The gated structure at Seabrook Complex will permit the salt water level in the lake to be regulated. Since the construction of the Mississippi River Gulf Outlet, the inflow of the waters from the gulf have raised the salt water level in the lake. This inflow must be controlled to preserve a good environment in the lake. The Seabrook Complex can provide that control.

This control structure, in conjunction with the rock dike, will also allow high flood levels in the Industrial Canal to be relieved into Lake Pontchartrain during hurricanes. The control structure will be fully opened when the water in the canal reached the top of the banks, and if the water rises higher it can freely flow over the rock dike into Lake Pontchartrain. This relief is only possible with the lake at a reduced level; that is, with a Barrier system.

The Barrier will require a shorter con-



struction period than a high level plan, cutting the number of years that we are exposed to hurricanes without proper protection. And, of great importance is cost. Our comparative cost estimates showed that the high level plan would cost about 50% more than the Barrier Plan.

That's why a Barrier Plan of protection is recommended instead of a high level plan as being the best suited for this project area.

Realizing that the Barrier concept was a desirable form of protection, the Corps had to be certain that it would work. During early project planning, we engaged the services of the Waterways Experiment Station in Vicksburg, Mississippi, to construct the Barrier Complex in model form. The major purpose of the model was to determine the effect of the Barrier Complexes on the salinity and flow characteristics of the lake and to develop structural designs for each of the complexes that would retain the natural balance of the lake.

Some of our more recent studies showed that the structural complex at the Rigolets could



be relocated to a more economical site. In order to be certain that this redesign did not affect its proper operation, and in order to re-evaluate environmental effects, the services of the Waterways Experiment Station were needed once again. A hydraulic model of the Rigolets Complex was recently constructed there, and studies are now underway to assure the performance of the re-designed complex.

Incidentally, we're not the first to use a barrier type of protection. Similar barrier systems are now being planned, and some have already been completed. Examples are at the New York Harbor at Jamaica Bay, at New Bedford Harbor in Massachusetts, at Stamford Harbor in Connecticut, at Fox Point in the Providence River in Rhode Island, and more, not only in the United States, but also abroad.

Today there is an urgent need for environmental awareness. In order for the barrier structures to satisfy to our needs, they must perform well not only during hurricane conditions, but also during day-to-day normal weather condi-



tions. They must be environmentally sound. We must be certain that they do not upset the natural balance in the lake. For this reason, much time and effort has been devoted in planning the barrier portion of the project and that's why the Corps of Engineers has required the detailed model studies, the services of environmental consultants and professional design consultants, and has performed, and is presently performing, the many detailed hydraulic studies relating to the Barrier Complexes.

During all normal weather conditions, the gated flood control structures at the Chef Menteur Pass and at the Rigolets will remain fully opened. In this opened position, these structures are designed to preserve normal tidal exchanges. These structures will not be closed until a hurricane enters the Gulf of Mexico and threatens the Louisiana Coastline. Only in this event will the structures function as a barrier to prevent flow into Lake Pontchartrain. They will remain at all other times an artificial equivalent of the natural passes and will have a negligible



effect on the lake.

I would now like to turn the floor over to Stan to describe the many and varied components of this project.

MR. STAN SHELTON: Thank you, Rick. Good morning, ladies and gentlemen. My name is Stan Shelton.

The recommended project consists of two major protective systems: The Lake Pontchartrain Barrier Plan and the Chalmette Area Plan.

The Lake Pontchartrain Barrier Plan consists of the Barrier Complexes, which Rick discussed, and which I'll described in more detail, and a system of levees and flood walls along the water course perimeters of this city. The authorized plan includes levees along the lake-fronts of St. Charles Parish, Jefferson Parish, and New Orleans, which are connected to the Mississippi River levee system by levees and flood walls along the Inner Harbor Navigation Canal. Citrus and New Orleans East will be enclosed by levee systems around their perimeter. The plan also includes the strengthening and



repair of the existing seawall in Mandeville.

As Rick brought out, each of the Barrier Complexes includes a gated flood control structure, a navigation structure and a closure embankment. At the Rigolets, the gated flood control structure is situated in the natural pass. It is connected by the closure embankment to a navigation lock situated in a man-made cut. The gated flood control structure consists of a number of open gate bays which can be closed at the approach of a hurricane by dropping steel leaves into the openings. This is accomplished through the use of gantry cranes. In the case of the Rigolets, the current designs call for sixteen gate bays and two gantry cranes. The structure is thirty feet deep and 800 feet long, or about as long as three football fields. The Barrier Complexes will not dam the passes. I wish to point out that this, and all of the control structures are open structures allowing the free passage of the natural tidal flows. The base of this structure is thirty feet below the water surface.

The control structures at each complex



are designed to pass the existing natural flows and are thus artificial equivalents of the natural passes.

At Chef Menteur Pass, the gated flood control structure and the navigation structure are both situated in man-made cuts. This allows more efficient use of the pass by straightening the alignment, both for tidal flows and for navigation. The gated flood control structure is similar to that at the Rigolets except that it has eight gate bays and one gantry crane. The structure is 25 feet deep and 400 feet long.

The navigation structure here has only one set of sector gates; thus, it is not a lock as is planned for the Rigolets and Seabrook. This structure will remain open at all normal times and will be closed only during hurricane conditions. Also a realignment of the Gulf Intracoastal Waterway at this location is required to provide uninterrupted navigation along that waterway.

The Chef Menteur and Rigolets Complexes will be connected by barrier levees, and also by



the use of the roadway embankment of U. S. Highway 90. The Highway 90 embankment will provide barrier protection to White Kitchen. At this point the barrier will be extended northward toward Slidell. This will be accomplished by using the U.S. Highway 190 embankment and by constructing new barrier levees where necessary. In essence then, the barrier will extend from New Orleans East to the existing high ground near Slidell.

At Seabrook, the gated flood control structure, the navigation lock and the rock dike are situated in the lake. The flood control structure has three gate bays and serves several purposes. Primarily, like the control structures at Chef Menteur and the Rigolets, it provides a means of passing the natural flows through the barrier, and a means of excluding hurricane tides.

Closing the structures throughout a hurricane, however, would tend to increase the susceptibility to flooding for the industries along the Industrial Canal. For this reason, we developed a plan to operate Seabrook so that when



the water level in the canal reaches a height of 3 1/2 feet mean sea level, the control structure would be fully opened. This would allow the waters in the canal to flow into the lake and would provide some initial lowering of the water levels in the canal.

The rock dike is designed to a low elevation so that as the waters in the canal rise further, the water would flow over the dike into the lake. The average lake level increase caused by this type of operation will be only a few inches. This plan, then, would prevent the majority of the hurricane tides from entering the lake; but would also allow for the reduction of the flood water levels in the Industrial Canal.

Bear in mind, however, that the industries along the canal are outside of the levee flood wall system and must expect some flooding of their facilities. This we cannot prevent, but we can reduce the water levels in the canal more with the Barrier Plan of protection than would be possible under either existing conditions or with a high level system.



Two other purposes are served by the Seabrook Control Structure. One is to provide a constant flow of water in the canal for New Orleans Public Service. This company has a nearby electrical generating plant which requires the continual flow in the canal for cooling purposes; therefore, the structure will provide a certain constant flow at all times for their use. The second purpose is salinity control. We designed the structure so that the flows can be regulated in order to provide beneficial salinity levels in Lake Pontchartrain. This regulation will be performed by coordinating continually with the Louisiana Wildlife and Fisheries Commission.

The Barrier Plan as initially authorized provided for a new earthen levee along the St. Charles Parish lakeshore from the Bonnet Carre Floodway to the St. Charles - Jefferson Parish line. Construction of this feature of the project has been indefinitely deferred because of the inclusion of Bayous Trepagnier and LaBranch in the Louisiana Natural and Scenic Rivers System and also because of the need for additional



environmental studies as will be further discussed by Dr. Montz.

The Mandeville feature of the project is also inactive. This feature provides for the strengthening and repair of the Mandeville Seawall. The inactive status is due to the lack of financial participation in the project by St. Tammany Parish sponsors.

As I stated earlier, this project is made up of two major protective system: The Lake Pontchartrain Barrier Plan, which I have just described; and the Chalmette Area Plan. The Chalmette portion is a wholly independent protective system included in the overall hurricane protection project. Since the Chalmette area is outside of the influence of the Barrier Complexes, it is a high level form of protection. This plan consists of a system of levees and flood walls along the Inner Harbor Navigation Canal and the Mississippi River Gulf Outlet to Verret, with a return levee from Verret to the Mississippi River levee at Caernarvon.

It also includes navigable floodgates



on Bayous Bienvenue and Dupre near their junctions with the Gulf Outlet. Construction of the Chalmette Area Plan is already well advanced.

This completes the general description of the project. Now, let's focus on a very important factor of our planning.

An integral part of the project is navigation access. With the barrier structures in place, adequate provisions for marine access must be incorporated into the overall project plan. Three avenues of marine access for Lake Pontchartrain will be included in the project. They are the Seabrook Lock, the Rigolets Lock and the Chef Menteur Navigation Structure.

The currently approved dimensions for the Seabrook Lock are 800 foot usable chamber length, 84 foot chamber width, with a sill depth of minus 15 feet, mean low gulf. This lock will serve navigation by reducing adverse current velocities and eddies in the Inner Harbor Navigation Canal. The existing currents jeopardize marine safety, erode channel banks and undermine wharves and bridge foundations along that canal.



The normal daily operating procedure for this structure provides for the lock gates to remain in the open position as shown here, allowing vessels to pass freely through the structure without lockage. When the current velocity through the structure exceed three feet per second; however, the gates would be closed and vessels would have to be locked through. Studies show that lockage would be required for about seven hours over each 24-hour period. The vessels which currently use the Industrial Canal, and the future prime users of Seabrook Lock, are in vast majority industrially related. The lock will benefit these users by eliminating the adverse currents now causing hazardous conditions in the canal.

In advance of a hurricane, and throughout the storm, the lock gates will be closed. Locking operations will continue until safe lockages can no longer be accomplished. During such periods the flood control structure adjacent to the lock will provide flood relief to industrial concerns in the canal as previously discussed.



I might add that the dimensions of the various navigation structures have been extensively coordinated with state and federal agencies and also with appropriate waterway associations.

Another lock will be built at the Rigollets. The currently planned dimensions for this lock are 800 foot usable chamber length, 110 foot chamber width, and a sill depth of minus 13.2 feet, mean low gulf. Like the Seabrook Lock, this structure will remain open during all normal conditions, allowing vessels to pass freely through the structure without lockage. When the current through the structure would not permit safe passage, the vessels have to be locked through. Studies reveal that locking would be required for about five hours per day for fifteen days of each month. During hurricane periods, the lock gates will be closed. Locking will continue until it can no longer be safely accomplished.

There is also a navigation structure at Chef Menteur. This structure is 84 feet wide and has a sill depth of minus 16 feet, mean low gulf.



This structure is not a lock. It will remain open at all times except during a hurricane. Under hurricane conditions, the structure would be closed at the same time as the other barrier structures. Navigation would then be re-routed through either the Seabrook Lock or the Rigolets Lock.

In addition to the structures described above, two navigation structures have been incorporated into the Chalmette portion of the project. These structures are located on Bayous Bienvenue and Dupre. Here you see the Bayou Bienvenue structure (indicating on map). Each of these structures is 56 feet wide and has a sill depth of minus ten feet, mean low gulf. The navigation structure planned for the Chef Menteur Complex is similar, though larger than these structures.

It is important that all of these navigation structures satisfy the needs of the marine users of this area. To do this we studied the recreational and commercial users of the structures in relation to the Gulf Intracoastal Waterway system, local shipbuilding and marine in-



dustries, the natural depths of adjacent waters, and with the existing clearances of bridges and other facilities. Our studies have already resulted in substantial increases in the original dimensions of the Chef Menteur Navigation Structure and the Rigolets Lock. We feel that the structures are now sized to meet the present and future needs of this area throughout the life of the structures.

Thank you all for your kind attention. I'd now like to introduce Dr. Glen Montz, of our Environmental Resources Branch, to discuss the environmental considerations of this project.

DR. GLEN MONTZ: Thank you, Stan. Good morning, ladies and gentlemen. My name is Glen Montz.

This presentation will cover environmental impacts associated with the project and also 404 requirements will be discussed in detail by Harold and Charlie after my talk.

The draft and Final Environmental Statements were filed with the President's Council on Environmental Quality on August 17, 1972, and



January 17, 1975, respectively. Detailed impacts on the environment may be examined in these statements. Seventeen letters, which commented on the Draft Environmental Statement, were received and are included in the Final Environmental Statement. Comments extracted from these letters and Corps of Engineers responses are included in the Final Environmental Statement. A statement of findings reveals the tradeoffs involved with construction of this project. Copies of the statement of findings are available upon request during breaks at the head table.

Construction, operation and maintenance of the Barrier will require the commitment of about 2,060 acres of land in construction rights-of-way and spoil and borrow areas. The lands committed, which are predominantly marsh, will be permanently altered and the alteration will imply a loss of habitat and decayed organic material to the associated estuary, and a minor loss in the overall productivity of that system.

The construction of the proposed barrier along the east side of Lake Pontchartrain won't alter



the existing salinity levels in the lake. In model studies, existing lake salinities were not altered significantly by control structures in the Chef Menteur and Rigolets Passes. Model studies are underway on the restructured Rigolets Plan. The Seabrook Lock Outlet Structure will be operated to provide a desirable salinity regimen in Lake Pontchartrain to the end that deleterious alterations in lake ecology will be avoided. This complex will allow salinities in Lake Pontchartrain to be adjusted as may be necessary for the maintenance of fish and wildlife resources. The Seabrook Outlet Structure will mitigate certain detrimental effects of salt water intrusion which resulted from construction of the Mississippi River Gulf Outlet.

Construction and maintenance operations will induce temporary increases in turbidity in surrounding water areas, with minor impact on water quality and flora and fauna. The imposition of structures, in particular, the locks and control structures on the existing landscape will alter natural surroundings. The position of the



Corps is that the openings in the proposed structures at the Chef Menteur and Rigolets Passes will not interfere with the movements of organisms and nutrient substances.

The situation in St. Charles Parish is most complex. Unlike the other features of the project, the St. Charles Parish Levee may have more adverse environmental impacts than can be justified by offsetting flood protection benefits. The need for hurricane protection for existing development, as well as the need for developable land to support anticipated expansion in the metropolitan population, are both well established. On the other hand, the levee would directly and irrevocably alter about 24,700 acres of estuarine marsh and swamp. The contribution of the St. Charles Parish wetlands to Lakes Pontchartrain and Lake Borgne is not, at the present state of our knowledge, susceptible to precise evaluation. Nevertheless, the Corps is convinced that, by any standard, this contribution is significant. The inclusion of Bayous Trepagnier and LaBranche in the Louisiana Natural and Scenic Rivers System



current forecloses the possibility of proceeding with the levees without contravening state law. While this impediment, as well as much of the potential for adverse environmental impact, could be removed by locating the levee near the Airline Highway, the economics of constructing such a re-located levee are highly unfavorable. Should the impediment imposed by the Natural and Scenic Rivers System be removed in the future, additional studies will be needed to fully evaluate the relationship of the marsh to the surrounding ecosystem, and provide a basis for a decision on whether the levee should be built. Accordingly, construction of this feature of the project has been indefinitely deferred.

Alternatives to the proposed plan include, no action, the high levee plan, and various fully responsive and partially responsive alternatives. These are discussed in greater detail in the final environmental statement and in the notice for this meeting.

Approximately 5,270 acres of land are required as rights-of-way for the entire project.



Of this total, about 920 acres of intermediate marsh in St. Charles Parish; about 1,660 acres of brackish marsh at Chef Menteur; and 400 acres of brackish marsh at the Rigolets are required for construction features. Approximately twenty acres of deep water bottom will be required at the Seabrook area. Construction of these four features of the project have not begun. A total of about 2,290 acres of lands are presently occupied or will be occupied by project features upon completion of all remaining portions excluding the Rigolets, Chef Menteur and Seabrook Structures and the St. Charles Levee.

Acreage by habitat type in each unit of this project is summarized in the final environmental statement.

Relocation of Bayous Bienvenue and Dupre with navigable floodgates in the relocated channels has been completed. The old channels of both bayous have been closed in the immediate area of the structures and dredged material has been placed on brackish marsh adjacent to the structures and new channels.



Initially, tidal interchange will be maintained in the Chalmette Area. Conversion to urban type uses will likely occur; however, and as it does, habitat will be lost as will decayed organic material to the associated estuary.

Relocation of the Gulf Intracoastal Waterway near the Chef Menteur has been completed. Dredged material has been placed on brackish marsh south of this new alignment.

Placement of dredged material on existing levees involves the covering of weedy species. The levees affected by additional dredged material will revegetate again with roadside weeds.

Dredging activities in adjacent waters for fill material will result in temporary turbid water conditions which will decrease the amount of primary production in the disturbed area by decreasing the light available to the phytoplankton and other aquatic plants. Shading and silting will result in the destruction of rooted shoreline vegetation. Silting may result in the direct destruction of bottom organisms including clams, worms and other important food organisms



in the distrubed area.

Placement of dredged material on wetlands in the project area for construction of levees, control structures, navigable floodgates and drainage structures will result in permanent loss of aquatic habitat for aquatic organisms. The commitment of marsh and swampland to levee and closure structures is irreversible and irretrievable. The esthetic appeal and opportunities for hunting and trapping now provided by the area to be committed for construction sites will be permanently lost.

The project plan will hasten urbanization and industrialization of valuable marsh and swampland by providing conditions conducive to further flood protection and reclamation. The marsh and swampland made available by the project for conversion to urban use will be lost as development of these areas occurs. Should the anticipated increase in rate of development in the protected areas occur, an increase in the quantities of solid and liquid wastes cannot be avoided. Disposal of these wastes will be accom-



panied by corresponding environmental stresses.

Thank you. Colonel.

COLONEL HEIBERG: Thank you, Dr. Montz. That concludes our general discussion portion of the meeting. I would like to proceed with the hearing portion of this session which involves the disposal of dredged materials.

The purpose of the Section 404 hearing this morning is to give you an opportunity to present to the Corps of Engineers, and to local assuring agencies, your views concerning the procedures for disposal of dredged material in connection with the continued construction of the project.

Interested parties and concerned citizens having environmental, ecological or other comments regarding the project are asked to make statements concerning these matters. All oral statements will be heard, but to insure an accurate record, we suggest that all important facts and arguments also be submitted in writing. Written statements may be submitted up here, during or after this hearing, or mailed within 30



days to me at the District.

This is a public hearing under the provisions of the Federal Water Pollution Control Act of 1972, passed by the 92nd United States Congress. Let me explain what this Act does and what it does not cover.

The Act requires an examination of the methods for disposing of dredged material removed from navigable water to insure that proper regard is paid to water pollution concerns. The Act also requires an examination of alternative methods of dredging, to insure that the least damaging, while still practicable, method of dredging is selected and to consider the effects of a "no dredging" alternative. Where the "no dredging" alternative is examined, then we are required to contemplate the ensuing results. Often, this means a "no project" conclusion, or a conclusion which will not withstand the test of economic feasibility.

The provisions of the Federal Water Pollution Control Act are not designed for an after-the-fact examination of the project formulation process.



I will now call upon Mr. Harold Hart and Mr. Charles Grimwood to discuss what work has been accomplished, what work, particularly work involving dredging operations, is scheduled for the future, and how this work relates to water quality. Mr. Hart. 404

MR. C. HAROLD HART: Thank you, Colonel. Good morning, ladies and gentlemen.

Construction of the project under consideration this morning began with the construction of flood walls along the Inner Harbor Navigation Canal in April of 1967. The following is a summary of what has been accomplished since 1967, and what is now planned, particularly as regards the disposal of dredged materials.

The Jefferson Parish Lakefront Reach has been constructed with earthen levees under the Mississippi River and Tributaries Projects, and has subsequently been elevated by means of earthen topping and/or steel sheet piling. Future work will consist of additional wave-wash protection on the floodside of the levee.

The New Orleans Lakefront Reach has



been constructed with earthen levees. Future improvements include raising interim levees, raising the levees on the three drainage outfall canals, and construction of flood walls in the area of the New Orleans Marina, the Pontchartrain Amusement Park, and the area surrounding the proposed Seabrook Complex.

The Citrus Lakefront Reach is now under design. Improvements will consist of flood walls in the area of the New Orleans Airport and Lincoln Beach and raising existing levees in the remaining portion.

The New Orleans East Lakefront Reach is now under construction and will consist of an earthen levee.

The New Orleans East-Southpoint to the Gulf Intercoastal Waterway Reach has been constructed and consists of an earthen levee.

A first lift has been constructed for the New Orleans East and Citrus back levees. In addition to the earthen levees within this reach, flood walls are in place on the west bank of Michoud Canal and are now under construction on



the east bank of the canal. Also, from Paris Road through the Michoud Slip, a flood wall has been constructed.

Flood walls on the east and west side of the Inner Harbor Navigation Canal from the proposed Seabrook Complex, south to the Inner Harbor Navigation Canal Lock are constructed with the exception of the short reaches in the Florida Avenue area.

The New Orleans East unit will require approximately fourteen million cubic yards of dredging and is scheduled to commence in August of 1975 and end in 1981 along the Gulf Intracoastal Waterway, and commence in March, 1975, and end in 1977 along Lake Pontchartrain. Dredging along the GIWW will not be continuous, but the Lake Pontchartrain work will be continuous. The material will be deposited in adjacent levees and adjacent stockpile sections. A ponding area is located in the South Point area.

The Chalmette Reach, consisting of an earthen levee on the south bank of the Gulf Intracoastal Waterway, commences at the Inner Harbor



Navigation Canal, proceeds generally eastward, then southeastward along the Gulf River -- excuse me -- along the Mississippi River Gulf Outlet, then southward through Verret, then westward to Caernarvon. A first lift in this reach has been constructed. The Bayou Bienvenue and Bayou Dupre Control Structures have also been constructed. This reach will require approximately twenty million cubic yards of dredging and is scheduled to commence in November of 1975 and end in 1977 in the Orleans Parish area; and commence in September, 1975, and end in 1982 in the St. Bernard Parish area. Dredging will be continuous in the Orleans Parish area but will not be continuous in St. Bernard Parish. The materials will be deposited in existing levee sections. Ponding areas are adjacent to the levees.

The Chef Menteur Complex includes a gated flood control structure and a navigation structure with approach channels, a levee across a portion of the Chef Menteur Pass and across the existing GIWW channel, and levees which connect the structures to the New Orleans East levee



system on the west and U. S. 90 embankment to the north of the complex. A channel has been excavated on the floodside of the complex which will be the new route of the GIWW when the works are constructed.

This complex will require approximately twenty-seven million cubic yards of dredging and is scheduled to commence in September of 1975 and end in 1990. Dredging will not be continuous during this time frame. Material will be deposited in the aforementioned levees. Ponding areas are adjacent to the structures and levees.

The Rigolets Complex includes a gated flood control structure and a navigation lock with approach channels, a levee across a portion of the Rigolets and earthen levees which connect the complex to U. S. Highway 90 embankment north and south of the complex. This complex will require approximately 8.7 million cubic yards of dredging and is scheduled to commence in September of 1975 and end in 1981. Dredging will not be continuous during this time frame. The material will be deposited in the aforementioned levees,



and in disposal areas south of the site. A ponding area is contained within the site area.

The Seabrook Complex includes a gated outlet structure, a navigation lock and a rock and shell embankment which ties into flood protection system on each side of the complex. This complex will require approximately 300,000 cubic yards of dredging and is scheduled to commence in 1977 and end in 1980. Dredging will not be continuous during this time frame. The material will be deposited in nearby levee enlargements.

The aforementioned dredging will involve the deposition of dredged materials on areas which are now legally considered as navigable waterways. The magnitude and location of these areas were previously discussed by Dr. Montz and are also shown in our public notice. Dr. Montz's remarks will be made part of this 404 record. Additional details concerned proposed dredging operations are contained within our public notice of 22 January 1975, which will also be made a part of this public record.

Mr. Charles Grimwood will now discuss



water quality data relative to this project as required by the provisions of Federal Regulations, Title 33, CFR 209.145. Mr. Grimwood.

MR. CHARLES GRIMWOOD: Good morning. The Corps of Engineers has a network of sampling stations where water quality measurements are taken periodically throughout the project area. This map (indicating) shows the approximate location of 125 stations where water quality measurements were taken every two weeks in 1973. This network has been in operation since June, 1972. In addition, there are several stations at which daily water samples are collected and then analyzed for chloride concentration.

We use chloride concentration as a means of measuring salinity. In these terms, pure sea water has a chloride concentration of about 20,000 parts per million; that is, 20,000 parts of chlorides in one million parts of water. The U. S. Public Health Standard for drinking water is 250 parts per million chlorides maximum. Some sources consider up to 1,000 parts per million chlorides to be suitable for human consump-



tion. The other parameters most intensively monitored in this sampling program are pH, temperature and dissolved oxygen.

In Lake Pontchartrain, chloride concentration values of less than one hundred parts per million at Bayou LaBranche, and as high as 4,300 parts per million near the Rigolets, were observed in 1974. The gradient between these extremes is fairly uniform. The mean value of chloride concentration at the center of the Causeway was approximately one thousand parts per million in 1974. In the Rigolets and Chef Menteur Pass areas, the chloride level increases to a mean value of 1,500 parts per million recorded in 1974. The maximum and minimum values recorded in 1974 were 4,300 parts per million, and 500 parts per million, respectively.

The highest chloride concentration observed in Lake Borgne in 1974 was 7,000 parts per million at Bayou St. Malo, and the lowest was less than 500 parts per million at a point nine miles northeast of Proctor Point.

In the Industrial Canal, the chlorides



varied from a maximum of 4,700 parts per million to a minimum of 100 parts per million observed at the Seabrook Bridge in 1974.

In the MRGO the chloride concentration ranged from less than 1,000 parts per million to 10,000 parts per million in 1974.

The water quality criteria set by the Louisiana Stream Control Commission does not place a limit on the chloride concentration for any of these areas, as they are all under tidal influence. It does, however, place limits on the deviations of the pH to an acidity level of 6.5 and to an alkalinity level of 9.0 standard units. The pH of pure water is 7.0 standard units. The temperature is to be below 35 degrees centigrade and the dissolved oxygen is to be above four parts per million at all these locations, except for Lake Borgne, Eloi Bay and the Chandeleur Sound, where it must not fall below five parts per million. The pH in these areas is fairly stable and does not deviate too far from these limits.

There are a few stations, however, such as one just north of Moisant International Airport,



where the highest and lowest pH values recorded in 1974 were considerably above and below these limits. No temperatures above the 35 degree centigrade limit were recorded in 1974. All dissolved oxygen readings, with the exception of one reading, were above the minimum values set by the Louisiana Stream Control Commission.

A preliminary summary of the water quality data available for these areas has been prepared and is available to you. In addition to the parameters just mentioned, it summarizes physical parameters such as turbidity and color, chemical characteristics such as dissolved metals, nitrogen, phosphorus, biochemical oxygen demand, hardness, et cetera, and biological pollution in the form of coliform organisms. Additional water quality data are available from the U. S. Geological Survey which have been published and include some soil chemistry data from the analysis of bottom deposits.

Once dredging operations begin, the sampling is intensified and additional testing of the samples will be carried out in compliance



with environmental protection agency requirements.

Thank you, ladies and gentlemen. I would like to now return this floor to Colonel Heiberg. Colonel.

COLONEL HEIBERG: Thank you Mr. Hart and Mr. Grimwood.

I have asked the Governor's Representative Agency on the overall project to make its comments, the Department of Public Works, Mr. Cresap.

MR. CRESAP: Thank you, Colonel.

Mr. Roy Aguiard, our Director, regrets he couldn't be here, personally, today but wishes me to assure you of his continued support of your efforts.

I would like to ask Mr. Arthur Theis, my assistant, to read the statement from the Department of Public Works. Arthur.

MR. ARTHUR THEIS: (Department of Public Works) Ladies and gentlemen, I am Art Theis, the Assistant Chief Engineer for the Louisiana Department of Public Works, Mr. Roy Aguiard, Director; and I would like to read a letter to



Colonel Heiberg from Mr. Roy Aguiard, and it reads as follows:

"Dear Colonel Heiberg: This is in response to your announcement dated January 22, 1975, of a public meeting to discuss the Lake Pontchartrain, Louisiana, and Vicinity Hurricane Protection Project and plans for disposal of dredged materials as required by the Federal Water Pollution Control Act of 1972.

"The Louisiana Department of Public Works has been designated as the state agency responsible for the coordination of all federal projects in Louisiana related to the flood control, navigation, hurricane protection, and related water resources projects. In addition, the Governor of Louisiana has designated this Department as the coordinator for the Lake Pontchartrain and Vicinity Hurricane Protection Project. In this role, we are responsible for coordinating the federal project with the affected state and local interests to insure the best possible protection system for this area of the State of Louisiana. It is in this position that we present these comments today



for your consideration on this project.

"The Lake Pontchartrain and Vicinity Project was authorized by the Flood Control Act of 1965. The purpose of this project is to provide adequate hurricane protection to the Greater New Orleans Metropolitan Area including all or portions of some ten parishes, the principal beneficiaries being Jefferson, Orleans, St. Bernard, and St. Tammany Parishes. The project, as you have outlined today, consists of a series of levees, flood walls, control structures and locks to provide protection of this area against hurricane generated tides.

"The need for this type project in this area has been dramatically indicated in the passage of several major hurricane, such as Betsy in 1965, and Carmen in 1969. A considerable portion of the damages suffered by this area could have been alleviated had the project been completed at this time. The New Orleans Metropolitan Area is the major urban area of Louisiana and, in fact, this entire region of the United States. This highly populated and industrialized section de-



serves the best available protection that can be devised in order to insure the continued and orderly development of our economy, as well as protecting the lives and properties of its citizens. We believe the proposed plan of development provides this protection and the completion of this project at the earliest possible date is urgently needed. The existing protective facilities are inadequate to insure the protection of this area.

"The environmental aspects of this project have already been thoroughly documented and commented on by interested local, state and national agencies, as well as the general public. The Environmental Impact Statement for this project has been filed with the President's Council on Environmental Quality as required by the NEPA Act of 1969; therefore, no further comments are considered necessary as pertains to this statement.

"Section 404 of the Federal Water Pollution Act of 1972, requires public meetings, when appropriate, to consider the dredging and disposal of material in navigable waters as associated with



federal projects. The term 'spoil disposal' is inappropriate in regard to this project since we are discussing the construction of earth embankments for hurricane protection in this area. The dredging is, of course, necessary to obtain material to construct the embankments required.

"The areas designated as spoil disposal areas are coincidental with and pertain directly to the embankment location. These areas are adequately defined on the project plans and also indicated on drawings furnished with your hearing notice. In most cases, these areas have already been utilized in the construction of the hurricane levees, and land use will not be changed from that already established. Primary consideration, in regard to spoil disposal, dredging operations and effluent discharges, should be directed toward the establishment of locations which will provide the least disturbance to the existing ecological balance of this area. Since this area of our state is a highly productive shellfish and seafood area, care should be exercised in all operations near existing oyster leases and other pro-

DPW

ductive sites. We will work very closely with
your District and with other appropriate state
and local agencies in the development of satis-
factory plans to accommodate these features.

"It is hoped that today's meeting will provide additional impetus to proceeding with this project as rapidly as funding will permit. We appreciate the opportunity to participate and comment on these features of the project and look forward to a continued and early completion of the project. Sincerely yours, Roy Aguiard, Director." Thank you.

(Whereupon, the document was offered into evidence as Department of Public Works Exhibit No. 1.)

COLONEL HEIBERG: Thank you, Mr. Theis. During the presentations today, some items will be discussed that have been well covered by past meetings or in the published Environmental Statement. As an example, in the 7 or 8 months since I've been here I continue to hear the comment: "The Rigolets opening is only 25% of the natural opening and, therefore, only 25% of the tidal passage



of water will be possible." This statement is simply not supported either by hydraulic studies or by the extensive water model testing that we have done.

If you do hear statements not addressed by our presentation today, please make use of the Engineer Staff, to my right, at the breaks; or write to me, and if you want your exchange to become part of the record of this meeting or hearing, as in your letter for that.

You may ask why I do not answer questions here today. To do so one-by-one would insure that a meeting with the obvious wide public interest of this one would last far too long and that's why my staff is here with me today. And while one purpose of this meeting is to inform the public; that is secondary to the primary purpose of this meeting and hearing: To provide me with information, through the public record, to inform my superiors with this information and those that will pass on my judgments for their ultimate decisions.

In order to allow for the greatest number to speak today, I am insisting on a five



minute rule, except where I have agreed to longer presentations by prior arrangement, as I announced in the public notice. To that end I am asking Ms. Judy Zavala, down front, to time the presentation. The speaker, up here, will see a yellow light when there is one minute left. A red light at stop and then if you go beyond the red light, we'll give you a signal. If you want to make a rebuttal or a longer statement, you have three options: Make the statement in writing as long as you want within the thirty day period; all of you who want to make an additional five minute statement can do so after all the initial statements are made. I want to provide the opportunity for everyone to have an initial opportunity to speak first. I admit that will probably be late today. All who want to make longer statements, within reason, I will allow to do so within the -- after the second five minute statements have been made later today.

Please give us your written comments, or for the sake of accuracy, your oral notes, if you use them when you come forward. And, again,



Judy will take them up front.

I will next call on elected officials who have indicated a desire to speak. First on my cards is State Representative Joseph Accardo of LaPlace.

(Applause)

MR. JOSEPH ACCARDO: (State Representative, LaPlace) Thank you, Colonel, and ladies and gentlemen. I represent the Parishes of St. John and St. James. We are not a part of the Hurricane Protection System and this is why I am here today.

First, let me say that I am in favor of hurricane protection. I do not favor the killing of marshes. I do not come here to try to tell you where to place your levees or locks. That is a decision that must be made by someone else. But, for a number of years, I have expressed my concern to the Corps of Engineers and to other public officials, and Congressional people, that in the planning of the Hurricane Protection System, the Parish of St. John, which has an extensive boundary on Lake Pontchartrain, as you can



see, stretching from the area near the spillway all the way past Manchec, is not included in any kind of protection system.

Further, let me also say that I do not advocate the leveeing of all of the marsh land in St. John Parish. I do not advocate anything of that kind. But what worries me is that in letters from the Corps and in statements I've heard today, we were told that tides in excess of thirteen feet could occur at any point on the lake and, specifically, at Fenier. Previous hurricanes, especially the hurricane of 1915, caused devastation in St. John Parish at Fenier.

I am told in correspondence from -- and I have correspondence from the Corps, from the predecessor from the current Director, that we could expect flooding at Fenier even after the Barrier System is built to at least an eight foot level. I am told that the Barrier System would reduce flooding at Fenier by five feet. Five feet from thirteen feet leaves eight feet. The entire Interstate System in St. John Parish is built at about a three foot level. There are now



people living, significant numbers of people living, north of the Airline Highway in my parish, whose homes are built in areas that are below eight feet. These are cultivated areas, farmed areas, areas that have been historically considered farmlands and areas that people could live in.

It worries me that the Corps of Engineers requested authority from the Congress in 1971 for a study of the western shore of Lake Pontchartrain and the Congress authorized the study, but no funds have ever been presented for it, so that the study could be conducted.

It worries me that the Corps is proceeding to build the system without adequate studies of that -- of the affects of the system on the parishes that I represent. Bear in mind that Lake Maurepas and Lake Pontchartrain serve as the collection basin for much of the drainage area of southeast Louisiana and a large portion of Mississippi.

The only thing I ask, and I suggest to the Corps, is that this project should not proceed to its completion without adequate studies of how



it will affect the people I represent. I say that you should not have started without adequate funds. I am sure that a study of this kind could have been conducted at a cost of under a million dollars, yet I notice you budget in excess of \$300 million but not enough money for study to determine the effect on the people I represent.

I urge you not to make a mistake because we will be the people who will pay the price. I have confidence in the Corps of Engineers and in the Department of Public Works. I ask you to exert some effort to get a little bit of money to finish the studies.

Thank you very much.

(Applause)

COLONEL HEIBERG: Thank you, Representative Accardo. For the next speakers, I would ask that you use the microphone closer to me and then this will give you an opportunity to hand your papers to Judy as you come forward.

State Representative Scoggins has asked me for thirty minutes to make his presentation as an exception to my five minute limit. I would agree



to that length only if he agreed to wait until mid-afternoon, which he could not do. I did agree to give him fifteen minutes this morning. Mr. Scoggins.

REPRESENTATIVE EDWARD C. SCOGGINS:

(Slidell) Thank you very much. Colonel Heiberg, Mr. Cresap, members of your retinue, however many they may be, distinguished guests, public officials, ladies and gentlemen.

You've just seen a very slick presentation.

(Applause)

One designed to overwhelm you. Looked to me like it might have been prepared by some of the Madison Avenue boys. I think most of you know who they are.

I know that each one of these young men that spoke up here is dedicated, sincere, whether he be from Arizona, Kansas, Nebraska or from Louisiana. Whether he's ever been in a boat or not is no concern of mine.

Before I commence, I would like to present for the record copies of the things I will



say and some other things that people have asked me to present for the record. First, from the Haas Enterprises in Slidell, their written opposition; from Southern Shipbuilding Corporation in Slidell, an employer of 400 to 800 people, their written opposition and their request, if we must have it, for modification in order that they will not have to shut down their operation; a copy of my criticism of the Environmental Statement from the Corps of Engineers, prepared by an engineer for me, a former employee of the Levee Board; a statement prepared for me by Mr. Henry G. Casserleigh, a former member of the Corps of Engineers, in a very responsible position in opposition which I will attempt to read. I will attempt to do what I can do in fifteen minutes -- it would take an hour, if I were permitted the time. Another for the official printed record, a criticism from me, from with signatures attached a number of people with their reasons for objection; from Mr. W. J. Brogan, with his reasons for objection; a letter, a personal letter from Mrs. Noel Mansfield, with her reasons for objection.



She happened to live in Carolyn Park at the time of the flood there caused by prior Corps project, the Mississippi River Gulf Outlet, and she states that the water rose to her rooftop in minutes, in spite of what Mr. Swallow (sic) has said about the water being slow rising water; a letter from Mr. J. C. Thropp, stating his reasons for opposition; also I'd like entered into the official public records, printed public records, an editorial criticism of "Levee Millage and Barriers" from the Times-Picayune telling you what's being done with tax money in spite of what you voted for it to be done with; another from the States-Item concerning this particular hearing that states, and I'm going to again refer to me having fifteen minutes:

"There can be little doubt that those powerful public agencies and groups with vested interests in the lake project will, as in the past, be heard amply at the hearing."

And, finally, prepared for me by an engineer, whom I think is as capable as any I've heard here today, what I will read to you. These



are for the official public records.

(Whereupon, the above mentioned documents were offered in evidence in globo and marked for identification as Scoggins Exhibit No. 2.)

I probably will be cut off in the middle of this, so, you'll just have to bear with me because I don't think there's a possible way that I can get it in in fifteen minutes. You've heard an hour and a half presentation.

You know, people are divided into three groups in this world. There are those who have something to do with half the things that are happening or can happen or are not happening; and there are those that watch things happen; and there are those that wake up and wonder what did happen.

Mankind's presumption that it must straighten out rivers, re-arrange coastlines, fill in wetlands; in short, improve on nature, has become too prevalent. I'm going to skip some other opening remarks.



This book says, "Why Bottle Up Lake Pontchartrain?" I'm going to try to get this in.

"The Corps of Engineers-Orleans Levee Board's Hurricane Protection Plan to bottle up Lake Pontchartrain is based on the theory that a so-called 'Killer Hurricane,' following either the No. 1 or the No. 2 path," which we've never had, "will by means of counter-clock-wise winds dump the lake water over the New Orleans Lakefront seawall and the Jefferson Parish Lakefront levee, thus flooding the low areas behind. In the past several hurricane of great intensity, their paths, shown on the attached map, followed these paths very closely and the following results occurred:

"The Hurricane of 1915: In September of 1915 the most severe hurricane of record, up to that time, in the New Orleans area occurred across the city and Lake Pontchartrain. Winds reached a velocity of 120 miles per hour at the New Orleans Post Office weather station and tides reached 6.1 foot, mean sea level, at West End. The north shores of Orleans and Jefferson Parish along the



lakefront were flooded, as there were no protection levees along the lakefront at that time.

"The hurricane of 1947: At the time this hurricane struck the City of New Orleans was protected along the lakefront with a concrete seawall and locks at the New Basin Canal and Bayou St. John, built to an elevation of 10 feet above mean sea level. The old embankment of the New Orleans-Hammond Highway, along the east Jefferson Parish at an average elevation of only 3 1/2 foot M.S.L." -- that is, mean sea level -- "The hurricane winds reaching an estimated velocity of 110 miles per hour and the maximum tide level reaching 5.42 at mean sea level, overtopped most of the levee along the Jefferson Parish lakefront." That was 1947. "Of the total, 48.6 square miles were flooded. Over \$3,900,000 property damage was sustained, but none in the New Orleans area.

"The hurricane of 1975, Betsy: Not one drop of the water that flooded those homes came from Lake Pontchartrain. I only want to make that known to you. It came from outside and would be outside of the barriers today.



"Shortly after the 1947 hurricane, the United States Government authorized the Corps of Engineers to construct flood protection for the east bank of Jefferson Parish. A levee with a 50 foot crown, built to the elevation of 10 foot mean sea level and protected on the lake side with rip rap and asphalt was constructed and has withstood hurricanes of 1949 and 1965, the latter of greater intensity than the hurricane of 1947.

"However, the City of New Orleans and St. Bernard and Plaquemines Parishes experienced severe flooding caused by the 150 mile per hour winds and high tides of Hurricane Betsy. Although the New Orleans lakefront seawall was topped by wave action, the levees behind the seawall, previously built to elevation 14 foot M.S.L., restrained the lake water from flooding. The elevation of the lake at West End reached 7.6 M.S.L., which broke the 50 year record held by the 1915 hurricane.

"The flood damage caused by this hurricane in the Ninth Ward of New Orleans and St. Bernard Parish was caused by the flood waters of



the Mississippi River Gulf Outlet,

(Applause)

"which is known in engineering circles throughout the world as a 'white elephant;' topping the low levees built by the Corps of Engineers when this waterway was constructed." Topping the low levees built by the engineers when this waterway was constructed.

"The low levees of the Mississippi River in Plaquemines Parish," did, indeed, as someone pointed out earlier, "were also topped by the flood tide backing up the river." Backing up the river.

"Since 1965 the levees along the Industrial Canal, New Orleans drainage canals emptying into the lake, and the Mississippi River Gulf Outlet have been substantially built to a minimum elevation of 14 foot M.S.L. and the main river levees have been raised to prevent a recurrence of 1965 in Plaquemines Parish. Since the raising of the levees in Orleans and Jefferson Parish East Bank, the Federal Government has subsidized Flood Insurance rates on home with floor



elevations as low as two feet below M.S.L." You can get flood insurance. "Fixing the rate as low as five cents per one hundred dollars.

"With such protection built since 1965 by the Orleans Levee Board and the Corps of Engineers it is apparent the construction of the proposed barrier across and between the Chef Menteur and the Rigolets Passes will not be necessary, and if constructed it may impose additional flood hazards and be detrimental to the Lake Pontchartrain-Maurepas Basin. The following are reasons why this proposed expenditure of over \$300 million of your tax dollars, 70% federal and 30% local, should not be spent.

"No. 1, Tidal flow of the Pontchartrain-Maurepas Drainage Basin will be impeded.

"This drainage area depending on free tidal flow through the two passes, consists of over 5,200 square miles in Louisiana and Mississippi; the Louisiana are approximately 20% of the total state surface. This drainage area shed runs off through over 20 rivers and creeks, the slow flow of which depends on the diurnal tidal fluc-



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tuation of the lakes, which approximates only one foot in elevation, each 24 hours. The fresh water discharge of this drainage area, together with the occasional discharge of the Bonnet Carre Spillway, in time, will affect the salinity of these lakes." That may be moot. The salinity of the lakes has been altered now 200 parts in low inflow years and 400% in the high inflow years already. I think most of you know that the estuaries behind the sand spit around the lake are already dead.

"No. 2, The ecology of these two lakes will be affected by restricting flow through the two passes.

"According to the 1974 report of the Louisiana Stream Control Commission and the Louisiana Health and Social and Rehabilitation Services Administration, there are over 28 industrial plants and 55 municipal treatment plants, many over taxed, discharging over 48 million gallons of untreated sewerage, waste and effluent daily into the above drainage area. This discharge at present is from 377 thousand people which number should increase to 560 thousand by 1980, accord-



ing to the report.

"None of this discharge has better than secondary treatment, much with only primary treatment, and much is raw sewerage from over taxed plants, camps, marinas and boats in the rivers and lake areas. In addition, polluted run-off from the cattle and dairy operations north of the lakes, drains into the rivers, which empty into the lakes.

"Flow from the Orleans and Jefferson Parish drainage canals also contribute to the pollution of Lake Pontchartrain, forcing the closing of bathing beaches, after heavy rains flush out the bottom deposits of these canals. The shallow water of these two lakes act, at present, as oxidation ponds, the pollutants of which must have free exit through the two passes. An occasional storm tide actually benefits the lake waters by flushing out these pollutants.

"No. 3, The Planned Barrier would destroy the buffer action of the two lakes, before and during a hurricane.

"The reservoir area of the two lakes,



rivers, and surrounding wetlands, consisting of over 750 square miles," and if you consider Maurepas and Pontchartrain, it's 969 square miles, "will hold over 670 billion cubic feet of storm water, with a rise of 8 feet. Assuming a tidal flow of 4 feet per second through the two passes, which is high, as the tide builds up during the approach of a hurricane, the time required for the tide to increase to plus 8 M.S.L. would be approximately three days." To build up to that level will take three days. "Before the three day period, the eye of the hurricane will have passed over Lake Pontchartrain and counter-clock-wise winds would be blowing. With seawalls and canal levees built to the 14 foot M.S.L. elevation, and the two passes unobstructed, the storm water would start a back flow through these channels into Lake Borgne and the Mississippi Sound. During Hurricane Betsy, which followed the path of the No. 2 critical hurricane, to some extent, the tide level only reached 7.6 M.S.L. at West End, and all of the lakefront protections held.

"This reversal of hurricane flood waters



was evident during Hurricane Camille on the Mississippi Coast, when a 20 foot tide at Gulfport flowed back into the gulf in less than one hour after the eye of the storm passed over the coast line." It was back where it came from.

"Suppose that a hurricane of the magnitude of Camille," and this Standard Project Hurricane, I have been told is sustained winds of a hundred miles per hour -- we've designed a barrier and we've now designed a hurricane to fit it.

"Suppose that a hurricane of the magnitude of Camille struck the area between the Chef and the Rigolets, with the proposed flood gates closed and levees raised. Such a storm would produce tides that would top the gates and U. S. Highway 90, and by circling Apple Pie Ridge," and what you saw is not the way it's actually going to be built out there, "at only 7 foot M.S.L. foot and flood the entire area of Slidell, not above elevation 10 foot M.S.L. And how would the flood gates be opened in time to relieve the high lake water when the counter-clock-wise winds backed up the tides along the south shore of Lake Pontchartrain



and the barricade structures?"

I might point out at this time, I've lived on the bank of the Rigolets for 54 years. I am a former tugboat captain. I have hunted and fished. I worked on oyster boats and shrimp boats in that area all my life.

"No. 4, Restriction of cross section areas at the Chef and Rigolets Passes would change the salinity of Lake Pontchartrain and Maurepas."

I'm going to skip that because it may not be of major significance, the salinity; but I am going to say that, "When this barricade was first proposed by the Corps it was assumed that the velocity of tide water would be increased through the restricted openings by tidal build-up. This is difficult to believe as during normal tidal flow, the diurnal change is only one foot in 24 hours. Salt water from Lake Borgne and fresh water and pollutants from Lake Pontchartrain would be backed up at the flood gates during normal tidal flow." Remember you are raising the level of the bottoms.

"In time, the two lakes would become



polluted bodies of stagnant water," it may take 30 years and it may take less, "unfit for fishing, recreation or propagation of food fish. The reproduction of clam shells which provide a \$12 million yearly operation, necessary for furnishing material for road and foundation construction, would be ruined. In this connection, the following recommendation submitted from the Louisiana Wildlife and Fisheries Commission's, 'Study of the Clam, Rangia Caneata, in Lake Pontchartrain and Lake Maurepas.'

"The most important recommendation for the clam shell industry to consider, encompasses steadfast opposition to any environmental disruption from any source," any environmental disruption, "affecting the ecology of the lakes. All the information derived and compiled in technical knowledge of factors directly or indirectly affecting shell production should be utilized in preventing environmental disruption. If wisdom is not used, the industry can no longer expect abundant production," the industry can no longer, Mr. Ed Lennox, if you're here, "the industry can no



longer expect abundant production of this renewable natural resource that has been so long enjoyed. The voice of the clam shell dredging industry should be clamorous in order to protect, maintain and possibly enhance clam shell production in Lake Pontchartrain and Maurepas.

"No. 5, Should this proposed Barrier be built across the two deep passes, construction difficult would impose hazardous flood conditions in the area and great unforeseen costs."

I am going to mention something to you that nobody has mentioned up until now. The construction period of these -- whatever you want to call them.

"In order to construct the foundations for flood gates in 30 feet of water extensive and costly coffer dam construction would be required that would completely close the passes for periods of two years or more." You cannot work on a wet bottom to do what they propose to do in the Rigollets or the Chef. You've got to work on a dry bottom. It would require coffer dam, one on each side draining out the center to do the work that



has to be done. And possibly for two years your passes, up to two years, could be totally closed during construction. You can't dig the navigation canal at the Rigolets to allow this during this because you'd get a new Rigolets if you did that. That's something that's very important. It is quite possible that you won't have any pass for quite some while, yet in the Environmental Impact Statement it clearly states that any closure exceeding 48 hours at any given time, the damage will be irretrievable. That's their statement; not mine.

MS. ZAVALA: Time's up.

MR. SCOGGINS: Time's up? I would like to, with your permission, Colonel, I would like to add for five more minutes to finish.

COLONEL HEIBERG: Okay, sir, I note that we have some more public officials that I'm also going to get in before noon or they're going to have to get shuffled with the rest of the cards. I note Mayor Cusimano's next. Does he want to give up -- do you want to give up your time?

MAYOR FRANK CUSIMANO: (Slidell) No.



I want Mr. Scoggins, as representative of the people allowed to have the proper time; whatever it takes, thirty minutes or an hour. I demand that you give him the time.

(Applause)

COLONEL HEIBERG: Sir, this is my meeting and not yours.

(Applause)

COLONEL HEIBERG: Mr. Scoggins, can you finish in the next five minutes?

MR. SCOGGINS: I can finish, I think, in five to eight minutes.

COLONEL HEIBERG: Okay, go ahead.

MR. SCOGGINS: I would ask you, I know your feelings and I respect them very much. Let us proceed in an orderly manner. I understand your position.

"In order to construct the foundations for flood gates in 30 or 90 feet of water, extensive and costly coffer dam construction will be required that will completely close the passes for periods of two years or possibly more. Subsoil conditions in the Chef-Rigolets area are



indeed very poor. U. S. Highway 90 has been raised several times to take care of settlement and the piers of the L & N Railroad bridges were sunk to a depth of over 100 feet to obtain safe bearing.

"Should a hurricane strike between the Chef and Rigolets during construction, with the passes blocked with high level coffer dams, the Slidell area would be flooded with backed up tides from the east, the camps along U. S. 90 would be destroyed and the low areas west of the Chef in Orleans Parish would be flooded." Venetian Isles on out. "Also, an increase in construction costs would be excessive.

"In conclusion, it should be remembered that this Hurricane Protection Plan was submitted to the Louisiana Taxpayers on three separate occasions and was rejected by overwhelming votes. However, a three mill property tax was voted for 'building and raising levees' in Orleans Parish by the Orleans Levee Board. It has developed that this plan was a subterfuge, as practically all of the levees in Orleans Parish have been



completed to a hurricane proof sections and elevation. This three mill tax will be used as the Orleans Levee Board's contribution toward the proposed \$300 million protection plan. This would mean a contribution of at least \$90 million by the Orleans taxpayers, at least \$90 million, or 30% of the total cost.

"In the latest plan of Protection of Lake Pontchartrain and Vicinity the following statement is incorporated." This is theirs; not mine.

"Due to the importance of getting the barrier structure complexes at Rigolets and Chef Menteur and Seabrook under construction as quickly as possible, the New Orleans District placed major emphasis on their engineering and design. To this end the engineering capabilities of the District are being augmented by that of three other Corps Districts, and five local architect-engineering firms." Five local architect-engineering firms. They may not be any special interest.

I'm going to start this one, I believe I can finish it. It's only two pages. It was



prepared by engineer, former Corps of Engineer, Henry G. Casserleigh, for me.

"The voters of St. Tammany Parish rejected this plan on three occasions. Statewide voters rejected it two times. True, the vote was against the bond issue to finance the work; however, my vote was against the project. I did not want to see the natural passes closed. Many others I have spoken to expressed the same feeling. The fact the Representative Ed Hebert's bill allows 25 years for payment of local interests' share does not change the basic fact that the voters don't want the project, or at least the barrier phases.

"Echoing Joe Accardo, I am not against hurricane protection as such. And if those people who think they are getting hurricane protection from the levees want it, they can certainly have it. I'm asking that the passes be left open.

"With a hurricane crossing Lake Pontchartrain in the vicinity of New Orleans moving south to north or southwest to northeast with the barrier gates closed at the Rigolets and Chef



under the influence of the west wind from the southwest quadrant of the storm, the tilting phenomenon, saucer effect, will cause the lake waters to flood a large area of St. Tammany Parish that has not had storm water on it since the 1915 hurricane. How quickly can and will the gates be opened?

"Because of dangerous currents through the structures at the Rigolets during flood and ebb of nearly every tide of every day of every year. The Corps says for only 15 out of every 30 days. It will be necessary to lock boats through, according to them, for about," and this has been changed, we were told by a prior engineer 12 hours out of every 24 and they now tell us "5 hours a day for only 15 days." I don't know. Perhaps we don't have a tide for the other 15 days.

"This will prove a serious handicap to commercial and sport fishing boatmen. I cannot imagine a lock 110 feet wide and 800 feet long operating to let my 18 foot skiff through. Isn't it more likely that actual practice will require a wait until a number of boats are standing by to



negotiate the lock." Not one at a time, skiffs, pirogue, or whatever. "A boat trip from Lake Pontchartrain to Lake Borgne via the Rigolets could end up a two day trip or at best, a bit of -- an overnight layover.

"After one good flooding of developed areas between the lake and Highway 190, including the Eden Isles area, the local citizens will scream for protection. Uncle Sam will put 70% of the necessary funds, local interests the rest, and a levee will be built from North Shore along the lakefront to Pass Manchac with flood gates systems on Bayou Bonfouca, Bayou Lacombe, the Tchefuncta River and the Tangipahoa River." They tell you it calls for further flood protection after we build it. You saw that already. "Except for the marsh on the lake in St. Charles Parish the last vestage of life-giving to the lake, that is, marsh, will then have been destroyed. The lake will become a barren and desert body of water or at best a mighty poor fishing area.

"As the plan now stands its purpose appears to be for the protection of one particular



area only. The plan provides no new protection for St. Tammany or Tangipahoa Parishes, except for the highly debatable six foot lower lake level during a hurricane. It is interesting to note that, quote, 'work on the Mandeville seawall is inactive due to lack of financial participation in the project by the St. Tammany Parish sponsors.' They did not want a pumped in pile of sand there.

"The greatly increased salinity of the lake since the MRGO was constructed has already had a detrimental effect on the crab fishery. This can be verified by talking to many of the old time crab fishermen. If the salinity of the lake is not sharply reduced fairly soon, the much prized 'fat Lake Pontchartrain blue crab' will be a thing of the past.

"The flat statements that construction and operation of the barriers will have no appreciable effect on the life patterns of larvae and very young migrating specimens, nor on more mature specimens, is pure theory. Pure theory. Where in this country or elsewhere in the world have similar works been undertaken. Marine



biologists will be hesitant to mention Florida where some regrettable and costly mistakes were made." They are now trying to rectify these, as these gentlemen from the Corps can tell you.

"Just about every hurricane of the past that came near New Orleans put water over Highway 90 in the vicinity of the Rigolets and Chef Menteur from six to eight feet. There was water deep enough to float large boats and buildings across the roadway. Therefore, I cannot agree that barriers to the same elevation as Highway 90 will prevent storm driven water in large quantities from entering the lake, even during storms of lesser intensity than the design hurricane.

"In my opinion, it would border on criminal action by sponsors and builders to proceed with the barrier phases of this plan. It seems to me that there is legal grounds to request an injunction or at least a referendum on the project as now proposed, not a bond issue vote."

In closing, just one thing, Thomas Jefferson counseled democracy's leaders to trust



in the informed judgment of the people. Sometimes they are wrong. But in the long run common sense and considerable wisdom nearly always prevails. Despite this, our public leaders too often exhibit the attitude that people are children and we know what is best for them. This is not leadership, but the arrogance of power. The arrogance of power and the entire nation has suffered its devastating results. Those of you who must go back across the lake or across the Rigolets or into the Chef there, through the marshes, I ask you to blow it a goodbye kiss. Thank you.

(Applause)

COLONEL HEIBERG: Thank you Mr. Scoggins, Mayor Frank Cusimano of Slidell.

MAYOR FRANK CUSIMANO: (Slidell) Colonel Heiberg, Mr. Baehr, Mr. Cresap, ladies and gentleman, elected officials, from the outset I want to go on record as opposing the -- and being totally against the format of this public hearing.

(Applause)

This has been officially called as a public hearing. And what is a public hearing?



A public hearing is for the public to be heard; and anytime the U. S. Corps of Engineers, who is conducting this public hearing can take as much time as they please and then curtail the public, it is not a public hearing.

(Applause)

Mr. Scoggins is truly a representative of the people. These people you see here, the U. S. Corps of Engineers are representatives of the people. They are working for the people and they are being paid for by the people.

(Applause)

I have with me a Resolution from the St. Tammany Parish Municipal Association. I would like to enter this into the record as being against the Barrier Plan and they have specified their reasons. I also have a Resolution here from the Mayor and the City Council of the City of Slidell opposing the erection of the Barrier Plan of this Hurricane Protection Plan. We, in Slidell, everywhere -- we have the same feeling for life and property whether it be in Slidell, St. Tammany Parish, New Orleans, New York or any-



where. We are not opposed for hurricane protection for people. But we are opposed to the Barrier Plan.

I strongly oppose the construction of the barriers at the Chef, Rigolets and Seabrook for many reasons. But I'm only going to talk about four. Mr. Ed Scoggins has talked about all of them that I have here today, but I would like to get my little two cents in.

The Barriers will not do what they are intended to do and what the engineers say they will do. They say it will keep the water out of the lake; it will prevent the tide from rising. And they say it will protect New Orleans from the waters of Lake Pontchartrain. This is not so. They have forgotten one thing: If the barriers were in place and they were working 100%, there is water in the lake, twelve to fourteen feet of water in the lake over 600 square miles. How are you going to protect the people of New Orleans from water in the lake. There will always be water in the lake, whether you've got barriers or not. The only way to protect the people of



New Orleans from water in Lake Pontchartrain is to put barriers all around it and stop up every drainage ditch, every bayou, every stream and every river that empties in it and then pump the lake dry. Then you'll protect them from the waters of the lake. That's the only way you could ever do it. How are you going to protect New Orleans from the waters of the Mississippi River? You're going to put a barrier across the Mississippi River and divert the water around it? You build levees, that's how you protect it and this is exactly the way they are protecting the people from the waters of the Mississippi River, by levees; and New Orleans can be protected from any hurricane by the levee system, the alternate system that they have.

But they say they're going to do this because it's the cheapest, not the best protection.

No. 2, the ecosystem of the lake will be totally destroyed and Mr. Scoggins brought out the point that during construction, two years, with no flow in and out -- you know that tide



goes through the Rigolets -- as soon as they put any earthen dam or do anything to the Rigolets that beautiful body of water is immediately destroyed, the Rigolets will be destroyed and during the construction of two years the Rigolets will be destroyed and so will Lake Pontchartrain.

We have the Eighth Wonder of the World in New Orleans and we're mighty proud of it. I know I, for one, am proud of it, and that's the Dome Stadium. I think this is the greatest thing; the Tourism Bureau of the City of New Orleans and the Tourism Bureau of the State of Louisiana should be vitally interested. We have the Eighth Wonder of the World in the Dome Stadium. We're going to have the ninth, if the Barriers are built. You're going to have the largest cesspool in the world.

(Applause)

Industry: Now, let's get to industry. You cannot improve industry on Lake Pontchartrain in the Slidell Area, Madisonville, anywhere around the lake, even on the New Orleans side of the lake. You cannot put in an industry that will build --



will build larger rigs for the gulf -- oil rigs. You are restricted to a path at the Rigolets of 110 foot wide -- I heard it was 84, but today I heard it was 110 foot wide. So, industry will be forever, forever, for all eternity contained to a small -- you could never build a big industry on the lake.

And pleasure craft and sailing craft will have to be locked through, as Ed told you.

But the main thing that worries me most -- I'm an American of Italian descent. I believe in American. I love America. I believe in our Democratic system. I love it. And they tell me, I've heard the system is working. But the system is not working in the case of the Barriers. What have they done with the vote of the people? The people have voted. The people have said they do not want this protect -- these barriers. This has been done three times.

Now, these people, the proponents, whoever they may be, are bringing this plan further and to complete those barriers are completely ignoring the vote of the people. I am an elected



official, the Mayor of the City of Slidell. We constantly have bond issues and they are put to the vote of the people for millage and when the people vote "no" that's it, ladies and gentlemen. We cannot go any further. The people have voted "no" and they are going to build this thing. This is just a bone thrown to us today. They are going to go ahead with it.

(Applause)

They are going to go ahead with the plans. They are only giving us this public hearing today, which is not a public hearing, because we've pressured Mr. Hebert to call for this public hearing. That's the reason why. Quite a few people have pressured Mr. Hebert to get this. This is a bone thrown to us. They are, I firmly believe, that they are going to go ahead with these Barriers regardless of the vote of the people. The people have voted against it. What right -- who gives these men authority to go ahead with this project, when the people voted it down? Who, who gives these people the right to go ahead with this project when the people



have voted it down. I say this is illegal and definitely it's immoral. It's no way morally right. It's not right in any way, shape or form. Thank you, ladies and gentlemen.

(Applause)

(Whereupon the above mentioned resolutions were offered in evidence in globo and marked for identification as Cusimano Exhibit No. 3.)

COLONEL HEIBERG: Thank you, Mr. Mayor. Councilman A. Dennis Bechac, Mandeville.

MR. A. DENNIS BECHAC: (Councilman of Mandeville) Colonel Heiberg, ladies and gentlemen. Ed Scoggins and Mayor Cusimano are a real tough act to follow.

With regards to the public hearing to be held Saturday, the 22nd of February, 1975, to discuss various proposed plans of improvement to Lake Pontchartrain, Northshore, Louisiana, Study, the following comments reflect the views of the Mandeville Town Council and pertain to that area within the corporate limits of the town



of Mandeville, Louisiana.

Lake Pontchartrain and Vicinity, Louisiana, Study. We object to the portion of the study which pertains to improvements to the lakefront area as outlined in Section 4, paragraph 17 (J), page 64, example: The mudwall and rip rap. We have consistently opposed this suggested improvement and feel that this improvement has definitely been removed from future consideration.

National Shoreline Study Inventory Report of the Lower Mississippi Region. We object to that portion of this study as suggested in Section 7, "Improvements Method," page 68, except that we do desire the replacement of the existing seawall and extension to cover the entire length of the corporate limits of Mandeville.

With reference to the announcement of the public meeting to be held on the 22nd of February, we submit the following:

Paragraph 3, Item C: That the seawall in Mandeville be replaced and extended along the entire lakefront to the corporate limits of Mandeville, Louisiana. This, we feel would provide



the best protection throughout the years and would prove to be economical and beneficial to this rapidly developing area.

Paragraph 4, Item A: Provisions of a sand beach 300 feet wide in front of the entire existing seawall at Mandeville, Louisiana. This we reject in its entirety.

Paragraph 4, Item B: Federal assumption of maintenance responsibilities for Bayou Chastant. We concur in this improvement and feel that this will be of great benefit, not only to Mandeville, but to the St. Tammany Parish and all boating interests throughout the Lake Pontchartrain area.

We would also like to take this opportunity to again request the complete replacement of the existing seawall with a new step wall. This new wall should begin at Bayou Chastant and continue west to Chinchuba Creek.

I would also like to state, personally, at this time that I am opposed to the proposed plan for the Lock and Barrier System to be constructed in the Rigolets and the Chef Menteur Pass area. I am sure that many long hours have



been spent developing the plan, but I personally believe that additional study of alternate plans, especially for the Rigolets and the Chef Menteur Pass area, should be fully exploited.

Thank you for giving me this opportunity to present these views to you and presenting this project.

COLONEL HEIBERG: Thank you, Mr. Bechac.

(Applause)

COLONEL HEIBERG: I've been asked for those that come forward to please repeat their names and position in addition to my mentioning them when they come forward. Please do so.

Next, I'd like to call on Mr. Joseph E. Burgess, representing the United States Fish and Wildlife Service of the Interior.

MR. JOSEPH E. BURGESS: (U. S. Fish and Wildlife Service, Lafayette, Louisiana) Thank you, Colonel Heiberg. My name is Joseph E. Burgess, Jr., Fish and Wildlife Service, Lafayette, Louisiana.

Colonel Heiberg, distinguished guests, ladies and gentlemen, I am presenting this state-



ment today on behalf of the Regional Director, Kenneth E. Black, U. S. Fish and Wildlife Service. This statement represents the official position of the Fish and Wildlife Service on the Lake Pontchartrain, Louisiana, and Vicinity Hurricane Protection Project.

Four major features of this project plan are of particular concern to the Fish and Wildlife Service. They are the Chalmette Area Plan, the New Orleans East Area Plan, the Barrier Structures located in Chef Menteur and Rigolets Pass and the St. Charles Levee.

Completion of the Chalmette Area Plan will enclose approximately 18,000 acres of swamp, intermediate to brackish marsh and open water. The open tidal ponds and creeks in the tidal marsh located within this project segment constitute an important nursery area for numerous sport and commercial fishes and shellfishes.

This area will supply nutritious material so valuable to the continuous high production levels in the adjacent estuarine areas.

The New Orleans East portion of the



project, which encompasses approximately 21,000 acres has an estimated 14,000 acres of marsh and associated water bodies which have not been drained or developed. Although these wetlands which have been separated from tidal influence, they still provide important habitat for numerous wetland wildlife species, including water fowl, fur bearers, game and non-game animals.

The Final EIS contains a response by the District Engineer to a comment on the Draft EIS by the New Orleans East, Incorporated. He noted: "That there is an interchange of water between the marsh and the lake at South Point." And that this exchange would tend to preserve the estuarine nursery by providing the release of traverse and the ingress and egress of juvenile and larvae forms of marine species.

We wholeheartedly concur and strongly recommend that before drainage structures, which are part of the New Orleans East, South Point to GIWW levee be modified to allow for the restoration of the estuarine character of approximately 14,000 acres of undeveloped and essentially



unaltered wetlands located within the New Orleans East segment.

Another area of concern to the Service is the Barrier Structures to be located at the Chef Menteur and Rigolets Passes. Lake Pontchartrain is an integral part of a vast estuarine complex in southeastern Louisiana. The value of the area has been documented in the Final EIS and previous Fish and Wildlife Service Reports. The Fish and Wildlife Service is concerned that there is an insufficient amount of biological knowledge available to accurately predict the effects of the Barrier Structures on the movement of organisms into and out of the lake.

Contingency plans related to the modification of the Barrier Structures should be developed if it becomes apparent that the salinity regimens and/or the movement of organisms are adversely affected by these structures. This determination could be used by utilizing the data obtained during pre-construction and post-construction study of the movement rain and estuarine organisms through the Chef Menteur and Rigolet.



Passes.

In the event that adverse effects exist, causes could be identified and the barriers modified to eliminate these problems.

The final area of concern relates to the St. Charles Parish levee portion of the project. Prior Fish and Wildlife Service comments and the Final EIS document the value of the area and the project induced effects that the proposed works on approximately 25,000 acres of marsh, swamp and open water areas in St. Charles Parish.

According to the Final EIS, two streams in the St. Charles Parish area have recently been added to the Natural and Scenic River System of Louisiana. Construction of the St. Charles Parish levee, as currently planned, would involve the alteration of either or both of these bayous. Because this would contravene State Law, this feature of the project is currently in a deferred status. We support this decision. We wish to point out that this action should not be based on the alteration of scenic streams alone. Recently, public research regarding the extra-ordi-



nary fish and wildlife productivity of wetlands, coupled with public concern for the loss of these vital resources, has compelled many natural resource agencies to establish policies of wetlands preservation. The Fish and Wildlife Service is opposed to the needless destruction of wetland areas associated with the project proposed for the St. Charles levee.

In view of the above considerations, the Fish and Wildlife Service recommends the following items be accomplished:

1. The St. Charles Parish segment of the project not be constructed as currently proposed.
2. That navigation flood gates located at Bayous Bienvenue and Dupre continue to operate to allow maximum tidal exchange of waters from either side of the Chalmette area levees, except immediately prior to and during hurricanes.
3. Drainage structures associated with the New Orleans East segment be modified to allow maximum tidal interchange between the waters located on either side of the protection levee.



This action would restore the estuarine character of the enclosed marshes and would help mitigate the project induced losses to valuable fish and wildlife habitat.

4. Ponding dikes associated with the New Orleans East Barrier segment following the re-vegetation of the ponding areas in order to restore tidal influence. The time and extent of this action should be determined through consultation with representatives of the Fish and Wildlife Service and Estuarine Fisheries Service and the Louisiana Wildlife and Fisheries Commission.

5. The plans for spoil disposal areas near the Rigolets be moved to previously utilized sites located on the north side of this pass between U. S. Highway 90 and the Rigolets Entrance Light No. 2, or on the upland site north of Lake Pontchartrain.

6. Studies be initiated to determine the effects of Barrier Structures on salinity regimens and on the ingress and egress of marine estuarine organisms through the Chef Menteur and Rigolets Passes.



If these studies indicate that the structures are detrimental to the estuarine ecosystem, the structures should be modified to rectify the problem. This study should be accomplished -- rather, should consist of at least one year pre-construction inventory extending through the construction period and include the two-year post construction inventory. It should be designed within the Fish and Wildlife Service, the National Marine Fishery Service and the Louisiana Wildlife and Fisheries Commission. This would prevent -- this would, rather, permit verification of the results of model tests conducted at the Corps' Experiment Station at Vicksburg, Mississippi.

We note references in the public notice to losses and benefits if wetlands within the project -- protective levees are not converted to urban development. The structures proposed for hurricane protection obviously make possible the conversion and development of wetlands that would be left in their natural state without the project.



The Fish and Wildlife Service does not object to the project features designed to protect developed areas of New Orleans from damaging hurricanes; however, we cannot concur in the construction and operation of features which cause or accelerated the development of valuable wetlands. We believe that the intent of Congress regarding the conversion of the wetland areas to urban development was clearly established in House Report 91-917 on page 3, when it said:

"The Corps' obligation to consider all facets of the public interest in protecting estuaries, rivers, lakes, navigable waters, also arises from a national policy and directive expressed in many statutes and executive orders designed to minimize pollution and maximize recreation, protect esthetics, preserve natural resources and promote comprehensive planning and the use of water bodies to enhance the public interest rather than private gain."

We must also strive to preserve the highly productive ecosystems for future generations and strongly urge the Corps of Engineers



to adopt our previously discussed recommendations so that the destructive features of the Lake Pontchartrain and Louisiana Vicinity Hurricane Protection Project can be minimized. Thank you.

(Applause)

MR. BURGESS: Colonel, we will be forwarding our comments to the Regional Office.

COLONEL HEIBERG: Okay. Thank you, Mr. Burgess. I neglected to mention, and I should have, that I arranged ahead of time with Mr. Burgess to give him ten minutes.

I next call on Councilman John D. Lambert, City of New Orleans.

MR. JOHN D. LAMBERT: (Councilman, City of New Orleans) Ladies and gentlemen, Colonel Heiberg, and my friend, Representative Scoggins and Mayor Cusimano, and my other friend, Councilman Bechac, ladies and gentlemen.

I think that -- can you hear me -- I'm sorry.

I think that Representative Scoggins, Frank Cusimano, myself -- and we go back a long ways over in St. Tammany Parish -- have the same



love here and that's the love of the community in which we live in; not necessarily, Orleans or St. Tammany, but those areas surrounding the lake.

As to how we approach the protection elements to protect our communities we might differ in certain areas; but you can't discount the fact that we all are here with the same underlining principle. And, as I said, that's the love of the community.

And, as they have said, and I know it's a completely honest statement, that they are in favor of flood protection. The big problem is: How do we do it? How do we prevent New Orleans from being flooded? From what I understand, under the present conditions, if the Project Hurricane hits better than 90% of the City of New Orleans, if it takes the critical path, would be under water and the only area that would not be under water would be the uptown area. This is the information that's been available to me.

I don't know how you determine the Project Hurricane, except to go to somebody who has some sort of expertise and I understand that's



what the Corps did. I'm not going to try and challenge the National Weather Bureau. They've gone through the computers and some people don't like computer science and I sometimes wonder about computer science myself; but it is the only expertise that we had available to determine what the Project Hurricane would be and the one that we should protect against, and they've come up with a "Project Hurricane." And that's what we have and that's what we have to cope with. The big problems that comes up is: How to do it?

I, with all due respect to Mr. Scoggins, can't rely, as a representative of the Seventh and Eighth Wards of the City of New Orleans, which entire district would be flooded if Project Hurricane took the critical path, can't rely on the fact that a hurricane has never yet crossed that critical path or that Project Hurricane has never yet hit the City of New Orleans; and, under that basis, it may not. I can't accept that, not if my experts tell me that there is that possibility and this is that type of hurricane. I'd be remiss in my duties, so I'm going to try to do something



to help protect the people who live in my district, the people who live in the City of New Orleans. Not at the sacrifice of the boatsmen or the sportsmen or the people in St. Tammany or the salinity of the lake or the beauty of the lake. But I want to have some protection and within those parameters I would like to have that. So, I can't sit back and do like General Custer did and rely on his guide who told him, "Don't worry, those Indians, you know, they never attack under these conditions and in this particular area." So, and I don't think General Custer was an engineer. Colonel Heiberg, that's for you.

So I am interested in this and I have to rely on what they say. I don't think that the Corps is going out and trying to manufacture hurricanes. So we have a "Project-type Hurricane." Now, how do we protect against it? Well, the City of New Orleans was faced with one way which is, of course, building the levees, and the Corps of Engineers says that's too expensive and they are not going to fund it. So, they've come up with, after their studies, this particular project here.



From what I've been able to gather, in my own conscious, is that No. 1 that inflow and outflow into the lake by the waters coming in with the ebb and tide is not affected appreciably to cause any problems to the lake. The salinity of the lake in the tests that they have run shows that the salinity is within the parameters that presently exist, and if it's not, then they are going to have to correct their project. But they have that within their parameters as a requirement to do.

And the other factors involved, as I understand it, is that, and one of the major concerned areas for me is that the areas other than the City of New Orleans -- now we know we're protecting the City of New Orleans -- I'm not going to come up here and tell my friends from St. Tammany Parish that we aren't interested in protecting the City of New Orleans; but, do we create any additional harm to the residents of the City of Slidell or the residents of St. Tammany Parish. And, from the best information I've been able to gather that is not -- the situation there is not



going to be worsened any. The present conditions may not -- this construction may not create any appreciable advantage, although I think there is one and I'll talk to you about it in a minute as a result of some inquiries I've made on my own. But there is not going to be any additional harm.

One of the questions that I had to the experts on the Staff of the Corps of Engineers was: If the Project Hurricane takes a critical path which would throw winds northward instead of southward, in other words, the winds that's going to pile the water up on the north bank of the Lake Pontchartrain. What happens to the communities over there and particularly Councilman Bechac's community of Mandeville? They said that the effect, although not as devastating as in Orleans Parish, would be the same and that Mandeville would be flooded.

So, I think that the Project Hurricane can flood, if it hits one critical pass, St. Tammany, as well can flood and do some devastating damage to the citizens in the community of New Orleans if it takes another critical path.



I'm satisfied in my own mind, and I'm speaking only for myself, that the boatsmen and the sportsmen will have the opportunity under what I understand to be the revised Rigolets project -- will have the opportunity to continue to use that facility as they have in the past.

So, speaking personally, for myself and as one of the representatives of the City of New Orleans, and not in the official capacity for that Body but as one of the speakers on that Body, I am going to have to support the project. I don't know of any other alternative. I think that in my own mind the parameters of the protection that I think are important have been met and that is the use of the lake will continue to be used by the sportsmen and their ingress and egress through the Rigolets and the Pass will not be harmed. The salinity of the lake, according to the tests that they have made are going to remain the same. The ebb and flow of the tide is not going to be affected and if we can keep additional water out of the lake in order not to throw it past our present barriers that we have, the levees that we have,



then I think that the efforts of the Corps are going to be rewarded in the salvation of property and lives for the citizens of New Orleans.

I would hope that you all might take a re-analysis of this situation if you have come in here with an opposing view and make -- to find yourself in thinking the same way I do. Although, I hope we go away with still being friends. Thank you all, very much.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Lambert. I would next like to call on Mr. Johnnie W. Tarver, Louisiana Wildlife and Fisheries Commission.

MR. JOHNNIE W. TARVER: (Louisiana Wildlife and Fisheries Commission) Thank you, Colonel. Colonel Heiberg, distinguished guests, public officials, and ladies and gentlemen.

This statement is presented on behalf of the Director, Mr. J. Burton Angelle.

The Louisiana Wildlife and Fisheries Commission appreciates the opportunity to appear at this meeting and provide our comments as they



relate to the fish and wildlife interests within the project area.

The Commission has been interested in this project since the discussions of a proposed hurricane protection scheme which preceded the actual authorization of this project by Congress in 1965. It was our interest and concern, along with that of the U. S. Fish and Wildlife Service, that pushed far and participated in a model study of the lake.

The model study allayed some of our fears regarding the interdiction of flows by the construction of the Barrier Structures at the Rigolets and at Chef Menteur Passes. If the data produced by the model study proves valid, the interception of nutrient waters, the movement of organisms into and from the lake and the interchange of saline and fresh waters will not be significantly altered by these structures.

We do have some serious concern regarding damages to productive oyster beds, especially in Lake Borgne, near the Chef Menteur Barrier Structure. Dredging near and construction of



the wing-walls have a potential for considerable harm to the existing highly valuable oyster beds.

Two important factors here are the plans for the containment of sediment which results from project works, as well as the apparent lengthy duration of the construction. We would like more information on each of these and would like an opportunity to work with you in planning to eliminate or reduce, to the greatest extent possible, the damages to this oyster producing area. We feel that oyster mortalities and closures or privately leased bedding grounds should be fully compensated by the project.

The proposed Seabrook Structure was designed for addition to the Mississippi River Gulf Outlet to partially correct the high salinities that are occasioned in the lake by waters from that navigation channel. This structure will provide the capability for managing salinities within the lake. Excessive salinities in the upper part of the lake, which were historically fresher, have caused considerable marsh deterioration and mortality of fresh water vegeta-



tation. The most spectacular evidence of this is the dead cypress trees visable from Interstate 10.

The damages due to prior urban development are noted in your announcement of January 22, 1975. The investment of valuable wetlands that formerly supported this important ecosystem, for previous developments has doubtlessly contributed to a decline in primary productivity.

Previous developments-- we calculated that within two miles of the lake, of both lakes -- we lost to industrialization and commercialization, or both, 50,000 acres since 1900.

We note that the suspension of the planning for the St. Charles Parish portion of the hurricane levee. You correctly state that the disruption of flows from this wetland would have serious adverse affects on the productivity of the lake. You further conclude that implementation of this part of the original protection plan would lead to urban type development of this still productive wetland. The realignment of the hurricane levee along U. S. Highway 61, as you discuss on page 9, would minimize the damages to



fish and wildlife interests.

Since the proposed construction is for the period 1975 through 1990, a periodic review and evaluation regarding the effects on fish and wildlife resources, in light of other prevailing factors, should be scheduled. It is suggested that such a review involving appropriate state and Federal Fish and Wildlife Agencies be held at least every three or four years.

We will continue to maintain a high interest in Lake Pontchartrain because of its productivity and the very high degree of utilization by the populace pursuing water related activities. Its proximity to an urban population in excess of a million people, provide ample incentive for all agencies to work together to assure its continuation as a viable recreation and commercial facility.

This statement should be considered as an interim statement and may be amended after a careful review of the proposed project works by the Board of the Louisiana Wildlife and Fisheries Commission. The next regular meeting of this Board is Tuesday, February 25, 1975.



Our comments on the spoil disposal portion of the meeting will be forwarded during the period that the record is kept open for comments. We will be soliciting more information from your Staff in order to properly evaluate the placement of spoils. Thank you.

(Applause)

(Whereupon, the above statement was offered in evidence and marked for identification as Louisiana Wildlife and Fisheries Exhibit No. 4.)

COLONEL HEIBERG: Thank you, Mr. Tarver. Next, we will hear from Mr. Guy F. LeMieux, President of the New Orleans Levee Board.

MR. GUY F. LEMIEUX: (President, New Orleans Levee Board) Good morning, Colonel Heiberg, distinguished guests, ladies and gentlemen.

I am Guy LeMieux, President of the Orleans Levee Board and I am hear to say a few words in favor of the Lake Pontchartrain and Vicinity Hurricane Protection Plan. This would seem only natural, since I am sure most of you



— know the Orleans Levee Board and that I, personally, am completely convinced of the necessity for and the integrity of this plan.

As some of you may know, I am an engineer, a civil engineer by trade and an almost life-long resident of this area. I am a graduate of Tulane University. I have been involved with hurricanes and with hurricane damages over a number of years and during that time I have served as an expert witness at countless hearings and insurance claims that resulted from hurricanes in this area. I served as an advisor in writing the Plaquemines Parish Building Code in order that the people in that parish could mitigate in the future the unfortunate losses that have beset them in the past.

Incidentally, as a private pilot I flew doctors and medical supplies to the Mississippi Gulf Coast at daybreak following the disastrous Hurricane Camille.

After I was appointed to the Orleans Levee Board and elected President of that Board, I studied the problem even more intently than I



— had done before. I have consulted with our own Levee Board engineers, the National Hurricane Center, the U. S. Corps of Engineers, the Louisiana Engineering Society, the Consultant Engineers Council of Louisiana, and every expert that I could find in order to know what the best answers to hurricane protection for New Orleans and for the rest of this area are.

I have studied, in depth, every plan that has been presented for the protection of this area; and, as a result, I concluded, without a doubt, the plan being offered today is the best answer for hurricane protection, not only for the City of New Orleans but best for Jefferson, St. Charles, St. Bernard and St. Tammany Parishes also.

Civic association after civic association representing hundreds of thousands of people have endorsed this plan after serious consideration of all alternatives. I have in my hand a letter from the Village de l'est Improvement Association, which just represents one of the associations which have endorsed this plan and



I'll read this letter into the record and make it a part of the record. It is to the Board of Levee Commissioners and it is to my attention, and it's subject is: Position Paper, Lake Pontchartrain Vicinity Hurricane Protection Project and it's from the Executive Board and the General Membership of the Village de l'est Improvement Association:

"Dear Mr. LeMieux: Our association engineers, and other interested members of the Village de l'est, have studied the project and are in full agreement with the project, its plan of action and the proposed implementation.

"Our Association represents over 7,000 persons living in Village de l'est Subdivision and is a sounding board for the 10,000 people living in the Michoud vicinity. We have found not one negative position for the plan in our sample poll conducted in late December and early January.

"Our evaluation of the plan and our analysis of the studies run by others, prove to us that the proposed flood gates will not hamper



— fishing or be detrimental to any marine life in the lakes and rivers involved. Sincerely, A. F. Norman, President, Village de l'est Improvement Association."

The Orleans Levee Board has been so convinced of the necessity of this protection that construction on their portion of the plan was begun within six months after the U. S. Congress authorized implementation of the project. This was in 1966. Anyone who says that building levees higher would suffice deludes himself. The only answer to a hurricane in a critical path in this area is to keep the water out before it gets in. This plan will do that for all of the parishes surrounding the lake. I am also convinced that it will do its job with minimal damage to the environment.

I am an avid fisherman and sportsman and I can certainly share the concern of any outdoorsman for our lakes and their abundant wildlife. For this reason, I have searched even deeper into every possible problem that could arise from the building of the control structures.



I am convinced that this plan, now being offered, which has been meticulously researched, subjected to years of intensive study and proven proof exhaustive tests to be the answer to protection of the environment and protection of the people, the most important part of our environment. I sincerely urge the construction of this critical protection project continue without delay. Thank you.

(Applause)

COLONEL HEIBERG: Thank you, Mr. LeMieux. I'll next call on Mr. Walter L. Sentenn, City Planning Commission.

FROM THE FLOOR: I wish to protest the discussion in the back of the room. We can't hear the speakers from here.

COLONEL HEIBERG: I agree with you. Let's get some of our people back there to try to urge people to carry their conversations on outside the door so those of us that want to give the courtesy to the speakers up here can do so.

Go ahead, sir.

MR. WALTER L. SENTENN: (City Planning



Commission) Thank you, Colonel.

My name is Walter Sentenn. I am appearing here on behalf of the New Orleans City Planning Commission and its Director, Harold Katner. The City Planning Commission, at its meeting on February 5th, directed the staff to appear at this meeting and to place before this Body its recommendations and its feelings with regard to the Hurricane Protection Plan. It, indeed, has also reviewed insofar as it has been able to the multitude of material that has been presented on this project.

Unfortunately, the City Planning Commission does not assert itself as capable engineers to assess the engineering techniques of the project and does, as most of you are aware of, with planning techniques approach the general overall plan and to perceive the general effect that it will have on the community.

As such, the City Planning Commission has asked us, the staff, to present these recommendations and that is that the City Planning Commission recommends the following to the United



States Corps of Engineers:

1. That the City Planning Commission concurs that proper hurricane flood protection is a vital element in the welfare and safety of the citizens of New Orleans and its neighbors.

2. That the City Planning Commission recognizes that the Corps of Engineers has devised, tested, and recommended the Barrier Plan as the best system for hurricane flood protection in New Orleans.

3. That this plan should be supported and encouraged in the absence of a more feasible system.

4. That without regard to the other considerations involved, the Corps of Engineers should be encouraged to proceed with the implementation of this plan with an abundance of caution for the vitality of the surrounding natural resources.

With particular regard to the Section 404 Public Hearing, the Commission directs the Corps' attention to proper surveillance of the archaeological sites that are in the area and



evaluation of the Sawmill Pass disposal areas; but, indeed, concurs in the procedures otherwise proposed for review in the Section 404 Public Hearing.

For the matter of the record, the archaeological sites that the City Planning Commission seems to believe could be impacted by the disposal segment of the project consist of three primary sites:

1. Designated 16 OR 12, which is the South Point partially destroyed shell midden;
2. 16 OR 11, which is the Dwyer Canal, dredged shell midden; and
3. 16 OR 28, which is the Haughs Canal in the Little Woods Quadrangle and it is potentially a significant archaeological site.

In addition, further attention, as I said, should be given to the location of the disposal areas west and east of Sawmill Pass in the Barrier Units since the adjacent marsh and their impact on the provisions of the developing Coastal Zone Management Plan, which seeks to protect such marsh areas from further



erosion and degradation could be important.

Thank you, Colonel.

(Whereupon, the Xerox reproduction of the semi-monthly Planning Meeting of Wednesday, February 5, 1975, was offered into evidence and marked as City Planning Commission Exhibit No. 5.)

(Applause)

COLONEL HEIBERG: Thank you, Mr. Sentenn. We'll next hear from Mr. Ron Guth, City Attorney for the City of Slidell.

MR. GUTH: Colonel, I would like to defer to the mid-afternoon, please.

COLONEL HEIBERG: Yes, sir. We'll next hear from Mr. Greg J. Lannes, Jr., Regional Planning Commission.

MR. GREG J. LANNES, JR.: (Regional Planning Commission) I am Greg J. Lannes, Jr., Chairman of the Hurricane and Levee Committee of the Regional Planning Commission for Jefferson, Orleans, St. Bernard and St. Tammany.

My reason for being here today is to



talk briefly about the options and alternatives which really go a step beyond whether you are for or against the Barrier and Levee Plans. We have looked rather carefully at the alternatives and options and we would like to quickly lay them on the table in one, two, three fashion.

Option No. 1. Go with the Barrier-Levee Plan; Option No. 2. Scrap the Barrier-Levee Plan, but raise all existing levees to greater heights and complete the levee system for the region using the higher levee specifications and modify the pumping stations where necessary to handle a much larger capacity; Option No. 3. Do nothing and pray that we never have a hurricane on a critical path through our area again.

Let's look at Option No. 1, the Barrier-Levee Plan. All existing and planned levees, pumping stations and other control structures have been built thus far on the premise that the Barrier Plan will be approved, funded and completed. Options No. 2 and 3 are alternatives to Option No. 1.



Now, Let's suppose we decide that Option No. 1, the Barrier-Levee Plan, is too high a price to pay, both ecologically and money-wise, so we move down to Option No. 2, which we will call Raise-the-Levee Plan.

The Corps tells us, and they are the only ones who have done extensive studies on it, that the raising of the levee heights in the entire system is going to be fantastically expensive. We must get additional rights-of-way and there are a thousand sticky engineering problems because of the sub-soil conditions. Even if we raise the levees, the Corps tells us that they won't stay raised. In a few years they'll sink below a specified height and we'll have to establish a continuing budget to keep them in required shape. The alternatives to the Raise-the-Levee Plan is Option No. 1 or No. 3.

Option No. 3, which we call the Do-Nothing and Pray Option has a nice fatal ring to it. It doesn't cost anybody a dime, it doesn't tamper with the ecobalance and it might even be a shot in the arm for the sagging rosters of churchgoers



in the area, but that's about all you can say in its favor.

Some might think that evacuation of the population would be a viable alternative to our three options, but there is a twelve hour time lag between pinpointing the storm's exact path into the area and getting everyone off to inland evacuation points. Statistics say this would be an exercise in futility and perhaps an invitation to be trapped in a traffic jam in the middle of a hurricane. It is my personal opinion that evacuation of the metro area, or even of any significant percentage of the population of the area, as an alternative, does not even merit further debate.

The environmentalist groups and individuals have made us all aware of our precious natural resources and our wetlands around the region. We know that there will be some kind of impact by putting up man-made barriers. We don't know just exactly what that impact will be.

The Corps of Engineers Environmental Statement on the project, which is now on file



with the President's Council on Environmental Quality, contains statements from wildlife agencies which appear to be in conflict with the conclusions drawn in the statement. What is the quantitative impact? I don't think anyone knows at this point. I believe it may cost several hundreds of thousands of dollars to find out.

We know what kind of protection is feasible from an engineering standpoint, from a cost benefit standpoint, from a modeled control standpoint. We do not know, positively, the long range impacts to the environment of our area and especially to the ecosystem of Lake Pontchartrain.

I would very much like to see a professional in-depth study of the lake's ecosystem. We have read that marine life receives nutrients from the western portion of the lake and, therefore, it would seem that any levee along the St. Charles Parish boundary of the lake would affect that natural food giving source. However, this and much of the talk of the free movement of marine life in and out of the passes is little more than speculation or, at best, an educated



guess at this point. The fact is that we don't know and won't know unless and until a comprehensive and very expensive study of the lake's ecosystem is completed and published.

So the agencies responsible for hurricane protection, the Levee Boards and their respective parochial or municipal governments, are saying: Here is the best form of hurricane protection which modern technology can offer. We think it will work to save lives in the event of a hurricane and we don't believe it will harm the hydrology or ecology.

The Federal Government is saying: You decide what you want in the area of hurricane protection, show us it won't do more harm than good, and we'll shell out most of the money to build it provided you raise the rest from your local taxpayers.

The environmentalists are saying: You are going to be sorry if you mess around with nature. We can't tell you for sure that the cure will be worse than the disease, but everything else is either polluted or unnatural in the name



of progress. Some of us think it would be better to take our chances with the odd makers that we won't have a hurricane rather than mess up a good lake.

Some vested interests are saying: You'll ruin my business. You'll kill off the crabs and croakers and shrimp and specs. How will I get my sailboat through your barriers? Where will it all end?

In our opinion, all the votes have not as yet been counted. There are still some counties to be heard from. I, personally, want to see the results of this public meeting here today.

Whatever the outcome, we, at the Regional Planning Commission, will continue to provide the forum to discuss the issues and to keep the problem in the public awareness.

When all the words are spoken and all the divisive elements have had their day in court, we will still need hurricane protection in this vicinity of Lake Pontchartrain if we intend to remain in this area.

Thank you.



(Whereupon, the statement of the Regional Planning Commission was offered into evidence and marked as Regional Planning Commission Exhibit No. 6.)

(Applause)

COLONEL HEIBERG: Thank you, Mr. Lannes.

I have cards for something over forty people who want to make oral statements. We're now going to take all the cards indicating that an oral statement will be made and shuffle them. Mr. Sossaman is coming forward now and he will be the manager of this and you all are welcome to watch down here in front.

We will publish the order of presentations right after Mr. Sossaman has the shuffling and the drawing made.

We have provided you, on your handouts, a list of nearby places to eat if you're not brown-baggers. Please be back at 1:00 o'clock. We'll now break for lunch.

(Whereupon, at 11:45 o'clock a.m. a luncheon recess was taken.)

AFTERNOON SESSION

The afternoon session of the public hearing being conducted by the United States Army, Corps of Engineers, New Orleans District, of Saturday, February 22, 1975, at the University of New Orleans was called to order at 1:00 o'clock p.m. by Colonel E. R. Heiberg, III.

COLONEL HEIBERG: We made an error on our part -- we misread one of the cards. I did not call on one of the elected officials this morning, who is going to take five minutes or less, so since that was my fault, I'm going to give him five minutes now. Mr. Steve Dibeneditto, St. Charles Police Juror.

MR. STEVE DIBENEDITTO: (St. Charles Police Juror) My name is Steve Dibeneditto and I am a member of the St. Charles Parish Police Jury. My main concern was over here to see how the protection levee would make out for the east bank of St. Charles. We've had several problems with tide water in the area and we all blame it due to the ship channel that the Corps of Engineers and Department of Public Works were



digging.

They talked about the barrier and the lake but, the only thing I could get out of the Barrier was that the only time that it would have done St. Charles Parish any good is when -- during a hurricane when they would close it. But the problem in St. Charles Parish is when the southeast wind blows for four or five days, our people get water in their houses, they get water in their yards, so our problem is not only when there is a hurricane but just about all year 'round with these southeast winds that blow.

The levee has been killed on account of a scenic river, from what I can get out of it. The scenic river that killed the levee in St. Charles Parish where it hit the lake is exactly about eight feet wide. So, that means that ten miles of St. Charles Parish will not get any kind of protection from the flood water on the simple reason of a scenic river that is eight feet wide.

What I would like to put before the Corps of Engineers and the Department of Public Works, as an elected official of St. Charles



Parish, I would like for them to make a study on trying to do something for the people in St. Charles, if they have to use the U. S. 61 as a boundary, because most of the people on the east bank of St. Charles live on the south side of U. S. 61 and if we could use U. S. 61 as a barrier, we could most probably keep a lot of people's homes dry and plenty of yards dry through the whole year.

I thank you.

(Applause)

COLONEL HEIBERG: Thank you, sir.

If those of you have not seen where your names are, I believe we have these posted in the back, don't we, Bruce? So, okay, back at that door. Okay.

I'll call four or five names now that are up and the first five from the luck of the draw, so that you'll know when you'll be coming. Mr. Vidal was drawn No. 1 and he is yielding to Mr. Colomb. So we will hear at this time from Mr. Colomb. I've given Mr. Colomb ten minutes.

MR. C. EARL COLOMB: (St. Bernard



Council Chamber of Commerce) If we could get this map put up here, please. I would like to make a general statement, which I will furnish the Committee.

My name is C. Earl Colomb. I am a resident of Chalmette, St. Bernard Parish. I am a realtor and builder in the metropolitan area of the City of New Orleans for the past 45 years, during which time I have been actively engaged in the civic and business life of this community.

Since 1947 I have been actively engaged in levee and hurricane protection activities, having served on the Board of the Chalmette Back Levee District, and for 25 years served as chairman of various organizations in St. Bernard in levee hurricane protection.

I am one of those volunteers who has worked up to my waist in mud to get our parish out of water in the 1947 hurricane. And I would like, at this time, to properly acknowledge the appreciation of the great assistance given at that time and in 1965 by the District Corps of Engineers to our people.



And, I likewise want to acknowledge my appreciation of the courtesies extended to me in the past and have a keen appreciation, Colonel, of your interest and honest desire to serve the best interests of all concerned in this matter.

But at the very outset, I want to say that our Committee, like Dr. Robert Simpson, the renowned hurricane expert, endorses the theory of the controlled structures to hold the tides low during -- at low levels during periods immediately before a hurricane.

We note, with great interest, the statement of Dr. Simpson to the effect that he could not speak to the question of the locations or the designs of the structures proposed in this plan. But we agree basically with Dr. Simpson when he says: If you use controlled structures, if the tides are held down six feet, then it is only natural to assume that at the time of a hurricane surge, the waves will be six feet less in height.

And it is for this very logical reason that we must oppose the proposed structure of this project to be built in the Industrial Canal



at Lake Pontchartrain.

Now, Mr. Chairman, as a layman without any technical knowledge, I would like to go to the map and demonstrate to you our reasons for being opposed to this structure.

Although we talk of hurricane and design protection against two hundred year cycles, we must remember that hurricanes were here in 1947, '56, '65 and the worse in 1969. Four devastating hurricanes that put water in St. Bernard Parish in 25 years.

If you want to know what this is I'm wearing on me, this is a chain I've got around my neck because every month I pay two SBA loans. One for me, personally, because my house had seven feet of water in it; and one for my company, because it had several feet of water in some of its apartment buildings.

Now, Mr. Chairman, I want to present to you now the reasons for our opposition of the structure at the Industrial Canal and the lake-front. And I would like to remind you of the statement of our good friend from St. Tammany



when he said, "Nobody flooded from Lake Pontchartrain. We all flooded from the MRGO."

As I said, our basic opposition to it is based on these facts. That since the MRGO has been built and the tides come up the MRGO, here is where the damage has been done in 1965 (illustrating). These levees here were broken, they were topped. These levees here were broken. And our first line of defense levee here (indicating) were broken. And this entire area had some \$60 million or \$70 million of damage.

Now, if the theory that if you can hold the tides down in Lake Pontchartrain by six feet and help this upper area of Orleans Parish, why isn't it equally logical to say: If you can hold the tides down in the Mississippi River Gulf Outlet when a storm comes, then we won't break these levees (indicating) and we won't flood the poor people out between the Industrial Canal and, possibly Franklin Avenue, and the entire area below the Industrial Canal.

And there is an alternative. There is one that has been thought well of by the United



States Engineers, I understand. But, we down in St. Bernard have a difficult problem of separating the hurricane -- the Lake Pontchartrain Hurricane Protection Plan from the Mississippi River Gulf Outlet problems itself and now we're proposed to be saddled with what our people call the connecting link between the Mississippi River and the Mississippi River Gulf Outlet.

Now, we recognize the fact that there's a need for this. It's our contention that it ought to have been put at the Industrial Canal -- and I serve on the Tidewater Development Committee, where for three years the testimony of Colonel Lewis, the former head of the United States Engineers said that's where it ought to go. But now we're going to get it in St. Bernard and I want to ask you to consider, Colonel, as you know I've said before, an alternate. An alternate that I found out the other day is called the Shaw Plan. I never heard of that before. Somebody was accusing me of originating it. But I'm glad we had a young man or a person in the United States Engineers and he came up with the Shaw



Plan. And, incidentally, it's in your Impact Study. It's one of the last maps in the Impact Study and here it is (illustrating).

It picks up a levee at the Chef and comes along the shore of Lake Borgne and can be tied in even here (indicating) or down here (indicating). This is the proposed cut. It could be tied in here. And then the entire MRGO, and with a structure here at the Inner Harbor Canal, those two areas would be tide water development. Tide water area protected from storms.

You know what happened in 1965 when Betsy went up the Mississippi River and broke barges and ships. We have more derelict barges and ships anchored in this area per square foot, probably, or per square mile, than any other place. And I invite you -- and this is not criticism what I'm going to say, because I think that which was done at that time was the best that could be done -- I invite you to walk the levees of the Industrial Canal from St. Claude Street to Florida.

I had a dream last night and I've got



to tell you about it. I dream about this all the time but I dreamt that I saw Guy LeMieux; he was drowned. And I want to tell you how he drowned. And I don't mean this critically. I just want to tell you that I actually had this dream. You know, they built a levee along here and this was the best they could do. They've got a levee built along here and it zig-zags and runs through plants and its got gates, lifts and flaps. I looked at it this morning and there's a boxcar, right now, as I came up -- there's a boxcar parked right in the gate. I don't suppose it would be there if there was a hurricane. I'm sure of that. But I dreamt Guy LeMieux was in this steel plant trying to raise one of these flips that they've got. They actually have inside of these plants -- now, I want you to know this -- the wall comes up a certain height, right through the middle of this plant, and then they have hinged this wall down so that their cranes can operate. And if they ever need to raise that back up -- and I dreamt that Guy got in there and the damn flap didn't go up and he got caught in the



storm. Really, I did that. I just wanted you to know.

But what I'm proposing here to you is that if they build this structure here, wherever it has to be terminated, then all of this major channels, both the Inner Harbor Canal and the Mississippi River Gulf Outlet and this area here (indicating) will be protected and flooded. And you heard them say earlier that the industries located along this would have to be flooded if we had a storm. There's just no way -- at the proposed structure -- would do it.

Now, here's where they want to build that structure (indicating). They want to let all this water come up here and pile at this "T" where it broke last time. Now, you know, if you get hit once, that's bad enough. When you get hit twice -- and I've got two of them -- and I got one in '47 and I had one in '65. And I contend to you, Colonel Heiberg, and I urge you to give careful consideration to the Shaw Plan.

I have one closing remark. It is for this reason earlier stated -- primarily that the



engineers' decision to locate the locks in St. Bernard Parish between the Mississippi River and the MRGO and showing to you on this map, I would appreciate a revised study of the location of the proposed barrier and put it in the GIWW and in the MRGO, as proposed in the alternate plan known by the United States Engineers and they have said to me that this is a good plan. But it's a little bit more costly.

Now, we had \$100 million of losses, Colonel, in our parish, and you know about it. \$100 million and the industries tell me that their loss in trying to save the people ran into millions that's not counted. I believe that you ought to look at that plan and I humbly ask you to do so.

I thank you for your time.

(Applause)

(Whereupon, the text of the above presentation was offered into evidence and marked as Colomb Exhibit No. 7.)

COLONEL HEIBERG: Thank you, Mr. Colomb. The next speakers will be Mrs. Herr, Mr. Levy, Mr.



Gilmore and Mr. Mercadal. Mrs. R. D. Herr.

MRS. R. D. HERR: (League of Women Voters of Louisiana) My name is Marietta Herr and I'm representing Mrs. Doris McWilliams, President of the League of Women Voters of Louisiana.

The League of Women Voters of Louisiana, in accordance with its position of supporting unique aspects of the Louisiana wetlands, urges the Corps of Engineers to reconsider its proposed Lake Pontchartrain and Vicinity Hurricane Protection Plan.

Furthermore, inasmuch as this project has been rejected by the voters on three separate occasions, we feel it is an affront to the public to proceed with it.

We, in the League, have supported sound Coastal Zone Management as recommended by the Louisiana Advisory Commission on Coastal and Marine Resources. We, therefore, suggest that before such a massive project as the proposed Hurricane Protection Barrier Plan be considered, that it be part of a total plan for the entire



coastal zone.

The Louisiana Legislature, no doubt, will again consider Coastal Zone Management Legislation in the upcoming session. We hope a good program will be passed in the not too distant future. Hence, any major activity in the coastal zone should await the passage and implementation of sound Coastal Zone Management.

(Applause)

(Whereupon, the text of the above presentation was offered into evidence and marked as League of Women Voters of Louisiana Exhibit No. 8.)

COLONEL HEIBERG: Thank you, Mrs. Herr. Next, Mr. David P. Levy, Slidell.

MR. DAVID P. LEVY: (David P. Levy Enterprises) My name is David Levy. I live at 527 Legendre Drive in Slidell and I'm representing the firms Derricks, Incorporated, in Slidell; A. E. Hingle, Inc. Shipyard; and myself as an individual and a resident of St. Tammany Parish, as well as a former resident of Orleans Parish.

I don't have a map. I'm not a public



speaker and my five minutes is going to be a little short, but I'll do the best I can with this presentation and read it.

I'd like to begin my questioning the necessity of the Barrier Plan. A review of the history books, which is almost irrefutable shows that since Bienville founded New Orleans in the year 1715, that's 260 years ago, there has never been a hurricane flood of densely populated areas from Lake Pontchartrain. You've had rain flooding; the pumping stations have failed; but there has never been a case in 260 years where salt water from the lake was driven by a hurricane causing an extensive loss of life or property.

The New Orleans and Jefferson Parishes lakefront are now very well leveed and it is possible this could be improved in these improvements. Since the levees were built, starting after the 1947 hurricane, four hurricanes have struck on almost every conceivable path, with no ill effects.

On the other hand, New Orleans has experienced numerous floods from the Mississippi



River and a serious flood from the MRGO and Industrial Canal in 1965.

The Barrier Plan would increase this already serious jeopardy to the city by preventing future use of the Bonnet Carre Spillway and restricting the water at Seabrook from flowing into the lake, which can easily absorb it. The statements made by the Corps of Engineers this morning are absolutely incorrect. The same statements were made in the notice of the hearing regarding a lower lake. Since the same southeast winds that blows the water up the MRGO will blow it away from the south shore and the Corps proposal, instead of relieving the Seabrook restriction, will decrease the cross-sectional area at Seabrook by over two-thirds.

I would digress a little from my prepared text to note that in the middle of Hurricane Betsy, which was somewhere around 10:00 o'clock or 11:00 o'clock on the night of September the 9th, there was a literal waterfall at the Seabrook Bridge. The water not being able to escape in the lake and piling up in the In-



dustrial Canal. You are probably aware that there is a restriction at Seabrook caused by the two landfills to the Southern Railroad Bridge that restricts the width of the canal from some 400 feet to approximately 84 feet, causing scouring and I'll take it at a later time, if I have time, to mention the navigational aspects of this restriction.

The population of the area does not want to see the Barrier Plan implemented. On three previous occasions the voters rejected the project, least it be argued that the people were voting against a tax increase. It is crystal clear that this is not the case when on March 5, 1974, the people voted, not for a two and a half mill increase, but for a three mill increase when they were assured that tax monies would not be used to build the Barriers. I cannot accept unsupported vague statements that an alternate plan would cost more. Such a plan should encompass the following to obtain meaningful hurricane protection for the area.

1. Survey and, if necessary, raise



approximately 30 miles of levees along the Orleans Parish lakefront. There is no need for additional levees, nor do the people on the north shore want levees around the periphery of the lake, as the people are convinced they do not need it. Certainly, 30 miles or 160,000 linear feet of sheet piling cannot cost in excess of \$80 million, which is the old figure used for construction of the Barrier. And I'll digress -- I understand it's considerably higher now.

2. Assist the Sewerage and Water Board to modernize its pumping system which is obsolete and inadequate.

3. Remove the restriction presented by the landfill approaches to the old Southern Railroad Bridge at Seabrook. This will eliminate the swift currents and a lock won't be necessary. I might say, off the record.

4. Help prevent -- I'm almost finished -- help prevent a similar catastrophe as Hurricane Betsy, should a future hurricane such as Betsy have similar characteristics -- and that point was very well taken by mr. Colomb.



In conclusion, I would appeal to the Corps of Engineers and any interested governmental agencies not to build the obsolete counter-productive expensive and unpopular barrier. Thank you very much.

(Applause)

(Whereupon, the documents of David P. Levy Enterprises, Derricks, Inc. and A. E. Hingle, Inc. were introduced into evidence and marked for identification was Levy Exhibit No. 9 in globo.)

COLONEL HEIBERG: Thank you, Mr. Levy. Mr. William J. Gilmore, Jr., Tidewater Development Association.

MR. WILLIAM J. GILMORE, JR.: Colonel Heiberg, staff and distinguished guests. I am William J. Gilmore, President of the Buccaneer Villa Civic Association. Also the Chairman of the Project Flood Control, which consists of 20 different civic organizations in St. Bernard Parish. I am also a member of the Tidewater

Development Association.

I'd like to make this statement, trying to emphasize the absolute need of the safety of human beings, life and property must come first in this message.

I would endorse the alternate method or the Shaw Plan, as outlined by Mr. Colomb. I can't see the need for the structure to be built at the mouth of the Industrial Canal. If you can get rid of that structure at the mouth of the Industrial Canal and the alternate method is put into place, with the levee built along the shores of Lake Borgne from the Rigolets down to the Verret area and a structure of a lock put in the Mississippi River Gulf Outlet at that point, it would control the flow of water coming up the Mississippi River Gulf Outlet. The industries all along the Industrial Canal would be able to prosper and do without the flooding that they are going to have even if this Barrier is put at the mouth of the Industrial Canal, because they are on the outside of the levees. And, like Mr. Colomb had pointed out, some of them have



levees going through the plants which will create other problems for them and stop their growth.

If the levees would be maintained at a 20 foot height along the area from Lake Borgne down to this structure in the Mississippi Gulf Outlet we would take and withstand any storm. I can't see how you can build a structure with 14 to 17 foot levees and all of a sudden, when you get where the structure is going to be built in the Chef and the Rigolets, it drops to 9 feet. It seems to me that that's a fallacy there that you're only going to channel water into an area faster.

Another thing, why use a highway as a barrier. That should be kept open at all times because that's a lifeline to us. In essence, please consider the alternate plan, the Shaw Plan, that we were talking about in this thing and stop the building of this Barrier at the mouth of the Industrial Canal.

I thank you.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Gilmore.



Glenn Mercadal, Clio Sportsman's League.
Following Glenn Mercadal we'll have Cliff Danby.

MR. GLENN MERCADAL: (Clio Sportsman's League) I am Glenn Mercadal and I'm here representing the Members of the Clio Sportsman's League of New Orleans.

First, the members of our club, who mainly live in the New Orleans Metropolitan Area, would like to point out that we are not opposed to hurricane protection. However, we are opposed to placing protection levees around undeveloped marshes and swamps.

We object to the Environmental Impact Statement's omittance of cost to the environment in the benefit cost ratio. A value can be placed on marshland and swamps and has been in recent studies by members of the University of Georgia's Institute of Ecology. Therefore, the value of marsh and swamps can be included in the benefit cost ratio and would greatly reduce the ratio to a questionable point regarding the economic feasibility of the project.

The Corps has admitted, several times,



in the final statement that the project will hasten urbanization and industrialization of valuable marshes and swamps by providing for further flood protection and land reclamation.

What is mentioned on paper will be felt in real life by the sportsman-citizen taxpayer who will see their recreation areas dwindle at the hand of landowners.

The Corps' main purpose for the project is protection of lives and property. Yet, we feel the Corps has failed to completely explain why levees are placed around undeveloped areas, or is it for the explicit purpose of development?

Barriers on the Chef Menteur Pass and Rigolets are backed by claims that they'll be minimal environmental effects. We disagree and feel such barriers with its borrow, disposal and ponding areas and accompanying future developments will play a leading role in the destruction of Lake Pontchartrain and, eventually, the entire Maurepas, Pontchartrain, Catherin, Borgne estuary system.

A Final Environmental Impact Statement



has been prepared and not yet been approved by the President's Council on Environmental Quality while the Bayous Bienvenue floodgate, Bayou Dupre floodgate, and the Chef Menteur Gulf Intracoastal Waterway relocation is already complete. Work has also begun on several levees in the project.

This leaves us to believe that this meeting, like most held by the Corps, is only to fulfill a requirement of the law and no matter what is said or done this project will be completed.

Closing, I would like to reaffirm our club's position in favor of the flood protection and opposing the policy of unnecessary private land enhancement at the expense of the public and the environment. Thank you.

(Applause)

(Whereupon, the document presented was introduced into evidence and marked as Clio Sportsman's League Exhibit No. 10.)

COLONEL HEIBERG: Next, Mr. Cliff Danby, who by prior arrangement, has my permission to



— speak up to ten minutes. After Mr. Danby will be Mr. Veillon.

MR. CLIFF DANBY: (Orleans Audubon Society) My name is Cliff Danby. I live in New Orleans and I am here today to speak for the nearly one thousand members of the Orleans Audubon Society.

The Orleans Audubon Society wants it clearly understood that we favor hurricane protection of areas presently populated.

On the other hand, we completely oppose hurricane protection for unoccupied marshes and swamps. This Corps project proposes to levee or fill in more than 50,000 acres of undeveloped swamps and marshes, excluding the 25,000 acres in St. Charles Parish. To do so would be economically unsound, ecologically disastrous and a monetary windfall to the owners of the land. Furthermore, the Corps can easily avoid placing levees around marshes and swamps while still protecting populated areas.

— Let's examine the economids of the Corps' plan. Placing levees around swamps and



marshes will lead to drainage and urban development of the land. These lands are essential to fisheries, aquaculture, waste assimilation and total life support value. Do you know what an acre of marsh land is worth in terms of these values? From \$2,000 to \$80,000 an acre per year. Applying the lowest value of \$2,000 to the 50,000 plus acres of marshes to be lost immediately to this project, we get \$102 million annually. This is the environmental value that would be lost to us and, therefore, a cost to the project.

If we incorporate the \$102 million into the Corps' cost-benefit analysis, the heavily favorable ratio of 12.6 to one drops to 1.4 to one; a ratio that is barely favorable. A value of \$3,000 per acre causes the cost-benefit ratio to be unfavorable. No wonder the Corps did not quantify environmental costs for their cost-benefit determination. Should we allow these valuable marshes to be destroyed when they can return so much to us economically and environmentally? We think no.

The Corps could exclude these marshes



and swamps from their plans. To do so would require placement of levees adjacent to populated areas and not adjacent to the shorelines of Lakes Pontchartrain and Borgne. The Corps maintains that this would cost three times as much as the Barrier Plan. Even if it did, the cost-benefit ratio would still be a favorable one of four to one.

Placing levees around marshes and swamps will increase the value of privately owned land. The Corps estimates this land enhancement value to be about \$5.7 million annually. Guess who is paying for this added value to private landowners? You guess it -- the good old taxpayer.

Why didn't the Corps favor the alternative of protecting populated areas only? We can only conclude that the Corps favors enrichment of a few landowners at the expense of us taxpayers.

(Applause)

Marshes have another very important value. They absorb, slow down, and dissipate hurricane tidal surges. This ability reduces



or prevents flood damages to inland areas. This cushioning effect will be lost if levees are placed along shorelines. This can be economically significant for those who live in marshland that has been developed right up to the water's edge. A hurricane like Betsy of 1965 will create tides that will go right over the levees designed for this project.

There will be severe environmental damages from this project. Valuable, productive wetlands will be lost. Development around the perimeters of Lakes Maurepas, Pontchartrain, Catherine and Borgne will be induced. This will cause eventual collapse and death of the MPCB estuary. Tidal flows through the Chef and Rigollets Passes will be obstructed by the barriers hindering flushing actions by the tides. This could make Lake Pontchartrain a 640 square mile cesspool. We strongly oppose the Chef and Rigollets Barriers.

The Seabrook Complex is supposed to control salinity levels in Lake Pontchartrain. How is this going to be possible when the Corps



doesn't even know what the proper salinity level should be or how it can be maintained and effectively monitored?

A previous Corps project, the Mississippi Gulf Outlet caused the present salinity problem. The MRGO was also responsible for the flooding of St. Bernard Parish and Eastern New Orleans during Hurricane Betsy.

(Applause)

With the Corps' proclivity to create more problems than it solves, we are very skeptical of the benefits attributed to this project.

In March, 1974, the voters of Orleans Parish voted a three mill increase in property taxes to construct and maintain levees, levee drainage, flood protection, and all purposes thereto. Orleans Levee Board officials said the money would not be used for the Chef-Rigolets Barriers. Now we learn that they propose to use the money for just that purpose. Taxpayers had voted down such use of tax monies three times previous to the 1974 election. Use of the three mill tax monies for the Barriers is not strictly



illegal in the eyes of the law. But in the eyes of the taxpayers it is, and we've been had again. I hope the good old taxpayer remembers who his friends are at election time.

In case anyone doubts that a charade is being played here today, we wish to point out that certain portions of this project have been completed or are underway even though the Final Impact Statement has not been approved by the President's Council on Environmental Quality. For example, the by-pass channel at Chef Pass has been dredged. The control structures are in place at Bayous Bienvenue and Dupre. Levee construction is underway, and dredging in New Orleans East is now in progress. The good old public is being duped again.

Concerning disposal of dredged material, we opposed disposal and ponding of dredged material in the marshes along the Chef and Rigolets Passes, along the MRGO, and in New Orleans East. The material should be used for construction purposes, to fill borrow areas, or disposed of at approved offshore locations. Also, we object to



the proposed borrow area on Apple Pie Ridge along U. S. Highway 90. These disposal and borrow plans by the Corps will destroy valuable marsh land that Louisiana cannot afford to lose.

In summary, we feel this project can benefit the people of this area without being harmful to the environment. To do so, however, will require modification of the project to have a high levee system built around populated areas only, and to eliminate the Barrier Plan.

Thank you.

(Applause)

(Whereupon, the statement of the Orleans Audubon Society was offered into evidence and marked as Orleans Audubon Society Exhibit No. 11.)

COLONEL HEIBERG: Thank you, Mr. Danby. Mr. Edgar Veillon, Louisiana Wildlife Federation will be followed by Timothy Terrell.

MR. EDGAR F. VEILLON: (Louisiana Wildlife Federation, Inc.) Colonel Heiberg, distinguished guests, ladies and gentlemen.

My name is Edgar Veillon. I am current-



ly serving as the President of the Louisiana Wildlife Federation, which is a sportsman's organization consisting of 12,500 members throughout the State, with representation in all 64 parishes. Our program is also supported by numerous business firms.

Before I begin reading the Federation Statement, I would like to mention at this time that the National Wildlife Federation has selected, "We Care About Wildlife Habitat" as the theme for this year's National Wildlife Week observance which will be held March 16 through the 22nd. This theme was selected as a result of realizing that the present rate of destruction of wildlife habitat, both the quantity and quality of future outdoor recreation, is being seriously jeopardized. And, it is with this aspect of this project, that the Federation is primarily concerned.

The Louisiana Wildlife Federation, Incorporated is grateful for the opportunity to express our views on the Lake Pontchartrain, Louisiana and Vicinity Hurricane Protection Project.



Like any upstanding citizen, the Louisiana Wildlife Federation is very interested and concerned in the complete protection of the citizens of this state and especially in this particular instance of those residents of New Orleans proper and surrounding parishes from the ravages, destruction and human misery which is wrought by our age old nemesis, the hurricane.

The health, welfare and safety of the lives and properties of the individual inhabitants of these areas is always first and foremost in our minds. However, we do have some doubts and questions in our minds as to whether, in effect, rather than actually affording the protection as elucidated by the proponents of the project, the completion of said project might, in fact, lull city and parish residents into a sense of false security while they await in ingenuous confidence the arrival of the elusive standard "Project Hurricane."

The aggregate project which we are discussing here today has been divided into several component enterprises. We feel that although



some aspects of the proposed project may have some merit, redeeming qualities and social benefits, other portions are totally devoid of said benefactions and, in fact, may be construed to be highly deleterious, not only to the citizens involved but, especially, to the area affected. It is to those areas which fall into the latter category mentioned, that I would like to address the remainder of my remarks.

The importance of Louisiana's and this nation's marsh and estuarine systems have recently been receiving much attention and publicity. The value of our coastal and estuarine wetlands as a fishery nursery, an optimum habitat for many wildlife species and as a source of innumerable recreational opportunities has been thoroughly documented through many scholarly and studious scientific research endeavors. However, one need not read volumes of scientific literature to come to the same conclusion as have these knowledgeable scientists. All one need do is spend but one part of one's day in the hinterland of our coastal marshes to appreciate the prolific abun-

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dance of many forms of aquatic and terrestrial wildlife and many forms of lower life forms and to experience the peace and tranquility which only the solitude of a remote swamp or marshland can provide.

It is of extreme concern to us that many thousands of acres of what is now considered prime productive wetlands which support diverse populations of many forms of wildlife species and which provide many hours of outdoor recreational opportunity will be adversely affected by aspects of the project in question. The drainage of these productive wetlands caused by the project will be an encouragement to land speculation and domestic and industrial development into the areas. Such development can only instigate further encroachment and deterioration of a rapidly dwindling and fragile marsh ecosystem. This is especially true of St. Charles Parish's portion of the project. We are of the understanding that the preponderance of citizens of St. Charles Parish are opposed to the construction of the Lake Pontchartrain Hurricane Protection Levee in their parish. It



also seems that the most vociferous of the project's proponents in St. Charles Parish are those who stand to gain huge financial windfalls through land speculation and development after the marshlands are drained.

The citizens of St. Charles Parish have a high regard and a certain reverence for those marshlands, which for many years have provided numerous hours of leisure, solitude and pure enjoyment. These concerned citizens are unwilling to forsake these valuable and natural wonders under the dubious guise of flood protection. They are unwilling to trade the salient benefits of their marshes for the urban sprawl from which many have moved to St. Charles Parish to escape.

The fact that Bayous LaBranch and Trepagnier have recently been incorporated into the Louisiana Natural and Scenic River System is an additional reason why we would like to recommend that the St. Charles Parish portion of the Lake Pontchartrain Hurricane Protection Levee be deauthorized.

Another portion of the proposed Lake



Pontchartrain and Vicinity Hurricane Protection Project which causes us much concern relates to those phases of the project referred to as the Rigolets Complex and the Chef Menteur Complex. But, before I continue, I would like to read a resolution which was presented by the Slidell Sportsman's League. This resolution has passed unanimously and adopted by our convention delegates on March 17, 1974.

Colonel, can I read this?

COLONEL HEIBERG: Go ahead, continue.

MR. VEILLON: Thank you.

WHEREAS, the proposed Lake Pontchartrain and Vicinity Hurricane Protection Plan, in its present form, threatens ecological disaster in the estuarine area due to substantial changes in tidal flows and water level changes; and

WHEREAS, the project would actually provide little protection to the City of New Orleans and actually increase the possibility of serious flooding in St. Tammany Parish; and

WHEREAS, three times in succession the people have refused to endorse its construc-



tion at the polling both, yet public money is even now being used and appropriated against the will of the voters with certain phases of construction in progress even now;

THEREFORE BE IT RESOLVED that the Louisiana Wildlife Federation, Incorporated opposes the construction of the project in its present form, particularly the Barrier Phases across the Rigolets and Chef Menteur Passes and urges Congressional and other governmental levels to bring pressure to modify its form toward acceptability.

BE IT FURTHER RESOLVED that the Federation urge re-examination of the project in accordance with the new criteria for judging the worth of public works projects as recommended by the President's Commission with particular attention to the areas of environmental damage and discount rate assumptions and the legality of the State's guarantee of the local funding which was refused by the elected representatives of the people of St. Tammany and St. Bernard Parishes.

We feel that the placing of the Barrier



Structures as proposed on the Rigolets and on the Chef Menteur Pass may have severe, irreversible consequences on the delicate balance which differentiates between that fine line which constitutes a fresh and a saline marsh ecosystem.

Again, thank you for your attention and the opportunity to express our views.

(Applause)

(Whereupon, the statement presented was offered into evidence and marked as Louisiana Wildlife Federation, Incorporated Exhibit No. 12.)

COLONEL HEIBERG: Thank you, Mr. Veillon. Next, Mr. Timothy Terrell, who will be followed by Mr. Crowe. Is Mr. Terrell here?

(No response)

COLONEL HEIBERG: Mr. Art Crowe? Mr. Crowe will be followed by Mr. Arthur A. Crais.

MR. ARTHUR CROWE: Ladies and gentlemen. My name is Arthur Crowe. I am speaking today as a resident of South Louisiana. I have a Masters Degree in Marine Science from L.S.U. and my interest lies in the ecology of the coastal



zone of Louisiana.

I would like to make a couple of comments on the format of this meeting. I tried to obtain a copy of the statement from the L.S.U. Library and was unable to. I subsequently called the East Baton Rouge Parish Library and they only had two copies available. One was in circulation. I think this is inadequate and could be easily improved upon.

Second, I'd like to commend the Colonel on his format of limiting the speakers to five or ten minutes; whatever, they chose. I've been to these meetings before and quite often people will speak for, sometimes, an hour or more, politicians especially. I think it's really a good idea that people have to think out what they have to say before they get up here and are limited to time.

Well, I'm going to speak in general terms today because there was insufficient time for me to gather hard, cold facts.

Lake Pontchartrain does not rank high in productivity of commercial fisheries when you compare it to other areas like Terrebonne or



Barataria Bay. However, it ranks close to the top in sports fisheries due to its nearness to New Orleans. Many of the sports fisheries would be directly effected by a loss of habitat and a loss of nutrient supply directly attributed to the construction of levees.

We have the ability to make this lake what we want it. Through the regulation of the Bonnet Carre Spillway we can make it a fresh water or a brackish lake. Therefore, we can regulate or channel the productivity into whichever area is most important or most efficient. Let's not fool ourselves, though. Whichever one we decide to do with this lake, if we put those levees up, it's going to alter the productivity either way, for the worse.

Even worse is the fact, in my opinion, that the system is inefficient against a very large hurricane and would have the effect of luring a large part of the population into a sense of false security. We have only to remember Camille and speculate what could have happened if it had rolled in on New Orleans and eaten out the



levees around a population who thought themselves safe behind hurricane protection.

The Federal Government should not get into subsidizing flood insurance and must not -- must not encourage growth within a flood plain. Instead of making the swamps and marshes more suitable for development, let the government subsidize the growth of New Orleans to the north shore of the lake where ground is higher and firmer. Let the new area be linked with high speed water transportation. Let's have government money where it will create jobs and make homes safe; not destroy valuable marsh and give people a false sense of security.

Thank you for letting me talk today.

(Applause)

(Whereupon, the statement presented was offered into evidence and marked as Crowe Exhibit No. 13.)

COLONEL HEIBERG: Thank you, Mr. Crowe. Next is Mr. Arthur A. Crais, followed by Wilkes R. Harmon. It's Mr. Arthur A. Crais or Craig -- I can't tell if that's a "g" or an "s" on the



end of the card. 2400 Filmore Avenue. Is he here?

(No response)

COLONEL HEIBERG: Okay. Mr. Wilkes R. Harmon, Slidell.

MR. WILKES R. HARMON: I will write in my statement.

COLONEL HEIBERG: Okay, sir. Mr. Weston G. Strauch, Lake Oaks Civic Association. He will be followed by Mills R. Coleman.

MR. WESTON G. STRAUCH: (Lake Oaks Civic Association) Colonel, and distinguished staff. My name is W. G. Strauch. I am the President of the Lake Oaks Civic Association. I live approximately two blocks from where we stand right now. I wonder how many in the audience live within a quarter of a mile of the lakefront. I mean this lakefront over here, not St. Tammany.

(Whereupon, there was a show of hands.)

MR. STRAUCH: All right. Thank you. That was about five or six. I am also a member



of the Orleans Audubon Society and I'm interested in preservation of wildlife and whatever else is involved in the swamps whether close or far from New Orleans.

But we are also, most intimately interested in our homes. Most of us have a very substantial investment in our homes built on land which has been reclaimed by the Federal Government and sold to us by the Orleans Levee Board. Now, that's no criticism. And we have gathered and discussed this very thoroughly and I represent 125 members whose homes front on this side of the lake and we dread to think what would happen if a wall of water was blown from Lake Pontchartrain onto our homes.

This is one of the highest spots of the city where we are located right now and if Lake Pontchartrain were dumped onto our homes, I don't know where we'd go.

FROM THE FLOOR: Come to St. Tammany.

MR. STRAUCH: You'll be there to help us, I know.

I have here a letter that I am sub-



— mitting. I recognize I'm not a real popular guy here, but I'm saying what my Association feels.

We, of the Lake Oaks Civic Association, a subdivision facing onto Lake Pontchartrain, are highly in favor of the proposed Hurricane Protection System proposed in the Lake Pontchartrain, Louisiana Vicinity Hurricane Protection Project.

The Lake Oaks Subdivision consists of more than 250 homes, all owner occupied, and the price range of these homes, not counting real estate, is from \$50,000 to \$175,000; and we are most interested in this project because we sincerely feel that if Hurricane Camille had hit New Orleans we, in the Lake Oaks, would have been as devastated as the beach area at Biloxi was -- Gulfport and other beach communities, after Camille.

The Association, that the undersigned represents, consists of more than 125 members; we recently met at a special meeting to discuss the pros and cons of this project. After thoroughly making ourselves aware of the project, the Association unanimously voted in favor of this project.



To state our position again, we of the Lake Oaks Civic Association do endorse the Lake Pontchartrain, Louisiana and Vicinity Hurricane Protection Project. We urge you to consider it most favorable for our, and our neighbors' protection. Thank you.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Strauch.

(Whereupon, the statement presented was offered into evidence and marked as Lake Oaks Civic Association Exhibit No. 14.)

COLONEL HEIBERG: Mills R. Coleman will be followed by Dave Martin, Jr., Slidell.

MR. MILLS R. COLEMAN: (Slidell)

Concerned participants, I would like to present my opinion and summary from the excellence of the previous presentations. I would like to approach it from a little different manner.

I respectfully, but ardently criticize all principals, either individual or collective, for their continued persistence in challenging



my rights as a segment of the majority voters which has expressed itself three times by their overwhelming -- overwhelming vote against the issue available to vote on concerning this project.

There is nothing I can possibly see in this Barrier Plan that will provide safety, economy and well-being to me and my fellow residents of St. Tammany Parish. Thank you.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Coleman. Mr. Dave Martin, Jr., President, Slidell Chamber of Commerce; will be followed by Harry Viosca.

MR. DAVE MARTIN, JR.: (Slidell Chamber of Commerce) Thank you, Colonel, distinguished guests, ladies and gentlemen. My name is Dave Martin, Jr. I am President of the Greater Slidell Area Chamber of Commerce.

We have passed resolutions opposing this. We are opposed to it. We feel it's a danger.

Engineering is like any field of en-



deavor, it's manned by human beings who can and will make mistakes. I have seen an engineer try to make water run uphill. He can't do it. I've seen them try to push water from an 18 foot ditch through a 14 inch culvert. They can't do it. And I've seen project engineers in two adjoining subdivisions run their streets and they met 20 feet apart. If it sounds like I'm saying that this project is a mistake as presently constituted, I am. Not only is it a mistake, but it is in direct confrontation with the wishes of the voters. In three elections the voters have turned down the funding for the project as presently constituted. No one is against hurricane and/or flood protection, if it is economically feasible and protects all involved.

Here we are looking at a project based upon a hurricane which has never occurred, dreamed out of a computer which has never been in one. It's my understanding that when the project was approved by Congress in 1965 the estimated cost was \$90-odd million. In a public hearing in Slidell in 1972 the estimated cost was then set



at \$220 million. Now an estimated cost is \$327 million, plus or minus. It really seems strange that the benefit-cost ratio is still twelve to one; in 1965 and '72 and now. I wonder if the value of the project is directly tied to the increased value of properties protected. If so, St. Tammany Parish is no better protected at \$90 million than it is at \$327 million and I wonder why not.

(Applause)

Depending on who you talk to we're in a recession or a depression. What about a project primarily consisting of materials when 8% of our people are out of work? Try and feed them a rock or a Seabrook Bridge.

Recently the voters of Orleans Parish approved an additional three mill tax to improve their levees. This approval came after Levee Board President Guy LeMieux promised that the three mill tax would not be used in the project under discussion. Now, there is ample discussion of a rededication of this same three mill tax to fund local portions of the Hurricane Protection



Plan for Orleans Parish. This is in flagrant violation of public trust and if you want to know who I'm talking about, read the States-Item or see who challenges my statement.

But what disturbs me most is that we in St. Tammany Parish, part of the Metropolitan Area of New Orleans, when it's economically feasible to New Orleans, we in St. Tammany Parish are being used to increase the tax base and the population to be saved under the Hurricane Protection Project. They couldn't get enough before.

We must pay in excess of \$1 million to be in a project which will not benefit St. Tammany Parish, but will definitely hurt us. The project goes into St. Tammany Parish just as far as the New Orleans Corps District goes. If this were a good project for St. Tammany, why doesn't the Mobile Corps District help us? Could it be that they do not think their budget should be expended to help an Orleans District Project?

Gentlemen, I will ask the Slidell Chamber of Commerce and the Covington Chamber of Commerce to jointly file suit to enjoin the St.



Tammany Parish Police Jury from expending any money or calling any election to fund any portion of this project as presently presented.

(Applause)

The third time was the charm. I said in the beginning that engineers -- there's that orange light -- I said in the beginning that engineers, just like all of us, are human and subject to making mistakes. I trust the Corps will re-evaluate this project and its affect on St. Tammany Parish and admit it's human after all.

Thank you.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Martin. Mr. Harry Viosca will be followed by Mr. Lloyd Moreau. Mr. Viosca is not here?

(No response)

COLONEL HEIBERG: Captain Moreau. Captain Moreau has asked me for fifteen minutes; and after he did this several days ago and after some agonizing, I agreed to that.

MR. LLOYD A. MOREAU: (New Orleans Sportsman's League) I represent the New Orleans



Sportsman's League, some 500 members. I've been opposed to this plan since its early conception, and I've done quite a bit of study and work on this thing and I've expressed my views to the Colonel numerous times.

I don't think this Barrier Plan will solve our problems of hurricane flood protection for the City of New Orleans. We have a unique problem here and it's controlled by nature and allowing these vast waters of the gulf coming into our passes into Lake Pontchartrain, spreading over this area, and not creating a terrific rise in the lake, as we are told it will do.

Nature provided this lake to provide access to all this water spreading over Maurepas, the swamps in that area and Lake Pontchartrain; consequently we never had our crest. But, if you put this Barrier in, now, we have created a "V" formed by the Mississippi Gulf Coast and the Mississippi River Levees -- at the point of this "V" will be our Barriers. Water driven into this "V" will rise to phenomenal heights. No one can say just what. Of course, if the Projected



Plan, as this hurricane is supposed to be is left up to, it will be fine -- but, do we have this nature to take this one only step to provide this Projected Hurricane. We don't have that.

So, consequently, water driven into this area will be forced against these existing levees. We know that the levees are supposed to be adequate. But will they protect against the terrific flow that will rise phenomenally along this area?

One of the things that we are opposed to is this overflow of water from these barriers. Now any water over 9 feet elevation, M.S.L., will flow over the Barriers into Lake Pontchartrain. Just how much, how long this storm will stay out in the gulf pushing these waters over, no one can say. Consequently this water flowing into the lake will be impounded by these structures and then when we have a wind shift from the southeasterly quadrant to the northwesterly quadrant, it will drive this water that enters into the lake into the southeast end of Lake Pontchartrain creating a problem.

Areas in the area that are normally



protected by water flowing out of the Chef and Rigolets will not be able to do so, so this water will rise on the east side, creating a terrific problem.

One of the things that we have been told by the Corps of Engineers is that this is no problem; that there will be only 8/10ths of a foot of water coming over this Barrier. That is what their plans with the Projected Hurricane. But, what will happen with a vast storm that will put more water than that over?

Now, we've been told that the flow of water into the Industrial Canal will be taken care of by a structure in the canal to allow the top of this water to be relieved into Lake Pontchartrain, another source of water for the lake. This will also raise the level of the lake.

Another thing, in case we ever have to use the Bonnet Carre Spillway at the same time that we have one of these huge storms in the gulf, where is this water from the Bonnet Carre Spillway going to go when the wind shifts to the northwest?



We've been told by the Corps of Engineers that for the sportsmen this is going to be a fine thing. Borrow pits will be dredged in the area to protect and build the levees. These borrow pits will be fine fishing areas. We already have these borrow -- these holes in the Chef and the Rigolets and we've got water 80 and 90 feet deep in the Rigolets and 60 feet deep in the Chef. Now, once you put a control structure in here you're going to stop a normal flow of water, siltage is going to create and cover up these natural holes.

Another thing, we do not take in conception and I've asked the engineers to state how much siltage will come in from the Bonnet Carre usage. I was told that the Bonnet Carre Spillway will never have to be used once the Morganza Spillway has been opened. The first year after they said this we had to use it. Last year the structure was not opened at Bonnet Carre but sufficient water flowed through there and almost created the same thing as if it had been opened.



I want to go on record as being against this. The members of our club have said the same thing. We cannot see any good out of it. In fact, I think -- that we all do -- that this will create a greater problem. I think that the New Orleans lakefront could be protected. Ninety percent of our water is from wave action coming over the seawall down Lakeshore Drive and flooding out the bay area before the protection levee. If a barricade of a breakwater of some type were built out in Lake Pontchartrain to stop this wave action from hitting the seawall and bouncing over, we'll eliminate most of our problems on that.

Besides this, it would create a wonderful recreation area for boaters. Also, every time we have a northwestern now we have the Levee Board people out on the lakefront cleaning up Lakeshore Drive. I know last spring it was all resoded with beautiful grass in front of the area right there near the Lake View Section, and the first week after this grass was planted we had a northwester and all these grass sods were laying out in Lakeshore Drive.



Another thing is, the construction time of these structures will be approximately two years. Well, knowing some things that have been going on here with our Dome Stadium, two years may extend to five years. What will be done during this time that these structures are being built and these areas are blocked off? They have to build some form of coffer dam to stop this so they can work. What's going to happen then? What's going to happen in the Industrial Canal when they're building this structure there? They are going to have to make some type of a by-pass in order to get the traffic through the Industrial Canal at the Seabrook Complex. This is a problem. If anyone has a boat that's been through this area knows just what we have in navigating this area.

One thing that the Mississippi River Gulf Outlet has done for Lake Pontchartrain that a lot of the sportsmen have realized, we're catching finer fish, we're having a better water in the lake, and we have a terrific problem with pollution in Lake Pontchartrain due to the sewerage coming out of the Jefferson, Orleans and on



the other side -- the north side of the lake.

"MR. GO" has provided outlets, a flushing area.

This water circulates through the lake, creates a problem at times we have but most of the time it is good because our flow of water can rise or fall through "MR. GO" and the Chef and Rigolets.

At numerous times, with the east winds, the water will be rising in the Rigolets, Chef and falling through "MR. GO." This is a normal, beautiful flow area and creates a condition that helps relieve our lake of its pollution. There's a tremendous amount of chlorine -- chlorinated water that's dumped into the lake from different areas.

The London Avenue Canal is one of the worst, right there at the Prentiss Street Pumping Station. This goes out into Lake Pontchartrain and consequently instead of having a normal good, clear water in the lake, we have this polluted water.

The whole seawall used to be covered with barnacles. Now we go out there and it's covered with algae.

If this is left alone and if this structure is built in there to control this flow of water and stop it, we're going to have



a further pollution problem.

Take, for instance, the closing of the Barriers prior to a storm. Water will flow into the lake from the tributaries on the north side of the lake and just how much of an amount we're going to get in the lake no one knows. This water will be impounded in the lake due to the Barriers. Now, these Barriers are going to be put up prior to a storm and they will take at least, if I am right, 48 hours to remove them. We will have a back-up in Lake Pontchartrain. Most of the areas to the east will suffer when that wind shifts. It will drive water into the areas back in there.

If you go along the lakefront and see the actual tidal movement in the lake now, and when you put these structures in and restrict it, you put a structure in at the Chef and Rigolets and when that water tends to flow out, during a northwest day it will not do so.

Ladies and gentlemen, I was going to take fifteen minutes on this, but due to the fact that most of the things I have in mind



were stated previously, and I think they were well stated, I will close. Thank you very much.

(Applause)

COLONEL HEIBERG: I have a couple of people telling me they can't hear what's being said on the mike. Is that true, or is that just a problem we're having down front? Okay, let's just take a sit-down break here for a few minutes and see if we can't do something with that. Otherwise, I'm afraid we're going to have to work with the acoustics that are given us here. I can't change that.

(Whereupon, there was a short recess.)

COLONEL HEIBERG: Vernon Palmer, Alliance for Good Government.

MR. VERNON PALMER: (Alliance for Good Government) I'm Vernon Palmer. I am a member of the Alliance for Good Government and I was President of the Alliance for Good Government during the year 1974 to 1975. It was during that period of time that a very important election was held in New Orleans in March of that



year.

In order to find out what the reason behind the election calling for a real estate tax increase on behalf of the Levee Board, I called Mr. Guy LeMieux to appear before a meeting of the Alliance for Good Government in order for him to explain the necessity of this tax increase.

Before he came to our meeting, Mr. LeMieux had made various appearances in the news media. He had appeared at public gatherings and he had personally stated on these numerous occasions that the revenues from the three mill increase, if approved by the voters, would be spent for thirty-five specific projects at various points in the New Orleans area. Mr. LeMieux repeatedly stated on these occasions that the money would not be spent on the Hurricane Barrier Plan for Lake Pontchartrain.

We asked Mr. LeMieux to appear before our organization. I was there at this meeting before the Alliance for Good Government at which he sought the endorsement of our organization for the Levee Board proposal and he there explain-



ed that the project to which the money would be dedicated -- and he passed out literature explaining the purposes and the uses for which the money would be put -- and stated specifically that the so-called Barrier Plan was definitely not among these projects because that plan was considered to be controversial and presented many environmental issues and had been voted down on two previous -- in two previous elections by the voters of Orleans Parish.

I, myself, and others directed questions to Mr. LeMieux and received clear assurances that the Barrier Plan was not involved in any way. Based upon these assurances, I, myself, and the other members of our organization decided that his project was noteworthy and merited our endorsement and we formally endorsed the Levee Board proposal and recommended the proposal to the people of Orleans Parish and we advertised our endorsement of it to the people of Orleans Parish. And at the special election, I, myself, personally voted for that. And others in my organization did the same; based upon the previous literature pub-



lished by Mr. LeMieux's Board, by the official representation made in that literature, by newspaper publicity and legal advertisements published at our expense by the Levee Board and by also Mr. LeMieux's personal representation made before the Alliance for Good Government. And the majority of Orleans Parish went for it.

This is the most deceitful and wrongful abuse of the public trust. It was a tortuous misapplication of money. It is a wrongful abuse of our right to vote.

(Applause)

Colonel Heiberg, please don't say, after digesting that charge, that these financial matters do not concern the Corps of Engineers. Please don't say that this is beyond the scope of this meeting; or that it's too late to consider these types of matters, this misapplication, this misconstruction, this abuse of the public trust. Because for the Corps to close its eyes to this serious misapplication, misrepresentation and breaches of trust surrounding the mode of finance, would be for the Corps of Engineers to adopt the



misrepresentations and the breach of trust as its own. Does the Corps really wish to become a party to such a magnificent deception? I know that I, myself, cannot; and I withheld, personally, my own tax this year, the particular three mills, rather than see it go to this nefarious purpose. And I am instituting suit to recover the taxes that others may be paying.

(Applause)

COLONEL HEIBERG: Mr. Robert H. Merrell, Slidell Sportsmen's League. Mr. Merrill has been given ten minutes.

MR. ROBERT H. MERRILL: (Slidell Sportsmen's League) Colonel Heiberg, ladies and gentlemen.

The members of the Slidell Sportsmen's League wish to thank you and certain members of our Congressional delegation for giving us the opportunity to present our opinions on the Lake Pontchartrain and Vicinity Hurricane Protection Plan.

My name is Robert H. Merrill, I serve as President of the Slidell Sportsmen's League,



and today I speak for the 161 members of that organization.

Since its organization, the League has had as one of its continuing and major concerns, the well-being of the great natural resource at our doorstep. This estuarine lake area was at that time threatened by this very same project that was known to us as Amendment 6, the title it carried on the ballot, in an attempt to amend the Louisiana Constitution to enable taxes to be levied to finance it. Amendment 6 was defeated. Amendment 6, in one form or another, has been defeated three times by the voters. If anyone wonders why, I'll be glad to tell them. It's because the people don't want to see the thing built.

(Applause)

Now that the Final Environmental Impact Statement has been filed with the CEQ, the Corps has complied with its legal obligations under the National Environmental Policy Act. We hold very basic disagreements with the conclusions of that statement; however, the action has now shifted to



the area of public opinion and political means, we must remain hopeful that the will of the people, three times ignored in the ballot booth, may finally be served.

Others here today will tell of the possible ominous effects of these barriers on the people and property of St. Tammany Parish. We share these concerns and believe we will be subjected to increased danger as a result of closed barriers channeling surging waters into our towns and homes that otherwise might have returned through the passes.

Of particular concern is the apparent lack of coordination with the Mobile District on the effects of the closed barriers on inhabited areas near the Pearl River Basin. We expect that blocked waters will seek an outlet into the Pearl River Basin, flooding riparian property and toward the town of Pearl River.

Since the project is claimed to be good for business interests, let's take a look at what our business interests can expect from it. First, let's speak of the two shipbuilding concerns in



the Slidell area. These yards have been building vessels of considerable size and draft. Ocean-going tugs have been constructed here. With the proposed barriers in place and the necessary navigation facilities in operation, the maximum draft available for passage restricts our shipyards to building vessels of less than sixteen feet draft. It is revealing that a project alternative involving a lock in the Gulf Intracoastal Waterway was rejected out-of-hand because of inconvenience to navigation. What of this inconvenience to navigation, commercial and private?

We, who fish the Rigolets frankly do not believe that the locks will be closed only two and a half hours per day. I believe a figure of five hours was mentioned today. Our navigation will be greatly inconvenienced. Obviously, it makes a difference whose navigation is interrupted. We expect major impacts in the commercial fishing, crabbing and shrimping business in our area. The attraction of industry to the area will suffer in reflection of the navigational impediment in the lake.



Now, in addressing ourselves to the direct effects of the project, we find many areas of disagreement with your conclusions. We cannot believe that reducing the cross-sectional areas of the Rigolets and Chef channels will have no appreciable effect on the volume of flow through them. This is not reasonable no matter how cleverly designed the gates are to be. A table-top model is not going to tell you everything you need to know about flows, currents, velocities, tidal heights, mixing, migration of larval aquatic life, salinity effects, fish movement, pollution control, and a hundred other things that should be known before building something like this.

Five thousand, two hundred and sixty-five acres of productive marshland are to be converted to structures and levees. Thousands of acres in New Orleans East which presently do experience some degree of interchange with the lake will be permanently cut off. This area north of I-10 is apparently not slated for development and will be kept as open marsh. According to research it is in very good condition



and has the potential to be restored to full estuarine productivity by providing more positive interchanges with the lake. Spoil from the structures at the Chef Menteur is scheduled to be dumped into the marsh. This will permanently convert it from marsh uses.

Reduced organic detritus coming into the lake is an admitted effect of the project. According to the EIS most of the commercial species of fishes and invertebrates feed heavily on this organic matter and depend heavily on the interchange between the lake and surrounding wetlands. The value of the lake as a marine nursery area is well established. The projects planning has stated this but has not adequately treated the lake system as a part of the whole Louisiana estuarine system and considered the cumulative effects of this project combined with all the others planned or in progress in the larger system. When the commercial and sport fishing suffers the effects of this project the economy of the whole area will feel it; just not the fishermen themselves, but the whole range of industries and



services which provide support to them, process and distribute their catch, and those who support the supporters.

Turbidities associated with the dredging in this project are to be temporary, according to what we're told. But how temporary is a construction period lasting up to fifteen years? The effects of this turbidity over such a long period of time is bound to have severe and prolonged effect on the regimen of bottom growth, plant and animal in the lake. Eelgrass, Widgeongrass, brackish water clams, and other organisms provide important parts of the food chain, both for aquatic life and some 600,000 wintering lesser scaup, the main fare of local duck hunters. Poul d'Eau or coots graze on the vegetation. Prolonged dredging turbidity will have its effect.

Urban outfall is causing pollution now along the Orleans and the Jefferson shorelines. This project will hasten urbanization, increasing this pollution that already renders shellfish unfit to eat and prohibits swimming in some areas.

We object vigorously to the use of pub-



lic funds for private benefit through land enhancement schemes. This is exactly what we will be getting in the New Orleans East area. The levee along the south shore of the lake from Citrus to South Point is to protect undeveloped areas to make them suitable for urbanization. It is claimed that this area would be developed anyhow. Without this federally provided flood protection, we doubt very much if this is true.

New flood insurance regulations provide minimum requirements for construction areas that could not be met without this levee. Mortgages for construction cannot be obtained unless these standards are met. Let those who stand to profit so handsomely from the development of this wetland area provide their own flood protection. Then we'll finally see just how economical it is to develop lowlands when our unwilling share of the cost is denied.

The Corps has claimed there is no basis to demand that these landowners participate in the cost of their levee. We challenge them to make that determination and the analysis upon



which it is based public, along with the identify of the landowners and major stockholders of owning corporations.

Alternatives to the project selected would reduce the damage and still protect developed areas from flooding. In particular the High Levee Alternative would do the job and not be nearly so costly as claimed, if the New Orleans East Levee were omitted. The remaining levees would mostly be existing ones to be heightened and they already have stabilized bases.

So much for our concerns over the project. Now, let's turn to our other concerns that are no less grave. As mentioned before, the people three times defeated proposals that would allow the Orleans Levee Board to levee taxes to cover its share of the cost. The St. Bernard and St. Tammany Police Juries have refused to provide their shares of the local funding. The former Governor stepped in and guaranteed those shares. The present Governor has confirmed his actions. Our Congressional delegation has completed this rape of democracy by passage of a special law



allowing payments to be extended over a thirty year period. Our funds were not provided because we don't want this thing built as it is now conceived. This was the only way we had to express this opinion. In this Government of the people, by the people, and for the bureaucrats, we have been denied even this.

(Applause)

Why do we even vote? No wonder people are disgusted with government and politics. Does anyone expect that the shares guaranteed by the Governor will not come out of the pockets of those who exercised their right to decide to deny them? Then they are mistaken. They will come out of revenue sharing, highway, school funds, and any other way they can be withheld.

The cost estimates have already proved to be much too low. If you think the Superdome was a boondoggle, just wait. We wonder if the final cost-benefit ratio were known, would the project enjoy such claimed justification? The assumed interest rate on funds to be committed to the project is 3.25%. This is ridiculous, yet



many such projects are justified on such assumptions as this. Those of us who are to pay our taxes, direct or indirect, to build this thing are not, unfortunately, able to borrow at 3.25% to pay them.

Finally, the most important and overriding objection of all must be repeated for emphasis and that is that we have been disenfranchised. Our ballots have been ignored as the project has been moved toward implementation. The people have said their say on the subject, Mr. Hebert, Mr. Long and Mr. Johnston. Now why don't you quit listening to the bureaucrats and listen to the people? Assuming we don't know what's good for us just isn't going to wash anymore. We hope you are listening. We hope you are listening, too, Mr. Edwards. We are not against hurricane protection; that is a necessity. But there are other ways than the one the Corps has selected. Modify the plan to eliminate the Barriers and then come back to us with it at the polls. We hope you are listening because other elections are approaching in the future.



(Applause)

I apologize for having to read this statement at such a rate that it might have been hard to keep up with but to move things along and to keep within the time limit, it was necessary.

(Applause)

(Whereupon, the statement presented was offered into evidence and marked for identification as Slidell Sportsmen's League Exhibit No. 15.)

COLONEL HEIBERG: Thank you, Mr. Merrill. Mr. Francis J. Braud, Bonnet Carre Rod and Gun Club. He will be followed by Mr. Milton Cambre.

MR. FRANCIS J. BRAUD: (Bonnet Carre Rod and Gun Club) Colonel Heiberg, members of your staff, elected officials, ladies and gentlemen. I am Francis J. Braud, Chairman of the Environmental Conservation Committee of the Bonnet Carre Rod and Gun Club of Norco in St. Charles Parish. I appear here today in response to your notice of January 22, 1975, regarding this public hearing. I wish to state that our organization



is not opposed to hurricane protection projects where it is necessary to protect people, property, especially in already developed areas subject to flooding from storms, hurricanes; however, we are opposed to future development of low lands or reclamation of wetlands which could destroy our renewable natural resources.

(Applause)

Our organization is opposed to the construction of the so-called Hurricane Protection Levee in St. Charles Parish, due to the conclusions reached by the U. S. Corps of Engineers Environmental Impact Statement that St. Charles Parish Project could be classified as a land enhancement project.

This project has been considered for some 18 years and ever since survey investigations were initiated there have been an increasing public awareness of environmental considerations in the discussions relating to public policy. Also, since the Environmental Protection Agency Act was created, questions can be raised concerning studies that have been made by the U. S. Corps



of Engineers that this project will have an adverse effect on the renewable natural resources of the area in question.

Opposition to the construction of this project, this portion of Lake Pontchartrain, Louisiana and Vicinity Hurricane Protection Project has been expressed to the U. S. Corps of Engineers in written communications from the following organizations: The Louisiana Wildlife Federation; The Orleans Sierra Club; The Orleans Audubon Society; The St. Charles Environmental Council; The St. Tammany Environmental Council; The Department of Marine Science, L.S.U.

All of these organizations have studied the recommendations and proposal of the Louisiana Advisory Commission on Coastal and Marine Resources and have concluded that such projects in the wetlands area must have an Environmental Impact Statement that the project will not have an adverse effect on the renewable resources such as the fish and wildlife.

Also, and one that is very important, the project will not create a burden on the citi-



zens of the parish to install and maintain the necessary streets, drainage, sanitary sewerage treatment facilities, utilities and so forth, as has happened in other areas and in the Kenner area.

It has been emphatically pointed out by experts that the subject wetlands contain 9 to 12 feet of peat. This very poor soil condition is not conducive to land reclamation for economical habitation. In addition, a moratorium should be placed on these projects at least until all of the Lake Pontchartrain and Vicinity Project studies on the Lake Maurepas, Pontchartrain, St. Catherin and Lake Borgne estuaries, to determine the total environmental impact that will be completed and considered as a whole.

The Louisiana Citizens Advisory Board on Environmental Quality approved a motion calling for a moratorium on all wetlands projects in the Maurepas, Pontchartrain, St. Catherine and Lake Borgne until cumulative Environmental Impact Statements are made on all the projects

We are of the opinion that the U. S.



Corps of Engineers have complied with the National Environmental Policy Act, in their decision to stop this St. Charles portion of the Hurricane Protection Project, after concluding that it is a land enhancement instead of a hurricane protection project.

We are in favor of improved drainage for the communities and their citizens living on higher ground such as south of the Airline Highway in East St. Charles Parish. We suggest that a four to six foot levee be constructed on the north side of the Airline Highway paralleling the Airline with a drainage pump at Cross Bayou, which is the Destrehan Canal. This project, after an engineering study prepared by a consulting firm, was part of a multi-purpose bond issue recently proposed by the St. Charles Parish Police Jury. This type project would be less expensive and would protect our people now living south of the Airline Highway in St. Charles, just as well or better than the proposed so-called Hurricane Protection Levee.

The high tide experienced in 1973 in



East St. Charles Parish that created flooding in some areas south of the Airline Highway was due, we believe, to the Mississippi River Gulf Outlet allowing more water than usual to enter Lake Pontchartrain through the Seabrook Pass during an extended period of southerly winds. It is felt that when the proposed dual-purpose lock at Seabrook is completed, it will prevent such high tides in Lake Pontchartrain. In addition, the channels that were dredged from Lake Pontchartrain through the wetlands to construct I-10 were never properly closed. Proper closure would prevent water from high tides entering certain populated areas of East St. Charles Parish since this problem did not exist prior to the construction of I-10 Highway.

It is encouraging to note at this time that the St. Charles Project is in a deferred status and that additional studies will be required to adequately assess the environmental impact to determine if the East St. Charles portion of the project is actually a hurricane or land enhancement. Thank you.



(Applause)

COLONEL HEIBERG: Thank you, Mr. Braud.
Leave it with Judy, right there.

(Whereupon, the statement presented
was offered into evidence and marked
for identification as Bonnet Carre
Rod and Gun Club Exhibit No. 16.)

MR. COLONEL HEIBERG: Mr. Milton Cambre,
followed by Robert A. Beter.

MR. MILTON CAMBRE: (St. Charles Environmental Council) My name is Milton Cambre and I am President of the St. Charles Environmental Council. I have a statement to present on their behalf and I also have a statement to present on behalf of the St. John Environmental Council.

The St. Charles Environmental Council, a group of 200 citiznes of the Parish, has long been opposed to the construction of the St. Charles portion of the Lake Pontchartrain and Vicinity Hurricane Protection Project as currently proposed.

Prior to this public hearing, on many instances, we met with officials of the Corps of



Engineers, New Orleans District, to express our concerns and offer our constructive criticisms. Through our counsel, J. Arthur Smith, III, of Baton Rouge, we have corresponded extensively with the Corps of Engineers concerning this matter. For purposes of the record of this public hearing, we would like to submit a paper which had been prepared expressing our views as to the importance of the Lakes Maurepas, Pontchartrain, St. Catherine and Borgne estuary and as to the need for proper planning with regard to this estuary.

As this paper indicates, we are very concerned with regard to the entire estuary for we realize its vital importance to the State of Louisiana. We understand that the Corps of Engineers is undertaking, with L.S.U. in Baton Rouge, to conduct a study of the estuary and submit that a decision on the overall Lake Pontchartrain and Vicinity Hurricane Protection Project should be deferred until the conclusion of that study.

Although we are concerned about the overall Maurepas, Pontchartrain, Catherine, Borgne



Estuary, and we are particularly concerned about the wetlands in St. Charles Parish and the fact that the St. Charles Levee Project, as currently proposed, would cause the complete loss of these vital wetlands.

The levee would cause the loss of the St. Charles wetland because it would, in short range, be a barrier to the interflow of detritus between the marsh and the lake. And as we now know, detritus is the life-blood of the estuary. Contrary to what the Environmental Impact Statement says, this would cause major impacts on fish and wildlife resources.

In the long range, the levee would cause the loss of the wetland because it would hasten the commercial, residential and industrial development of the wetland.

As stated in the EIS the plan will indirectly hasten urbanization and industrialization of valuable marshes and swamps.

As stated by a land developer quoted in the Times-Picayune on April 19, 1974, "This area could be a new Metairie if we could build



a levee."

Clearly, this is most contrary to national policy and the public trust as articulated by NEPA, the Coastal Zone Management Act, and regulations of the Corps of Engineers. We would point out that the problems of secondary development and the impacts thereof have not been properly treated in the EIS, which the Corps of Engineers has prepared on the overall project.

Moreover, these wetlands are not suited for development because of their soil. These soils are largely peatbog and after there is construction on these soils, the ground deteriorates to a point where it literally disappears from the foundations of buildings and sidewalks. In addition, the tax burden on the citizens greatly increases when roads, drainage and other utilities are constructed on this type of terrain.

Moreover, the currently proposed levee project would have adverse flood protection benefits because it would eliminate the St. Charles wetland as a natural storm buffer. It would, therefore, amount to a foolish expenditure of



public funds to embark on a project with such negative consequences.

All in all, we strongly believe that the costs of the St. Charles Levee Project would substantially outweigh any benefits and, therefore, the construction of the levee project is not in the public interest, nor in the interest of the future of our community in St. Charles Parish.

In a letter to our attorney, former District Engineer Colonel Richard L. Hunt stated: "In my review of the total project, I have concluded that the St. Charles Levee Portion appears to possibly have more adverse environmental impacts than can be reasonably justified by offsetting flood protection benefits."

We would note that this statement becomes even stronger when one considers the EIS of the Corps -- considers that the Environmental Statement of the Corps of Engineers did not even consider environmental costs. Therefore, we would amend Colonel Hunt's statement to say that the project would "definitely have more adverse environmental impacts than can be reasonably justifi-



fied by offsetting flood protection benefits."

We, therefore, urge that the Corps of Engineers completely abandon the St. Charles portion of the above project as presently proposed. We urge that the Corps of Engineers exercise their responsibility to take this project as presently proposed off the drawing books and we urge the Corps of Engineers to do this regardless of the status of Bayous Labranche and Trepagnier as scenic rivers.

In urging the abandonment of this project, we would like to make it very clear that we are not opposed to flood protection. Indeed, there is a vital need for flood protection; however, we submit that the dual roles of the flood protection and the wetlands protection can be met by a constructive alternative which we offer. And that alternative is the construction of a levee along U. S. 61. It would save our wetlands and provide flood protection benefits at the same time. Moreover, a levee at this location could be built partly on the highway right-of-way already available and would be built on soils which



are better suited to support a levee and would not have to be built as high, since the land slopes away from the river to the lake; thus, saving on construction costs.

In addition, maintenance costs would be decreased since the levee at this location would not be subject to the erosion process that occurs on the shores of Lake Pontchartrain.

In conclusion, we would like to say that the people of St. Charles are overwhelmingly opposed to the St. Charles Levee Project as currently proposed. See the attached article. We stand ready to fight this project with all the strength we can muster, including litigation. However, we hope and trust that this will not be necessary for we believe that the Corps of Engineers will recognize its commitment to the public good and abandon the St. Charles Levee Project as currently proposed.

I thank you.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Cambre.

(Whereupon, the statement presented



on behalf of the St. Charles Environmental Council and the St. John Environmental Council were presented into evidence, in toto, and marked for identification as Cambre Exhibit No. 17.)

COLONEL HEIBERG: Thank you, Mr. Cambre.
Mr. Robert A. Beter. Is he here?

(No response)

COLONEL HEIBERG: Mr. John P. Sevenair.
Mr. Sevenair will be followed by Mr. Michael Tritico.

MR. SEVENAIR: (Ecology Center of Louisiana) My name is John Sevenair and I am representing here today the Ecology Center of Louisiana. Both the Center and I strongly support the stated purpose of this project, the protection of human life and property from hurricanes. I think it is obvious to everyone here today, by now, that several portions of this project are not designed at all to further this aim and the several that are so designed may not perform their function effectively.



We also have some serious reservations about the worth of sitting all day at these so-called public hearings. It appears that the Corps is trying to sell its project to the public, rather than obtain comments and suggestions from the public. Is this a public hearing or a public meeting? If this is a public meeting to discuss all aspects of the project, then it should be clearly labeled as such. If this is a public hearing under the provisions of Section 404 of the Federal Water Pollution Control Act, then comments should be limited to certain specific issues. The notice of January 22 was anything but clear on this point.

After receiving the Final Environmental Impact Statement on this project, we find that the Corps has very baldly omitted what may very well amount to hundreds of millions, or billions of dollars of costs to the consumers and taxpayers. An economic analysis of the project contained everything except for the cost which will result from the adverse environmental impact associated with this project. This is stated right on the



very first page of the Final Environmental Statement. This must be a new accounting procedure that has been devised by the Corps or, perhaps by Lewis Carroll or Donald Duck or someone like that to justify projects.

It appears that this project may increase the possibilities of flooding in some cases. The possibility occurs because the Corps is encouraging development in a known flood plane. The Corps uses the argument that the development is inevitable in these areas and would only occur at a slow pace without the project. Urbanization will not occur in wetlands of this type until they are adequately protected from flooding. The Corps is simply playing the old game of trying to put the chicken before the egg and blaming it on inevitability.

In the case of the St. Charles Parish lakefront levee, the Corps has gotten involved in a politically controversial project and seems to be looking for an easy out. The games which are being played with the scenic rivers in the St. Charles Parish are totally unwarranted and per-



haps illegal interferences in state affairs. Blaming the scenic rivers system for delaying a project that is environmentally unacceptable appears to be a deliberate and calculated attack on this state law.

In conclusion, I would like to add a personal note on the St. Charles portion of the project. I have taken part in several canoe trips on Bayous Labranche and Trepagnier and I feel that these are two of the most beautiful streams I have ever seen. Their destruction would accomplish no protection of human life from hurricanes and would be an appalling tragedy. Thank you.

(Applause)

COLONEL HEIBERG: Mr. Michael Tritico. He will be followed by Mr. August Perez.

MR. MICHAEL TRITICO: (Marine Environment Researchers) My name is Michael Tritico. I am a citizen and a representative of a group of scientists known as The Marine Environment Researchers.

We are concerned about many ecological



aspects of this project. We have an even stronger apprehension that the Corps of Engineers may be afraid to admit to Congress that trying to save New Orleans from flood waters has become technologically and economically unfeasible.

The Corps should not be timid in telling those of us who have families in the vulnerable regions that we should relocate to higher grounds. I would, personally, rather experience the hassle of moving than the nightmare of being in this city when a levee does not function properly.

I am willing to accept my responsibility to safeguard people who are relying on me for protection, even when it means that I must admit mistakes, abandon the plans I may have worked for years to implement and even when it means that I must sacrifice some respect for principles which may have proved to be impractical because of my own faults or the faults of others.

The Army Corps of Engineers should be similarly willing to reconsider their plans for protection of various citizens. I'm convinced that the present attempts will fail to salvage



the original flood works plan. I now propose that the Army adopt an alternative plan for flood control in the Lower Mississippi Valley. Even though I suspect that this alternative plan may also fail eventually as New Orleans subsides deeper and deeper into the mud.

The plan was first proposed by Percy Viosca in 1927 and I have included a copy of the statement he made at that time. I have no additions to make. It was a better plan than the 1927 Army Plan and it is still a better plan than what we have going for us now.

In the long haul, New Orleans, as we know it, will have to be abandoned. Such a thing may sound unacceptable but it will happen whether or any anyone wants to admit it. Not because the Army didn't give it their best, but because common sense and natural powers will eventually exert themselves.

I suggest that the people of New Orleans are intelligent and courageous enough to begin considering an orderly plan for phased relocation of their residences to higher ground; for trans-



formation of their economic structures across a decade rather than in one terrible night than for assuming a leadership role in demonstrating to the rest of the nation that we are trying to avoid the embarrassing possibility of having to ask Congress for billions of dollars to rebuild a submerged city.

Relocation could be accomplished and would certain have a cost-benefit ratio far more acceptable than would an immense salvage undertaking.

Concerning ecological ramifications of the hurricane protection project, the Marine Environment Researchers are not fully convinced that an artificial water exchange structure will alleviate the accelerating chemical and biological problems associated with the detritus build-up in Lake Pontchartrain. I won't discuss that any further, but I will call to the attention of the environmental planners, the following reports which are pertinent:

The 1974 Study of the Effects on Dredging on Lake Pontchartrain, which should be avail-



able from the Shell Dredgers Association. And a 1928 technical paper by Percy Viosca entitled, "Louisiana Wetlands and the Value of Their Wild Life and Fishery Resources."

The 1974 paper is valuable because it points out a possible failure of larvae forms within the Lake Pontchartrain system. The 1928 paper contains valuable insights into the impact of reclamation and flood control on survival of the natural systems.

I'll close with a direct quote from Mr. Viosca's 1928 paper:

"It seems that the time is ripe for an enormous development of the Louisiana Wetlands along new and intelligent lines. The ideal conditions to be demonstrated by observation and research, and that this development should be included in a broad program of conservation which has for its object the restoration of those conditions best suited to an abundant marsh and swamp fauna.

"It should be considered a state and national problem equal in significance to agri-



cultural development, to the end that the state and nation may enjoy a more balanced diet, more healthful recreation, and enduring prosperity."

Thank you all for listening to Mr. Viosca in 1928 and I hope somebody's listening today.

(Applause)

(Whereupon the documents referred to in the above presentation were offered into evidence and marked for identification as Marine Environmental Researchers Exhibits No. 18-A and 18-B.)

COLONEL HEIBERG: Thank you, Mr. Tritico. Next, Mr. August Perez, III. He will be followed by Mr. C. J. Seit.

MR. AUGUST PEREZ, III: I am August Perez, III and I reside at 4411 Alvar Road in New Orleans.

Colonel, I want you to know that many, many times I've been on your side of the table at public meetings and in spite of some of the remarks I'm making, I want you to know that I have great compassion for you and your colleagues.



I oppose the construction of the flood control structures at the Chef Menteur and the Rigolets. I have carefully reviewed information submitted by the Department of Army and its document entitled, "Announcement of Public Meeting," dated January 22nd; and at the Department's two meetings with the Venetian Isles Civic Association, and its public meeting in the Lakefront Airport. From these, I have concluded that the basic reason for the construction of these structures is to make the now unprotected low lands located in the Lake Pontchartrain Basin free from hurricane tides so that they can be used for future private development.

The fact that Lake Pontchartrain is a wide and relatively shallow lake makes the basin subject to extensive flooding from wind driven rising water. This factor was not taken into consideration when the levee systems were originally designed and built for New Orleans.

The Corps of Engineers has, through studies, now determined that the present New Orleans Hurricane Protection System design is sub-



ject to failure under certain very remote conditions -- so remote, that one cannot calculate the chances of this happening.

They have evaluated several programs to insure that the unsafe condition does not happen. Two of these, that the report says will do the job, are worth consideration. The Barrier Plan and the High Levee Plan.

The recommended Barrier Plan, conceptually, is to maintain absolute control over Lake Pontchartrain tides through mechanical means of the Chef and Rigolets locks, therefore, preventing the possibility of the lake tide rising high enough so the dangerous, potential failure condition could develop. This plan would cost \$327 million.

The Alternate High Level Plan is in two major sections. The first section simply raises the existing levees to accomplish the same effective protective objective of preventing the lake from overflowing into New Orleans. This portion of the plan would only cost \$100 million, which is \$200 million less than the Barrier Plan.



But the second section of the High Level Plan is the one that would cost so much more. It proposes the building of levees around the entire Lake Pontchartrain Basin. I made a little diagram here to explain further what I am saying.

In the Barrier Plan the two major structures at the Chef and the Rigolets will reduce the effect of the hurricane tides in the entire basin. This is Baton Rouge up here (indicating). The entire basin. Three hundred and forty-eight thousand acres of low land and seventy-six thousand acres of present New Orleans land.

The High Level Plan was proposed to build a high enough levee along this red line (indicating), which is 57 miles long and it essentially is the New Orleans perimeter on the lake all the way to New Orleans East, down back toward the Gulf Outlet. This portion of the plan here, including enlarging of pumps and the construction -- additional construction of the levees costs \$100 million preserving this condition and -- insuring this condition not to go into the 76,000 acres of land in the City of New Orleans.



I agree we must protect the people who are now living within the levees. We are committed to do this. But the undeveloped, unprotected present swamp lands in the Lake Pontchartrain Basin should stay in their natural desirable state.

(Applause)

The few people presently living in these low lands are now and have always been aware of the risks and the exposures to flood waters. Incidentally, I am one of these. New persons who would be moving into these areas would also be knowledgeable of the same fact. There are certain construction techniques and safety precautions that can be taken to reduce their losses during these very highly unusual times. But, most important, the basin itself would maintain its present natural integrity which is the very reason they are attracted to it in the first place.

In our past society and its progressive engineering and advanced industrialization has implemented two programs which have greatly affected the natural Pontchartrain Basin. One is the construction of the levees on the Mississippi



River. This has prevented the river from naturally overflowing into the lake; thereby, substantially effecting the lake ecology. Second, is the construction of the Gulf Outlet. This has removed the natural marsh barriers and the gulf tide flows directly into the lake, greatly affecting its salinity.

These projects were designed and implemented for good reasons; but without consideration to the effects on the Lake Pontchartrain Basin, good or bad, both were right done in the name of safety and economics. But, somewhere we must stop. I ask reconsideration of your recommended structure program. Implement a portion of the High Level Plan at this time, raising the existing levees to protect the people that we have already committed to. Save the \$200 million, but most of all, do not risk destroying the Lake Pontchartrain Basin in the name of -- and I quote from the report itself, "Urbanization of the Project Area."

Thank you, sir.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Perez.



Mr. C. J. Seit. Is Mr. Seit not here?

(No response)

Mr. William A. Fontenot, Delta Chapter, Sierra Club. Mr. Fontenot will be followed by W. B. Wallace.

MR. WILLIAM A. FONTENOT: (Delta Chapter of the Sierra Club) The Delta Chapter of the Sierra Club that I am representing today covers the area of Louisiana and Mississippi and I am speaking for that organization.

We are alarmed to see the Corps of Engineers attempt to undertake a project that lacks strong local support; a project which is not economically justified in many areas; and which will have adverse economic and environmental impact on Louisiana and other states in the Gulf of Mexico.

Today we have been told how residents and officials within the project area are opposed to many portions of the project. Everyone is in favor of protecting developed areas. This project has run into problems because the Corps insists on basing many of the benefits of the project on land



reclamation and future developments in wetlands areas. The theory being that getting new lands on the tax roles would supposedly create new jobs, lower taxes or at least make more taxes available for goods and services.

New developments require certain community services such as schools, water, fire protection and the cost of providing such services in new developments far exceeds the revenue generated by that development.

Virtually all states now recognize that wetlands represent economic, environmental and recreational values which are far more important to the public interest than the claimed benefits from developing such lands for increased taxes.

We know that the fishery resources of Louisiana are directly dependent on our wetlands for their food supply. Many important species, such as shrimp, crab and menhaden must spend part of their life cycle in fresh and brackish marsh.

There is some difficulty in assessing the estimated productive value of Lake Pontchartrain and Borgne and their related wetlands.



This is not a static system but one which is alive and changing from day-to-day and month-to-month. In the area of environmental consideration, the Corps of Engineers' Final Environmental Statement is little more than a catalog of plants, animals and fish that can be found in the New Orleans area. Unfortunately, the Corps tells us nothing about the estimated numbers, food and range requirements and, most important of all, the Corps of Engineers deliberately failed to tell us how this project and the planned urban industrial development will affect these various resources.

Recent studies of blue crabs along the Gulf Coast of Florida shows that some crabs migrate as much as 140 miles during a year. This startling discovery clearly indicates the destruction of wetlands in Louisiana will very likely have a detrimental impact on the fishing resources of Mississippi, Alabama and Florida. Is this rather important omission a sign of incompetence on the part of the Corps of Engineers, or merely an oversight on the part of those who limited the scope of the environmental study?



The 73,000 acres of wetlands within the project area presently have an average elevation of 1.5 feet above mean sea level. Studies by the Soil Conservation Service and the Corps of Engineers clearly shows that the soils in these wetland areas are unsuitable and unstable for any type of urban and industrial development. These studies further show that once these areas are drained, the humus soils will compact until they are from five to twelve feet below sea level.

Once drained, these areas will have the greatest potential for flooding of anywhere in the New Orleans Metropolitan Area. That is a potential even greater than the areas that are presently developed.

It is also clear that during a hurricane of the force of Camille the levees along the Mississippi River Gulf Outlet and the Gulf Intracoastal Waterway will very likely be topped or breached.

One of the best ways to avoid excessive loss of life and property is to limit its development in flood prone areas. The Corps has chosen



the other path by encouraging intensive development in one of the largest flood plains between the Mississippi River and the Gulf of Mexico.

It should be pointed out that the 73,000 acres of wetlands that are located within this project are greater than the number of wetlands found in the entire State of Mississippi and we are affecting a resource that has not really been measured.

Thank you. I'd like to request, aside from this, that the Corps of Engineers consider sending a topographical map to the President's Council on Environmental Quality that will show elevations within the project area and that will also show the elevations that can be expected to occur once these areas are drained. I'm speaking of the wetland areas that will be drained and developed, primarily in New Orleans East and St. Bernard Parish and St. Charles Parish. This will CEQ some idea of what sort of area we're talking about and what it might look like after the project is completed. Thank you.

(Applause)



COLONEL HEIBERG: Thank you, Mr. Fontenot. Mr. W. B. Wallace, who will be followed by Mr. Allen F. Normand. Mr. Wallace has been given ten minutes.

MR. W. B. WALLACE: (Wallace Menhaden Products, Inc.) My name is Borden Wallace and I represent a commercial interest in the menhaden industry.

The menhaden, an oily, bony, herring-like fish, was found when settlers first came to this country to be used by American Indians as fertilizer in their corn fields. Commercial ventures in the industry date back more than 100 years; thus, menhaden ranks among the oldest sustainable fisheries in the United States.

Nutrition technology has recognized the value of the fish to be greater than used as fertilizer and menhaden today is processed into three products: meal, condensed solubles and oil.

Menhaden meal is a high protein feed ingredient for poultry and swine. It provides essential sulfur amino acids for optimum growth for which vegetable protein cannot be economically



substituted. It has a high energy value, is a natural source of phosphorus and selenium, and provides a yet unidentified growth factor.

Solubles, which is a by-product of the wet reduction of fish, is similar to the meal in nutritional value and is also used as a feed ingredient. Menhaden oil, being polyunsaturated, is desirable as a margarine ingredient, and accounts for approximately one-third of all U. S. exports of nonedible fishery products.

Considering the international shortages of proteins and oils, it can well be envisioned that such nutritionally valuable products will be used for human consumption in the United States in the foreseeable future.

Menhaden landings in 1974 totaled almost two billion pounds, which represents 44% of the total for all species, including shellfish, which are landed annually in the United States. Of this figure, 67% of the menhaden were landed here in the Gulf, and of this one and one-third billion pounds, Louisiana alone accounted for 83%.

The menhaden landings contributed by



Lake Pontchartrain last year was approximately 44 million pounds. In order to relate this catch data to the consideration of the proposed Hurricane Protection Project, it is necessary to examine, somewhat, the life history of the menhaden.

The adult fish spawns from late October to early March offshore at about the 50 to 60 fathom curve. The ensuing larvae actively move inshore in a northerly direction until they enter the estuarine areas. It is important to note that the National Marine Fisheries Service indicates this movement is the predominant action with only minor lateral movement along the coast.

Also, in mid-summer and early fall, the juveniles and young adults move out of the estuaries, offshore in a southerly direction. This suggests that the catch in the areas south of Lake Pontchartrain and Chalmette Project could serve as an index of the contributions of those estuaries to the fishery.

I will repeat, the landings in 1974 of Lake Pontchartrain fish was 44 million pounds. The ability to support this tonnage verifies that



the Lake Pontchartrain area is one of the largest definable nurseries in the state.

Let us now examine the summary of the Environmental Statement to learn of Lake Pontchartrain's importance in the early life of the menhaden. Darnell is correctly quoted as saying, "Most of the remaining abundant species, this includes menhaden, are migratory and spawn elsewhere, invading the lake as seasonal transients."

Consequently, little direct attention is given in the Environmental Statement to the menhaden. Although the menhaden is a transient in the lake, it is supported for most of its juvenile life by the lake.

Darnell, in his study not included in the Environmental Statement entitled, "Food Habits of Fishes and Larger Invertebrates of Lake Pontchartrain," also states that, "During field studies menhaden around 100 millimeteres in length were frequently captured in great abundance near the south shore of Lake Pontchartrain where wave action was reducing the organic material of the marshy shore to the consistency of coffee grounds. Here



a suspension of ground up organic matter was almost always in evidence. The menhaden appeared to be thriving upon this suspended material."

Table 27, in the Final Environmental Statement verifies Darnell's observation by showing that organic detritus comprises 11% of the food of the young and 99% of the food of the juvenile menhaden. Since the "principle inflow of fresh water into Lake Pontchartrain is from the nutrient-poor acid soils of the pinelands to the north," from the Environmental Statement, this valuable organic detritus must derive from other sources, being outlined in the following statement: "The ecology of Lake Pontchartrain is highly dependent upon an exchange of nutrients, producers and consumers with surrounding marshes, swamps and adjacent bodies of water."

The role of this detritus is so primary that Darnell concluded it serves as an important source of nutrition, directly or indirectly for most of the 35 species which he stated were "the most important species comprising the estuarine area." It is also fundamental that one of the



major contributing sources of this detritus is the marsh areas as outlined in Table 22 of the Environmental Statement.

With the previous statements clearly in mind, I would like to quote from the Final Environmental Statement: "All of the marsh and swamp land made available by the project for conversion to urban use will be lost when local interests choose to drain and fill these areas. A decrease in release of detrital materials from the leveed marshes will affect the secondary productivity of the Lake Pontchartrain area. Organisms which use detritus will decrease in numbers, but this loss will not be extensive."

Considering that 44 million pounds of menhaden, which could be directly associated with this estuary was landed last year, and that the menhaden is only one of about 35 of the most important species from this community, the above quote from the Final Environmental Statement is totally false and irresponsible. Loss of marsh will result in a proportionate loss in production.

With respect to the three proposed com-



plexes, a final statement should not be made at this time since sufficient data does not exist on the abilities of the various transient and migratory species of Lake Pontchartrain to swim against the high water velocities to be induced by the complexes. Evidence in the literature regarding the role of tides in the distribution of larvae is contradictory. And other evidence clearly shows the existence of both passive and active seekers of the estuarine areas. To presume that these complexes will have no effect on those active seekers is certainly premature.

In addition, the statement, "these structures will not be closed until a hurricane enters the Gulf of Mexico, threatening the Louisiana coastline," needs to be more clearly outlined. As it presently reads, the gates could be closed for considerable periods, including those times when menhaden leave Lake Pontchartrain. A large number of one and two year old menhaden, as well as the juveniles and young use the lake in the summer for feeding. Retention of these fish could lower landings, but more important, could possibly



have a profound adverse effect on spawning.

With respect to the St. Charles Project, considering that the possible loss of marsh and consequently, production is extensive and would have a major effect on the ecology of Lake Pontchartrain, I would strongly urge that the status be changed from indefinitely deferred to permanently abandoned.

With respect to the construction of levees along the south and southeastern shores of Lake Pontchartrain, sampling stations in these areas set up by Tarver and Dugas in their study of the Rangian Clam record dissolved and suspended solids levels to be higher than the average for the whole lake. This evidence clearly demonstrates that those areas do indeed contribute to the lake's productivity. Consequently, I urge that no action be taken in these areas which would further reduce the contributions of nutrients.

With respect to the Chalmette Area Plan, I will again state that loss of marsh can render direct and proportionate losses in energy exchange. The Chalmette Plan would cause marked decreases in



productivity of the area and should be abandoned.

(Applause)

I sincerely believe that the reasoning behind these proposed projects should be examined. U. S. Department of Interior statistics indicate that the change of a major hurricane crossing the New Orleans area is less than 5% annually. However, if carried out, proposed loss of marsh and changes in physical features is guaranteed, 100% annually. A large segment of the New Orleans and Lake Pontchartrain population has chosen this location for their businesses and homes because it derives income directly or indirectly from the natural products of these wetlands. If we support the present Hurricane Protection Project, we elect to protect these businesses and homes from possible flooding at the expense of the very reason why these businesses and homes are here, the wetlands. This rationale, to me, appears to be quite illogical. I strongly urge the abandonment of the Lake Pontchartrain, Louisiana and Vicinity Hurricane Protection Project as it presently stands. Thank you.



(Applause)

(Whereupon, the above statement was offered into evidence and marked for identification as Wallace Menhaden Exhibit No. 19.)

COLONEL HEIBERG: Thank you, Mr. Wallace. Mr. Allen F. Normand, Village de l'est Improvement Association. He will be followed by Paul L. Willis.

MR. ALLEN F. NORMAND: (Village de l'est Improvement Association) Thank you, Colonel Heiberg. As was stated, I am president of the Village de l'est Improvement Association and since our position was presented this morning and it was submitted in letter form to the New Orleans Levee Board, I won't repeat it, except to state that we are definitely for the protection plan as it stands. And the only reason why we're really here today is because too many times it's the people who are for a project never show up. That's true. I bet if we had a show of hands of the people who were for the project -- they just did not come here today and we were hoping that this just wouldn't happen.



What I should have done was to have asked the Association to send at least 15 or 20 people from our area here, but I didn't do that.

I'm only sorry that I can't talk with the emotion of the Mayor of Slidell and make opinions sound like fact, or talk like the speaker this morning, the Honorable Senator Scoggins, who when confronted with a very well planned, I thought, technical presentation, tried to make fun of that presentation with some "woodsy, home-folk type sarcasm," which is perfectly all right. I'm sorry I can't do that. It's just not in my nature.

I'm just an engineering scientist and I have to sift out the real facts of what this project would do. From the mass, as I consider, mass of misinformation that might be presented in a open forum. I think it's good. I've learned a lot today here. But my job really requires that I sift the facts out.

I have to compare this information with what the Corps of Engineers presented to us this morning and then, also what the Fish and Wildlife



presented and others, and try and determine what will give the greatest good to the greatest number of people and try and determine, maybe, that the engineers who did this study haven't forgotten something that might hurt us later on.

If all of this comes out even and they haven't made any mistakes, and I don't think they have, I hope that after all the emotionalism is put in "File 13" and the misinformation has been discarded that the true facts will give a green light to this project. It's only a hope. We'll only know after the hearing is over. But that's about all I can say here and I thank the Corps of Engineers and the public forum for this opportunity.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Normand. Mr. Paul L. Willis, who will be followed by Clarke Harper. Mr. Willis. Is Mr. Willis here?

(No response)

COLONEL HEIBERG: Mr. Clarke Harper. Mr. Harper will be followed by Mr. Robert J. Alonzo.



MR. CLARKE HARPER: (Venetian Isles Civic and Improvement Association) I'm Clarke Harper, President of the Venetian Isles Civic and Improvement Association.

This Association represents 125 residents and property owners in Venetian Isles, which is located in Eastern New Orleans at the Chef Menteur Pass.

At a recent meeting of the general membership, it was voted unanimously to oppose the construction of the Barriers in the Rigolets and the Chef Menteur Pass because of the overall impact they would have on Lake Pontchartrain and the surrounding area.

Choking of the Chef Pass and the Rigolets will undoubtedly have a serious effect on marine life in Lake Pontchartrain and will aid in trapping water that will top the levees in a hurricane situation. Once the water gets into the lake it will not be able to get out when the wind shifts. This would keep our area under water for days.

This Association does endorse the High Levee Plan in which the existing levees would be



raised to provide the protection necessary. It appears that under this plan there would be no change in the ecology of Lake Pontchartrain.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Harper. Mr. Robert J. Alonzo will be followed by Mr. and Mrs. Marion Fannaly, Sierra Club.

MR. ROBERT J. ALONZO: (East Orleans Civic Council) My name is Robert J. Alonzo and I am President of the East Orleans Civic Council.

We have a letter to the Corps of Engineers.

"The East Orleans Civic Council representing some eleven civic improvement associations in New Orleans East has passed a resolution supporting the Barrier Concept Flood Protection Plan as specified in the U. S. Corps of Engineers Lake Pontchartrain, Louisiana and Vicinity Hurricane Protection Project. It is our belief that this project is of vital importance for the protection and growth of the entire New Orleans area and we encourage the cooperation of all local, state and federal governmental agencies to begin the imple-



mentation of this project as soon as possible.

Thank you.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Alonzo. Mr. and Mrs. Marion Fannaly. They will be followed by Theo F. Ratliff.

MR. MARION FANNALY: (Baton Rouge Sierra Club) Good evening, ladies and gentlemen. My name is Marion Fannaly and I'm representing the Baton Rouge Group of the Sierra Club. I would like to present a statement on the plan.

The Lake Pontchartrain and Vicinity Hurricane Protection Project has the laudable objective of preventing or reducing the destruction caused by hurricanes, and certainly no one of us here can argue that this is not desirable. However, there exists grave doubts as to whether the means of this project can be justified by its end. It is the opinion of many of the scientists and concerned citizens of Louisiana that this project will cause more harm to the state than the hurricane it is designed to protect against.

(Applause)



We would like to discuss the project in two separate phases: First, the improvement of existing protection levees around areas of high population and the construction of new levees and other flood control structures, such as the Barriers.

The Baton Rouge Group of the Sierra Club has no objection to the proposed improvement of existing levees in Orleans and Jefferson Parishes where they are needed to protect areas of great population density. Indeed, we think that these are necessary and should be raised without delay. These areas are highly developed already and improving the existing levees will not adversely affect the environment.

However, we do object strongly to the construction of new levees and flood control structures. The construction of new levees around the eastern marsh areas will insure their eventual development.

If I can refer you to the map over here on the three areas (indicating). Specifically in the Chalmette area, according to data I gathered



from a gentlemen from the U. S. Fish and Wildlife Service, 18,000 acres in that area of undeveloped marshland will be surrounded by the levees.

In the New Orleans East area 14,000 acres of undeveloped marshland will be included in that levee.

And, in the St. Charles area, which is temporarily deferred, there are 25,000 acres of marshlands in which there is nothing to protect more valuable than cypress trees; and, certainly cypress trees seem to thrive on water.

Listening to the testimony and statements here today, one can only come to the conclusion that the primary purpose of this project is not flood protection per se, but land development.

(Applause)

Furthermore, the construction of levees around these marsh areas and its subsequent development will increase rather than diminish the threat of hurricane damage. This will occur because this will place more areas in the direct path of the hurricane.



Presently, the marsh areas bordering New Orleans serve as a buffer zone against hurricane storm surge and mitigate the effect of this surge on the populated areas. If we remove and develop these marsh areas this protection is gone and the people that inhabit these areas will then receive the full force of the hurricane surge should the levees fail.

Leveeing of these areas will also destroy the value for fisheries production and recreation. The losses, both potential and immediate, will far outweigh any gain.

The proposed barrier and lock complexes at the Rigolets and Chef Menteur Pass are a monstrous and irresponsible boondoggle comparable to the Mississippi River Gulf Outlet. Their supposed purpose is to prevent a storm surge from raising the level of Lake Pontchartrain and flooding the city. This sounds nice, but as has already been pointed out today, there's a whole lake full of water, 640 square miles of it out there, which is quite capable of flooding New Orleans if the levees should break.



The lake is large enough to produce a surge within it that would dwarf the effect of any water entering through the Passes. And, I, personally, cannot see where the Corps obtained its projections of nine to thirteen feet of storm surge coming through that pass. These barriers will be only expensive placebos and will not add anything of value to hurricane protection.

Much more in the way of flood protection would be gained by filling in the Mississippi River Gulf Outlet or placing some sort of flood control barrier across its path. We have already seen the damage that can be caused by a storm surge coming through this waterway. We don't have to rely on projection. It is doubtless that construction of levees along its banks will do much to prevent flooding from storm surges.

The biological effects of these barriers on the lake will be enormous. They will certainly interfere with the exchange of waters with Lake Borgne, thereby reducing the salinity of the lake. If this effect is severe enough, it would severely restrict the range of many estuarine species in



the lake or even eliminate some of them completely. It may also interfere with migration of many valuable species such as the blue crab, penaeid shrimp, speckled trout and menhaden which move into the lake seasonally and are dependent upon it for a portion of their life cycle. The potential harm that these barriers may cause to the ecology of the lake is tremendous.

In summary, the Baton Rouge Group of the Sierra Club supports the improvement of existing levees in Orleans and Jefferson Parishes. However, we are strongly opposed to the building of new levees which would increase the areas vulnerable to flooding and storms. We are also adamantly opposed to the building of barriers across the natural passes of the lake as these barriers will provide little or no protection against hurricanes but will radically alter the ecology of Lakes Pontchartrain and Maurepas. Thank you.

(Applause)

(Whereupon, the above statement was offered into evidence and marked for identification as



Sierra Club, Baton Rouge, Exhibit
No. 20.)

COLONEL HEIBERG: Thank you, Mr. Fannaly.
Theo Ratliff. I believe that's Theodore. To be
followed by Joseph W. Smollen, III.

MR. THEO RATLIFF: Colonel Heiberg,
distinguished guests, ladies and gentlemen. I'm
Theo Ratliff, just a citizen of our fine State of
Louisiana and of St. Tammany Parish, Slidell,
Louisiana.

I'd like to thank the Colonel for the
five minutes he's given me so generously to talk.
But before I make my remarks, I'd like to address
a question to Honorable Scoggins.

Representative Scoggins, Mr. Guizerix,
Colonel Heiberg's engineer, said to me at lunch
today, he said this: The Barrier Project is go-
ing on regardless of what we say. So why are we
here today? That's a good question. I'd like to
know. If it's going on anyway, why are we here
today? Wasting our time, wasting his time that's
so valuable? Good question.

Colonel, I know my remarks will not be



considered, especially after what I heard at lunch. But, I must say them anyway.

I can't give a full report of what I'd like to say because five minutes is not near enough, I assure you. Representative Scoggins wasn't given the time he needed either. Of course, the Corps had all the time they wanted.

(Applause)

Colonel, you know, you can tell by my waistline, I like to eat. I eat pretty well, too. But I don't like to have something forced down my throat that I don't like -- that's not tasty -- that I don't want -- that's not good for us. I can remember when I used to have castor oil forced down my throat. My mother promised me a cup of sweetened coffee if I'd take it. I did. For years after that I wouldn't taste coffee. That may have been good for me too if I had never learned to drink it, but --

You know, we're talking about the impounding of water and not the lowering of the water levels. The Colonel wants to build the Barriers because he says it will lower the water



level. I think he forgets about all the water that's going to be coming down from the rivers up above. The waters going to be impounded. The water that's going to flood St. Tammany Parish and going to flood St. Charles Parish and going to flood other areas. Let's build some levees.

(Applause)

Let's build some levees. Levees will do some good. Let's follow those signs back over there that are being held up so high back there that make sense. What are we going to do by building these barriers? We're going to kill shipbuilding on the lake. One man told me today: I'd like to build a shipyard but if I can't get my ships out and in, why?

We're going to kill new large industries on the lake because they are not going to be able to get out effectively. We talk about wanting industry and then we come along with something like this trying to kill it.

We're going to kill most of the eco-structure of the wetlands. Regardless of what Colonel Heiberg's eco group said in their report,



you've heard all of these people today who are ecologists coming up here and standing before us saying: It ain't good. Do you like my grammar?

Representative Scoggins has proven that the levees will do the job from what he said. Several others have said things about the levees doing the job. Why are we trying to dam up and kill some lakes?

Colonel, don't force us as citizens to swallow your pet project -- something that you want done. Something that seems so infeasible. Give us some true, new considerations. Don't force us to swallow something that's not good for us.

You know, we talk about building dry lands to build projects -- to build houses and other things on -- either that or we've building an empire for the Colonel and the Corps of Engineers and the Department of the Army. Which are we doing? I don't know. Maybe both. But I don't like to see us building empires for anybody. I say this: Let's have a referendum. Let's have a referendum -- not on the money this



time since that seemed to be what they blamed the other referendums on. Let's have a referendum on whether we want to build this project.

(Applause)

Colonel, there's a lot more that I could say, but I won't. But let's look at the other signs that are being held up over there. I think they are worthy of reading. I think they are worthy of saying. I dared Mrs. Scoggins to hold one up behind my head while I was talking a while ago, she didn't, of course. But it's so true -- what some of those signs are saying. Let's think before we go into the Barrier Project. Thank you.

(Applause)

COLONEL HEIBERG: Mr. Ratliff, there's one thing you sure did prove and that's there is nothing wrong with our P. A. System if you work at it.

(Laughter)

Mr. Joseph W. Smollen, III will be followed by Mrs. Kenneth Sollberger.

MR. JOSEPH W. SMOLLEN: (YMBC, New Orleans)



Gentlemen, I'm Bill Smollen. I'm President of the Young Men's Business Club of Greater New Orleans. We appointed an Ad-Hoc Committee specifically for this public hearing. They had available to them the Environmental Impact Statement, the various statements of the dredging work, this type of thing. The Committee, after a number of meetings and a number of debates, brought to the Board of Directors of the Young Men's Business Club a resolution which we passed on February 20th. I've given copies to your secretary for the record. I would not bore you with the entire details. I would read you the meat paragraph:

"NOW, THEREFORE, BE IT RESOLVED, that the Young Men's Business Club of Greater New Orleans, Incorporated, request the Corps of Engineers to conduct a thorough study of the feasibility and practicality of the alternate proposal, known as the Shaw Plan, and urges without delay or interference the scheduled dredging work and the construction of the other hurricane barriers included in the present proposed Lake



Pontchartrain Hurricane Protection Plan." Thank you.

(Applause)

(Whereupon the above referred to Resolution was offered into evidence and marked for identification as YMBC, New Orleans, Exhibit No. 21.)

COLONEL HEIBERG: Thank you, Mr. Smollen. Mrs. Kenneth Sollberger will be followed by Edith Eckert.

MRS. KENNETH SOLLBERGER: Colonel Heiberg, at this time I would like to present a statement on behalf of the St. Tammany Environmental Council and at a later date read the St. Tammany Sportsman's League Statement on behalf of Mr. Henry Ferrer.

Colonel Heiberg, members of the staff, ladies and gentlemen. I'm Martha Sollberger, Secretary of the St. Tammany Environmental Council.

The St. Tammany Environmental Council has studied thoroughly the Final Environmental Impact Study of the Lake Pontchartrain, Louisiana,



and Vicinity Hurricane Protection Plan. We remain adamantly opposed to this project for the following reasons:

1. The majority of voters who must live with this project have not once, but three times, express their opposition at the polls. Contrary to the U. S. Corps of Engineers, this is a vote against the project, not the source of the revenue. Numerous camouflaged terms are used in dealing with the funding aspect of the hurricane project such as "other state sources of revenue," or the ever popular misnomer "federal funds." All of the terms should be more correctly expressed as "taxpayers' funds." Should the project come to be, it will be financed by those same voters who opposed it three times at the polls, just as if Colonel Heiberg had personally stuck his hand down the pockets of these voters.

Secondly, as the Final EIS states, the project will destroy many thousands of acres of viable marshland. The four lake system of Maurepas, Pontchartrain, Catherine and Borgne -- the MPCB Estuarine System -- is one of the two most



productive estuaries in the United States.

The inner workings are extremely complex in nature. At present, this estuarine is under severe attack by some 40 projects, either underway or presently proposed, including the Lake Pontchartrain, Louisiana, Vicinity Hurricane Protection Project.

Noted ecological experts have predicted the collapse of the MPCB estuary should the majority of these projects be completed.

In addition, there has not been a study performed to determine how much marsh acreage loss or how many of these projects the MPCB estuary can tolerate before it collapses. When the estuary collapses and we are living around a four lake cesspool, only then will we know we have gone too far and then it will be too late.

The U. S. Corps' EIS acknowledges the importance of the marsh it proposes to destroy with the Hurricane Protection Project. However, it fails to recognize the cumulative effect on the estuary that this project and the numerous other projects presently underway or proposed may



have.

The voters' three oppositions at the polls are saying that they do not want to live around four huge cesspools.

Thirdly, the EIS acknowledges a certain amount of the project as land enhancement; however writes it off because the loss of this marsh is committed to population expansion anyway.

Due to the complexity of the MPCB estuary, who is to say that the speeding up of this expansion created by the Hurricane Project will not be the straw that breaks the camel's back in bringing about its collapse? Until a comprehensive EIS on the entire four lake system is conducted regarding the numerous projects, we will not know, will we?

The EIS -- fourthly -- the EIS appears to build up the protection aspect of this project to the population from a hurricane and plays down the possibility of the project working in reverse. It is a recognized fact that a model 100-year hurricane such as Camille is going to top the levee system and the benefit of the levee system



lies in its retarding the tidal surges effect of the storm. This same levee project is going to retard the run-off of the vast amounts of water that is going to top the levee system, and particularly through the barriers at the Rigolets, Chef, and Seabrook. In essence, we will have as much water but it will stay with us for a longer period of time.

Five, the Barrier and Lock System, especially at Seabrook will put an additional strain on the St. Tammany Parish shipbuilding industry. It is almost unknown for a facility to be designed and built which further restricts passage ways due to widths. This is progress in reverse.

Six, the question salinity alterations for the betterment of the four lake system is also misleading. While the Seabrook installation may be able to restrict some of the undesirable salt water intrusion created by the Mississippi River Gulf Outlet, a previous Corps project, the overall salinity problem of the four lake system is still in question.

In summation, we must all remember that



the Corps of Engineers is in business to build levees and dams with taxpayers' dollars. By paying thousands of dollars, taxpayers' dollars, to proponents of the Hurricane Protection Project, such as Dr. Simposn, former Director of the Hurricane Center, as well as extensive press and news coverage and, in general, presenting this project to the people from behind rose colored glasses, it is the strong feeling and belief of the members of the St. Tammany Environmental Council that it would again be defeated at the polls and at public forum.

In closing, it is the definite opinion of the St. Tammany Environmental Council, the acknowledged and potential adverse environmental and economic impact of the Lake Pontchartrain, Louisiana, Vicinity Hurricane Protection Plan far outweighs the benefits our population may receive in the form of hurricane protection.

Thank you very much.

(Applause)

COLONEL HEIBERG: Mrs. Sollberger, did I understand you want to make the Sportsman's



League presentation this afternoon, too? Mrs. Sollberger, did you want to make that presentation also?

MRS. SOLLBERGER: Thank you.

COLONEL HEIBERG: Why don't you go ahead and do that now.

MRS. SOLLBERGER: Would you like for me to wait until afterwards?

COLONEL HEIBERG: No, that's all right. We're getting right down to the end. I don't think anyone will mind.

MRS. SOLLBERGER: Thank you. On behalf of Henri Ferrer, who could not make it today, I would like to present his statement for the St. Tammany Sportsman's League.

"Dear Colonel Heiberg: The St. Tammany Sportsman's League has unanimously rejected the Corps of Engineers' plan to build flood gates at the Rigolets.

"This project will destroy the interplay between the lake and the marshes. This interplay supplies 50% of all nutrients that feeds the flora and fauna in Lake Pontchartrain. The loss of these



— nutrients will result in the death of the lake.

"Any man-made project, such as the size of this hurricane barrier, irregardless of ecological studies, good, bad or indifferent will have a detrimental effect on the Pontchartrain estuary. This is common sense. Can anyone truthfully say that it will help the estuary? The lake needs all the help it can get and it needs it before we make another Lake Erie out of it.

This project, if carried out, will certainly change many aspects of our lake and I say leave it alone. Leave it alone for generations of people unknown to us. Some bordering parishes want to reclaim portions of the lake, developers are draining marshes, increased dredging continues daily. Heck, why don't you just dam it up and let's fill in the whole area with solid waste and forget it ever existed. This would solve the problem and also provide a dumping place for solid waste, plus provide new home sites for the ever increasing population.

— The project as planned will still not protect residents of Orleans, St. Bernard and



Jefferson Parishes from a full-fledged hurricane that passes directly over the city. Hurricane Betsy went completely over the existing levees in lower Plaquemines Parish and then there was a problem getting the water out between the levees. You are only making a bigger basin out of the city. Don't do this thing to us. Sincerely, Henri Ferrer." Thank you, Colonel Heiberg.

(Applause)

(Whereupon, the documents presented were submitted into evidence and marked for identification as St. Tammany Environmental Council Exhibit No. 22 and St. Tammany Sportsman's League Exhibit No. 23.)

COLONEL HEIBERG: Thank you. Edith Eckert, St. Tammany Environmental Council will be followed by Mr. Menendez.

MRS. EDITH ECKERT: (St. Tammany Environmental Council) Thank you, Colonel Heiberg. I'm Edith Eckert; and believe it or not it's 4:00 o'clock. And I would -- you know -- Colonel Heiberg, it would be fine, for once, if we all



could start talking at 9:00 o'clock in the morning when we're fresh and then have the Corps presentation, or whoever is giving the presentation, start at 1:00 o'clock and then by the time our brains are paralyzed and we're feeling as if we just can't listen, you know, for five more minutes, we just get to a point where our attention span is -- just has collapsed. Also, wouldn't it be nice if we all could sit on the soft seats for just a few minutes?

(Applause)

I tried it; it helps a little. You see, at this hour you kind of get slap happy, so forgive me. I will get serious in a few minutes, I think.

One advantage of speaking at this hour is that most everything's been said and so you can step back and maybe say a few things that you thought up in the middle of the night, deep down in your soul-searching time and there's a chance to say them. Well, stepping back and looking at the situation, well, the first conclusion that I come to is that Bienville set down at the wrong



place. He made a real mistake. After Bienville, just thousands and thousands of people followed him and came in and settled and put their life and property in a place that made them potential victims of a hurricane disaster. And then the Corps of Engineers came and put levees on the Mississippi, which made it more attractive, attracting more thousands to set their lives and property down in this place making themselves vulnerable to a hurricane -- potential victims of a hurricane disaster.

And then New Orleans filled out the land toward the lake and this was to protect the City of New Orleans from hurricanes and then on that land was put these hundred thousand dollar homes -- and I feel sorry for the owner that's bought a home right there on the lakefront -- because they are potential victims of a hurricane disaster.

And now, we are asked to support a barrier plan which will make 50,000 acres of land attractive for many more thousands to set their lives and their property down and become potential victims of a hurricane disaster.



Let us also step back and take a look at what the real forces that are at work pushing for a project like this. We have all, since we are from this locality, lived through the days or the hours when a hurricane is out in the gulf and we're, each of us, in a state of having our soul sincere desire saying: Don't send it in on us, Lord. And it's an anxious and we stand there facing ourselves and thinking of our property and think of the damage that this could be. This is one of the forces that is at work. This potential -- that we might be the potential victims of a hurricane disaster.

But there are other forces at work for this particular plan. Whenever federal funds are being brought in for any project something happens. The bankers, the businessmen, many, many people think: If it's federally funded, bring that money in. Another pressure for a project. Whether it is for this particular Barrier Plan, or for any other which involves changing undeveloped swamp, cheap land into profit making land, all sorts of pressures from the people who have invested to



make money, and it's very logical that they should care to make money, want their investment to make money for them, these pressures push for the project.

Then there's a third force, which I'd like to speak about. Pressing for this kind of project. Some little boys, as they're growing up are programmed. They are given trucks and cranes and mechanical shovels and so on and their life thinking -- their attitudes are such that whatever problems humanity faces can be solved by engineering it, using this kind of tool. I think we all have a little bit of this in us as we stand, as I did in Mariner's Village, across the lake, where they had, oh, twenty trucks digging up dirt and taking it to the top of the levee and dumping the dirt down there and then cranes were busy everywhere, moving piles of dirt. It was exciting to me. And I think this -- even though I am not a little boy that was programmed this way -- but this is in my make-up, too. But some little boys are -- oh, no, the buzzer -- that's impossible. Okay.



Some little boys heard them, you know, some little boys over in St. Tammany Parish -- Ed Scoggins was one of them, whose father took him fishing when he was a little boy and he looked at the ducks and he looked at the water and he got caught in the rain and he learned something about nature and the laws of nature and had a respect for them and an awe for them; and those little boys knew that the salvation of the world does not necessarily come through technological means.

All right, on another fact. We've been told -- we've heard today from the marine biologist and so on that estuaries are fragile, that they can collapse. I would go one step further -- and now I'm not feeling very slap happy, but I'm feeling very serious. I would say we have been told by some experts that the very oceans of the world can collapse. Captain Jacques Cousteau has given us about twenty years, if we keep on doing the way we are doing, before our oceans collapse. If oceans collapse, atmospheres collapse and we are all gonners.

Now, I'm not trying to sound like dooms-



day because I am an enthusiastic optimistic person and I know that we can turn around in our thinking.

(Applause)

We can turn around in our thinking and I say it is as drastic a turn-around as was called upon the people of Copernicus' time when, for centuries, they thought the earth was the center of the solar system and they had to do this turn-around. It was difficult. It lead to a difficult time to turn around in their thinking that the earth was not the center of the solar system, but here this divine universe, our part of it, our solar system circled around the sun. That was hard to turn around in our thinking. Just so, I say we are called to turn around in our thinking that we have respect for ecological laws, respect for the laws of nature.. I say these laws are as much a part of the divinity of the universe as Copernicus' laws which we accept today.

Okay. So, I've gotten off on this tact and I'm sorry. This came to me in the middle of the night. At the time of the Egyptians the pharaoh was called to turn around in his thinking,



and various plagues of little bitty things were sent after him. Frogs were in his bed, frogs got in his eating bowls, gnats and locusts and this sort of thing and he didn't turn around. We are called to turn around; and, please don't take this either as a dooms-day prophecy because I believe that we're in the exciting time when we can still turn around in our thinking and so I will quote from Revelations, in the sixteenth chapter, seven angels -- the people who have messages from God are given seven bowls, many of them which are ecological disasters. The second bowl which the angel was to pour out, the result of it was, "and everything died that was in the sea."

I think that we, today, are called upon to turn around in our thinking and not rely and put our safety and security in technological engineering but respect the ecological natural laws which are part of the divinity of our universe.

Thank you.

(Applause)

COLONEL HEIBERG: Thank you. Mr. Mel



Menendez, Greater Gentilly Civic Council, Incorporated will be followed by Herbert O'Donnell. Mr. Menendez.

MR. MEL MENENDEZ: (Greater Gentilly Civic Council) My name is Mel Menendez with the Greater Gentilly Civil Council, Incorporated.

We are opposed to the Barrier Plan. We are in favor of the Shaw Plan. Also we do not believe that the millage which we voted for for city projects should be diverted against the will of the people to other plans.

We wrote to the Public Relations man of the Levee Board who stated that because of the Hebert Bill they could do this. We also wrote to Representative Hebert. The Public Relations has not answered our letter or given us a copy of the Bill. Representative Hebert said that he knows nothing of this Hebert Bill, but he thinks that they are referring to one bill where, oh, about 30 or 40 pages in this bill, they had about a quarter of a page where there was a section in it pertaining to Plaquemines Parish.

Now, gentlemen, for a personal remark.



All this will be sent to you in detail, with copies of what I've spoken of. But for my personal remarks, now, gentlemen, I believe that when appointed officials disregard the will of the people it's time that we get together and have them replaced so we will go along with the democratic process.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Menendez. Mr. Herbert O'Donnell will be followed by Lane A. Carson.

MR. HERBERT O'DONNELL: Colonel, and ladies and gentlemen. My name is Herbert O'Donnell and I'm a resident of New Orleans all my life. I live in an area lower than the man from Lake Oaks who's worried about the water hurting him.

Like Mr. LeMieux, I'm a civil engineer, a graduate of Tulane and was taught one course by Mr. Baehr. I have no opposition to the levees. I would like to oppose the barriers.

I also would like to state that when you listen to the testimony here you might get the impression that only residents of St. Tammany



on Lake Pontchartrain and the Gulf Coast, I oppose these structures on the basis that they pose as much in the way of danger as they ever may in protection and they represent 80% to 85% of the total expenditure of \$300 million, which is a low estimate. The other 15% will provide the real protection from wind driven hurricane tides and this is in the form of the levees which mostly have already been done.

In the U. S. Engineers' own words, and this is in the 1972 Environmental Statement, and I will have to admit I don't have the current statement, "These barriers will reduce the cross sectional area of the natural passes at the Rigollets and the Chef by 75%." This refers to the normal cross sections. Not those when the spillway is opened or when we have flood tides when it spills out of the normal channel. The figure is more like 90% reduction of presently available flood evacuation.

Then they state that the operation of the Bonnet Carre Spillway, discharging at design flow, with structures installed, would raise the



high water in Lake Pontchartrain to a maximum of 1.4 feet. This is 1.4 feet above what the high tide is outside of the Rigolets and the Chef. Where were they around Easter of '73 when an open spillway and a few days of light rain caused tides four to five feet in the lake? At Mandeville, where I own my home and have for seven years, we experienced water as high as during two previous hurricanes and this was with no restrictions in these passes. The water was at least five feet above normal level.

Now, the same report notes that Lake Pontchartrain covers an area of 640 square miles but drains the water shed of 4700 square miles. The majority of this water is pumped into by New Orleans and Jefferson Parishes or it runs off via rivers and bayous from the northern parishes into Lake Pontchartrain and then out through the Rigolets and the Chef Passes. Is it not unlikely that this super-standard Project Hurricane would produce rainfall of ten to fifteen inches over a three day period? Where does all this go while the gates are closed; or even while they are open



for that matter? And don't forget to accomplish anything these gates must be closed three to five days before the hurricane arrives here; and then how many days will it take to open the gates?

So we have the lake swollen with rain-water three to four feet and the tidal surge comes with a hurricane eye. To quote the engineers again, this elevation of nine feet, which is at the Rigolets on the U. S. 90 Highway, will allow flood surge overtopping for a short period of time during the hurricane. But this overtopping will not significantly affect the water elevation of Lake Pontchartrain. Well, you were told this morning it was at least one foot, it could be higher.

With all the unique things that this SPH storm is going to do, is it not likely that it might produce a 20 to 22 foot tidal wave? We have already had them 18 to 20 feet on many occasions and the overtopping just might be significant.

Now, when the northwest wind comes, which is the key to the whole premise of building



these things, because otherwise the lake poses no threat to New Orleans at all, we find ourselves with a swollen lake and no way for these waters to be pushed out rapidly as they normally are by a northwind. While they are trying to dynamite the damn things, flooding of Slidell and New Orleans East will occur. Space will not permit going into other aspects, but I would ask if they are so convinced that everybody is in favor of this, let's vote on whether we want the Barriers, not the levees.

(Applause)

COLONEL HEIBERG: Thank you, Mr. O'Donnell. Next, Lane A. Carson.

(No response)

COLONEL HEIBERG: Mr. Harry Viosca.

MR. HARRY VIOSCA: Ladies and gentlemen and members of the press and brother fishermen, if we have any here, I hope to present the fisherman's side of this view on our ecology and how fishing used to be in Lake Pontchartrain and it seems to be getting worse every year.

I've spent a lot of my time when I was



a youngster in Mandeville, we had a home on the beach and the 1915 storm -- or rather the 1908 storm wiped it out. A couple of years later we rebuilt it and another storm came and did the same thing and it is dangerous to be too close on the water.

Of course, fishing is a big problem and the ecology part of it is something we should consider seriously. We have all sorts of organisms, microscopic forms that come in and larger forms feed on them, shrimp feed on the larger forms and so forth until the biggest fish gets the big meal.

Now, around about 1915 the lake was really loaded with fish. We could go almost anywhere and get fish. I don't know how many people here could remember that. I just passed my 78th year young and I can remember way back just what was what.

I'll give you an idea. For instance, I went crabbing with my brother at the London Avenue Canal, right in the lake, and we had about eight or ten crab nets and in no time, probably a half hour, we filled three or four sacks of very



large crabs and we put them all in the boat and then we jumped in the boat and the boat sunk. So, what we did, we got back on the wharf and caught them all over again, but we didn't take as many because we didn't want the same thing happen. But those things were common in those days and there's no reason why it shouldn't be the same today.

Our ecology has been seriously affected and we ought to try to find a way of getting things back to the way they used to be.

At Northshore, around 1915, at that time we could go out and catch all the sheephead and redfish you could bring home, right on the bridge, in a skiff. I used to travel Mandeville on a train and on numerous occasions, I guess they'd be 200 boats and every one of them had their poles bent with fish on them and we caught more redfish in those days than sheephead. Sheephead is a tough fish to catch. It's the only fish that I know of that you have to hook them before you feel the bite. It sounds silly, but it's true and only in Lake Pontchartrain. All you feel is a little knock -- like that -- (indicating) --



no movement, just that knock and -- well, it's too late, the fish is off. Evidently he spits the hook out after he eats the bait, so the only way you can catch him is to keep moving your line up and down and it takes a lot of skill to catch them and there are not many people left -- it's almost a lost art today to catch sheephead at that bridge. It's different in other parts of the lake.

You could go out in the lake and get croakers. They used to school up in tremendous schools. There would be red water, oh, maybe about a block wide and several miles long and all summer long you could go in those places and catch big, full croakers. But things are different now. They have a lot of muddy water. The lake is pretty well polluted and the people can't go swimming on this side of the lake.

Well, I might say this while I'm in that area. I'm not opposed to this Industrial Canal Lock on Lake Pontchartrain there -- the lake end of the Industrial Canal. I think that's almost a necessity. We have to protect those levees. But I don't think that would affect the environ-



ment at all. Well, not much anyhow. I am opposed, though, to not making the locks at the Rigolets or any other stream wide enough so that we could have a full flow of water at least equivalent to what it is now, no less. It would be a big job, I know, but we ought to try to find out a way of doing that if we're going to have to do that. Personally, I like to see things the way they were years ago and if it's possible through our ecologist and the people in our fisheries to bring it back, or at least try. We need certain kinds of food, fresh water -- brackish water grasses and plenty clams in the lake because the clams purify the water. They feed on sediment and so forth and they could clear up the lake in a short time in the summertime.

Well, I just made these notes. I don't think you could compare the storms in Lake Ponchartrain compared to the hurricane on the Mississippi Gulf Coast. The Gulf Coast has, maybe, as much as a hundred miles of water pushing into the Gulf Coast and when the wind changes, after the storm center passes, you have such a



tremendous amount of water there and in Lake Pontchartrain, the biggest part of it has, maybe, 35 miles or something like that. Not like you have on the Gulf Coast.

Well, that's the main thing I wanted to say. The poor fisherman seems to be neglected. I didn't hear much about the fisherman here. Okay, I thank you.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Viosca. Before, Mr. Ron Guth, the City Attorney for the City of Slidell, who had asked to be heard later.

MR. GUTH: Do you mean now or later?

COLONEL HEIBERG: Well, this is later.

(Laughter)

MR. RON GUTH: (City Attorney, Slidell)

Edith, I thought you had a mental turn around over there; you were sitting among those Corps people. I'm glad to find out you didn't.

(Laughter)

Colonel, we appreciate another opportunity to participate in our government. Your handling of the hearing was, on a whole, very fair



and most appropriate under the circumstances.

I compliment most participants in the hearing for an orderly, respectful and very professional presentations.

Now we are left to see whether this exercise, and to quote Mayor Cusimano, "a bone thrown to the voters," or a real exercise in representative government. If the Corps functions like the elected representatives, which you heard today, who must daily face public opinion and react to it, the result of this hearing would be most clear. The Barrier Plan would not be implemented.

(Applause)

May we summarize, just for a minute, the indisputable principles that we learned here today, six in number.

No. 1, the Corps has not and may never modify the Hurricane Barrier Plan to correct deficiencies pointed out by opponents for over ten years.

No. 2, three of the five parishes involved in this Hurricane Barrier Plan and Pro-



tection System oppose today, and have opposed the plan.

No. 3, environmentalists unanimously, across the board, say that the plan is so risky to the environment that it should not sensibly be continued.

No. 4, equally qualified and honest men, professional engineers, have such different opinions as to the same fact concerning the Barrier Plan that the plan must continue to be reviewed and not implemented.

No. 5, sportsmen unanimously oppose the Barrier Plan.

No. 6, and maybe the most important, public trust in this area has been violated time and time again. Opponents of the present system have spoken for years and year and years. We are here again today. And I'm sure we'll be here tomorrow.

Colonel, a vote in this room would probably indicate to you that the majority oppose the plan. Such a vote, and the results of that, and your deciding to implement or not, would



probably be unfair. It's not more unfair, however, than the results of three direct votes against the plan being ignored. Colonel, we ask the Corps of Engineers not to push the opponent into legal action. Thank you.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Guth. Representative Scoggins. Sir, you said that you would like to be heard again at the end.

MR. SCOGGINS: Well, only if everyone is through.

COLONEL HEIBERG: Yes, everyone has had an opportunity to -- that I know of. Is there anybody else that put in a card that we lost? Anyone else that wants to be heard?

(No response)

MR. EDWARD C. SCOGGINS: (Slidell)

I just have a few comments. Probably won't take any more than eight or ten minutes. A few statements concerning some of the comments.

First, in defense of Colonel Heiberg, himself, I want you to know that I've been dealing with him for some while. He's a perfect



gentlemen.

(Applause)

He came here, I think, into this thing some while back, not too long ago, I believe, as I recall, he's probably the fourth or fifth Colonel that I have negotiated with in the last ten or twelve years.

A few remarks about some of the comments that I heard, the first speaker whose name I don't recall, mentioned tilting in the lake -- the tilting effect. I want you to know that tilting can and will occur regardless of the closures with some or less water. The tilting can still occur. The same thing can still happen.

I want to also let you know that in Vicksburg I was informed that it's possible that you'll get 3.7 feet of water -- and I have those figures from Vicksburg -- in the lake, additional water in the lake, even with the closures; with the overtopping, the possible opening of the salinity control structure at Seabrook and the other -- the water that gets in before the closure is affected.



It was also said that high cost prevents the building of the higher levee system. Higher costs. And I have, many times, asked for these figures on this particular thing and they said that: We have reviewed it and we have determined that it costs more to do this than it would to build the barriers. I've never seen any figures on this. I don't know if anybody has any, but I have never seen them. I have requested them many times through the years.

The second speaker said that during construction a dry bottom would be necessary. I agree with that. You're going to have to have some closures. Now, I want to point out to you that these structures are not navigable. For you that might think they are -- you cannot go through them. Even when they're open, they are not navigable. You may accidentally get sucked into them but you cannot navigate them. Only the canals, the structures that by-pass them, are the navigable portions.

The map indicated a solid structure in St. Tammany Parish to the White Kitchen, which is



Applie Pie Ridge. Actually, the only solid construction goes to Prevost Island, which is two miles into my parish, and ends exactly where the Mobile District of the Corps of Engineers starts and the New Orleans District stops.

I received a letter several days ago stating that: We don't know why you weren't told this before, but in 1972 we decided we'd put a couple of little things, one over by the White Kitchen, one up to West Peal River, and one near the Oak Grove Cemetery. That's where my mother and father and my brother and sister and my grandparents are buried. It's fourteen foot above sea-level. I don't know the need for one at the Oak Grove Cemetery, which is about nine -- about three or four miles up Highway 190 East from the White Kitchen.

He pointed out that the reason for the abandonment of the St. Charles portion of the levee is the scenic rivers, two rivers placed in the Scenic River System and, of course, they cannot abridge state authority there. Perhaps, each District works a little bit different. The



Mobile District doesn't have any reservations about abridging the Louisiana National and Scenic Rivers; none at all, they've been in the Pearl River constantly since it was placed in the National and Scenic River System, constantly. And will be back in it -- I want to let you know -- that project is continually authorized. It's in the system. It clearly states that it prohibits the things that they are doing, but they are doing them. So, perhaps one has a different set of standards it follows from the other. I don't know.

I believe that what you are looking at is in theory only. That this is a great experiment. I expect that possibly it would be quite an engineering fete, this project in the Rigolets; if, indeed, that's where those flood gates are, in the Rigolets. There's a possibility they may not be there. I'll get to that a little bit later.

The second speaker also stated that the locks at Seabrook would be in operation seven hours out of every twenty-four. That remains to be seen.



The sill at the Rigolets is 13.2 feet unless that's been changed. I was told that five hours per day for fifteen days, and for fifteen days there would be no need for the locks at all there. I was told by another Colonel, prior to Colonel Heiberg, that they would be in operation twelve out of every twenty-four hours and not -- he did not give me anything about only being in use for fifteen days out of thirty. So, apparently that's been changed.

The environmental speaker talked about lake salinity. I think possibly the alteration that you'll get from the structures, whether it be 15% or 20% as the '72 Environmental Impact Statement stated that it would be, may not be of great significance because the alteration there, as I pointed out earlier, has already occurred. The lake -- the salinity there has already increased, and I'm using their figures, again, given to me in Vicksburg, 200% each year in the low inflow years, and 400% in the high inflow year. This has killed the estuaries behind the sand spit that surrounds the lake that at one time had saw



grass, needle grass, et cetera, many duck pines. These have become open water because of the putrifaction of the vegetation there.

The fourth speaker talked of spoil disposal. We heard little comment from people on spoil disposal today. We're hoping we won't have to have spoil disposal in that particular area and that may be the reason.

The Department of Public Works, Mr. Theis, read a letter to Colonel Heiberg stating the Department of Public Works -- public works -- public works, is in favor -- although I do know two members of the Department of Public Works who are decidedly not in favor whose names I am not at liberty to mention.

Mr. John Lambert, a very dear friend of mine and a Member of the City Council in New Orleans, said he believes that it would be no great harm; that he think these are competent people, and perhaps they are. The St. Bernard people were told the same thing about the Mississippi River Gulf Outlet. This was going to be the greatest thing that ever happened to St.



Bernard Parish. Industry, thousands of jobs, millions of dollars, brought into the parish. It brought a great deal of water, a tremendous amount of mud, did away with a tremendous trapping industry in that area and lessened the shrimp and oyster industry. Many people had to get out of that business because of it. It brought about a condition in 1965, with Betsy, that may be the reason for some of the things you're seeing here today. You're trying to correct something where a mistake was made.

It is my understanding that the lower half of the Mississippi River Gulf Outlet, for all intents and purposes, will be abandoned if and when the Violet cut is completed. This is the cut that Mr. Earl Colomb mentioned to you that will connect the Mississippi River Gulf Outlet with the Mississippi River. Ships will come up the Mississippi River, go through this set of locks, that makes two pieces out of St. Bernard Parish, with a bridge or two connecting them -- I hope it's not as bad as St. Claude Avenue -- and the lower half, for all intents and purposes,



maintenance dredging will be abandoned. It will be the upper half that will be then -- the Mississippi River Gulf Outlet was designed to alleviate a situation that occurs in flood years at the mouth of the Mississippi River wherein you get a tremendous silt build-up and ships of certain draft or depth cannot get in the Mississippi River.

I flew over it in '73. I counted 71 ships anchored off the Mouth of the Mississippi River. I found one in the MRGO -- he was aground. This is a great engineering fete.

Mr. LeMieux read a letter from Village de l'est endorsing, and I know that he spoke to those people, and gave a resume of his many qualifications, his expert testimony concerning hurricanes, et cetera. I served as head of Civil Defense in my parish for two years also. I have also given that same testimony. Other than the reading of the letter I don't know that there was much of any real consequence in what he said. I would like to say that Village de l'est is presently behind an existing high levee.

Mr. Lannes, Chairman of the Regional



Planning Commission, touched lightly on some of the -- and endorsed the thing. St. Bernard -- he did not touch on what they plan for his parish or what has been done to his parish because of prior -- prior work. I was amazed. I thought at least he would mention the Violet cut.

Mr. Earl Colomb mentioned his opposition to Seabrook and I agree with him 100%. I just want to let you know, Earl, that the funnel effect created by the Barrier System will cause even greater build-up if none of that water is allowed to get through the passes before it's funneled into the Intracoastal Waterway. The build-up at Seabrook is going to be greater than it would if they were open. Greater than it was before your totally justifying.

He talked about another plan, one that I hadn't heard about before. I understood him to say the Shaw Plan. There is an alternate plan for the structure at the Rigolets and I think it-- this would be wise to mention it now, particularly for you people who may still be here who live between the Chef and Fort Pike. The original plan



of the Corps was to dam the Rigolets solid and to cut through the peninsula of land between Chef Menteur and Fort Pike and put a Rigolets there, but only one with control or gated structures. This would enable them to work on a dry bottom, complete the work, and then open the two ends of it. It's my understanding that the model that was dismantled in 1961 and is not being re-assembled, possibly completed, is being put back up to see now that maybe that might not have been the best idea after all. So, that if it is changed you're going to get this peninsula of land cut in two pieces between Fort Pike and the Chef. The Rigolets will be dammed solid with only the navigation canal on the St. Tammany side.

Cliff Danby spoke of the loss of value of estuaries not considered in the Impact Statement. It continues to amaze me why this is never considered on a cost-benefit ratio. He also mentioned that the project is going ahead in spite of no final approval of any Impact Statement. I might mention also that Mr. Soileau, of the Corps of Engineers, stated in Vicksburg that the maximum



closure time, Mr. O'Donnell, would be two weeks. That there is a possibility that it may be closed for two weeks periods of time.

Mr. Dave Martin, Slidell Chamber of Commerce, mentioned payments. The St. Tammany Parish Police Jury operates on a budget of a little over \$2 million per year. Their share, initial share, will be \$1 million; right at \$1 million. That's not all; they must assume maintenance of that portion of the system that lies in St. Tammany Parish, annual maintenance. I don't believe that they would, of course, operate the locks. These are usually reserved -- government locks are usually operated by the government; I assume by the Corps, I don't know. Although it is in St. Tammany Parish they will have to assume, though, the maintenance of the levees in St. Tammany Parish whatever they be. They stated that they couldn't come up with this money. A prior Governor said: We'll see that they pay their share. We're working under revenue sharing. You'll get your money back from the State Government money. All they do, it's a very simple mat-



ter, just deduct it. You just don't get that portion back each year. You, therefore, have to preclude, giving certain services to people. If you don't have the money, that's what happens.

It's just not right that a government, a governing body that opposes something must be forced to pay for it. That's just not right.

Mr. Vernon Palmer mentioned the three mills and how the general public was taken. I believe I put the editorial from the Times-Picayune in the record. I assume that it will be there.

I just want to point out that this is the same gentleman who said, if you think he always tells you like it is, that we could have a series of 30 foot waves in a 12 foot deep lake. Well, I think that most high school children in the St. Tammany Parish schools know that a wave, under ordinary circumstances, would be half the depth of the water, or six foot. We're not talking about the tilting of the lake, we're talking about waves.

Bob Merrill talked about deeper draft vessels. We're building vessels in St. Tammany



Parish that draw as much as 24 feet of water, I'm told. Many more than the depths of the lake, some 18 and some 16. The way they get them across the lake to deep water is pontooning them across. Lift them up to where they won't be dragging the bottom and then when they get them to the deep water, release the pontoons on the sides of the boat and this is how they get them into the Seabrook area. That's why I mentioned to you in the Southern Shipbuilding statement that they have asked for a greater sill depth at Seabrook in order that they can continue to build the type of vessels that they have under contract.

Mr. Wallace, from the menhaden industry, and I assume that's the Wallace Menhaden Company, has an operation that spots them, I think, in my parish, an airplane operation, totally contradicted the Environmental Statement with some very, very good information. I would like to point out to you that the menhaden industry is by far the largest fishing industry in the State of Louisiana.

Now, Mr. A. F. Normand, and I don't know if Mr. Normand is still here or not. He spoke of



my "homespun approach" and the very fact, or he indicated that I had made fun of whomever it may be that he was indicating and then turned around and made fun of me. I'm sorry that I don't have a college education; as a matter of fact I was lucky to get out of the third grade, Mr. Normand, if you're still here. I was out chasing crabs and shrimp for us to survive, my family. He presented no data. Just says: I looked at this and I think it's good. I presented solid engineering data prepared by engineers, one a former employee of the levee board and the other a former employee of the Corps of Engineers, that I think is very pertinent.

Mr. Normand is an engineer for Bell-Aerospace Corporation, a Systems Engineer. I understand that probably what Bell is doing in this area is testing or building hydrofoil boats. I know that that's a government contract that they have but I don't think that it has anything to do with his position.

Venetian Isles is opposed. Mr. LeMieux spoke to Village de l'est and got their endorse-



ment. He also spoke to Venetian Isles. At this particular meeting he referred to me as a kook, to Mayor Cusimano as a kook, and to the people of St. Tammany Parish not being very knowledgeable about the whole thing. Fortunately, a very dear friend of ours, who has quite extensive commercial properties in New Orleans Parish, Mr. Al Labiche. I think most of you have heard of Labiche's. He was there and contested this type of rhetoric. As a consequence, Venetian Isles did not endorse. The Orleans Civic Council did, presented no data.

Mr. Normand said that all of the info from us, who are up here presenting emotional things, should go into "File 13." We assure you, Mr. Normand, if you are still here, that although it will become a matter of a printed public record, it will go in "File 13." I'll guarantee you that.

(Applause)

Mr. Bill Smollin, from the YMBC, is another group before which Mr. LeMieux derided myself and the people of St. Tammany Parish.

Speaking of engineers, you heard Mr.



Herb O'Donnell say that he is a civil engineer and that "Red" Baehr, Mr. Baehr, rather, was one of his teachers at Tulane. You heard his objection. You heard him say that there are literally thousands of people who feel the same way that he does concerning the barrier phases of this project.

Just to let you know, Mr. Normand, that all of us are not kooks, as we are quite often referred to.

I want to commend Mr. Viosca, who stated that he was 78 years old. He mentioned the fact that it's nearly all gone now and that he would at least like to see some of it restored or at least what we have today retained. Let me assure you, Mr. Viosca, that this thing if it's built in its entirety, including the barriers, you'll see it all go.

Thank you very much, Colonel Heiberg, for allowing me, again, I want to reiterate that I certainly have -- I certainly have no hard feelings as far as you are concerned and the members of your staff. I know the duty that you



are charged with and I hope that you are in a position to appreciate the position that we are in. Thank you, sir.

(Applause)

COLONEL HEIBERG: Thank you, Mr. Scoggins. Are there any other people here that would like to make additional statements? I would like to make the microphone available to you if you would want to make a rebuttal or make further remarks at this time.

MR. HENRY G. CASSERLEIGH: Colonel, I would like to make a statement, if I may.

COLONEL HEIBERG: Mr. Casserleigh. State your name for the record, sir.

MR. HENRY G. CASSERLEIGH: Henry Casserleight. I'm retired from this organization now about fifteen years. And we have heard here a very eloquent discussion, pro and con. I think -- I think that Colonel Heiberg, if he was converted by any of the things that he heard in arguments against this thing, there's nothing this man can do to stop it. There's nothing. He is ordered by Congress to do the work and you



people that are here and the many that left earlier should get down and write the Louisiana Delegation in Washington. They are the ones only that can stop it. I thank you.

(Applause)

COLONEL HEIBERG: Thank you, sir. Any further statements?

(No response)

COLONEL HEIBERG: I'd like to acknowledge several things in closing this meeting; particularly those of the U.N.O. who made the facilities here available to us, Mr. Homer L. Hitt, the Chancellor; Louis J. Brendt, the Director of the University Center here; Ms. Darlene Berggren, the Services Coordinator for the University Center; and I would particularly like to acknowledge our stenographer, Josemary Diliberto, she's done a hard job today and I think you can all appreciate that; and Judy Zavala, here; and the members of my staff.

I would also like to thank Mr. Cresap and Mr. Baehr for helping me up here with the job at hand.



I do want to say that I want to thank each and every one of you for what, in a very heartening way, has been general courtesy toward everybody regardless of their views, who had to make their views and who wanted to make their views known. I think this has been a good example of this.

My staff is going to stay here, as they did at the break before, to answer any specific questions. We have the various specialists in the area to answer questions that you feel were brought up that were not answered in your minds.

It will be about two months before the record of this meeting will be ready, perhaps sooner. If you write to us at the District, we can make a copy of this available to you, personally, at the cost of publication.

I will review all of the inputs, not just those today and those that we've already received and I will not address my recommendation until thirty days to allow everybody who wants to, those here and those elsewhere, until the 24th of March to have their written inputs into the record



to my office. My recommendation will then be coordinated with the other interested federal agencies, prior to my making a recommendation.

Thank you very much. This meeting is now adjourned.

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...Whereupon, at 4:45 o'clock p.m. the public hearing conducted by the U. S. Army, Corps of Engineers, New Orleans District, regarding the Lake Pontchartrain and Vicinity, Louisiana, Hurricane Protection Project was concluded...

Josemary L. Diliberto,
Reporter

