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JEAN LAFITTE NATIONAL PARK

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HEARING

BEFORE THE

SUBCOMMITTEE ON PARKS AND RECREATION

OF THE

COMMITTEE ON

INTERIOR AND INSULAR AFFAIRS

UNITED STATES SENATE

NINETY-FOURTH CONGRESS

SECOND SESSION

ON

S. 3546

A BILL TO AUTHORIZE THE ESTABLISHMENT OF THE JEAN LAFITTE NATIONAL PARK IN THE STATE OF LOUISIANA, AND FOR OTHER PURPOSES

GRETNA, LA., DECEMBER 6, 1976



Printed for the use of the
Committee on Interior and Insular Affairs

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JEAN LAFITTE NATIONAL PARK

MONDAY, DECEMBER 6, 1976

U.S. SENATE,
SUBCOMMITTEE ON PARKS AND RECREATION,
OF THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Gretna, La.

The subcommittee met in the council chambers, Jefferson Parish Courthouse, Hon. J. Bennett Johnston presiding.

Present: Senators Johnston and Hansen.

Also present: James P. Beirne, counsel; Tony Benvenuto, of Senator Hansen's staff; and Gary Everhardt, Director, National Park Service.

OPENING STATEMENT OF HON. J. BENNETT JOHNSTON, A U.S. SENATOR FROM THE STATE OF LOUISIANA

Senator JOHNSTON. The meeting will come to order.

Good morning everyone. This is a meeting of the Senate Subcommittee on Parks and Recreation of the Interior and Insular Affairs Committee.

I hope all of you know I'm Bennett Johnston. I'd like to introduce you to other members of our panel up here today. First the distinguished Senator from Wyoming, Cliff Hansen. He's been one of the leading proponents of parks and recreation through the last decade, one of the great Senators in the U.S. Senate, despite the fact he's a Republican. Cliff, we're glad to have you.

Senator HANSEN. Thank you very much, Bennett.

Senator JOHNSTON. Next I'd like to introduce the very outstanding Director of the National Park Service, Gary Everhardt, who has worked on this, studied a great deal and is very enthusiastic about this proposition; Gary Everhardt.

Mr. EVERHARDT. Thank you, Mr. Chairman.

Senator JOHNSTON. Jim Beirne is counsel of majority on our subcommittee. Tony Benvenuto is from Senator Hansen's staff, and we have very good majority and minority relations.

You know, when they made a survey not too long ago of what foreign visitors looked for when they come to the United States, the indications were that foreign visitors were interested in seeing three cities in this country: New York, San Francisco, and New Orleans; and yet New Orleans, the Greater New Orleans metropolitan area, has nothing to interpret and to show to these foreign visitors in terms of our natural, cultural, and historic and environmental areas. As a matter of fact, outside of Chalmette, which is a very small national monument of about 146 acres, we had no national parks in the State of Louisiana. There are only three States that have no national parks.

One other State has one, and our neighbors proliferate with national parks, and yet this is the area of the country more than any other where people want to come and see.

We've got values here, historic values, cultural values, we've got ecosystems which are beyond parallel; here the Spanish, the French, the English, the Indians, that great pirate Jean Lafitte, all of these things are mixed here together in a potpourri that not only historians, not only people who are interested in culture, but people all over this world are interested in seeing. The Orleans-Jefferson area is particularly deficient in areas for parks. Not too long ago, we were asked by the leadership here in Jefferson to help out in securing Federal funds for the Lafreniere Park, and we found, to our amazement, at that time that there were no large recreational areas in the entire parish of Jefferson, that all of the recreation areas were very small; and we were able, based on that representation, to get a very large proportion of the discretionary funds from the Bureau of Outdoor Recreation. So, it's a very fitting and a very timely thing that we do here today, to try to set aside some area before it's lost to developers, before it's lost to the bulldozers and before we lose these very valuable cultural, historic, and environmental values.

This country has become more and more aware of recreation and historic values. In the last Congress, legislation which was sponsored by Senator Hansen and myself was passed, which increased the funding for recreation and historic preservation from \$300 million a year, over a period of time, to \$900 million a year, a tripling of this country's commitment to parks and recreation and historic values. So, this hearing, as I say, is a very timely one, at a time when this area needs to set aside it's own history and preserve it, its own cultural and environmental values and preserve those; at a time when the Nation is more environmentally conscious or conscious of recreation values. Now, this hearing today is designed not just to promote our ideas of what this park ought to be, it's designed to get the ideas of the total community, to determine what the boundaries of the park ought to be, to determine how it ought to be managed; indeed, whether it ought to be a park in the traditional sense at all or whether it ought to be a whole recreation, historic configuration with offices in the Vieux Carre, connections with Chalmette, connections with some of the historic areas. None of the questions have been definitely answered. In other words, such things as boundaries and how it's going to be managed, those questions have not been definitely answered yet, that's the purpose of this hearing, to get from you your ideas.

There are a lot of misconceptions about parks, about whether you create a national park or a cultural park or a recreation area, or whatever, then certain things automatically follow, like you can't fish or you can't hunt or you can't do this, you can't do that. That's not necessarily so. We can create the rules for this park as we wish, create the rules as are in the national—and in the interest of the people of this area. So, we want to hear from you, and before anyone gets upset about what you can and can't do, then give us your testimony, give us your story today, and we'll take that into consideration.

It will be remiss of me if I didn't pay special tribute to Congresswoman—person—Lindy Boggs who put in the bill last year in the 93d Congress and whose husband, Hale Boggs, began this whole study for Lafitte National Park. Lindy could not be here today, she's in Washington. They're electing the leadership in the majority today. She does have a statement which I would like to put in the record verbatim after Senator Hansen's statement. It goes without saying—she says that: "I do wish to go on record in favor of Senator Johnston's proposed bill."

It's no great surprise to everyone that she's behind the bill, because Lindy has been pushing for this for many, many years, and if it finally comes about, it will be because of the leadership which she began.

So, we've got a long day today, we've got an interesting day, we've got an excellent panel of witnesses. I'd like to caution our witnesses to try and stick to the point. We don't need a great deal of repetition. We do want all of the ideas that you have, and we will very carefully consider them. We have some witnesses who have just come in today seeking to be heard. We'll try to make every effort to accommodate you and give you a place on the program, it's just going to be a question of time. If we don't have time for those witnesses, we will consider written statements.

At this point I would like to insert in the record a copy of the bill S. 3546.

[The text of S. 3546 follows:]

94TH CONGRESS
2D SESSION

S. 3546

IN THE SENATE OF THE UNITED STATES

JUNE 10 (legislative day, JUNE 3), 1976

Mr. JOHNSTON introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To authorize the establishment of the Jean Lafitte National Park in the State of Louisiana, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Congress finds that the delta region of the coastal
4 area called Barataria of the State of Louisiana, where Jean
5 Lafitte and his men dwelled and contributed to the victory
6 in the battle of New Orleans and influenced the heritage
7 of the area; depicts a rare and unique combination of tra-
8 ditions, heritage, and cultures from European, African, and
9 native American sources; and contains unusual ecological,
10 environmental, and geographical phenomena wherein scenic,
11 recreational, scientific, and occupational resources are rapidly

1 eroding due to man-made changes; and that the dissipation
2 of these rare natural, human, and cultural resources will
3 be irretrievably lost to posterity; and accordingly, in order to
4 preserve and protect for public use and enjoyment, and for
5 the purpose of commemorating the unique cultural resources
6 which have shaped the history of Louisiana and the United
7 States, and to preserve and interpret for the benefit of the
8 American people the cultural and historical heritage and
9 recreational opportunities of the area, and the natural,
10 scenic, archeological, and other values of the lands and waters
11 of the delta area, the Secretary of the Interior (hereinafter
12 referred to as the "Secretary") shall establish the Jean
13 Lafitte National Park in Jefferson Parish, in the State of
14 Louisiana. The park shall include the lands, waters, and
15 interests therein based upon the National Park Service study
16 entitled "Suitability/Feasibility Study of Proposed Jean
17 Lafitte National Cultural Park, Louisiana" prepared in 1973
18 pursuant to authorization in the fiscal year 1973 Interior
19 Appropriations Act (Public Law 92-369 enacted Aug-
20 ust 10, 1972), and House Report Numbered 92-1119. The
21 Secretary shall, as soon as practicable, but not later than
22 eighteen months after the date of enactment of this Act, pub-
23 lish a map and a detailed description of the boundaries of
24 the park in the Federal Register. Such map and description
25 shall depict the particular areas within the boundaries that

1 the Secretary determines ought to be acquired and held in
2 public ownership for the critical purposes set forth herein.

3 SEC. 2. (a) In connection with his description of the
4 boundaries of the park pursuant to the first section of this
5 Act, the Secretary shall identify the areas within such bound-
6 aries which must be acquired and held in public ownership
7 for the following critical purposes: Preservation of beaches
8 and marshes and coastal uplands; protection of undeveloped
9 tributary streams and drainage basins; protection of existing
10 scenic roads and scenic waterways, preservation of historic
11 facilities and the traditions, cultures, and heritage within the
12 boundaries of the area; and connection of existing State and
13 local government parks and other publicly owned lands to
14 enhance their potential for public recreational use. The Sec-
15 retary may from time to time revise his identification of such
16 areas, and any such revisions shall become effective in the
17 same manner as herein provided for revisions in the bound-
18 aries of the park. The Secretary may revise the boundaries of
19 the park from time to time by publication in the Federal
20 Register: *Provided*, That such revision does not reduce or
21 expand the total acreage beyond the minimum and maximum
22 limits specified on the map establishing the park as afore-
23 said.

24 (b) It is the express intent of the Congress that the
25 Secretary shall substantially complete the acquisition of the

1 lands, improvements, waters, or interests therein identified
2 for the critical purposes referred to in subsection (a) within
3 five years after the date of enactment of this Act, and during
4 such five-year period funds appropriated for the acquisition
5 of property within the park may be used only for acquisition
6 of the lands, improvements, waters, and interests therein so
7 identified.

8 SEC. 3. (a) The Secretary is authorized to acquire by
9 donation, purchase with donated or appropriated funds,
10 transfer from any other Federal agency, or exchange: lands,
11 improvements, waters, or interests therein which are located
12 within the boundaries of the park: *Provided*, That any lands
13 or waters or improvements or interests therein owned by the
14 State of Louisiana or any political subdivision thereof may
15 be acquired only by donation. Notwithstanding any other
16 provisions of law, any federally owned lands within the park
17 shall, with the concurrence of the head of the administering
18 agency, be transferred to the administrative jurisdiction of
19 the Secretary for the purposes of this Act, without a transfer
20 of funds.

21 (b) With respect to improved properties, as defined in
22 this section, the Secretary may acquire scenic easements or
23 such other interests as, in his judgment, are necessary for the
24 purposes of the park. Fee title to such improved properties
25 shall not be acquired unless the Secretary finds that such

1 lands are being used, or are threatened with uses which are
2 detrimental to the purposes of the park, or unless such acqui-
3 sition is necessary to fulfill the purposes of this Act.

4 (c) When any tract of land is only partially within the
5 boundaries of the park, the Secretary may acquire all or any
6 portion of the lands outside of such boundaries in order to
7 minimize the payment of severance costs. Land so acquired
8 outside of the boundaries may be exchanged by the Secretary
9 for non-Federal lands within the boundaries; any portion of
10 the land so acquired outside the boundaries and not utilized
11 for exchange shall be reported to the General Services Ad-
12 ministration for disposal under the Federal Property and
13 Administrative Services Act of 1949, as amended: *Provided,*
14 That no disposal shall be for less than the fair market value
15 of the lands involved.

16 (d) For the purposes of this Act, the term "improved
17 property" means: (i) a detached single-family dwelling, the
18 construction of which was begun prior to January 1, 1976
19 (hereinafter referred to as "dwelling"), together with so
20 much of the land on which the dwelling is situated, the said
21 land being in the same ownership as the dwelling, as the
22 Secretary shall designate to be reasonably necessary for the
23 enjoyment of the dwelling for the sole purpose of noncom-
24 mercial residential use, together with any structures neces-
25 sary to the dwelling which are situated on the land so desig-

1 nated, or (ii) property developed for agricultural uses,
2 together with any structures accessory thereto which were
3 so used on or before January 1, 1975. In determining when
4 and to what extent a property is to be considered an "im-
5 proved property", the Secretary shall take into considera-
6 tion the manner of use of such buildings and lands prior to
7 January 1, 1975, and shall designate such lands as are rea-
8 sonably necessary for the continued enjoyment of the prop-
9 erty in the same manner and to the same extent as existed
10 prior to such date.

11 (e) The owner of an improved property, as defined in
12 this Act, on the date of its acquisition pursuant to this Act, as
13 a condition of such acquisition, may retain for himself or her-
14 self, his or her heirs and assigns, a right of use and occupancy
15 of the improved property for noncommercial residential or
16 agricultural purposes, as the case may be, for a definite term
17 of not more than twenty-five years, or, in lieu thereof, for
18 a term ending at the death of the owner or the death of the
19 owner's spouse, whichever is later. The owner shall elect the
20 term to be reserved. Unless the property is wholly or par-
21 tially donated, the Secretary shall pay to the owner the fair
22 market value of the property on the date of its acquisition,
23 less the fair market value of such right of use and occupancy
24 as may be retained by the owner on that date. Any right
25 retained by the owner pursuant to this section shall be sub-

1 ject to termination by the Secretary upon his determination
2 that it is being exercised in a manner inconsistent with the
3 purposes of this Act, and shall terminate by operation of law
4 upon notification by the Secretary to the holder of the right
5 of such determination and the tendering to such person of
6 an amount equal to the fair market value of that portion
7 which remains unexpired.

8 (f) In exercising his authority to acquire property under
9 this Act, the Secretary shall give prompt and careful consid-
10 eration to any offer made by an individual owning property
11 within the park to sell such property, if such individual noti-
12 fies the Secretary that the continued ownership of such prop-
13 erty is causing, or would result in undue hardship.

14 SEC. 4. (a) As soon as practicable, but not later than
15 one year after the date of enactment of this Act, the Secre-
16 tary, after notice has been duly published at least fifteen days
17 prior to the date thereof in at least one newspaper of general
18 circulation in New Orleans and Baton Rouge, Louisiana, shall
19 hold a public hearing on the proposed park boundaries. At
20 least thirty days prior to the date of such hearing, the Sec-
21 retary shall publish in the Federal Register a map and other
22 description of the proposed park.

23 (b) Commencing thirty days before the hearing referred
24 to in subsection (a), the map and description shall be on file
25 and available for public inspection in the offices of the Na-

1 tional Park Service, Department of the Interior, Washington,
2 District of Columbia, and in the offices of the General Serv-
3 ices Administration in the Federal Office Building in New
4 Orleans, Louisiana.

5 (c) No alterations or amendments to park boundaries
6 shall take effect until after a notice corresponding to those of
7 subsections (a) and (b) and public hearings and publication
8 of such alteration or amendment in the Federal Register.

9 (d) Within eighteen months after the date of the enact-
10 ment of this Act, the Secretary shall submit in writing to
11 the Committees on Interior and Insular Affairs and to the
12 Committees on Appropriations of the United States Congress
13 a detailed program which shall indicate:

14 (1) the lands and areas which he deems essential
15 to the protection and public enjoyment of the park,

16 (2) the lands which he has previously acquired by
17 purchase, donation, exchange, or transfer for the pur-
18 poses of the park; and

19 (3) the annual acquisition program (including the
20 levels of funding) which he recommends for the ensuing
21 five fiscal years.

22 (e) It is the express intent of the Congress that the
23 Secretary should substantially complete the land acquisition
24 program contemplated by this Act within five years after the
25 date of its enactment.

1 SEC. 5. (a) The Secretary shall establish the park by
2 publication of a notice to that effect in the Federal Register
3 at such time as he determines that lands, improvements,
4 waters, and interests therein have been acquired in an amount
5 sufficient to constitute an efficiently administerable unit for
6 the purposes of this Act. Pending such establishment, and
7 thereafter, the Secretary shall administer property acquired
8 for the purposes of this Act in accordance with the Act of
9 August 25, 1916 (39 Stat. 535), as amended and supple-
10 mented, and he may use such other statutory authorities
11 available to him for the conservation and management of
12 wildlife and natural resources as he deems appropriate to
13 carry out the purposes of this Act. In the management of the
14 park, the Secretary shall utilize the park area resources in a
15 manner which will preserve its scenic, natural, cultural,
16 historic, ecological and environmental setting while providing
17 for the recreational and educational needs of the visiting
18 public.

19 (b) The authority of the Secretary of the Army to
20 undertake or contribute to water resource development, in-
21 cluding erosion control and flood control, on lands or waters
22 within the park shall be exercised in accordance with plans
23 which are mutually acceptable to the Secretary and the
24 Secretary of the Army and which are consistent with both

1 the purposes of this Act and the purposes of existing statutes
2 dealing with water and related land resource development.

3 (c) Notwithstanding any other provision of law, the
4 Secretary is authorized to accept donations of funds, prop-
5 erty, or services from individuals, foundations, corporations,
6 or public entities for the purpose of land acquisition and
7 providing services and facilities within the park.

8 (d) The Secretary may, on his own initiative, or at the
9 request of any local or State government having jurisdiction
10 over land located within or adjacent to the park, assist and
11 consult with the appropriate officers and employees of such
12 government in establishing zoning laws or ordinances which
13 will assist in achieving the purposes of this Act. In provid-
14 ing assistance pursuant to this subsection, the Secretary shall
15 endeavor to obtain provisions in such zoning laws or ordi-
16 nances which—

17 (1) have the effect of limiting the noncompatible
18 commercial and industrial use of all real property ad-
19 jacent to the park;

20 (2) aid in preserving the character of the park by
21 appropriate restrictions on the use of real property in
22 the vicinity including, but not limited to, restrictions
23 upon: building and construction of all types; signs and
24 billboards; the burning of cover; significant modification
25 of natural habitat types; grading and removal of top-

1 soil, sand, or gravel; dumping storage, or piling of ref-
2 use; or any other use which would have the effect of
3 detracting from the esthetic character of the park; and

4 (3) have the effect of providing that the Secre-
5 tary shall receive notice of any hearing for the purpose
6 of granting a variance, and any variance granted under,
7 and of any exception made to, the application of such law
8 or ordinance.

9 SEC. 6. (a) There is hereby established the Jean Lafitte
10 National Park Commission (hereinafter referred to as the
11 "Commission"). The Commission shall terminate ten years
12 after the date of establishment of the park.

13 (b) The Commission shall be composed of fifteen mem-
14 bers appointed by the Secretary for terms of three years
15 each. Among its members, there shall be selected a member
16 from each of the following groups:

- 17 1. The National Park Service,
- 18 2. Local governments,
- 19 3. State government,
- 20 4. Local cultural interests,
- 21 5. Local or State historical interests,
- 22 6. Local environmental interests,
- 23 7. Scientific community,
- 24 8. Chamber of commerce,
- 25 9. Industrial groups,

1 10. Public at large,

2 11. Local community groups, and

3 12. Four members at large to be selected among
4 prominent persons and other groups who are concerned
5 with conservation and preservation activities in
6 Louisiana.

7 (c) Any vacancy in the Commission shall be filled in
8 the same manner in which the original appointment was
9 made.

10 (d) Members of the Commission shall serve without
11 compensation, as such, but the Secretary may pay, upon
12 vouchers signed by the Chairman, the expenses reasonably
13 incurred by the Commission and its members in carrying out
14 their responsibilities under this Act.

15 (e) The Secretary, or his designee, shall, from time to
16 time, but at least annually, meet and consult with the Com-
17 mission on general policies and specific matters related to
18 planning, administration, and development affecting the park.

19 (f) The Commission shall act and advise by affirmative
20 vote of a majority of the members thereof.

21 SEC. 7. (a) The Secretary, in cooperation with the
22 State of Louisiana and the affected political subdivisions
23 thereof, local and regional transportation agencies, relevant

1 advisory groups, and the Secretary of Transportation, shall
2 make a study for a coordinated public and private transpor-
3 tation system to and within the park.

4 (b) The Secretary shall inventory and evaluate all sites
5 and structures in the park having present and potential
6 archeological, historical, cultural, or scientific significance
7 and shall provide for appropriate programs for the preserva-
8 tion, restoration, interpretation, and utilization thereof.

9 SEC. 8. (a) Subject to the provisions of subsection (b)
10 of this section, there are authorized to be appropriated such
11 sums as may be necessary to carry out the provisions of this
12 Act.

13 (b) For the development of essential public facilities
14 within the park, there are authorized to be appropriated not
15 more than \$500,000. Within one year from the date of
16 establishment of the park pursuant to this Act, the Secre-
17 tary shall, after consulting with the Governor of the State of
18 Louisiana develop and transmit to the Committees on In-
19 terior and Insular Affairs of the United States Congress a
20 final master plan for the development of the park consistent
21 with the objectives of this Act, indicating:

22 (1) the facilities needed to accommodate the health,
23 safety, and recreation needs of the visiting public;

1 (2) the location and estimated costs of all facili-
2 ties, and

3 (3) the projected need for any additional facilities
4 within the area.

Senator JOHNSTON. I would like to call on the distinguished ranking Republican member of the subcommittee, Senator Hansen, for such comments as he might like to make.

STATEMENT OF HON. CLIFFORD P. HANSEN, A U.S. SENATOR FROM THE STATE OF WYOMING

Senator HANSEN. Thank you very much, Mr. Chairman.

Let me say to you great and good people of the State of Louisiana, I'm very privileged and proud to be here today. Bennett Johnston has distinguished himself as a Representative of this great State and as a Member of the U.S. Senate in the short period of time he's been in Washington. He's a most knowledgeable, effective and persuasive spokesman for your State. We have many ties to the State of Louisiana despite the fact that I come from a rather long ways away. We oftentimes think about, as we say in Wyoming, "being on the head of the creek," one of the tributaries of this mighty Mississippi comes from that northwestern part of Wyoming where I live and just across the Continental Divide from Jackson Hole; and we are tied also in the part of Wyoming that was part, indeed, of the Louisiana Purchase, as you all know. So, we share your interest in taking steps now.

I think it's particularly appropriate that we're celebrating the 200th anniversary of the United States to look back, to examine the rich heritage we have and to see in what ways we can preserve that, as Senator Johnston has pointed out. People in this country and people visiting this great Nation of ours are tremendously interested in this fascinating and highly active industrialized part of the United States. It's certainly appropriate that we should consider that, as he has already suggested, taking steps now that can preserve some of that heritage in order that those who shall follow us may be privileged to view firsthand some of the things that typified and characterized the early manifestations of man's activity in this wonderful part of the United States. I'm very pleased to be here and to be privileged to hear what you have to say, and I can assure you that though we may not know precisely the role that this area may fit in, all of the things that it may do, I'm certain that each of us must be entirely persuaded that it does indeed have a most important role to play.

Thank you very much, Senator Johnston.

Senator JOHNSTON. Thank you very much, Senator Hansen.

[The prepared statement of Congresswoman Boggs follows:]

STATEMENT OF HON. LINDY (MRS. HALE) BOGGS, (U.S. REPRESENTATIVE FROM THE STATE OF LOUISIANA

Although I cannot be present personally to express my support for legislation to create a Jean Lafitte National Cultural Park here in Louisiana, I do wish to go on record in favor of Senator Johnston's proposed bill.

As many of you probably know, my husband Hale introduced legislation some years ago "to authorize a study of the feasibility and desirability of establishing a unit of the National Park System to commemorate the unique values of the Barataria region of Louisiana, to be known as the Jean Lafitte National Cultural Park."

As a result of this legislation the Park Service undertook a study which considered the full range of possible conservation and recreational uses in the area. After this mammoth study was completed and recommendations were made, I introduced a skeleton bill, H.R. 10665, during the 93rd Congress which would

have authorized the establishment of the park. Unfortunately, however, the proposal was ultimately turned down by the Park Service.

Today local support for the Jean Lafitte National Cultural Park continues, with substantial state resources already committed to the project. I share the enthusiasm of the residents of the Second District and the entire metropolitan area for this park, and am most hopeful that the proposal by Senator Johnston will receive approval by the Congress and the Administration. Needless to say, I will be delighted to work for passage of the proposal in the House of Representatives.

Senator JOHNSTON. The week after he was elected and sworn in as president of Jefferson Parish, Doug Allen called me about the Lafitte Park. At that time I didn't have a proposal to introduce, I was only vaguely familiar with the proposal, and President Allen called and said, "Bennett, we have got to get a park in Lafitte. We've got to save that area before it's lost." And based on that call and that interest and that leadership which Doug and so many of you working with Doug have given, we introduced this bill. So, I think it's very fitting and appropriate that our first witness this morning be Doug Allen, president of Jefferson Parish. Doug.

STATEMENT OF DOUGLAS A. ALLEN, PRESIDENT, JEFFERSON PARISH, GRETNA, LA.

Mr. ALLEN. Thank you, Senator Johnston; Senator Hansen, Mr. Everhardt, members of the committee and ladies and gentlemen.

There's very little need for me to go into the many things I might could say to attempt to convince these members of this committee of the desirability and viability of this area as a site for a national park, they have already said that themselves. So, I'll pass onto a couple of things that I regard as possibly sacramental to the pressing requirement that we have to go into a national park system in this area at this time.

The first and foremost consideration that motivates me in my efforts to seek out and establish this park is the protection and the—am I not being heard? In any case, to bring some focus on my specific reasons for attempting to bring this magnificent venture to a fruition is the fact that we enjoy in Louisiana one of the most outstanding estuarine systems in the world. Today our estuarine system provides some of the finest seafood and some of the natural breeding habitat for the best seafood in the world; it's the gourmet's delight, but tomorrow it may be a very vital factor in the production of food for many people in the whole world, not only the State of Louisiana and the United States, but our food production system is a renewable natural resource, that's as opposed to the depleting resources that we also enjoy in this area such as oil and gas. Those resources are being depleted. Our renewable resources, especially in the area of food production, food chain, are extremely important and delicately balanced; and this park and the regulation and conduct of such a national facility here would do a great deal to preserve, not only for us during our time, but for the world, and in perpetuity the food chain production system that our estuaries provide. This is a magnificent estuary, and all of the parts that are proposed to be included in this park contribute some way to it.

Of course, the cultural and recreation and other considerations of a national park are very vital and very important. I simply regard the protection of that estuarine system to be paramount. You'll see a great deal more about that today probably in other presentations, but it cannot, in my opinion, be underestimated. Further than that, we have here in Louisiana, you might say, the other end of the geologic spectrum, from Wyoming to the great national parks in the West like Yellowstone, Yosemite, and the Grand Canyon and those areas. Variety in the recreational system might be said to be the spice of it's life, and in addition to that, it is critical and important for people all over this Nation to be able to look upon and understand the type of geologic area that we enjoy in Louisiana. It will enhance their lives and the quality of their lives all over the country as it has ours, to be able to come here and enjoy with us our folk and fact lore and to see and understand the geologic features that we enjoy in our estuarian system.

One other point I would like to make for those of you who are here who may have some specific question with regard to land that has been proposed to be included or any other question, the public hearing which we're enjoying today is a magnificent part of our democratic system. It's provided for you so that your input, your ideas, may be heard and evaluated and cranked into the democratic process, that's what we're here for today. If you have, and I encourage you to do so, if you have any questions, please ask them. If you have any concern about your land being included in this project and what price you may expect to be recompensated for it, all of those things are germane and appropriate to this proceeding today; and before I close, it's important for me to thank every one of you for coming here today to participate in this process, and I especially want to thank Senator Johnston and Senator Hansen and the other members of the committee who have taken their time to come here and who are working diligently to produce the kind of results that make the hopes and dreams that go into a park like this a reality. Senator Johnston has been more than helpful. He's been diligent and wise in his efforts to help Jefferson Parish, and I cannot thank him enough on behalf of the parish. So, thank you, gentlemen, for coming; and I have a prepared statement which I will distribute, and I appreciate your coming.

Senator JOHNSTON. The prepared statement will be put in the record.

Mr. ALLEN. Thank you.

Senator JOHNSTON. I thank you very much, Doug.

I want to emphasize what President Allen said, and that is we're not here to impose from Washington some kind of regime on the Park System or on the land of Jefferson Parish that the people here don't want. The idea behind getting the Federal resources and Federal expertise into this arena is that we can bring from the Federal Government, first of all, money, and second, expertise, with people like Gary Everhardt of the National Park Service, that I think will add to and enhance the enjoyment of this area. So, we're here to get your ideas of how you think this whole thing ought to be put together, and if anything goes wrong, blame Doug Allen.

Senator Hansen, do you have any questions?

Senator HANSEN. I have no questions.
[The prepared statement of Mr. Allen follows:]

STATEMENT OF DOUGLAS A. ALLEN, PRESIDENT, JEFFERSON PARISH, GRETNA, LA.

As Parish President, I would like to express my thanks to our Congressional delegation for its efforts toward the establishment of the Jean Lafitte National Park. I would also like to express my appreciation for the opportunity to participate in this hearing and to provide an endorsement to the 95th Congress for inclusion of this park area into the National Park System.

In my opinion one of the most colorful periods of Louisiana's history, indeed, of our country's history was during the time Jean Lafitte roamed the maze of bayous, marshes and lakes that presently form the southern extremity of Jefferson Parish. Today, much of the area of the Parish where Lafitte traveled remains relatively unchanged since the marshes and swamps were first formed. It is this natural setting which affords the United States Congress an opportunity to provide unlimited benefits to present and future generations of the Parish of Jefferson, the State of Louisiana and the United States by the establishment of a National Park.

The provision of a National Park would not only serve the recreational needs of this metropolitan area and the entire State of Louisiana, but it would also serve to preserve the natural integrity of the area. The potential does exist in the Jean Lafitte Park to provide valuable recreational and cultural opportunities for nearby residents as well as to residents throughout the State and Country.

It is for these reasons that I reiterate my support for Senate Bill 3546 which has as its purpose the preservation of our historic values and resources by placing them under the expert management of the National Park Service in the form of the Jean Lafitte National Park.

Senator JOHNSTON. Our next witness will be the outstanding district attorney in Jefferson Parish, my good friend John Mamoulides.

I have just been handed a note that says the TV people are setting up two mikes, one at the podium, the other with you. Thank you. Please ask all witnesses to address the committee from the podium. If you want to be heard on TV, then be sure you're at the podium.

**STATEMENT OF JOHN MAMOULIDES, DISTRICT ATTORNEY,
JEFFERSON PARISH, GRETNA, LA.**

Mr. MAMOULIDES. First of all, welcome, gentlemen. It's a great privilege for Jefferson to have representatives of the Federal Government of this caliber to come down and talk to us about something that is generally for our benefit.

I, too, am very much interested in this park and in favor of the concept of the park. I'm very pleased that you have decided to come and have this public hearing because the citizens of Jefferson Parish, as well as the citizens of the entire United States, will have the benefit of this park in whatever concept it is ultimately decided it should be placed; however, I feel very strongly that because of the fact that you have come down to Jefferson to have testimony and to take testimony of the people in the area that you would use this testimony and give to it the weight that it needs depending on the individual persons and their interests. I feel very strongly that the people who live in the area where the park is to be placed should have the most weight given to their testimony. These are people who have grown up in this area, people who are aware of the needs of the area and people who also love the area. They have made their living fishing and hunting, and living

in and with the environment, and although they may not have degrees as many of our environmentalists have, they are by far more qualified to tell you how the park should be designed and what its concept should be.

With that, I close and say that I, too, am for this park and I appreciate the fact that you've come down to listen to these people and to give us the opportunity to have a national park. Thank you so much.

Senator JOHNSTON. Thank you very much, John. You can be assured that we will give special weight to those who live in the area, Mayor Leo Kerner and the fishermen and all of those down there. I think that's a very good point and we'll take it to heart.

Mr. MAMOULIDES. Thank you.

Senator JOHNSTON. Our next witness will be Hon. John A. Alario, Jr., State representative.

John, we're glad to have you.

STATEMENT OF HON. JOHN A. ALARIO, JR., STATE REPRESENTATIVE, DISTRICT 83, LOUISIANA HOUSE OF REPRESENTATIVES

Representative ALARIO. Thank you, Senator.

Mr. Chairman, Senator Hansen, Mr. Everhardt, members of the committee, let me first of all welcome you to Jefferson Parish and to our great State and thank you for your interest in developing a national park in the Greater New Orleans area.

Since 1966 the State legislature has recognized the need for such a park in this same region that you are now studying. In that same year, steps were taken to establish a State park in the Barataria region, and since that time we have done exhaustive studies. To say we have progressed like a herd of turtles would probably be more accurate.

The history of the Jean Lafitte National and/or State park will show that the project has been on again, off again. There isn't much more to show for these 10 years of study and working on this project than a simple sign designating the proposed area.

The latest hope for developing the area into a State park is included in a \$113 million general obligation bond issue authorized by the legislature in 1975, of which we've set aside \$6.6 million for land acquisition.

That may sound great, but our State constitution provides that the legislature shall set priorities for the sale of bonds authorized. In 1976, the legislature set a third priority for all bonds dealing with State parks. Some \$300 million worth of bonds are in priorities one and two, just to give you some idea where these particular bonds stand. Our State treasurer's office informs me it is only feasible for us to sell somewhere in the neighborhood of \$200 million worth of bonds annually in order that we may, the State may receive a more favorable bond market. So, you can see from these figures that we are a long way off from establishing a State park in this particular area, even though all of the studies that you're going to hear from and all of the testimony that you're going to hear from today show a great need for this park.

Because of the lack of adequate facilities in this vast metropolitan area, and a bleak outlook for State funds, I sincerely hope your com-

mittee and the U. S. Congress can be successful in establishing and funding the Jean Lafitte National Park.

Again, thank you for your interest.

Senator JOHNSTON. Thank you very much, Representative Alario.

What you're saying is, as I understand it, that even though bonds are authorized, as a practical matter, you're not going to be able to get that \$6 million from the State any time in the foreseeable future?

Representative ALARIO. Senator, with the priorities looking us in the face, I would think we may be looking at 4 or 5 years down the line before we can bring this priority three up the line, and that's taking into consideration if we don't have any other catastrophies or any other means that have to set those priorities. To give you some example: We refinanced our Dome Stadium bonds this past year, and after doing that we were facing a blue note of some \$80 million or \$90 million. Our State prison system was a shambles and we needed to do something about that.

Senator JOHNSTON. Now, under the law, does the law say that you cannot float bonds for priority three until all of priorities one and two are taken care of?

Representative ALARIO. That's correct, sir.

Senator JOHNSTON. The law says that?

Representative ALARIO. Our State constitution provides that.

Senator JOHNSTON. I see.

Senator Hansen?

Senator HANSEN. I have no questions.

Senator JOHNSTON. Thank you very much, John.

Our next witness will be the Honorable Sam A. LeBlanc, State representative. Sam.

STATEMENT OF HON. SAM A. LeBLANC III, STATE REPRESENTATIVE, DISTRICT 86, LOUISIANA HOUSE OF REPRESENTATIVES

Representative LeBLANC. Thank you, Senator Johnston and thank you, Senator Hansen. It's nice to have you here.

I wanted not to take too much of your time, gentlemen, but I would like to get a little bit specific. I've gone through the feasibility study on the Jean Lafitte Park, and I would like to direct your attention specifically to recommendation alternative No. 4.

Senator Hansen, in speaking to you, I pick you out only because you're a Senator from Wyoming and may not be completely familiar with the uniqueness of our State and its heritage. We not only have the obvious things which make this State unique like buildings, whether they be the St. Louis Cathedral, the oldest Catholic cathedral in the United States or plantation homes or the French Quarter, the Garden District and so forth, but we have other things that make us unique. Our topography; you'll read in another part of that feasibility report the fact that the estuary area that President Allen was talking about is unique to all of the United States for the scientific reasons put in there. Besides that, we have uniqueness in the form of our culture and our heritage. We are not just Frenchmen here or just Spaniards or just Negro. We are a land and a State of many cultures which are interwoven. For that reason, I think that I would like to make both personally and, hopefully, with others who come to this

microphone today, a recommendation that that nuclear extended type facility be followed by this committee as its recommendations with regard to ultimate funding.

We would like to say that this is a new concept, and particularly from Wyoming as you are, or if you were from the area where we have some of our other national parks, you might say that this is a different concept. It is a different concept. This would not be a concept of just having a national park as we have, for instance, the Yosemite National Park, which is basically, I think, one that involves the topography of the land and the land areas. What I'm suggesting, or rather what I am recommending and what the studies suggest is that because we are unique here and because we have a unique culture that we would like, and it's imperative, that we have a national cultural type park which would preserve and protect, not only things like our physical environment, which in some cases can be replaced, but our cultural heritage, which once gone, is gone forever. I reviewed the other alternatives, and quite frankly I don't think that the three others come close, even, to alternative four. Obviously we could never go along with a no park alternative, and I think the feasibility study itself rather shuns that. The second is that we have simply a State park. I think once again this feasibility report points out the shortcomings of this.

I would like to briefly digress to say this: We have in Louisiana, we have done things on our own to protect our cultural heritage. We have things like the Jazz and Heritage Foundation which tries to get that unique heritage preserved. We have a Codifal organization which tries to preserve the French language in our schools and in our villages and towns around this State. So, quite frankly, this is just too big for us. Our heritage is just bigger than our resources; and for that reason we must ask and do ask that the Federal Government come in, through you, and through the Senate and remaining Members of Congress and try and help us with a national park, and in particular national cultural park. So, that is my recommendation. Hopefully, I speak for most of the people in my district and most of the people in the State.

Thank you very much for coming, and I hope you've had a good time here, and I certainly hope that you will partake just a little bit, if you have time, to try and see our culture and how it works. You probably can't stay around for Mardi Gras, but you might sweep down to the French Quarter and see what it looks like down there. People do come to Louisiana for things other than going to the French Quarter and having a few drinks, and what we would like to do, we would like to provide them with a complete opportunity to see our history and our heritage, which is after all theirs, too.

Thank you very much.

Senator JOHNSTON. Thank you very much, Representative LeBlanc. [The prepared statement of Representative LeBlanc follows:]

STATEMENT OF HON. SAM A. LEBLANC III, STATE REPRESENTATIVE,
DISTRICT 86, LOUISIANA HOUSE OF REPRESENTATIVES

Thank you Senator Johnston, for this opportunity to speak on behalf of a Jean Lafitte National Cultural Park today. I say "National Cultural" Park because I am strongly committed to this particular concept which is designated as

recommended Alternative Four in the Federal feasibility study completed pursuant to Public Law 92-369 of August 10, 1972, and House Report 92-1119.

This alternative would establish a broader range concept for the park. The major land area would then include not only the 7,000 acre Lafitte marsh area, but would also include satellite areas including the French Quarter, the existing Chalmette National Park, and an associated non-National Park. Services administered cultural resources, a Jean Lafitte National Cultural Park Board, would group resources to be included such as the French Quarter, Garden District, forts in the Delta region, plantations, Acadian towns, and even cultural events such as Mardi Gras and *couchon du lait*.

Louisiana, and in particular the areas around the proposed Jean Lafitte Park are unique. Its history as a community goes beyond most other states. To name but a few categories of things Louisiana has to single it out: our architectural heritage—St. Louis Cathedral, plantations, the French Quarter, and the Garden District to suggest only a few; our topography—estuary and marsh lands which as the feasibility report points out, are unlike any others in America; our cultural background—a polyglot of ethnic groups—French, Spanish, African, Asian—to go on would require a history course!

We can only preserve and protect this unique environment by the concept of a "Cultural Park" which encompasses not only land but heritage. While the concept is different, it is certainly appropriate for our area. While some places in our country may call for a land park, the Jean Lafitte area obviously is most fitted for a Cultural Park.

I also request that action be taken on this recommendation as soon as possible. Our physical environment can sometimes be replaced if we are lucky, but once our heritage is lost, it is gone forever.

The feasibility report makes three other recommendations on a Jean Lafitte Park, which I believe to be unsatisfactory. Alternative One—No Park—in effect says let the environment and heritage go down the drain—hardly a responsible position. Alternatives two and three, a limited state park and a three unit federal park do not have the scope and breadth to preserve our land and culture. I would like to point out with reference to these two alternatives that Louisiana has done and is doing things to help. We are trying to protect our culture. We have some state parks, Jazz and Heritage Foundations, a Codofil Program (to preserve the French language), and many many other programs. But our heritage here in Louisiana is bigger than our resources to protect it. Therefore, I submit that the Jean Lafitte National Cultural Park, as recommended by Alternative Four in the feasibility report is our only hope, our only salvation. I hope this subcommittee and ultimately the U.S. Congress will implement this alternative through legislation and funding.

Senator JOHNSTON. For the benefit of those who don't have a copy of this report, I would like to include it in the record as an exhibit. [See appendix I, p. 159.]

Alternative four is a concept whereby this park in Lafitte would be tied into a visitor's center probably in the French Quarter. It would be tied together with forks in the delta region, Chalmette, with historic homes, with plantations, maybe even with Acadian towns and villages, maybe in the St. Martinville area, so, it would be a whole complex of recreation, historic, cultural features in the area tied together with the Lafitte Park and the Lafitte area as the centerpiece. I personally favor that kind of concept, Sam and I think it's one we have to perfect; but I think it has the answer to that request of all these foreign visitors and tourists from around the country and, indeed, from our own State who want to come to the New Orleans area and get a total picture of the culture and history and environment of this area. Right now when they come here they can't.

I mean, if you fly in from Chicago or Wyoming where you're deep in the snow and you want to see an estuarine area, how do you do it? Well, you rent a car and where do you drive? You don't drive out in the swamp; and if you want to see all of these other cultural and historic areas and you have to do it on your own and you've got to

know a central place for an interpretation of those areas. It's very hard to do. You have to put together your tours and your information piece by piece and bit by bit, and it's beyond the capability of most tourists, particularly when the lure of the French Quarter and the other things are so close. So, I think that is the direction we ought to go in, in that general direction of alternative four, Sam, and I appreciate very much your bringing that up.

Senator Hansen, would you like to respond to that?

Senator HANSEN. Well, I just might observe that I've been in this great area a number of times. More than 20 years ago, I believe, I made my first trip down here. We brought down, what had been up to that point, a very victorious football team when we played LSU in the Sugar Bowl, and we had a great first half and the second half things didn't go so well, and as I was telling Senator Johnston earlier, just about the last minute, as I recall, we started making some pretty good progress. We had gotten within about the 5- or 10-yard line, I think, just that far away from another score when we ran out of time. Later on in the Jung Hotel, one of the Wyoming cowboys was saying with some regret if we had another minute we would have won the game. The bartender kept pouring the "antifreeze," as we call it in Wyoming, he said if we had had another year we would have won the Civil War.

I think you make the point very well that there is much to see, and I can assure you that we have not seen nearly the major part of it yet, but it's been a fascinating experience for me every time we have had a chance to come down here.

Thank you very much for your testimony.

Senator JOHNSTON. Gary Everhardt, Director of the National Park Service, I wish you would respond to that. While you're at it, Gary, I wish you would introduce Ira Whitlock and all the other experts we have here today.

Mr. EVERHARDT. Certainly.

Thank you, Mr. Chairman.

STATEMENT OF HON. GARY E. EVERHARDT, DIRECTOR, NATIONAL PARK SERVICE, DEPARTMENT OF THE INTERIOR

Mr. EVERHARDT. It's certainly a great pleasure for us to come down and join in these field hearings and hear the expressions of the people. Yesterday I had the opportunity with some of you to visit some of the marshland and see it firsthand. I think that this recommendation that has been put forth, which is alternative four, is certainly one that does bring together under an umbrella of Federal presence here, a vast amount of resources, cultural, historical, traditional, and natural that exist in this part of the country; something that is very important.

Our history is becoming more and more important to us each and everyday, and we certainly are proud to be here to have this opportunity to listen to you. We don't have any recommendations of these alternatives to make at this time. I think that that will be a part of the further processes as this study, this report, as it is may be further refined and presented to the Secretary's Advisory Board for recommendation to this committee.

I would like to introduce at this time some of our people that are here today, Dr. Richard Curry, who is the chief counsel for our Legislative Division. Richard. Along with him, Ira Whitlock from our legislative support staff; Eldon Ryar, one of the park planners and key men for the Southwest region of the country; Wayne Cohen from our Southeast regional office in Santa Fe, N. Mex., that heads up our professional services support unit there and has been involved as on the ground heading up the study team here, and Bonnie Campbell and Jim Jones, two park planners who have worked on this project from the Denver Service Center. I would also like to introduce Joe France, who is a member of the Secretary's Advisory Board, a board that has been set up to review park proposals, to review landmark designations, historic sites, and who, after review, do recommend to the Secretary what appropriate action they see is appropriate for park designation.

Thank you, Mr. Chairman.

Senator JOHNSTON. Thank you very much, Gary.

I might point out that there is a precedent for this kind of concept, this alternative four. In the Boston area recently they created, I forget the name of it, the Boston Cultural Park or—

Mr. EVERHARDT. The Boston National Historical Park.

Senator JOHNSTON. The Boston National Historical Park, and they have drawn together there with this visitor's center concept all of the historic monuments and cultural attractions in the Boston area. I think such a concept could be used with even greater success here in the Jefferson-Orleans Parish area.

Our next witness will be Hon. J. Chris Ullo, State representative. Chris.

Is Chris here?

[No response.]

Senator JOHNSTON. Well, if he comes in later, we'll put him in at a later part of the program, otherwise we'll put his statement in.

[The following telegram from Mr. Ullo was received by the subcommittee:]

DISTRICT 84, STATE OF LOUISIANA,
Marrero, La., December 6, 1976.

HON. J. BENNETT JOHNSTON,
U.S. Senator:

Chairman and distinguished members of Subcommittee on Parks and Recreation, due to circumstances beyond my control I am unable to attend scheduled hearing on Senate bill 3546. However, I would like to go on record as being in full support of this legislation to preserve for future generations the unique cultural and natural heritage of the Bayou area south of New Orleans.

J. CHRIS ULLO, *State Representative.*

Senator JOHNSTON. We're very pleased to have two members of the Jefferson Parish Council here with us today to speak on this park. The first is Hon. Lloyd Giardina, a West Bank councilman-at-large. Lloyd.

STATEMENT OF HON. LLOYD F. GIARDINA, COUNCILMAN-AT-LARGE, JEFFERSON PARISH

Councilman GIARDINA. Senator Johnston, Senator Hansen, members of the committee, my name is Lloyd Giardina, councilman and local

representative of the local governing authority whose district includes the proposed park area. I have a prepared statement relating to why we should have a park and why I'm in favor of the park. I would like to make some comments relative to the fact that since I've taken office 7 months ago we have constantly, as an official, been involved in a controversy between the land developers and the preservationists relative to preserving our natural resources. The area that the park represents is one of those areas that is torn between those who want to claim the depletable resources that we are blessed with in the area and also the people who want to preserve the renewable resources, those resources such as tourism, the natural estuary system that prevails in the park area, and it has been constant controversy relative to these two sources that pull against one another, mineral extraction, land development and all, it's been a constant hassle as a local official to separate these forces.

Of course, I'm in favor of preserving the historical, natural, cultural site and elements that this site offers, and would like to go on record as being in favor of the park concept. I hope that the National Government—it seems to me too massive an undertaking for local government and State government to preserve an area of this nature, and we hope that you gentlemen would find ways that we can preserve these areas and maintain our cultural and historical sites, and I appreciate that.

Senator JOHNSTON. Thank you very much, Lloyd. Let me ask you this: You point out the great pressure for development?

Councilman GIARDINA. Yes.

Senator JOHNSTON. Is there immediate pressure for development in the area within the boundaries of the park at this time?

Councilman GIARDINA. Yes; there is, Senator.

Senator JOHNSTON. One of the issues we're going to have to face in creating the park is the delay we have experienced elsewhere in acquisition if we await funding on a year-by-year basis. One possibility would be to have what we call a legislative taking, which means that from the time the legislation is enacted title to that land automatically passes to the Federal Government with the value of the land to be fixed later either by negotiation or by court action. We don't usually go on what we call the legislative taking, except on those cases where there is tremendous and imminent pressure for development. You're saying we ought to go on the legislative taking route?

Councilman GIARDINA. I would think that that would be the best route. You know, I would hate to deprive landowners of their right to use their land, you know, that's the impression that the landowners or the people who own land in the vicinity take. Now that all governing authorities, local, Federal, and State have deprived them of their rights to use their land that they own as they see fit, and I think that the—what did you call it?

Senator JOHNSTON. Legislative taking.

Councilman GIARDINA. The legislative taking would be the best remedy in this area, because there is a real serious amount of pressure for development in the area. Like I say, it's one of those areas and—the Senator from Wyoming, I'm sure—and I read weekly in the paper and periodicals about constant controversy in even governmental

projects, you know, there are dams that generate controversy of this nature, and whenever you have the coastal areas, there's always controversy between the landowners and the Government and the preservationists; and this particular area, I think, generates more of that controversy than there is at any other place in the country because it lends itself to development, and because of the vast amount of depletable resources that we have in the area, that is the taking of oil and gas and minerals and—it has created a population boom, so to speak, in the area that we live in, and that population boom has generated the interest in land development; and this area does lend itself to development as we know it in this area. And that's why I think the legislative taking of the area would be the right avenue to follow in acquiring the property.

Senator JOHNSTON. Thank you very much, Lloyd, for an outstanding presentation.

Senator Hansen.

Senator HANSEN. I was just curious, without knowing any of the details, and I'm certain that the specifics have not yet been worked out, would the area, in your judgment, that should be included and might require early on action represent a significant percentage of the taxable base of the whole parish, or is that—

Councilman GIARDINA. No; I don't think so, Senator. Basically it's vacant land now. There are a lot of wet lands or low areas in the particular site that should be preserved. Our whole history of development in this area—the city of New Orleans is below sea level, for instance, and there are pressures to levee the area and pump and drain them. Those things have to be done before. They have not been put on the tax rolls at significant amounts that would affect the revenue for the local governing authority to continue their daily business. I think that would be very insignificant, the amount of properties that it would take out of the tax—the taxable property that would be taken off of the rolls now, but, you know, it would affect future development, but I think we can get around that.

Senator HANSEN. Thank you, sir.

Councilman GIARDINA. Thank you, Senator.

Senator JOHNSTON. Thank you very much, Lloyd.

Councilman GIARDINA. I have a statement; you want to take it?

Senator JOHNSTON. Yes; the statement will be put in the record. [The prepared statement of Councilman Giardina follows:]

STATEMENT OF HON. LLOYD F. GIARDINA, COUNCILMAN-AT-LARGE,
JEFFERSON PARISH

The Jean Lafitte Park contains the natural, cultural, historical, and recreational resources to merit designation as a National Park, and I support Senate Bill 3546 which will insure its preservation for generations to come.

The land is most famous because it was traveled by Jean Lafitte and his privateers who were so important to the Battle of New Orleans, and it possesses lasting characteristics which today make it a viable cultural and tourist attraction. It stands on the site of established historical significance, it has natural resources existing in a suitable marsh area, and it contains a wealth of European and American cultural contributions.

Jefferson Parish has long needed a recreational site with the acreage of the proposed Park. Many of our residents spend their leisure-time hunting, fishing, boating and camping, and they are proud of Louisiana's claim as "Sportsman's

Paradise." The Jean Lafitte National Park would provide many opportunities for citizens of Jefferson and southern Louisiana to use its extensive natural marshes and bayous for outdoor recreation which is not available in more densely populated areas.

In addition, the area will provide a natural educational environment with its archaeological sites. Recent surveys indicate that the land was inhabited thousands of years ago and contains important artifacts from both the Indian and Lafitte eras. Undoubtedly the Park would become a focal point for further investigation of its resources and cultures.

The purpose of the Jean Lafitte National Park will be to demonstrate the unique blend of the region's cultures and to preserve and perpetuate the significant historical and natural environments. I enthusiastically support this purpose and I appreciate the consideration that will be given to this proposal by your committee.

Senator JOHNSTON. Our next witness will be the Honorable James E. Lawson, West Bank councilman from Jefferson Parish. Jimmy, we're glad to have you.

**STATEMENT OF HON. JAMES E. LAWSON, JR., COUNCILMAN,
JEFFERSON PARISH**

Councilman LAWSON. Chairman Johnston and Senator Hansen, members of the committee: I certainly appreciate the time that you've put forward to come down here and listen to the people here today.

I have several things I would like to say. I do have a prepared statement. First of all, let me say that as councilman from Jefferson Parish, the proposed Jean Lafitte Park site is within my councilmatic district. As you know, I'm a recently elected councilman from Jefferson, and I believe that my stand in favor of the park helped to put me in this position. I think the people of Jefferson want this park and the people need a park in this area, particularly one that this area would propose.

Let me read to you my statement and then maybe if we have a question or two I would be more than happy to answer them—

The establishment of Jean Lafitte National Park is extremely important to the residents of Jefferson Parish and the entire portion of southern Louisiana. As the author of the resolution which put Jefferson Parish on record in favor of the designation of Jean Lafitte Park as a national park, I am pleased to appear in support of Senate bill 3546, introduced by Senator J. Bennett Johnston, and request a favorable recommendation by the Subcommittee on Parks and Recreation of the Committee on Interior and Insular Affairs.

Jefferson is the fastest growing parish in Louisiana, and it's vacant area is quickly becoming developed to accommodate the increasing number of residents. As this development occurs, land is becoming scarce and precautions must be taken in the near future to preserve for our children the natural beauty of recreational sites such as that of the Jean Lafitte Park.

The area of the proposed national park meets, in my opinion, the necessary criteria for designation by the Congress of the United States. It possesses national significance with both diversified natural resources and historical landmarks, and it is truly representative of the southern part of Louisiana and the Mississippi Delta region.

As the Mississippi River changed its course through centuries, it left vast areas of rich, alluvial soil and a network of abandoned levee ridges which comprise most of the natural high ground of south Louisiana. Man has occupied the Lafitte area for thousands of years. Early prehistoric Indians took advantage of the wealth of natural foods and maintained an extensive civilization from 500 B.C. Trapping, hunting, and fishing have been characteristic ways of life from Indian time to the present, but they are being threatened now by the intrusion of salt water through man-made canals in the ecosystem.

And this is another area that concerns me and the people of district 2 in Jefferson Parish. As you know, we are experiencing tremendous erosion problems throughout the southern section of Jefferson Parish.

Vegetative types include lowland hardwood forests, Tupelo gum swamps, and fresh water marsh communities.

The most significant historical period is the time during which the privateer Jean Lafitte roamed the marshes and abyous of the land that today bear his name. His most noteworthy achievement was his assistance to General Andrew Jackson during the famous Battle of New Orleans after which he and his men were given official recognition by the U.S. Government.

Today, life in the area of the park is simple and if it is allowed to maintain it's natural integrity, it will provide a truly beautiful setting for the thousands, and possibly millions of citizens who will travel to southern Louisiana. The continuing influences of Spanish, French, and English heritage, along with our famous Creole and Cajun cultures, provide a lifestyle that is representative of the people of Jefferson Parish and the Mississippi Delta.

In reviewing the provisions of Senate bill 3546, I am convinced that the protections offered with the designation of Jean Lafitte as a national park will insure the preservation of the traditions, cultures, and heritage within the boundaries of the area.

Your consideration is most important and is appreciated.

Thank you, gentlemen, for allowing me to come here today and address this honorable committee, and I certainly hope we will see a national park here in Jefferson, particularly one of such value to Jeffersonians and to the people of south Louisiana.

Senator JOHNSTON. Thank you very much, Jimmy, for an excellent statement and also for your leadership in this park. I'm familiar with the work that you've done, you and Loyd, both, and we appreciate it very much.

Councilman LAWSON. Thank you.

Senator JOHNSTON. Senator Hansen, do you have any questions?

Senator HANSEN. No questions, Mr. Chairman.

Senator JOHNSTON. I would like to introduce next a man who is not on the witness list, but I would like for him to be recognized, my good friend and outstanding leader in this State, Senator Elwyn Nicholson. Elwyn.

Where is Elwyn? He was here a second ago. Please tell Elwyn he was recognized.

Next we have the man in whose specific area the park will be located, and I'll be very glad to hear from Hon. Leo Kerner, mayor of Lafitte, the city of Lafitte.

[No response.]

Senator JOHNSTON. Well, I'm sure he'll be here before the day is out, because I know of his interest.

Next, we would like to hear from the Honorable Gilbert C. "Whitey" Lagasse, who has recently been elevated to the post of Secretary of the Louisiana Department of Commerce and Industry, but who more recently has been director of the Louisiana Park Commission, a man of great ability and who has done a great deal in this area. I'm glad to see Whitey get promoted, but we sure hate to lose you in the parks area, Whitey, because you've done a fabulous job. Glad to hear from Whitey Lagasse.

STATEMENT OF GILBERT C. LAGASSE, SECRETARY, LOUISIANA
DEPARTMENT OF COMMERCE AND INDUSTRY

Mr. LAGASSE. Thank you, Senator; of course, Senator Johnston, Senator Hansen, Mr. Everhardt, and legal counsel. We have submitted a detailed chronological report on the activities of the hoped-for location of a recreational facility in the Jean Lafitte area. [See appendix II, p. —.] I don't think that it would take you too long in reviewing through this detailed report that one of the problems has been the inability to attack this project in its entirety and all at one time. What I'm trying to say is that the piecemeal, the piecemeal approach, always a lack of sufficient funds, primarily, has resulted in this long period of time since back, I think, in 1964 when efforts were first initiated to try to develop some kind of a recreational facility in that area.

Senator JOHNSTON. Let me interrupt you at that point, if I may, Whitey.

You concur in the judgment that selling bonds in this category 3 is far, far down the road, 5 or 6 years at a minimum?

Mr. LAGASSE. Yes, unfortunately, yes; and faced with the other priorities of government, as Representative Alario so ably stated, the priorities of other types of expenditures have received a lower priority or a higher priority, however you want to look at it, than the development of the park program. Actually, the State parks and recreation commission got involved in this project primarily because of the tremendous local interest as well as looking at the entire State park master plan and the tremendous population density in this particular area, and the lack of recreational facilities of any kind; that is, State or Federal. So, I guess you can say that we at the State level got into the project on an emergency basis. We actually did go back in and amend the State park master plan, which originally did not include a State facility in this area, based on the assumption that the National Park Service was already involved and had already done some extensive study, and unfortunately some 2 weeks prior to the legislature opening, at which time our bill was to be considered, had decided to drop the project. So, we hurriedly made some moves to include it within the State park master plan. I think beyond any doubt there's justification for some kind of recreational facility in this area. As I've said, probably the big problem has been the piecemeal approach over the years and, of course, even with inclusion in the State park master plan, it seems that we are still stymied from making the project a reality.

There are several things that I should perhaps comment on, one of which has already been alluded to, and that is because of this uncertainty over the years, I believe that we have really worked a hardship on those people who have private investment in the area. I suppose every week they're faced with different critical decisions of things that are being planned, things that are about to happen and, of course, because of this it is very difficult for them to make any kinds of plans for the utilization of their properties which are privately owned. At one time, there was actually a moratorium declared in the area on the property. So, that is one of the bad things that has come

out of this elongated period of time in trying to determine if, in fact, there was going to be a park there, and if, in fact, the Feds were going to do it or was the State going to do it or was anybody going to do it—

Senator JOHNSTON. Let me interrupt you at that point, Whitey.

We have received some calls from some landowners in the area who are most anxious that the Federal efforts don't slow down the State efforts because they either want to develop their property or they want to sell it. They want to do something with it.

Mr. LAGASSE. Right.

Senator JOHNSTON. And they're afraid that our effort is going to slow down the situation. Now, does the State have any plans which you could go ahead and follow through on to protect these property owners, because we don't want to see them strung out for a long period of time without being able to use their property?

Mr. LAGASSE. Well, of course, we have identified some 7,300 acres of property that we visualize as a viable recreation-oriented State park. Not only the fact that we have plans to develop a park in the area—and the properties within this delineated area are not the only properties affected—but all of the other development that may take place adjacent to or in the general vicinity of the park; however, at the same time, I would like to point out, as I have over the years, I would like to try to point out the fact that the development of these properties by private developers would still have the same problems with the environmental aspects of this area if there were no park in the first place. It's not the park versus the private development. I think it's really the ecology or the ecosystems that's involved here that will affect everything.

They're saying it will affect the development of the park, and the type of developments that will take place and all of the ramifications of whatever is built there, whether it be a park or whether it be a shopping center or a subdivision or whatever. So, I think that the environment is something that will have to be dealt with. I certainly think that as a park there would be less density, of course, and more likely a feasible situation to the preservation of the ecosystem. And, of course, that's a very important aspect of this entire development and in this area. So, just to summarize then and sit down, I think that justification is there for some form of recreational facility. I think that as soon as we can identify just exactly what we're going to do and proceed to acquire and develop a facility, that it will be better for all concerned. And I compliment you, Senator Johnston, I know it's because of your influence and your interest that this hearing is being held today, and I compliment you; and I thank Senator Hansen for taking the time to be with us.

If you have any other questions, I would be glad to try to answer them.

Senator JOHNSTON. Thank you very much, Whitey.

You heard Representative LeBlanc speak about alternative 4, the concept of tying this together with a visitor's center and the other historic and cultural advantages in the area. Do you favor that concept?

Mr. LAGASSE. I favor that concept, Senator, based on the uniqueness of the area; and Bob LeBlanc is here from the Tourist Commission, and I'm sure he will have something to say about it. Certainly you look at the development of a park of this type as an addition to the family-oriented type activities that tourists as well as our own people are interesting in visiting, so I think it's compatible with that, yes, sir.

Senator JOHNSTON. Do you have any advice for us on some of the issues we're going to have to face? Your planning may not be this far along, but some of the issues we're going to have to face is whether we continue hunting, mineral exploration, dredging, under what conditions we have fishing, what restrictions on any of those activities, what type of facilities should be provided in terms of visitor centers, parking lots, access roads, boat ramps, picnic areas, in the core area, in it's satellite areas, such as a plantation or a fort or otherwise and in the core area that we want to provide facilities for cultural programs for interpretation; are you far enough along in your planning or is that sort of a second step after we decide?

Mr. LAGASSE. No; I think we can probably, at the State level, as a State facility, could answer some of those questions. Certainly developing a recreation oriented park you would not want to allow hunting because of the danger, of course, of visitors versus those people who might be there hunting. Some of the wildlife management areas of the Wild Life and Fisheries, of course, are oriented toward the hunting and otherwise. There would be no objection, of course, to fishing. Some of the other things that you've mentioned, of course, would be contingent upon, I think, the impact of dredging and so forth, would be contingent upon the impact of that to the environment. So far as our concept of the park, that is on the State level again, that we're thinking in terms of a recreationally oriented State facility, overnight camping, boat ramps, access to the water, fishing, trails, perhaps cabins, overnight cabins; access to it, of course, will be a big thing. Perhaps some additional access roads will have to be developed. Again, that gets involved with some of the environmental restrictions, the Lafitte-Larose Highway; but we look at it as a unique, one of a kind, type of facility in the State of Louisiana that will be unlike any other that we have within our plans.

I think that there may be some alternatives. You have run the gamut from no park to a national park, and then somewhere in between come up with combinations of all kinds, perhaps acquisition and development by the Federal dollar and perhaps operational by the State; or your green line concept would be another alternative or option; or if nothing better, wait and go through the period of financing it with State bonds, which, as I say, is something that is unpredictable, but it's still many years away, I think.

Senator JOHNSTON. Thank you very much, Mr. Lagasse.

Senator Hansen, do you have any questions?

Senator HANSEN. Mr. Chairman and Mr. Lagasse, one of the questions that I'm certain will be asked repeatedly by our colleagues in the Congress is what national significance does this proposal have. Now, I appreciate that you have detailed a lot of reasons in your statement; but would you just like to summarize for us the sort of answers that you think we might best employ in responding to that query?

Mr. LAGASSE. You could have asked someone more knowledgeable about that.

Senator HANSEN. I doubt that.

Mr. LAGASSE. However, I think that it's really been said, Senator, the historic significance of Jean Lafitte the pirate; there are some Indian mounds, I understand, within the configuration that we're talking about that certainly bear on the historical significance, and I think the proximity of this facility to the metropolitan area of New Orleans, the fact that typing it in with other significant things, the boat trips, for instance, from the foot of Canal Street. I understand there are thousands and thousands of tourists that pass this area in the present day and, of course, I can visualize the visitors coming to this area by boat and getting off and viewing and enjoying the interpretative aspects of this facility and getting back on the boat and continuing on. Certainly you could tie it in by water and by land, for that matter, with other facilities that are either existing or proposed in the general area.

Senator HANSEN. Thank you very much.

Senator JOHNSTON. Thank you very much, Whitey.

[The prepared statement of Mr. Lagasse follows:]

STATEMENT OF GILBERT C. LAGASSE, SECRETARY, LOUISIANA DEPARTMENT OF
COMMERCE AND INDUSTRY

Senator Johnston, members on the Subcommittee on Parks and Recreation of the Committee on Interior and Insular Affairs, State Parks and Recreation Commission is grateful for the privilege of submitting to this subcommittee a statement relative to their position as it involves Senate Bill 3546, for the establishment of the Jean Lafitte National Park. Our agency has a definite interest and responsibility in the planning and development of a significant park in the Barataria region of Jefferson Parish. In order to more fully understand the position and involvement of the State Parks and Recreation Commission, we will attempt to present through this statement an abbreviated chronology of significant events which are responsible for our current position in this matter.

The agency's first involvement in the Lafitte project came late in 1964 when the Chairman of the West Jefferson Civic Association submitted a resolution affirming the interest of that organization in preserving the historical significance and developing recreation interest in an area identified as Grand Coquille in an area generally identified as the intersection of Bayou Coquille and Bayou des Familles near Barataria Boulevard in Jefferson Parish. Mr. Frank Ehret was identified as the Chairman of the Confederations Committee for Grand Coquille. Mr. Ehert, therefore, became the principal contact of our agency in the early stages of development.

The Jefferson Parish legislative delegation, by virtue of their interest in this matter, was successful in passing Act 100 of the regular session of the 1966 Louisiana Legislature, responsible for the establishment and creation of Lafitte State Park, vesting this authorization in the State Parks and Recreation Commission. This act, however, did not provide funds for the acquisition of land or development necessary for the proposed park; rather, the intention was to obtain the necessary land by donation, transfer or lease.

The original site proposal contained something less than 1,000 acres. The State Parks and Recreation Commission's design staff, after careful evaluation and consideration of needs as well as resources of the area, prepared a master plan consisting of approximately 3,000 acres. This occurred in early October 1967.

The Jefferson Parish legislative delegation and other individuals keenly interested in the development of the Jean Lafitte State Park reviewed and authorized tentative acceptance of the State Park proposal on October 5, 1967.

After rather extensive negotiation with the land owners involved in the proposed project site, it became apparent that, even utilizing the concept of a combination lease/donation, these properties were considered by the owners

far too valuable to be made available on a gratis basis. A report prepared in December 1967 by the State Parks staff indicated that if the properties involved were to be leased for even a nominal fee over a twenty-five year period, then approximately \$900,000 would be required to initiate such lease agreements. A combination lease/purchase agreement with the same property owners would be slightly less costly requiring an amount of approximately \$700,000. This information was presented to the Jefferson Parish legislative delegation in hope that funds could be appropriated in sufficient amount to properly acquire tenure to the necessary property.

The State Parks and Recreation Commission was subject to rather severe public criticism during mid 1968, much of which was directed toward its inability to acquire and proceed with the development of the proposed park. In truth, however, until this point no legislative appropriation of any type had been made available for the proposed park. The Department of Public Works had allocated from its regular apportionment \$20,000 to be utilized for lease payments provided the agency was in a position to execute such leases. This amount obviously was far less than the amount necessary to effectively negotiate any long-term successful lease agreement.

The agency's staff, assisted to a large degree by Mr. Frank Ehret, Chairman of the Jean Lafitte State Park Committee, prepared a variety of lease/donation and acquisition agreements and presented these to the various property owners. Only one such agreement was ultimately executed, and that between the agency and Louisiana Land and Exploration Company. This lease was subject to a revocation clause which became effective December 1974.

It was determined early in the process of land negotiations that the most important area, and key to the entire project, was that portion of land adjacent to Barataria Boulevard owned at that time by Canal Assets. This also was the only land within the entire proposed park area which would lend itself to park structures and other permanent facilities, since the remaining portions consisted entirely of marsh and swamp land. Without this portion the park would have little, if any, historical significance since this is the area of the much publicized "Lafitte Oaks" and the area generally identified as the location for Lafitte's bartering activities. This also would be the area necessary for developing the land based, and more intensely utilized facilities. Due to these conditions, it was determined that attempts should be geared to obtaining this important segment of land; otherwise, Jean Lafitte State Park would have little historic significance and even less potential for recreation use.

Representatives of Canal Assets, Incorporated, offered to lease the fifty acres adjacent to Barataria Boulevard for \$450 per year, per acre or a total of \$562,500 for a twenty-five year period. Had such an arrangement been feasible, the agency did not have, at that time, sufficient funds appropriated to enter into the necessary agreements.

In December 1969 we were advised that Canal Assets had effected a merger and that Southdowns, Incorporated, had assumed responsibility for the property previously owned by Canal Assets. Further complicating the process, we received official notification from the Vice President of Southdowns, Incorporated, that neither it or its predecessor had any commitments either verbal or otherwise with the State Parks and Recreation Commission which would be held in force after December 5, 1969. In effect, the lengthy negotiations with Canal Assets, which at that time seemed promising, were effectively canceled and the State Parks and Recreation Commission found itself in a position of dealing with an entirely new corporation for these vital holdings.

By early 1970 it was evident that negotiations with Southdowns at the agency level could not accomplish favorable results. At that time a request was made to Governor John McKeithen in hope that top level negotiations between the Governor of the State and the President of Southdowns, Incorporated, might prove more successful than previous efforts. A meeting was arranged by the Governor between the director of the State Parks and Recreation Commission and the president of Southdowns, Incorporated, at the company's Houston, Texas, office.

After the meeting of March 5, 1971, it was felt that negotiations with Southdowns, Incorporated, were producing very little toward the realization of Jean Lafitte State Park. As a result Mr. Frank Ehret, one of the initial and chief citizen proponents of the state park, suggested the possibility of pursuing the efforts on a national basis, perhaps as a National Recreation Area or National Park.

This idea of a national area apparently gained momentum at the local level. In April 1971 the State Parks and Recreation Commission met with officials of the Jefferson Parish Park and Parkway Division. That agency was very interested in pursuing efforts to gain national recognition of the area as a potential National Park or National Recreation Area. In view of this interest in the national approach and because of the frustrating inability to obtain the necessary funds to implement the State Park proposal and because the interest, scope and potential of the area after considerable involvement appeared to be a site very worthy of national consideration, the State Parks and Recreation Commission decided to voluntarily reduce their pursuit of a state park to avoid all possibility of jurisdictional conflict and instead endorse the concept of a National Park Area.

Shortly thereafter in September 1972, Congressman Hale Boggs and other members of the Louisiana congressional delegation were instrumental in obtaining a federal appropriation in the amount of \$40,000 to conduct a feasibility study for the Lafitte National Cultural Park. Approximately 20,000 acres were included in the study site located on the west bank of Jefferson Parish.

The National Park Service, using a study team approach, examined the area rather extensively, and on December 6, 1973, made a preliminary report to the Jefferson Parish Council revealing a proposed 7,736 acre Jean Lafitte National Cultural Park in the area generally around the Crown Point area. Spokesmen for the National Park Service at that time stated that the findings of the study committee were only an initial step in the ultimate development of a National Cultural Park, but the implications were that they were an important first indication of the feasibility and desirability for the National Cultural Area.

Paralleling this same time period, the State Parks and Recreation Commission had received authorization and an appropriation from the state legislature to conduct an indepth evaluation of the State Parks system and, subsequent to such evaluation, present a proposal for improving the conditions, quantity and quality of these facilities. This study, conducted by Gulf South Research Institute in Baton Rouge, was completed in early 1974. The study titled "State Park Master Plan 1975-1990" presented a very systematic approach to implement a fifteen year capital outlay program, the purpose of which was to improve the existing state parks, acquire and develop new state parks, historical sites and state preservation areas. A main objective of the State Park Master Plan was to clearly identify state responsibility in order that duplication of effort at both the local and national levels, insofar as recreation development, was eliminated. With the preliminary report by the National Park Service indicating the feasibility of the Lafitte Cultural Area and the possibility that this area would be developed and maintained by the National Park Service, the Lafitte State Park was intentionally excluded from the State Park Plan. The State Parks and Recreation Commission approved the State Park Master Plan in March 1974 and authorized the staff to prepare the necessary legislation to present the program to the regular 1974 Louisiana Legislature for authorization and appropriation.

The plan identified both the areas to be improved, acquired and developed as well as an estimate of cost associated with these improvements and acquisitions. The cost estimate for implementation was \$98.6 million over a fifteen year period. It was further recommended that this cost be appropriated through authorization of general obligation bonds of the state. Legislative strategists advised the Commission that in order to expect passage of such a proposal it was essential that the integrity of the bill be maintained in the original form and that special interest projects and excessive supplemental costs not be added through the legislative amendment process.

Within several weeks of the beginning of the spring legislative session in 1974, the National Park Service rather abruptly declared the proposed Lafitte Cultural Area as "not suitable". The implication of this, of course, was that there would be no additional efforts for the development of a National Park facility in this area.

The Jefferson Parish legislative delegation felt an obligation to revert back to the concept of a state park as an alternative to the National Park. In this connection an amendment was added to the State Parks bill authorizing an additional \$3,000,000 for the Lafitte Park provided, however, a feasibility study to be conducted by the State Parks and Recreation Commission proved the area feasible and consistent with their standards for state park development under the new State Parks program.

A legislative concurrent resolution of the same time period "authorized and directed the Louisiana State Parks and Recreation Commission to conduct a feasibility study and master plan of development for the Jean Lafitte State Park." The resolution mandated that the feasibility report was to be prepared and submitted to the Joint Legislative Committee on Natural Resources by April 1, 1975. James F. Fondren and Associates, a New Orleans based landscape architectural firm, was commissioned to prepare the feasibility study and master plan.

After extensive research and evaluation, a report was issued to the Commission which delineated four alternate approaches to acquisition and development of the Lafitte State Park. Alternate one and two, comprising 1,300 acres and 4,150 acres respectively, were both recommended as not feasible. A third alternate consisting of approximately 5,600 acres was recommended as feasible as was a fourth alternate which included 7,300 acres at an estimated acquisition cost of \$6,580,000. Alternate number four was also recommended by the consultant as the most desirable configuration. The feasibility study, after adoption by the State Parks and Recreation Commission was presented to the Joint Legislative Committee on Natural Resources in May 1975. That committee accepted the report and findings of the consultant and endorsed the selection of alternate number four as the most desirable for the proposed state park.

The 1975 Louisiana Legislature amended its 1974 action of Act 657 authorizing \$98.6 million and reauthorized through Act 298 of 1975 \$113,515,000 in general obligation bonds. Included in this amount was \$6.6 million authorized for the acquisition of land for the Lafitte State Park. Even with this legislative authorization, the competition for general obligation bond sales by all units of state government were such that only a small amount of the bonds approved have been authorized. This occurred in January 1976 and, at that time, authorization of \$234,300 was made for Lafitte State Park to initiate activities toward the implementation of state park development.

The 1975 Legislature authorized the acceptance of a substantial property donation from Charity Hospital pending clarification of litigation currently involved in this site. This property, in the past, accounts for the location of the proposed park since it is situated in the center of the proposed site and constitutes 1,000 acres of possible donated lands.

State bond funds, plus a nominal amount of funds accumulating from a dedicated revenue source, account for approximately \$450,000 of funds immediately available for the acquisition of the proposed site. The balance of the \$6.6 million authorized by the legislature will not be available until additional bonds are authorized and sold by the State Bond Commission. It is unknown at this time when such action can be expected. This presents problems in that only partial acquisitions are now possible, and some owners are skeptical of selling portions of their holdings, especially highway frontage property, without assurances that additional funds for the acquisition of the balance of the properties can be forthcoming. Negotiations are currently in progress; however, it is doubtful that significant acquisitions can be made without additional funding.

James F. Fondren and Associates are well into the process of developing a master plan for the proposed state park. This plan follows the program and scope of facilities normally associated with standards for state park development. Crucial to the implementation of these plans is the acquisition of the land included in the plan and funds for the development of the facilities and site improvements specified.

In addition to the problem of negotiating without the availability of sufficient funds, other considerations have played a vital part in the progress of the state park.

Environmental restrictions must be dealt with, especially as they relate to future residential or other development of the area, including the proposed park facilities. The Corps of Engineers has jurisdiction in the area, and as a result of a negative response to the environmental impact statement by the Louisiana State Parks and Recreation Commission, the Governor's Planning Office, the U.S. Fish and Wildlife Service, and various environmental groups and individuals, they have denied, so far, a permit to Bayou des Families Development Corporation to develop a residential community just north of the proposed park site.

Flood protection is vital to those already living in the general area, and it is essential to establish a levee system somewhere in proximity to the proposed

park site. The State Parks and Recreation Commission is in total agreement with the concept that flood protection is required for area residents. Discussions are continuing with Jefferson Parish officials, the Corps of Engineers and others to determine the most feasible location of this levee and the technical considerations to providing flood protection and, at the same time, not adversely effecting the watershed or other elements so as to destroy or seriously alter the important ecological units and estuarine system of the area.

While we apologize for this lengthy dissertation, we hope that through presentation of this chronological sequence of events and activities, we will impress the Subcommittee on Parks and Recreation with, first, the interest and perseverance by the public, the elected officials, and the state agencies involved in the project, and, secondly, we wish to express very clearly the current position of the State Parks and Recreation Commission. The Commission has a mandate obligation and a definite responsibility to see that a significant segment of the Barataria region on the west bank of Jefferson Parish is in some way acquired, properly developed and, at the same time, preserved in perpetuity as an outstanding example of a unique ecological system, a rich historical area, and a potential resource for providing outdoor recreation opportunities and experiences for not only local and regional residents but to the thousands of tourists who visit annually the New Orleans Metropolitan Area of the state.

It is therefore the position of the State Parks and Recreation Commission at this time that, in order to perpetuate whatever momentum for the development of a major park in the Lafitte area not be delayed, the Commission shall continue its efforts to acquire those lands which have been identified as crucial to such park development. While the Commission in no way intends to duplicate in any manner the efforts of the National Park Service to develop a national area, it will pledge to collaborate its efforts to make available to the National Park Service any information and/or real properties which may be legally transferred and which may be useful to the eventual establishment of a national park area.

If the Lafitte National Park concept gains favorable approval by the Congress, the State Parks and Recreation Commission would, with proper legislative and legal sanction, abandon the State Park concept in favor of a national area which could serve both a broader segment of use and provide an important supplement to the plans for outdoor recreation development in the state.

We appreciate very much the opportunity to submit this statement, and we further endorse and commend Senator J. Bennett Johnston for his efforts in in sponsoring House Bill 3546 for the establishment of Jean Lafitte National Park.

Senator JOHNSTON. We are very pleased and honored to have Gov. Edwin Edwards here with us this morning. It was under his leadership and during his administration that the State of Louisiana has undertaken the largest commitment to parks and recreation of any administration in the past, and I know he's interested in this proposal. Governor, we're very happy to welcome you here today.

STATEMENT OF HON. EDWIN EDWARDS, GOVERNOR OF LOUISIANA

Governor EDWARDS. Good morning, Senator Johnston. Welcome back to Louisiana; and Senator Hansen, welcome. Lorraine said to give those Senators visiting her regards and I do so. I'm glad to see you, sir.

I, simply, would like to file a formal statement into the record, and in the interest of time will merely pinpoint some of the salient aspects of it to avoid taking up too much of your time. I want to compliment Senator Johnston on this effort. I think it's a good one, and certainly is one that deserves the support of all citizens of Louisiana and of the Nation.

There's every reason to believe that this area is the area that should be considered first for this type of national park from a standpoint of

history as well as the ecosystem there. We believe that it's very important to the economic and conservational value of this area that the proposal now under consideration to establish this park be considered as both a recreational area and one for leisure benefits. This bay system, we believe, is one of the most important estuarine systems of the State and perhaps the entire gulf coast; and that's very important to the wildlife and fisheries of our area. We believe that the park seems a feasible solution to buffer the pressures that have been placed upon this area by rapid commercial and residential development, since the park can be a highly beneficial economic stimulant and, more important, could provide the necessary buffer to properly protect the productive ecosystem from progressive deterioration.

The need, of course, of the existing and future residents of the area for hurricane and flood protection cannot be denied and must be recognized, but I believe that the efforts that we are making to protect them from floods and hurricanes are compatible with the concept of the park, since the proper attention to methods used in the establishment of the park, the natural flow and nourishment of the water system within the area could be saved except in periods of impending hurricanes or storm tides.

This State has long recognized the historical and economic value of establishing a park in this area, and we are underway now toward establishing a park of a smaller magnitude than that proposed by Senator Johnston's efforts with \$6.6 million of State authorized funds to acquire approximately 7,000 acres of land. Whether or not this committee and the Congress would like to proceed along on the establishment of a national park devoid of any State participation or whether you would like us to participate with you on some kind of a cooperative basis is really immaterial to us. We would be pleased to cooperate or just turn it over to you and allow you to establish a park under the national guidelines for the establishment of a national park area.

I would like to close on a note and say that within 30 miles of this area, by 1980 one-third of the residents of Louisiana will be living, and approximately 3 to 5 million people a year visit this area as tourists, having a healthy stimulus to the economy. Many people visiting Louisiana, especially the southern part of it are amazed that the whole area is not marsh, because that seems to be the picture that's in their minds around the rest of the Nation. Actually there are very few areas that people can easily get to an area where they can look at a typical marsh area. We are developing that in the Atchafalaya Basin swamp on a State level, but right here within this close proximity to this great metropolitan and cultural center which is visited by so many tourists from around the world every year, we now have an opportunity to establish a park area that would make it possible for vistors to easily have access to a marsh area and to see exactly what it looks like, consistent with, as I said before, our desires to protect the existing and future residents from hurricane and flood protection.

I would like to close by simply saying that I certainly support your efforts, Senator Johnston, and that of this committee. I hope that your efforts will bear fruit and sometime before many years, and I recognize, of course, that congressional action is always slow in coming,

it requires great study and much preparation and a great deal of time, but certainly this is a proper step in the right direction; and as Governor of Louisiana, I assure you that we support the efforts and would be pleased to cooperate with you and to lend you whatever assistance we can to make this a reality as early as possible.

Senator JOHNSTON. Thank you very much, Governor. We appreciate the leadership your administration has given in this area, particularly in this particular park.

As I told Whitey Lagasse, that we were sorry to lose him in parks and recreation. We think it's appropriate for him to be promoted, but we're sorry to get him out of this area because he did a hell of a good job.

What we have in mind and what seems to be emerging from this hearing today, I think it was first mentioned by Sam LeBlanc and Whitey endorsed it, is this idea of a sort of a whole complex of recreation, cultural, historic features grouped together under one, I think we called it historic park or—what did we call it?

Mr. EVERHARDT. It could be called a historic park.

Senator JOHNSTON. A historic park. They have one in Boston. The idea would be just generally, the idea that seems to be emerging, is to have a visitor's center maybe down in the French Quarter, a large enough building where you can collect the tourists, they can get off the plane and check into the French Quarter hotel and walk over to the visitor's center, there have a full interpretation of ecosystems where it's explained to them and the culture and history of the area; and then from that point they can take buses, for example, over to the Lafitte Park. They could take buses provided either by private enterprise or cooperation with the Park Service to Chalmette or to the plantations or to any of the other cultural and historic features in the area. So that all of those 3 to 5 million tourists that you spoke of would have a package presented to them when they come to the New Orleans area. We think the centerpiece of that historic and cultural and environmental package would be this Lafitte Park, the actual estuarine area down there. I think it could be a tremendous thing in terms of tourism as well as education for people in the area.

Do you share that feeling for the concept? In other words, do you think we ought to have it as a whole complex of historic and cultural environmental areas brought together under this visitor's center?

Governor EDWARDS. Well, I would, of course, be inclined to be for anything that Representative LeBlanc proposes concurred by Whitey Lagasse, especially in this area, but I think you're exactly right. I think that concept is one that should be looked at, studied and implemented. I think it clearly focuses on the three great areas that we're all concerned with, tourism, the preservation of areas in their historical environment so that future generations will have an opportunity to see how it was. You know, there's evidence that as far as 500 years before the birth of Christ there were people living in this area, rich historical and cultural values which we should preserve in the area as much as possible in the condition that it was in at the time this country became a Nation; and I would certainly concur in that concept.

Senator JOHNSTON. Thank you very much, Governor.

Senator Hansen.

Senator HANSEN. I have no questions, Mr. Chairman. Let me express my appreciation to you, Governor, for a very excellent statement and to ask also that you might convey my best wishes to your wife, my former colleague, for whom I have great respect.

Governor EDWARDS. Thank you very much.

Senator JOHNSTON. Thank you very much, Governor.

Governor EDWARDS. Bennett, if this thing succeeds, if there is anything that we can do on the State level to help, just let us know.

Senator JOHNSTON. Well, we appreciate that and you've been very helpful, the people in your departments, your parks department, and Whitey through the months when we've been preparing for this has been very helpful. We'll be in close cooperation. Thank you very much.

Governor EDWARDS. Just don't name it Tongsun Park

[The prepared statement of Governor Edwards follows:]

STATEMENT OF HON. EDWIN EDWARDS, GOVERNOR OF LOUISIANA

Senator Johnston, members of the Congressional Subcommittee on Parks and Recreation of the Committee on Interior and Insular Affairs, distinguished representatives of the National Park Service.

It is a privilege for me to express my interest in and support for your efforts to establish a major National Park area in Louisiana.

Certainly this state, with its unique and varied ecological systems, its rich historical significance, and the profound interest of its citizens in the out-of-doors, has far too long been neglected as the candidate for a significant National Park. The task of reviewing the many potential areas within the state which might lend themselves to such a designation has no doubt been substantial. The choice of the Lafitte area, however, is obvious.

The history of this area is laced with excitement and adventure, the most colorful period being that time during which Jean Lafitte roamed the marshes and bayous. Lafitte was commonly referred to as a pirate. In truth, however, he was a privateer who held a letter of marque, or license, from Cartagena granting him the legal right to prey on Spanish ships.

Lafitte's main bounty was slaves, much demanded in the south but legally banned from import. Thus the maze of bayous, marshes and lakes between Grand Terre Island and Bayou Coquille provided an ideal corridor to New Orleans for the smuggling activities.

Lafitte held his own contraband sales in the Lafitte area, and historically one of the sites is at the junction of Bayou Coquille and Bayou des Familles. This site, where giant live oaks tower over the highway, can now be viewed as one of the most scenic spots on Highway 45.

Even before Lafitte, man had inhabited the area since its earliest periods of geologic stability. Evidence of an extensive prehistoric civilization dating back to 500 B.C. is present at the site. Existing shell middens and earth mounds contain evidence of this ancient life style.

The history itself would justify a major park development. In addition to this, however, the natural quality of the marsh and swamp is indicative of the ecology of much of south Louisiana.

Those visiting the state for the first time are often surprised not to find a majority of the State to be swamp and marsh land, as is so often the impression. In truth, much of this character is not easily accessible to the average tourist. A park, as proposed, including a substantial marsh and swamp ecology within close proximity to the state's population center, would provide a major portion of the state's residents, as well as out-of-state visitors, an opportunity to easily view, firsthand, a "typical" Louisiana marsh inherent with all the indigenous wildlife, plant material, and other natural features properly protected and interpreted.

It is very important to consider the economic and conservational value of such a proposal as well as the recreational and leisure benefits. The Barataria Bay estuarine system is considered by recognized authorities as being the most important estuarine system in the state and perhaps the entire Gulf Coast, from the

standpoint of fish and wildlife productivity. This area, which remained unchanged and highly productive for hundreds of years, is now undergoing significant influences and rapid changes due to the pressures of residential and commercial development. A park area seems a feasible solution to buffer such pressures, since the park can be a highly beneficial economic stimulant and, importantly, could provide the necessary buffer to properly protect the productive ecological system from progressive deterioration.

The need of the existing residents of the area for adequate flood protection must be recognized. These efforts, however, can be compatible with the concept of a park, particularly with proper attention to methods which would allow the natural flow and nourishment of the water system within the area except during those periods of impending hurricane or storm tides.

The state has officially recognized the potential and need for a park development in the area since the adoption of Act 100 in 1966 which acknowledged the need for Jean Lafitte State Park. The majority of elected officials as well as the parish governing authority have encouraged and worked toward this end for many years. The State Parks and Recreation Commission has an existing program supported by a feasibility report and bond authorization of \$6.6 million to acquire approximately 7,000 acres of land.

The recreational need is clearly established in the State Comprehensive Outdoor Recreation Plan which considers this area of population concentration one of the highest priority areas in the state for outdoor recreation facility need. By 1980 about one-third of the state's population will be located in this region. It should be noted that for the year 1975, a total of 2,563,000 tourists visited the area in and around the City of New Orleans. These tourists boosted the economy by approximately \$666,385,000.

All of these factors clearly indicate the need for serious consideration and positive action by the Congress and the President toward the approval and proper funding for Lafitte National Park.

It is a remarkable opportunity to interpret in one location a series of exciting historical events and one of the most valuable and unique estuarine and natural areas in the nation, and all within fifteen miles of the greatest tourist attraction in the South—the City of New Orleans.

What location could possibly provide a greater potential for the development of an outstanding National Park area?

Senator JOHNSTON. Next we're happy to welcome Mr. Bob LaBlanc, who's executive director of the Louisiana Tourist Development Commission. Bob, we're glad to have you.

Bob, before you begin I would like to acknowledge that the following officials have submitted written statements but could not be here because of other duties: Dave Treen, of course, is in Washington. There're organizing the House up there today. Jim Donelon, who is the outstanding leader here in Jefferson Parish; Larry Heaslip; George Ackel and Bob DeViney, all of the counsel will have written statements which will be inserted in the record.

[The statements mentioned above appear in appendix III.]

STATEMENT OF BOB LeBLANC, EXECUTIVE DIRECTOR, LOUISIANA TOURIST DEVELOPMENT COMMISSION

Mr. LeBLANC. Thank you, Mr. Chairman, Senator Hansen and members of the committee. It's certainly nice to be here today.

I have a written statement that I have submitted to your counsel, Senator, but before I read the written statement, I would just like to comment that I had the pleasure of serving as the sales manager of the Jung Hotel when the Cowboys invaded New Orleans, Senator. They're a great bunch of people, they were really, really fine people.

Senator HANSEN. Thank you, sir.

Mr. LeBlanc. The Louisiana Tourist Development Commission respectfully offers its support to the concept of the Jean Lafitte National Park. Many benefits and advantages are seen in the proposal for a park in the designated area. Certainly the tourist industry in Louisiana and of the south-central United States would be aided by the introduction of an attraction of the scope and quality of the Jean Lafitte National Park.

The development of a theme park with an interrelationship of the outstanding topography, history and culture of this unique part of America, stands to become an immensely popular vacation destination. New Orleans currently attracts some 4 million visitors annually. A significantly large number come to attend the nearly 1,000 conventions that the city hosts each year.

Interest in Louisiana's French heritage is very high among all groups and particularly so among Canadian and French travelers. The efforts of the council on the development of French in Louisiana have been influential in fostering an exchange of people interested in preserving the French cultural heritage in this State, and hence that culture remains viable and is growing.

Yet one need not have an interest in French Louisiana to become fascinated by the beauty of the lakes and marshlands of the region south of New Orleans. Many times I have personally escorted people to that region who were sophisticated travelers, only to have them marvel at the unique beauty of the terrain.

Therefore, it may readily be seen that the proposed park can expect to enjoy substantial and immediate use due to the fact that there is a large body of travelers concurrently attracted to the immediate area; that there is a demonstrated interest in the culture and history of the area; and that the area possesses intrinsic values of a nature likely to attract visitors.

The Louisiana Tourist Development Commission pledges its support in helping in whatever way possible the realization of the Jean Lafitte Park. And I have submitted this.

Further, Senator Johnston, I would just like to comment that from a firsthand vantage point, I'm a former resident of the West Bank, Gretna, and Algiers, for 40 years and I'm very, very familiar with the area. I've had the pleasure of hosting many, many conventions in this area of Louisiana, and I noticed that this hasn't been brought out at the hearing, that Lafitte and Barataria, in the area that we're proposing, is only 23 miles from downtown New Orleans, and it really gives a first insight into the beauty and to the marsh and swamplands that we have. There's not any place in the State where you have this at your disposal near a mass destination area such as New Orleans. Also, I would like to point out to the committee that the travel industry in the United States represents over a \$7 billion economy and employs about 3½ million people; and here in Louisiana it's the third largest industry behind the petrochemical and agriculture, and we feel that it's an undepletable natural resource. The travel economy in Louisiana is rated at \$1.21 billion, and generates a tax revenue of \$116 million. So, we think that it's very viable, not only to the State of Louisiana, but to the entire section of the southern part of the United States.

Also, I would like to point out that while New Orleans and Louisiana is very much rated as the destination point, as you alluded to in your

opening remarks, being the third most popular convention area in the country, we're also plagued with the problem of not having family oriented entertainment, and I think phase 4, or whatever it is, tying in this to the Vieux Carre, to the mint, and to the Lafayette area, I think it's a marvelous concept, and the Louisiana Tourist Development Commission would certainly support this concept. I only urge you to act with expedience.

Senator JOHNSTON. Thank you very much, Bob.

On this point of the proximity of the park to New Orleans; how far is the Everglades from Miami?

Mr. EVERHARDT. About 45 miles, I think.

Senator JOHNSTON. And that's about—

Mr. EVERHARDT. To the interior headquarters of the park.

Senator JOHNSTON. This is twice as close or half as far to New Orleans. So, you can actually see 1 Shell Square from part of the park.

Mr. LEBLANC. On a clear day, you can see it forever.

I've had, in pursuing conventions and such people like the Wyoming Alumni Association and so forth, you really run out of things to do, Senator, when you're trying to impress people like senior vice presidents of Prudential from Boston or something. So, I use this area; there's a beautiful restaurant down there; and you can see first-hand the homes that are backed up to the bayous; some people rely on boats as much as autos for transportation; there's an abundance of moss covered trees, and it's of very unique interest to the people, just the magic ring of Jean Lafitte, what a legend himself he is and what his contribution to history has been; plus the uniqueness of the pirogue. Thousands of people throughout the Nation do not know what a pirogue is, nor do they know the indigenous vessel of a Lafitte skiff. There's a particular application to this part of the country.

So, I think it has an abundance of uniqueness and something I think that the travelers in particular could really enjoy if we could develop a catalyst or a way for them to be brought there to enjoy it. And right now, currently, a company out of Arkansas is going to bring down a vessel, the *Arkansas Explorer*, and for the first time rather than New Orleans getting all of the cruise boats and so forth, there's a vessel, a 40-capacity vessel that will start excursions into the intracoastal seaway and it will be running into Houma and into Morgan City, and I've also heard that the *Delta Queen* and the *Natchez* are thinking about going into this area. So, it could open up a whole new area as far as tourism is concerned.

Senator JOHNSTON. Now, there is great pressure and great interest from the tourism from the 3 to 5 million who come to New Orleans every year to see this kind of estuarine marsh area?

Mr. LEBLANC. Oh, yes, sir, very definitely. It's one of the unique parks that we can offer. I think there are only three real large major swamp areas in the country, that's the Everglades, the Okefenokee and the Atchafalaya; and I think this represents an area that is close to a destination point for travelers and close to a tremendous metropolitan area with an ease of distance of getting to it.

Senator JOHNSTON. Thank you very much, Mr. LeBlanc.

Senator Hansen, do you have any questions?

Senator HANSEN. I have no questions.

Mr. LEBLANC. Thank you, sir.

Senator JOHNSTON. Thank you very much, Mr. LeBlanc.

Our next witness will be Mr. Dick Yancey with the Louisiana Wild Life and Fisheries Commission, one of the outstanding experts in the Nation on game and fish. We're very glad to have you with us.

All of you hunters out there, by the way, this is the man who has helped us with our split seasons in Louisiana on ducks, and will hopefully continue to help us.

STATEMENT OF RICHARD K. YANCEY, LOUISIANA WILDLIFE AND FISHERIES COMMISSION

Mr. YANCEY. Thank you Senator Johnston, Senator Hansen and gentlemen of the committee. I'm Richard Yancey with the Louisiana Wildlife and Fisheries Commission and, of course, my remarks will pertain to the fish and wildlife aspects of possible park development. We have had the opportunity to review the feasibility study that was published by the National Park Service, and we would like to speak in favor of the creation of the park as outlined in alternate four. Particularly if the park can be established under a plan that would provide for the preservation of the natural marsh value in the area east of Lake Salvador also. If at all possible we would like to see management rules made a part of the proposed park development that would allow for continued hunting, fishing, and trapping.

The feasibility study indicated that before an area could be established as a national park, it had to have national significance, it had to meet certain suitability and feasibility requirements; and from the standpoint of fish and wildlife, we would like to point out that certain endangered species usually in this area, there are about four bald eagle nests in the park site, and these birds fish essentially on Lake Salvador, and in addition to that there are certain migratory bald eagles that use this part of the State. Additionally, the alligator is in abundance in this particular area and it's on the endangered species list.

Now, the Louisiana Marsh normally winters about 5 million ducks and serves as a transient area for another 5 or 6 million birds, and, in addition to that, large and advanced numbers of other wetland birdlife. These birds pour down into the south out of Canada and the northern regions of the United States, and some of them stay with us for the winter, others live all through; but because of this, this particular area is not only of importance from the national standpoint, but it has international significance, because the people to the north of us depend upon us taking care of this waterfowl resource because there are birds in this part of the United States about 8 months in the year. This particular marsh area within the park site is extensively used by a rather large number of migratory waterfowl. This area could be encompassed in the national park, and this area could be managed in such a fashion that it would perhaps provide an incentive to others in this part of the State to do likewise.

Now, from the standpoint of feasibility and suitability and probably necessity, the park being situated where it is, the water of the

Barataria Bay system would serve as a buffer against further encroachment into the marshlands east of Lake Salvador. The most critical problem that we have facing us in the maintenance of the fish and wildlife resources on the gulf coast is the fact that many of these marshes, from the result of dredging and filling and channelization and levees, and a whole host of other uses, the feasibility of these marshland areas to produce a shrimp crop of 80 to 100 million pounds and an oyster crop of 13 or 14 million pounds and many, many million pounds of commercial fish, and the recreational aspects of catching speckled trout and flounders are all associated with the maintenance of a marsh in a productive condition. And we think that if a park should be set up in this area, certainly it should serve under proper marsh management as the shining light for others to follow, and particularly in this particular part of the State and, of course, this marsh is located in the immediate proximity of New Orleans, and with pressures from the north moving southward, it should serve as a buffer.

Now, on the west side of Lake Cataouatche and Lake Salvador we have a 31,000-acre State-owned wildlife management area. So, this, we think, can protect the western regions of this estuarine system.

Now, to the east, if the park should be created, it will serve as a buffer to the east, which would then provide protection for the overall fish and wildlife habitat that you have in this general area. And as we all know, the proposed park site encompasses about three zones of plantlife. We have the oaks that you find along the natural levees in this area; the cypress tupelos; the timber type and also several thousand acres of marsh which lie between the banks of Lake Salvador and the wooded areas to the east. Samples of this marshland area and this particular type can be put into a park and preserved, there's no question, but whether it would be tremendously beneficial to the fish and wildlife protection in this part of Louisiana.

Now, other types of wildlife that you find in this area include otter and mink, muskrat, nutria, large numbers of birdlife; fishes include some fresh water species: bass, sacalait, brim. During the years of low rainfall we have a certain amount of saltwater intrusion into the Salvador area which brings in speckled trout and red fish. We have a couple of species of squirrels on this area. We also have a fairly large number of deer.

Now, this brings on what we would think the committee should consider, and this is a word of caution. Now, we've heard one or two comments about allowing hunting in the area and also perhaps trapping. Now, the types of wildlife in this area are extremely prolific, the fur-bearing animals and also the deer. And I know in a park management program, one of the prime considerations is protection of plant communities within the park, and if you do not control animal numbers, they can have a devastating effect on both marsh vegetation and your higher land vegetation that you have in this area. The fur-bearing animals, the muskrat and nutria will not only eat the tops of the plants but also the roots. These plants are what hold the countryside together out there, and if you lose these, then you begin to convert over to a large shallow-water lake system; and one of the prime values of having a park in that area would be lost. The only way we know of that you can control the population of these

fur bearers is through a continued trapping program, and we would recommend to the committee that you give serious consideration to allowing this to be continued as a means not only of the commercial value associated in the trapping industry, but also the fact that you would provide for protection of your marsh and plant life within the park.

Also from the standpoint of deer, they can have a very devastating effect on plantlife, but he has to have food to survive just like we do. If you don't control numbers of deer, they simply get up to the point where they'll literally eat the bark off a tree. So, it's essential, we think; and if you have any plants communities particularly, and even in the area which would be most heavily used by the public which would be along the roadways, these animals would have a very damaging effect on your plantlife there. So, we feel that serious consideration should be given to having management rules that would allow for the control of your deer herds and particularly your fur-bearing animals.

Now, from the standpoint of hunting ducks, this is an important recreational business here in this part of the State, and it's evidenced by our experience on our Salvador Wild Life Management Area. There's a critical need for as much area being open to the public for duck hunting as possible. Now, we're not proposing that you would allow hunting right up in your key areas along the highway but in the more inaccessible reaches of the marshes, if that sport would be allowed to continue.

That basically outlines our comments. We have provided a written statement, and that more or less provides a résumé of what we have in our statement.

I might also mention in further emphasizing the importance of Lake Salvador that the fishery catch records indicate that about 1.6 million pounds of commercial fish is caught annually in Lake Salvador.

Senator JOHNSTON. How much?

Mr. YANCEY. 1.6 million. In addition to that you've got 1 million pounds of hard shell crabs and 50,000 to 60,000 pounds of blue crabs. When salt water moves into Lake Salvador, shrimp are also trawled there.

Senator JOHNSTON. Is Lake Salvador a game management area, did you say?

Mr. YANCEY. No, sir. Lake Salvador, as you can see on this aerial photograph, is just simply a very large body of water, but as long as we can protect the marshes around Lake Salvador, there's no reason to believe that these fish catches, you know, they will remain high, they always will. But if you lose your marshes around the lake, the value of Lake Salvador is going to sag, and this we think would be another real value associated with the development of a park. It would help protect the eastern shore of Lake Salvador; and all of the things that you get from development, you know, pollution and that sort of thing.

Senator JOHNSTON. You are familiar with the great pressure for development in this area?

Mr. YANCEY. Yes, sir.

Senator JOHNSTON. And that would be very dangerous, your testimony is, to fish and wildlife in the area?

Mr. YANCEY. The protection of the marshes would serve as a buffer and protection for the lake, and the fishery value that would come out of the lake, which is extremely high.

Senator JOHNSTON. On this question of fishing, Dick, you see no inconsistency between commercial fishing and sport fishing and the operation of this park?

Mr. YANCEY. Well, commercial fishing takes place primarily in the lake and in some of the canals around the lake, and if these could be left open to commercial fishing, certainly we would support that. Rough fish population, if not controlled in these warm bodies of water, would have a detrimental affect on the sport fishing population. So, we feel from the standpoint of managing fish populations, you need to control rough fish population by netting or troutlining or some other means, otherwise they'll simply crowd out your game fish population and you'll begin to lose out on the quality of your sport fishing. So, we have to keep the fish populations in bounds by a certain extent by commercial fishing, and we would certainly hope that the committee will take this under consideration.

Senator JOHNSTON. What I wish you would do, Mr. Yancey, is give us, at your leisure, a letter outlining specifically what our rules ought to be and who ought to manage both fish and trapping and hunting with some specifics on what part—for example, if you recommend duck hunting, what parts of the park ought to be open for that, who ought to give permits for fishing within the park, or whether indeed you ought to have permits at all. I would think that you ought to have a control there in terms of who does it and what they're going to be fishing for, cause we don't want to have any activities that are inconsistent with the enjoyment of the park or with the environment in the park. But, if you would give us those specifics. There's nothing, for example, that says we can't let Wild Life and Fisheries manage the park from the standpoint of fish and wildlife. It may not be appropriate, I don't know; but we can make these rules to suit this particular park because it is unique. So we would appreciate it if you would send that to us.

Mr. YANCEY. Yes; we would be glad to do that; and again, we would like to stress that in managing fish and wildlife populations you need flexibility, you need authority in the rules that would allow this. Now, the details of implementing these rules could perhaps be worked out later, but if the legislation or the regulations under which the park is set up are inflexible or do not allow for this, then it's going to come back and haunt the people, we think, that will have the responsibility of properly managing that park, because they're going to have an overpopulation of deer, they're going to have fur bearers out there eating up the marsh and vegetation, which can be just as disruptive of marsh ecology as some of these encroachments and other developments that we talked about.

Senator JOHNSTON. Well, it may be very appropriate, at least in my thinking, to let Wildlife and Fisheries, Louisiana Wildlife and Fisheries Department manage this, because your record has been very, very good. In my view, Louisiana Wildlife and Fisheries De-

partment is one of the outstanding departments in the Nation, in this area. I don't know how broadly known that is, but I think of all of the wildlife and fisheries departments in any State in the Nation, yours is, I think, the outstanding one.

Mr. YANCEY. We are not seeking any additional workload; however, we will be glad to help, if we can.

Senator JOHNSTON. Thank you very much, Dick.

Senator Hansen.

Senator HANSEN. I have no questions, Mr. Chairman.

Senator JOHNSTON. Gary, did you have any questions?

Mr. EVERHARDT. Yes, sir, Mr. Chairman. I would like to ask one question.

I think with respect to fishery and wildlife management, maybe the key word is cooperation, and certainly we do want to cooperate with the State game and fish department in managing these kinds of resources. I think, Mr. Yancey, you've pointed out very adequately in your statement that the area does contain a vast spectrum of marsh plantlife and animal life. Certainly the National Park Service's goal in protecting and preserving areas of national significance is one of protecting the natural ecosystems.

I would like to ask maybe sort of a two-part question to get your opinion on. No. 1: Are there any activities in Lake Salvador that would intrude upon or influence the well-being of the marsh ecosystem as has been planned in the report and, in your opinion, is the area of sufficient size that has been recommended, the area of a park designation, of a sufficient size to assure that the natural ecosystem is protected?

Mr. YANCEY. OK, question No. 1: We see no fish or wildlife activities in the lake that would in any way potentially have an adverse effect on the park.

And question No. 2 again?

Mr. EVERHARDT. Is the park that has been recommended, I guess, something in the area of 7,300 acres—

Mr. YANCEY. The size?

Mr. EVERHARDT. Is this a sufficient size to insure that you have a well-defined ecosystem whereby this natural marshland, plantlife, and wildlife could be protected under a management system?

Mr. YANCEY. Well, the 7,000-acre tract encompasses about 5,000 or 6,000 acres of marsh, and it could be affected by influences from the north. It would just depend on the type of development that may move into the north of the park boundary there, and this may call for a system of water control structures or something like this to keep potentially some activity from the north from having an adverse effect on your marsh in the park, but it could happen. Side effects from individual projects within a given marsh area, while that project may only physically affect 1,000 acres, it may have an effect as far as salt water intrusion, erosion and all of this over an area of 40,000 or 50,000 acres. We've seen this happen many times. It's not like an upland area or a mountain area where a project will affect the area immediately where the project is constructed. In a marsh, a project in a marsh, can affect the surrounding area for miles, we've seen it happen many times.

Mr. EVERHARDT. Well, I think why we express this concern, Mr. Chairman, as you're well aware, the Everglades situation where the water is so important to the ecosystem and the well-being of that great park, and it was necessary that this committee come back later and set aside the Big Cypress to insure the water flow, which means the life of Everglades.

Senator JOHNSTON. We just authorized, I think, over \$100 million for acquisition of Big Cypress, which in itself doesn't have a great deal of recreation value, but we had to do that to keep that water drain system for the Everglades intact. So, we don't want to be stingy in this development by failing to acquire enough land to protect the ecosystem. If we have to get some additional buffer area, which in itself may not have any recreation value, we nevertheless want to do it, if that's necessary.

Mr. YANCEY. Well, that may be necessary. I certainly wouldn't want to rule that out if I were you.

Senator JOHNSTON. Well, I wish you would give us your advice on that, Dick, if you have a chance to think about it.

And, Gary, I wish you all would stay in very close touch with Dick Yancey because he's one of the outstanding experts in this area, so that we can define those boundaries generously enough to protect that system.

Thank you very much, Dick.

[The prepared statement of Mr. Yancey follows:]

STATEMENT OF RICHARD K. YANCEY, LOUISIANA WILDLIFE AND FISHERIES
COMMISSION

Mr. Chairman and members of the subcommittee, we appreciate having the opportunity to appear before you today and provide information on the fish and wildlife resources on and adjacent to the proposed site for the Jean Lafitte National Cultural Park. We hope that these comments will be of assistance to you in your deliberations.

The proposed park site is located at the headwaters of one of the world's most productive estuarine areas, namely the Barataria system. If the park is created and with proper management it can do much towards preserving and protecting the natural environment in this marsh and bay system.

The area abounds in a wide variety and abundance of fish and wildlife resources. In fact, certain forms of animal life are so productive that their populations must be kept in balance with the fragile marsh ecosystem. Overpopulations of certain forms of animal life, particularly those that feed almost entirely on vegetation such as muskrat, nutria and deer must be kept under control. These animals can have a devastating effect on plant communities if their populations are allowed to go unchecked. This means that the park managers must have flexibility in allowing both hunting and trapping as necessary to keep the plant communities from being severely damaged in the park.

Also fish populations are highly renewable in the area and provisions should be made in order that these resources may continue to be utilized in the years ahead if and when the park is established. It is our opinion that the park, if established can become a very valuable asset in the area from the standpoint of fish and wildlife resources as well as provide the many other contributions normally realized from park creation.

Following are our specific comments on the Suitability/Feasibility Study, proposed Jean Lafitte National Cultural Park, Louisiana 1973:

In our opinion, "alternative 4 is the most feasible" according to the suitability/feasibility study that was authorized in 1973. We tend to agree with these findings if proper wildlife management practices are used.

The harvestable populations of fur bearing animals exist over practically all the proposed park area. These include raccoon, otter, mink, muskrat, nutria, and

opossum. Serious consideration should be given to a plan which will provide trapping these animals since some, particularly muskrat and nutria, can badly damage the marsh environment when over populations result in extensive eat outs. This is a condition where the animals utilize all the plan including the root system and leave large shallow non-productive water area. In addition, dense populations often result in large dieoffs which are often caused by diseases and parasites. Diseases are spread more rapidly when animals are in close proximity to each other. It is estimated the value of the fur bearers taken in the Salvador area is 1 million dollars annually.

Good populations of game animals primarily deer, squirrel, and rabbits are also found on the proposed area. These occur primarily on the wooded areas near the road. Migratory waterfowl and snipe provide hunting opportunity to the open season.

Canals on the area provide very good sport fishing particularly in the Spring. Fresh water game fish include bass, crappie, and bream. During the fall months when salinities rise a considerable number of redfish and speckled trout are taken. Good populations of commercial fish are found in the canals and Lake Salvador. Trotline fishing for blue, channel and flathead catfish is popular in the area along the shoreline. The 1974 catch of catfish and gar amounted to 547,000 pounds worth \$152,000 and in 1975, 473,000 pounds were harvested worth \$145,000. The commercial salt water fish catch in 1974, 14,800 pounds, amounted to \$3,700 and in 1975, 17,800 pounds worth \$4,300 were caught.

Blue crabs are taken in large numbers in Lake Salvador, hardshell as well as softshell, in the upper reaches of the lake. In addition to the crab, shrimping is occasionally good. The entire area, however, serves as a nursery ground for Penaeids. The 1974 harvest of blue crabs amounted to 1 million pounds of hardshell and 57,000 pounds of softshell worth \$129,000 and \$76,000 respectively. The Lake Salvador shrimp catch in 1974 totaled 14,000 pounds worth \$6,000. In 1975 only 800 pounds of shrimp were caught worth an estimated \$255.

The National Marine Fisheries Service reports a grand total commercial fish harvest at 1,675,200 pounds in 1974 worth \$367,000 and 1,387,600 pounds in 1975 worth \$378,000. These figures are in addition to the very considerable sport trolling and fishing which occurs annually.

It is recommended that the North-South Access Canal remain open and provide access to Barataria Bay for people living to the north of Lake Salvador. This provides a short sheltered run to the important bay area.

Future planning should give consideration to increasing salt water intrusion brought about by the Barataria Waterway. Any deepening or widening of this channel will be accompanied by an increase of salt water thereby adversely affecting what has historically been a fresh water marsh. The Louisiana Wildlife and Fisheries Commission maintained salinity recording meters at Lafitte, Lake Salvador and Bayou Signett. The station at Lafitte indicated salinity runs from .0 to 4 ppt (parts per thousand). One located on the upper end of Lake Salvador indicated 0 ppt to low, one in the middle of Salvador 2 ppt to medium, and one on the lower end 10 ppt to high. Two were located on Bayou Signett, one indicates 1 ppt to medium and the other 5 ppt to high.

I thank you for the opportunity to appear at this hearing to present views and comments of the Louisiana Wildlife and Fisheries Commission. I will be happy to discuss with your group any of the above mentioned points if such is desired.

Senator JOHNSTON. Next, we have Chris Dufrene who is the alderman from Lafitte. Mayor Leo Kerner who was on the witness list was unable to come today but has a very outstanding substitute. So, we're very glad to have you, Chris.

STATEMENT OF CHRIS DUFRENE, ALDERMAN, VILLAGE OF LAFITTE

Alderman DUFRENE. Thank you, Senator, Senator Hansen and members of the panel, my name is Chris Dufrene, Alderman from the Village of Lafitte.

First of all, we're not opposed to the park concept. What we're opposed to is any restrictions that would be put on commercial fishing in that area; especially within the yellow lines in Lake Salvador. [Referring to the map.] It's used, especially in that particular area—the Coquille Bend area is used for the fishing of soft shell crabs with bushes and with crab traps for hard crabs, and also catfish in the Lake Cataouatche area. So, we would be opposed to restrictions in commercial fishing, because these people depend on that for their livelihood, and we have quite a few commercial fishermen in the Lafitte area.

I'm going to make it kind of short.

One thing I would like for you gentlemen to keep in mind is that these sports fishermen when they use this for launch ramps and so forth, just remember that when these sport fishermen launch their boats, they have their paycheck made for the week, but these commercial fishermen who are out in the lake at the time are still trying to make theirs for the week. Thank you.

Senator JOHNSTON. Thank you very much, Chris.

As we've been discussing—I'm sure you've heard this testimony—there's no rule that says we can't allow fishing in there.

Alderman DUFRENE. Yes.

Senator JOHNSTON. And we could probably have that under the direction of Fish and Wildlife or under some management that would not be overly restrictive but would protect the park. We don't want to overfish it. We don't want to do anything that would be inconsistent with the park, but I personally cannot see where fishing would be inconsistent with anything we are trying to achieve here. As a matter of fact, the creation of this park will help that fishing resource, will help that whole ecosystem there, and promote rather than restrict the fishing.

Alderman DUFRENE. Thank you very much.

Senator JOHNSTON. Thank you.

This would probably be a good breaking point. So, the committee will stand in recess until 1 p.m.

AFTERNOON SESSION

Senator JOHNSTON. This meeting will come to order.

Our next witness will be Dr. Harold Katner, director, City Planning Commission of the city of New Orleans, Dr. Katner.

STATEMENT OF DR. HAROLD KATNER, DIRECTOR, CITY PLANNING COMMISSION, CITY OF NEW ORLEANS

Dr. KATNER. Senator Johnston, Senator Hansen, it's a privilege to be here to address you. I'll make my remarks brief.

We have submitted, I believe, on behalf of the city a prepared statement which we would like to have placed in the record; if I could elaborate on that just quickly.

We're very much in support on behalf of the city of New Orleans relative to the Jean Lafitte National Park, and particularly alternative No. 4.

Since 1970 we have been trying to pursue for this area a major recreation plan which we felt recognizes the great deficiency this area has had within the recreation area itself, but those needs are not local in nature, they're national in nature. In pursuance to that, Senator Bennett Johnston, as well as former Congressman Hébert and Congresswoman Lindy Boggs was very instrumental in securing for us a 750-acre agreement with the Coast Guard wherein we could actually within the city limits of New Orleans establish a wilderness park. We feel that that would be a very interesting and possible adjunct satellite to this specific facility under consideration at the present time. In addition to that, we also have still resting within the city of New Orleans, Indian mounds, which are some of the oldest in the State of Louisiana, Indian mounds, middens; and we would like to see those also be incorporated. And I'm happy to announce through the efforts of Senator Johnston's office that Wednesday morning we do have a meeting with representatives of the State park, wild life commission; we have a meeting with some of the Park Service people; we have a meeting with the Bureau of Outdoor Recreation to examine those options.

The reason I'm suggesting this for consideration in the possible expansion, one of the opinions that we have, that I have personally, is that the size and magnitude of the park as it's now proposed, with the impact that we've seen in all the national parks and because of the unique features I think which would be encompassed in this park in very close proximity to one of your largest urban areas in America which has been developed in the wetlands itself, very unique, very unusual kind of system itself, would be the adverse impact it's going to have on that park due to the numbers that I anticipate that are going to go into that park itself.

So, I believe the concept as proposed in alternative No. 4 with the satellite system itself is very fundamental to the proposal; otherwise I think what we would have done there in just the Jean Lafitte Park by itself, which is one of the options on it, a State park, would have been such a severe impact in terms of tourists, in terms of local individuals seeking access to that park. So, therefore, I think to the extent which we could expand on that as included in the satellite No. 4 concept is much to our advantage.

You had asked, I think, Senator, what is the national interest in this. Well, I think there's both national and international interest in this. I think the national interest is demonstrated in the needs that we've seen for external recreation facilities are in the unique around this country. We've seen that encompassed in those of the Western States and we've seen it encompassed somewhat in Florida. Here, we think, is a very unique opportunity where you have this urban area develop and emerge from that kind of wetlands itself.

I don't know whether you're aware of it or not, but the reclamation of Zuider Zee in Holland was made possible only because of certain technologies developed in this area and later transferred to Holland, that's unique. We have visitors from all over the world coming in from India, coming in from Russia; coming in from various countries; coming into this area and see how we make that adaptation to our particular wetlands areas around the country which are in delta areas. There's a national and international interest in that, and how we are

trying to preserve some of our wetlands, how we're trying to still make some of these areas adaptable—receptive to urban way of life and all the problems that are inherently involved in those kinds of issues.

I think, also, I have the pleasure, I think it's a pleasure still, to serve on the Louisiana Coastal Zone Commission with my good friend over here President Allen; and we're trying to deal very effectively with that issue. As you know, in the wetlands in Louisiana over 50 percent of the permits issued by the Corps of Engineers in the entire United States basically are issued in Louisiana.

So, the issue of preservation of the wetlands coupled with the national needs of recreation are very vital. I think here's an opportunity which can blend these two kinds of concepts together.

I think, also, the linkage which we've been talking about with the history of the Vieux Carre, this type of thing, we've gone as far as trying to examine some various locations for the interpretive center within the city of New Orleans. We've looked very cursory at the Wild Life and Fisheries Building, we looked very cursory at the old Mint Building, and we've identified a few other structures down there that may be very adaptive for that type of use. We do not know that at this time and we didn't pursue it diligently because we weren't sure what was going to be the status of this entire proposal.

Here again, I would like to express my apologies on behalf of Moon Landrieu, the mayor of the city of New Orleans, and our councilmen; particularly Councilman Friedler and Councilman Ciaccio who could not be here. They just finished wrestling with their own budget and now they're trying to deal with transit, hopefully effectively.

But we're very much a part of this, very much in support of the alternative four, and if there is anyway that we from the city of New Orleans can support your efforts in trying to forward this concept, we would be very happy to do so; and if you have any questions, I would be happy to try to respond to those.

Senator JOHNSTON. Thank you very much, Dr. Katner.

Could you submit for us a copy of your May 1970 report on New Orleans area recreation?

Dr. KATNER. Yes; we can. In fact, I have a copy with me. I'll drop it off with your people before we leave this afternoon.

Senator JOHNSTON. Good. That will be entered, into the committee files.

Dr. KATNER. Thank you.

Senator JOHNSTON. Senator Hansen, do you have any questions?

Senator HANSEN. I have no questions.

Thank you very much, Dr. Katner.

Dr. KATNER. You're entirely welcome.

Senator JOHNSTON. Thank you.

[The prepared statement of Dr. Katner follows:]

STATEMENT OF DR. HAROLD KATNER, DIRECTOR, CITY PLANNING
COMMISSION, CITY OF NEW ORLEANS

Senator Johnston, members of the advisory board, ladies and gentlemen: Thank you for this opportunity to publicly express the views of the city of New Orleans with respect to the proposed Jean Lafitte National Park.

In May, 1970, the city of New Orleans through its planning commission and in cooperation with the Louisiana State Park and Recreation Commission and the Bureau of Outdoor Recreation, Department of Interior completed a recreation survey and plan of the New Orleans Metropolitan Area. This study aptly illustrated the existence of major recreational deficiencies in this area. Contained in this report was a series of suggested improvements in the recreation supply for this area and one of the major recommendations was the serious consideration of a Lafitte Park. Since the publications of this report in May 1970, the Bureau of Outdoor Recreation, Department of Interior, the State parks and recreation commission and the various units of local government comprising the metropolitan area have diligently pursued all avenues in furtherance of these recreation needs.

These needs are not singularly those of the metropolitan area. The city of New Orleans is one of the major tourist centers of the world. One of the major contributors to our uniqueness has been the adaption of an urban community to a unique environment. No other section of the United States has seen the emergence of a major urban center in the semitropical coastal wetlands as we enjoy in this area. This uniqueness places this interest above that of a local concern and makes it of major national importance.

This importance has been attested to by the State tourist commission which has been pursuing a course of expanding the facilities available to the many millions of visitors that trek to our area annually. They have been pursuing a program to expand educational and recreational facilities with emphasis on family orientation. Many visitors, have once been exposed to our Vieux Carré and our Louisiana cooking, have expressed interest in the derivation of our cultural background. They have sought information relative to our natural environment, our food sources and the animals native of this area. Pursuance of the Lafitte park concept is reflective of these interests.

Of equal concern is the area's interest in the preservation of our wetlands. We have seen and recognized man's intrusion on the wetlands and we have benefited from this intrusion. We have also acknowledged that in the process we have also suffered a loss. Whenever we have an opportunity to combine an interest and recreation and retain some of our great natural areas such as it is encompassed in the Jean Lafitte National Park proposal, we must pursue its realization. Alternative 4 envisioning the Jean Lafitte National Park with the satellite facilities and interpretive centers, we find highly intriguing. This would permit the area to preserve its natural resources, grant the public an opportunity to enjoy them as we have and at the same time participate in a life of a community which has emerged in this natural setting.

Not knowing what would be the disposition of this proposal, though wholeheartedly in support thereof, we have even commence a cursory examination of possible structures which might be used as interpretative sites within the Vieux Carré. We have considered the wildlife and fisheries building. The old U.S. mint as well as other structures but have pursued no specific course not knowing what would be the requirements of such a facility; but enthusiastically endorsing its concept.

With the outstanding cooperation of Senator Johnston personally, former Congressman Hon. F. Edward Hebert and our present Congresswoman, Hon. Linda Boggs, we have concluded an agreement with the Coast Guard for the use of approximately 750 acres of lands as an in-town wilderness park. We feel that this is an unusual and rare opportunity and if successfully implemented could serve as a satellite or adjunct to Jean Lafitte Park itself.

I am pleased to announce that on Wednesday December 8, 1976, representatives of Senator Johnston's office, the Louisiana State Park and Recreation Commission, the bureau of outdoor recreation, local interests as well as perhaps representatives of the advisory board will be attending a meeting at city hall to consider the possibility of the restoration, maintenance and accessibility of Indian mounds which still exist within the corporate limits of the city of New Orleans. We shall also discuss alternatives which may be available to protect some of the wetlands as they currently exist within the eastern section of the city. I am sure that if all avenues are pursued there is a possibility of their being considered as satellites to the Jean Lafitte Park, all as part of the national park system.

Again, I wish to state that the Jean Lafitte National Park as expressed under alternative four with a series of satellite facilities combined with this major urban center is a unique and rare opportunity. We can link our Vieux Carré and

its heritage with our natural environment; we can link the archaeological remains of those who preceded this settlement with a great national need for recreation. We can link a national interest of recreation with a national interest of wetlands and coastal zone preservation. I express my thanks for having this opportunity to address you and express on behalf of the city of New Orleans our support for this project.

Senator JOHNSTON. Our next witness will be Mr. Jim Gonzales with the Pollution Control Committee of the Jefferson Parish Council. Jim, glad to have you.

STATEMENT OF JIM GONZALEZ, VICE CHAIRMAN, ADVISORY COMMITTEE TO THE JEFFERSON PARISH COUNCIL ON POLLUTION CONTROL

Mr. GONZALES. Thank you, Senator.

Senator Johnston, Senator Hansen, gentleman: I'm the vice chairman of the advisory committee to the Jefferson Parish Council on Pollution Control.

It's a pleasure to participate in this hearing, and it's seldom that we have an opportunity to speak on a subject with public opinion as virtually undivided.

One advantage to appearing late on the agenda is that it leaves me so little to say. My comments, of course, have been voiced by the previous speakers, in particular Representative Sam LaBlanc, Councilman Giardina and Councilman Lawson. Mr. Dick Yancey spoke expertly on the fish and wildlife aspects of the park. And since I have previously submitted a prepared statement, there's little left now for me to say concerning pollution.

Customarily in Louisiana we're all raised to eat anything that comes out of the water. If you attend some of our food festivals, Senator Hansen, you may be shocked. It's as intimidating as the movie "Jaws" to see a claw rise out of your gumbo. Well, we want to be able to keep it that way. We want to be able to continue to eat anything that comes out of the water. We see nothing in the feasibility study that poses any pollution threat at all; nor does the concept of a park complex disturb it in the least.

It is our intention to maintain close liaison with the Federal agencies that are charged with the responsibility of creating the park and, of course, of maintaining the park. My advisory committee will continually solicit the comments of concerned citizens and advise the Jefferson Parish Council accordingly.

I want to thank you all for giving me this opportunity to appear, it was a real pleasure.

Senator JOHNSTON. Thank you very much, Jim, for an excellent statement.

Senator Hansen, do you have any questions?

Senator HANSEN. No; no questions. I just summarized an observation on pollution that I thought was rather significant. A good friend of Senator Johnston's and mine from one of the Southern States said that "man is a polluter," he said, "basically the bottom line is that if he bathes he pollutes the water, if he doesn't, he pollutes the air."

Senator JOHNSTON. Thank you very much, Jim.

[The prepared statement of Mr. Gonzales follows:]

STATEMENT OF JIM GONZALEZ, VICE CHAIRMAN, ADVISORY COMMITTEE TO THE
JEFFERSON PARISH COUNCIL ON POLLUTION CONTROL

The Advisory Committee to the Jefferson Parish Council on Pollution Control is pleased to learn that action will be taken to create the Jean Lafitte National Park during the 95th Congress. We offer our assistance and cooperation in this vital undertaking.

It is a pleasure to participate in this hearing. Unlike some subjects on which public opinion is divided, few question the wisdom of establishing a national park in our wetlands to provide a unique setting for recreation; the preservation of our historic values; and the management of the resources of such an area in an exemplary manner.

There is evidence of environmental degradation. However, it is reassuring to the advisory committee to see that Senate bill 3546 expresses to the Secretary of the Interior the critical purposes for the establishment of the Jean Lafitte National Park. The preservation of this area will be achieved through the realization of these purposes: Preservation of beaches and marshes and coastal uplands; protection of undeveloped tributary streams and drainage basins; protection of existing roads and scenic waterways, and preservation of historic facilities and the traditions, cultures, and heritage within the boundaries of the area.

This Committee is further reassured by the existence of other federal legislation, such as: Federal Water Pollution Control Act of 1972, the National Environmental Policy Act of 1969, and the Clean Air Amendments of 1970.

To ascertain that the Jefferson Parish Council is properly advised concerning Pollution Control issues within Jean Lafitte Park this Committee will maintain liaison with federal and local representatives. The rules and regulations published by Federal agencies will be a subject of continual study, and the well being of our national park will receive our close attention.

Undoubtedly, the National Park Service will be charged first of all with the protection of the natural conditions in the park, and thereafter with the use and enjoyment of the park by the public. It is realized that the Jean Lafitte National Park will present unique problems for the National Park Service in that it will provide public recreation, protect its unusual ecology, and preserve its historical and cultural heritage.

The Advisory Committee to the Jefferson Parish Council on Pollution Control stands ready to render assistance to make the Jean Lafitte National Park a reality. Since we are well aware of the ever-increasing concern of the public in seeking preservation of the environment, this Advisory Committee will continually solicit comments of concerned citizens regarding Pollution Control and other problems associated with the park and advise the Jefferson Parish Council accordingly.

Senator JOHNSTON. Our next witness is Dr. Randolph J. Clement with the American Institute of Planning.

STATEMENT OF DR. RANDOLPH J. CLEMENT, DIRECTOR, AMERICAN
INSTITUTE OF PLANNERS, NEW ORLEANS, LA.

Dr. CLEMENT. Senator Johnston, Senator Hansen, Mr. Everhardt, members of the committee, ladies and gentlemen: Thank you for this opportunity to address this public hearing today. I'm representing the views of the Metropolitan New Orleans section of the American Institute of Planners. The Metropolitan New Orleans section of the American Institute of Planners represents the urban planning profession in Jefferson, Orleans, St. Bernard and St. Tammany Parishes.

As professional urban and regional planners, we recognize the need for your friendly support of those plans and programs, which based upon sound planning principles will provide the quality of life for all people. We of A.I.T. believe that the natural and cultural resources

of Louisiana have for too long been neglected by the national park system. Louisiana's coastal zone is unique. It is unique in that Louisiana has within its boundaries a system of coastal wetlands larger than that of any other State and, indeed, larger than the wetland acreage of all the 49 States combined. Not only do our wetlands produce between one-fourth and one-third of the U.S. fisheries harvest, but the Louisiana wetlands also provide habitat for millions of ducks, geese and other fowl. In addition, the wetlands support large populations of alligators and other endangered wildlife species.

The Mississippi River Deltaic plane has, because of its natural resources and unique setting, spawned a cultural diversity spanning thousands of years. Evidence of that diversity include numerous archeological sites, old plantations, the New Orleans French Quarter; and Louisiana's blending of Cajun, Creole, and American influences. These should be preserved for posterity by the National Park Service.

The Metropolitan New Orleans section of the American Institute of Planners therefore has endorsed the Jean Lafitte National Park, specifically endorsing alternative four, which recommends an extended cultural park concept. Also in that regard, the Metropolitan New Orleans section of A.I.T. strongly recommends that the National Park Service consider the acquisition in eastern New Orleans for use as a satellite to the Jean Lafitte National Park. We recommend the placement of a satellite park in eastern New Orleans because this area contains numerous archeological sites, two of which are already on the National Register of Historical Places. The area lies along an abandoned trunk channel of the Mississippi River, and thus displays a geologic succession of natural levees, bottom land hardwoods, fresh water swamps and marshes, and brackish water marshes. The area provides habitat for residents and migratory water fowl, fur bearers, fresh and marine, fishery species and other forms of wildlife.

And lastly, the National Park Service, because of its demonstrated leadership is best able to insure that this area is developed in a manner reflecting the interests of all Americans. The attached resolution adopted by the Metropolitan New Orleans section of the American Institute of Planners was unanimously adopted on November 30, 1976. This resolution is the section's official expression of support for the Jean Lafitte National Park. I urge that this resolution be given serious consideration. Thank you.

Senator JOHNSTON. Thank you very much, Dr. Clement. We appreciate your testimony very much.

How many acres are in that New Orleans east location?

Dr. CLEMENT. The total, as I recall, would be about 2,000, it's the interior of the levee system. There's an additional area of approximately the same size outside of the levee system.

Senator JOHNSTON. That's pretty expensive property, isn't it?

Dr. CLEMENT. Within the levee system, yes. I think the areas outside of the levee system, however, would be considerably less expensive. We have out there now approximately 40,000 acres of wetlands which are under severe pressure for development; and I believe that should that area develop it would eventually destroy the entire Marapau-Pontchartrain-Borgne estuary system. The tidal flows, et cetera, would be severely hindered.

Senator JOHNSTON. Well, that would probably be chapter two in this story that we hope will be successfully begun in the next Congress.

My offhand feeling is that that might slow down the development of the park by trying to go into New Orleans east at this point, because we have had the study on the Jean Lafitte section of it, we're ready to talk about development and about how we—Jime Fondren (spelled phonetically) has been working on a plan on this thing, and that doesn't mean we can't expand to New Orleans east, but I would think in the first phase we probably should stick to the Barataria and Lafitte area.

Dr. CLEMENT. I would agree. I would think that the Barataria area would be the first priority. I purely urge that the other area be looked at for satellite purposes.

Senator JOHNSTON. Thank you.

Mr. Everhardt, if you have any questions as we go along, please tie them in.

Mr. EVERHARDT. Thank you, Senator.

[The resolution referred to by Dr. Clement follows:]

RESOLUTION OF THE METROPOLITAN NEW ORLEANS SECTION OF THE AMERICAN INSTITUTE OF PLANNERS IN SUPPORT OF THE PROPOSED JEAN LAFITTE NATIONAL PARK

Whereas the Metropolitan New Orleans Section of the American Institute of Planners is the recognized professional organization which represents the planning profession in the metropolitan area; and

Whereas the Section recognizes the tremendous benefit such parks would bring to the New Orleans region: Now, therefore, be it

Resolved by the members of the Metropolitan New Orleans section of the American Institute of Planners That, the Section hereby supports the proposed Jean Lafitte National Park and, also, the development of a satellite park in the eastern part of the City of New Orleans.

The above resolution was read in full and adopted unanimously.

Senator JOHNSTON. Our next witness is Mr. Frank Ehret with the Active Citizens Together for Jefferson Parish, and Lafitte Park Coalition, Orleans Audubon Society, and the Barataria Boulevard Civic Association. That's a mouthful, but we're glad to have you, Mr. Ehret.

STATEMENT OF FRANK EHRET, JR., PRESIDENT, BARATARIA BOULEVARD CIVIC ASSOCIATION, JEFFERSON PARISH

Mr. EHRET. Thank you, Senator.

Senator Johnston, Chairman; Members of the Senate Subcommittee on Parks and Recreation of the Interior and Insular Affairs, Mr. Allen, Mr. Everhardt, distinguished guests, ladies and gentlemen: It is indeed an honor to have this opportunity to speak in favor of Senate bill, 3546, to establish the Jean Lafitte National Cultural Park in Jefferson Parish. I say this because no one better than myself realizes what this means to me today to be before you people here and to be honored to have Senator Johnston and his committee come down here to Jefferson Parish and sit down and talk with us about this great park concept, more so because of the fact I originated this idea 14 years ago, and we have been working on it since. Many times I was almost discouraged, but today I just feel much better, and I really am more optimistic today than ever before. I have volunteered my service working on this study with the State, with the National Park

Service in 1973 I worked with the team, and have been able to add a lot of ideas to it; and I appreciate very much, gentlemen, to be here before you today.

Now, in this plan, I must say that I agree with the alternate plan No. 4, with reservations about certain changes and modification in it; although I think it can be improved upon. But I do recommend that alternate plan No. 4 be the plan to accept for this park.

President Kennedy in his message of March 1, 1962, on the recommendations of the Outdoor Resources Review Commission's study emphasized that with our expanding population, industry expansion, and production makes possible increased enjoyment of leisure time. It is the obligation of the people to make the most efficient and beneficial use of our natural resources. They are not inexhaustible nor will they replenish themselves. Everyone must reaffirm their dedication to sound practices of conservation which can be defined as the wise use of our natural environment. Without proper planning and insight, our natural sites will give way to housing developments, industrial plants, highways, shopping centers, and airports.

The proposed Jean Lafitte National Cultural Park and surrounding area in the southern half of Jefferson Parish has the most interesting water land relationship within the United States. On the Gulf of Mexico, Grand Isle, and Grand Terre appear as outer fortifications, or a barrier reef for the protection of the area further inland. The gradual transition from open gulf through many lakes and bayous through salt marsh and fresh water marsh, to swamp, thence to oak-lined ridges and ultimately to drained and developed areas gives a strange romantic transition between water and land. Composed largely of alluvial silt, the area represents a constant transition from sand deposits from Bayou Des Familles, when it was a distributary of the mighty Mississippi as part of the Metairie-Barataria deltaic lobe, 2,000 years ago, to further delineation of the alluvial formations of the swamp and marshes, bayous and lakes that compose much of the southern sector of Jefferson Parish.

The intricate and interpenetrating waterways of bayous and lakes, bordered by moss draped live oaks and cypress trees cannot be isolated from the romantic legend of Jean Lafitte, the Baratarians, the privateers, intrigue and destiny of the Nation. Yet, above all, they symbolize the garden land of one of the world's greatest deltas and represent an untouched opportunity of natural beauty and outdoor living. The semi-tropical climate and abundant rainfall in the vast areas of cypress swamps and open marshes and lakes affords the habitat of an abundance of wild life. Deer, rabbits, squirrels, nutria, mink, otters, alligators, muskrats, racoons, birds, and water fowl of all descriptions abound the area. Bald eagles that nest further to the south are often seen soaring over the area.

For decades the Barataria region has developed near, but isolated from urban development to the north. Many of the people are professional fishermen and trappers. A multilingual society continues to prevail and is enriched by the freedom of the sea, and nationality groups, who find that the dispersion of land and water allows almost utopia isolation within a short distance of the Nation's second largest port.

Many people seek communion with nature and want more than picnic tables, benches and fireplaces. They desire to learn something of the natural world in which they live, where through better appreciation they can learn how to lead richer, fuller lives. Many want wholesome, untrampled places where they can learn about wildlife, trees, wild flowers, where they can see, hear and feel things for themselves. Preservation of this natural outdoor area and access through it by boardwalks and pirogue and canoe trails will afford children and adults wider vision, better skills and a deeper appreciation in living.

The lack of representation within the national park system is not in keeping with the intent of the policy guidelines of the National Park Service promulgated by the Secretary of Interior on June 8, 1969, which directs the National Park Service to identify gaps in the landscape representation and locate sample areas that would fill them. In response, for the purposes of inventoring the Nation, natural regions were established such as Atlantic coastal plain, Northern Rocky Mountains and the Mohave Desert area. The Barataria region representing a delicately balanced aquatic ecosystem fits into the Gulf coastal plain natural region. There is no established natural area as such within the national park system.

The Jean Lafitte Park site does possess these significant qualifications and would be in a sense interpretative of the values of Louisiana's valuable diminishing wetlands and estuaries and create public awareness at the State and national level of its preservation. One-fourth of the Nation's supply of seafood is produced by the Mississippi River Delta area, one of the most productive deltas in the world.

The feasibility study of the Jean Lafitte National Cultural Park completed in 1973 by National Park Service authorized by Congress through the efforts of the late Congressman Hale Boggs, has recommended that the total park concept be included in the national park system. Pages 4 and 5 of the study summarize the basis of acceptance and feasibility:

A Jean Lafitte National Cultural Park is recommended as a feasible park because: Existing historic sites of established national significance, now eligible for inclusion in the national park system. Existing evidence of major European and African cultural contributions. Existing natural resources in a suitable marsh area. Existing appreciation of cultural and natural resources. Existing local and regional support for such a park. Existing tourism. Existing national and international interest in the Lafitte story and cultural symbol. Existing environmental concern for the delta and growing awareness of the processes operative there.

The park goal is: To interpret the unique blend of the region's culture, using the Lafitte career and personality as a thematic vehicle; to preserve, reclaim and perpetuate significant cultural and natural environments of the region.

A cultural park designation is optimum for the park because: It allows a more encompassing theme than the historically park category incorporating not only past traditional but current values of the living region, and extending to an environmental ethic.

The region contains unique topographical, geological and biological features—barrier beaches, swamps and marshes, mud lumps and the meander belts of the Mississippi River. Beyond question the coastal zone is an important part of our dwindling heritage; and the philosophical argument for preservation of wild rivers, scenic canyons, and mountain fastnesses apply here with equal force.

Inaction now may not deem a wild area insulated from masses of men; but in the delta region, inaction will mean a continuation of present trends, with probable loss of the resource itself. It is time of decision for Baratarians, for Louisiana, for the Nation.

We present this proposal for a unique cultural park not only for its intrinsic qualities, but as a vehicle of assistance in this time of decision.

Many of the obstacles that confronted the park's acceptance in 1974 are no longer evident. The new Jefferson Parish council and the Parish president have approved the park concept. Agreements have been reached to stop development in the vicinity of the park that would have an adverse effect on it.

With your efforts and support now, these native haunts of this legendary paradise can become a reality. Without it, it will be a passing memory, as expressed in the words of a great statesman, the late Adlai Stevenson:

We must preserve our monuments and architecture, our shores, and lakes, and woodlands, for if we do not, we shall consign our heritage to the history books. To allow our landmarks to fall and our land to be squandered would be to destroy the noble evidence of our proud past.

Senator JOHNSTON. Thank you very much, Mr. Ehret. I know when and if this park becomes a reality, and I confidently predict that it will, you will be very vindicated in your long support, and very effective support, and we're well aware of the leadership you've given through the years in this park, and I think the results of it are, hopefully, just around the corner.

Mr. EHRET. Thank you, Senator.

Now, I have just a 9½-minute slide review of the area that I would wish to show the delegation. It takes 9½ minutes on the screen.

Senator JOHNSTON. Very well.

Mr. EHRET. It would give a very good idea. I know you're going to fly over the area, but I think—It's in the wintertime now, you'll see a dead area; and as the congressional delegation in 1973, they came down in February on a tour, and we took them in open Lafitte skiffs the day after it snowed and they almost froze. So, I know they didn't get any idea of the park. I'd like to show you the beauty of the park as expressed on slide, and it's put to music that I have prepared; and it will give an idea of the beauty of the park, and it shows the contrast of the beauties of nature and what can happen by the urban spread which would decrease the value of the park.

I am not one against progress, Senator, but I do believe that progress does not mean to take all the land and urbanize it. We've got to have proper planning in this and set aside certain areas as the Jean Lafitte Park, and the film, the slides, will show this; and also you will see the idea of the delta area. Bayou Des Familles is an important part of the park and it shows a small deltaic area; and much of the slides are in infrared where you will see the different colorations showing the high land, the swamp and the marsh and the natural levees, and the distributary of the Mississippi River, the size, the formation of the land and this whole Mississippi Delta country.

[Mr. Ehret shows slides.]

Mr. EHRET. Thank you, sir.

Senator JOHNSTON. Thank you very much, Frank. We enjoyed your slides and your music, too.

Next we'll have a panel with Mrs. Bethlyn McCloskey who's past chairman of the Jefferson Parish Commission on Environmental Development; Mrs. Mary Louise Christovich from the Friends of the

Cabildo; Dr. J. Richard Shenkel, professor of anthropology at the University of New Orleans; and Miss Betsy Swanson, professional photographer and historian representing Rudolph Toledano.

This is a very high-powered panel, and if you would all like to come up at one time, we would be glad to hear from you. We are particularly indebted to Bethlyn for her coordination and planning in this hearing today. Bethlyn, we want to thank you very much.

Mrs. McCLOSKEY. The weather is going to be perfect tomorrow.

Senator JOHNSTON. All right, we'll count on that.

**STATEMENT OF BETHLYN J. McCLOSKEY, PAST CHAIRPERSON,
JEFFERSON PARISH ADVISORY BOARD ON ENVIRONMENTAL
DEVELOPMENT**

Mrs. McCLOSKEY. I'll let Betsy do her preparations in the background and I'll begin, and I'll try to kind of condense what my testimony says. Some of it has been said already and some of it needs saying again.

I want to thank all of you for being here and thank you for having me. I'll introduce myself as they told me I had to: I'm Bethlyn McCloskey. I'm a lifelong resident of Jefferson Parish, La. For the past 5 years I have served as chairperson of the Jefferson Parish Advisory Board on Environmental Development during which time Lafitte Park was one of our major projects. I worked with the original National Park Service study team which produced a suitability/feasibility study in 1973 and I have provided input to the feasibility report and the master plan for the proposed Jean Lafitte State Park. I am a board member of numerous local preservation-conservation organizations, have acted as an official liaison person in this area for the nature conservation and have recently been appointed by Governor Edwards to serve on the Louisiana Coastal Commission representing nature preservation and the environment. My testimony is submitted here today as a local citizen who has fished and enjoyed the Barataria region since childhood and who is devoted to seeing the creation of a Jean Lafitte National Park.

I would like at this point to thank Mr. Hugh Ford and his staff of people for providing us with the maps that we've been able to use, and I would also like to wish Mr. Ford another happy birthday.

My statement today is intended as a broad overview to introduce subjects which need detailed study, some of which has already been brought out today, some of which will follow. The details of State and Federal legislation has been presented to you by the State parks commission. But even before the first legislation in 1966, local and State residents have been urging that a park of some sort be established. Why has this effort persisted and why is this area of more than local and State importance?

One of the primary purposes of a Jean Lafitte National Park would serve would be a means for interpreting the delta system and the Great Mississippi River which created it. Nowhere in the United States is there any type of facility which treats this subject. Considering that the Mississippi Valley comprises the heartland of the Nation and that the Mississippi Delta is one of the greatest deltas in the world, this represents a tremendous national educational void.

In the Lafitte Park area, we have a delta system in microcosm.

Now, I won't read the statement that's already been presented that was in the State park plans by James Fondren & Associates; and Dr. Gagliano and others, I believe, are going to treat the delta system in greater detail following me.

Let it be said that in a report issued after 2 years study of coastal resources, the Louisiana State Advisory Commission on Coastal and Marine Resources issued a recommendation calling for the establishment of a Great River National Park. The study said that the river park would allow people to view the delta building process and other natural phenomena which characterized the mouth of the greatest rivers in the world. A fascinating fact to introduce here is that a person could travel by boat from Illinois or the very upstreams of the Mississippi River all the way downriver to the Jean Lafitte Park without ever having to set foot on land. And one thing I think is important too, that Lafitte could perhaps stimulate other similar efforts along the river.

At the first conference on Scientific Research in the National Parks, recently held here in New Orleans, a theme that was constantly stressed was that the Nation's parks provide a great outdoor laboratory for university researchers. Dr. Thomas Robertson, of the National Park Service, stated that—

We must respond to environmental conditions and give advance indication of change. Lafitte Park could serve as a prime outdoor laboratory in the national park system, because the nature of the delta system is change. It is a constant evolutionary process which needs to be closely studied, monitored, and interpreted for the people of this Nation.

Lafitte Park would serve not only as a scientific interpretative park, but a cultural one as well.

And those who follow me will go into this in detail.

Evidence of Indian civilization in the form of earth mounds and shell middens are in abundance in the park area. One island, in particular, needs extensive archeological investigation and would certainly be a point of interest in the park, as visitors could actually witness the process by which present-day man finds clues to the mysteries of ancient man.

From Indian times to the present, hunting, fishing, and trapping have remained a characteristic way of life in the Lafitte area. Large plantations enjoyed some success and for a brief time, the logging of the region's giant cypress was a thriving industry. The loggers of Louisiana cypress swamps were a tough, unique breed of men who deserve more recognition and place in the history of this country. At one time, Louisiana Cypress Co., who logged in the Lafitte area, was the largest cypress mill in the world.

I do not intend to go into a detailed discussion of the colorful character of Jean Lafitte, but will refer you and encourage you to read the Lafitte story in the National Park Service's feasibility and suitability report and Betsy Swanson's book, "Historic Jefferson Parish—From Shore to Shore." And I have copies of the book here with us today that will be presented to you, I think at the end of my presentation and possibly at the end of Betsy's. We would like to distribute the copies of the book or I'll distribute them at the end of mine, so you might look through the book. We're very proud of the book. It

was sponsored by my board, the environmental development board, and subsidized by the Jefferson Parish Council. It's a unique book, we think. It covers the entire parish, but you'll be able to read and look and see, and I hope you have some questions.

Many of Lafitte's descendants remained in the Barataria country and became a part of the different culture groups of the proposed park area. These Spanish, French, Indian, even Filipino people are illustrative of the culture diversity found throughout the State. Their success in living in the Lafitte area through hunting, fishing, and modern industries such as shipbuilding is a testimony to man's successful attempt to live, prosper, and be happy in the coastal zone. This evolutionary culture should be interpreted on a national level.

And, gentlemen, one of the most important reasons I advocate the establishment of a national park is that this park could serve to protect and enhance the Barataria Bay estuary of which you have heard a great deal today. I would like to be more specific: I am suggesting that the northern park boundaries be extended around the shores of Lake Salvador Game Management Area, thereby creating a continuous and firm buffer zone for urban expansion into the estuary system. There is also a possibility that a large supposed development project adjacent to the park area will be included in the boundaries, adding approximately 3,500 acres.

I'd like to stop and ask if this needs to be pointed out to any of you, or are you familiar enough with the area?

This is Jim Fondren, who is working with the State park, and he very conveniently happens to be sitting right next to the map, if I may take advantage of his presence. That area there is what I'm talking about.

Senator JOHNSTON. Where are the limits of the State game or management—

Mrs. McCLOSKEY. The management area. [Mr. Fondren indicates on map.]

Senator JOHNSTON. And how wide a buffer zone would you need around Lake Salvador?

Mrs. McCLOSKEY. How many acres is that? I really don't know what the acreage is, and I'm sorry Dick Yancey has left, because he would know more about that than I.

Woody, do you know?

This is Dr. Sherwood Gagliano, who will be making a presentation later on.

Dr. GAGLIANO. Some rough calculations suggest that an additional 20,000 acres would be necessary to produce the kind of buffer needed in the estuary. That would, however, include Couba Island.

Senator JOHNSTON. It would include?

Dr. GAGLIANO. Yes.

Mrs. McCLOSKEY. It really kind of doesn't make sense not to include Couba Island—if we were to purchase or to acquire or manage the upper areas and have that little island there where somebody could do anything they would want to and mess up all of our well-laid plans.

Senator JOHNSTON. Is there a lot of pressure for development on that north shore of the lake?

Mrs. McCLOSKEY. On the north shore of the lake?

Senator JOHNSTON. Yes.

Mrs. McCLOSKEY. There is a levied area there—you can see the portion of a levee, there's a levee there—and we have someone else here with us today, a Dr. Day, who has been doing some research in the St. Charles Parish area, which is the area west, and I think he can possibly answer your questions about development pressures. Historically the area there, since something is levied historically, it would necessarily lead to development, it's just a question of time, and possibly some other people here can answer that better than I, also. I would like you to address that question to Dr. Gagliano and Dr. Day when they get up. I would say yes, but they have the facts.

Here are some facts I'm going to throw out. We were talking about the Barataria system—and it is the single most productive estuary system in the Nation. It produces some 44 percent of Louisiana's fishery harvest. The entire Louisiana harvest makes up some 25 percent of the Nation's fishery products. The remaining percentage is from scattered areas, mostly imports, thus giving the protection of this estuary significant importance on a national level.

Here are some figures that were cited for us by Dr. Paul Wagner, but Dr. Wagner's figures are common to many studies done in this area. Significant observations are that Barataria leads the State in oyster production, blue crabs, and menhaden production, and is second in shrimp landings, croaker, and speckled trout.

According to the figures from the Louisiana Advisory Commission's wetlands prospectus, the State sport fishing catch amounts to a whopping \$120 to \$150 million, much of which is thought to be generated in the Barataria Bay area, as Dick Yancey was telling you.

Too little realized about the estuary system is their life support functions such as acting as a natural means for air and water purification systems. The marsh-swamp areas serve as a natural hurricane buffer zone, which has already been mentioned, also.

The Barataria Bay area and proposed park site is home for a multitude of native animals and for hundreds of migratory bird species. Grand Isle, at the estuary's lower end, is known nationwide as a bird-watchers' paradise. And I invite you to come back down in the fall and especially in the spring of the year. That's when Grand Isle's bird population far outnumbers the children population, if it doesn't now.

The Barataria estuary system is threatened by both man and natural causes. It is in a natural state of decline, hence its peak productivity. Wind and water are whittling away existing land masses. Added to this are man's canals, levees, and other flood control structures, which alter the hydrology and accelerate erosion. We're losing—Louisiana is losing—some 16.5 square miles of wetlands a year, and scientists can tell us how much of this is being lost in the Barataria system.

But I submit to you that since the Park Service's original study of the area, a new attitude toward wetland preservation has developed on the local and State level. The parish of Jefferson has become increasingly conscious of the environmental benefits of the estuary system and Jefferson's responsibility to it. Parish officials have offered endorsement to the park (as you've seen here today, and have made efforts to keep some land adjoining the park in a natural condition.

The State of Louisiana is presently working on coastal zone management legislation designed to manage activities in the wetlands particularly in important areas such as the Barataria system. Legislators and, as you saw, Governor Edwards here today are in favor of coastal zone management as opposed to their position several years ago.

This is not to say the estuary has been declared off limits. It is still threatened by projects, local, State and Federal, which would escalate its degradation at alarming rates. The change in attitude is mentioned here to point out that less conflict with national park management practices should be encountered here today as opposed to several years ago. I feel that, however, legislative taking is possibly the only way to advance with this park; and that is not in my written statement, but this will be included.

In an article in the Times-Picayune, Sunday, November 20, Jean Matthews, writer-editor for the Chief Scientist of the National Park Service said that, "parks are in a perfect position to take the lead in determining how to best fit man and nature together—if parks can plug into swamps and cypress domes to avoid building tertiary treatment plants, then the rest of the world should be taking a page from the Park Service book. Natural parks are a superb example of energy and matter in balance." It seems that Ms. Matthews and Lafitte Park were made for each other.

I fully agree with the intent of Senator Johnston's legislation that proposes national protection of the Barataria system because of its national scope.

Technology exists today to extend the life of the Barataria Bay estuary, a viable national, natural resource. The establishment of a national park would provide the vehicle for applying this technology.

You have heard from Bob LeBlanc of the tourist commission, so I just won't go into this too great a depth, but I would like to point out that New Orleans is the largest urban area in the State of Louisiana, and Jefferson Parish is the second most populous. Jefferson is one of the most densely populated parishes in the State, having over 914 persons per square mile. I think that's something that needs to be brought out. From 1940 to 1970 Jefferson grew at an annual rate of over 6 percent, making it the fastest growing parish in the State. It is also one of the fastest growing areas in the southeast portion of the Nation.

According to "The Louisiana Wet Lands Prospectus," the New Orleans metropolitan area has 30 percent of the State's population and the thrust of State growth will be directed to this same area.

As Bob told you, what is lacking in Louisiana is family type entertainment.

Every day 200 to 300 people board the bayou cruises at the foot of Canal Street, and they are disappointed, cause I've ridden on these cruises many times. They are disappointed when there are no facilities to allow them to disembark and feel the marsh, see the alligators and hear the cries of the frogs and the birds.

Recreation facilities are more lacking in the New Orleans area than any part of the State and it is impossible for the casual visitors to enjoy water related activities. In fact, Louisiana is fiftieth of fifty States in developed recreation areas.

Why create artificial facilities when the real thing is available? And in this day of dwindling energy resources, it is more than reason-

able to put a park where the people are, that is, 30 minutes from a major urban area.

I must say to you that even though excited about the prospects of a national park, I have serious reservations. Adverse effects of recreation on already stressed areas create problems: Waste, solid and liquid; loss of habitat; congested access routes; excessive use; loss of wilderness and ecosystem changes, to name a few.

I am fully aware of the problems that all of our national parks are facing and do not want Lafitte Park to become another addition to the list of endangered species.

My confidence in the future of our national parks has been somewhat restored by Senator Johnston and his interest in Lafitte and the whole system. His legislation to increase the land and water conservation fund and to create special programs is one of the most progressive actions regarding our parks that has taken place in a decade. He is to be congratulated and deserves strong support from his peers and his public. I would also like to commend Senator Hansen for his support in the park legislation and thank him for coming to this hearing at such an active period in Washington.

In conclusion, I would like to make some specific comments about the park proposal.

I would urge the committee to consider merging the park boundaries with the State management area, as I mentioned before. I would also urge the acquisition of as much land as possible to serve Senator Johnston's desire to preserve this unique marsh ecosystem. The Interior and the committee might want to review the State of Louisiana's application to NOAA, Department of Commerce for an estuarine sanctuary to be located on islands to the south of the park area. The sanctuary is annexed of the proposed sanctuary and is the nesting place for the State's only remaining brown pelican population. On one of the islands in the sanctuary, proposed sanctuary, Grand Terre is found the ruins of historic Fort Livingston, presently Jefferson's only site listed in the National Register. There should be some possibility that a sort of joint State and Federal effort be made in management of parts of the park, particularly since I think we have to consider the hunting and trapping that takes place in the park area today.

The proposal to create a Lafitte Park Commission is good. Local people should have a voice in such an important influence on their community, from planning stages through management. I question, however, why the commission is due to be terminated 10 years after the park's establishment. I'm sure there's precedents for this, I just didn't quite understand why. It would seem that because research will be a constant part of Lafitte Park that a commission would be an ongoing interpretative vehicle to the community.

I would also like to propose that attention be given, as has been already today, to the creation of the Delta Region Preservation Commission and with a central clearing house in the city. Other buildings outside the city, such as the ruins of a Greek revival mansion in Jefferson Parish, Seven Oaks, could serve as related information centers. At the lower end of the parish possibly Fort Livingston could be the interpretative unit. Boats touring to the estuary system could elite the entire region.

A satellite park concept would be implemented through a regional commission. Currently the Louisiana Nature Center is developing a core science-oriented center in New Orleans east with plans for additional areas in the metropolitan region, possibly in Lafitte Park. The regional commission would be a coordinating agency for efforts of this type.

When you observe the park tomorrow, I would hope that the committee will view man's use and imposition on the area with a positive outlook. Yes, man has impacted the area; there are very few pristine swamps left in Louisiana, if any at all. But man's presence in the delta is a natural evolution which could not and should not be stopped. The creation of a park will not stop man's presence, only the nature of the presence.

And I would suggest that the committee take advantage of using the original study team-members in whatever plans are made for the current park proposal. They are knowledgeable and familiar with the area and the time devoted to the study shouldn't be wasted.

And I have something additional I wanted to mention because I've been in the park area and some different pieces of information have come to light, and I would like to make a few more proposals.

I would like to ask that State and local officials accelerate their surveillance on game poachers and those people who are illegally digging ditches and degrading the area with canals that don't belong there. Local and State officials should consider creating a scenic highway of Highway 45 as proposed in the State master plan. Strict commercial zoning along Highway 45 should be reviewed, and alternatives should be considered. This is especially relevant since the majority of the traffic along Highway 45 will be rerouted to the Lafitte-Larose Highway. Every effort should be made to keep Highway 45, the most beautiful road in the parish, in its best natural state. Greater attention should be paid to assist developers near the proposed park to create a residential and commercial area more attuned to a park-like environment, such as the purchase by an official body, scenic easements along the highway creating a green belt. Special planning efforts to create pleasant visual vistas, such as the elimination of overhead wires.

And I would like to say, yes; I do think there is stress to develop in the park area.

And I do not want to thank you very much. I am so pleased to be here today and pleased to have you here today; and I just think we ought to get on with the park. Thank you.

Senator JOHNSTON. Thank you very much, Bethlyn. We appreciate your nice comments about us and we thank you very much for your help in not only these hearings but in the development of this park as well.

Mrs. McCLOSKEY. My pleasure; and I'll distribute the books.

[The prepared statement of Mrs. McCloskey and attachments follow:]

STATEMENT OF BETHLYN J. McCLOSKEY, PAST CHAIRPERSON, JEFFERSON PARISH
ADVISORY BOARD ON ENVIRONMENTAL DEVELOPMENT

I am Bethlyn J. McCloskey, a lifelong resident of Jefferson Parish, La. For the past five years, I served as Chairperson of the Jefferson Parish Advisory Board

on Environmental Development during which time Lafitte Park was one of our major projects. I worked with the original National Park Service study team which produced a suitability/feasibility study in 1973 and I have provided input to the feasibility report and the Master Plan for the proposed Jean Lafitte State Park. I am a Board Member of numerous local preservation-conservation organizations, have acted as an unofficial liaison person in this area for the Nature Conservancy and have recently been appointed by Governor Edwards to serve on the Louisiana Coastal Commission representing Nature Preservation and the Environment. My testimony is submitted here today as a local citizen who is devoted to seeing the creation of a Jean Lafitte National Park.

Details of State and Federal legislation will be presented to you by the Louisiana State Parks Commission. Even before the first legislation in 1966, local and State residents have been urging that a park of some sort be established in the region known as Barataria or Lafitte. Why has this effort persisted and why is this area of more than local and State importance?

One of the primary purposes a Jean Lafitte National Park would serve would be a means for interpreting the delta system and the Great Mississippi River which created it. No where in the United States is there any type of facility which treats this subject. Considering that the Mississippi Valley comprises the heartland of the Nation and that the Mississippi delta is one of the greatest deltas in the world, this represents a tremendous national educational void.

In the Lafitte park area, we have a Delta system in microcosm. As stated in the Feasibility study prepared by James Fondren & Associates:

"The proposed park area like much of South Louisiana was formed as part of the great Delta System of the Mississippi River. As the river constantly changed its course, it left behind vast areas of alluvial soil and a network of abandoned levee ridges which comprise most of the natural high ground in South Louisiana." Louisiana Highway 45 which is a main park access route follows the high ridge created by Bayou des Familles, once a distributary of the Mississippi River.

"Westward from the highway, the park area represents a transition from firm land deposits to the formations of swamps, marshes and open lakes characteristic of the delta system. Vegetative types include lowland hardwood forests, tupelo gum swamps, and freshwater marsh communities.

In a report issued after a 2 year study of coastal resources, the Louisiana State Advisory Commission on Coastal and Marine Resources issued a recommendation calling for the establishment of a Great River National Park. The river park would allow people to view the delta building process * * * and other natural phenomena which characterize the mouth of the greatest river in the world.

Even though the park area has many acres of high ground, a fascinating thought to introduce here is that a person could travel by boat from Elgin, Illinois downriver to the Jean Lafitte National Park and never set foot on land. Perhaps Lafitte Park would stimulate other similar efforts along the river.

At the First Conference on Scientific Research in the National Parks, recently held here in New Orleans, a theme constantly stressed was that the Nation's parks provide a great outdoor laboratory for university researchers. Dr. Thomas Robertson of the National Park Service stated that "We must respond to environmental conditions and give advance indication of change. Lafitte Park could serve as a prime outdoor laboratory in the National Park System, because the nature of the delta system is change! It is in a constant evolutionary process which needs to be closely studied, monitored and interpreted for the people of this Nation.

Lafitte Park would serve not only as a scientific interpretive park, but a cultural one as well. Man has inhabited the Lafitte area from its earliest periods of geologic stability. Early prehistoric Indians maintained an apparently extensive civilization from 500 BC to present; Evidence of their civilization in the form of earth mounds and shell middens are in abundance in the park area. One island in particular, needs extensive archaeological investigation and would certainly be a point of interest in the park, as visitors could actually witness the process by which present day man finds clues to the mysteries of ancient man.

From Indian times to the present, hunting, fishing and trapping have remained a characteristic way of life in the Lafitte area. Large plantations enjoyed some success and for a brief time, the logging of the regions giant cypress was a thriving industry. The loggers of Louisiana's cypress swamps were a tough, unique breed of men who deserve more recognition and place in the history of this country. At one time, Louisiana Cypress Company, who logged in the Lafitte area, was the largest cypress mill in the world.

I do not intend to go into a detailed discussion of the colorful character of Jean Lafitte, but will refer you and encourage you to read the Lafitte story in the National Park Service's feasibility and suitability report and Betsy Swanson's book, "Historic Jefferson Parish—From Shore to Shore". You will find that Lafitte was indeed a real man, not a myth and one of the most truly interesting heroes this country has ever had. His story is a rich and important chapter in our history books.

Many of Lafitte's descendants remained in the Barataria country and became a part of the different culture groups of the proposed park area. These Spanish, French, Indian, even Filipino peoples are illustrative of the culture diversity found throughout the State. Their success in living in the Lafitte area through hunting, fishing, modern industries; such as ship building is a testimony to man's successful attempts to live, prosper and be happy in the Coastal Zone. This evolutionary culture should be interpreted on a national level.

One of the most important reasons that I advocate the establishment of a National Park in the southern portion of Jefferson Parish and possibly some land in the adjoining St. Charles Parish is that this park could serve to protect and enhance the Barataria Bay estuary. I am suggesting that the northern park boundaries be extended around the shores of Lake Salvador to meet the boundaries of the State owned Salvador Game Management area thereby creating a continuous and firm buffer zone from urban expansion into the estuary system.

The Barataria Bay estuary whose northern boundaries are the areas surrounding Lake Salvador, is the most productive single estuary system in the Nation, producing some 44 percent of Louisiana's fishery harvest. The entire Louisiana harvest makes up some 25 percent of the nation's fisheries products, (the remaining percentage is from scattered areas, mostly imports), thus giving the protection of this estuary significant importance on a national level.

These figures are cited in many various reports, but are included in a summary prepared by Dr. Paul Wagner for the Jefferson Parish Advisory Board on Environmental Development which is attached to this report.

Some significant observations are that Barataria leads the State in:

- (a) oyster production
- (b) number blue crabs taken per acre
- (c) Menhaden production (our single largest commercial fish)

It is second in shrimp landings, croaker and speckled trout.

According to figures from the Louisiana Advisory Commission's Wetlands Prospectus, the State sport fishing catch amounts to a whopping \$120 to \$150 million, much of which is thought to be generated in the Barataria Bay area.

To little realized about, estuary system is their valuable life support functions such as acting as a natural means for air and water purification. The vast system of marsh-swamp areas in the Barataria Bay system serves as a natural hurricane buffer zone protecting a proposed populace of hundreds of thousands of people.

The Barataria Bay area and proposed park site is home for a multitude of native animals and for hundreds of migratory bird species. It is in the Mississippi flyway and a barrier island, Grand Isle, at the estuary's lower end that is known nationwide as a bird watcher's paradise. Several endangered animal species, the American alligator and the bald eagle are found in or near the park and a unique plant species, the dwarf cypress is within the proposed park boundaries.

The Barataria estuary system is threatened by both man and natural causes. It is in a natural state of decline hence its peak productivity. Wind and water are whittling away existing land masses. Added to this are man's canals, levees and other flood control structures, which alter the hydrology and accelerate erosion.

Louisiana is losing some 16.5 square miles of wetlands a year and scientists can tell us how much of this loss is in the Barataria system.

But I submit to you that since the park services original study of the area, a new attitude toward wetland preservation has developed on the local and state level. The Parish of Jefferson has become increasingly conscious of the environmental benefits of the estuary system and Jefferson's responsibility to it. Parish officials have offered endorsement to the park and have made efforts to keep some lands adjoining the park in a natural condition.

The State of Louisiana is presently working on Coastal Zone Management legislation designed to manage activities in the wetlands particularly in impor-

tant areas such as the Barataria system. Legislators and Governor Edwards are in favor of Coastal Zone Management as opposed to their position several years ago.

This is not to say the estuary has been declared off limits. It is still threatened by projects, local state and federal, which could escalate its degradation at alarming rates. The change in attitude is mentioned here to point out that less conflict with National Park management practices should be encountered.

In an article in the Times Picayune, Sunday, November 20th, Jean Matthews, writer-editor for the Chief scientist of the National Park Service said that "Parks are in perfect position to take the lead in determining how to best fit man and nature together—if parks can plug into swamps and cypress domes to avoid building tertiary treatment plants, then the rest of the world should be taking a page from the Park Service book. Natural parks are a superb example of energy and matter in balance". It seems that Ms. Matthews and Lafitte Park were made for each other.

I fully agree with the intent of Sen. Johnston's legislation that proposes national protection of the Barataria Bay estuary because of its national scope.

Technology exists today to extend the life of the Barataria Bay estuary, a viable national natural resource. The establishment of a National Park would provide the vehicle for applying this technology.

A national park should be established in this area to allow native residents and those who visit here the opportunity to take advantage of its fabulous natural resources for recreation.

New Orleans is the largest urban area in the State of Louisiana with Jefferson Parish being the second most populous Parish. Jefferson is one of the most densely populated Parishes in the State, according to a study prepared by Burk & Associates, Inc., having over 914 persons per square mile. From 1940-1970 Jefferson grew at an annual rate of over 6 percent making it the fastest growing Parish in the State. It is also one of the fastest growing areas in the Southeast portion of the Nation.

According to "The Louisiana Wetlands Prospectus," the New Orleans Metropolitan area has 30 percent of the States population and the thrust of state growth will be directed to this same area.

And then come the tourists! People like to come to Louisiana, especially New Orleans!

There is not a national park within 500 miles of this area which indicates a lack in a system designed to serve people.

Tourism is Big business in Louisiana as a whole, ranking second in the State as a Major industry, and second as an industry in New Orleans. New Orleans ranked No. 2 among 80 major cities in the United States in convention bookings amounting to a \$100 Million business.

But what is lacking in New Orleans is more family-type entertainment and resources that a National Park could provide. I would not advocate the creation of a park simply because tourist groups need more entertainment, but the Lafitte Park project provides people who flock to New Orleans, what they want to see and do.

Every day 200-300 people board the Bayou Cruises at the foot of Canal Street to get a glimpse of the Louisiana Coastal area. They are disappointed when there are no facilities to allow them to disembark and "feel" the marsh, see the alligators and hear the cries of the swamp frogs and the marsh birds.

Recreation facilities are more lacking in the New Orleans area than any part of the State and it is virtually impossible for the casual visitor to enjoy water activities in our miles of Lakes and Bayous.

Both the Louisiana and the New Orleans Tourist Commission have issued statements that there is a serious need for more family oriented activities. Why create artificial facilities when the "real thing" is available? And in this day of dwindling energy resources, it is more than reasonable to put a park where the people are, ie: 30 minutes from a major urban area.

I must say to you that even though excited about the prospects of a National Park, I have serious reservations stemming from personal experiences. Adverse effects of Recreation on already stressed areas create problems: (1) Waste, solid and liquid, (2) Loss of habitat, (3) Congested access routes, (4) Excessive use, (5) Loss of wilderness and ecosystem changes, to name a few.

I am fully aware of the problems that all of our National Parks are facing and do not want Lafitte Park to become another addition to the list of endangered species.

My confidence in the future of our National Parks has been somewhat restored by Sen. Bennett Johnston and his interest in Lafitte and the whole system. His legislation to increase the land and water conservation Fund and to create special programs is one of the most progressive actions regarding our parks, that has taken place in a decade. He is to be congratulated and deserves strong support from his peers and his public.

While I feel the potential benefits stemming from this Park proposal are worth some risks, careful evaluation must be made every step of the way in planning, implementing and managing Lafitte National Park.

In conclusion, I would like to make some specific comments about the Park proposal.

I would urge the Committee to consider merging the park boundaries with the State Management area as I mentioned before. I would also urge the acquisition of as much land as possible to serve Sen. Johnston's desire to preserve this unique Marsh ecosystem. The Interior might want to review the State's application to N.O.A.A., Dept. of Commerce for an estuarine sanctuary to be located on islands to the south of the park area. The sanctuary is the nesting place for the State's only remaining brown pelican population.

There is a possibility that some sort of a joint State and Federal effort be made in management of parts of the park.

Because many of the lands within the proposed park are used for hunting, consideration should be made for this use.

The proposal to create a Lafitte Park Commission is good. Local people should have a voice in such an important influence on their community, from planning stages through management. I question, however, why the commission is due to be terminated ten years after the Park's establishment. It would seem that because research will be a constant part of Lafitte Park that a commission would be an ongoing interpretive vehicle to the community.

I would also like to propose that attention be given to the creation of the Delta Region Preservation Commission as proposed in the 1973 suitability/feasibility study by the National Park Service. A central clearinghouse in the city, as suggested by the study would be invaluable in allowing interested people to view this area as units of various cultural and recreational resources. Other buildings outside the City, such as the ruins of a Greek Revival Mansion in Jefferson Parish, Seven Oaks, could serve as related information centers.

A satellite Park concept could be implemented through a Regional Commission. Currently the Louisiana Nature Center is establishing a core science oriented center in New Orleans East with plans for additional areas in the Metropolitan region, possibly in Lafitte Park. The Regional Commission would be a coordinating agency for efforts of this type.

In observing the Park area I would hope that the Committee will view man's use and imposition on the area with a positive outlook. Yes, man has impacted the area; there are very few pristine swamps left in Louisiana, if any. But man's presence in the Delta is a natural evolution which could not and should not be stopped. The creation of a Park will not stop man's presence, only the nature of the presence.

I would suggest that the Committee take advantage of using the original study team-members in whatever plans are made for the current Park proposal. The original team-members are knowledgeable and familiar with the area and the time they devoted to the study should not be wasted.

Most importantly, I want to urge you to simply "get on with it." This park has been studied and scrutinized for ten years, it is past time to move on its creation.

I will be happy to assist in any way that I can and thank you for your cooperation.

An addendum to testimony prepared by Bethlyn McCloskey

A recent survey of the proposed area has brought several things to my attention leading me to ask for several immediate, strong measures to be enacted on the part of local, state and federal officials in order to keep this proposed area intact.

(1) State and local officials must accelerate their surveillance on game poachers and those people who are illegally degrading the area with shooting into trees and digging canals and ditches.

(2) Local officials should consider creating a scenic highway of Hwy. 45 as proposed in the State Master Plan. Strip commercial zoning along Hwy. 45 should be reviewed and alternatives should be considered. This is especially relevant since the majority of the traffic will be rerouted to the Lafitte-Larose Hwy. Every effort should be made to keep Hwy. 45, this most beautiful road in the Parish, in its best natural state.

(3) Great attention should be paid to assist developers near the proposed park to creating residential and commercial areas more attuned to a park like environment such as: purchase by an official body of scenic easements along the highway to create a green belt; special planning efforts to create pleasant visual vistas such as the elimination of overhead wiring.

(4) Hopefully, there will be developed from today onward a conscious desire by everyone to remember that day to day activities NOW can irreversibly alter the character of a Jean Lafitte National Park.

[From West Bank Guide, Dec. 1, 1976]

WEST BANK BAYOUS ORDERED UNPLUGGED

(By A. J. Tapie)

Bayous Aux Carpes and Des Familles will be free flowing waterways once again as a memorandum from Washington has ordered the replacement of the dams at these waterways with flood gates.

The order came from Gen. Drake Wilson, commander of the Army Corps of Engineers, and was directed to the Corps' local district. Although the dams have been ordered destroyed, the installation of the flood gates was left to the judgement of Jefferson Parish officials.

However, the order does state that the gates were to be closed only at times when high water posed a threat of flooding. The operation of the gates was to be supervised by the Corps.

The issuance of the order is the result of a compromise between environmental groups, Jefferson officials and the Army Corps of Engineers. After months of negotiating the Corps agreed to drop its support of the dams and a pumping station at Bayou Carpes.

In return, environmentalists dropped their efforts to force a section of the Lafitte-Larose highway to be elevated in a small part of the roadway's northern sector (from Crown Point to Estelle).

The agreement, however, does call for the highway department to revise its design of the highway in the wetlands north of Crown Point so that additional, larger open culverts will be used.

Because of imminent and lengthy court battles, the highway department has in effect dropped its plans for the highway from Lafitte to Larose. As a possible part of the agreement, the Crown Point to Estelle section of the roadway may be designated a separate project.

The dams at Bayous Carpes and Des Familles were installed in 1971 as part of a "hurricane protection" project authorized by Congress. Environmentalists and the Environmental Protection Agency (EPA) have contended for years that the dams were illegal since they plugged navigable waterways.

Action by Jefferson Parish officials further aggravated the situation as it authorized, under the consent of the Corps, the installation of a pumping station at Bayou Carpes.

According to sources close to the EPA, a landmark court battle was about to take place as the agency was ready to file suit against the Corps. Two federal agencies had never filed suit against each other before.

The source told the Guide that EPA lawyers had contacted Corps lawyers and that a settlement was reached. "They (the Corps) didn't have any legal ground to stand on," the EPA source said. "It was obvious that the project was for land reclamation and not hurricane protection."

The order comes as good news to the people who live along Bayou Des Familles as they have been plagued by improper drainage ever since the bayou was plugged.

The past parish administration, however, has received a hard slap from the federal government for its efforts to drain a portion of the wetlands owned in part by former Councilman Harold Molaison. The parish had authorized in 1971 \$300,000 to help build the levees, \$180,000 for the damming of Bayou Carpes and another \$486,000 for the Bayou Carpes pumping station.

An undetermined amount of money was also spent by the parish for the digging of a canal connecting the two bayous in anticipation of the installation of the Carpes pumping station.

Parts of the pumping station still lie in the wooded area near Bayou Carpes. Depending upon what parts are salvageable, the parish could possibly have spent more than \$1 million, along with another \$1 million, along with another \$1 million authorized by Congress, for a levee system which protects acres of uninhabited land.

LOUISIANA FISHERY HARVEST AND PARTICULARS ON BARATARIA BAY

(By Dr. Paul Wagner)

(1) Louisiana is the No. 1 Fishery producing State in the country. Over the past several years, Louisiana has landed 1 to 1.4 billion lbs. of fishery products (mostly menhaden, shrimp, crab, oyster, catfish and crawfish).

(2) Louisiana has the most extensive and according to several studies (mine included), the most productive marsh and estuarine region in the world. Louisiana has 4.2 million acres of coastal marshes and 3.4 million acres of estuaries (open bays, lakes, etc.) for a combined total of 7.6 million acres of estuarine habitat (marsh and water). This is about $\frac{1}{4}$ of the total estuarine acreage in the United States.

(3) Louisiana's landings consistently make up 22 to 25% of the U.S. total.

(4) The amount of fishery harvest is directly proportional to the amount of estuarine habitat.

(5) Louisiana has 4 of the top 10 U.S. fishery ports on the basis of volume landed: Cameron, Morgan City, Dulac, and Empire.

(6) Louisiana fishery landings are valued at \$70 million annually. This is the dockside value for commercial fishing and does not include sport fishing, sport fishermen in Louisiana annually catch approximately 100 million lbs. of fish worth about \$120 and \$150 million.

BARATARIA BAY

(1) Barataria Bay is the most biologically productive estuary in Louisiana, in the United States and as far as we know in the world.

(2) Barataria Bay produces 44% of the total State fishery harvest on an average annual basis.

(3) According to my study, Barataria and Caminade Bay produces 650 lbs. of fish per acre/year which is an extremely high rate (the highest was reported in an estuary).

(4) Hydrologic Unit IV (the Barataria-Salvador-Des Allemands Basin) leads the State in total fishery harvest with an annual landing of 371.4 million lbs.

(5) Barataria Bay leads the State in:

(a) Oyster production—4.14 million lbs. (annual average). This is nearly half the total State annual landings.

(b) Number of blue crabs taken per acre—7.9 lbs./acre.

(c) Menhaden production—335.8 million lbs./year. About $\frac{1}{3}$ of the State total.

(d) Catfish and bullhead harvest—1.9 million lbs.

(6) Barataria Bay is second in:

(a) Shrimp landings—Average of 20 million lbs./year.

(b) Croaker landings—4.9 million lbs./year.

(c) Speckled Trout—1.1 million lbs./year.

Most of this data is taken from a report by Lindall (1972) and my dissertation research in the L.S.U. Sea Grant Program. If you need to cite someone of these figures, don't hesitate to use my name.

Senator JOHNSTON. Mrs. Mary Louise Christovich is next on the agenda.

Mrs. CHRISTOVICH. Yes; I think I would like to have Betsy precede me and then I will follow her.

Senator JOHNSTON. Very well.

Ms. Betsy Swanson.

STATEMENT OF BETSY SWANSON, AUTHOR OF "HISTORIC
JEFFERSON PARISH," NEW ORLEANS, LA.

Ms. SWANSON. I am the author of the book "Historic Jefferson Parish" published last year and funded by the Jefferson Parish Council. Since the book was not published in time for us in former studies of the proposed Jean Lafitte Park area, I would like to urge its use during the present considerations. It contains much information never before made public on the natural history, archeology and history of the Barataria region of the proposed park. I would like to propose today that development of the park should interrelate the human heritage of Barataria, both prehistoric and historic, with the wilderness setting and with the history of the entire Mississippi Delta, both geologic and human.

I would like to briefly point out the role that the region played in the history of this Nation. And I will also attempt to show that the Barataria region excels, historically as well as ecologically, in presenting the diverse aspects of one of the greatest delta systems in the world.

[Ms. Swanson shows slides.]

Ms. SWANSON. President Thomas Jefferson said, "There is on the globe one single spot, the possessor of which is our natural enemy. It is New Orleans, through which the produce of three-eighths of our territory must pass to market." This reasoning led to the purchase in 1803 of the Louisiana Territory, comprising all or part of 13 present-day States.

In a sense, the wilderness trails of the initial westward movement ultimately led to the Delta of the Mississippi River, the gathering point of the waterways that drain between the Rocky Mountains and the Appalachians, geographically and historically the apex of commerce and culture in the Mississippi Valley.

The livelihood of American settlers in Ohio and fur traders on the Missouri depended upon an open at the mouth of the Mississippi River that would provide a means of shipping their produce to the Atlantic States and to foreign lands.

New Orleans was, and is, a seaport, but it is not on the sea. Thomas Jefferson's concern was not merely for acquisition of the small Creole town hardly yet grown beyond the boundaries of the original village laid out by the French. He was concerned about the necessity of free access to those waterways in the vicinity of New Orleans that permitted the flow of commerce to and from the sea.

This is a Civil War map of the eastern portion of the Mississippi Delta. The red dots represent fortifications built by the Corps of Engineers following the British invasion of Louisiana in the War of 1812. The forts were built to prevent enemy access by means of those water routes of sufficient depth to permit the entrance of seagoing ships.

The Corps of Engineers determined that no fortifications were needed westward of Barataria Bay, at the lower left of this map, because bayous westward of that point were not deep enough for sizable vessels. Waterways shown on this eastern portion of the delta were those that allowed penetration of the delta, and there were three routes of penetration. The first and most obvious was the great Mississippi

River itself. But the current in the river is swift and sailing ships had difficulty ascending the river. Tacking was necessary and often ships simply tied up to wait for a good wind. A second water route to New Orleans did not present this problem. This route served as a rear door to the city: From the Mississippi Sound, through Lakes Borgne and Pontchartrain and through a bayou called St. John to the rear of the city. It was this rear door which caused the 18-year-old Bienville, founder of New Orleans, to determine to locate the city on the site of the present Vieux Carre, the French Quarter. But there was a third water route to New Orleans, also an important avenue of commerce and communication. This was Barataria, at the lower left of this map. If Lake Pontchartrain was a rear door to New Orleans, Barataria was a side door. It was for good reason that Jean Lafitte, privateer and smuggler, chose to locate his headquarters on Grand Terre Island at the mouth of Barataria Bay where Fort Livingston, the red dot at the lower left-hand corner of this map, was constructed some decades later.

Barataria was an easy route of access to New Orleans, the fast-growing trade center of the entire Mississippi Valley. Yet Barataria was also within close reach of the Gulf Stream, historically the shipping lane for sailing ships in the Gulf.

These, then, were the three water routes through the marshy deltaic terrain to New Orleans to the trade of the Mississippi Valley: The Mississippi River, an easier exist route than means of access; Bayou St. John leading from Lake Pontchartrain to an Indian portage near the rear of the city, and Bayou Barataria.

Indians, traveling in their dugout canoes, often made a practice of avoiding the Mississippi in favor of using calmer streams such as Bayou Barataria. Prehistoric settlements flourished in Barataria, and there are valuable archeological remains in the region.

The French discovered and explored Bayou Barataria's route to the sea in August of 1722, 4 years after the founding of New Orleans. Barataria Bay, however, had long been used as a safe harbor, being the only deep bay along this section of the coast. Pirates had probably long used the labyrinth of bayous behind the bay to escape from men of war.

Between 1736 and 1740, a navigable canal, perhaps the first on the lower Mississippi, was dug between the Mississippi River and Bayou Barataria by Claude Joseph Villars Dubreuil. This was the first canal to be dug to allow sizable ships to use this side door to New Orleans. This portion of an 1816 map of the Battle of New Orleans shows Dubreuil's Canal, which still exists as a drainage canal, one-half mile from where we are seated today in Gretna. Barataria was owned by Dubreuil, who was among the wealthiest of the French colonists, and entrepreneur and the King's Contractor for Public Works.

The canal allowed him to exploit the natural resources of Barataria, not only game and fish but also cypress and oak and shells from Indian sites for the making of lime for the construction of buildings in New Orleans.

He constructed the Ursuline Convent on Chartres Street in the Vieux Carre, the oldest building in New Orleans. He provided lumber for the first church in New Orleans located on the site of the St. Louis

Cathedral on Jackson Square in the Vieux Carre. He built fortifications and erected the first charity hospital in New Orleans.

Dubreuil arrived in Louisiana upon the founding of New Orleans and was one of the most important key figures in the establishment and development of the colony. He was a pioneer in many agricultural and industrial experiments and advancements. He built the first levee to protect New Orleans from overflow of the river.

Besides operating his sawmill, a brickyard with furnaces for baking 300,000 bricks at a time, a tiler, and huge lime pits, Dubreuil grew rice, had silk manufacturers and raised cattle.

He was among the first to successfully produce sugar, indigo and cotton. He had a shipbuilding industry in Barataria where he constructed ships for the Royal Navy which he floated to the river via his canal.

He pioneered in the development of the candle wax industry in Louisiana, deriving the wax from the berries of the native wax myrtle tree which grows so abundantly in the wetlands of Barataria. His wax furnaces produced candles similar to the bayberry candle and they were an important export being extremely popular in the French Court.

The lumber he derived from Barataria was also an important export for the new colony.

Dubreuil died in 1757 and, a few years later, his son, cut another navigable canal to Barataria, $4\frac{1}{2}$ miles upriver, in order to continue to exploit the resources of the Barataria property he had inherited.

Partially filled in a few years ago, it led to Bayou Segnette, still a lovely wild stream remarkably close to this metropolitan area.

The Dubreuil Canals were those which Lafitte's buccaneers used to reach the Chalmette Battlefield and keep their commitment to fight in the Battle of New Orleans. By that time, the canals were well established and heavily traveled routes of commerce and communication between New Orleans and the sea.

The second canal dug by the younger Dubreuil was dug on a plantation later to be known as Seven Oaks where the ruins of Seven Oaks plantation house stand today. The builder of the house sold the canal in 1830 to the Barataria Canal Co. which constructed locks at the canal's entrance at the river, permitting enlargement of the canal so that steamboats, then becoming dominant on the river, could use the Barataria side door to New Orleans.

In the 1840's, a third navigable canal was cut to Barataria, to which locks were also added, 1 mile upriver from where we are meeting today.

Nicolas Noel Destrehan had this canal dug, which became known as the Harvey Canal and which remains open today as an important avenue of industry, being part of the Intracoastal Waterway System.

Thus, from the early years of the settlement of Louisiana, Barataria has served as an important link between the sea and New Orleans and trade and communications in the Mississippi Valley.

Virtually every rural activity historically practiced throughout the Mississippi Delta was practiced in Barataria. Sugar plantations stretched for miles along the natural levees of Bayous Barataria and Des Familles. The old Berthoud Plantation House remains today in the locale of the proposed park. Raised as a precaution against floods,

it probably dates from about 1800. The brick chimney of its sugar house also still stands. Adjacent is the plantation burial ground, on an ancient Indian mound.

Of course, fishing has always been a primary livelihood in Barataria. Scientists say that the Barataria estuary is probably the most productive estuary in the entire world; productive in terms of renewable resources such as fish and fur-bearing animals. This estuary produces 44 percent of Louisiana's fishery harvest and Louisiana produces far more furs than any other State in the Union, in fact, 40 percent of the American catch.

Sun drying of shrimp was an early industry in Barataria, these men are dancing the shrimp to remove their hulls.

Other activities included the slaughter of alligators for their hides and herons for their plumage.

Of course, Baratarians always hunted deer and wild fowl.

There were vacheries or cattle ranches in Barataria, other animals were raised, cotton was grown, and corn and vegetables and fruits.

Of the various vernacular architectural forms in Barataria, the galleried Creole cottage was a dominant form.

Two important Barataria industries of the past were the excavation of shells from Indian sites for the making of lime and the building of roads and the picking, drying, and curing of Spanish-moss before the invention of synthetic substitutes for stuffing.

Logging was a major industry and lumber mills in towns such as Gretna, where we are meeting today, were the first major industries along the riverbank. In the late 19th century, a mill on the Harvey Canal was rated as the largest cypress mill in the world.

These abundant natural resources attracted many races and nationalities to Barataria. I am showing actual historic portraits of inhabitants of the area: Frenchmen, Italians, Spaniards and Mexicans, Anglo-Saxons, Negroes—in the early days both slaves and free people of color—Indians, Chinese, and Filipinos. Barataria was truly a melting pot of the Nation.

Some were the buccaneers of Jean Lafitte who settled down to a more peaceful life, and their descendants.

Lafitte was an enigma in his own time; he wanted it so because some of his activities were illegal. Volumes of biographic romance have distorted the true role Lafitte played in the history of this Nation. Recent research on Lafitte has shown that both as a person and as an historic figure he was far more than a mere handsome rogue. Because his colorful career sparked the fancy of the makers of myths, we should not be embarrassed to give him due credit, especially in the light of new evidence, for his patriotism and his heroism. He was not a pirate, he was a privateer. His only crime was that of smuggling, which was a long-established part of the commerce of Louisiana.

While American authorities placed a price on his head, Lafitte turned down a large offer of silver to collaborate with the British, and did battle with the British Navy in the gulf to prevent their invasion via Barataria. He furnished Andrew Jackson at Chalmette with the desperately needed gunpowder, flints, and cannons drawn from his hidden storehouses in the wetlands of Barataria. He also added 1,515 men to Jackson's army. Historians generally agree that, without Lafitte's aid, American forces might have been defeated at Chalmette.

It is true that the peace treaty had been signed on the eve of the Battle of New Orleans, but it provided for the status quo ante bellum which the British interpreted to mean that the Louisiana Territory did not belong to the United States before the war. Having won at Chalmette, the British would probably have moved to capture and claim the Mississippi Valley, and history might have taken a different course.

Historians absolutely agree that, with Lafitte's aid, the British would probably have captured New Orleans. If Lafitte had cooperated, the Battle of New Orleans might have been fought in the bayous of Barataria. With the aid of Lafitte, the British would certainly have overcome the battery Andrew Jackson set up in Barataria, and American defeat might have taken place on the riverbank across from New Orleans where we are seated today.

This is a winter scene within the proposed park site. This was largely the appearance of this still viable wetland when Lafitte's men made their way through these swamps to participate in the battle in the winter of 1814. This was probably much the appearance of most of the swamps in the entire delta area when the French founded their first fort and settlement on the lower Mississippi in January 1700.

In subtropical Barataria, there are definite seasons. In winter the beauty is stark. In summer jungle green, in spring it blossoms, and in autumn it flames with the leaves of the swamp red maple.

The site chosen for the proposed park is most appropriate for it comprises the characteristic aspects of terrain and vegetation in the Mississippi Delta: Moving from elevated, oak-shrouded natural levees along the bayous, through cypress swamp, to open, grassy marshes adjacent to Lake Salvador.

In cross section, it more or less mimics the topography of the entire former deltaic tributary from river to gulf.

In terms of scenic beauty, numerous writers, some quite notable, who traveled this wetland route to the sea, both in this century and the last, have left poetic descriptions of their enchantment with the area. Not one of these accounts would be brief enough to include in this presentation. But, reaching back in time, we have brief record of the enthusiasm of Dubreuil, the Frenchman who originally owned Barataria. In 1740, he wrote to the Ministry in France lauding his Barataria property as having "leagues of magnificent, old, red cypress and land for beautiful habitations."

Thank you.

Senator JOHNSTON. Thank you very much, indeed, Ms. Swanson. That was a very, very interesting and informative discourse on Barataria.

Now Mrs. Mary Louise Christovich.

STATEMENT OF MARY LOUISE CHRISTOVICH, NEW ORLEANS, LA.

Mrs. CHRISTOVICH. Thank you very much for having me here today. My name is Mary Louise Christovich, and I'm here as an interested citizen in seeing that Lafitte become a national park. I am naturally interested in the alternative 4 in the proposal, because without that I would have no specific point to address you today: That is to see that the small area which surrounds Seven Oaks Plantation be included as a satellite to the proposed park.

Senator JOHNSTON. Where is that on the map?

Mrs. CHRISTOVICH. It's 10 miles away.

Can you see it from there?

Ms. SWANSON [demonstrating at map]. Audubon Park is right here. Here's Bayou Segnette and here's the highway. It's right over from Audubon Park. The canal has been partially filled in, connecting Bayou Segnette which ran into Lake Cataouatche and Lake Salvador and all the way down to the Gulf of Mexico.

Mrs. CHRISTOVICH. The house stood very near that canal. It was dug by Dubreuil's son, the Dubreuil that Betsy just spoke to you about who was such an important figure in the founding of our city and this entire area. While Dubreuil, Jr., known as Villars Dubreuil, dug the canal that later was known as Zeringue Canal when Camille Zeringue took over the land.

Senator JOHNSTON. You want to acquire the property around the house, does that include the house itself?

Mrs. CHRISTOVICH. The house itself, yes. Actually what I'm about to say to you today is the proposal is not a completely usual one because most of the time you have people coming to you not only with proposals to do extraordinary things in parks, but perhaps to restore houses. I happen to think that this particular house is very far into a state of ruins. And I would like to show you some ruins around the world, very briefly, and show you how I think they are very important sites, and this is even in a much diminished land that we now have, only 4 or 5 acres out of 1,300 acres which was the original Camille Zeringue, or the Dubreuil site, would be significant to do what we think would be important and coordinate with the activities of Barataria, although since it was always closely united with the activities of Barataria from the very first ownership.

Senator JOHNSTON. Now, this was the home owned by Dubreuil?

Mrs. CHRISTOVICH. No, no; Dubreuil was long dead. This home that you're seeing was probably constructed by Camille Zeringue in the 1830's. Now, we have no conclusive proof as to the exact time, but it is certainly contemporary with buildings of that date. And it is a unique—oh, that word has been used so much today and I guess I shouldn't use it for this particular house; but it is an unusual colonnaded Greek Revival temple-style plantation house; and it is right across the river from Audubon Park and very near the foot of Canal Street, and it could be reached very conveniently by visitors, either by the river first going on down to Barataria or by the road right over the Huey P. Long Bridge, which is no distance at all. And visitors come to New Orleans and have to travel 50 miles over to St. James Parish in order to see a plantation anywhere near like this one; and whereas we're not saying we can put it back or should put it back in its original state, I think that this small minipark would provide a place that would give all the people coming into Barataria a wonderful on the spot introduction to what would go on in the park, and it could serve to those who don't happen to get—if the center for the tourists happens to be the Mint Building in New Orleans, if they don't happen to get that, they could have this other area that could introduce them to it. But, specifically, this ruins and the land around it could tell the story of the development of Louisiana from the time that it was founded straight on through.

So, let me just show you a few ruins, and this won't take any time at all.

[Mrs. Christovich shows slides.]

Now, here we have one of the ruins in Greece that is just left in its falling state; and thousands and thousands of visitors throughout the world travel to Greece to see the various ruins.

Here in Delphi we have the colonnaded ruins; remnants again; but these people visit this area, they are told the story of the past, they can relive it through their own imagination; and tremendous amounts of people are there throughout the year.

Here in Rome the Coliseum; the Baths of Garacalla; and right along in here they held the opera, right along the—well, it was in the evening so it wasn't in the shadow, but it was right next to these walls and it was a very impressive, wonderful event to be taking place right there near these ruins.

Haydrian Villa, mostly stripped now to make fabulous places within the city, but nonetheless a remnant of the time gone by, extremely popular, not very far from the city of Rome.

Pompeii made into a ruin because of natural disaster, but very popular to people today. You stand there and you listen to the story of the disaster of what the life of the people were like at the time.

Here at Jamestown you have the Andless House right on our own shores.

Fort Livingston, that Betty wrote so eloquently about, is the ruins at one end of Barataria. Seven Oaks can be a ruins at the other end.

This is Windsor Plantation in the State of Mississippi, and is going to be included into a State park. The ruins of this once magnificent plantation have been stabilized and a park area is being created around it.

This is a closeup map showing the proliferation of plantations along the Mississippi River from Natchez to—I think I have it in upside down—well, from Natchez to New Orleans.

Our riverfront was ablaze with activity at all times—industry, steamboats, cotton; everything went on at the riverfront, and yet many of the school children in New Orleans and places that are right near the river are unaware of the activity of the river or the importance to it.

Here you have an aerial view of Chalmette showing the Obliss and the Beauregard House over to the right. Again, industry skirts the area. This is a small park and our only national park, as Senator Johnson said. Industry is very close. It is not inconsistent; and the history of the riverfront is one of beautiful manor house and industry. Again, industry at Chalmette.

This is the Charles Zipel map, 1834, showing the Zringue Plantation. There's a sculptured garden buffering the plantation house from the riverfront, a very useful 19th century device.

I think we will be able to prove, with further research, that the dark square in the center behind the gardens is perhaps the Seven Oaks Plantation that we know today. This was a very industrious family, the builder of this house; and you have the sugar sheds and stoves, and the whole sugar industry was there; and the little area going off toward the back is an indication of the canal that was dug to

lead the rest of the Barataria wealth right through the land of the Zeringue Plantation.

This is the same slide that Betsy showed showing, again to your right, this is an 1850's map, the Zeringue Plantation already had the railroad tracks running through and you see the canal, the Barataria Canal very close and nearby.

This is a shot of Seven Oaks Plantation in better days, the 1960's. It has been abandoned for many, many years and has been uncared for.

This is also a good shot of what is still there, although this is taken a number of years ago also, so there is even more demolition.

An example of the Tuscan columns, there are 26 of which surround the building. Some are not in such good shape. The very front door of the central hall house; 1830 houses are very rare in this area. The only ancient things we have are our Indian connections. Destruction continues. This is a second level view showing that the columns go right through the second level to the actual fascia of the roof.

Senator JOHNSTON. Is restoration out of the question for this?

Mrs. CHRISTOVICH. Not actually. Sam Wilson told me that the Beau-regard House out at Chalmette was in this condition and it was completely restored.

Senator JOHNSTON. What would be the cost of that? Does anybody know?

Mrs. CHRISTOVICH. I have no idea on today's market what it would cost. I would say well over \$1 million.

This is one of the bases of the columns. The bricks were probably made right on the Plantation. They're pie-shaped bricks, and these were very well constructed or else they would never have been able to stand. One of the interior rooms which once had black marble fireplaces which have long since been ripped away.

And the aerial view of the house showing the large petroleum drums or whatever you call those big things, and again even through the area is very small, 5 acres is very small around the house, but there's almost a natural demarcation between it and the drums, and could easily be screened out with foliage and so forth. And there you see the Mississippi and the city across, Westwego. This is one of Betsy's slides showing one of the bayou boats, but you can envision one of the ferries going across the river, Seven Oaks ferry would be very convenient to take right at the foot of canal or from the wharf at Audubon.

This is the way Seven Oaks looks today, rather overgrown, but very, very romantic and a place that could be made safe engineerly sound; and I envision that we would not be putting heat and light and all of the expensive things into it; and in the evening there could be a son et lumiere which people could be attracted to at night when most tourist things, except for the city adventures, are not available.

If you've been to Athens you know you sit on just a plain hill on wooden benches and chairs to hear the marvels to the Acropolis and all the battles that took place. I think this could be done most efficiently here, and not really cost the State or the Federal Government that much money because son et lumiere is a private concern.

With that, I would like just to close my presentation and say to you that as one of the satellite areas, I present Seven Oaks as a very viable ruin.

Senator JOHNSTON. Thank you very much, Mrs. Christovich.

I'm sure you're familiar with the legislation which was passed in this last Congress on this type preservation. My guess is what while we very carefully consider this, that it would probably more appropriately come under that new historic preservation matching fund program. In other words, I would think we would need some local input here either on a State level or parish level, or whatever. I think it's a shame not to preserve Seven Oaks, whether in its present state to keep it from deteriorating further or even restoration, but we do have very significant funds that will be coming under that historic preservation program. We're going up as high as \$125 million a year. I think this last year we had only \$25 million nationwide this last year and we'll be going to \$100 million, we hope, in a couple of years. So, there will be significant funds on the national level for historic preservation. You'll have to have some local matching funds, however. We won't reject out of hand the inclusion of this in the park, but I think since we do have an historic preservation program that it ought, probably, to go there.

Mrs. CHRISTOVICH. All right. Thank you very much.

Senator JOHNSTON. Thank you.

[The prepared statement of Mrs. Christovich follows:]

STATEMENT OF MARY LOUISE CHRISTOVICH, NEW ORLEANS, LA.

Why is it there the Roman forum, the Coliseum, the Baths of Caracalla, hold a fascination for twentieth-century visitors? As stabilized ruins, open and unadorned, they are romanticized links in the architectural chain of ancient buildings. One cannot stand within or nearby these structural remnants and not be stimulated to recall the men who trod the marble streets, witnessed the Coliseum's athletic events or plotted political intrigue within the stream rooms of Caracalla.

When neglect or nature has stripped a building of its original appearance, it is often more appealing than when it was pristine with sharp features and defined outlines. Ruins remove historic awe they equalize the finiteness of man while lingering in the realm of the infinite. The existence of wild plants, vines and giant trees further enhances this atmosphere. Very few ruins are allowed in the United States—ours is a young country and it is with the impatient judgment of youth that we demolish all that seems no longer committed to its original intent.

Louisiana's plantation culture has yielded memories of many eighteenth- and nineteenth-century mansions. Whereas some remain, the list of the deceased far exceeds the living. A skeleton of one of the rarest Louisiana architectural types exists in the ruins of Seven Oaks plantation. The history of its land reaches back to the founding of New Orleans; it is one which brims with the vitality of the earliest settlers. Unencumbered by parish division, these men acquired vast tracts along both banks of the Mississippi stretching south to the Gulf of Mexico and north to Lake Pontchartrain.

Monseigneur LeBlanc, a French minister of state, was such a land acquirer. He used the land, after acquiring the concession from John Law in 1719, as a depot for goods and slaves enroute to his other properties. First called "Petit Desert" or "Little Wilderness," the property was held by LeBlanc for nineteen years then sold to Sieurs Assailly and D'Aunoy who both held large plantations on the other side, the east bank of the Mississippi below the newly-established city of New Orleans.

Twenty years later, Claude Joseph Villars Dubreuil, Jr., purchased a portion of "Little Wilderness" and like his father immediately dug a canal to join this rich river land with the wealth of Barataria. Dubreuil Sr. had dug such a canal as early as 1736 on property just four miles downriver and had become one of the most energetic builder-suppliers of his day. Villars Dubreuil, as his father before him, continued to extract timber from the wetlands which remained choked with ancient cypress, oaks, tupelos, gums and wax myrtles. The hundreds of Indian middens (pre-historic garbage heaps), like the forests, filled the marsh and back country between the river and the gulf and provided a great shell source, from which mortar lime was made. Agriculture and industry blended profitably.

By 1794, Michel Zeringue acquired the entire original "Little Wilderness" plantation, and it remained in the Zeringue family for the next century. The Dubreuil canal, now known as the Zeringue Canal, was sold in 1830 by Camille Zeringue to the Barataria and Lafourche Canal Company, which soon spent \$100,000 to deepen and enlarge it so that steamboats could maneuver its waters from the River into Barataria.

A detail of the Zeringue plantation and the Barataria Canal on the 1834 Zimpel map illustrates a large master house in the location of the present house. (Stylistically, Seven Oaks could exist from this time.) An enormous sculptured garden buffered the house from the river road and in the rear kitchen gardens and kitchen buildings separated it from other plantation buildings, such as the creamery, storage houses, and blacksmith shop. The actual complex probably was contained within a mere six acres.

Nearby, sugar furnaces and cotton pickeries were paralleled by nineteen slave quarters and a large overseer's house. The surrounding land of sugar cane, cotton and rice fields were bisected by the Barataria Canal linking the entire habitation with the southernmost water lands.

By whom and when was Seven Oaks plantation designed and built? No one knows. It is certain that Camille Zeringue ordered its construction and that the house is almost perfectly square. Surrounded by twenty-six Doric columns, it supports a gallery at the second level and a wide, unadorned entablature. Massive, exquisitely proportioned, it boasted two dormers per roof slope and four tall chimneys piercing its straight, hipped roof.

The fourteen inch walls remain as do the twenty-six columns, shorn and naked of their subtly-tinted plaster. The large, hand-hewn attic beams, once strong with mortise and peg construction, dangle precariously toward the ruined interior. All decorative attributes have been destroyed. The outline of the central hall floor plan, flanking rooms and double stairway exists.

Seven Oaks is a pure Greek Revival temple style building. "The continuously encompassing colonnaded peristyle is found in only four other Louisiana plantation houses, the nearest being Oak Alley in St. James Parish." (Betsy Swanson in Historic Jefferson Parish)

The accessibility of Seven Oaks was increased with the advent of the railroad in Westwego in 1853. Agriculture, industry and gracious, stately manor houses were a productive whole. The bayous, the river and the railroad served to move the raw materials. Barataria's lumber, furs, fish and moss were profitable produce.

Civil War debts forced Camille Zeringue to part with cotton presses, gins, cane-cutting machinery and corn mills, but nonetheless the family managed to hold the land until 1891, concluding a century of ownership.

For a short period the house and gardens were opened to the public as "Columbia Gardens," a pleasure resort. A thousand guests were transported from the foot of Canal Street by packet steamers but the park's popularity was short-lived. Pleasure gardens and even modestly expensive leisure areas were no longer a plausible southern luxury.

In 1892, the Texas and Pacific Railroad constructed a steamship wharf with a grain elevator in front of the house. Unplanned and unsympathetic industrialization spread slowly although many parts of Seven Oaks continued to be farmed into the twentieth century.

After changing hands several times, the plantation was bought by the Missouri and Pacific Railroad in 1912. A few years later, the house was turned over to World War I soldiers stationed there to protect Railroad property. It was they who reportedly defaced the marble mantels and caused immeasurable damage which was never repaired. The long history of neglect by Railroad owners, domiciled in St. Louis, Missouri, began. After housing railroad employees the house was abandoned in 1954. Hurricane Betsy in 1965 accelerated the deteriora-

tion; today the roof, dormers, chimneys and belvedere are gone. Seven Oaks is in ruins!

The interest in Seven Oaks prevailed prior to its abandonment. Westwego Mayor Ernest Tssin, with a group of residents, attempted to purchase or lease the plantation house and surrounding area for a Veterans of Foreign Wars headquarters in 1946. The railroad officials declined.

James Coleman, Sr., leased a portion of the land, including the plantation house, for twenty years through his North American Trading Company. He did not occupy or use the house but did put on a temporary roof in 1957. Mr. Coleman offered to sublet the house and a small fenced section of land to the Louisiana Landmarks Society. Restoration at that time, 1957, would have cost about \$100,000. The Landmarks Society was fearful that the railroad would not renew their lease, and could not get bank approval for the project.

Vandals, storms, under- and over-growth have continued a twenty-year period of destruction. Camille Zeringue's early nineteenth-century plantation home is no more! A replica of the old structure could be effectively reconstructed from the present remnants into a new building. Indeed, architect-historian Samuel Wilson claims that Beauregard House at Chalmette National Park was in approximately the same condition. If the money could be found, this reconstruction may be the easiest and presently the most popular solution.

If, however, the more imaginative avenue would reach a point of consideration, let us contemplate maintaining and utilizing the ruins for their romantic beauty. This could provide day and night entertainment for natives and world-wide visitors:

1. a day-time landscaped mini-park, for passive recreation, with guided tours performed by trained local guides.

2. in the evening, a son et lumière would be extraordinarily effective. The story line would be complete with a history of the founding of Louisiana with the intertwined relationship of the plantation and Barataria. The Battle of New Orleans, along with Jean Lafitte, would be recounted along with a high-light of plantation life which began its slow demise in the fall of the city to Admiral Farragut during the Civil War. [Son et Lumière is a separate company—one which has been trying to locate in New Orleans. All efforts were thwarted by Vieux Carré residents because of both the sound and the lights.] What better place than on the isolated riverfront area far away from homes and anyone who would be disturbed?

A ferry landing could be established and visitor could have a choice of riding over the Huey P. Long or Greater New Orleans bridges or park and ride the Seven Oaks ferry leaving the New Orleans dock twice nightly for the two evening shows. The promotion and tourist schemes connected with these ideas are unique—no other state in the union has the combination of a Mississippi River ride and a ruin equal in excitement to that of the Acropolis.

The original concept of the Jean Lafitte park comprised one of several units to be coordinated with the existing Chalmette Park. According to the National Park Service, each unit was to provide a different type of visitor experience. Seven Oaks answers this requirement and is located within an easy ten miles of the proposed Lafitte park site in Barataria. Its entire history is shared with that wetlands region. The Dubreuil-Zeringue Canal, the plantation's water artery, became an important navigable waterway for commerce and communication and a side-southern approach to New Orleans. This thoroughfare allowed a nineteenth-century development of a sports resort on the Louisiana Gulf shore by permitting New Orleans access to surf bathing and gulf fishing.

Once again this not-much-diminished land space could be revitalized to record, relate and restate through twentieth-century techniques all of its past glories. The ruins, once made safe, require no heating or electricity. Only portable wooden chairs are needed for son et lumière (as on the hills before the Acropolis in Athens). The gardens or a form of nineteenth-century New Orleans plantation garden would be a tremendous asset. Some of the ornamental and agricultural nineteenth-century plants cultivated around Seven Oaks continue to live; a hundred-year-old muscadine grapevine survives. The opportunity to recreate a nineteenth-century parterred formal garden is an important addition to the history of landscape architecture.

Berms or earth mounds can be raised around the property edges. Heavy screen planting can block the highway and oil drums (now empty), and give an atmosphere of exclusiveness and tranquility. Certain select spaces can be included, such as picnic tables under the existing oaks.

SUMMARY

1. Incorporate Seven Oaks as a satellite to the proposed Lafitte Park.
 - (a) Restore house in the manner of Beauregard House to be used as a Lafitte Park information center as well as an historic house.
 - (b) Stabilize ruins with a mini-park with an information center and son et lumière evening activities.
2. Recognize that there is no other example of a completely-colonnaded plantation house within fifty miles of New Orleans. It is the type which most visitors to New Orleans request.
 - (a) Louisiana's children need an effective correlation between the Mississippi River, the Bayous, the Gulf of Mexico and the erstwhile romanticized plantation culture. None exist.
 - (b) Our Nation needs Lafitte Park as a national park with related cultural and environmental activities.

Senator JOHNSTON. Dr. J. Richard Shenkel is the last witness in this panel.

STATEMENT OF DR. J. RICHARD SHENKEL, PH. D., ASSOCIATE PROFESSOR OF ANTHROPOLOGY, UNIVERSITY OF NEW ORLEANS

Dr. SHENKEL. Senator Johnston, Mr. Everhardt, Senator Hansen: The first statement I would like to state is that I'm in favor of the proposal No. 4 of the original park proposition in that having dealt with coastal resources on both the aboriginal and the historic levels over the past 7 years, I find the area is abundantly provided with resources that should be in some way exhibited, displayed, interpreted and put together for a broad-scale interpretative scheme.

By way of introduction, I'm here as a private citizen and I am a professor of anthropology at the University of New Orleans and I'm an archeologist who has been involved on both the aboriginal and historic archeological resource base.

The proposed Lafitte Park and neighboring areas contain a number of archeological sites that are characteristic and illustrative of a general type of prehistoric American Indian adaptation to the abundant resources of a coastal estuarine environment.

The high productivity of these coastal environments in terms of edible plant food and large quantities of fish, shellfish, birds, reptiles, and mammals is well documented and in fact we've seen many evidences to the effect today, so I won't elaborate on them further here except to point out that this high productivity was not unrecognized by the American Indian who inhabited this area long before European colonization.

The entire gulf coast of the United States was intensively occupied through most of the prehistoric period with well over 600 archeological sites recorded for southern Louisiana alone. Undoubtedly, many more than this have been buried by subsidence and/or sedimentation by the Mississippi River and/or destroyed by mushrooming industrial and urban development. Of those that have been recorded, over 400 of that 600 just mentioned have been destroyed by those agencies just mentioned within the last 30 years. In all, within this resource base, less than 20 sites have been excavated by professional archeologists, this also within the last 40 years.

What has emerged from these studies is the beginning of an understanding of a unique and specific relationship of the prehistoric Indian to this rich natural environment. Unique because it has a large number

of adaptive continuities through time in addition to the general veneer of cultural change that's exhibited in cultural evolution with certain items being adopted from elsewhere or developed locally gaining popularity for a brief time and then fall out of use.

To be more specific, relative to those changes, archeologists tend to subdivide prehistory into a number of time segments variously called phases, periods, or even eras. These divisions are based on a large number of potential elements that might include changes in decoration on ceramics, changes in architectural style or settlement pattern, adoption of new technologies or exploitation patterns that in some way change or distinctly identify the culture period on either side. A general overview of these periods as they are named in Louisiana is presented. The names of these periods are names given by us archeologists and have no relationship to the tribes or ethnic groups that perform the cultures. Usually the names that we give to a cultural period are those of a nearby modern town or river, or are descriptive of the culture in some way.

The first Indians in Louisiana were descendants of those Siberians who, perhaps as much as 40,000 years ago, walked across the dryland bridge that connected Asia and North America during the last ice age. Scattered evidences for these early migrants are found throughout much of North and South America with the earliest in Louisiana dated around 12,000 years ago from Avery Island in the western part of the State. This early period is generally as Paleo-Indian and is characterized by the intensive exploitation of large grassland herbivores such as the mammoth and bison. This interpretation comes from a number of archeological kill sites in the Plains and Southwest where the characteristic projectile points of these people were found in direct association with the remains of those large animals. What the Paleo-Indians were doing in Louisiana and the rest of the eastern part of the United States is, however, not quite as well understood, but we do know that the occupation was intensive because there are a large number of those projectile points that are attributed to this time period.

Beginning about 8,000 years ago is a period known as the Archaic, a time during which the various local Indian populations began to exploit a broad range of natural wild foodstuffs in their environment. Though not represented in the coastal marshes of Louisiana because they had not yet formed, other coastal areas in the East have produced a picture of Indians collecting massive quantities of shellfish, fishing and hunting in the back swamp areas. The end of the Archaic in upland Louisiana is marked by the development of a major complexification of social organization manifested in the Poverty Point site in West Carroll Parish. This is now part of the State park system and this site is characterized by major mound-building developments in large populations clustered, exotic trade networks with trade connections spreading through much of the eastern United States and up the river valley. This activity was based on an extremely efficient exploitation of wild foods and lacked agriculture. Indians of the Pontchartrain Basin were involved in this Poverty Point culture with the local center located on the Pearl River in Mississippi just to the east of Lake Pontchartrain.

Senator JOHNSTON. Doctor, let me interrupt you at that point.

Dr. SHENKEL. All right.

Senator JOHNSTON. I took the liberty of reading your statement myself, and I have finished it. It's an excellent statement. I just have a couple of questions.

Dr. SHENKEL. All right.

Senator JOHNSTON. How can we interpret this Indian culture and history through the park, how can we best do that?

Dr. SHENKEL. The Indian adaptation that started, that we have direct evidence for, starting back as far as 500 years before Christ was the beginning of a continuous stable kind of adaptation to a wet land environment whereby the Indians exploited the shellfish, the reptiles, and so forth that we find today. There are means within the park area, just south of the park area throughout the Barataria Bay estuary and in New Orleans east in the undeveloped marsh areas there, there are remains of a lot of Indian sites that can be approached, preserve their natural environments, created in some cases where there has been an encroachment by modern development, or stabilized where they are in their natural state and then small outdoor exhibit areas depicting what the Indians were doing on those locations at the time. This strikes me as the value of the Indian occupation is that we have a continuity through time where we have approaching 2,000 years of stable, Indian adaptation to an environment with the veneer cultural change. In New Orleans east we have Big Oak and Little Oak Islands which are the first relatively intact sites that we have left, and these are really not that dissimilar from sites we have within the park area itself, also shell middens, also areas where these Indians were living.

Senator JOHNSTON. Would these middens be easily accessible by boat, say, to a tourist who might come down and be put on a boat tour? Are they well into the area?

Dr. SHENKEL. We have a variety. We have some that are almost totally inaccessible which would be good as a resource in the bank, so to speak, that we wouldn't have to bother with. We have the Berthoud Cemetery, which is a site you'll see tomorrow, you saw some slides of it, it's in Lafitte. That itself is the major extent Indian site left in the area.

Senator JOHNSTON. That was a midden?

Dr. SHENKEL. That was a major Indian midden.

Senator JOHNSTON. Now, was that built by the Indians?

Dr. SHENKEL. Built by the Indians.

Senator JOHNSTON. It's not a natural hill, right?

Dr. SHENKEL. It's not a natural hill. It's 15 feet high and about 100 feet in diameter; and we really don't know what's inside it because there are a bunch of modern graves up on top of it, and it costs money to mount an archaeological expedition and there is some problem with a bunch of modern people lying on top of it, and there are various little crypts and so forth. So, we really don't know what's inside of that. We couldn't say whether that's an Indian burial mound or it's an Indian temple mound. Given the time period, I think it would be more of a temple mound, and there at one time was an Indian Church on top of it. Immediately around it we have the remains of an Indian village. Right across Bayou Barataria there's extensive remains of another Indian village with two mounds, and you can stand on the cemetery and throw rocks at another site that was 400 years earlier, and right beyond that there's another one.

Senator JOHNSTON. What's the time frame of that midden?

Dr. SHENKEL. The Barataria about to 700 A.D. all the way through to European contact. The earliest in the Lafitte Park Cemetery that I've seen is a couple of ceramics that might date from possibly as early as 100 B.C., that is just about the time that the estuarine land was forming and it was the first time the people could in fact move into the area. So, we have in the Barataria estuary, people living there as soon as the ground was ready to receive them. It was an immediate resource base.

Senator JOHNSTON. Doctor, we want to thank you very much for your testimony. We want to thank you for your help in putting this hearing together and planning our trip tomorrow. You've been most helpful, and I think you'll help add a new dimension to the interpretation at Barataria—

Dr. SHENKEL. Thank you very much.

Senator JOHNSTON [continuing.] As our resident anthropologist. Senator Hansen, do you have a question?

Senator HANSEN. I don't have any questions. I'm sorry, I was called out on a phone call. I'm just scanning your written report, Doctor. I'm very keenly interested in what you are talking about, the presence in this area of objects of archaeological interest.

Dr. SHENKEL. Well, we'll show you tomorrow.

Senator JOHNSTON. Thank you very much, Doctor.

[The prepared statement of Dr. Shenkel follows:]

STATEMENT OF DR. J. RICHARD SHENKEL, PH. D., ASSOCIATE PROFESSOR OF ANTHROPOLOGY, UNIVERSITY OF NEW ORLEANS

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The high productivity of these coastal environments in terms of edible plant foods and large quantities of fish, shellfish, birds, reptiles and materials is well documented and need to be elaborated here except to point out that this high productivity was not unrecognized by the Indians who inhabited this area long before European colonization.

The entire Gulf coast of the United States was intensively occupied through most of the prehistoric period with well over 600 archaeological sites recorded for southern Louisiana alone. Undoubtedly, many more than this have been buried by subsidence and sedimentation and/or destroyed by mushrooming industrial and urban development. Of those that have been recorded, over 400 have been destroyed by those agencies just mentioned in the last 30 years. In all, less than 20 sites have had any detailed excavation by professional archaeologists.

What has emerged from these studies is the beginning of an understanding of a unique and specific relationship of the prehistoric Indian to this rich natural environment. Unique because it has a large number of adaptive continuities through time in addition to a veneer of cultural change with certain items adopted from elsewhere or developed locally gaining popularity for awhile and then falling out of use.

To be more specific, relative to those changes, archaeologists tend to subdivide prehistory into a number of time segments variously called phases, periods or even eras in the creation of an archaeological sequence. These divisions are based on a large number of potential elements that might include changes in decoration on ceramics, changes in architectural style or settlement pattern, adoption of new technologies or exploitation patterns or some other item that is distinctly identifiable as being separate or different from the periods on either side. A general overview of these periods as they are named in Louisiana is

presented below. The names given to these periods are names given by archaeologists and have no relationship to known tribes or ethnic groups. Usually the names are those of a nearby modern town or river, or are descriptive of the culture in some way.

The first Indians in Louisiana were descendants of those Siberians who, perhaps as much as 40,000 years ago, walked across the dry land bridge that connected Asia and North America during the last ice age. Scattered evidences for these early migrants are found throughout much of North and South America with the earliest in Louisiana dated around 12,000 years ago from Avery Island in the western part of the state. This early period is generally known as Paleoindian and is characterized by the intensive exploitation of large grassland herbivores such as the mammoth and bison. This interpretation comes from a number of "Kill Sites" in the Plains and Southwest where the characteristic projectile points of these people were found in direct association with the butchered remains of those large animals. What the Paleoindians were doing in Louisiana and the rest of the eastern United States is less well understood, however, the occupation was extensive due to the large number of projectile points attributable to this time period that have been found all over the East.

Beginning about 8000 years ago in a period known as the Archaic, a time during which the various local Indian populations began to exploit a broad range of natural wild food stuffs in their environments. Though not represented in the coastal marshes of Louisiana because they had not yet formed, other coastal areas in the east have produced a picture of Indians collecting massive quantities of shellfish, fishing and hunting the back swamp areas. The end of the Archaic in upland Louisiana is marked by the development of a major complexification of social organization manifested in the Poverty Point Site in West Carroll Parish as well as other smaller sites in Louisiana and Mississippi. The Poverty Point Period from about 3,500 years ago to about 2,700 years ago was characterized by the building of massive earthworks, a widespread trade network and marked social stratification. This activity was based on an extremely efficient exploitation of wild foods and lacked agriculture. Indians of the Pontchartrain Basin were involved in this Poverty Point Culture with the local center located on the Pearl River in Mississippi just to the east of Lake Pontchartrain. Small Poverty Point sites have been discovered around the lake with their occupation levels buried by subsidence below modern sea level.

The Poverty Point Culture declined and was replaced by a succession of culture periods, all of which are, or were, well represented in the Pontchartrain-Barataria area. These culture periods are differentiated primarily on the basis of ceramic styles and to a more limited extent on the way that they deposited their refuse, buried their dead and worshipped their gods.

All of these cultures for the remainder of prehistory, from 2,700 years ago to European colonization, followed the same basic adaptive and exploitive strategy relative to their subsistence in the coastal estuarine marshes. This involved a massive utilization of the abundant shellfish, fish, deer and other animal populations as well as a heavy reliance on the great variety of edible wild plant foods.

The earliest of these post Poverty Point periods is called Tchefuncte and was well represented by many sites along the shores of Lake Pontchartrain. These Indians were the first in Louisiana to use ceramics to any large extent and their sites were either deep trash dumps called middens or more shallow, small village sites. Big Oak Island and Little Oak Island in the marshes of eastern New Orleans are the only reasonable intact sites of this period left. Their location on a relic beach trend close to the south shore of the lake and near a recently abandoned channel of the Mississippi River typifies the exploitive pattern of open water lake fishing and collecting in combination with marsh and back swamp collecting and hunting. During this time, the Barataria lands were forming, but the Indians had not yet arrived.

The next period, called Marksville, begins near or just before the beginning of the Christian era. By in large, it is a direct outgrowth of Tchefuncte, but there is an introduction of an elaborate burial ceremonialism with many exotic traditions. This burial cult originated in the Illinois and Ohio River valleys where it is called Hopewell. Burial mounds with well provisioned graves are the most often discussed aspects of this period and little is known about the more routine aspects of Marksville life. There is a suggestion of corn horticulture from sites in the central part of the state and neighboring areas in Mississippi, however, our evidence on the coast indicates a continuance of marsh hunting

and collecting as the primary subsistence pattern. Two mounds near the proposed Lafitte Park on Bayou de Familles may be Marksville burial mounds as Marksville ceramic types have been recorded for the shell midden across that bayou at Bayou Coquilles.

The remainder of prehistory, from about 300 or 400 A.D. to European contact, for most of the Eastern United States is a time of economic shift from the hunting and gathering of wild foods to an increasingly intensive exploitation of corn, bean and squash agriculture. At various places and times, we find the development of towns, and even small cities. A form of truncated pyramidal mound temple architecture achieves a wide distribution. The bow and arrow is adopted, replacing the spear as a primary weapon. Variations in the distribution of ceramic styles in time and space are used to differentiate the periods and localities. The whole time was marked by increasing populations. The major activities of these later periods did not take place in the wetlands but rather in alluvial valleys with good farm land. However, the coast continued to be occupied and the populations increased. The same ceramic traditions that occur in the farming uplands are found in the marsh sites. Still, most of the subsistence in the coastal plain came from the old hunting and gathering pattern. Rather late in Prehistory, around 1000 A.D. or after, a small amount of agriculture appears to have been practiced on natural levee ridges that transected the marshes; but as of right now, this is not thought of as playing a significant subsistence role.

The overall Barataria Estuary is dotted with aboriginal sites of these later periods consisting of small camp-sized middens to what might have been full-scale towns. The largest remaining site complex, the Berthoud cemetery and Ile Bonne, at the juncture of Bayou Barataria and Bayou Villars, is an extensive village midden or series of middens, overlooked by a tall conical pile of shell that may have been either a tempe mound or a burial mound. Other large sites have been destroyed by the commercial exploitation of their shell content.

The remaining prehistoric Indian archaeological sites in Barataria and eastern New Orleans have the potential of telling the story of a way of life that people developed involving an efficient adaptation to a coastal estuarine environment. Though certain changes occurred in style and even technology, the basic economic patterns remained stable for over 2000 years.

To my knowledge, this extensive and unique cultural continuity is not expressed in the National Park System. Granted, the spectacular achievements of the farmers in the southwest United States and the mound builders of the east have recognition, but these constitute a small segment of the wide variety of adaptations that are known to have existed throughout prehistory. I suggest that the interrelationship of the Indian and the coastal-estuarine environment is instructive and worthy of consideration.

Senator JOHNSTON. Our next witness is Dr. John Day with the Center for Wet Land Resources at LSU together with Dr. Sherwood Gagliano with Coastal Environments Incorporated who will be a panel.

STATEMENT OF DR. JOHN DAY, ASSOCIATE PROFESSOR, DEPARTMENT OF MARINE SCIENCES, CENTER FOR WETLAND RESOURCES, LOUISIANA STATE UNIVERSITY

Dr. DAY. Good afternoon. I'm an Associate Professor in the Department of Marine Sciences at the Center for Wet Land Resources; and for the past 6 years my colleagues and I conducted conclusive studies in the Barataria basin all the way from the Gulf from the sailing areas up into the swamp forests, and presently I'm involved in several studies of plant productivity, water chemistry and water quality in the area of Lafitte Park and Lake Salvador, Lake Cataouatche, Intra-coastal Waterway and Bayou Segnette. I had planned on listing a lot of statistics on the productivity and richness of the Barataria basin, but several speakers have dwelled on that and I'll leave that to them.

In the area of the park itself we see slightly brackish to fresh waters in wetlands. These areas serve as a nursery to commercial and sport fish and shellfish. The wetlands provide food source and habitat for waterfowl and fisheries and fur mammals; they act as a storm buffer for developed areas; they cleanse water and serve as waste treatment buffers for the developed area to the north, and the reason is of great economic importance as well as ecologically.

Senator JOHNSTON. Let me interrupt you at that point.

Have you, as an aside—have you done any research into this new theory that the water hyacinth can serve as an effective pollution control device?

Dr. DAY. I have not done studies on water hyacinths themselves, but we have done studies on use of natural systems to cleanse water, using fresh water marsh, duck weed and the swamp forest, we were in three different areas; and I know of the studies with water hyacinth.

Senator JOHNSTON. On sewerage?

Dr. DAY. On sewerage and fish waste and agricultural runoff. I'm going to address that in a moment.

Our studies indicate that the water quality in the area of the park is in a state of transition and that if the present processes of other development and encroachment on the wetlands and the agriculture and other runoffs continue, as they have, within 5 to 15 years the water bodies will become very eutrophic and I believe that the fisheries will be threatened and the whole life-support system that makes up this estuary.

Senator JOHNSTON. I take it you would advise us to take that whole north shore of Lake Cataouatche?

Dr. DAY. That would be one of my recommendations.

So, the national park can go a long way to arresting the processes that are happening now, and I can't stress how critical these things are if they continue. And also by encouraging research in the national park, and the kind of research that we've been involved in looking for new methods or utilization of existing methods for proper management of the parklands. For instance, a lot of the problem in Lake Cataouatche and part of Lake Salvador and the Lafitte region in general is due to urban and agriculture runoff. If we can manage parklands such that the water flows through the wetlands rather than being introduced directly into the water bodies, it's our experience that this water will be cleaned up and the water quality will increase there. So, the area is still in good shape, but if the trends continue that we see right now it's going to deteriorate fairly rapidly in the next few years, and the establishment of the park and proper management in this area, I think, can bring this area back to a more natural and productive state; and the recent meeting on scientific research in the national parks, I think, emphasized this. The scientists in the National Park Service can have a very complementary role.

So, these objectives will be more easily attainable if the area between the proposed site and the Salvador management area would be included in the park as a buffer zone, because even if these wetlands north of Lake Cataouatche are allowed to develop in urban development, then the runoff—the kind of situation you see in the south shore of Lake Pontchartrain will become more extreme in Lake Cataouatche diminishing the value of that area as a natural life-support system for fish or the wildlife.

I might also mention that in Lake Cataouatche—well, in Lake Salvador and Little Lake, there are several old abandoned deltas of the Mississippi River that might be considered for inclusion in the park as areas not adjacent to the main area of the park but as examples, good, small examples of older deltas.

Any questions?

Senator JOHNSTON. No; thank you very much, Dr. Day. That was an excellent presentation.

Senator HANSEN, did you have any questions of Dr. Day?

Senator HANSEN. I don't have any questions; but I think the subject you address is of vital importance, Doctor.

Dr. DAY. I was ill last week and I wasn't able to prepare a written statement, but I'll have one to you in the mail in a few days.

Senator JOHNSTON. Fine. We will hold the record open for your written statement. Thank you very much.

Dr. Gagliano, we're always glad to hear from you.

STATEMENT OF DR. SHERWOOD M. GAGLIANO, PRESIDENT, COASTAL ENVIRONMENTS, INC., BATON ROUGE, LA.

Dr. GAGLIANO. Senator Johnston, Senator Hansen, members of the panel: It's a pleasure to be here today considering what all of us obviously think is a very important topic.

My statement today is a joint one written with my colleague Johannes van Beek. Dr. van Beek and I have been involved in a professional way in the environmental sciences and in planning of coastal Louisiana for a number of years and both as University people and more recently as consultants. We've looked at problems and we've looked at opportunities in this coastal area of Louisiana from a number of viewpoints now, and what we would like to present in our statement is what we hope are objective suggestions and not made in behalf of any client, but as science citizens.

Most of the things included in my statement have already been mentioned today and I certainly won't repeat all of it or read all of it, but I would like to emphasize a few points, if I may.

The first relates to the significance of the park site from a natural-culture history standpoint. I've heard it referred to as a delta, as a delta system; I'd like to emphasize that the Mississippi River delta system in coastal Louisiana is one of the largest, most dynamic delta systems in the world. No matter how we rank our river, be it by discharge or sediment load or area of land that it has constructed, it always comes out in the top 10. And it's certainly the largest, most impressive delta system in North America. It's a natural wonder that's comparable to the Grand Canyon, to the volcanoes of Hawaii, to the coral reefs in Southern Florida and the Mangof Swamps and some of our great deserts. For this reason, if no other, it deserves attention as a possible National Park site. It has been significant in natural science and culture studies in this country and around the world for many years, and it's probably far better known in the scientific literature than it is in the popular literature. I've often said that it's very unfortunate that we didn't lure Walt Disney to Louisiana many years ago so that he could tell the public the story of this magnificent delta system, as I hope you've seen it here today.

It's been fully appreciated by the public and I think that in this decade the time is appropriate to give it the kind of treatment and the kind of attention that it really deserves.

I might elaborate just a little bit more on that. From the geologic standpoint, for example, there have been studies in Louisiana for some 30 or 40 years of the kinds of processes that are involved in this delta, in the deposition of sedimentary rocks. It turns out that most of the great coal and gas and oil reserves of the world come from the same kind of rock sequences that are accumulating in this system at present, and geologists have long used it as a model for studying and for understanding these processes.

As you've heard here today, we've learned in recent years that it's a very important model for looking at environmental change and how man can use his environment more effectively. I see this as exceptionally important in future years.

Senator JOHNSTON. Dr. Gagliano, let me interrupt to ask: Are you in favor of the proposition four, alternative No. four, that kind of general approach?

Dr. GAGLIANO. Very much so, Senator, because I believe the system is so large, unfortunately it's not possible to include all of it as a National Park, but there are many features that relate to this theme that you've seen developed here today of man and his interaction with his natural system. I think there should be a nuclear area that perhaps would illustrate the kinds of environments that make up the delta system. In addition to that there should be a selection of archaeological, historic and natural sites that would be included as satellites. I would certainly endorse the Big Oak and Little Oak Island archaeological sites. I would suggest in addition to those some unique areas in the great marshes of St. Bernard Parish for consideration. I would certainly encourage consideration of at least one of the active distributary mouths of the river in lower Plaquemines Parish where the river presently discharges into the Gulf of Mexico where there are a number of unique features and processes occurring.

There is, of course, great resource value associated with this. My statement also mentions the proximity to urban areas and the value of the park from that standpoint.

I would like to emphasize again particularly the buffer zone concept. We have been grappling with the problem of urban sprawl into environmentally sensitive areas around the periphery of the Greater New Orleans area for a number of years now. There are very serious problems associated with this process, not only from the standpoint of loss of renewable resource values, but also from the consumer standpoint; the fact that our city has gradually crept into areas that are environmentally unsuitable for urban habitation. And as the process continues, the areas become less and less desirable. I see the park as a very nice way of arresting this process and at the same time of providing just compensation for those landowners who may lose development rights or, you know, who may be influenced by these kinds of decisions in the future. We all recognize that this is a difficult kind of problem to deal with. I personally think that the buffer zone solution as related to a National Park might be one of the easiest ways and the most effective ways of dealing with it at the present time.

I have included a map with our statement which shows some possible configuration of a buffer zone adjacent to the nuclear park area that

would tie it into the State owned Salvador game management area to the west. This does involve a considerable block of land, but I would submit even at current market values this would be a very, very fine investment for the future of our country.

The final point that I would like to emphasize a bit is something that Mr. Yancey talked briefly about and Dr. Day mentioned, and this is the feasibility of management. Several years ago when the Park Service evaluated the possibility of this as a future national park, one of the comments that I heard from the review team was that the area was deteriorating, and it would be difficult to manage it from the environmental standpoint. It is quite true that the wetlands in this general area of the park are deteriorating as are much of the five million acres of wetlands in coastal Louisiana. They have not, however, deteriorated to the point where they have lost their natural beauty or productivity, nor do I think that the process is irreversible. In recent decades we have developed some very, very good and, we think, very effective approaches to management of wetland areas, both from the standpoint of the kinds of fish and animals that live there, but equally important from the management of the flow of water and the movement of sediment that keeps these areas nourished and keeps them in a dynamic, nondeteriorating condition.

Our studies suggest that this area is perfectly suited for this kind of approach to management. The management problems, in our view, are no more difficult than those presented in other environmentally sensitive areas that are already part of the National Park System. They're certainly no more difficult to deal with than coastal dunes or certain desert areas or Tundra areas or other areas that present management problems that must be dealt with in an effective way.

That concludes the things I would like to emphasize. I again thank you for the opportunity of being here, and I will be pleased to answer any questions if you have any.

Senator JOHNSTON. Thank you very much, Dr. Gagliano.

On your map that outlines that buffer area around the lake, how many acres is that?

Dr. GAGLIANO. The measurements, the estimates, are very approximate for several reasons. Whenever I draw lines of this type on maps I get into trouble, so I don't like to do it, but we do it anyway; but approximately 20,000 acres.

Senator JOHNSTON. Would half that much be suitable? I mean, in other words, why 20,000?

Dr. GAGLIANO. I tried to bring the approximate northern and eastern limits of the suggested boundary into close proximity with existing levee works. In other words, areas that were already committed for drainage and reclamation. I think the specific boundary, the determination of the specific boundary, will require a considerable amount of conversation between local government and the Park Service and interested parties. This is not an easy kind of decision, but it is the kind of decision that can be made and, in my opinion, should be made.

Senator JOHNSTON. Thank you very much, Dr. Gagliano.

Senator HANSEN, do you have any questions?

Senator HANSEN. I have no questions. Thank you.

[The joint statement of Dr. Gagliano and Dr. Van Beek together with attachments follow:]

COMMENTS ON
THE PROPOSED JEAN LAFITTE NATIONAL PARK
JEFFERSON PARISH, LOUISIANA

Presented at a public hearing conducted by
The United States Senate Subcommittee on
Parks and Recreation
Courthouse Council Chamber, Gretna, Louisiana

Statement of Dr. Sherwood M. Gagliano
and Dr. Johannes L. van Beek

My name is Sherwood M. Gagliano, a native of the city of New Orleans, and a lifelong resident of Louisiana presently residing in Baton Rouge. "I am the president" of Coastal Environments, Inc., an applied science and planning firm specializing in coastal areas. I have been professionally active in geology, archeology, environmental science research and planning in the Louisiana coastal area for some eighteen years as a university faculty member, and more recently as a consultant. During this period, I have worked under contract on basic research and applied environmental problems for various federal, state, and local agencies, as well as for industry and private landowners.

My associate, Dr. van Beek, although not a native of this state, has been deeply involved in geography, environmental science research, and planning in the coastal area of Louisiana for the past ten years. Dr. van Beek has previously worked as a university faculty member and is presently the vice-president of Coastal Environments, Inc. I would like to emphasize that our statement is made as interested and concerned citizen-scientists and not in behalf of any organization or client.

Natural Setting

The site of the proposed Jean Lafitte Park lies within the Mississippi River delta system (Figures 1 and 2). The vast, rich, lowlands which make up most of Louisiana's coastal area are a product of sediment deposition in the vicinity of the outlets or mouths of the Mississippi River that has occurred over a period of approximately 5,000 years. Periodic shifts in the position of distributary channels has produced an intricate pattern of low-lying natural levee ridges (formed by overbank flooding along active distributaries) which has dictated the pattern of human use of the area since prehistoric times. These alluvial ridges, forming the skeletal elements of the deltaic plain, abound in archeological and historic sites. The wetlands, that form the flesh of the delta system contain fish and wildlife habitats that are among the world's most productive and have exceptional natural beauty.

The Mississippi Delta system has long been an important area of scientific study among geologists, archeologists, and biologists and is well represented in the scientific literature. Its natural beauty and productivity is equally well known and appreciated by natives of the area. However, the fascinating story of the natural and cultural history of one of the world's greatest delta systems, and one of the great natural wonders of the United States, has never been presented to the public in a fashion that they can see, understand, and participate in. In our opinion, because of the physical setting and related archeological and historic features, the proposed park could present this grand theme and in so doing, would follow the tradition of other great national parks of this country.

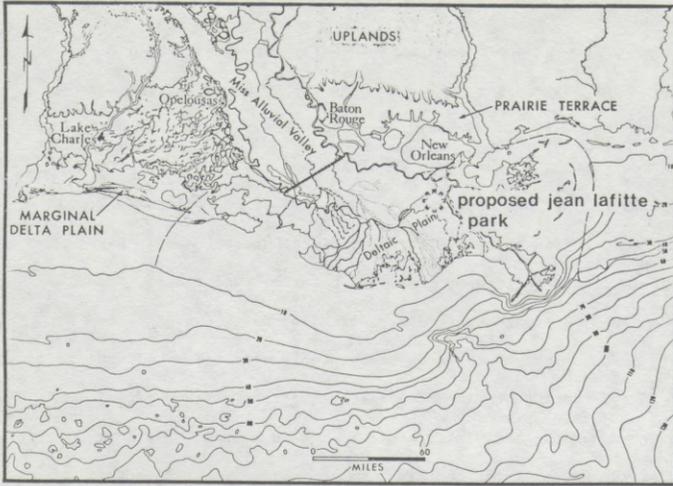


Figure 1. Major physiographic features of south Louisiana. The proposed Jean Lafitte park site lies within the extensive coastal lowlands of the deltaic plain of the Mississippi.

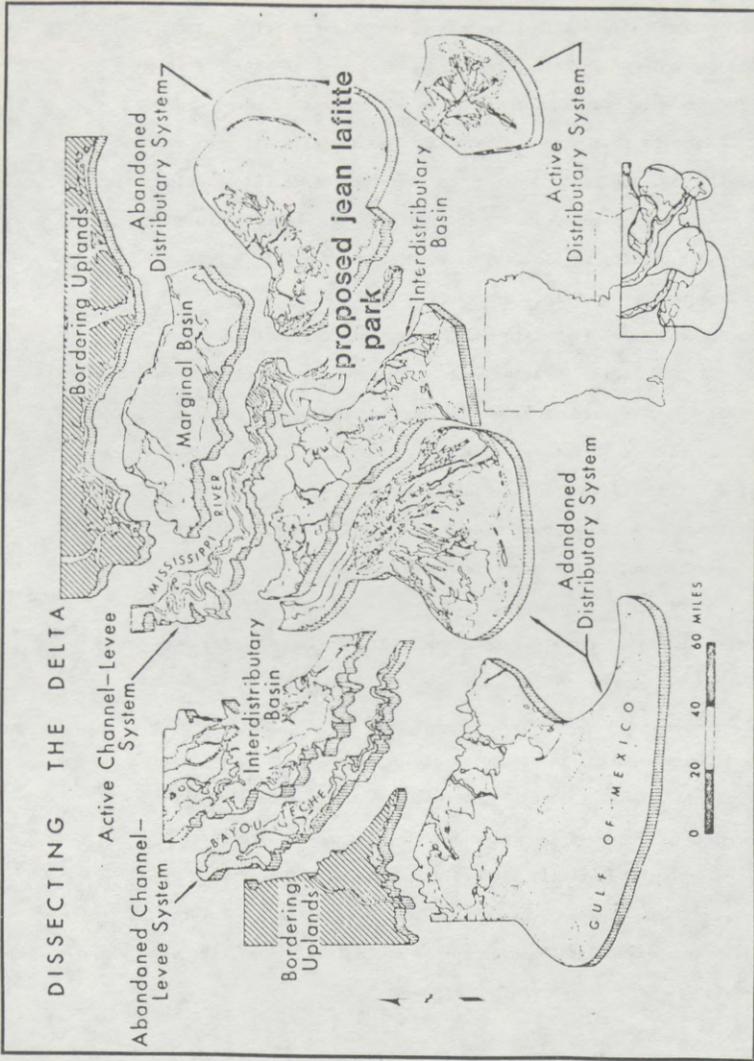


Figure 2. The Mississippi deltaic area is composed of a number of major subsystems. The proposed Jean Lafitte Park site lies in the Des Allemands-Barataria interdistributary basin, a highly productive estuarine area.

Research Value

The natural and geological history of the Mississippi Deltaic System is not only of great interest in itself, but the area has also long served as a laboratory for the study and understanding of ancient rocks. It happens that many of the world's greatest fossil fuel deposits (oil, gas, and coal) occur in ancient rock of deltaic origin. Studies of the modern sediments of the Mississippi have contributed greatly to our ability to find and produce energy yielding minerals from rock sequences deposited in ancient deltas.

The archeological record in south Louisiana extends back for a minimum of 12,000 years. The sequence of culture changes which occurred during that time, recorded in some 600 known archeological sites in the southern part of the state, is intimately linked with the natural history of the delta system. Archeological sites within, and in close proximity to, the proposed park site provide excellent examples of these relationships. The story of man and his use of the deltaic landscape continues into historic times and is well illustrated by the history and folk culture of the area in the vicinity of the proposed park.

As shown in Figures 2 and 3, the proposed park is located within the Des Allemands-Barataria estuarine basin. From the fish and wildlife standpoint, this is one of the most productive estuarine areas in the country. There is an active and on-going research effort associated with the physical, chemical, and biological processes of this basin. These studies suggest that the basin has great future potential for environmental management of ecologically sensitive wetland areas.

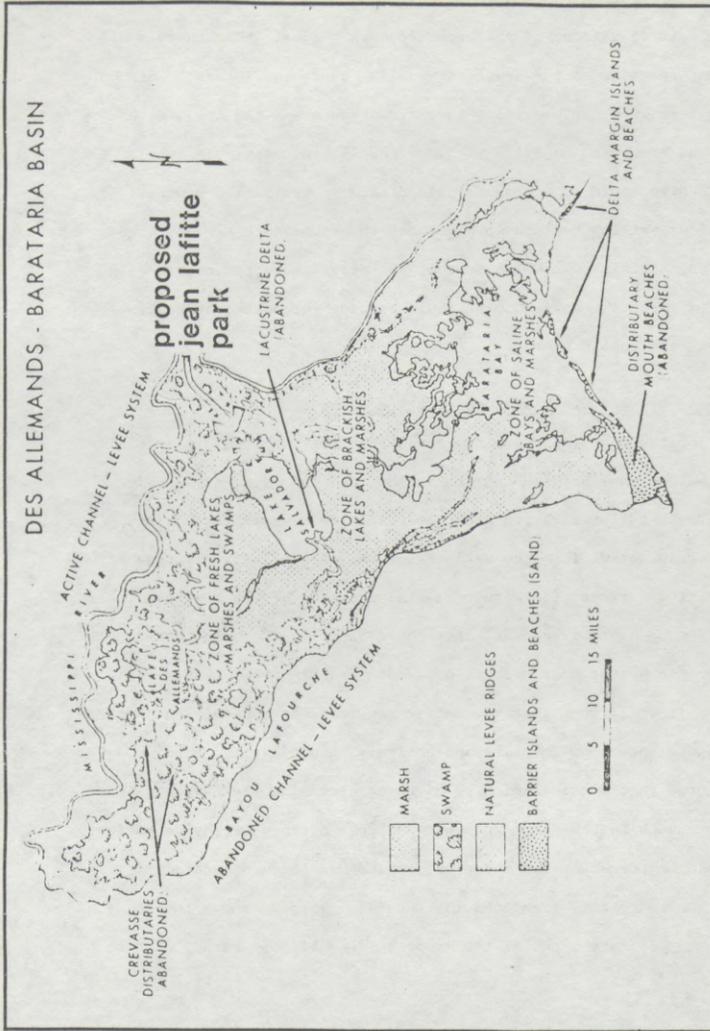


Figure 3. The Des Allemands-Barataria Basin, a major intertributary estuarine basin of the Mississippi deltaic plain, is particularly rich in renewable resource values as well as a long and fascinating cultural record.

Proximity to Urban Areas

The natural setting of the proposed park suggests that there would be a great spectrum in the degree of public access and intensity of use. The site lies in close proximity to large urban areas and the Greater New Orleans area also enjoys a vigorous tourist industry. In our opinion, there would be a considerable demand on the park. However, the physical setting has enough diversity to accommodate a wide range of uses and activities. While some of the habitats represented are fragile, a carefully devised plan could provide for both conservation-management and public uses.

Buffer Zone Between Urban and Conservation Areas

One of the most important functions that the park could play would be as a buffer zone between the Greater New Orleans Urban areas and the environmentally sensitive areas of Des Allemands-Barataria Basin. Gradual urban sprawl into the wetlands of this basin is widely recognized as one of the most critical environmental problems of the region. Public acquisition of a broad band of wetlands adjacent to the urban area is considered to be the most effective way of arresting the urban sprawl process. It would seem that the buffer zone concept and the Jean Lafitte Park proposal are complimentary and entirely compatible.

We urge that consideration be given to extending the park acquisition far enough to the north and west, so that a truly effective buffer zone could be formed at the upper end of the Des Allemands-Barataria basin. The concept is presented in Figure 4. The map shows the location of the "primary area" of the proposed Jean Lafitte Park. It also

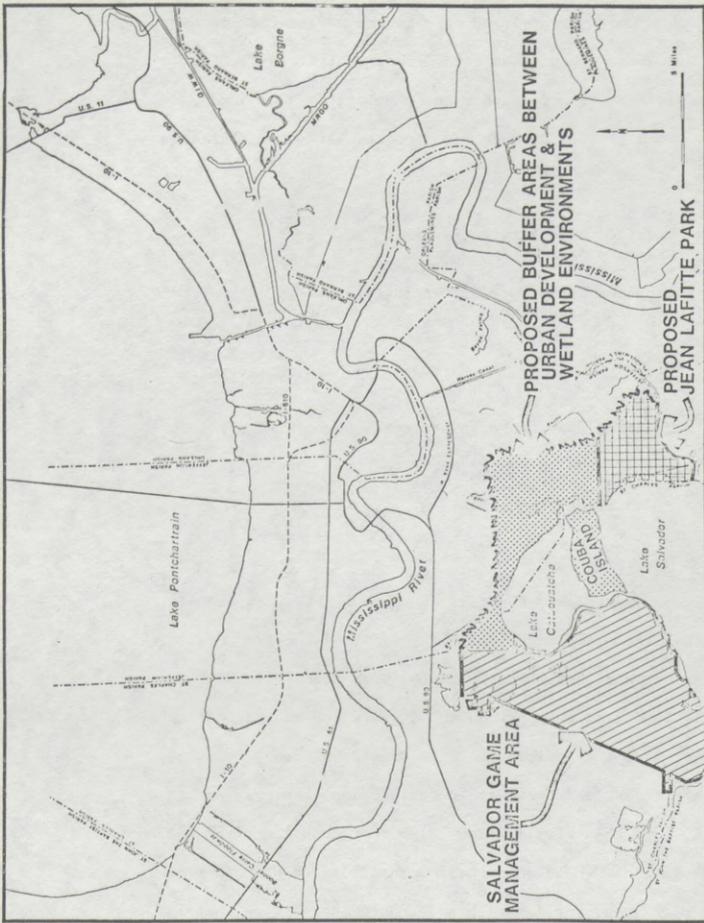


Figure 4. The nucleus of the proposed Jean Lafitte Park lies near the upper end of the Des Allemands-Barataria basin and is relatively near the greater New Orleans urban area. The primary park area should be linked to the state owned Salvador Game Management Area to form a continuous buffer zone between urban development and the environmentally sensitive areas of the estuarine basin to the south.

shows the location of the state owned Salvador Game Management Area. We propose that the park acquisition be extended beyond the "primary area" to include areas around Lake Cataouatche so that the buffer between urban development and wetlands be complete. These areas, incidentally, would greatly enhance the proposed park. Approximate acreage is as follows:

Proposed Jean Lafitte Park "primary area"	5,000 acres
Proposed buffer area in vicinity of Lake Cataouatche	20,000 acres
	<hr/>
	25,000 acres

It should be emphasized that the proposed area shown in Figure 4 is intended to illustrate the concept. Detailed study should proceed recommendation of specific boundaries.

Feasibility of Management

As previously mentioned, the area of the proposed park contains features and habitats that are sensitive to environmental change. In fact, parts of the area under consideration have been seriously impacted by human activity during the past 30 to 40 years and exhibit noticeable signs of environmental deterioration. It should be noted, however, that such human impact and resulting deterioration generally exists throughout the more than five million acres that constitute the wetlands of coastal Louisiana. While some environmental damage has occurred in the proposed park area, the damage has not been devastating, nor is it irreparable. Our group has been deeply involved in wetland research

for a number of years, as have other groups in the state, and major advances have been made in wetland habitat management.

In our opinion, the environmentally sensitive habitats and features within the proposed park area are amenable to management. An effective management program would prevent further environmental deterioration and in many instances, restore lost renewable resource values. Wetlands should be no more difficult to manage than other ecologically sensitive areas such as deserts, tundra, dunes, etc.

Satellite Areas

The entire deltaic region is rich in natural and cultural resources related to as "Mississippi Delta System-Natural and Cultural History Theme." We recommend study of the region for special areas and features that might be included as satellite to the primary park area. Features and places which come to mind immediately include: Big and Little Oak Island archeological sites, Orleans Parish; Magnolia Mound archeological site, St. Bernard Parish; Ft. Proctor and Bayou Bienvenue Areas, St. Bernard Parish; Pass a Loutre distributary area, Plaquemines Parish. There are many other features and areas which should be considered.

Summary and Conclusions

In our professional opinion, the proposed Jean Lafitte Park would have great recreational, educational, and research value. A natural and cultural history theme related to the Mississippi Delta system would have national and international significance. The overall value of the park would be greatly enhanced if the buffer zone concept is incorporated into the plan.

Features and areas related to the park theme and which lie outside of the primary area should be considered for inclusion as satellite parks. An effective and adequate conservation management and public-use program is entirely feasible. The cost of management and maintenance should be comparable to that experienced in other national park areas. We believe that the proposed park would be a great asset to Louisiana and the nation.

AN APPROACH TO MULTIUSE MANAGEMENT
IN THE
MISSISSIPPI DELTA SYSTEM

By

Sherwood M. Gagliano
Johannes L. van Beek

A Reprint From
DELTAS, MODELS FOR EXPLORATION
Martha Lou Broussard, editor
Houston Geological Society
1975

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SHERWOOD M. GAGLIANO
JOHANNES L. VAN BEEK

An Approach to Multiuse Management in the Mississippi Delta System

ABSTRACT: The Louisiana coastal zone is dominated by the Mississippi Delta System. The vast input of fresh water and sediment, interaction between riverine and marine processes, a favorable climatic setting, and the cyclic habit of the delta system combine to produce a coastal area exceptionally rich in renewable resources. Under natural conditions, the self-maintaining nature of the delta system insured continuity of these resources, but human activity has seriously altered this natural balance. Massive environmental degradation has occurred during the past 30-40 years, and the entire system may soon collapse. Primary causes of deterioration include: 1) flood control and navigation improvement, 2) accelerated subsidence, 3) urban encroachment into wetlands, 4) water pollution, and 5) canal dredging.

The problem of restoring the system's balance while allowing for projected growth and development has been addressed through a series of studies. A multiuse management plan

is proposed based on analysis of natural and human processes operating in the area and land-use suitability. Highways and other public works projects provide the mechanism for directing growth and development to environmentally suitable areas. Renewable resource areas are identified, and management priorities and guidelines outlined. Of prime importance is a water resource management program providing for conservation of local runoff, as well as direction of Mississippi River water and sediment for environmental maintenance and enhancement. Controlled delta building and introduction of supplemental water into estuarine basins are vital to restoration of the nutritional balance. The proposed plan is an attempt to arrive at a regional land-use geometry which will allow for efficient human use, minimize detrimental impact on the natural systems operative in the area, and require the least possible input of resources and supplemental energy to develop and maintain.

INTRODUCTION

In recent years it has become increasingly clear that we must learn to manage renewable resources or be faced with the loss of our most stable economic base. This has become evident particularly in the coastal zone, which represents at the same time one of the most vulnerable and most productive environments. It is therefore important to realize that an increased un-

derstanding of the way natural delta systems function can open the possibility for environmental management on a major scale in deltaic areas. Such management could not be more timely.

The Mississippi Delta System is a case in point. Its estuaries and wetlands form a resource that in view of biological productivity, scenic quality, and cultural heritage, must be considered one of national importance. Yet, as a result of uncoordinated decision-making and

human intervention with the natural process-response system, now and in the past, all of the above assets are threatened by massive environmental deterioration. The Mississippi Delta System has become the site of a serious conflict between optimum use and actual use of natural resources.

Solving this conflict and preventing total collapse of the system calls for development of environmental management and land-use guidelines and their integration into a multiuse management plan. The plan must both guard the viable ecological system and respond to the demands of a highly urbanized and industrialized society.

The present paper outlines a multiuse management plan for the Mississippi Delta System that fulfills the above stated requirements. Development of a plan was possible following a series of studies that (1) enabled a clear understanding of the natural process-material-form relationships in the delta system, (2) allowed identification of present problems and definition of their relationships to natural processes and human use, and (3) integrated the resulting insights to the extent that management approaches could be formulated. Fundamental to the plan is the necessity of the self-maintaining natural delta system to be able to continue functioning with a minimum input of supplementary energy and resources. High priorities are to minimize detrimental impact on the natural system and to capitalize on environmental opportunities. At the same time, the plan provides a compatible geometry for human use of the area. This approach to land use planning should result in an environment that is more efficient from the standpoint of energy and resource input and at the same time has characteristics favorable to a high quality of life.

THE DELTA SYSTEM

As a basic point of departure for development of a multiuse management plan, the delta system should be viewed as the product of interaction between chemical, physical, biological, and human systems. Effective planning depends on

understanding of the natural and human processes and the manner in which these processes interact. Only when the most important stores and regulators of the system can be identified and understood will it be possible to intervene intelligently with the system's operation. This means, in effect, that knowledge concerning the physical, biological, and human processes operating in the delta must be translated into a true control system (Chorley and Kennedy, 1971).

Much progress towards this goal has been made in recent years. Deltaic research increasingly allows the expression of relationships between process and form. Conceptual and quantitative models which depict and explore process-response relationships have evolved. Applicable models of sedimentation include, for example, the quantitative models of Harbaugh and Bonham-Carter (1970), and the recent work of Wright and Coleman (1973).

Similarly, major contributions have been made through the application of systems theory in working with biological systems. With respect to the coastal environment, the work of Odum (1971) on estuarine food chains may be cited. Many examples of the systems approach can be found with regard to cultural, economic, and social processes (Chorley and Haggett, 1967).

Natural Setting

The Mississippi Delta System has long served as a natural laboratory for the study of deltaic processes. These studies have led to a general and sometimes detailed understanding of the manner in which the system functions (see, for example, Fisk, 1955, 1960; Gagliano and van Beek, 1970; Kolb and Van Lopik, 1966; Morgan, 1967; Russell, 1936). With regard to environmental management, the most important knowledge that has resulted from these studies concerns the capacity of the system to maintain itself through natural renewal, and the process-material-form relationships that characterize the various deltaic environments and control their temporal and spatial distribution.

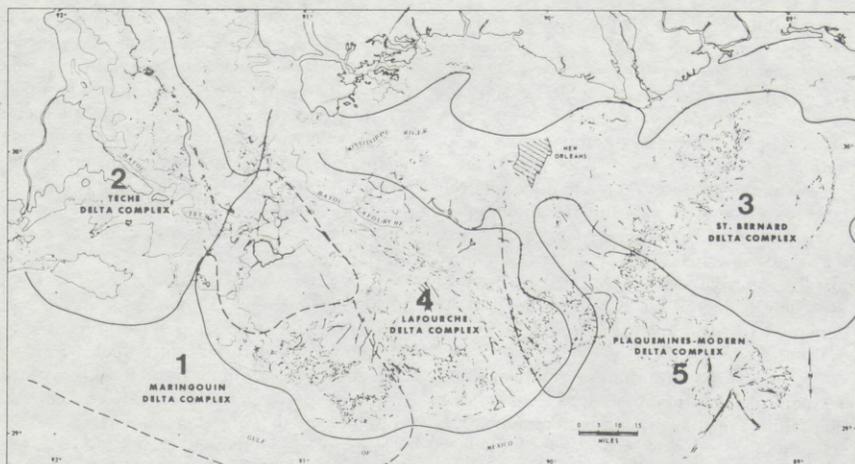


Figure 1. Principal delta lobe complexes (after Frazier, 1967). The periods of activity from oldest to youngest in years B.P. were 1 - Maringouin complex, 7200-6200; 2 - Teche complex 5800-3900; 3 - St. Bernard complex, 4700-700; 4 - Lafourche complex, 3500-75; 5 - Plaquemine-Modern complex, 1000-present. The major complexes are made up of a number of smaller lobes, each of which may have had a considerably shorter life cycle.

The self-maintaining nature of the delta system is evident in its well-documented geologic history and in its present surface configuration. These show us a sequence of delta building and abandonment in a state of balance (Figure 1). New deltaic complexes develop at the expense of older complexes, with progradation and aggradation in one area being coincident with deterioration in other areas. As time progresses, each complex goes through a cycle leading from initial progradation to abandonment, with individual cycles partially overlapping in time and space. The product of these cyclic and sequential changes is a highly diversified assemblage of environments, all in a changing and constantly evolving relationship.

Succession

Related to the cyclic development of the Mississippi Delta System, much attention should be directed to what is transpiring at a given place through time. Using geologic data, historic in-

formation, and present condition, types and rates of change that are occurring in any part or unit can be established. It follows that if rates remain unchanged, the future condition can be predicted. This approach may be developed into a model for defining and measuring natural succession and for predicting change (Figure 2).

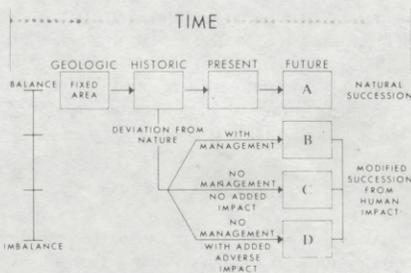


Figure 2. Conceptual model of environmental succession.

BIOLOGICAL PRODUCTIVITY AS A FUNCTION OF THE DELTA CYCLE

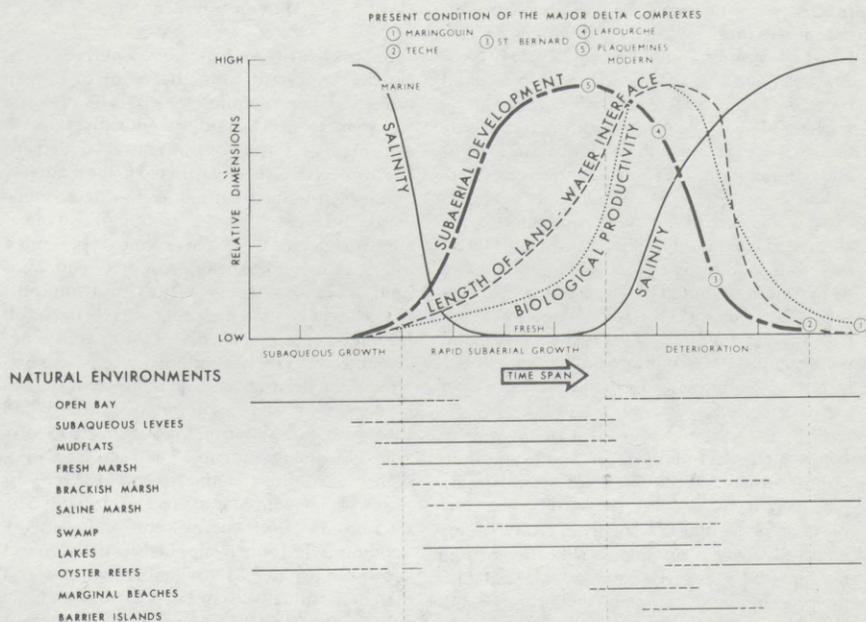


Figure 3. Environmental succession of an idealized delta cycle. For major delta complexes see Figure 1. The time required for completion of a cycle varies from decades to thousands of years, depending on the size and complexity of the lobe.

In many instances, if not most, the natural succession in the coastal zone may be disrupted by human impact, so that a deviation occurs. By measuring this deviation in recorded times through the use of maps and historic documents, it becomes possible to predict the future configuration of a unit or block after a modified succession resulting from human impact, as in Block C, Figure 2. The difference between the natural succession and the modified condition is a measure of human impact.

Additionally, it may be assumed that the rate of human impact need not remain constant, but is likely to increase. Projection of this rate will drive the future condition further away from natural succession (Block D). When natural

succession is thought of as representing a condition of balance, and modified succession as representing some degree of imbalance, the condition associated with Block D describes an environment that has moved farther toward imbalance. These trends toward imbalance can only be prevented or remedied through management of the system. With management considered, a compromise between natural succession and the condition resulting from undirected and uncoordinated human modification is possible. What one is really striving for, then, is the block shown as B in Figure 2.

Directly related to the physiographic changes is the biological productivity of the delta system, with the deltaic forms and associated physical

processes and materials the primary control for the distribution and occurrence of flora and fauna (Penfound and Hathaway, 1938; O'Neil, 1949; Parker, 1960). This relationship is illustrated by Figure 3. The controlling factor is the movement of a delta complex through consecutive phases of subaqueous and subaerial growth and deterioration. This movement may be referred to as a delta cycle. Advance through the cycle is registered by various parameters, such as subaerial extent, length of land-water interface, and salinity. Temporal change for a given delta complex is illustrated by the curves in Figure 3. The diagram at the same time shows spatial variation within the delta system; coexisting delta complexes, as indicated by the numbers 1 through 5, differ as to relative position within the delta cycle.

With the cyclic change of a delta complex comes a change in occurrence and extent of its natural environments. Figure 3 shows a progressively increasing diversity as the delta complex enters the phase of subaerial growth. Maximum diversity is not attained, however, until the early stage of deterioration, as exemplified at the present by the Lafourche delta complex (4). Coincident with diversity are a maximum length of land-water interface and an early increase in salinity to moderate levels.

It is this cyclic change in the total environment which controls biological productivity both in time and space. For this reason, biological productivity in a given area is also subject to cyclic change, and at a given time, some areas of the Mississippi Delta complex are more productive than others (Gagliano et al., 1971, 1973). The curves in Figure 3 illustrate both of these aspects of biological productivity. The diagram further illustrates that highest productivity is associated with the early stage of deterioration. Possibly, this relates to the large extent of the salt water marshes in conjunction with a long land-water interface, resulting from early breakup of these marshes. The Barataria-Terrebonne estuaries of the Lafourche Delta complex (4) exemplify such a productive environment in their exceptionally rich fisheries yield (Lindall et al., 1971).

Human Intervention

Process-form-material characteristics are equally important from the point of human ecology. They determine the opportunities and constraints for each environment with regard to settlement and use. For this reason, settlement has until recently been restricted to the relatively high, well-drained natural levee ridges, while wetlands favored fisheries, trapping, and recreation (Gagliano, 1972). This pattern represented extensive use of renewable resources with minimal adverse effect to the environment. Unfortunately, man has progressively departed from this pattern in his use of the coastal zone.

Human activity has seriously altered the balance of the delta system and is largely responsible for the massive environmental degradation that has occurred during the past thirty to forty years. Most consequential has been man's endeavor to confine the Mississippi River for purposes of navigation and flood protection. The river has now been "harnessed," and overbank flooding, which once supplied freshwater and sediment to the flood basin swamps and marshes annually, has been virtually eliminated. Overbank flooding was an important process in the hydrologic balance of the delta plain swamps and marshes, and although difficult to quantify, its elimination has undoubtedly contributed to their deterioration.

Of equal importance has been the funneling of the sediment load of the river into deep waters of the Gulf of Mexico. Directed seaward through three major passes, these sediments no longer help decrease the effects of subsidence and erosion, and active land building in the vicinity of the lower delta is no longer taking place. In effect, the delta is no longer rejuvenating itself, and the whole system is in a condition of deterioration. The flow of energy and material has been concentrated into a single conduit while we failed to recognize that self-maintenance of the system is based on overflow and diversion.

Additional deterioration has resulted from human impact in the form of canal dredging, land reclamation for industrial, agricultural, and

urban development, and water pollution (Gagliano, 1972; Gagliano et al., 1973). The entire coastal zone is presently laced with an extensive network of canals, causing major changes in runoff, tidal exchange, and salinity patterns. In recent years, urban and industrial encroachment into wetland areas has increased at an alarming rate, adding further to the loss of renewable resource area. Reclamation for those purposes has progressed despite the fact that poor foundation conditions and necessary drainage and flood protection make such ventures speculative at best.

The symptoms of massive deterioration are apparent throughout the delta system, but land loss and fisheries statistics are by far the most salient indices. While during the past 5000 years the river has constructed a deltaic land mass nearly 19,000 miles² in extent, and was until very recently maintaining that land mass, it can be demonstrated that this trend has been drastically reversed, and land has been lost at a rate of 16.5 mi² per year. A loss of approximately 500 mi² during the past thirty years has been documented (Gagliano and van BEEK, 1970).

A second trend indicative of deterioration is found in the fisheries statistics. The deltaic estuaries of Louisiana's coast account for approximately 25% of the total fish harvest of the conterminous United States. The alarming aspect of the fisheries harvest data is that the effort per catch unit for both shrimp and oysters has increased significantly, and the oyster yield per acre has decreased sharply.

Without elaborating further on this theme, it should be emphasized that deterioration of the system can be documented and is largely the result of human impact. Clearly, continued uncontrolled and undirected use of the delta region and its resources is unacceptable. For this reason, much of the coastal zone research effort must be directed toward developing an approach to multiuse management.

PLAN DEVELOPMENT

Recognizing the importance of the shifting lobes to continued maintenance and productivity of the delta system, the changing conditions

related to the delta cycle must be translated into terms that are meaningful to the planning process and that provide input for the type of model shown in Figure 2. This makes it necessary to look at smaller units of the system and relate measurements and indices of change to these areas. Determination of the smaller areas, or environmental management units, and development of a corresponding data base have been two of the most important aspects of plan development.

Environmental Management Units

By taking into consideration the implications of the natural setting previously discussed, one can arrive at a functional differentiation that essentially will yield environmental management units. On a larger scale, these are distributary channels, natural levee complex, interdistributary basin, barrier complex, and active delta front, as illustrated in Figure 4. Each of these environments is characterized by a specific set of process-form-material parameters, a specific ecological function, and a distinct range of opportunities and constraints as to use. Through systematic inventory and analysis of physical characteristics and human use and modification, a further division may be obtained. This will yield a hierarchy of units corresponding largely to the natural structure of the delta system. As the environmental units are defined on the basis of natural landforms and other physical characteristics, as well as types and degree of human modification, they are amenable to classification and quantification and can provide input for the kind of succession analysis previously discussed.

Figure 5 shows a part of the study area as divided into environmental management units. Units have been grouped into several categories which are more or less self-explanatory. Natural and human successions which have occurred within each of these units can be measured and the future condition projected with favorable probability. Based on evaluation of all elements, environmental opportunities and constraints and unique features are identified and recommendations regarding highest and best use (or intrinsic suitability) are made for each unit.

A general example of how identification of environmental opportunities and constraints leads to a proposal for use and development comes from the natural levee ridges and interdistributary wetlands (Figure 4). The relatively high, well-drained levee ridges bordering active and abandoned distributaries of the Mississippi River are well-suited for many traditional kinds of human development. Rich soil and reasonably good foundation conditions provide definite environmental opportunities for agriculture, surface transportation routes, urban development, and some industry. It is no accident that major cities are located on natural levee ridges, and that the ridges have dictated settlement patterns.

In contrast with the natural levee ridges, interdistributary wetlands are flood prone and have very poor foundation conditions. These aspects represent definite constraints against traditional land use and development. Further, the wetlands are high in biological productivity and recreation potential. For all of these reasons, there are heavy penalty costs associated with reclamation, development, and maintenance for urban, agricultural, or industrial activities in interdistributary wetlands.

Data Base

Once a conceptual framework has been established that takes into consideration major process-form relationships and how the study area is to be treated, a data base can be developed and data synthesized effectively. The data base format must correspond to the conceptual model and take into consideration both spatial and temporal elements. Quantity and nature of the data available are additional design factors.

A standard technique and the one used in the Louisiana studies is the compilation of an atlas (Gagliano et al., 1973). This need not be encyclopedic, although an encyclopedic compilation of environmental and land use data is an exceptionally useful starting point. The atlas, rather, should be a selective and graphic synthesis of the basic environmental and cultural aspects of the landscape. An outstanding example of this type

of atlas is the Texas Bureau of Economic Geology's Environmental Geologic Atlas of the Texas Coastal Zone (1972).

The data base must accommodate various types of quantitative information and must be amenable to automated data processing. This may be facilitated by the use of equal-area grid cells for data collection, reduction, and display.

Given the combination of a conceptual framework and a corresponding data base, it becomes possible to proceed with development of the actual multiuse development plan. Such a plan is derived by first examining each of the environmental management units with regard to intrinsic suitability from the standpoint of human use and requirements for maintenance of the natural system. Execution of this task relies heavily on the type of information presented in conjunction with the data base discussion. Secondly, the overall needs and goals for the area should be defined and projected against a background of determined intrinsic suitability and management requirements. Together, the above two tasks allow the determination of management and development areas as well as development of management guidelines for resources, such as surface water, that fulfill the requirements of the natural system, or at least minimize detrimental impact.

Once a plan is devised, it must be compared with proposed or existing uses in order to identify conflicts between these uses and the objectives of the plan. Some conflicts arising from proposed projects may be resolved through design modifications that make the proposed project compatible with the management objectives for the area involved. Other projects may appear totally undesirable because of inescapable detrimental impact. Such projects, if their implementation can be shown to be an absolute necessity, require the development of alternative plans as a basis for comparison.

The end product for which one strives remains a plan geometry which allows efficient human use, minimizes detrimental impact on the natural systems operative in the area, and requires the smallest possible input of resources and supplemental energy to develop and maintain.

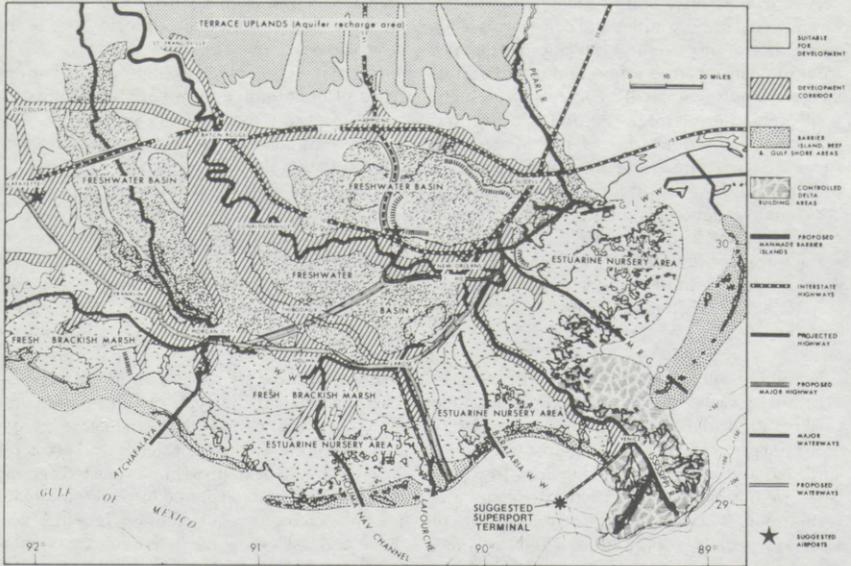


Figure 6. Proposed multiuse management plan for southeastern Louisiana (after Gagliano and van Beek, 1973).

A Multiuse Management Plan

As an approach to the problem of restoring balance in the Mississippi delta system while allowing for projected growth and development, a multiuse management plan is presented here in Figure 6. The plan, in effect, is a proposal for land use on a regional scale. A major part of the plan deals with renewable resource area management, including (1) the barrier islands, reefs, and gulf shores; (2) estuarine nursery areas and marshes; (3) fresh water basins; and (4) areas of controlled delta building. Management areas are defined on the basis of natural setting, environmental opportunities and constraints, and from historic, present, and projected land use patterns. The plan places as much emphasis on identifying suitable de-

velopment areas and unique opportunities for development as it does on conservation of renewable resources. Highways and other public works projects provide the mechanism for directing growth and development to environmentally suitable areas.

A companion proposal for water resources management as presented in Figure 7 calls for conservation of local runoff as well as directing the Mississippi River water and sediment for the purpose of environmental maintenance and enhancement. Basically, it would re-establish the overbank flow regime of the deltaic plain, presently disrupted by flood protection levees, and restore more favorable water quality conditions to the highly productive deltaic estuaries. This would result in flooding, of course, but would be done under controlled conditions.

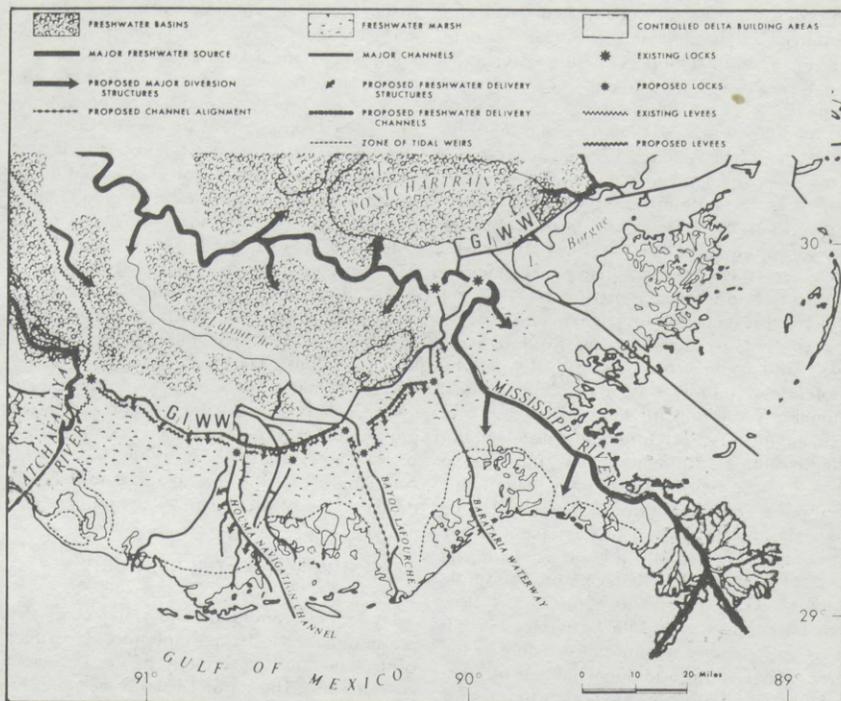


Figure 7. Proposed surface water management plan for southeastern Louisiana (after Gagliano and van Beek, 1973).

MANAGEMENT PRIORITIES

Barrier Island, Reef, and Gulf Shore Areas

The regulatory function in regard to marine input in the delta system should receive highest priority in management considerations dealing with the barrier, reef, and Gulf shore areas. These units form a natural barrier against storm waves and surges and are most important in maintaining a balanced exchange of water between the Gulf and deltaic estuaries. Their maintenance is essential to the continuing viability of the natural systems in the coastal zone. Importance of these units is such that public ownership would be desirable and warranted.

To make use of the units compatible with their protective and regulatory functions, management should focus on enhancement of wildlife and scenic recreation opportunities.

Estuarine Nursery and Fresh to Brackish Marsh Areas

Because of their exceptionally high biological productivity, these areas should be managed as renewable resource areas, with emphasis on fisheries, wildlife, and recreation. They should never be drained and reclaimed for other uses, even agriculture. New guidelines must be developed for the mineral extraction industry to minimize environmental impact and to allow for

an orderly phasing-out of this activity as this resource becomes depleted. These areas cannot sustain additional impact of new navigation canals, highway embankments, or other linear elements.

Programs of marsh restoration and management should be initiated immediately, as deterioration and land loss have reached catastrophic levels. Within these programs, specific problems are to be faced. One such problem is erosion along muddy shorelines. In coastal Louisiana, there are more than 30,000 miles of land-water interface, approximately 90% of which represents muddy marsh and swamp fringes. In many areas, particularly along large lakes and bays, erosion is critical, and the shoreline is rapidly retreating. Conventional shoreline protection measures in the form of rigid engineering structures could be taken, but would eliminate the marsh-water interface so vital to the estuarine food chain. Alternative methods should therefore be considered. One more desirable approach to this lake and bay shore problem would be the building of artificial barrier islands modeled after nature's example along the Gulf shore. This approach, as illustrated in Figure 8, would allow continued viability of the marsh-water interface, while at the same time, yielding additional habitats for flora and fauna, and much needed opportunities for recreation.

Freshwater Basins

These basins must be managed as renewable resource areas, primarily for forestry, fisheries, and recreation. Dredging should be minimized, and drainage and reclamation prohibited. The basins should be used as freshwater storage areas, with scheduled releases into the estuaries to the south. Pertaining to mineral extraction industries, there exists the same need for guidelines for the freshwater basins as for the estuarine nursery areas and marsh areas.

Development Corridors

The corridors are primary elements in the plan, representing areas that are already heavily developed or where development is projected.

In most cases, the corridors are confined to land surfaces suitable for development (relatively high, well-drained land with good foundation conditions). In some instances, "natural corridors" have been expanded to boundaries formed by prominent man-made features, such as navigation canals and flood protection levees. The term "development corridor" is not meant to imply blanket urbanization or industrialization. Creative planning is recommended to provide the best mix of land use (Figure 9). Public works projects should be focused on the corridors to strengthen and further define them. Highways, flood protection works, and drainage projects should be combined wherever possible to minimize land acquisition, construction and maintenance costs, and environmental impact. The importance of the corridors can best be appreciated if viewed in broader context. They provide an excellent geometry for directing future land use of the coastal zone, and orderly development of the region as a whole.

SURFACE WATER RESOURCES

Hydrologic conditions and water chemistry are among the most important process variables controlling the total ecology of the Louisiana coastal zone. The natural balance between locally derived runoff, water introduced through the Mississippi River and its distributaries, and the saline waters of the Gulf of Mexico resulted in a broad mixing zone, which in turn became one of the most biologically productive estuarine areas in the world. Factors controlling the delicate balance in the natural system included the overflow regime of the Mississippi and Atchafalaya Rivers, the sinuosity of backswamp drainage and tidal networks, the size and configuration of barrier islands and tidal passes along the Gulf shore, and the large freshwater storage capacity of the wetlands.

As previously discussed, man's intervention has seriously disrupted the natural balance and greatly accelerated deterioration. Prevention of overbank flooding, dredging of canals for navigation, drainage, lumbering, and mineral extraction, along with wetland reclamation,

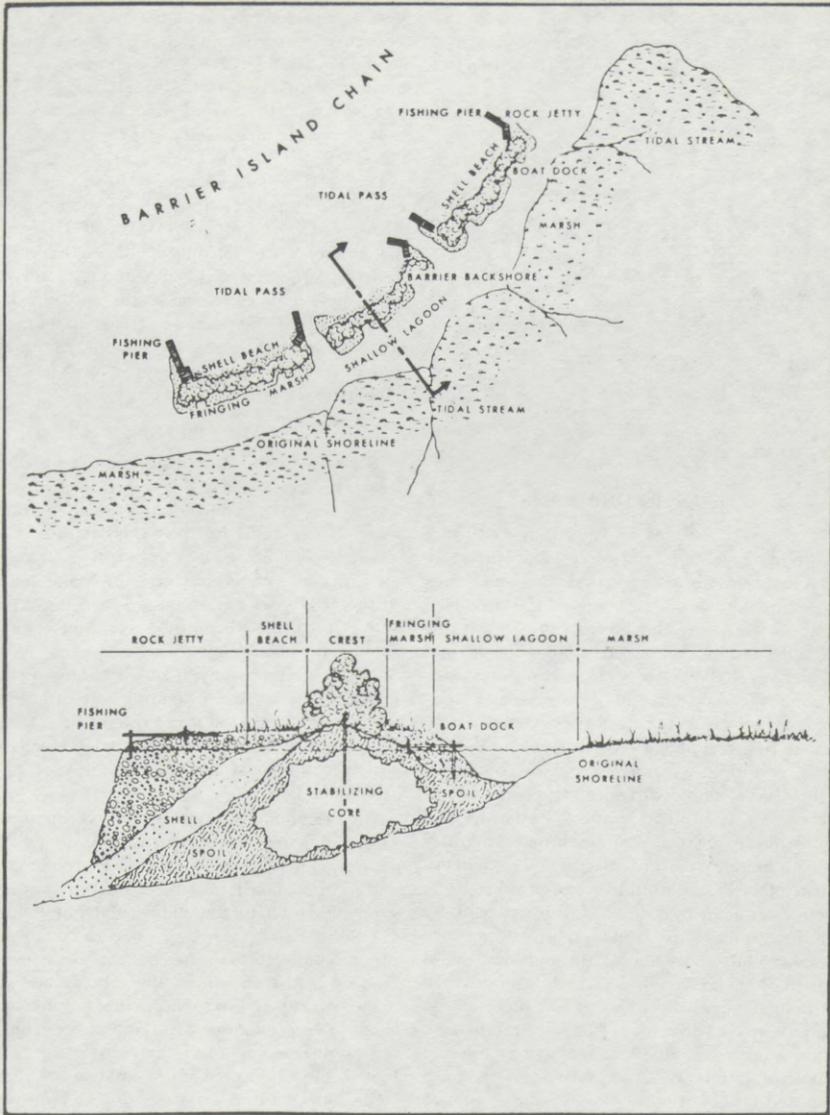


Figure 8. Configuration of proposed man-made barrier islands (after Gagliano et al., 1973).

have caused accelerated runoff, salt water intrusion, and increased water exchange. Increased erosion rates and drastic changes in fauna and flora have resulted.

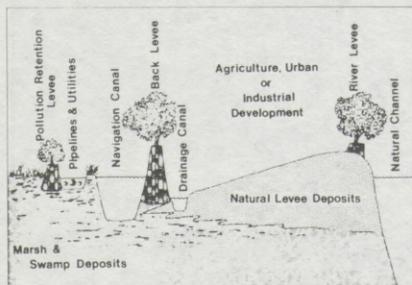


Figure 9. Use of natural levee as a development corridor.

Freshwater Distribution

Figure 7 illustrates an approach to surface water management aimed at establishing more favorable environmental conditions, and thus reducing the rate of deterioration. It is proposed that major freshwater basins or reservoirs be established north of the Gulf Intracoastal Waterway (GIWW) by construction of a continuous levee system with locks on major navigation channels. Water would be retained at only about 1 - 2 feet above present levels in the basins, restoring a managed backwater regime. The GIWW, along with ancillary canals, would serve as a conduit to connect the basins and redistribute freshwater along a broad arc. Water would be released through a series of delivery structures. Water would be stored during wet periods and released slowly during dry periods. During times of precipitation excess, surface water could be discharged through navigation canals. A staggered release schedule for delivery structures might allow for periodic high salinity conditions if subsequent study demonstrates this to be a desirable management technique. South of the GIWW, structural measures should be used to conserve fresh water and to reduce the total volume of tidal exchange. Construction of weirs or sills across tidal channels should be

encouraged. Every effort must be made to prevent further deterioration of the barrier islands. As the sand budget of the Gulf shore area is very limited, concrete tetrahedrons, riprap bulkheads, and other rigid structures may be necessary to reduce erosion and prevent further increase in tidal prism volume.

The need for supplementary fresh water for estuarine management has also been documented (Gagliano et al., 1971). Supplementary water introduced through control structures from the Mississippi and Atchafalaya rivers into the freshwater basins and directly into the marsh and estuarine areas would provide still another management tool to optimize salinity conditions and to restore a more favorable balance to the system (Figure 10).

Delta Building

A key element in the restoration of the delta area is the utilization of the tremendous input of energy and materials contained in the surface water. The manner in which this can be accomplished is exemplified by the system itself, in the areas of active or recent land gain. Marsh lands in the active delta were built over a period of some 100 years through development of a number of subdelta lobes (Gagliano et al., 1970). Similarly, a recent study indicates that the Atchafalaya River has been building a marine lobe since about 1950, and if not interrupted, some 100 square miles of new marsh land will be added to the coast by or about the year 2000 (Shlemon, 1972).

The possibility of utilizing the riverine input for maintenance and productivity of the deltaic environments can be illustrated. Historic maps and records make it possible to quantify rates of subdelta growth for four of the subdeltas (Figure 11). Subdelta life cycles, as reflected by rates of progradation and transgression, are depicted in Figure 12. Also shown are the approximate average percents of sediment discharged through each of these complexes. The large curve in black represents the total of the four subdeltas. Note that within a period of approximately 100 years some 200 square miles of new marsh land was built from only 21% of sediment discharge of the river.

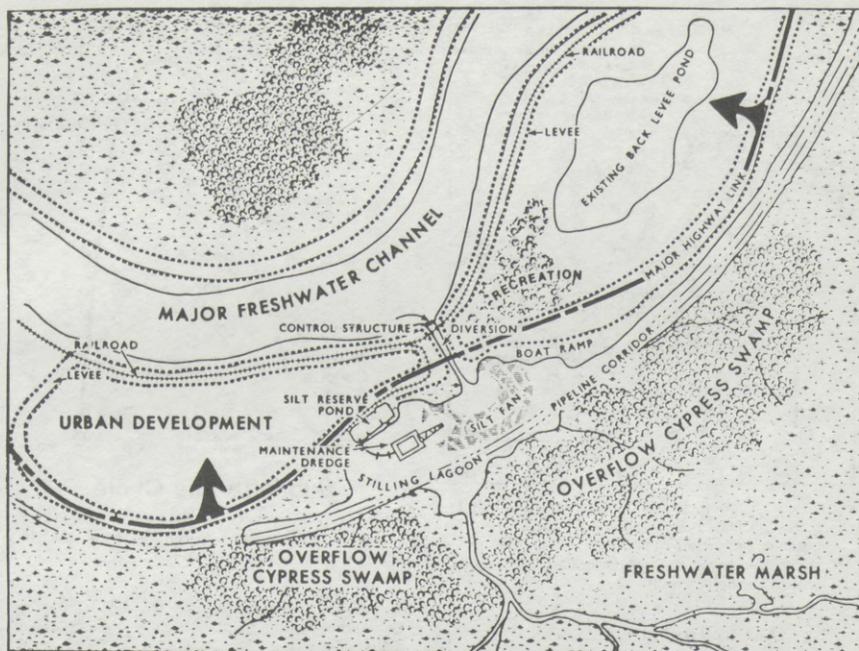


Figure 10. Schematic plan for environmental management and land use at intersection of freshwater drainage canal and development corridor (after Gagliano et al., 1973).

This suggests, then, that the cyclic and sequential development of the delta system can be sustained by helping the river to initiate new cycles of delta building resulting in new marshlands and estuaries. Land building could be scheduled and managed in much the same way as forests are managed. Judicious spacing of deltas and control of the outflow after the land masses have been constructed would result in highly productive "new estuaries" to replace those lost through natural and human processes of deterioration. Feasibility of such a program is indicated by the relatively small input of energy and materials needed to build a major subdelta (Gagliano et al., 1971). Locations where diversions of water and sediment for the purpose of

delta building would be highly desirable are shown in Figure 7.

SUMMARY

The plan described here represents one approach, far from perfected, for moving toward meaningful coastal zone management. The mistakes that we have made in our coastal areas in the past were largely through ignorance. We simply did not understand how natural systems and human processes operated. However, if we ignore the newly acquired body of knowledge pertaining to the environment and fail to apply it to coastal zone management, continuing to make the same errors, destroying the invaluable renewable resources, the action is inexcusable.

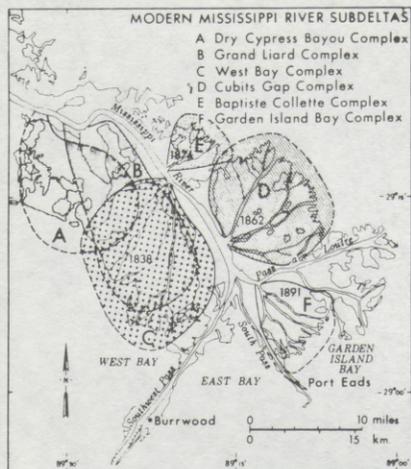


Figure 11. Subdeltas of the modern birdfoot delta. Dates indicate year of crevasse breakthrough (after Coleman and Gagliano, 1964). The lobes shown represent the approximate maximum extent of subdelta growth.

ACKNOWLEDGEMENTS

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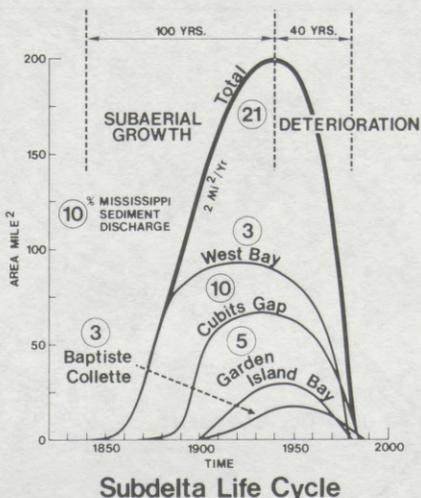


Figure 12. Life cycle curves of four historic Mississippi River Subdeltas. Locations of the subdeltas are indicated in Figure 11.

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DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA 70160

Shaping & Re-shaping A Delta



Technology and nature collaborate

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WATER SPECTRUM

by Frederic M. Chatry
and
Sherwood M. Gagliano

In 1717, Jean Baptiste LeMoynes, Sieur de Bienville, sent his engineer, Blond de LaTour, with a party of workmen to lay out a settlement on the banks of the Mississippi. The site—selected by Bienville despite the heated opposition of de LaTour, who believed it to be hopelessly flood-prone—is now the city of New Orleans. In recognition of the flood threat, de LaTour took steps to ensure that embankments would be constructed against it. Unknowingly, he thus intervened in a contest between the Mississippi River and the Gulf of Mexico, and initiated a sequence of events which was to alter decisively the course of that contest.

For a thousand years prior to de LaTour, the area which is now coastal Louisiana had been building by deltaic action. The building process was a gradual one, for the forces of the river and the sea were very nearly in balance. The river did, however, hold a tenuous initiative, and this initiative manifested itself in grudging surrender by the sea of part of its domain, through the building of new land by river-borne sediments.

The process set in motion by de LaTour was to weaken and ultimately to reverse the river's advantage. A quarter of a millennium later, the sea is clearly ascendant, and the Corps of Engineers finds itself involved in five important studies relating to Louisiana's coastal area. Because of the character of problems in that area, these studies involve major implications as to what the nature of man's response to a threatened environment should be.

In the current explosion of environmental concern, one is tempted to believe that the environmental problem was discovered only yesterday. The rhetoric of crisis holds full sway, and the mind boggles in a baffling barrage of editorials, articles, speeches, and television shows. Now, it may be that this barrage is necessary to mobilize the man in the street. But unfortunately, it tends to impede an understanding of something crucial: Irrespective of the future efficacy of some radical proposals for population control, the aspirations of people are likely to generate resources development needs which will go unmet only at catastrophic cost.

Viewed in this light, solutions to the environmental problem must be worked out largely in the realm of technology. It follows that those of us who work with water resources can be most responsive to the environmental threat by demonstrating that the relationship between development to meet the demands of a highly industrialized and

urbanized society, and a viable environment, need not be one of inevitable conflict. In short, we must strive to meet essential needs within a framework of minimum ecological change of a deleterious nature.

It was mentioned previously that the Corps is currently involved in five studies, the environmental implications of which are of special significance. These studies include four which are part of the regular Corps program of water resources investigations, and one which is being conducted under the aegis of the Water Resources Council. For ease of reference the studies and their basic purposes are shown in the accompanying tabulation (see Chart 1). In all, the coastal area is an important element of concern.

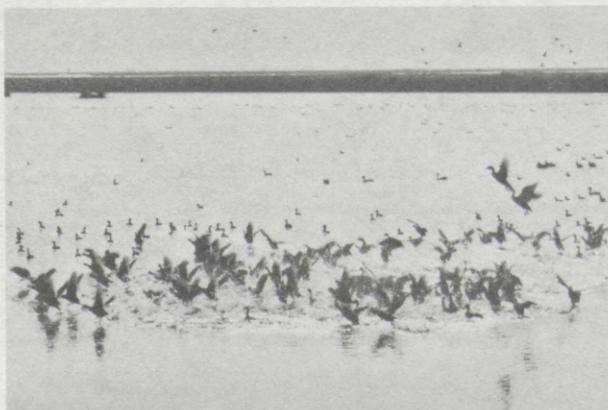
The aspects of these studies which this article seeks to illuminate are those which relate to the nature of ecological change in the area, with particular reference at this time to the area as a habitat for fish and wildlife. The investigations involved, which will produce essential input to the five studies, are collectively referred to as the *Fish and Wildlife Study of the Louisiana Coast and Atchafalaya Basin Floodway*. For our purposes, the Atchafalaya Basin Floodway may be thought of as an integral part of the Louisiana coastal area.

With the above as prologue, let us take a broad look at the Louisiana coastal zone inclusive of the Atchafalaya Basin Floodway. Mostly marshes, swamps, and lakes, it presents, in gross aspect, a rather desolate appearance. This desolation tends to obscure its value to the State and the Nation. Yet, the more than 5.5-million acres of wetlands in the coastal zone comprise nearly 20 percent of the State. Within or immediately adjacent to the coastal zone resides nearly half of the State's inhabitants. Louisiana ranks second in the Nation in the production of crude oil, natural gas and sulphur, and the coastal and adjacent offshore areas account for nearly all of this production. Louisiana leads the Nation in salt production, more than two-thirds of it coming from the coastal zone. Twenty percent of the State's agricultural production is derived within or immediately contiguous to the zone. The Nation's second largest port—New Orleans—is located within the coastal zone, and two others—Baton Rouge and Lake Charles—are nearby.

The important place occupied by commercial fisheries and wildlife in the overall economic framework of the State is a matter of common knowledge, and nearly all of the harvest of commercially important species of fish and wildlife, which aggregates some \$45 million annually, is reaped within the coastal zone. The coastal marshes are located at the southern terminus of the Mississippi Flyway and up to 50 percent of the waterfowl using the flyway winter there. The

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coastal zone currently supports an estimated 9 million man-days of sports fishing annually, and nearly 2 million man-days of hunting.

The emphasis on economics in the foregoing is not intended to imply that the total intrinsic worth of the study area is measurable in purely economic terms. The coastal zone embraces much which is of scenic, cultural, and historical value. Unique botanical specimens, and unusual plant communities are found in many locations in the area. The zone is marked by its history, and many features of great cultural value survive, including early village sites, plantations, churches, and fortifications. It contains unique topographic and geologic features, such as barrier beaches, natural swamps and marshes, salt domes, mud lumps, and the meander belts of the Mississippi River. The coastal zone is, beyond question, an important part of our dwindling natural heritage, and the philosophical arguments advanced in support of preserving wild rivers and scenic canyons apply to it with equal force.

It has been apparent for some time that Louisiana's coastal zone is threatened. Even a casual observer notes great and continuing change. Erosion and subsidence are converting land areas to open water. Canals to service the offshore oil and fishing industries, and to move a variety of commerce, weave a labyrinthine lacework through the marshes. All of these are evident, but beyond them more subtle changes are taking place: in salinity, both in the water and the soil; in the vegetation; in currents and flow patterns; changes

The central marshes in Louisiana are located at the southern terminus of the Mississippi Flyway and up to 50 percent of the waterfowl using the flyway winter there.

in fact, in nearly all of the important parameters from which the zone derives its unique character.

From the foregoing it is apparent that the coastal zone is indeed a threatened environmental asset worth preserving. It is equally apparent that the environmental question involved goes beyond the usual dimensions of the development-preservation dichotomy common to resources exploitation, such as that epitomized in the case of, say, the Salmon River of Idaho, or other "wild" western rivers. In such cases, the means of preservation is inaction, and its costs are measured in terms of what might have been, i.e., in developmental benefits foregone. Furthermore, inaction in the case of a wild river basin offers some prospect that the objective—preservation—will be at least partly achieved. In the Louisiana coastal zone, inaction will likely mean a continuation of present trends, and its costs may well include the loss of an existing and thoroughly palpable asset.

It was in the context of increasing awareness of and concern over the environmental threat that the study was initiated in 1968. Because of the highly interdisciplinary nature of the investigations involved, the Corps, at the outset, established an ad hoc interagency group to conduct them. This study group, which is chaired by the New Orleans District of the Corps of Engineers, includes representation from the Louisiana Department of Public Works, the Louisiana Wild Life and Fisheries Commission, the Louisiana Stream Control Commission, the Federal Bureau



Three happy snapper fishermen at one of the hundreds of oil rigs which dot the waters of the coastal zone. Rigs and platforms such as this one are among the most productive spots for sports fishing.

is pregnant with insights into the nature of the threat to the estuarine environment. The remainder of this article is devoted to a brief description of the report and its more salient findings.

Louisiana's coastal zone is an integral part of the delta of the Mississippi River—it is, in fact, not too much to say that coastal Louisiana is the Mississippi Delta. Like all deltas, that of the Mississippi is a zone of the interactions between fluvial and marine processes and constitutes one of the most dynamic situations in nature. The interaction of these processes over time results in a dynamically changing complex of environments within delta regions.

Deposition of sediments vies with subsidence and erosion in a never-ending exchange of land and water areas. The balance between deposition and the combined effects of subsidence and erosion cause shorelines of deltas alternately to advance seaward and then retreat. Seaward growth occurs at the mouths of active streams, whereas erosion results near the mouths of inactive streams which no longer transport sufficient sediment to sustain their seaward advance. This is the reason that delta building is so often depicted as a contest between the river and the sea.

If the river deposits sediment faster than the sea is able to remove it, new land is added to the shore, and the delta is said to prograde. As a delta is extended, it gradually builds upward or aggrades by processes associated with lateral shifting of channels, by sediment deposition during overbank flooding, and by accumulation of plant and animal remains. Deterioration of a delta occurs if all or part of it is deprived of the necessary supply of river-borne sediment for replenishing losses due to erosion and subsidence. This results in the reworking and/or removal of the seaward edge by wave attack and the settling and subsiding of the surface below sea level.

It follows that three basic conditions may exist in a delta: (1) that of seaward building, or progradation; (2) that of building up, or aggradation; or (3) that of transgression, or retreat. A fourth condition, that of near-stability, may also exist, but this condition is not of particular interest here.

If the deltaic plain of the Mississippi is considered as one integrated, dynamic system with riverine and marine inputs, it is only necessary to inspect a map or aerial photo mosaic of this system to appreciate its complexity and to understand that it is made up of a number of subsystems. Keeping in mind that four conditions may exist, it is possible to identify and examine the subsystems that occur in the Mississippi Delta at

of Sport Fisheries and Wildlife, the Federal Bureau of Commercial Fisheries, the Federal Water Quality Administration, the Bureau of Outdoor Recreation, and the United States Geological Survey.

As depicted in Chart 2, five work units are responsible for work in five areas of study. Key participants in the study are the Coastal Studies Institute of Louisiana State University in Baton Rouge, which is supporting the study effort in the areas of hydrology and geology, and the Louisiana Wild Life and Fisheries Commission, whose professional staff includes biologists with an intimate knowledge of the coastal zone.

The objectives of the study are several. Briefly, we seek: (1) to identify the nature and extent of ecological change in the coastal area; (2) to quantitatively relate productivity in the fish and wildlife resource to the physical and chemical parameters which, in their totality, comprise the estuarine environment; (3) to determine the parametric changes required to optimize the estuarine habitat; and (4) to suggest broad approaches through which these parametric changes may be accomplished.

In June, the Coastal Studies Institute completed a comprehensive report on the hydrology and geology of the coastal area. This report will serve as an essential data base for further studies, and



The coastal zone currently supports an estimated 9-million man-days of hunting each year—but this sport, along with fishing, is endangered by the annual loss of 10^{1/2} square miles of wetlands.

Researchers from the various agencies studying the coastal zone must travel in some areas where the mud is mostly water, and the water mostly mud. The Marsh Buggy enables them to make ground observations in areas previously unreachable.

a given instant in geologic time. This is not to say that we are losing sight of the dimension of time, but rather we are looking at the deltaic plain as it exists today, appreciating the fact that it does and will change with the passage of time.

Our examination reveals that all four of the conditions noted coexist within the delta. For example, the interdistributary basin lying between the active channel-levee system of the modern Mississippi and the abandoned channel-levee system of Bayou Lafourche, a former distributary of the Mississippi, functions as a large estuary. Its seaward end is in a condition of deterioration or retreat, while its fresher landward end is in a condition of aggradation. Geomorphic forms and sedimentary environments reflect these conditions. In comparison, many parts of the active birdfoot delta at the river's mouth are clearly prograding, or building seaward, and the distinctive assemblage of geomorphic forms and sedimentary environments found in this part of the delta reflects this condition.

To be sure, conditions can and do change in the subsystem from time to time. Most often the framework of a subsystem has been imposed on it by conditions which prevailed in the past. For example, an abandoned distributary system may presently be undergoing transgression or retreat. Today, the system functions as an estuary, but its framework has been imposed on it by a distributary system that was active during an inter-





The channel to the right is Southwest Pass, largest of those maintained by the Corps for ocean shipping for the ports of New Orleans and Baton Rouge. The surrounding area indicates the extensive channelization which has been carried out in many locations in the coastal zone.

val of progradation which took place at some time in the past.

In the Mississippi Delta, this habit of shifting sites of progradation has produced a deltaic plain that is lobate in surface configuration and cyclic in vertical section. South Louisiana as we see it today has been built up by a series of sediment pods, each of which is associated with an interval of delta progradation. Viewed from above they are lollipop-shaped masses of sediment.

From the above discussion it might be concluded that, when viewed through geologic time, a delta system is always in delicate balance—that is, on one side of the fulcrum is the supply in the form of transported sediment, and on the other is loss in the form of erosion and subsidence. The very existence of south Louisiana bears witness to the fact that there has been net progradation over a very long period.

The same pressures which impelled de LaTour to erect his first levee persisted and intensified through the years. For various reasons, alluvial lands are more amenable to development than others, and one of the consequences of such development in the Mississippi Delta has been alteration of the deltaic processes previously described. The protection of the alluvial valley from floods has virtually eliminated overbank overflow of the coastal lands. Furthermore, the modern birdfoot delta is now at the edge of the continental shelf and most transported sediments in the Mississippi are disappearing into the deeper bathyal zone. A fundamental question posed in the

investigations was therefore "Is the delta, or for that matter, is the coastal area on the whole, building or retreating?"

The question had been approached by a number of investigators. The Corps, since its involvement in the construction of the Atchafalaya Basin Floodway, has documented topographic and hydrographic changes therein. Fisk (1952) indicated filling rates in the Floodway. Morgan and Larrimore (1957), in a careful comparison of historic maps, measured rates of progradation and retreat of the outer shoreline for the entire Louisiana coast. Saucier (1963) determined rates of shoreline retreat around the Lake Pontchartrain embayment. Finally, Coleman, Morgan, and Gagliano (1969) determined rates of subdelta growth in the active area of the Mississippi Delta.

We have attempted to quantify the total land loss picture by using the ratio of land to water in a given sample area as an index of net gain or loss. Fortunately, systematic planimetric mapping of coastal Louisiana was initiated in the 1890's by the U. S. Geological Survey. In the 1930's, this area was remapped, and use was made of controlled aerial photo mosaics. Mapping and remapping have continued since the 1940's, so that at present most of the areas have been covered at least twice.

Careful periodic remapping of the region has made it possible to determine the change in ratio of land to water for a particular area and mapping interval; these values in turn can easily be converted into land loss or gain in acres per year. In the present study a point-counting technique was used to determine changes in land-water ratios for each 7¹/₂-minute quadrangle map for the interval between the mapping of the 1930's and the most recent remapping.

The map of coastal Louisiana, on page 26, graphically depicts the results of the land loss studies. The map demonstrates that most of the deltaic plain is in a serious condition of deterioration. During the last 30 to 40 years significant land gain has occurred in only a few areas, notably in the Atchafalaya Basin. Areas of maximum land loss coincide with areas of maximum subsidence rates, as determined by radiocarbon dating of marsh peats. The computations indicated maximum loss rates in excess of 300 acres per year per 7¹/₂-minute quadrangle. For the coastal Louisiana wetlands as a whole, the land loss amounts to approximately 16¹/₂ square miles per year—that is, 495 square miles in a 30-year period. On the basis of these figures, it is safe to say that Louisiana has the distinction of having the highest rate of land loss of any State in the Union.

If, as is surely true, land loss in the coastal areas may be considered a pernicious disease, what are the prospects of a cure? The key is to

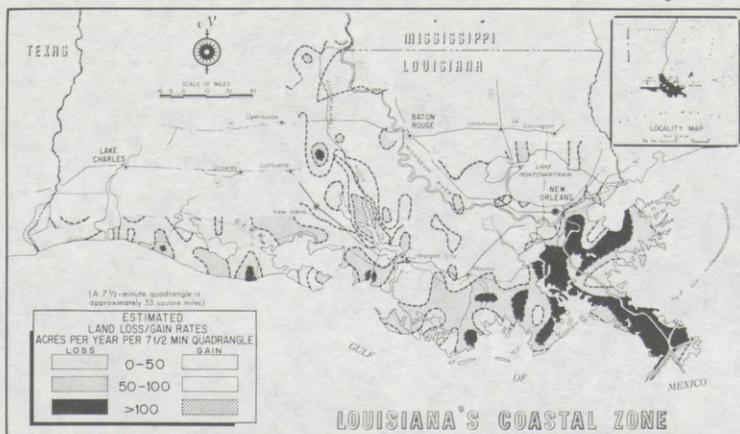
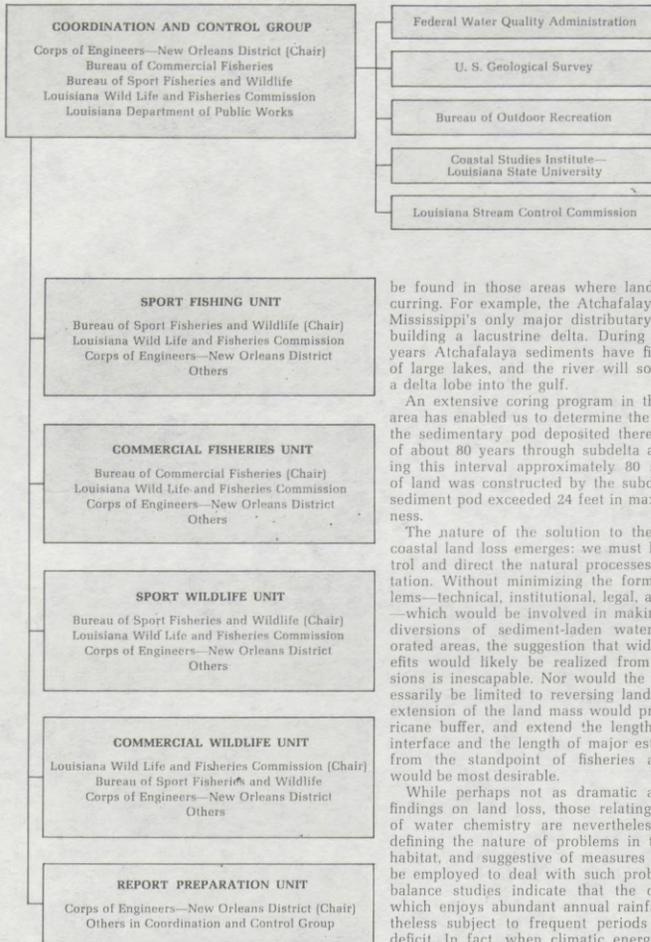


CHART ONE: FIVE STUDIES OF SPECIAL ENVIRONMENTAL SIGNIFICANCE

Study Title	Purpose
Lower Mississippi Region Comprehensive Study (Type I)	Identify and quantify the water and related land resources development needs of the region, outline broad plans for meeting these needs, and indicate the magnitude of the investment required for effectuating such plans.
Old and Atchafalaya Rivers Control Study	Determine whether any modifications, extensions or additions to the existing Old River Control System or its operation are warranted.
Louisiana Coastal Area	Determine the advisability of improvements or modifications to existing improvements in the coastal area in the interest of hurricane protection, prevention of salt water intrusion, preservation of fish and wildlife, prevention of erosion, and related water resources purposes.
West Texas and Eastern New Mexico Water Import Study	In conjunction with the Bureau of Reclamation, evaluate the feasibility of a proposal to import up to 12 million acre-feet of water per year to the "High Plains" area of Texas and New Mexico.
National Shoreline Study	Appraise erosion problems along the coasts of the Atlantic and Pacific Oceans, the Gulf of Mexico, Puerto Rico and the Virgin Islands, with peripheral consideration of possible remedial measures in the context of alternative land and water uses and the total natural environment.

CHART TWO: FISH AND WILDLIFE STUDY OF COASTAL LOUISIANA
AND THE ATCHAFALAYA BASIN FLOODWAY



be found in those areas where land gain is occurring. For example, the Atchafalaya River—the Mississippi's only major distributary—is actively building a lacustrine delta. During the past 50 years Atchafalaya sediments have filled a series of large lakes, and the river will soon construct a delta lobe into the gulf.

An extensive coring program in the West Bay area has enabled us to determine the thickness of the sedimentary pod deposited there in a period of about 80 years through subdelta activity. During this interval approximately 80 square miles of land was constructed by the subdelta and the sediment pod exceeded 24 feet in maximum thickness.

The nature of the solution to the problem of coastal land loss emerges: we must learn to control and direct the natural processes of sedimentation. Without minimizing the formidable problems—technical, institutional, legal, and economic—which would be involved in making controlled diversions of sediment-laden waters in deteriorated areas, the suggestion that widespread benefits would likely be realized from such diversions is inescapable. Nor would the benefits necessarily be limited to reversing land loss trends: extension of the land mass would provide a hurricane buffer, and extend the length of land-sea interface and the length of major estuaries. This, from the standpoint of fisheries and wildlife, would be most desirable.

While perhaps not as dramatic as the study findings on land loss, those relating to the area of water chemistry are nevertheless helpful in defining the nature of problems in the estuarine habitat, and suggestive of measures which might be employed to deal with such problems. Water balance studies indicate that the coastal zone, which enjoys abundant annual rainfall, is nevertheless subject to frequent periods of moisture deficit. In fact, when climatic energy demand is



...to deal effectively with the problems of coastal Louisiana, we must learn to control and direct the natural processes of sedimentation...

accounted for, the precipitation excess—the water available for streamflow and ground water recharge—is no greater than that available in the State of New Jersey, an area which receives on the average only one-half the annual rainfall of the coastal area. This suggests that the possibilities for beneficial use of supplemental water are likely greater than is popularly supposed.

Since direct overflow of the marshes by the Mississippi River no longer occurs, river flow now influences salinities in such areas in a rather roundabout fashion: It lowers salinities in the open gulf, and the effect of these lowered salinities is reflected in the salinities in the marsh. It follows, and the study results confirm this, that salinities in the brackish marsh zone tend to be much more responsive to rainfall, which exerts a direct influence, than they are to river flow. This suggests that diversions of fresh water from the Mississippi to specific points of need should be highly effective in inducing desirable changes in salinity.

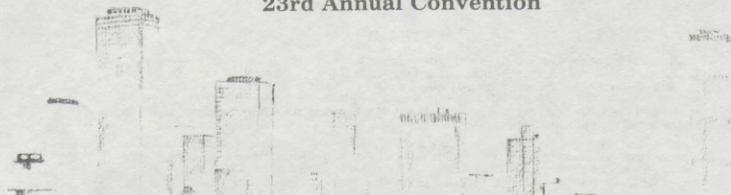
The foregoing has been a sketchy summary of study progress to date. It bears repeating, however, that the nature of the problem, as developed in the studies, does suggest that we must learn to control and direct sedimentation, and develop means for providing and utilizing supplemental water where needed. The Fish and Wildlife Study of Coastal Louisiana and the Atchafalaya Basin Floodway will answer the question of what is best for the estuarine area as a habitat for fish and wildlife. The mechanism for conducting the investigations which could lead to the authorization of specific projects or measures for improving the habitat is provided by the five studies previously listed.

We are hopeful that our efforts will constitute the vanguard to a program designed to preserve and enhance the estuarine environment. If they do, our hope of making the Fish and Wildlife Study of the Louisiana Coast and Atchafalaya Basin Floodway an apposite response to the environmental threat will have been realized. ■

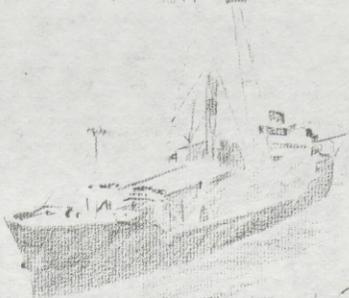
TRANSACTIONS

Gulf Coast Association of Geological Societies

23rd Annual Convention

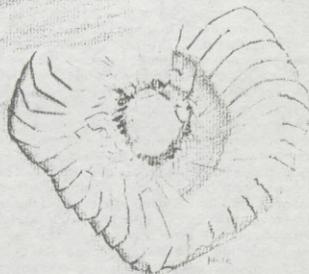


*Alabama Geological Society
Corpus Christi Geological Society
East Texas Geological Society
Houston Geological Society
Lafayette Geological Society
Mississippi Geological Society
New Orleans Geological Society
Shreveport Geological Society
Southeastern Geological Society
South Texas Geological Society*



Theme:

T Today's New Technology
N Tomorrow's New Targets
T



Houston, Texas

October 24, 25, 26, 1973

ENVIRONMENTAL MANAGEMENT IN THE MISSISSIPPI DELTA SYSTEM¹

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Baton Rouge, Louisiana 70803

ABSTRACT

The lowlands of the Louisiana coastal zone are exceptionally high in biological productivity. Unique natural beauty and a rich cultural heritage further identify this area as a nationally important resource. The coastal lowlands and its ecology are a product of the deltaic-fluvial system of the Mississippi River in a zone of interaction with marine forces of the Gulf of Mexico. Renewability of its resources is therefore dependent on preservation of the self-maintaining character of the delta system.

Human activity has seriously altered the natural balance of the delta system. Massive environmental degradation has occurred during the past 30 years, and the entire system may soon collapse. Primary causes of deterioration include: 1) flood control and navigation improvement, 2) accelerated subsidence, 3) urban encroachment into wetlands, 4) water pollution, and 5) canal dredging.

Maintaining the Mississippi delta system as a renewable resource requires a coordinated decision-making process which allows for environmental management. Based on a pilot study for south-central Louisiana this paper addresses the problem of restoring the system's balance while allowing for projected growth and development. A multi-use management plan based on analysis of natural and human processes operating in the area and land use suitability is proposed. Highways and other public works projects provide the mechanism for directing growth and development to environmentally suitable areas. Renewable resource areas are identified, and management priorities and guidelines outlined. Of prime importance is water resource management program providing for conservation of local runoff as well as directing Mississippi River water and sediment for environmental maintenance and enhancement. Controlled delta building and introduction of supplementary water into estuarine basins are vital to restoration of the natural balance.

INTRODUCTION

In recent years it has become increasingly clear that we must learn to manage renewable resources or be faced with the loss of our most stable economic base. This has become evident particularly in the coastal zone which represents at the same time one of the most vulnerable and most productive environments. The Mississippi delta system is a case in point. It's estuaries and wetlands form a resource that in view of biological productivity, scenic quality, and cultural heritage must be considered of national importance. As a result of uncoordinated decision making and human intervention with the natural process response system, now and in the past, all of the above assets are threatened by massive environmental deterioration. The Mississippi delta system has become the site of a serious conflict between optimum use and actual use of natural resources. To solve this conflict and prevent total collapse of the system, establishment of environmental management and landuse guide lines is called for. These guide lines must both guard the viable ecological system and respond to the demands of a highly urbanized and industrialized society.

¹The support of the Office of Sea Grant, National Ocean and Atmospheric Administration and the New Orleans District, U.S. Army Corps of Engineers is gratefully acknowledged. We also wish to thank many co-workers within the Center for Wetland Resources who have contributed to the research upon which this paper is based. Special thanks are extended to Penny Culley, Daniel W. Earle, Jr., Peggy King, Curtis Latiolais, Phillip Light, Alice Rowland, and Roy Shlemom.

²Center for Wetland Resources, Louisiana State University

THE DELTA SYSTEM

The Mississippi delta system has long served as a natural laboratory for the study of deltaic processes. These studies have led to a general and sometimes detailed understanding of the manner in which the system functions (see for example Fisk, 1955, 1960; Gagliano and van Beek, 1970; Kolb and van Lopik, 1966; Morgan, 1967; Russell, 1936). With regard to environmental management the most important knowledge that has resulted from these studies concerns the capacity of the system to maintain itself through renewal, and the process-form-material relationships that characterize the various deltaic environments and control their temporal and spatial distribution.

The self-maintaining nature of the delta system is evident in its well documented geologic history, and in the present surface configuration. These show us a sequence of delta building and abandonment in some state of balance. New delta complexes develop at the expense of older delta complexes with progradation and aggradation in one area being coexistent with deterioration in other areas. As time progresses each delta complex goes through a cycle leading from initial progradation with individual cycles partly overlapping in time and space. The product of these sequential and cyclic changes is a highly diversified assemblage of environments...all in a changing and constantly evolving relationship.

Directly related to the physiographic changes is the biological productivity of the delta system. The deltaic forms and associated physical processes and materials are

and man-induced processes the swamps and marshes are dying and the living surfaces are replaced by open water. Marsh ecologists and botanists have recorded the progress of the disease during the past 30 years (O'Neil, 1949; Palmisano, 1970). The symptoms are so well defined on maps and aerial photographs that they can be measured, past changes documented and future changes predicted. Three main categories of loss can be identified on maps and photos, (1) loss through shoreline erosion, (2) loss through canal dredging, and (3) deterioration and breakup of the marsh into small ponds and lakes.

The results of our intervention is well illustrated by an intertributary basin such as the Salvador-Barataria Basin (Fig. 1). Lying between the active channel and bordering natural levees of the modern Mississippi River and the abandoned channel-levee complex of Bayou Lafourche, an ancient distributary of the Mississippi River, this large basin functions as an estuary. Four tidal passes allow exchange of water with the Gulf of Mexico. Under natural conditions the landward end of the basin served as a fresh water reservoir, fresh water draining seaward at a slow rate through a system of sinuous, low gradient streams. Fresh water was derived not only from local rainfall but also from overbank flow of the Mississippi River during flood. The extended period of fresh water release and the sinuous tidal drainage network in turn limited salt water intrusion. Thus, even during the dry autumn months salinities would reach only moderate levels.

The hydrologic balance of the system was reflected by extensive and healthy marshes and swamps. These interfaced with broad shallow bays and lakes along a highly irregular shoreline. This extensive land-water interface along with favorable circulation patterns and water chemistry conditions resulted in one of the most productive estuaries in North America, if not in the world.

Although at present this single estuarine system produces an average of 371.35 million pounds annually of commercial estuarine-dependent fish with a production yield of 118.2 lbs./acre (average based on 1963-1965 figures, Lindall *et al.*, 1971), our studies indicate that man's intervention has seriously endangered this productivity. Confinement of the Mississippi River flow, dredging of canals, land reclamation, and disruption of longshore drift along the barrier islands have resulted in a decreased fresh water input, accelerated fresh water release, decreased fresh water dispersal, increased salt water intrusion and salinity variation, increased rates of erosion, and drastic changes in flora and fauna. Perturbation of the delicate hydrologic balance and the presence of positive feedback loops have greatly accelerated natural deterioration.

Another kind of balance possibly affected by man's activities is that between subsidence and aggradational processes. This balance related to coastal Louisiana's location within the Gulf coast geosyncline a downwarped region of the earth's crust which has been sinking for millions of years. Sinking is accelerated by sediment loading, and rates in the delta are high. Based on radiocarbon dating of buried peat deposits, it has been established that the average rate during the past 4,000 years has been 0.35 feet/century. However, tidal gauges and benchmarks indicate that during the past 30 years this rate has greatly accelerated, and much of the area has been sinking at more than two feet per century. A possible, yet unconfirmed explanation for this great increase in

subsidence is the tremendous withdrawal of oil and gas from the region during the past 40 years. Regardless of the cause, increased subsidence has been a contributing factor to significant shifts in faunal and floral communities.

In recent years urban and industrial encroachment into wetland areas has increased at an alarming rate. The city of New Orleans provides an important case study. When established in the 1720's the 13-foot elevations of the crest of the natural levee ridge seemed quite adequate to Iberville and Bienville. Natural levee ridges provided good foundation, were reasonably well drained and could be protected from floods with modest levee works. But from the original city, or Vieux Carre, the city soon expanded. By the 1880's most of the natural levee ridges were occupied and reclamation of neighboring wetlands began. The city has now extended itself into reclaimed wetlands in all directions and is continuing to do so.

The value of these wetlands as renewable resource areas is now well established, but studies of urban encroachment have revealed a number of other important points. One is that wetland reclamation for urban development is not economically feasible in Louisiana today without massive aid from federal, state, and local projects. Flood protection levees, drainage canals and pumping stations are usually built at public expense. Wetland real estate values are also enhanced by new highway construction.

In addition to loss of renewable resource area and the massive costs to the taxpayer there are other important reasons why such wetland areas should not be developed. The land surface will be as much as five to ten feet below sea level after reclamation and they are prone to flooding from hurricane storm surge and excessive rainfall. Flood insurance must be subsidized. Foundation conditions are poor, significantly increasing construction and annual maintenance costs for homes, businesses, streets, utilities, public buildings and grounds. Urbanization of such wetland areas create perpetual consumer-taxpayer cost burdens and is clearly detrimental to the public welfare.

Coastal Louisiana enjoys the mixed blessing of exceptionally rich subsurface mineral deposits, which include salt, sulphur, oil and gas. Since there is no relationship between surface topography and the subsurface mineral accumulation, renewable resource areas such as marshes have often been severely impacted by the mineral extraction industry.

Barge-mounted drilling rigs were invented in Louisiana in the 1930's for use in the coastal zone. In 1938 barge-mounted draglines were first used in this area to excavate access canals for drilling barges. Submersible drilling barges moved down canals into swamps and marshes and were soon followed by water borne pipe-laying equipment. Intricate mazes of canals evolved in major oil fields. Pipeline canals religiously follow the engineer's straight edge from production field to refinery or market. Because they engaged in interstate commerce, right-of-ways can be acquired through the courts according to the right of eminent domain.

The entire coastal zone is now laced with an extensive network of canals dredged to provide access to drilling sites and for pipeline construction. The fabric of this canal network is largely incompatible with the natural hydrologic network of channels and water bodies in the area. Consequently major changes in runoff, tidal ex-

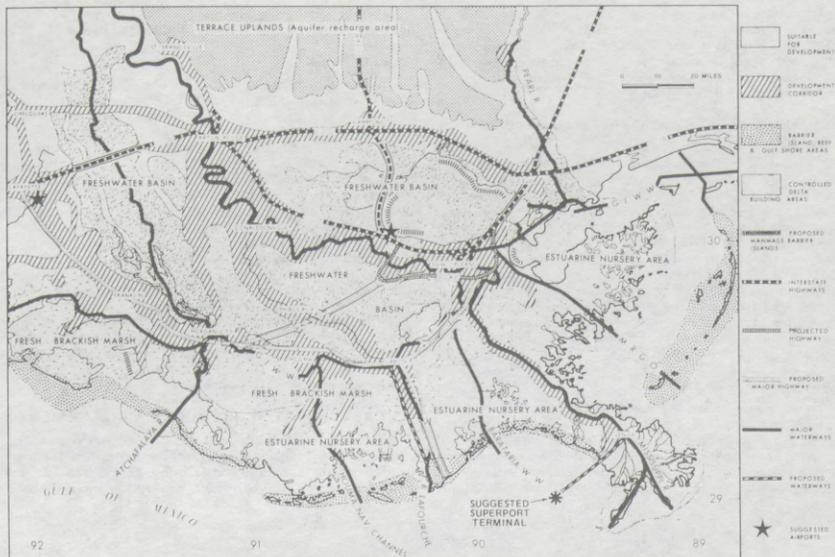


FIGURE 2—Proposed multiuse management plan for southeastern Louisiana.

change, and salt water intrusion resulting from this channelization have occurred.

Approximately 10% of the Louisiana coastal area is underlain by proven deposits of oil and gas. The offshore, shelf area, just now being developed, is even richer...and all of its production must pass through the coastal marshes to reach refineries and markets.

Through detailed studies of maps and aerial photographs of the area, we have established that the deltaic coast of Louisiana is no longer gaining new land, as it has for the past 4000 years. Rather, it has been losing land at the phenomenal rate of 16½ square miles/year (Gagliano, Kwon and van Beek, 1970). Our measurements document a total loss of almost 500 square miles during the past 30 years. Most of this is marsh land.

An obvious question arising from such measurements is: What is the cause? Why is a delta system that has been able to rejuvenate itself and build new land for 4000 years now dying? In an effort to more closely identify the human factors responsible, we have classified and measured all man-made waterways on 1969 aerial photo mosaics in an area comprising about one-fourth of the coastal zone (Gagliano *et al.*, 1973). In this area of 5,258 miles², bounded by the Mississippi River and the east levees of the Atchafalaya Floodway and extending to the Gulf, we measured 106

square miles of canals, or about 2% of the total area. The mineral extraction industries are responsible for 65% of the total dredging, drainage canals account for almost 21%, and navigation canals for 11%.

Approximately 40% of the total land loss in the coastal area can be accounted for by dredging. The secondary impact of this dredging has greatly accelerated marsh deterioration and erosion. Prevention of overbank flooding and funneling of the river's sediment load into deep water have been detrimental to established marshes and have prevented formation of new marshes. Loss to urban and industrial reclamation amounts to another 116 square miles.

PROPOSED MULTIUSE MANAGEMENT PLAN

A proposed management plan (Fig. 2) based on major natural and cultural elements has been developed for the study area. Major management units and elements are identified. Units are defined on the basis of natural environmental setting, environmental opportunities and constraints, and from historic, present and projected land use patterns.

BARRIER ISLAND, REEF, AND GULF SHORE AREAS.

Top priority should be placed on management of these

units as natural barriers against storms and marine forces (including inflow and outflow of Gulf water) and as wildlife and scenic-recreation areas. Their maintenance is vital to the continuing viability of the natural systems in the coastal zone. Their importance suggests that they should be in public ownership.

ESTUARINE NURSERY AND FRESH TO BRACKISH MARSH AREAS.

Because of their exceptionally high biological productivity they should be managed as renewable resource areas, with emphasis on fisheries, wildlife and recreation. They should never be drained and reclaimed for other uses, even agriculture. New guidelines must be developed for the mineral extraction industry to minimize environmental impact and to allow for an orderly phasing-out of this activity as this resource becomes depleted. These areas cannot sustain additional impact of new navigation canals, highway embankments or other linear elements. Programs of marsh restoration and management should be initiated immediately as deterioration and land loss have reached catastrophic levels.

FRESH WATER BASINS

These basins must be managed as renewable resource areas; primarily for forestry, fisheries and recreation. Dredging should be minimized and drainage and reclamation prohibited. The basins should be used as fresh water storage areas with scheduled releases into the estuaries to the south. Guidelines pertaining to mineral

extraction industries are essentially the same as those proposed for estuarine nursery and marsh areas.

DEVELOPMENT CORRIDORS

They are primary elements in the plan, representing areas that are already heavily developed or where development is projected. In most cases the corridors are confined to land surfaces suitable for development (relatively high, well-drained land with good foundation conditions). In some instances "natural corridors" have been expanded to boundaries formed by prominent man-made features such as navigation canals and flood protection levees. The term "development corridor" is not meant to imply blanket urbanization or industrialization. Creative planning is recommended to provide the best mix of land use. Public works projects should be focused on the corridors to strengthen and further define them. Highways, flood protection works, and drainage projects should be combined wherever possible to minimize land acquisition, construction and maintenance cost, and environmental impact. The importance of the corridors can best be appreciated if viewed in broader context. They provide an excellent regional geometry for directing future use of the coastal zone.

SURFACE WATER RESOURCE MANAGEMENT

Hydrologic conditions and water chemistry are among the most important process variables controlling the total ecology of the Louisiana coastal zone. The natural balance between locally derived runoff, water introduced through

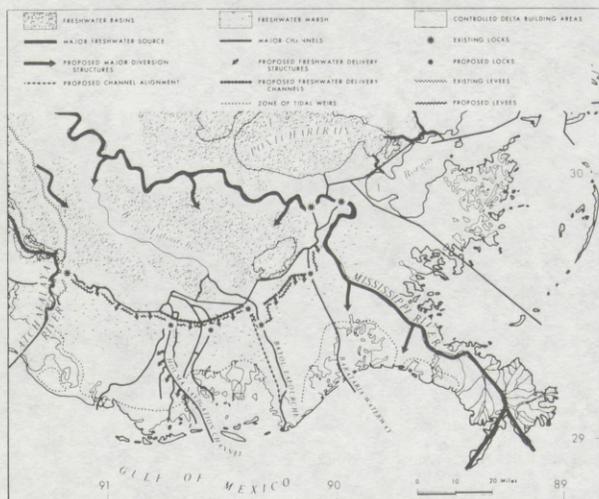


FIGURE 3—Surface water management plan for southeastern Louisiana.

the Mississippi River and its distributaries, and the saline waters of the Gulf of Mexico resulted in a broad mixing zone which in turn became one of the most biologically productive estuarine areas in the world. Factors controlling the delicate balance in the natural system included the overflow regime of the Mississippi and Atchafalaya Rivers, the sinuosity of backswamp drainage and tidal networks, the size and configuration of barrier islands and tidal passes along the Gulf shore and the large fresh water storage capacity of the wetlands.

As previously discussed, man's intervention has seriously disrupted the natural balance and greatly accelerated deterioration. Prevention of overbank flooding, dredging of canals for navigation, drainage, lumbering, and mineral extraction, coupled with wetland reclamation and drainage, has caused accelerated runoff, saltwater intrusion and increased water exchange. Increased erosion rates and drastic changes in fauna and flora have resulted.

Figure 3 illustrates an approach to surface water management aimed at establishing more favorable environmental conditions, and thus reducing the rate of deterioration. It is proposed that major fresh water basins or reservoirs be established north of the Gulf Intracoastal Waterway (GIWW) by construction of a continuous levee system with locks on major navigation channels. Water would be retained at only 1-2 feet above present levels in the basins, restoring a managed backwater regime. The GIWW along with ancillary canals would serve as a conduit to connect the basins and redistribute fresh water along a broad arc. Water should be released into the marshes and bays to the south through a series of delivery structures. Water would be stored during wet periods and released slowly during dry periods. During times of precipitation excess, surface water could be discharged through navigation channels. A staggered release schedule for delivery structures might allow for periodic high salinity conditions if subsequent study demonstrates this to be a desirable management technique. South of the the GIWW structural measures should be used to conserve fresh water and to reduce the total volume of tidal exchange. Construction of viers or sills across tidal channels should be encouraged. Every effort must be made to prevent further deterioration of the barrier islands. As the sand budget of the Gulf shore area is very limited, concrete tetrahedrons, riprap bulkheads and other rigid structures may be necessary to reduce erosion and prevent further increase in tidal prism volume.

A need for supplementary freshwater for estuarine management has also been documented (Gagliano, *et al.*, 1971). Supplementary water introduced through control structures from the Mississippi and Atchafalaya Rivers into the fresh water basins and directly into the marsh and estuarine areas would provide still another management tool to optimize salinity conditions and restore a more favorable balance to the system.

From the above discussion it becomes apparent that a key element in the restoration of the delta system is the utilization of the tremendous input of energy and materials. The manner in which this can be accomplished is exemplified by the system itself, in the areas of active or recent land gain. Marshlands in the active delta were built over a period of only some 100 years through development of a number of subdelta lobes, (Gagliano, Kwon, and van Beek, 1970). Similarly a recent study indicates that the At-

chafalaya River has been building a marine lobe since about 1950 and if not interrupted some 100 square miles or more of new marsh land will have been added to the coast by about the year 2000 (Shlomon, 1972).

The answer, then, is to sustain the cyclic and sequential development of the delta system by helping the river initiate new cycles of delta building resulting in new marshlands and estuaries. Feasibility of such a program is indicated by the relatively small input of energy and materials needed to build a major subdelta (Gagliano, Light, and Becker, 1971). Locations where diversions of water and sediment for the purpose of delta building would be highly desirable are shown in Figure 3.

DISCUSSION AND SUMMARY

Through a series of studies an attempt has been made to better understand the natural process-material-form relationships operating in the Mississippi delta system. In combining this knowledge with an analysis of geologic and historic changes a clear understanding of the present system has been gained and future conditions can be projected with a high degree of probability. It is further possible, through evaluation of individual components and environments of the system, to identify and rate biological productivity and environmental opportunities and constraints. Against this background the problem of determining optimum distribution of environments, and identifying manageable parameters can be addressed.

The geologic, historic, present and future environmental succession of specific parts of the system can be determined by defining management units. Historic analysis of land use and change of environmental indices of the units provide the basis for systematic evaluation of the degree to which the natural succession has been modified by human impact.

Natural succession and human impact analysis of management units also allows us to rate the relative efficiency of land use in reference to environmental setting. This in turn provides the basis for management decisions regarding the highest and best use of a specific unit or area.

The multiuse management plan evolves from the overall study of the natural system, impact analysis and land use study. It is an attempt to arrive at a plan that will allow the self-maintaining natural system to continue to function with a minimum input of supplementary energy and resources. At the same time it provides a compatible geometry for efficient human use of the area. This geometry is designed to minimize detrimental impact upon the natural system and to capitalize upon environmental opportunities. This approach to land use planning results in an environment that is more efficient from the standpoint of energy and resource input and at the same time has characteristics favorable to a high quality of life.

Man's activities have greatly disrupted the natural balance of the Mississippi delta system. The fatal disease has progressed rapidly during the past 30 years, and to save the patient at this advanced stage of the illness will require major effort. The mistakes that we have made in the past were largely through ignorance. We simply did not understand how the natural system operated. However, if we ignore the newly acquired body of data pertaining to environmental management and continue to make the same errors which destroy invaluable renewable resources, then the action is inexcusable.

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Senator JOHNSTON. Next we have a panel consisting of Mrs. Mary Lou Maulsby with the ecology center; Mr. Sidney Rosenthal with the fund for animals and Mr. Luke Fontana, attorney representing "Save our Wet Lands." I don't believe he's here yet, so—Mrs. Maulsby?

STATEMENT OF MARY LOU MAULSBY, SPECIAL ASSISTANT TO THE PRESIDENT, ECOLOGY CENTER OF LOUISIANA

Mrs. MAULSBY. Senator Johnston, members of the subcommittee, my name is Mary Lou Maulsby. I am special assistant to Ross Vincent, president of the Ecology Center of Louisiana, and I am pleased to be able to represent Mr. Vincent and the center here today. He asked me to extend to the subcommittee, and especially to you Senator Johnston, his sincerest regrets that he couldn't be here today as previous commitments kept him elsewhere, but I understand that he's going on tour with some of you tomorrow of the area in question here today.

We have been here and are still here to discuss a concept that has all but consumed a few of us over the past decade or more. People like Frank Ehret, Bethlyn McCloskey, Betsy Swanson, Phil Fischer, and a whole host of others have called, written, begged, pleaded, cajoled, and in the dictionary that means chatter like a caged jay, and prayed on bended knee—they have all but entered into league with the devil himself in efforts to see the Jean Lafitte National Park become a reality. Your visit here today, we hope, marks the beginning of the end of the concept of the Jean Lafitte Park and the beginning of the long-awaited reality.

So, rather than repeat or paraphrase much of the testimony given here today, because you already have our prepared statement, we would like to pass on to you only this: We would like to suggest that the designers of the park and its facilities make a very special effort where possible and appropriate to recognize permanently the efforts of those very special people whom I have mentioned whose perseverance and support have kept the Jean Lafitte Park concept alive and whose continued efforts will make it a reality.

We are deeply grateful to this subcommittee for its interest in our commitment to this park proposal and especially to its chairman, Senator Johnston, for his involvement. If we can be of any further service in the most important months to come, please do not hesitate to call upon us.

Thank you very much for allowing us this time today.

Senator JOHNSTON. Thank you very much, Mrs. Maulsby. We appreciate those comments and your leadership and hard work through the years in getting this concept to where it is.

[The prepared statement of Mrs. Maulsby follows:]

STATEMENT OF MARY LOU MAULSBY, SPECIAL ASSISTANT TO THE PRESIDENT, ECOLOGY CENTER OF LOUISIANA

Senator Johnston, members of the subcommittee, my name is Mary Lou Maulsby. I am special assistant to Ross Vincent, president of the Ecology Center of Louisiana, and I am pleased to be able to represent Mr. Vincent and the Ecology Center here today. Mr. Vincent has asked me to express to the subcommittee, and especially to you Senator Johnston, his sincere regrets that previous commitments have made it impossible for him to appear here personally today. I under-

stand that he will be joining some of you and others on a tour of the area in question tomorrow.

We are here to discuss a concept that has all but consumed a few of us over the past decade or more. People like Frank Ehret, Bethlyn McCloskey, Betsy Swanson, Phil Fischer, and a whole host of others have called, and written, and begged, and pleaded, and cajoled, and prayed on bended knee—they have all but entered into league with the devil himself in efforts to see the Jean Laffitte National Park become a reality. Your visit here today, we hope, marks the beginning of the end of the concept of the Jean Laffitte Park and the beginning of the long-awaited reality.

Frankly, some of us had begun to wonder if this most critical park would ever be established. The politics were all wrong. Local officials had yet to recognize the importance of the Barataria Estuary to those of us who live in this area—let alone to the rest of the Nation. Environmentalists and others interested in promoting the park had not organized themselves well enough to be very effective in generating political support for the park. Some land owners, and even some officials, harbored frightening visions of the conversion of America's most productive estuarine system to dry land—to subdivisions, and shopping centers, and industrial sites. And, with that background, trying to get support for the idea in Washington was a lot like trying to get toothpaste back into the tube.

Things are different now. There have been new elections in Jefferson Parish and those elections brought to local public office a number of bright and imaginative people—people who sincerely want to improve the quality of life in this area and who recognize that subdivisions, and shopping centers, and industrial sites are not the only ways to accomplish that objective. Environmentalists and other concerned citizens are better organized and much more involved in the political process than ever before. Public officials and developers alike are beginning to realize that the soils beneath the wetlands some had targeted for urban/suburban development simply cannot support that development. The public, including a number of commercial interests, now realizes to a greater extent than ever before that protection of productive wetlands is vitally important to the way of life they have chosen for themselves.

And last, but far from least, thanks to Senator Johnston, the Congress and the National Park Service now appear ready to give serious consideration to the creation of this important park area.

Needless to say, we hope and pray that you will see fit to create a Jean Laffitte National Park and that you will consider expanding its boundaries to provide meaningful protection to the vitally important wetlands in the area. The record of today's hearing will include most of the biological, historical and cultural information you need to understand why this area is so important.

Rather than duplicate some of that testimony, we would like to make a few brief points for your consideration and, if you should wish us to provide additional comment on these or other matters in the future, we would be delighted to do so.

The first point we would like to make is that this park not only will be Louisiana's first national park, it will be the first formal, concrete recognition by the United States Government of the importance of the Barataria Estuarine system—a system which produces something on the order of 10% of the total U.S. commercial fish catch and perhaps as much again in noncommercial and recreational protein production. This area is of incredible national importance and the creation of this park will be an incredibly important precedent.

Second, failure to find some mechanism to protect the productivity of this area will deprive both Louisiana and the Nation of an invaluable commercial and recreational resource. Creation of a park will not only provide for additional formalized recreational opportunities, it will permit maintenance of existing recreational activities which will be lost if the area succumbs to pressure for incompatible development.

Third, the facilities which the Park Service presumably would construct within the park boundaries should be designed with care and imagination. The park might even serve as an example of certain types of construction which could be consistent with maintenance of productivity in wetland areas.

Fourth, special care must be taken to assure that use of the park is regulated so that it does not over-stress the sensitive ecosystem and alter the characteristics which were, in part, the rationale for its creation in the first place.

Fifth, the park should be used as a tool for educating natives and visitors, young and old, about the importance of coastal wetlands—here in Louisiana

and elsewhere. A wetlands park in such close proximity to a major population center will be of inestimable value to local school systems and other educational organizations.

Finally, we would like to suggest that the designers of the park and its facilities make a special effort where possible and appropriate to recognize permanently the efforts of those very special people—some of whom I have mentioned earlier—whose perseverance and support have kept the Jean Lafitte Park concept alive and whose continued efforts will make it a reality.

We are deeply grateful to this subcommittee for its interest in our commitment to this park proposal and, especially to its Chairman, Senator Johnston, for his involvement. If we can be of any service in the most important months to come, please do not hesitate to call upon us.

Thank you for allowing us this time today.

Senator JOHNSTON. If Mr. Sidney Rosenthal is here—Mr. Rosenthal, glad to have you.

STATEMENT OF SIDNEY ROSENTHAL, JR., FIELD AGENT, FUND FOR ANIMALS, INC.

Mr. ROSENTHAL. Thank you.

Gentlemen: I appear before you this afternoon on behalf of the 75,000 members of the Fund for Animals, Inc., speaking with the authority of the board of directors of the organization in support of the creation of the Jean Lafitte National Park. Our organization is primarily concerned about the rights and future of all animals, including homo sapiens. Our interest in this project is primarily the preservation of habitat, however, it is indeed fortunate that this is but an adjunct of an even greater benefit to man which will accrue from the establishment of this park.

To enumerate the many factors favoring the establishment of this park and to review the many reasons supporting it would be redundant today in view of the excellent Preliminary Feasibility Study prepared previously by the Park Service. Rather, I'd like to look at what this park will do in accomplishing the previously declaimed goals of Congress and the executive department in various environmental policy acts, memorandums and statements of intent with respect to preserving the Nation's natural heritage. The creation of this park will preserve habitat for at least two endangered species, the southern bald eagle, and the American alligator, and provide the breathing room and a haven of peace and solitude for another beleaguered, if not endangered species, homo sapiens.

And at this point, gentlemen, I would like to say that the fund will very definitely oppose hunting in a national park. There are enough areas for hunting. There are other methods of controlling game and managing game. We certainly believe that optimum carrying capacity should be the goal in any park, but we do not believe that recreational hunting is a way to achieve it.

This park will set aside for preservation a tract of coastal wetlands, so important today, aid in the protection of the Barataria estuary, one of the Nation's most bountiful producers of seafood, and keep safe for the future an area closely associated with an historic and romantic episode in the chronicle of America's and New Orleans' past, the Jean Lafitte pirate legend. The protection of this area by the Federal Government will go far in showing the local interest the value and importance that the Nation places on wetlands and areas of natural interest.

Its establishment will induce, most importantly, through the recreational opportunities afforded, an appreciation of the value of such lands in those who have been so long accustomed to hearing them referred to as badlands and wastelands.

In themselves, the above accomplishments, we believe justify the park's creation, but if you couple them with the husbanding, for the use of future generations, the aesthetic natural values of this cross section of south Louisiana swamp and marshland which may otherwise be destroyed, and more importantly, the easing of overuse on our existing national parks, it becomes, we submit, not a question of justifying the new park, but of justifying a failure to do so.

Probably the most important thing to us locally is the fact that this park will permit people in a vast metropolitan area who cannot travel the distance to the nearest national parks, Everglades and Mammoth, an opportunity to see our Nation's wonder in its natural state. This, I think, is probably the most significant thing about Barataria is that it's accessible to many, many people who just don't travel into the other sections of the country.

Now, there may be some opposition to this park, we don't doubt it, but I think it will primarily come from land developers and speculators, this has been said earlier this morning, and we think that their opposition is a point in favor of the park, because if we don't stop it somewhere we're going to be developed clear down to the Gulf of Mexico.

Gentlemen, we urge you, the 75,000 members of the fund, to report favorably on Senator Johnston's bill for creation of a park. And it's only what, 19 days until Christmas? Now, wouldn't it be a nice Bicentennial Christmas present to us to give us the Jean Lafitte National Park.

In these undertakings, the fund and I both offer our complete support in anyway that we can, and I personally offer you my assistance in anyway to establish a Jean Lafitte Park. Thank you.

Senator JOHNSTON. Thank you very much, Mr. Rosenthal.

We won't be able to act by Christmas time, but hopefully we'll have it by next Christmas.

Mr. ROSENTHAL. Excuse me. I had just been handed earlier a petition signed by 82 residents of the nearest community, Crown Point, in favor of the Jean Lafitte Park.

Senator JOHNSTON. Well, that is excellent. We're glad to have that, which we will put in the files of our committee.

Next Miss Jean Phillips will present a statement on behalf of Michael Duplantier of the delta chapter of the Sierra Club.

**STATEMENT OF MICHAEL A. DUPLANTIER, CHAPTER AND GROUP
CONSERVATION CHAIRMAN, DELTA CHAPTER, SIERRA CLUB,
NEW ORLEANS, LA., AS PRESENTED BY JOAN PHILLIPS**

Ms. PHILLIPS. Mr. Duplantier did have to leave, and I did want to make one brief comment in representing the delta chapter. Of course, the Sierra Club does fully support the concept of the park and looks forward to working with the committee in passage of any enabling legislation. We will commit our efforts and the efforts of, really, our

140,000-plus members, members of the National Sierra Club, toward the creation and development of Jean Lafitte Park. So, I think you know that we are with you on that.

Senator JOHNSTON. I hope you will, because I know the power of the Sierra Club.

Ms. PHILLIPS. Well, we wanted to make our statement today, and I hope our power is what we think it is sometime.

I do want to say that in listening to the discussion today the one other additional thing that came to my mind, and I won't repeat all the things that have already been reiterated here today, but it was from the fact of coastal zone management. The Federal Government has put forth its efforts and its desires to make the public of the United States aware of the estuarian system and what its value is to the United States. And here in this type of park, just as we can take other parks to emphasize and to educate the public on different areas, we have here a perfect way where a park for recreation and explanation can profit one of the major purposes of the Federal Government at the moment in teaching and in showing the public what is the value of this swamp that was always just a mosquito—and the vegetation. And I think this is an excellent point that I don't think was brought out, and it was one reason I did want to take your time a minute longer and bring that one point to you, and I hope that it would be included as part of the park's purpose. Thank you.

Senator JOHNSTON. Thank you very much, Miss Phillips. Does the Sierra Club endorse the concept of alternate 4?

Ms. PHILLIPS. It was difficult for us to immediately come to a decision. I personally, and I'm giving you a personal viewpoint, would feel that they would go along with alternate 4 and would see no problems with it. It seems to me that it would be a way to get to more people with more explanation in the heart of the city and then let people get to the park, you know, through other means and be able to see what has been presented. But, as I say, I can't comment on that at this moment. I'll be sure to take that back to the group and ask them that that particular suggestion—how it does sit with them, you know, and we will come back to you before the records are closed.

Senator JOHNSTON. Thank you very much.

[The prepared statement of Mr. Duplantier and article from the Times-Picayune follow:]

STATEMENT OF MICHAEL A. DUPLANTIER, CHAPTER AND GROUP CONSERVATION
CHAIRMAN, SIERRA CLUB, DELTA CHAPTER, NEW ORLEANS, LA.

Mr. Chairman and Members of the Committee: The Sierra Club, Delta Chapter and New Orleans Group, which includes over 1200 conservationists in the two-state region of La. and Miss., including over 700 in the New Orleans area, is indeed honored by your invitation for us to make a presentation before the committee today and is further honored by your attendance on this auspicious occasion.

What makes this meeting auspicious and important is that this is the first time in many of our lifetimes that the Congress is seriously considering establishment of a National Park within our state.

It is probably not necessary to remind the committee that the only national park in the entire state is Chalmette National Historical Park which is a park of limited acreage bordered by heavy industrial facilities. Thus it is necessary for New Orleans Sierra Club members, prolific users of the National Park system, to travel, as we often do, to the Smokey Mts. in Tennessee, Big Bend Na-

tional Park in Texas or to the Buffalo River-Ozark areas in Arkansas to enjoy the advantages of our National Park system.

One is tempted to suggest that Jean Lafitte National Park ought to be created simply to correct this obvious imbalance. But to say that would be to overlook the important ecological qualities of the area and the significance of the addition of such an area to the National Park system.

I need not bore you with what would surely be repetitious recital of the area's hauntingly lovely waterway system; its contribution to the viability of the productive Barataria estuary; its colorful historical significance; or its importance due to its propinquity to a major metropolitan community.

The Sierra Club fully supports the concept of establishment of the park and looks forward to working with the committee in passage of enabling legislation. We will commit our efforts and the efforts of our 140,000 plus members nationally toward creation and development of Jean Lafitte Park.

[From the Times-Picayune, New Orleans, La., Dec. 5, 1976]

THERE'S STILL HOPE FOR A JEAN LAFITTE NATIONAL PARK

(By Stella Pitts)

In December, the bayous of Barataria are still and somber, their dark waters covered with yellow leaves that float aimlessly on the surface, their banks lined with brown marsh grass and withered vines.

At first glance, this watery world seems remote and melancholy, wrapped in its own dreams, sad and dreary and depressing.

Then, as you lean against the trunk of a reddening cypress and listen quietly, you realize that these bayous and marshes are teeming with life, vibrant and exciting and incredibly beautiful.

The area is part of the proposed Jean Lafitte Park in Jefferson Parish, a 7,000-acre tract of bayous and marshes and swamps only 25 miles from downtown New Orleans. Under consideration since 1963 as the site for Louisiana's second national park, the vast Barataria estuary is once again being given a close look, this time by the Senate's Parks and Recreation Subcommittee. (A public hearing will be held beginning at 10 a.m. Monday at the Gretna courthouse.)

For those on a first visit to this wilderness region—so close to the city that One Shell Square can be spotted from several locations—the experience is a panorama of unforgettable glimpses into the everchanging, everfascinating life of Louisiana's bayou country.

High overhead, silhouetted against the grey sky, two hawks play a graceful game, soaring and swooping and swirling, their shrill cries echoing across the still marshes.

Between two cypress knees, a thick dead vine moves slowly, and you realize, uneasily, that it's not a vine at all but a young water moccasin which has left its place of hibernation for an hour of quiet sunning. Because the snake is essentially a shy creature and you have not bothered it, it raises its diamond-shaped head at you and then slithers slowly off into the undergrowth.

Closer at hand—and much more comforting—you hear a scuffling noise beneath the low branches of a wax myrtle tree. Peering through the masses of tiny green leaves, you see a flock of busy warblers scratching in the earth for their dinner.

(When was the last time you listened to a bird except when it was singing?)

Climbing back into your boat and moving slowly away from the bank, you gasp in wonder as a great blue heron rises as if by magic from a clump of willows nearby and disappears across the marsh, its gloriously outstretched wings reaching a span of nearly six feet.

* * *

Far across the marsh, a solitary oak tree stands on a tiny "island" which is, in reality, an early Indian midden (or dumping ground). Here, and on other sites like it, white-tailed deer spend the winters, and hunters say they have watched them racing over the soggy marshes with their tiny hooves barely touching the ground.

So are the sights and sound of Barataria; the plumes of tall ribbon grass and the spikes of palmettos, a kingfisher surveying the scene from a bare limb and a turtle sunning itself on a log, the reddening cypress trees draped in strands of

Spanish moss and the bare branches of wild indigo, the chirping of hundreds of unseen birds and the wild cries of hawks, a solitary egret standing sentinel along a bayou's banks and a pair of teal swimming across the wintry sky with fast-fluttering wings.

All of these—and a thousand more scenes just like them through the changing seasons—will belong to every citizen of Louisiana (as well as to all Americans) if the park proposal is approved by the federal government. Schoolchildren and senior citizens and office workers and city laborers— anyone who has never experienced the vast world of bayous and marshes and swamps—will be able to visit this region to explore and savor and appreciate it.

Boardwalks will stretch across the marshes and through the swamps to provide close looks at plant life and birds and alligators. Guided boat tours will take visitors through the winding bayous and beneath the enormous cypress trees that fill the swamps.

If the proposal is not approved, as it was not in 1974, then the region will remain inaccessible, as it is today, to just about everyone except hunters and fishermen and those who own boats and are familiar with the area. The estuary, if unapproved as a national park, also may fall victim to private development interests.

This Barataria region is considered of vital ecological importance to the nation because it contains all the characteristic elements of the Mississippi River delta, one of the greatest delta systems in the world—the elevated, oak-shrouded natural levees along the bayous, the bayous themselves, the cypress swamps, the open grassy marshes and the fresh waters of Lake Salvador.

Of equal importance and interest is the region's significance in the history of the development of Louisiana and its delta area. At one time, this Barataria region was one of the three major water routes to New Orleans for commerce and communication—the other two being the river and Bayou St. John.

To someone seeing it for the first time, it looks like untouched wilderness, yet the hand of man has shaped it and changed it since prehistoric times. Early Indian tribes lived along these streams—hunting, fishing, gathering food, planting a few crops, making pottery and sheltering in palmetto or thatched reed huts. Reminders of these early settlers—mounds as well as middens—are numerous in the area and give it its immense archaeological importance.

Only four years after the founding of New Orleans in 1718, the French explored Barataria's waters, and in the late 1730's a navigable canal, perhaps the first on the lower Mississippi, was dug between the Mississippi and Bayou Barataria by Claude Joseph Villars Dubreuil, one of the wealthiest French colonists in this area.

Sugar plantations once flourished along the natural levees of these bayous, and hundreds of men have earned their livelihood from the region's vast natural resources—fish, furs, lumber, shells and Spanish moss. There have been cattle ranches, known as "vacheries," in the Barataria region as well as a flourishing candle industry derived from the berries of the abundant wax myrtle trees.

And, of course, dominating the scene during the early 19th Century—and the imaginations of later generations—were the buccaneers of the enigmatic and elusive Jean Lafitte, for whom the park, if approved, will be named.

Why Jean Lafitte? Wasn't he an infamous pirate, a ruthless rogue and a hellish bandit?

Not so, say today's historians, who believe Lafitte was one of America's most remarkable and patriotic men. Lafitte, who claimed to be a privateer and smuggler, not a pirate, kept hidden storehouses of stolen goods along Barataria's bayous and auctioned the contraband to New Orleans citizens. His headquarters was located on Grand Terre Island at the mouth of Barataria Bay and just across the water from Grand Isle.

(It is interesting to note that the French word "Barraterie" and the Provencal equivalent "Barararua" mean any type of fraudulence, illegality or dishonesty at sea.)

Lafitte's famous "Little Temple" depot and auction site was located at the confluence of the Perot and Rigolettes bayous on an ancient Indian shell midden.

An idealistic man, Lafitte embraced the political ideology of the United States and apparently served his adopted land heroically. In 1813, two years before the Battle of New Orleans, he several times fought and defeated the British attempting to invade Louisiana by way of its southern bayous. Lafitte later claimed that while defending the Louisiana coast, he was having to "do battle on two

fronts" as Gov. William C. C. Claiborne, Louisiana's first American governor, was seeking his arrest on charges of smuggling and piracy.

(Lafitte's claim that he and his men were privateers, not pirates, was based on the fact that they sailed under letters of marque from Cartagena which legally enabled them to rob Spanish and English vessels plying the Gulf.)

While American authorities placed a price on his head, Lafitte turned down a large offer of silver to collaborate with the British and, instead, continued to battle the British navy in the Gulf. After his commune on Grand Terre was bombarded and burned in 1814, by the U.S. Navy, Lafitte and his men emerged from hiding in the swamps to offer their help to the Americans at the Battle of New Orleans.

Accepted personally by Gov. Claiborne and Gen. Andrew Jackson, Lafitte provided 1,500 men (400 of them skilled artillerymen) as well as rifles, flints, powder and 362 cannons, all of which were desperately needed by the American forces at Chalmette.

It is widely believed by many modern historians that without the aid of Lafitte and his men to the Americans, the Battle of New Orleans might well have been won by the British. Many historians also contend that the British, had they been able to secure Lafitte's aid with their bribes, would probably have captured New Orleans and moved on to capture and claim the entire Mississippi Valley.

After his role in the battle, for which he received a pardon for past activities from President James Madison, Lafitte sailed away from Louisiana, leaving a legend behind him. Today, memories of this daring and dynamic man still haunt Barataria, as do memories of the Indians, the French, the sugar planters, the fishermen, the moss gatherers, the lumbermen and all the others who have left their mark on this wilderness region.

Whether Barataria remains a preserved landmark for future Americans, in the form of a national park, or a forgotten segment of the country's history rests in the hands of today's generation.

Senator JOHNSTON. Is Luke Fontana here?

[No response.]

Our next witness, then, will be Mr. William Fontenot with the Wild Life Federation.

[No response.]

We have finished our regular list of witnesses, but Mr. John A. Chantrey, president of the Louisiana Commercial Fishermen and Boat Owners Association, has asked for an opportunity to speak, and we'll be glad to hear from Mr. Chantrey. He has his statement here; is he here?

STATEMENT OF JOHN A. CHANTREY, PRESIDENT, LOUISIANA COMMERCIAL FISHERMEN AND BOAT OWNERS ASSOCIATION

Mr. CHANTREY. Mr. Chairman, members of the committee, I greatly appreciate the last minute offer to hear our comments on behalf of the fishermen of the Lafitte-Barataria area. Out of, I guess, really not knowing, I have a petition of approximately 112, or exactly 112 fishermen who have opposed the park primarily because they do not know what effect this is going to have on their ability to continue to make a livelihood of fishing. I want to get into my statement; but many are out right now trying to make ends meet for Christmas, many don't have cars to come to meetings such as this, and there has been no effort up until now to inform the fishermen, who are directly affected in this community, of just what the park will do for or not for them.

My name is John A. Chantrey. My wife and I are half owners in a shrimp boat that works out of Barataria, and I am State president of the Louisiana Commercial Fishermen and Boat Owners Associ-

ation. This association's primary objective is to keep the fishermen in the State informed concerning Federal and State laws affecting them as well as political action work where necessary.

An important part of the fishing community in Lafitte is hard and softshell fishing. Now, this involves the area that we've been talking about today: Lake Salvador, Lake Cataouatche. The Lafitte fishermen crab on the east side of Lake Cataouatche, Lake Salvador and the area back of Lafitte commonly called the Pen. My purpose here today is to voice an objection to the rumor that with the proposed national park, the crab fishermen will no longer be able to cut their bushes on the east side of these lakes nor fish hard or soft crabs on these shorelines.

Now, with that the shrimp and crab industry cycles. A lot of people feel that the shrimp industry works off a 5 year cycle where we will have 5 years of a lot of shrimp, 5 years with not a lot of shrimp. The shrimping industry is further broken down into the big boat and the little boat. The big commercial boats that work offshore range from 65 to 90 feet. They work 12 months a year out in the Gulf of Mexico. They are the minority in this particular group. They produce a lot of shrimp, but there are far fewer boats working offshore than there are onshore.

So, the majority of commercial fishermen in the Lafitte-Barataria area are people working with skiffs that range from 17 to maybe 26, 30 feet. These are boats that fish shrimp when there are shrimp, when the seasons are open in May—and you have two seasons between May and December. These people then go to fishing hard crabs from December until May. Between the period of December to May you have your soft crab season, during that season the crabs cling onto the bushes that are cut from along the shorelines and the fishermen fish them each day picking them up. So that you have more hard shell crab fishermen at periodic times, just depending upon how the shrimp are giving. The shrimp being the most valuable product, and fishermen fish shrimp as much as possible.

I wish to assure all of you that the fishermen in the community of Lafitte and Barataria are not anti-progress. If what we hear is true, the developing of this national park, as proposed, could cause an excess of 300 fishermen to resort to welfare as opposed to continuing to make a living from fishing. Local politicians have not informed these communities to any degree whatsoever of the effect of a national park on them. Meetings, such as this, do not serve a useful purpose to the fishing community, for many do not have transportation to come to such a meeting. Meetings need to be held in the community where all concerned may ask questions.

It is the fishermen's hope that no further action be taken with reference to this park until all of the members of this community, Lafitte, Barataria and Westwego are consulted. I am sure it's not the purpose of the Federal Government, as well as State and local government, to put people on welfare in order that people outside of the community can visit the marshes and lakes for recreational and educational reasons. Until the fishermen are informed, it appears to me that all will be against the developing of a national park. I hope that this group will not force these fishermen into the hiring of legal

services for which they cannot afford as a group, much less individually, to preserve their livelihood.

Out of this comes a restricted area producing the particular aspect of the industry. The three areas I mentioned, Lake Cataouatche, Lake Salvador and the Pen, produce almost all the commercial crabs in this particular area. One of the prime concerns is what are the developers going to do around the park. Are we going to have three thousand, four thousand, five thousand, six thousand homes being built in this area? Will there be recreational facilities such as marinas for sailboats and yachts similar to what we have in Orleans Parish? We have the Orleans Marina. If marinas are built this scale just because of the size of Lake Cataouatche and Lake Salvador, we're going to have pollution problems, we're going to have water skiers and we're going to have small boats to the effect that it will interfere with the ability of the fishermen to make a daily living.

There are many, many fishermen in Lafitte who have been very successful over the years. You have to live in that community to truly appreciate how the art of catching shrimp, for instance, is passed down from generation to generation. This is why outsiders have never come in successfully and engaged in the shrimp harvesting business, the catching of shrimp. There are books that are maintained from generation to generation of where the shrimp were caught, what time of the month was it, how was the moon that month. And, to me, the cultural aspect of everything we're trying to accomplish here is the very most important thing we're trying to accomplish here, but if this develops into such a tremendous project that the small fisherman is forced out, I think we lose the intent of the Lafitte National Park to start with. If there is some way the local people can be represented, I think, at this point—you know, we've been dealing with this, as I recall, since 1973, but I think we're at the point now where the local citizens need to be in the main stream of what's happening from this point on. The political process in that community will not provide that information.

There are concessions made here for this and here for that, and there are not meetings held where the local community can be represented, questions asked and answers given. If two or three families who are well respected in the community as fishermen could just sit in on such meetings periodically so they could be informed—Mr. Yancey who was with the wildlife and fisheries department hit the nail on the head—if somehow with this park you could have restricted commercial fishing so that the balance is maintained by the fishing, the weather conditions or what have you, and we are sure that there won't be such an influx of people into this area to actually disturb what was a normal balance before that, I think the fishermen and the park can live together.

One thing Lafitte and the fishermen are concerned about is that without any kind of restrictions we can see developers over a period of time coming to Lafitte and having apartment complexes built, huge subdivisions built with that new road. They're aware of this and they can understand that, but at the same time, the fishermen which are the key part of what we're trying to accomplish have to be the primary contact or the primary source of information to assure that we don't have a conflict that could come back to haunt us.

I would like to ask you, Mr. Chairman, one question that has come up: What happens to the property if you have a full-time resident and that area is incorporated into the national park? What happens to that particular resident?

Senator JOHNSTON. Well, that depends, but the usual way we do it is to allow them to stay on their property as what you might call a nonconforming use, live there for a period of time, sometimes 20 years, sometimes a lifetime, depending on how inconsistent private ownership would be with the location of a home in the park. We still have some in holdings, for example, in the Everglades National Park that never have been acquired, but they're within the boundaries of the park. So, we've got flexibility on that.

Mr. Chantrey, you've been here all day, I hope you've been reassured by what you've heard here today. We were not in a position to give all of these final answers before we had the hearing. In fact, we're not in a position to give final answers right now. Senator Hansen and I usually are able to convince our colleagues on these matters involving parks, but I think the evidence here was overwhelming today. We've heard the experts, Mr. Yancey, who is, in my view, the outstanding expert in the Nation on fish and wildlife matters, and he stated there was absolutely no conflict between the commercial fishing and this national park. To the contrary, I think what we're doing here will insure the environmental soundness of the lakes in which these fishermen fish; and rather than hurting them, it will protect and preserve their habitat, the estuary within which the fish and the shrimp receive their nurture. So, if I were you, I would reassure the people you represent back in the Lafitte area that this park is good news for them and not something to fear or some device that will put them on welfare.

Senator Hansen and I had some of that crab meat last night that was probably caught in Lake Cataouatche, and I'll guarantee you we don't want to see that supply diminished.

Senator Hansen, do you have any questions?

Senator HANSEN. Well, I have one question. I was keenly interested in what you had to say, Mr. Chantrey. You spoke about crab fishing and the possibility of your being able to cut bushes being restricted or being diminished. I don't know a thing about crab fishing and what goes on—

Mr. CHANTREY. Let me give you a little training, sir.

What happens is the crab leaves its shell, so to speak, and is almost dormant as a snake might be in the wintertime, OK? So, it's vulnerable to fish or other prey in the water. So, what it does is right prior to the crab losing its shell, it clings to particular type of bush that's found in this environment and it kind of digs its way up to that bush, leaves its shell and stays there until the shell hardens, as the shell hardens, it then leaves the bush. So the soft shell crab fishermen, between December and May, what they do, they go along the shorelines and they pick these bushes and they put stakes out and run a line between the stakes and they tie the bushes, you understand, at intervals, and every day, every morning and every evening, they come by and pick the bushes up and shake the crabs out, and that's how soft crabs are produced.

Senator JOHNSTON. The bushes are under the water?

Mr. CHANTREY. Yes; that's correct.

Senator HANSEN. And if the bushes are destroyed—

Mr. CHANTREY. Yes; it is cut and hung.

Senator HANSEN. Oh, I see.

Mr. CHANTREY. When I say a bush, they don't uproot a bush, they go out and cut pieces of a bush that they find along—so, you get your bushes from wherever you're fishing. Now, this can change from day to day, the wind can change, the time of year, we can have an unusually warm year. So, the exact location they may fish may change. So, what they do is they harvest the bush or the pieces of bush for wherever they may be fishing at that particular time, and the only place to get this bush is from this bank of this same area.

Senator HANSEN. Thank you.

Senator JOHNSTON. Thank you very much. Mr. Chantrey. You've been a very effective advocate for your fishermen.

Our final witness today will be Mr. Al Adam of the American Legion—oh, he's not here. Very well, then, that was the final witness.

I think, Senator Hansen, that we've probably heard a pretty convincing case for some application for alternative four, and it would seem to me appropriate, with your concurrence, that we should request the Park Service to do a full in-depth study on the best means of implementing a concept involving alternative four with the central visitor area and the park as the centerpiece with satellite areas around the Greater New Orleans area. I think we've probably done enough in terms of spayed work in terms of actual research in the area. Would you agree with that, as far as—in other words, we have to send further experts down here to do further baseline work.

Mr. EVERHARDT. Well, I'm not too sure, Mr. Chairman, that there is a lot of baseline work that needs to be further done, but this idea of maybe a buffer zone, a larger park than 7,300 acres certainly should be explored and the resource managers or the resource park planners, the biologists, those type people should have some input into making a recommendation on that particular aspect.

Senator JOHNSTON. Is the Park Service prepared to come down here with your planners and your experts and give us a recommendation by early next year on how we should put this legislation together? How long would that take, Mr. Everhardt?

Mr. EVERHARDT. Well, I'm not too sure, Mr. Chairman. We would certainly like to have an opportunity to examine some of the data that we have heard today to put together a task force and sit down with these people, a multidisciplinary task force, and to report back to you, but I would hope that early next session we would have a recommendation to the committee so that they could have some proposed action on this proposal during the next session of Congress.

Senator JOHNSTON. Well, Senator Hansen, with your concurrence I would like to make that formal request of the Park Service; and the Park Service is saying that you can respond to that request in a disciplinary study to report to us early next session?

Mr. EVERHARDT. Yes, sir.

Senator JOHNSTON. Senator Hansen, do you have any comments?

Senator HANSEN. Well, only to say, Mr. Chairman, that I'm most appreciative to you for your interest in calling these hearings and making it possible for the distinguished witnesses who have appeared

before the committee today to be heard, and as I leave here, which I regret I'll have to do early in the morning, I won't be able to take the trip. I'm not going to miss it, I'm just going to postpone it. I leave strongly persuaded that this is indeed a very unique area, one that brings together cultural heritage, an anthropological background and the uniqueness as well as the delta area itself certainly attests to its national significance.

Precisely what form the legislation may take that will be recommended to us by the Park Service, I don't know, but I am certain that the points we've heard are well established, the national interest that is recognized by your having taken the leadership that you did in calling these hearings. I say again for those who may not have been here earlier this morning that Senator Johnston is a young but a very distinguished leader in the U.S. Senate. He has gotten a host of admirers of whom I'm one, people who respect his ability, his integrity and his dedication to doing his job well, and I salute you for his presence and that of his senior colleague and my friend, Senator Russell Long. This State is extremely well represented in the U.S. Senate.

Thank you, Mr. Chairman.

Senator JOHNSTON. Thank you very much, Senator Hansen. I appreciate those comments very much. I was hoping he would say that—Senator Hansen is a, as you might have guessed by our mutual admiration society, we cooperate very closely on this committee. And the things he said about me, I'd say about him, but I really mean them. And we do appreciate your coming down. I know it's a great sacrifice of your time to come all the way down from Wyoming during this recess part of the year. But I know that having heard these good witnesses, that you will be in there to help me inform the rest of the members of our subcommittee and we'll be able to persuade them of the unique, use that word again, values that we have in this great area. I want to also thank the Park Service, Gary, you and Dr. Curry and all of your experts. You are going to be the ones really doing the work on putting this concept together.

The way this is going to work—all bills die with the end of a session of Congress, and the bill which I introduced in the latter part of the 94th Congress really was a bill to serve as a vehicle for discussion, as a vehicle for this committee, that will not be the bill that will be considered because come January the 3d we'll have to put in a new bill. Now, I'll withhold putting in that bill until we have the study completed by the Park Service. The Park Service, I think, has a very good idea now, having heard this testimony, and with further study with these experts who have appeared here today and others whose advice and counsel will be sought. They will be in an excellent position to put together a legal configuration that will achieve the purposes, I think, we all want to achieve today. I don't see any inconsistency in this park and things that people want to do in this area. The commercial fishermen, for example, will be helped; development should not occur in this area. Development is inconsistent with that great estuarine area that produces 44 percent of the fish harvest off Louisiana, and that in turn is a fourth to a third of the Nation's harvest. From that standpoint alone, I think the acquisition of this area is important.

I want, particularly, to thank Doug Allen for his leadership in this area. As I said earlier today, it was because Doug Allen said let's go

with the park that we introduced this bill. We've known of the interest in this park, but frankly, it had been a very hot local issue, as most of you know even better than I, and Doug said, well, I'll put the power and prestige of my office behind getting the community together, and what we see here today is the result of what I consider very good leadership by Doug and the council, and I want to congratulate them on that leadership. I'm quite optimistic about the future of this park. Nothing is a certainty in life except death and taxes, but I would say that the case for this park is very strong indeed and with the leadership we have here with Senator Hansen and the Park Service people down here, I'm most optimistic about a final result which will be great for tourists, great for people in this area, great for environmentalists, for the fishermen and great for Louisiana.

We'll keep this record open for comments or further testimony. If there is anybody here in the audience either who has already submitted a statement who would like to expand that or who would like to submit a statement, letter or any other matter for the record, please do so. I would think we could keep this record open until the first of the year. You can submit your statements, I would think you could submit them through the Jefferson Parish council, Doug Allen or you can mail them directly to us in Washington, either to my office or to the Subcommittee on Parks and Recreation. Any of those channels will reach us.

Anything further for the committee?

Senator HANSEN. No.

Senator JOHNSTON. Gary?

Mr. EVERHARDT. I would like to say something, Mr. Chairman. I certainly have been most impressed today by the unanimous expression by these folks who have testified in favor of the park designation here, and I would also like to offer my congratulations to you as the Chairman of this subcommittee and to Senator Hansen for hearing out these people today. I think this demonstrates a new phase of public involvement of listening to people, of listening to their desires. Certainly many of these people have worked long and hard, as we've heard today, for years. I was impressed yesterday to have the opportunity to visit the park and see some of these areas personally that we saw today, and to know of their long interest, and I would like to offer my congratulations to each one of those for their hard work and their long efforts in the interest of this park. I think, also, the National Park Service, all of us are most appreciative of this opportunity to be here to work with you and to work with these people, to work with these commercial fishermen, to work with these groups, to work with individuals that have worked long and hard as we begin to redefine a set of alternatives with regard to this park proposal.

I think, also, that we're very much impressed with the proximity to a major urban area that's 23 miles away within the city of New Orleans that this park proposal has also, and it's always a great pleasure to come down here and certainly to be with you and Senator Hansen, and we appreciate it very much.

Senator JOHNSTON. Thank you very much, Mr. Everhardt.

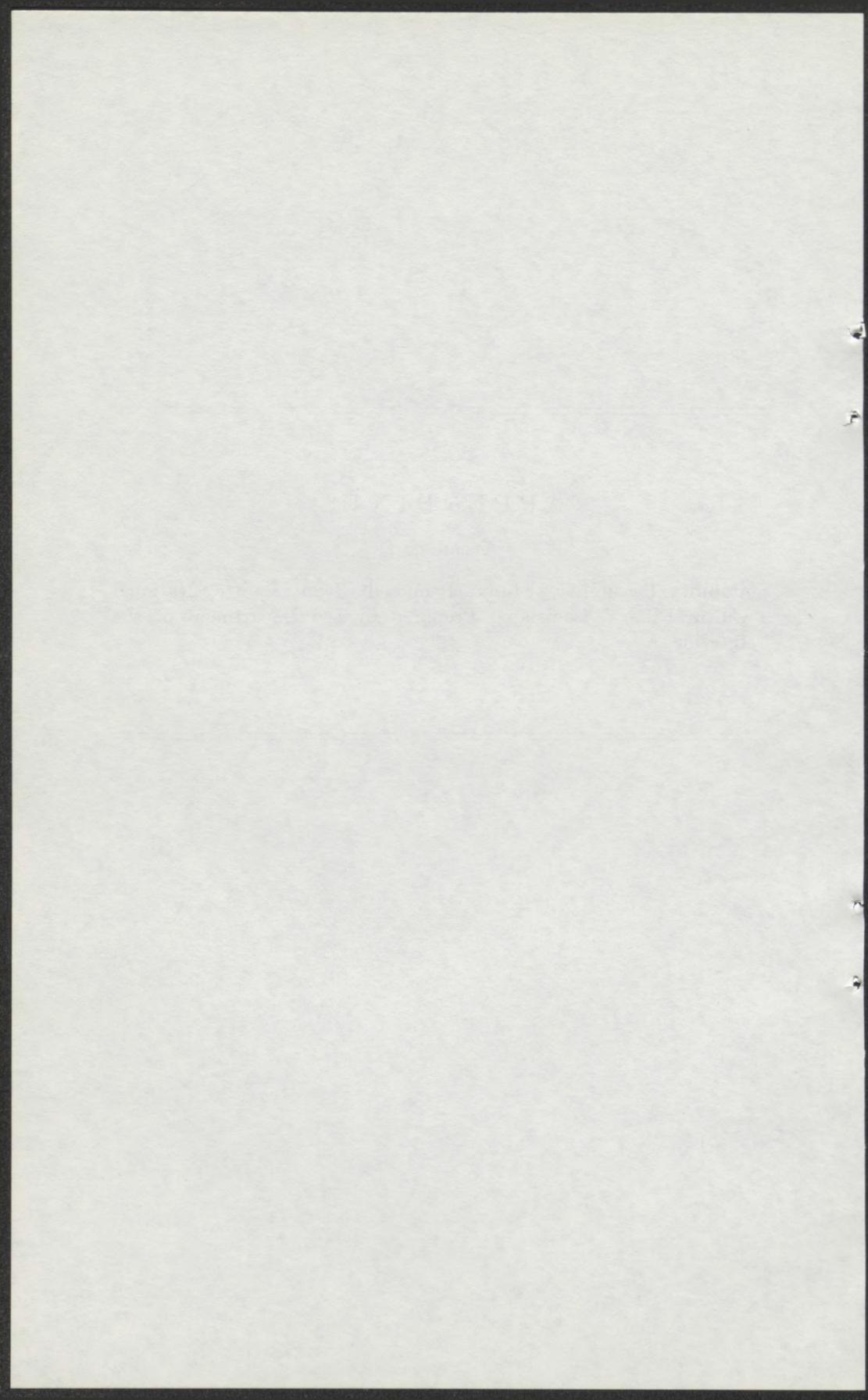
That's a good point, a good note, to end on; and thank you all very much for coming.

[Whereupon, the hearing was adjourned.]

APPENDIXES

APPENDIX I

Suitability/Feasibility Study—Proposed Jean Lafitte National
Cultural Park, Louisiana, Prepared by the Department of the
Interior



suitability/feasibility study

PROPOSED
JEAN LAFITTE



NATIONAL CULTURAL PARK • LOUISIANA

This report was prepared pursuant to authorization in the fiscal year 1973 Interior Appropriations Act (Public Law 92-369 of August 10, 1972), with the further guidance of House Report 92-1119 on that bill and Assistant Secretary Reed's letter of October 12, 1972, to the late Congressman Hale Boggs. Publication of the findings and recommendations herein should not be construed as representing either the approval or disapproval of the Secretary of the Interior. The purpose of this report is to provide information and alternatives for further consideration by the public, the National Park Service, the Secretary of the Interior, and other Federal agencies.

PROPOSED

JEAN LAFITTE

NATIONAL
CULTURAL
PARK •
LOUISIANA

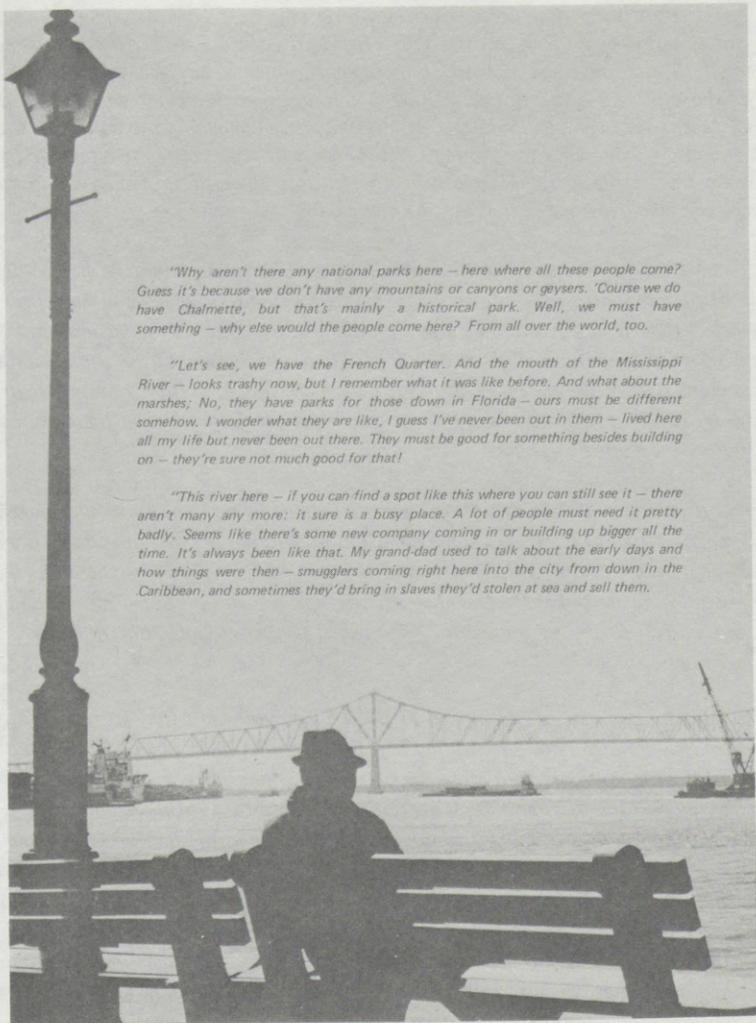
This is a feasibility study: It locates and describes resources for potential inclusion in a prospective new unit of the National Park System, determining their national significance and suitability for visitor use. It also identifies and evaluates alternative courses of action for protection, development, and public use (including management category — natural, recreational, historical, or cultural); recommends one; and, if the recommendation is accepted, suggests that a master plan be prepared.

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"Why aren't there any national parks here — here where all these people come? Guess it's because we don't have any mountains or canyons or geysers. Course we do have Chalmette, but that's mainly a historical park. Well, we must have something — why else would the people come here? From all over the world, too.

"Let's see, we have the French Quarter. And the mouth of the Mississippi River — looks trashy now, but I remember what it was like before. And what about the marshes; No, they have parks for those down in Florida — ours must be different somehow. I wonder what they are like, I guess I've never been out in them — lived here all my life but never been out there. They must be good for something besides building on — they're sure not much good for that!

"This river here — if you can find a spot like this where you can still see it — there aren't many any more: it sure is a busy place. A lot of people must need it pretty badly. Seems like there's some new company coming in or building up bigger all the time. It's always been like that. My grand-dad used to talk about the early days and how things were then — smugglers coming right here into the city from down in the Caribbean, and sometimes they'd bring in slaves they'd stolen at sea and sell them.



"Even back then New Orleans was an important port — goods going to all the plantations and even way up to St. Louis. That Jean Lafitte sure put things together, what with owning the ships, organizing those swamp men to smuggle up the goods to sell in the city and away upriver. Quite a businessman. Probably why he's still a legend. Must have been patriotic, too, at least he was a big help in the fight over there at Chalmette — they call it the Battle of New Orleans. It's hard to tell what would have happened to this place if the English had gotten into the city. Probably would have changed the whole history of the rest of America, too.

"You know, if you stop to think about it, three different countries had a lot to do with this place. It's easy to see what they left behind, or at least to hear it. The French left their language and their way of looking at life. But it's the Spanish you can see the most of, what with all those buildings with patios, wrought iron, and balconies. Real architects they were. The English left their mark too, even if they never put their crown on us. After all, those early Americans had just gotten free in the colonies a little before the Lafitte days here.

"Lots of folks like the Cajuns the best, though, living on the bayous and speaking that French of theirs. They play some good music Saturday nights, too, and I sure do like all that spicy Cajun food. That might be more African, though — the early slave cooks could have started that. And that African music — started out in Congo Square here and ended up all over the world. They call it jazz now, but I think it came in on the slave boats.

"A lot of bits and pieces in this area — I'll bet you can't find as much culture anywhere else. 'Course I don't mean that big city type of culture. Maybe I'm too old to have much sense anymore, but it seems to me we could make a park out of it — as good as Yellowstone or Grand Canyon too! Sure would be a lot more fun as far as I can see anyway. Sure is a shame to lose, too. But it'd be just as bad for Uncle Sam to buy us out to preserve us. We're not like that. Might as well the British would have won the battle. What we ought to have is something to draw the things out that link us up with the old days and make this place special now, sort of make everything into a story for all the people to hear so they could know about it and take part in it. Don't you think they'd like that? Even some of these young folks like the old things now. At least they go into all those antique stores down on Royal Street.

"Maybe if they made a park here they could save some of these things before they're all gone — you know, the old churches and Lafitte's shop and maybe even some of his marsh. It sure would be a shame for all the people to come here and not be able to find out what we're really all about.

"Probably won't ever happen, though. Too many other things going on. Probably won't matter — no one'll even know the difference in a few years. Maybe the people will stop coming if they can't find out our story. Sure hope I'm gone by then."



CONCLUSIONS

A Jean Lafitte National Cultural Park is recommended as a feasible park because of:

existing historic sites of established national significance, now eligible for inclusion in the National Park System.

existing evidence of major European and African cultural contributions.

existing natural resources in a suitable marsh area.

existing appreciation of cultural and natural resources.

existing local and regional support for such a park.

existing tourism.

existing national and international interest in the Lafitte story and cultural symbol.

existing environmental concern for the delta and growing awareness of the processes operative there.

The park goal is:

to interpret the unique blend of the region's cultures, using the Lafitte career and personality as a thematic vehicle.

to preserve, reclaim, and perpetuate significant cultural and natural environments of the region.

A cultural park designation is optimum for the park because:

it allows a more encompassing theme than the historical park category, incorporating not only past traditions but current values of the living region, and extending to an environmental ethic — all with limited Federal direction and expense. While a historical park is also feasible, it cannot embrace the full resource and so would represent an opportunity lost; at best it could be justified only as an interim step in implementing the ultimate goal.

This goal will be met:

by associating National Park Service and other resources through a National Cultural Park Board.

by participating in a Regional Commission that would encourage continuance of the dynamic delta man/environment life system as one of national and international significance.

Now is the time to establish the park because:

the land base and the cultural resources are eroding, and the commitment required to assure success of the park concept will become greater with each passing month. Administrative goals are supportive of present action: The park would respond affirmatively to the needs of an urban area. The area is not already saturated by the National Park System (of nearly 300 areas of the system, Louisiana has but one, Chalmette National Historical Park). The cultural/historical values of the area are directly relevant to the National Bicentennial concept; they illustrate a mainstream of the cultural blood of the Nation. The cost of establishing the park would be relatively low because of the association principle of management — extended resources would not be acquired or operated directly. The Commission would embody governing principles of self-determination of needs and would be a positive step toward salvage of environments critical to the Nation.

Louisiana's coastal zone is marked by its history. Many features survive from days of origin — early village sites, plantations, churches, and forts—while cultural traditions survive in living groups. But do visitors to this region find what they came seeking? Do they realize the implications?

The region also contains unique topographical, geological, and biological features — barrier beaches, swamps and marshes, salt domes, mud lumps, and the meander belts of the Mississippi River. Beyond question the coastal zone is an important part of our dwindling natural heritage; and the philosophical argument for preservation of wild rivers, scenic canyons, and mountain fastnesses apply here with equal force.

Inaction may not doom a wild area insulated from masses of men; but in the delta region, inaction will mean a continuation of present trends, with probable loss of the resource itself. It is a time of decision for Barataria, for Louisiana, for the Nation.

We present this proposal for a unique cultural park, not only for its intrinsic qualities, but as a vehicle of assistance in this time of decision.



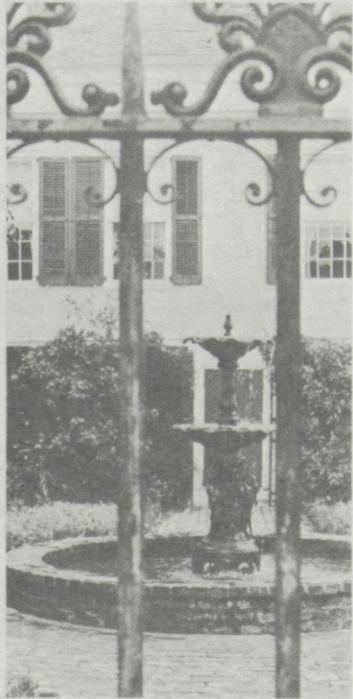
SYNOPSIS
the Jean Lafitte country

The Mississippi Delta of bayou, marsh, and swamp extending south from New Orleans to the gulf shore is Jean Lafitte's country. He is the knot that ties together this region's otherwise diverse strands of culture, history, and nature. As such he is a larger-than-life historic figure whose career illuminates the story of man's use of and impact upon this unusual natural environment — and of its impact upon man. Too, Lafitte's unique standing with competing colonial powers gives insight into the struggles of England, Spain, France, and the United States as each nation sought to influence America's interior by controlling the mouth of the country's greatest waterway. And Lafitte's involvement with the slave trade also bears on the African cultural dimension that heavily influenced evolving European traditions in Louisiana. Today, the resultant amalgam of architecture, people, and varied land uses not only vitalizes the local economy and society, but also attracts millions of visitors each year to experience New Orleans' traditions of jazz entertainment, Mardi Gras festival, and indigenous foods — all in a historic setting.

Lafitte influenced the social and economic changes during the region's heyday in the early 1800s, the "Lafitte period." A privateer on the high seas, he and his band of 1,500 men smuggled their booty of slaves and supplies through the watery maze of Barataria to goods-starved plantations. These establishments, occupying the high ground of natural levees along the flowing rivers and bayous, were on the only dry land in the area.

It was at such a plantation on such a natural levee — an easily defended bottleneck on the route to New Orleans — that Lafitte's men fought as allies of General Andrew Jackson in the Battle of New Orleans, which defeated the British and secured the Louisiana Purchase for the United States. For this service, Lafitte's men were pardoned for their shady past. Interestingly, Lafitte had received offers to fight for the British. Had he and his men done so, the battle might have been a British victory instead of Jackson's.

Today, Lafitte is remembered by a namesake town near his Barataria headquarters, by popular writings and movies, and by associations real and legendary in the French Quarter of New Orleans. But even more, history and romance link Lafitte with all aspects of the bayou country, just as Davy Crockett and Paul Bunyon signify their areas and eras.



BACKGROUND

HISTORY OF THE PROPOSAL

Interest in a Jean Lafitte Park generated spontaneously among citizens of Louisiana's Jefferson Parish almost a decade ago. From the start it centered on a swamp and marsh area 10 miles south of New Orleans, just east of Lake Salvador — an area with potential natural, scenic, historic, and recreational values. Concrete endorsement of the park idea occurred through adoption of Act Number 100 of the 1966 Louisiana Legislature when the Louisiana State Parks and Recreation Commission was "authorized and requested to create the Lafitte State Park (Jefferson Parish, Louisiana) which shall be under its direction and control." Approximately 3,000 acres were authorized, and a concept for development was then drawn up by the Commission, suggesting recreational facilities for boating, fishing, and camping; cabins; historical and natural interpretation; museums; animal enclosures; and boardwalks. However, park lands have not been acquired, and the proposal is presently dormant.

The next event was the introduction of HR 11056 by the late House Democratic Leader, Louisiana Congressman Hale Boggs.

This bill was intended:

... to authorize a study of the feasibility and desirability of establishing a unit of the National Park System to commemorate the unique values of the Barataria region of Louisiana, and for other purposes, to be known as the Jean Lafitte National Cultural Park.

Subsequently, it was determined that authority to conduct the study already existed within the Interior Department. Assistant Secretary Reed noted in his October 12, 1972, report on the park bill that the Department's 1973 appropriation bill contained an item of \$40,000 for a "Feasibility Study, Jean Lafitte Park, Louisiana," and he informed Chairman Aspinall of the House Committee on Interior and Insular Affairs that the Department intended to complete that study. A significant guideline in Reed's report states:

The Department would not restrict a study of the Barataria area to determining whether a national cultural park could appropriately be located there, but would consider the full range of possible recreational and conservation uses in the area.

The National Park Service then undertook the study. Principal field work was accomplished from December 1972 through March 1973, with trips to study ecological resources, research historical records, meet with interested agencies and individuals, study sociological factors, inspect cultural features, and assist a congressional tour. On October 2, 1973, Congresswoman Boggs introduced the skeleton bill HR 10665 "to authorize the establishment of the Jean Lafitte National Historical Park."

Indicative of the local sentiments behind these actions is the sign the State highway department has erected on State route 45: "Site of Proposed Jean Lafitte National Park." More substantially, planning and zoning actions in the region, including street layouts, levees, and major highway alignments, are sensitive to the park proposal.

THE STUDY AREA

The geographic study-area limits are loosely defined as encompassing the Mississippi Delta west of the river and south of New Orleans, mainly within a region threaded by the Bayou Barataria waterway from the river to the open water of Barataria Bay next to the Gulf of Mexico, and known simply as Barataria. The thematic study area limits are also loose, although always associated with the Jean Lafitte cultural symbol.

Consequently, the boundaries expanded and contracted during the study, and they remain flexible. The search for historical and cultural ties led out of the narrower region, and contemplated prologues and aftermaths as well as the critical 1800-1815 historic period. After ecological analysis, the area of concern expanded to the entire delta region, but the focus of interest became the immediate vicinity of the authorized Jean Lafitte State Park.

THE REGIONAL CONTEXT

Southern Louisiana — the most extensive marsh ecosystem complex in the United States — is more like the Netherlands than the rest of America. The "inland" delta of California's Sacramento River is similar, as are the deltas of Egypt's Nile River and South Vietnam's Mekong region. Thus, while not unique in the world, this Mississippi Delta area is an unusual and distinct type of landform, with particular environmental dynamics. It should be considered individually rather than as just a wetter part of the solid American continent to which a different set of assumptions and uses apply.

As with all deltas, the Mississippi Delta is a zone of rapid interactions between fluvial and marine processes, one of the most dynamic situations in nature. Interfaces between land and water are vague — both in space and time. In its upper reaches above New Orleans, there is a bit more land than water, at least most of the time. In middle sections below New Orleans, in Barataria, the proportion is nearer even. Farther down still, and consequently more seaward where the delta is youngest, the land/water ratio changes in favor of the fish.

In this fluid place, rainfall is also heavy with an average of 63 inches annually, distributed fairly evenly over the year but with somewhat more rain falling in spring and fall. Humidity is always high in this semi-tropical climate. Freezing temperatures are rare, as is snow. Monthly temperature means are 76 to 81 degrees F in summer, and 53 to 58 degrees F in winter. Historical extremes are a low of 7 degrees F and a high of 102 degrees F. A hurricane or other intense tropical storm passes through every 2 years on the average, occasionally with devastating effect. Hurricane Hilda in 1964 was accompanied by a water-level rise of 3.6 feet. This is significant where little area is above sea level. In Barataria no natural point of land is over 5 feet above sea level, and even in the city of New Orleans land over 10 feet high occurs only occasionally along the river banks. As if the storms were not enough, the Mississippi brings the annual floods from the interior of North America.

Drier land areas are confined to narrow strips of natural levees alongside the river and bayous, and in places are widened artificially by man by diking and draining of former swamps. These are the sites where people live and carry on their business. Shells are often dredged from lake bottoms (and sometimes Indian mounds) and spread in such sites to provide improved footing to the otherwise mucky soil. Houses and other buildings may be elevated above flood level, and open underneath. The boat is a common form of transportation. Interestingly, owners' lots — both residential and business — usually have the boat dock at the front door and the road at the back. Lots are long and narrow, so that more people have access to the river frontage, a factor which also produced long and narrow houses, called "shotguns." Nevertheless, the roads now carry most of the traffic.

Beyond these corridors of human habitation lie, successively, swamp, marsh, open estuaries, and shallow bays, all supporting a productive fishery and the Nation's largest commercial shellfish industry. Vegetation grows rapidly in the warm climate, providing abundant food for the animals, and its remains often make up a major part of the soil.

Alligators are present, as are the marsh-dwelling muskrat and nutria. Too, some 5 million ducks and a half million geese winter in Louisiana's coastal marshes. Large State and Federal wildlife management areas, game preserves, and migratory waterfowl refuges are operated in the region, including the Louisiana Wild Life and Fisheries Commission's Salvador Game Management Area west of Lake Salvador. The sum total of these and other wildlife resources in the State helps support Louisiana's claim as the "Sportsman's Paradise."

Perhaps it is because man is a land animal that this watery environment seems so hardy to him. Actually, it is delicate. Minor differences in salinity, depth, and strength of flow dictate entirely different conditions for the life within a water body, and may decimate or eliminate a species valued for its food, sport, or intrinsic qualities. Other less-desired types may replace it. Conversely, comparatively minor manipulation of water levels can encourage the growth of animals or plants valuable to the regional economy. In a real sense this is farming, just as range improvement enhances beef production elsewhere; the Louisiana Wild Life and Fisheries Commission is organized to research and monitor the water environment, and assist those who crop it.

The volatile fossil remains of past life are used too, tapped by an active oil and gas extraction industry from one of the country's largest petroleum fields. Barge canals, drilling channels, and spilled oil have in the past done much to upset the delicate balance of the life environment. Since the

industry is destined only to grow in the immediate future, in view of current national needs and international conditions, it is fortunate that improved methods are replacing the abusive ones of the past.

Thus the entire life environment relates to Barataria's origin as alluvial sediment dropped within the last few thousand years by the Mississippi River into the Gulf of Mexico with the filling process still going on. However, few Americans understand what it means to live on a delta and live off its products, and even many residents of the area fail to grasp the peculiar ecology of their environment.

Their land, low already, is sinking as the deltaic sediments undergo natural compaction — about an acre per year, on the average (since 1942), in each 640 acres, or one square mile of Barataria. The ocean waves, especially during hurricanes, are driving the barrier islands landward. But now the river flows swiftly down a defined channel, and its fresh water, nutrients, and silt are generally not available to replenish the vegetation and rebuild the subsiding land. Instead, the precious 300-million-ton annual silt load is funneled to the edge of the continental shelf, where it drops into the abyss and is lost to the ecological communities that depend on it to sustain their life.

Hence, man is out of phase with his environment here. Even so, compounding the disequilibrium are the demands of one of the world's greatest ports and the attractions of one of its most popular tourist cities (3.3 million visitors per year). The 600,000 New Orleans residents (where 27 percent of the State's population lives) are hemmed in on a narrow zone of natural high ground between Lake Pontchartrain and the river; New Orleans is literally out of land for new homesites, and its population is expected to decline slightly in the near term. On the opposite bank of the river, however, and extending south into the Barataria country, some land is available for development, and consequently Jefferson Parish here is expected to increase from its current 300,000 population to nearly twice that by 1985. Such expansion must contemplate draining many of the fresh-water marshes and swamps, and extensive levee systems have already been built — such as those north of Lake Cataouatche and east of State Route 45. Ostensibly for hurricane protection, the lands behind such levees usually are subsequently pumped dry and subdivided for development.

In the specific area of the Jean Lafitte marsh site, the land has lain basically idle until now. It is privately owned, and has limited potential for productive use. Virtually no one resides on the land nor makes his living from it, although the village of Barataria and a few other dwellings are along access

roads and canals. The area is hardly used recreationally, although it does support some fishing and hunting. The area is used mainly as a dump and a target range, however, and other than that it is used principally as a place for boat canals, oil-drilling barge channels, pipeline canals, powerlines, and roads. A route across the potential park area has been under consideration as an alternate route for an Army Corps of Engineers levee that would enclose a large area south of New Orleans.

A new highway (ultimately to be four lanes) is planned to pass near the area and through the marsh farther south between the towns of Lafitte and Larose. Now 2,150 vehicles per day enter the Barataria region through this corridor; after completion of the new route the number will swell to 10,800 by 1990, creating a greatly improved access to the southern Barataria region for industry and recreation.

Property values will surely increase, as will hurricane damage and evacuation needs if development occurs. Thus, though posing little threat in itself if constructed to allow water to flow past, the highway may encourage other developments that could cause serious deterioration of the rich Salvador-Barataria estuary system. Already a street map has been published in this zone now occupied by marsh. Jefferson Parish is now probing questions regarding future zoning in the region, including various park proposals.

The economic forces at play in the Barataria region are therefore pushing the land ever closer to the point where the biological equation will reverse and the environment will be permanently impaired. Already the ecosystem is basically a relic of a former time. This stress has been recognized, however, and the Coastal Resources Unit of the Center for Wetland Resources at Louisiana State University (Baton Rouge) is developing multi-use management proposals for the entire coastal zone. A major conclusion so far is that the system cannot be held in a static condition — that the old dream of harnessing the river (no matter how well-intentioned) will surely destroy the vitality of the entire region. But because geological processes associated with delta building and deterioration are rapid, subdeltas are highly amenable to manipulation, and river water and its silt can be diverted to create new ones. This process occurs accidentally during levee breaks, termed "crevassing," and silt is deposited downslope in the marshes. Why not do it deliberately, for an intended goal? Man's engineering projects on the Mississippi have already demonstrated his capacity to succeed in this new undertaking, too.

Meanwhile, the delta dies.

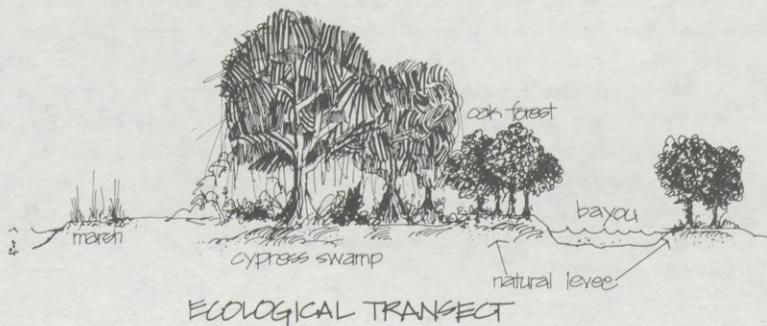
PARK RESOURCES

NATURAL RESOURCES

Description

Natural features of the Barataria region include the Mississippi Delta and the river and associated bayous that created it. Take a moment now to learn how the land was produced. You must know this to understand not only all the natural features of this region, but also its history and culture, and the character of its recreational opportunities.

The river banks are the highest ground. This is the most important point! Even persons otherwise familiar with deltas often do not think of it. Water flowing downstream in a natural distributary system is confined to a channel as the most efficient transporter, and can carry an abundance of silt. During times of flood, however, the excess water leaves the river channel and spreads out as a sheet over the flatter country alongside. The sheet, having less capacity to carry sediment, drops part of its load, and this builds up into "natural levees" near the river on both sides, eventually providing higher ground alongside. Likewise, the channels bifurcate downstream into an intricate maze of slow-flowing waterways, depositing more silt with each division. Thus the land is formed, with *the river banks the highest*.



Down the gentle slopes of these natural levees, at right angles to the river channels, vegetative types change as wetter conditions are encountered. Man's eye cannot see the elevation differences, for they are too slight, but he can readily perceive the different plants. The natural levees themselves are likely to be oak-covered, while the swamps just beyond support moss-draped cypress. Next come reed-filled flat marshes, and even more distant are open fresh-water lakes or salt tidal basins. Downstream nearer the mouths of the river or bayous, the channels are younger, with lower natural levees, and they may not have some of the drier-site plants, especially oaks.

In general, the northern, drier part of the Barataria region (north of Lafitte town and including the Lafitte marsh site) supports a diverse mosaic of lowland hardwood forests (oak, sycamore, willow, sweetgum, hackberry, red maple, southern magnolia, etc.), cypress-tupelo gum swamps, and numerous fresh-water marsh communities (cattails, Delta duck potato, alligator weed, panic grasses, water hyacinth, etc.), all arranged along bayou corridors as already described, except where artificial levees, roads, or canal banks have modified the natural habitat. This zone contains the most species of plant and animal life. Biotic productivity is very high. Alligators are present, as well as a variety of other reptiles (turtles, snakes) and many amphibians (frogs, toads). Deer roam the area, and other mammals include otter, mole, bobcat, weasel, skunk, shrew, rabbit, nutria, muskrat, raccoon, beaver, opossum, mink, and bear. Fish, frogs, and crayfish are plentiful. Egrets, herons, ibises, redwings, and other wetland birds are very abundant — more than 50 species in all.

In the southern part (south of Lafitte town), the waters become progressively more brackish and there are fewer plant species (couch grass, bayonet rush, spike rushes, etc.). The zone is a labyrinth of grassy islands, open water, and canals. Shrubs and trees are more narrowly restricted to the levees along bayous and canals. Salt marsh — mostly salt grass, couch grass, black rush, and salt cane — occurs on most of the Barataria Bay islands and on the adjacent lands subject to frequent and prolonged intrusions of saline waters. The black or honey mangrove, widespread in southern Florida and the West Indies, is near its northern limit of range on the Barataria Bay islands. Here it occurs as scattered individuals, and occasionally as dense stands, from 5 to 8 feet tall. As the major woody vegetation type in the salt marsh zone, these mangroves provide valuable cover and nesting habitat for many shore birds.

At the south of Barataria Bay, on Grand Terre island, the brown pelican has been reintroduced after suffering everywhere from pesticide residues in its food. The brown pelican is the Louisiana State bird, now almost extinct.

Integrity of the ecosystem complex is threatened by several factors, most important of which is subsidence and urban development.

One consideration is that of accelerated erosion. The marshes of the eastern delta are crossed by numerous modern and historic canals and the micro-waterways left by marsh buggies. These have increased the rapidity of inflow and outflow of water, thereby accelerating erosion. Strong winds associated with high pressure systems from the north evacuate water from estuaries ever more rapidly, and the intrusion of storm tides from the gulf likewise is made easier. The east shore of Lake Salvador is eroding rapidly and Grande Terre, once a single island, is now broken by storms into several.

Another consideration is salinity changes. Canals, channelization of waterways, and subsidence all contribute to the progressive increase in salinity of inland waters. The eventual result would be to reduce the area of productive fresh-water marshland as salinity increases from the south and urban development encroaches from the north. Small changes in salinity can have pronounced adverse effects on natural ecosystems, and the commercial operations (i.e., shellfishing and fishing) that depend upon them.

Evaluation

The natural features provide an opportunity for ecological understanding and a base for a land ethic that must spread to the entire region if appropriate environmental management is to occur. Even if water were released to the area now, it would not bring the silt load of former years due to upstream dams, and at times its chemical quality could endanger the animals dependent on the region's fresh water. The entire Mississippi Delta is so threatened, however, that even partial steps would be beneficial. Perhaps an environmental sample will help dramatize the opportunity to reverse the deterioration that is now going on, or at least document that deterioration.

Esthetic values could also be served by such a sample, and the resources here do represent one of America's original landscapes. But to date, Louisiana has no sites on the National Register of Natural Landmarks, and the only area of the National Park System within its borders is Chalmette National Historical Park.

This lack of representation within the National Park System is not in keeping with the intent of the Policy Guidelines of the National Park Service promulgated by the Secretary of the Interior on June 8, 1969, point 8 of which directs the National Park Service to identify gaps in landscape representation and locate sample areas that would fill them. In response – for the purposes of inventorying the Nation – natural regions were established such as Atlantic Coastal Plains, Northern Rocky Mountains, and Mohave-Sonoran Desert. [See Part Two of the National Park System Plan (Natural History), referenced in the bibliography section.]

Within these natural regions, then, a number of natural themes were also established, such as "Landforms of the Present" (including "Works of Glaciers," "Eolian Landforms," etc.), and "Aquatic Ecosystems."

The Barataria region fits into the Gulf Coastal Plain natural region, as does all of Louisiana and Mississippi and large parts of adjacent States. There is no established natural area of the National Park System within this entire region, although Padre Island National Seashore, Gulf Islands National Seashore (both recreation areas), and a few historical areas do incorporate some pertinent terrain. There is the possibility now of a natural area in Texas – Big Thicket – that is being proposed for establishment. While it has swamp country, it lacks marshes.

The themes considered to be of prime significance that occur within the Gulf Coastal Plain are "River systems and lakes," "Seashores, lakeshores, islands," "Eastern deciduous forest," "Marine environments," and "Estuaries." The Barataria region contains samples of all of these, although many areas are badly marred by man's activities. Nevertheless, it is tentatively suggested that further studies might indicate three areas for potential inclusion in the National Registry of Natural Landmarks.

The Jean Lafitte marsh site, admittedly, would probably not have been discovered were it not for its historical associations. Yet an extensive survey showed that it is probably the best remnant left in Barataria that includes a variety of habitats.

The Atchafalaya Basin has been studied before by the National Park Service, and various proposals by the public include setting it aside as a recreation area, or natural area, or wilderness area. This hardwood swamp is in a flood channel overflow area of the Mississippi River, and hence in fair biologic

health as silt is still deposited there periodically. If establishing a natural area were the sole present objective, this area would probably exceed the Lafitte marsh site in potential.

The Mississippi River mouth, at least in the lateral subdeltas such as at the Delta National Wildlife Refuge, is a dynamic area of active sedimentation, a natural process that would probably be of popular interest if only there were a platform from which to watch. The lack of present practical access does not diminish its intrinsic importance as a site of active land building, however.

RECREATIONAL RESOURCES

Description

Studies done in the preparation of Louisiana's "Comprehensive Outdoor Recreation Plan" show that each Louisiana resident participates in outdoor recreational activities 74 times yearly on the average, a rate exceeding that of the Nation as a whole. Even the State's auto license proclaims "Louisiana - Sportsman's Paradise," and of course the reference is to the excellent hunting and fishing opportunities.

In the Barataria section, the nature of the country dictates the kind of outdoor recreation possible, and it is predominantly boating, fishing, and hunting in the wetlands. Water skiing is impractical - the water is too shallow, and debris, stumps, alligators, etc. are hazards. State wildlife areas provide some camping facilities, hunting, and fishing. Federal refuges offer fishing, hunting (in certain areas only), and nature study. Both they and the State areas also could provide interpretive boardwalk nature trails and fishing piers.

Surprisingly, some of the most important recreational needs in this "land of water" are boat ramps, swimming pools, beaches, and hunting areas. The State outdoor recreation study, for instance, found fewer boat launching ramps in the Barataria-New Orleans region (just 20) than anywhere else in the entire State, which as a whole has limited or no access to many public water bodies. Within the region of the present study area, it was estimated that 98 percent of the water suitable for outdoor recreation was effectively inaccessible. Too, only 9 miles of trails for public use are provided in the New Orleans-Barataria region.

It has to be concluded that outdoor recreation in the region has so far just happened. But it will likely not thrive in the future without guidance and support. Industrial activities threaten the serenity of the setting and introduce new canals that affect wildlife habits. Pollution is a danger. Storms must be reckoned with, as well as the simple but severe problems of accidents and getting lost. Exclusive private ownership will increasingly deter use as land becomes more valuable and as there are more would-be users.

To rectify these shortcomings, the Louisiana "Comprehensive Outdoor Recreation Plan" made several major conclusions:

that a boat "road system" be developed to enable both Louisiana and out-of-State sportsmen to more effectively use existing waterways (with launching ramps, guide markers, maps, and "how-to" booklets).

that flood protection lands (including levees and associated areas) be used for hiking, cycling, and horseback trails, scenic roadways, "boat-watching" points, outdoor games, and unstructured "green-belt" activities in general.

that the State Parks and Recreation Commission give higher priority to acquisition and development in or near urban areas in order to serve more people.

Evaluation

Louisiana has few areas of outdoor recreation that are of national significance. (The Atchafalaya Basin may be an exception, but the Barataria region is not.) Therefore, most of the demands are generated by Louisianians and residents of neighboring States, and so State agencies associated most closely with the areas used can best respond to the needs while still administering the land for multiple purposes. Assistance from supportive Federal programs could be expected, such as the Land and Water Conservation Fund (land acquisition), Army Corps of Engineers (levee lands), Coast Guard (rescue, storm warnings), the Bureau of Sport Fisheries and Wildlife (hunting, fishing areas, nature study), and others. The potential does exist in the Barataria region for many such programs that could provide valuable recreational opportunities for nearby residents. Broader interest in these resources could easily be generated through expanded information programs to encourage boating, hunting, and fishing and through provision of basic facilities for access, guidance, and safety. While some land would have to be acquired at key sites, much of that needed is public already. Accompanying or even preceding this development would be information programs so that opportunities could be more certainly discovered.

ARCHEOLOGICAL RESOURCES

Description

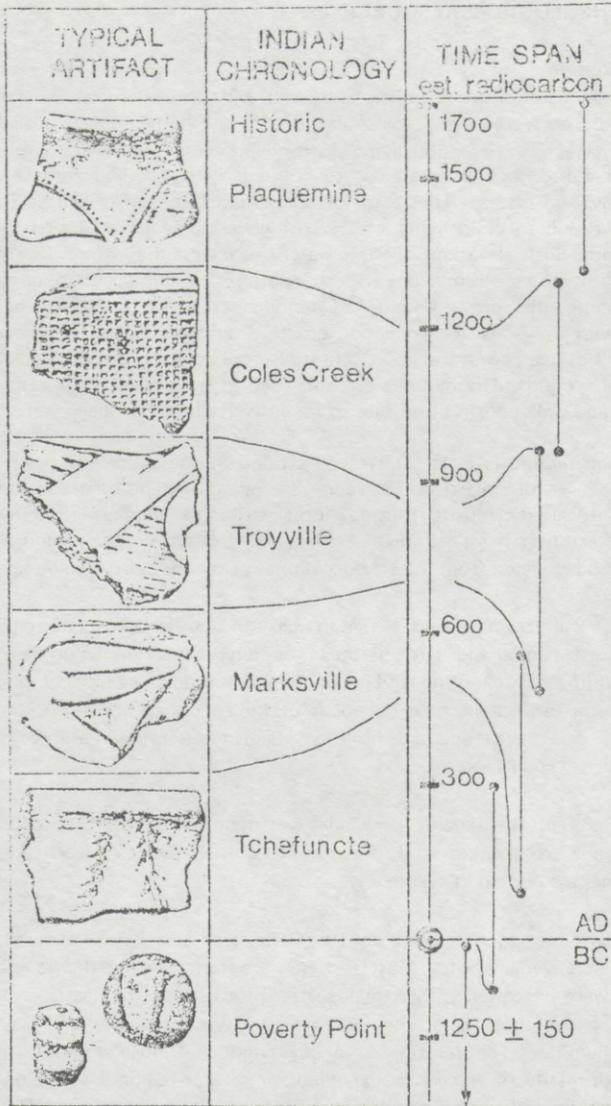
Rich in wildlife and edible plants, and with many natural waterways to provide easy travel and transportation for the human species, the deltaic region was found a feasible living environment early in its formative period. In these areas, however, man has to contend with flooding, intense coastal storms, and disease. Thus a major adaptation has been to live on the high ground and to build living sites even higher in the form of shell or earth mounds. Such elevations dot this watery region, in the form of low mounds of white clam shells mixed with scarce pottery fragments, and in many cases, providing the only ground dry enough to live on. More than 600 archeological sites are known in coastal Louisiana. These sites have been reused by man again and again, and still serve him today as building sites and burial grounds. The mounds are also used as sources for shell aggregate in road and walk construction, and so site integrity has often been lost.

A good mound is in the northwest section of the authorized Jean Lafitte State Park, although Lake Salvador is eroding one end of it and there is a presently used campsite nearby; another striking example is in the Berthoud Cemetery near Barataria town. Artifacts from early European manufacturers are also recovered from the area occasionally, lost by Lafitte, some say.

Human cultures have thus existed in places in Louisiana long before the time of Christ, named and dated by the chronological chart shown on page 28. In the southern reaches, the land is but a few thousand years old; consequently, Barataria did not become the locus of Indian occupation until Marksville times. The north end of the Des Allemands-Barataria basin contains a number of such sites.

A survey of the specific park area was done by Dr. J. Richard Shenkel, Assistant Professor of Anthropology at Louisiana State University, and his findings are quoted in part below:

The survey of the Lafitte Park area disclosed a number of archaeological sites. Most of these were stations where the *Rangia* shells were deposited with a small scatter of artifacts. The heart of the park concept area is at the juncture of Bayou Coquilles and Bayou de Familles. The remains of a large midden (refuse dump) composed primarily of *Rangia* shell extend for several hundred feet along both banks of Bayou Coquilles and continue more hundreds of feet along Bayou de Familles. The size of this site indicates a long occupation. Ceramic sherds collected during the survey were all plain, nondecorated materials; however, some are of exceedingly poor quality and may



CHRONOLOGY OF PREHISTORIC INDIAN CULTURES IN LOUISIANA

indicate a possible occupation as early as Tchefuncte. A few decorated sherds from previous surveys were identified as Marksville and this site is believed to be the earliest in the area.

Across Bayou de Familles from the mouth of Bayou Coquilles there is an ellipsoidal clay covered mound that has a shape characteristic of a Marksville burial mound. Another mound of similar conformation was noted approximately 200 yards downstream on the same side. No artifacts were found on either of these deposits.

Three very small lenticular shell middens were located along the banks of Bayou Coquilles well within the cypress swamps to the east of Bayou de Familles.

On the shores of Lake Salvador, there are several shell beach deposits and remains of what were once extensive middens. Abundant artifacts can be found along these beaches and they date from Coles Creek well into the historic period. Glazed earthenware sherds are characteristic of the Eighteenth and Nineteenth centuries.

A few other sites of unknown cultural affinities were noted in the marsh between Lake Salvador and the swamps bordering the high ground along Bayou de Familles.

Two rectangular shell middens are located at the mouth of Bayou Villars and Bayou Barataria of Coles Creek and Plaquemine affinities. On the east bank of Bayou Barataria at this juncture is the Berthoud Cemetery shell mound and two middens. There may be a low flat topped mound also in association with this site. The prehistoric affinities of the cemetery have been identified as Coles Creek to Plaquemine. This site gives some indication of being a more permanent center than other sites in the area.

[Recent excavations in the Big Oak Island site, in eastern New Orleans, indicate the possibility of a very long occupation ranging possibly from pre-ceramic times through the entire Tchefuncte Period and into Marksville. This large midden, with a total exposed area of just under 8,000 square meters, and the associated Little Oak Island site, are two of the few remaining of the once abundant Tchefuncte shell middens that dotted the south shore of Lake Ponchartrain.]

The archaeological sites near to and within the general proposed park area offer a broad opportunity to understand many of the problems

connected with man's adaptation to a coastal, wet land environment. The total temporal range of Louisiana prehistory as is found in wet land contexts is not represented in the proposed park area as man has been adapting to coastal environs longer than this particular area has been in existence. However, this area combines to a great extent the kinds of adaptation that occurred [sic] and can be used to demonstrate the processual relationships throughout prehistory even though particular temporal representations may not be in the park itself.

Evaluation

Barataria has no structures and few deposits of artifacts. Further, the zone has existed as habitable land for only a short time and so cannot contain clues to the ancient settlement of America. More significant sites in Louisiana are Marksville Prehistoric Indian Site (in Avoyelles Parish) and Poverty Point (in West Carroll Parish), both of which are impressive mounded earthworks, and both of which are on the National Register of Historic Landmarks. However, neither can be associated with the Barataria region.

Nevertheless, interesting remains of Indian life do occur in the Barataria region, as do European artifacts lost long ago, apparently from traders' vessels. None of these justifies national involvement, however, except incidentally where Federal agencies might manage other resources on land that also contains archeological sites. This is true for the entire Barataria region and for the particular area of the Lafitte marsh. The more impressive sites should be protected and interpreted, if appropriate, by the agency most logically involved in administering the land for its principal uses.

CULTURAL AND HISTORICAL RESOURCES

Historical Perspective

The European powers so aggressive in colonizing America showed little interest in the lower Mississippi Valley until 1699, when France claimed a stronghold near the river's mouth.

By 1712 the Louisiana colony had been only thinly settled, numbering but 324 men. At that time the French businessman Antoine Crozat acquired the territory and held it until 1717. But he could not make his investment pay even with the importation of slaves and, therefore, returned the land to the king.

Bienville, a Canadian who explored and held land for France, and an original claimant, was then ordered to establish a town and make it profitable as a

colony. He chose the site of New Orleans along the curve of the Mississippi where the river swung nearest to Bayou St. John and Lake Ponchartrain — an important natural crossroads with both river and gulf waterfront.

The plan laid out by Bienville in 1718 made New Orleans a late French medieval town. But besides creating a town in the wilderness, he faced other immense problems. France wanted gold and there was none. Bienville wanted hard-working colonists, but France sent him instead prisoners, slaves, and bonded servants. Nevertheless, by 1723, the new settlement superseded Biloxi as the capital of the vast colonial empire of Louisiana; at that it was a mere outpost housing officials, soldiers, slaves, merchants, and rivermen. Until 1731, the colony was under the control of the Company of the Indies, headed by John Law, a financier who wrecked the French economy with worthless stock. He convinced Europe that Louisiana was full of riches, but arriving colonists were embittered when they saw the truth; many starved and many perished of disease. Nevertheless, lands along the river were granted as farms and plantations, and slaves from Santo Domingo and other West Indian islands were brought in on credit.

Between 1719 and 1722, many German colonists also came to Louisiana because of John Law's propaganda. They settled a long stretch of the Mississippi 30 miles above New Orleans that is still called the German Coast, but the people themselves were eventually absorbed by the French and the Spaniards, losing or altering their names and language.

France had many administrative problems in Louisiana. The peace of the colony was disturbed in 1729 by a massacre of whites by the Natchez Indians. Revenue from commerce was so meager that the colony constantly had to be subsidized. Comparatively few settlers migrated to the territory, and by mid-century, except for plantations along the river and small settlements clustered about military posts, Louisiana still remained essentially an uninhabited wilderness.

With the loss of Canada to England in the Seven Years War (1756-1763), France was ready to dispose of the unprofitable colony. To prevent the territory from falling into English hands, Louis XV made a gift of New Orleans and all of Louisiana west of the Mississippi to his cousin, Charles III of Spain. Spain rather reluctantly accepted.

The transfer was kept secret for a time and the colony was not informed until 1764. The action was unpopular with the French colonists and a petition was sent to France requesting the king to rescind it.

The first Spanish commissioner lasted until revolt broke out, then returned to Europe. For the next 10 months, Louisiana enjoyed freedom from foreign rule, but in 1769 the arrival of a large fleet and 2,000 soldiers put the Spanish Count Alexander O'Reilly in command.

After establishing his power, O'Reilly changed the government and laid the foundation for Spanish administration in Louisiana. This restored the colony essentially as it was before the cession, except that Spanish became the official tongue and Spain became the sole country with which Louisiana could trade.

In 1788 and again in 1794, great fires swept New Orleans, leaving only a few of the original French buildings. Spain rebuilt, and as a result, the French Quarter, with its hidden paths and shuttered windows, took on a definitely Spanish look. Inter-marriage again hastened conciliation, as Spanish officers and soldiers took French wives. The "Creoles" are descendants of these early French and Spanish colonials.

In the 30-year period following 1765, about 4,000 Acadians came to Louisiana. They had been expelled from their settlements in Nova Scotia by the British. Of French descent, they were readily welcomed by the Creoles and settled along many of the bayous in southwestern Louisiana.

Two centuries of linguistic intercourse have molded the dialects of the French settlers into two rather distinct types, that spoken by the cultured Creoles, an approximation of pure French, and the patois spoken by the Acadian descendants. In the latter, archaic French forms have been retained, and words borrowed from English, Spanish, German, Negro, and Indian neighbors have been added.

During the Spanish regime, Louisiana depended increasingly upon the settlers in the Ohio Valley for its commerce. Such trade had always been illegal, but enough smuggling was carried on with the connivance of Spanish officials to satisfy both the merchants and the traders of the upper valley. Agriculture had depended on indigo for a cash crop for some time, but in the 1790s, a means was found to make granulated sugar from sugar cane, and this new crop became dominant.

Also in the early 1790s another large influx of immigrants to New Orleans again reshaped the character of the city. French settlers from Santo Domingo fleeing slave uprisings nearly doubled New Orleans' population in a few years. Many of these people were of wealth and distinction, bringing with them a languid life style suitable to the tropics. They quickly formed a

society of their own and exerted an influence on the social life of the city, making it gayer and more frivolous.

At the end of this Spanish period, the Creole culture that had evolved was a fairly happy mixture. Although the era had begun in revolt, Spain had governed the territory fairly, appointing French Creoles to high positions and permitting the people to continue speaking French. In this way, the Spaniards left few traces of their period of colonial rule, but they did leave the spirit of chivalry, laws and legal customs, and an imprint on the physical face of New Orleans. The French of New Orleans did not forget that their life under Spain had been peaceful and happy. When the Spanish government was denounced in 1803 by the new French governor, they answered with, "We have never groaned under the yoke of oppression. . . . We have become bound together by family connections and by bonds of friendship."

The power of Spain had been declining for many years, and Napoleon was pressing for the return of Louisiana to France. In 1800 the secret Treaty of San Ildefonso accomplished this transfer, though it was not announced until 2 years later. Meanwhile, unknown to Louisianians, negotiations for the purchase of Louisiana were under way between Napoleon and a United States that was eager to control the Mississippi to prevent being hemmed in on the south and west. In 1803, the Louisiana Purchase was officially consummated. Within 20 days, New Orleans changed hands twice, ultimately with William Claiborne as its first American governor.

The transfer of the colony to the United States was as unsatisfactory to Louisianians as the prospect of French rule had been. Claiborne, who surrounded himself with American officials, was disliked as governor because of his unfamiliarity with the customs and language of the people. Their previous experience with rowdy American rivermen led them to look askance at immigrants from the States, and wonder if Louisiana had not been turned over to the "barbarians."

Americans, "Kaintucks" as they were called, came slowly to the colony at first and did not mix with the Creoles to any great extent. They built a separate city beyond the boundaries of the Vieux Carre that became known as the "garden district" because of the large lawns surrounding their mansions.

The period between 1803 and 1815 is one of intrigue, flux, and finally fusion. As before, business interests and marriage ultimately brought Creoles and Kaintucks together, and their common enemies of floods, hurricanes, and plagues reinforced cohesion.

Louisiana and New Orleans continued to prosper under American administration. Agriculture and trade were bustling and the Mississippi commerce was making New Orleans into a large port city. Goods not available legally – slaves, luxuries, whatever the population wanted – were supplied by smugglers despite the efforts of the American administrators.

On April 18, 1812, Louisiana was admitted as the 18th State of the Union.

Two months later, Congress declared war on Great Britain. After many battles elsewhere, the British in 1814 blockaded the mouth of the Mississippi River and attempted to secure the cooperation of the privateers who lived at Barataria. Lafitte, the leader, refused and sent continued warnings to the American officials in New Orleans. Few preparations, however, could be made. There were only small stores of weapons and other supplies of war. Andrew Jackson, charged with the defense of the city, trained the militia units, fortified the banks of the Mississippi, and finally accepted the services and supplies of the Baratarians and pledged assistance in securing pardons for their past offenses.

When the battle occurred, every available detachment was deployed. Besides Creoles there were Choctaw Indians, Baratarians, Free Men of Color, Acadians, Germans from the German Coast, and companies of rough Kentuckians and Tennesseans. At Chalmette, the British were defeated by a united front and, consequently, a new era began.

In the ensuing time of peace, endless streams of men came down the river and overland to New Orleans. The full force of westward expansion was soon underway and the Mississippi River swarmed with steamboats. The population of New Orleans tripled in 10 years. Trade boomed and the heyday of commerce and industry was beginning. New Orleans rivalled New York as the richest city in the United States.

The prosperity of New Orleans was based upon an economic system that Louisiana believed to be sound – river commerce and plantation agriculture. The first blow to New Orleans came in 1832 when the waters of the upper Ohio were connected with Lake Erie by canal and later with the Hudson River. Railroad building began in 1830, but railroads were at first considered mainly expedients for getting goods to the river. Still, in 1849 receipts for commerce were at an all-time high and New Orleans was entering its career as the cotton city of the world. The Civil War, however, was soon to issue the "coup de grace." It killed prosperity on the river and ended slave labor – the cornerstone of plantation agriculture. Louisiana cast its lot with the South. Federal forces occupied New Orleans in 1862 and the Golden Age of the city became a cultural memory instead of daily life.

Brief Chronology of New Orleans Cultural Elements

PRE-COLONIAL PERIOD 1699-1717

- 1699 Iberville and Bienville, French explorers, establish a stronghold at the mouth of the Mississippi River, wanting control of the lands along its banks for France.
- 1712-17 With French control established, the entire territory was acquired by French businessman, Antoine Crozat, who never made it into a profitable venture. He returned the territory to the king.

FRENCH COLONIAL PERIOD I 1718-1763

- 1718 French king orders Bienville to establish a town at the New Orleans site and make it a profitable colony. The town is laid out and settlers arrived – mainly prisoners, bonded servants, and slaves.
- 1719-22 German colonists settle along the Mississippi River north of New Orleans, enticed by false tales of vast riches circulated in Europe about Louisiana. This area was and is still termed “the German Coast.”
- 1728 France begins sending women of poor but reputable families for colonists to take as wives. Colony begins to take hold.
- 1760s Acadians (Cajuns) begin arriving from Nova Scotia, displaced when France lost the “Seven Years War” to England. Cajuns settled away from the city, in swamps and on farms, making their living off the land and water. Their immigration continues for 30 years.

SPANISH COLONIAL PERIOD 1763-1800

- 1763 To prevent losing the territory to England as a result of the Seven Years War, France gives it to the King of Spain. French colonists, informed over a year later, protest the cession.
- 1769 Count Alexander O'Reilly arrives and firmly establishes Spanish control. Spain sends mainly military men and administrators who frequently marry into French families. Descendants of French and/or Spanish colonials are considered Louisiana Creoles.

SPANISH COLONIAL PERIOD 1763-1800

- 1788 New Orleans is razed by fire and rebuilt in the Spanish tradition.
- 1790s French settlers arrive from Santo Domingo, fleeing the island's slave uprising. They double the population of New Orleans and bring a culture that furnishes theaters, ballet schools, etc.

FRENCH COLONIAL PERIOD II 1800-1803

- 1800 The secret Treaty of San Ildefonso returns the territory to French rule.

AMERICAN ADMINISTRATION 1803 to present

- 1803 Louisiana Territory is purchased by the United States. William Claiborne becomes the first American governor. American settlers and Creoles do not immediately intermix.
- 1812 Louisiana admitted as the 18th State.
- 1815 The Battle of New Orleans unites the culturally diverse people of Louisiana.
- 1830 New Orleans is a major port city and the region is in its plantation heyday. By 1850, it is the Cotton City of the world.
- 1861 Civil War begins, slavery ceases, and warehouses are burned.
- 1862 Federal troops occupy the city, the Golden Age of New Orleans ends.

A Robust Amalgam of Culture

"Travel to Louisiana and you're in another world, experiencing another way of life. Here you sense the drama of history colored by Indian lore... French colonists, Spanish conquistadores, and British armies... the Americanization of a polyglot empire..."

You see the evidence of this colorful past in old forts and battlefields, magnificent mansions, quaint cemeteries and stately buildings.

Yesterday is here today in the traditional cuisine, the faces of the people, nuances of idiom, music with African roots, shimmering bayous, Indian mounds and moss-bedecked oaks . . ."

So states a recent publicity brochure concerning the cultural and historical flavor of the New Orleans area, succinctly capturing the essence of the region's appeal. These resources, taken together or sometimes singularly, encompass the history of three great colonial powers, their pawns, and a new independent Nation. The port city, laid out by the French in 1718, dispersed goods to the Creole planters 50 years later under Spanish rule, unified diverse groups to repel a British attack 50 years later, and surrendered the Confederate flag to a Union Admiral in another 50 years. The Vieux Carre, a National Historic District, exhibits the Spanish and French influences that combined to form a unique Creole style of architecture, while the Garden District, the residential area for the American aristocracy, is characterized by lavish homes with large lawns. Plantation homes stand as silent evidence of the by-gone economic structure, and forts, which fought against changing political enemies, now stand in final battle with the natural elements. Museums and collections exhibit and commemorate the past, while cemeteries accept its participants and testify to an ultimate unity. To begin to grasp the array of resources, one must categorize the cultural elements, though never forgetting the interrelationships.

The Creole culture is the heart of New Orleans; here are its earliest roots and most venerable traditions. By 1750, New Orleans had become a gay social center. From that time the city became noted both for its bawdiness as a river town and for its gaiety as a cultural center dominated by a socially exclusive Creole set. Festivals assumed importance, the best known being Mardi Gras, a pre-Lent period of private parties with street parades. Name days on the Roman Catholic church calendar — feast days of the saints for whom they are named — are celebrated with gusto. Creole society thus represents a way of life reflected in a preference for certain foods, a mode of dress, a way of speaking; it continues in customs, laws, and religion. Present expression is best seen in the French Quarter, a myriad of houses, shops, churches, and world famous Creole restaurants. Many of these buildings are distinctively decorated with enclosed courts, balconies, and wrought-iron railings. Now hemmed in by a major American city, congested by autos on its narrow streets, and continually fighting demolition and replacement, the Quarter has gained some respite because of its historical designation and the formation of the Vieux Carre Commission to guide its fate.

The following is a list of traditions and sites of this culture:

- *Fort de la Boulaye Site
Near Phoenix on the Mississippi
River, near Louisiana 50,
1700
- Fort de la Boulaye was founded by Pierre le Moyne, Sieur d'Iberville, as a formal act proclaiming possession of the mouth of the Mississippi River in the name of France. Here in a wooden blockhouse the French successfully defended themselves against English and Spanish encroachment until 1707, when hostile Indians forced its abandonment. No physical traces of the fort remain above ground.
Private
- *Vieux Carre Historic District
18th and 19th centuries
- Also called the "French Quarter," this 85-block area coincides approximately with the original area of the City of New Orleans. The city was laid out in 1721 on a gridiron plan and was among the earliest planned cities in America. A focal point of the plan was the town square — the Place d'Armes — now known as Jackson Square. Within the district is to be found a continuum of architectural development. The styles represented include the French and Spanish Colonial (1720-1803); early Federal (1803-1825); antebellum (1825-1860); post-Civil War (1865-1900); and modern. Fires in 1788 and 1794 destroyed over 1,000 18th-century buildings. Other National Historic Landmarks within the district are Jackson Square (1721), the Ursuline Convent (1748-1752), and the Cabildo (1795).
Multiple public/private operation
- *Jackson Square
(Place d'Armes)
18th, 19th, and 20th centuries
- On December 20, 1803, in Jackson Square, the American flag was raised for the first time over the newly purchased Louisiana Territory, the greatest single acquisition of territory in United States history. The center of the city since its first plan in 1720 and now a public

* Registered National Historic Landmark or District.

park, the square offers views of the Cabildo, St. Louis Cathedral, and other historic buildings lining it. In the center is the historic flagpole and a statue of Andrew Jackson (1856).

Municipal

St. Louis Cathedral

Stands on the spot of the first French church. Rebuilt after the 1788 fire.

*Cabildo
1795

The Cabildo originally housed the Administrative and Legislative Council which ruled Spanish Louisiana. Under the French rule of Louisiana from 1800 to 1803, it continued in similar use as the Maison de Ville (Town Hall). Composed of an array of Renaissance architectural forms, the stuccoed brick building exhibits the marked Spanish influence in Louisiana. It presently houses the Louisiana State Museum. Actual signing of the Louisiana Purchase took place here.

Municipally operated

*The Presbytere
ca. 1791-1813

Gilberto Guillemard designed the Presbytere as a companion building to the Cabildo. Both flank St. Louis Cathedral and the former was intended to be the parish rectory. Two and one-half stories high, the Presbytere was constructed during the Spanish rule in New Orleans. The exterior is stuccoed brick with classical ornamentation in the form of pilasters, a central pediment, and an arcaded first-floor portico. A rear wing was added in 1840 and the mansard roof in 1847. Upon completion the Presbytere was rented by the city as a courthouse. In 1911 the State acquired the building for a museum.

State operated

* Registered National Historic Landmark or District.

*St. Louis Cemeteries II

**St. Louis Cemeteries I

Both active. Many famous historical personages buried here. Jean Lafitte's brother buried in St. Louis Cemetery, No. 2.

Old Absinthe House

Built in 1806 as a tavern. According to legend, Jackson and Lafitte met here to plan the tactics of the Battle of New Orleans.

*Old Ursuline Convent
1748-1752

Ursuline Convent was constructed under the direction of a group of nuns who had come to New Orleans to relieve the poor and the sick and to teach young girls. In subsequent years it was used as the archdiocese, as offices for the archdiocese, and as a seminary. At present it serves as the rectory for the adjacent St. Mary's Church. Despite some alterations, the convent is considered an important historic and religious monument in the United States. It is one of the few remaining links with the French capital of Louisiana.

Private; not accessible to the public

*Madame John's Legacy
1722-1728, 1788 (rebuilt)

Madame John's Legacy was built as a French Colonial, raised cottage town house, once a popular type of city dwelling. Country homes were raised 6 or 8 feet as a flood precaution, but in town this feature was unnecessary. The two-and-one-half-story cottage has brick walls at the first level and a second story of wood. Front and rear *galeries* extend the full length of the house that has a hip roof with a double pitch. In 1783 the cottage was moved to its present location. A fire 5 years later did extensive damage, and the existing house was built from salvaged materials — hardware, doors, and some beams. Oldest building in the French Quarter. Lafitte's First Lieutenant was born here.

State

* Registered National Historic Landmark or District.

** Considered for National Historic Landmark recognition.

- *Lafitte's Blacksmith Shop
Late 18th century
- This one-story cottage is traditionally associated with Jean and Pierre Lafitte, who supposedly posed as blacksmiths while engaging in less respectable economic ventures. The building is a one-story, nearly square example of a French Colonial town house with a hip roof and two symmetrically placed dormer windows. Construction of the walls is *brique-entre-poteaux*, meaning that the spaces between the upright timbers and the diagonal wall supports were filled with bricks covered over by a coat of lime plaster.
Private
- Exchange Alley
- Housed many dueling salons during Creole period.
- House of John Grymes
- Was Lafitte's lawyer in New Orleans.
- Bourbon Orleans Hotel
- New hotel on the site of the hotel famous for its Quadroon Balls.
- House where the
1758 fire started.
- The Gaz Bank
- Built and used as bank in 1800.
- Merieult House
- Built in 1792. Presently houses Williams Foundation's New Orleans collection of historic documents and art.
- **Pontalba Buildings
- Built in 1849 and designed by James Gallier Sr. First U.S. row house or apartment.
- LaLaurie House
- Built in 1832 by Creole family.
- *Cable House
1874
- As the voice of the Louisiana Creoles, George Washington Cable made major contributions to American regional literature. Through his

* Registered National Historic Landmark or District.

** Considered for National Historic Landmark recognition.

work the term "Creole" became better known and understood. The author's regional writings include his first book, *Old Creole Days*; *The Creoles of Louisiana*; *Bonaventure*; and *Strange True Stories of Louisiana*. While the surroundings of his house have been changed materially, the Cable residence itself is substantially unaltered, aside from interior alterations.

Private; not accessible to the public

*Girod House
500 Chartres Street
1797, service wing; 1814,
main house

The three-story Nicholas Girod House has walls of stuccoed brick and is surmounted by an octagonal cupola. There are ironwork balconies on the second floors of both the main house and the smaller, two-story service wing. Nicholas Girod, who built the house, was mayor of New Orleans from 1812 to 1815.

Private; only first floor accessible to the public

**Hermann-Grima House
St. Mary's Assumption Church,
Leathers-Buck House,
Pilot House, and
Galliers House

Acadians (Cajuns) arrived after the Creoles, having been displaced from their Nova Scotia homes by the British. Traditionally farmers, the first arrivals settled about St. Martinville (about 100 miles west of New Orleans) and continued in that pursuit. Much has changed in that region; traditional homes are being replaced by new brick models, cars have replaced buggies, and oil brings about "progress." Some remnants of the physical setting remain, however. The Acadian House, built in 1765, invites visitors to explore the past with costumed guides. The Church Congregation, established in 1765, still worships at St. Martin of Tours Church. Crafts are demonstrated at the Acadian Craft Shop and Evangeline Museum houses antiques and memorabilia of the culture.

* Registered National Historic Landmark or District.

** Considered for National Historic Landmark recognition.

Cajun music, presently in a state of revival, is heard on local radio stations and at Saturday night dances. Cajun French rings in local cafes, and recipes have outlasted the area's transition. The people themselves, friendly and proud of their heritage, do most to portray the cultural distinction. Along with the Acadian immigration from 1765 to 1800, Canary Islanders, emigres from France during the French Revolution, also made the district their home (as did some Creole families from New Orleans). Regarding themselves as temporary exiles from Paris, they maintained their former mode of life, causing the village to be called Le Petit Paris. Eventually, salvaged jewels and other belongings were sold, and except for those who married into the wealthier families, these settlers also turned to trade and farming for a livelihood.

The Cajuns' pleasure-loving nature is manifested in the community gatherings, dances, and peculiar sports that are integral parts of bayou life. Of these, the annual pirogue race at Bayou Barataria is the most widely known. On this occasion trappers and fishermen from all over the southern part of the State meet to show their skill in handling boats.

Particularly popular are *fais-dodos*, the big Saturday night dances. The name means literally "go to sleep," possibly because the dancers stay up all night and sometimes fall asleep dancing; possibly because the mothers sing *fais-dodos* (lullabies) to put the younger children to sleep so that they can leave for the dance floor.

Radios, swing bands, and record players have penetrated the Cajun country, but at the genuine *fais-dodos* the music of the fiddle, the accordion, and the triangle is always featured, for the Acadian retains his love for these instruments and often possesses rare skill in playing them.

Religious festivities brighten Protestant as well as Catholic lives. The blessing of the sugar cane crop and of the shrimp fleet are always noteworthy. The first takes place at harvest time, the second in summer just before the fleet sails out into the gulf for the catch. Hundreds of small boats, gayly decorated with flags, tie up at one of several bayou villages. The elaborately designed vestments of the priests, the fluttering flags, and the green water hyacinths, all add color to the scene as the Bishop waves his aspergillum in the direction of the boats.

On All Saints Day, November First, cemeteries throughout the State turn into flower gardens as tombs are decked with bouquets and wreaths. In the

Cajun parishes, the evening assumes an eerie aspect as hundreds of candles are lighted in the grave yards.

The Acadians have always made their living from the land, modified by where they happened to settle. If it was the prairie country around Lafayette, farming was the mainstay with the growing of general produce, rice, or sugar. If one was farther into the bayous, fishing, shrimping, oystering, trapping the muskrat and later nutria, and whatever farming the levees might allow provided the living. It offered a simple, but self-sufficient life.

The following is a list of sites pertaining to the Acadian culture:

Evangeline Oak	St. Martinville. Here is where the Acadians first landed. Also the traditional meeting place of Evangeline and Gabriel of Longfellow's poem. The historic district of St. Martinville is being considered for National Historic Landmark recognition.
St. Martin of Tours Church	1832 Congregation first established in 1765.
Evangeline Museum	Founded in 1925 as a store of antiques and memorabilia of the Acadians.
Acadian House Museum	Built in 1765, it housed an early Acadian family. Furnished with authentic Acadian objects.
Acadian Craft Shop	Replica of early houses where traditional crafts are demonstrated.
Heritage Museum Village	Loreauville. Demonstration of rural history by means of shops and houses.

* **Shadows-on-the-Teche

1831-1834 New Iberia. Example of wealthy landowners' houses in this area. Granted to planter David Weeks in 1792, he selected a site on Bayou Teche for construction of his home. Under the direction of master builder James Bedell the house developed into a two-story porticoed mansion with eight giant Tuscan columns across the facade and a veranda at the second-floor level. Walls were brick and the gable roof contained three dormers and two interior chimneys. A classical cornice encircles the house at the eave line, and the rear facade contains a three-bay arcade surmounted by an open porch, both typical of Louisiana cottages. No major changes were made after the Civil War.
Private

African influence is found pervading all the other cultures from the earliest times. It is as intricately linked with the mansions as with the slave quarters, for their labor made the entire system possible. Rhythms heard in the 1700s are still heard in the music of today. The slaves brought their music and dances with them from Africa, and these continued to play an important role in their lives in the New World. At many plantations, slaves were allowed to give "balls" on holidays, and in New Orleans they gathered on Sundays in Congo Square (now Beauregard Square) for similar entertainments. The music of the bamboula (a drum made of goat skin) and the banza (a crude bass fiddle) was helped out by clapping hands and stamping feet. Later the dancing was prohibited because of its sensual nature, but it did not die — if modern styles are any indication.

Congo Square also is associated with the practice of Voodooism. Originally an African cult in which the powers of evil were worshipped in the form of a large snake, it sprang up wherever African slaves were imported and conditions were favorable. Voodooes of New Orleans were ruled in the 19th century by a series of kings and queens. The most famous was Marie Laveau, who flourished during and after the Civil War. Eventually public sentiment

* Registered National Historic Landmark or District.

** Considered for National Historic Landmark recognition.

drove Voodoo into a secret status, but charms and powders can still be bought, and practices are now blended with rituals borrowed from established denominations.

African slave cooks contributed many of the recipes that now make New Orleans a capital of cuisine. "Free Men of Colour" fought at Chalmette, and the subsequent gradual extension of this term to all black peoples created a stage for later battles, and ultimately shaped a new destiny for the port city. The following is a list of sites and events pertaining to the African culture:

Beauregard Square	Formerly Congo Square. This is where slaves gathered on Sunday to dance and sing.
Preservation Hall	Jazz hall in French Quarter, catering to sincere jazz music fans.
Jazz Museum	In French Quarter. This museum contains displays, historical tapes, and live demonstrations of the history and evolution of jazz.
Bourboun Street	Living jazz nightly!
New Orleans Jazz and Heritage Festival (May)	Mainly Black music, but includes Cajun and folk.

Americans, the late arrivals to this cultural melange, were first represented by the bawdy rivermen and later by administrators of the Louisiana Purchase. Creole society, well entrenched, dictated that they settle in another area, hence the separate Garden District. Many new plantations began under Americans and rivaled those of the "old" South. Civil War battles and forts represent an American struggle, and today's sprawling city is a tribute to American ingenuity and progress, as well as a microcosm of all its ensuing problems.

The following is a list pertaining to the American culture:

**Garden District (American) 19th and 20th centuries	New Orleans' Garden District has remained a fashionable residential section since the 1830s. Homes along its streets represent all styles of architecture popular from
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** Considered for National Historic Landmark recognition.

antebellum times to the present. Examples of Greek Revival, Georgian, Southern Colonial, Chateausque, Gothic Revival, late Victorian, Steamboat Gothic, and even contemporary dwellings which conform to their surroundings are evident. Constructed generally of brick, houses in the district are covered with plaster or stucco on the exterior.
Multiple public/private

All Private

- 2340 Prytania (oldest house) 1839
- 1448 4th Street, Short House 1849
- 1415 3rd Street, Robinson House 1865
- 1331 3rd Street, Musson House 1850
- 1131 1st Street, Payne House 1849
- 1239 1st Street, Brenard House 1857
- 1331 1st Street, Morris House 1869

Chalmette National Historical
Park 1815

Chalmette National Historical Park commemorates the Battle of New Orleans between American and British forces, January 8, 1815, in which Andrew Jackson won the greatest American land victory of the War of 1812. This victory, which proved to be the impetus for the rise of American nationalism, assured continued American jurisdiction over the Louisiana Territory and the ratification by both parties of the peace treaty. The park embraces a portion of the ground over which the battle was fought. The land is crossed by the Rodriguez Canal, the line of decisive action, where a series of historical markers identify the various sites of important battle events. A 100-foot high monument commemorates the action and memorializes the American soldiers who died in the battles here. Also, colonial home operation.

Federal/non-Federal



*Fort Jackson
1822

The failure of Fort Jackson, citadel of the lower Mississippi River, to stop the Union Navy, caused the Confederacy to lose New Orleans. Fort St. Philip, on the opposite bank of the Mississippi River, also played a part in the fight against Admiral David G. Farragut's fleet in 1862. An active military post until 1920, Fort Jackson is a bastioned pentagon of brick and, except for a few late 19th-century additions, it appears to be little altered from its original state.

Parrish park

*Fort St. Philip
1795

Fort St. Philip was erected by the French in 1795, during the administration of Governor Francisco Carondelet. When Admiral David G. Farragut attacked the fort in 1862, the Confederate-occupied post was garrisoned by 700 men. Fort St. Philip, with Fort Jackson, surrendered to the Union forces 10 days after the attack had begun. The fort was not regularly garrisoned after 1871. Today the site is in a primitive state and is difficult to reach.

This fort played a part in the battle of New Orleans and at that time was partially manned by Baratarians.

Private

Plantations (Creole, American, and African) symbolize the pre-Civil War economic system for Creole, American, and African cultural groups. The homes were built along the Mississippi River or major bayous, because the drier land was there, suitable for farming and the easiest transportation.

Before 1795, the main crop was indigo, and later, sugar cane. Cotton was better suited for higher land than found in this area.

Plantations reflect the life style of their former tenants. Some are as elaborate as the owner's vast fortunes could make them; some are rather simple. Each plantation has a unique personality, but all were united because they depended on large-scale farming that required many workers. Remoteness, large families, and extended visits by friends all required that a plantation be self-sufficient. Owners lived somewhat like feudal barons.

Some were like small factory towns of a later period. All date before 1865, because, with the liberation of the slaves and the economic and political upheaval of the postwar period, the economy that produced these mansions crumbled.

Today only a few plantation homes have working farms. Some houses fell into decay as crops failed, and the land was sold to factories. Oil refineries, chemical plants, sugar refineries, shipbuilding works, and other industries have consumed the land along the river for the same reason the plantations began there (see attached map). Some houses burned; some were swallowed by the river as it changed its path; others were torn down; and others simply decayed from neglect. None of the houses open for tours is still owned by the family that built it.

The following is a list of plantations:

**Destrehan 1780s	Built by the Creole planter and legislator, Jean Destrehan. Lafitte was a frequent guest of the plantation.
San Francisco 1849	Victorian house of Gothic architecture with wall and ceiling paintings by Canova, painter of the St. Louis Cathedral. Furnishings from the 18th century.
Texcuco 1850s	Raised cottage design-style brought in from the West Indies.
Houmas House	Back House 1800. Front House 1840. Named after the Houmas Indians that had a settlement here. Grounds and outbuildings are intact and the house is furnished with rare antiques.
Hermitage 1810	Named after Andrew Jackson's home.
Belle Alliance 1841	
Edward D. White House 1800	The White family home, where Justice White was born in 1845. Furnished with 18th century furnishings.

** Considered for National Historic Landmark recognition.

Oak Alley
1830s

This is one of the most beautiful plantations in Greek revival style. Period furnishings and excellent grounds.

**Evergreen
1840

*Homeplace
1801

Homeplace Plantation House is a large French Colonial, two-story, raised cottage. A wide veranda or gallery surrounds the second floor. The ground floor walls and the piers supporting the gallery are brick, while the second-story walls are cypress timbers filled in with a mixture of clay or adobe and Spanish moss. Still in a good state of repair and very little altered since the time of its construction, Homeplace is considered to be one of the two best examples of the raised cottage still extant (the other is Parlange Plantation House).

Private; not accessible to the public

Magnolia Lane
1784

The other best example of the West Indies cottage. First plantation to grow indigo and has an original slave cabin and other outbuildings. Jean Lafitte traded slaves here.

Derbigny
1840

Louisiana raised cottage design that is similar to some in the Garden District.

Seven Oaks
1830s

Example of plantations left to the elements and encroachment.

*Parlange Plantation House
1750

The Marquis Vincent de Ternant built the Parlange Plantation House, and upon his death the property passed to his wife, who later married Charles Parlange, a French naval officer. The house is one of the two best examples in the United States of a French Colonial plantation house of the two-story,

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raised cottage type. Ground-story walls are brick and the upper story is made of cypress timbers filled in with clay or adobe and Spanish moss. Prior to 1860 the hip roof was extended to the rear of the house and the rear gallery added. The house has never been restored.

Private

Barataria has Bayou Acadian culture and mixed settlers from the Caribbean and South America.

The following is adopted from Betsy Swanson's "History of the Lafitte-Barataria Region," prepared for the Jefferson Parish Environmental Development Board, May 16, 1973.

The name Barataria appears on maps as early as 1720, 2 years after the founding of New Orleans. They identify as the "Isle of Barataria" an area encircled by Bayous Villars, Barataria, Rigolettes and Perot, and Lake Salvador. A colonial chronicler of Louisiana associated the "island's" name with the fictional Barataria in Cervantes' *Don Quixote* "because it was enclosed by those lakes and their outlets, to form almost an island on dry land, as was that island of which Sancho Panza was made governor."

However, it has often been suspected that the region's pirates inspired the name. The French word *barraterie*, and the Provencal equivalent *barataria* mean any type of fraudulence, illegality, or dishonesty at sea.

Records show that from the 1730s, the French exploited Barataria for its oak and cypress for ship construction and before 1740, at least two canals, those of Claude Joseph Villars Dubreuil and Jean Baptist d'Estrehan des Tours, connected Barataria waterways with the Mississippi River to facilitate removal of lumber from the swamps.

The region was first settled by the French Acadians in 1755, and they found the environment favored pursuits such as fishing, trapping, and shrimping rather than their more traditional farming, but that the land could provide a livelihood, as it still does today. By 1781 Spanish Governor Galvez had located a group of Canary Island settlers in Barataria, providing them land and farming equipment. During the 19th century highly productive sugar plantations were located along the bayou. Also, many nationalities arrived via the Caribbean Islands and South America, settling here to fish and trap or to smuggle goods up the bayous brought into the area by privateers.

It was not until 1805 that Jean Lafitte organized these smuggling operations, combined with privateering. As a multipartnership with a definite hierarchy, the empire grew steadily until 1813. Lafitte's people, many recruited from the area's inhabitants, smuggled their contraband with impunity, because the citizens of the territory showed complete willingness to do business with the Baratarians, and the government was powerless to stop them. Besides, the land provided intricate, canopied waterways ideal for the purpose.

With the passage of this era, previous pursuits have returned and, along with oil exploration, sustain present inhabitants. Bayou villages still exist, ageless to the outside eye. Pirogues still ply the swamps where wildlife seeks refuge. Indian shell middens remain where smuggled goods were stored and auctioned, and a few plantations with sugar mill ruins indicate farming was tried even here. Cruise boats, leaving Canal Street Dock in New Orleans, take visitors past the Barataria villages. While glimpsing the rustic flavor of the lower regions, passengers also view the ongoing dredging, draining, industrial buildup, and subdividing that will eventually erode the traditional Baratarian culture.

Jean Lafitte Marsh. During Lafitte's time, dozens of bayous were used to haul contraband from Grand Terre headquarters to the Mississippi River. Four of these waterways are within or adjacent to the "Lafitte marsh": Lake Salvador, Bayou des Familles, Bayou Barataria, and Bayou Coquilles.

Bayou des Familles. This small bayou probably was used many times by the smugglers. It joined Bayou Barataria to the German Coast (i.e., plantations on the Mississippi above New Orleans). At present, all or part of it is choked with water hyacinth. Nonetheless, it lends itself well to historical interpretation, including pirogue building and poling, illustrating one segment of Lafitte's complicated transportation system.

At the point where Bayou des Familles, Bayou Coquilles, and State Highway 45 all come together is a large Indian shell mound, partly damaged by quarrying. Local tradition tells us that here on this raised dry ground, Jean Lafitte held auctions for the plantation owners, etc., along the Mississippi.

Bayou Barataria. This major bayou, like Bayou Lafourche to the west, was undoubtedly a major waterway for the Baratarians. Today it is part of the Intracoastal Waterway, with a large tonnage of shipping moving on it.

Bayou Coquilles. This small bayou originally joined Bayou des Familles to Lake Salvador. It no doubt offered an alternative route during the smuggling period. It is today a "dead" bayou, being cut off from Lake Salvador by the Kenta Canal and barely visible.

Grand Terre Island. Grand Terre is the most important single site concerning the history of Jean Lafitte and the Baratarians. In the 1805-15 period, Grand Terre provided the headquarters for all the operations and the port for all the trips. The maximum number of people employed is not known, but for the Battle of New Orleans, Lafitte was able to offer well over 1,000 men.

No trace of the establishment remains on the surface of the ground today. The only description yet found was written by a naval officer in 1814: "Their establishment on shore, which consisted of forty houses of different sizes, badly constructed, and thatched with palmetto leaves..." While not very impressive, this was the nerve center of what must have been America's largest business enterprise to that date.

Grand Isle. Some of the Baratarians lived on Grand Isle, adjacent to the Grand Terre headquarters. Louis Chigizola, one of Lafitte's leading officers, apparently lived there even before Lafitte came from Santo Domingo, and the family still lives there today. The oak trees that shelter the village from hurricanes are believed locally to have been planted by him, and the village cemetery contains his grave as well as the tombs of other early settlers. Possibly Louis' house (ca. 1850s) still stands, although this must be verified.

The Temple. Of the several storehouses that Lafitte had throughout Barataria, the site at the Temple is the only one that can be documented. It was located on Indian mounds or shell deposits (thus its name) at the tip of the peninsula between Bayou Perot and Bayou Rigolettes (Archeological Site No. A-17), and is identified on the United States Geological Survey "Barataria" quadrangle as Little Temple. It can be reached only by boat. Lafitte recorded that he had a storehouse at Petit Temple and another at Big Temple. While this site is believed to be Petit Temple, it must be noted that an 1818 map simply identified this place as the Temple. On the eve of the Battle of New Orleans, General Jackson ordered the installation of a battery at this location, with Jean Lafitte assisting the officer given this assignment; this was known simply as the Temple Battery.

Today the Indian developments have been completely destroyed. Oil storage tanks are said to stand on the site and nearby an oil well has been dug.

Barataria and Lafitte Villages. The village of Barataria is located at the confluence of Bayou Villars and Bayou Barataria, extending down both sides of Bayou Barataria. Nearby are the three historic sites next listed. The area still gives an idea of former days, although a new subdivision has been planned south of Barataria on the island. The village of Lafitte is not far beyond, and is south on Bayou Barataria.

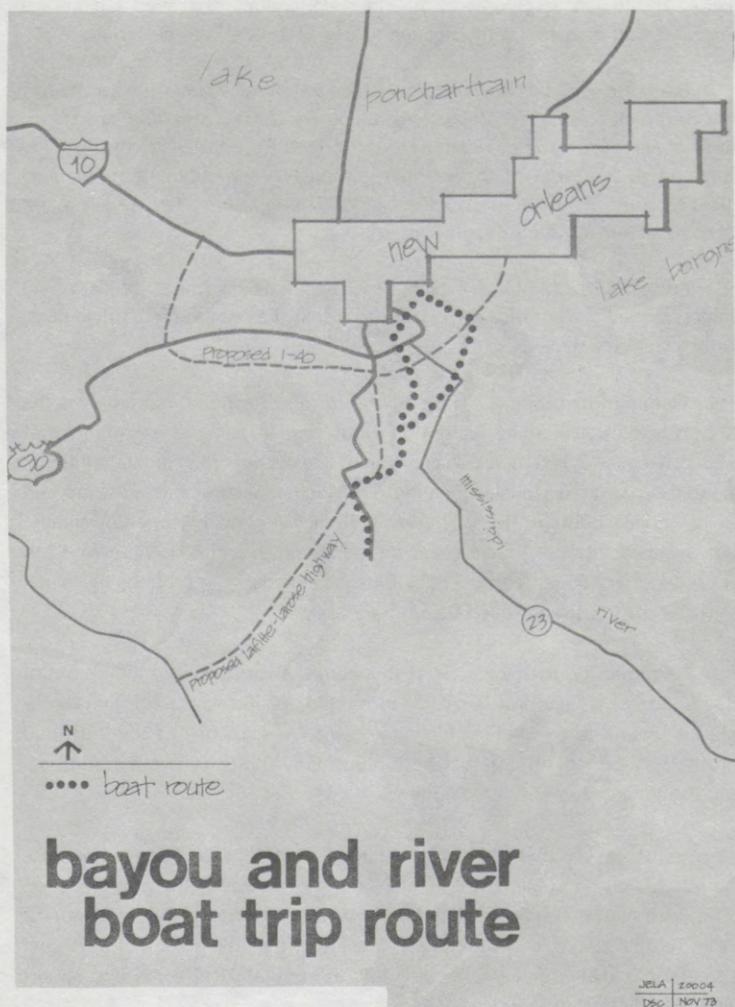
Sugar Mill Chimney. Here, the Berthoud brothers, William and James, owned a plantation with 155 slaves that they housed in 31 dwellings. Only a chimney remains.

Fleming Plantation. Next to the former Berthoud Plantation is the Commagere, the Fleming Plantation House and its extensive ground, that was originally 3,700 acres. The present owner of this large, rambling, wooden structure is Douglas Fleming. The original parts of the house are said to have been built in 1826. The lower floor was probably open originally, but is now enclosed. A gallery, facing the bayou, has also been enclosed. A large wing was added about 1836. Extensive landscaped grounds lie to the south of the house and touch Bayou Barataria.

Berthoud Cemetery. Near the above two sites, on the shore of Bayou Barataria, stands a large Indian mound. Whites have used the vicinity of this mound as a cemetery for many years. At least one of the Berthoud brothers is buried on top of the mound. On All Saints Eve a traditional candlelight ceremony is observed here.

Jean Lafitte wrote that in 1811 he erected "a shop" at the "Big Temple." He stated that the Temple "was an old mound of oyster shells where auction sales were held one mile from Barataria." With reference to the discussion of Petit Temple above, it is tentatively concluded that the mound at Berthoud Cemetery is the "Big Temple" and that as early as 1811 some Baratarians were already settled at today's village.

Lafitte Village. Located on Bayou Barataria at the confluence with Bayou Rigolettes and about 4 miles below Barataria village, is another old village, and some of its earliest residents are descendants of Lafitte's people, especially the Perrin family. The Lafitte Cemetery is built on an Indian midden, but the midden is barely visible today.



Voyager and Mark Twain River and Bayou Cruise. This 5-hour cruise runs daily at the cost of \$6.00 for adults and \$3.00 for children. It goes up the Mississippi River to the Algiers locks, through the Intracoastal Waterway to Bayou Barataria, down to the Barataria village, then back up to the Mississippi via the Harvey Canal. In 1972, over 33,000 people took the Voyager trip. Probably double that went on the Mark Twain, a much larger boat.

Evaluation

Strategically located at the mouth of the Mississippi River, New Orleans and its environs were from the early 1700s to 1815 a cockpit of imperial rivalry between France, Spain, England, and later, the expanding United States. To this region came people bearing the banners of the competing powers — colonists, soldiers, and political refugees cast from their homes by the shifting fortunes of that rivalry. Here, too, ships brought slaves whose labor produced field products that fueled the booming commerce.

Thus did New Orleans become a crossroads of culture during that dynamic century. It was a cosmopolitan place where language and way of life were different from bayou to bayou, from village to village, from street to street.

The people were Creole, German, Cajun, and African. They were tied together by economic interdependence and by the delta environment — a region of both constraints and opportunities. Yet they were culturally diverse because of different origins. Starting with its inherent culture pattern, each group shaped and was shaped by the natural environment, a process compounded by interaction between the groups themselves. From this dual process evolved a cultural mosaic that has received international interest: many of its sites are already recognized as established national historic landmarks and its traditions are well recognized by abundant foreign tourism. Today elements of that cultural diversity still exist — in a bayou village, in the music of living languages that hark back to the 18th century, and in the rhythms that liven the streets of the city.

In no other part of the United States are so many representations of cultural diversity to be found: Sites and buildings to be saved; lifestyles to be perpetuated. All of this is threatened as sustaining environments — man-made and natural — tremble before the impacts of technology and burgeoning development.

But how can this cultural resource be communicated? Can Jean Lafitte be used as a symbol? Reading the titles in a Lafitte bibliography, one finds

romantic descriptions of Jean Lafitte: Gentleman Rover, Pirate, Patriot, Smuggler, Privateer, and Sea Robber. Was he all or any of these things?

Lafitte himself admitted fully to being a smuggler. At that time in Louisiana, and earlier in the French and Spanish regimes, the populace looked upon smuggling as a proper way of life. Only in the eyes of the new American government was smuggling a crime.

Lafitte denied emphatically that he was ever a pirate, in the strict meaning of the word. He ensured that all his ships' captains were licensed — by Carthage, and his policy was to attack only Spanish and British ships as authorized. Even the Continental Congress of the United States at one time authorized privateering and when recommending pardon for the Baratarians, General Jackson was careful to call them "privateers." The Old World had its privateering heroes, such as Sir Francis Drake, and Lafitte was undoubtedly the greatest of these to be born in the New World.

The matter of Lafitte's smuggling large numbers of slaves is disturbing to today's reader. Yet Louisiana was then a slave-based culture, and the sugar plantations welcomed his human contraband. Lafitte himself never purchased slaves in Africa; the people his men captured on the high seas were already slaves. Also, in his last years (and long before the Civil War) he apparently set his own slaves free; his wife became active in the abolition movement; and Lafitte recognized that the institution of slavery could not endure. In this, he was far ahead of many of the good citizens of America.

Lafitte's role in the Battle of New Orleans also provides a tool toward understanding the people of New Orleans and Louisiana. These were French and Spanish colonists who happened now to be under an American administration whose permanency was threatened by the British. Claiborne and Jackson had to force the citizens (through martial law) to give support. With Lafitte, they bargained.

But what is more important, Lafitte contributed in a major way — men and material — toward Jackson's success in the Battle of New Orleans. An authority on this subject has stated that Jackson probably would have won the battle without Lafitte's assistance, but that the British probably would have won had Lafitte contributed his resources to them.

In the end, the Battle of New Orleans, participated in by the Baratarians as well as by others, became the turning point in the people's attitude towards their new government (then only 11 years old). For the first time, they felt like Americans, and a new era began.

In summary, it may be concluded that Lafitte and the Baratarians provide the means (the handle, so to say) of reaching out toward and into the culture, and way of life, of the people of Louisiana.

SUMMARY EVALUATION OF THE JEAN LAFITTE MARSH AS A PARK SITE

Assuming a park would preserve and interpret the multiple resource values of Barataria, the present site of authorized Jean Lafitte State Park is well suited to these purposes. Within it or in its immediate vicinity are all the following:

Access

State Highway 45 passes along the higher, east side of the site, and the proposed realignment of this route will provide even more efficient access both from New Orleans and also from western points. Boat access from New Orleans via Bayou Barataria is also provided, and travelers may experience this more historic mode of transportation while enjoying stories of the land en route. Existing waterways into the marsh via canals may be used to provide closer exposure to its scenes, perhaps via Lafitte skiff. Narrower channels can be explored by pirogues. Walkways along present roads and canal banks allow another mode of entry, as could boardwalks.

Developable Sites

Dry land above hurricane flood levels is available on natural levees along Bayou des Familles and Bayou Barataria.

Basically Undeveloped Area

The Mississippi Delta contains no pristine remnants — all areas are crossed with canals and pipelines and pocked with drilling channels. But this site is developed as little as any, and less than most. Few people reside within the area or live off it. A few houses are clustered in the northern portion of the Segnette Waterway.

Varied Natural Resources

Greatest diversity in the coastal zone occurs in its midsection, just where this site is. Too, the site includes a transect of all life habitats found in the area from bayou to natural levee to swamp to marsh to open water — so that there is also an abundance of plant, animal, and bird species compared to many areas. Fresh-water marsh communities, cypress-tupelo gum swamps, live-oak forests, and mixed lowland hardwood forests are all represented.

Varied Historical and Cultural Resources

Cajuns live nearby, in Barataria. The Fleming Plantation is there, too, with existing houses and sugar mill ruins. Shell mounds occur, yielding some pottery fragments. Only 10 miles away is New Orleans and its many historical monuments, including Chalmette National Historical Park.

Minimal Threats

Oil has been searched for on the site, but not found. The land is subsiding, but at rates moderate for the region, and the possibility of spreading water into the area from the Mississippi River exists. Land development is unlikely unless levees are constructed through the site, but alternate routes do exist. No roads are proposed to go through the site.

Integrity of Habitat

Animal species live basically in their natural elements within the site, although exotic nutria are present, and the canals have affected the flow of water and their banks have allowed shrubs and small trees to grow in what would otherwise be marsh. Nevertheless, salinities are in balance and the vegetation is generally stable. Environmental degradation due to intrusion of saline waters and subsidence is not excessive. Erosion remains a concern along the eastern shore of Lake Salvador, however, and degradation is inevitable in the long term under present land management.

Association with Lafitte

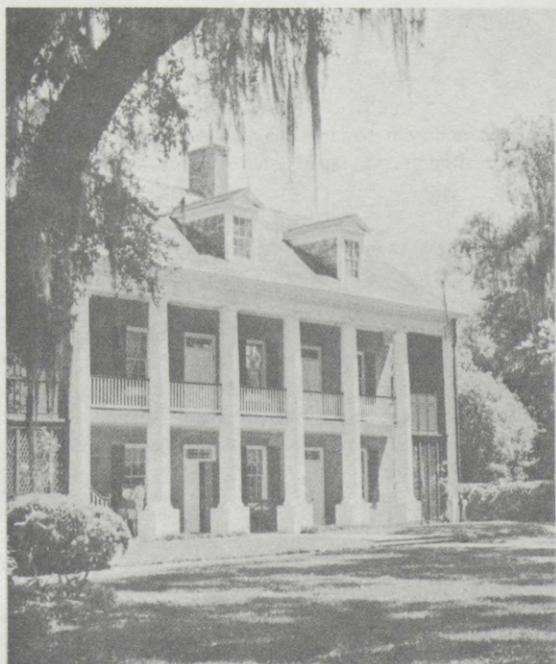
Lafitte used shell mounds, bayous, and villages in and near this marsh, and although no structures remain from those days, there are several in New Orleans.

Availability of Interpretive Demonstrators

Someone will have to pole the pirogues, pilot the Lafitte skiffs, and conduct tours through the plantations, and it is fortunate that a pool of potential personnel with appropriate cultural backgrounds now reside in adjacent towns.

Proximity to Source of Visitors

The site is only 10 miles from the New Orleans metropolitan area where over a million people live and over 3 million visit annually. In the event a bridge across the Mississippi River is constructed near or at the foot of Louisiana 45, proximity would be enhanced. Projections predict a doubling of population in the corridor served by that route. There is a need for a contact point at which a volume of regional tourists can be provided with information and interpretive services.



ALTERNATIVES

Given the complex of largely uncoordinated and mainly destructive social processes acting upon New Orleans and delta-region environments — cultural and natural — the general premise is:

less preservation coordination means more destruction;
more preservation coordination means less destruction.

The alternatives treated below occupy four points on a scale that ranges from no park proposal, and therefore no park instrument affecting preservation coordination, to a strong park proposal that could promote preservation through both a sufficient land base and an alliance of administrative instruments that would cross governmental jurisdictions and the line dividing public and private sectors.

ALTERNATIVE 1: NO PARK

Under this alternative, there would be no administrative instruments activated to effect a park in the Barataria region. The concept of a national cultural park would die by default. This inaction would not instantly abolish cultural and natural resources. In the near term, isolation would continue to protect portions of the natural resource base. Those cultural resources now under diverse administrative control could well survive for a fairly long period; but the erosion of the natural base would inevitably affect them.

Certain natural values could be protected in the Atchafalaya Basin, and recreational opportunities could be provided there and in Barataria by an organization such as the Louisiana Wild Life and Fisheries Commission.

No costs would incur to park-managing agencies; nor would any benefits — in the sense that such agencies have an active preservation mission.

The advantages of having a park base for synthesis and interpretation of cultural values would be lost. Tourists visiting New Orleans would continue largely to miss its multi-cultural potential. Nowhere would they find conveniently assembled and authentic information on resources and tours that would allow them to choose and sample the full spectrum of delta-region resources.

Interest in preservation of cultural resources would not be further crystallized; public and private efforts that have been expended toward a cultural park so far would have been in vain.

The opportunity to perpetuate the natural environment of the Lafitte park site — both as an intrinsically valuable natural area and as a setting for historical and cultural experiences — would be lost. The use of this area as an exemplar of enlightened management of a fragile, threatened environment — with potential multiplier effects throughout the delta region — would be foregone. There would be no symbol of preservation activity (as opposed to headlong development) upon which public opinion could focus.

Finally, lacking a park-agency land base, there would be no rallying point for region-wide interlocking and coordinating of private and public preservation interests. Under increasing development pressures, divide and conquer would be the rule of the region.

ALTERNATIVE 2: JEAN LAFITTE STATE PARK

A State-operated park on the already authorized site (about 3,000 acres) would incorporate the most important segment of marsh and would provide a setting for elements of the Lafitte story. Administration would be solely by the State, with probable support from such programs as the Federal Land and Water Conservation Fund.

Development as proposed by the Louisiana State Parks and Recreation Commission would fulfill several functions and provide facilities for many activities: interpretation of the natural marsh and appropriate elements of the Lafitte story, picnicking, overnight cabins, camping (primitive, trailer, and group), arboretum, animal enclosures, boat docks, and marina. Boardwalks would provide access into watery zones, and there would be a pirate's island, tower, and museum in the central core.

Such a park would be valuable, and it is fortunate that the people of the region foresaw the need for parklands and pressed for the authorizing legislation. It is also fortunate that they chose the best acreage for a park and resisted the temptation to develop the land with roads, levees, housing, and industry.

Positive benefits of such a park would be the provision of much-needed recreational facilities for residents of New Orleans-Barataria, opportunity for

nature study, deferment of the inevitable fate of the immediate ecological resource, and an introduction to the historic Lafitte on a pertinent site.

The limited scope of the proposal, however, indicates that many opportunities would be lost or met only in part. The site lacks the natural boundaries and size that would ensure maintenance of the natural marsh environment and avoid esthetic disturbance from technological and development pressures. Neither would the State park proposal, standing alone, provide the institutional mechanisms to extend environmental awareness and encourage enlightened land management in the delta region, including preservation of cultural resources.

Without a region-wide approach to land-management problems, the integrity of the marsh would be eroded incrementally and, in time, the park area would be lost to subsidence. Moreover, the Lafitte marsh area alone does not have sufficient cultural resources to merit a cultural park designation. Lacking strong ties to substantial cultural resources elsewhere in the region, the State park would be basically a natural/recreation area with tertiary historical/cultural associations.

In summary, a Lafitte State Park would be better than no park at all; it could be viewed as a first-stage element of a later extended-park concept. But this limited-scope proposal would not have the clout necessary to spur region-wide preservation activities; it would not serve as a synthesizer for delta-wide visitor and tourist use; it would be a local park resource unable to meet cultural park criteria — even locally.

ALTERNATIVE 3: NUCLEAR JEAN LAFITTE NATIONAL CULTURAL PARK

A 3-unit area of the National Park System, operated by the Federal Government, would be established under this alternative. The principal land base would be some 7,000 acres of the Lafitte marsh area, including the proposed State park site. The integrated units of this park would serve the following functions:

The Barataria sector:

Focuses on the man/environment interrelationships of the deltaic region.

Natural history/aboriginal backgrounds.

Barataria/Lafitte theme center (privateering-smuggling, commerce, subsistence).

The deltaic region today, including tangible and intangible survivals, the value of estuarine areas, threats to both natural and cultural diversities.

This alternative would incorporate a larger marsh area than alternative 2, thus strengthening possibilities for maintenance of natural-area integrity, at least for a while. The expanded marsh area-and-environs would include additional historical/cultural sites associated with Jean Lafitte in the town of Barataria. The Cajun fishing community on the north shore of Bayou Barataria would be a private-use enclave with, the community willing, a "cultural protection zone" status. The Fleming Plantation and associated structures would be incorporated, as would the Berthoud Cemetery. There would be no camping or active-recreation facilities provided. Rather, the entire area would be used for cultural theme interpretation, nature study, conducted marsh tours, and the like. The Louisiana Wild Life and Fisheries Commission would be encouraged to enlarge the Salvadore Wildlife Management Area to include Couba Island and those undeveloped zones north of the proposed boundary, thereby increasing the natural buffer zone without reducing the area's value for hunting and fishing.

French Quarter visitor facility:

In center of Creole-culture resource.

Serves as coordinating center for visitors (tours, literature, orientation programs, etc.) and focus for liaison with other cultural-resource administrators.

The facility in the French Quarter would dispense information on the national cultural park and on thematically associated cultural resources administered by others. Envisioned would be a cooperative relationship with other agencies that would provide some thematic direction on a region-wide basis. Tours of the marsh area would be coordinated from this center.

Chalmette National Historical Park:

Setting for the Battle of New Orleans story.

Strong emphasis on the battle's unifying influence in forging an *American* army from a culturally diverse population; participation of Baratarians symbolizes this unity:

Chalmette would remain much as it is, though administratively reorganized to reflect its integration within the larger park operation. Interpretation would be restructured for more emphasis on the Lafitte period when New Orleans was "Americanizing" – especially in the context of the Battle of New Orleans.

This scheme would provide more park values – greater land area for the natural sample, more cultural-historical sites, and enhanced interpretation. It would, however, be more costly in terms of capital investment and operations than either of the previous alternatives. It would also remove more land from potential development, but little of this land is appropriate for development.

The major shortcoming of this nuclear park proposal is that it is a limited-scope approach that would be too isolated administratively and operationally to act as a catalyst for region-wide preservation coordination. Ties with other agencies and institutions would be tenuous and voluntary, and would not constitute an institutional fabric able to withstand development pressures. As with the previous alternative, the marsh would eventually sink below the park.

ALTERNATIVE 4: EXTENDED JEAN LAFITTE NATIONAL CULTURAL PARK

This alternative would build upon the nuclear base described in alternative 3. The additives making up the extended park would include: associated but non-National Park Service administered cultural resources; an institutional framework known as the Jean Lafitte National Cultural Park Board, which would integrate nuclear and extended cultural resources by administrative association and by region-wide coordination of interpretive programs and visitor-use arrangements; and a Delta-Region Preservation Commission that would provide a point of consolidation for all groups concerned with environmental conservation.

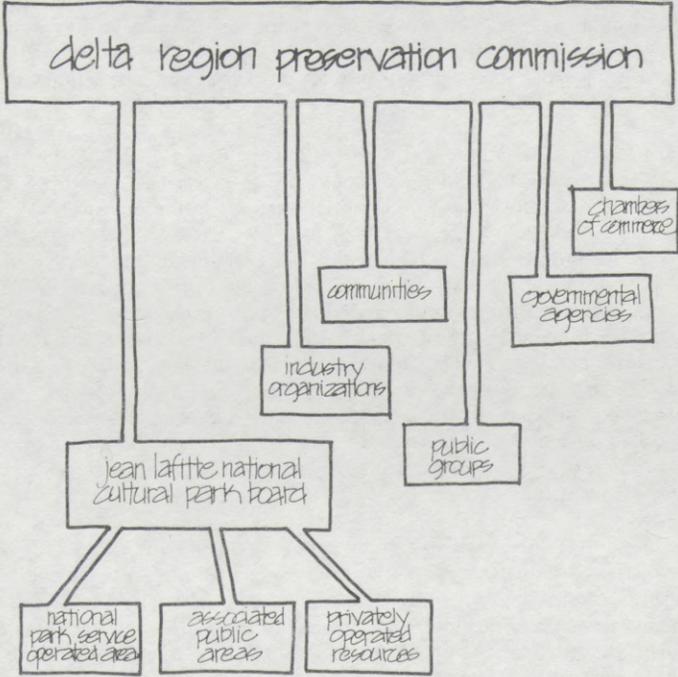
Groupings of resources in the extended/associated category include:

French Quarter and Garden District of New Orleans.

Forts in the delta region.

Plantations.

EXTENDED CONCEPT OF JEAN LAFITTE NATIONAL CULTURAL PARK



Acadian towns and villages (St. Martinville area).

Cultural events and happenings.

These resources — tied together by orientation programs, tours, literature, etc. — would be the exploration hinterlands of the extended national cultural park. Each element of this category would be interpreted to emphasize singular sub-themes of history, economics, culture, architecture, political-military affairs, etc.

Interpretation would not isolate these singular themes from the general interpretive context. Rather, it would utilize specialized resources for specialized interpretive functions catering to various visitor interests.

Interpretive programs would be holistic: cause and effect, process, and the sweep of historical/cultural events spawned by the cosmopolitan settlement milieu. Such treatment would encourage both backward and forward projection from the critical 1800-1815 historical period. In this way, valuable resources that might not have been prominent at that time (but spawned that period or grew from it) could still be associated. This period flexibility would encourage a broader preservation constituency associated with and supportive of the national cultural park, and it would carry interpretation forward, through cultural/historical evolutions, to today's living cultural scene.

Management of the extended cultural park would center in a Cultural Park Board, a professionally staffed consortium of all cultural resource owners, managers, sponsoring groups, and associated cultural communities. Board headquarters and staff offices might be provided in the National Park Service French Quarter facility, or, if more appropriate and expressive of the associative spirit of the undertaking (with the National Park Service a peer, not a directing associate), Board offices could be located as a separate establishment. Functions of the Board and its staff would be to provide coordinating direction of operations, training and technical assistance to associates, interpretive integration, and criteria and standards to ensure quality of operations and integrity of resources.

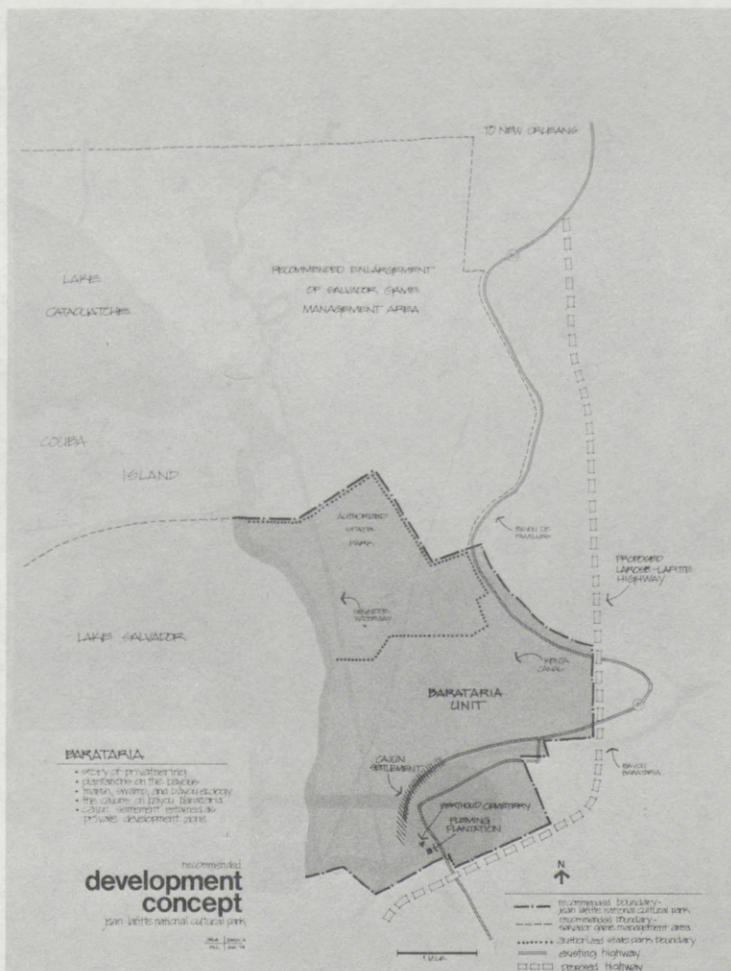
Benefits of the Board management concept are obvious in terms of visitor use. All significant delta-region resources would be part of the national cultural park, and visitors would have a central reference point for information, interpretation, and use of the resources. Associate members of the national cultural park would assume obligations upon becoming members (e.g., adherence to standards and criteria), and they would reap great benefits in terms of associate status in a national park complex, with shared talent pools and technical assistance, and coordinated visitor-use programs to protect the resources and make them known and available.

Association with the national cultural park would of course be voluntary. The Board's influence and value as an administrative mechanism would not be based on line management power. Rather, it would serve as a pool of talent and physical-resource capability offering direct benefits to all associates. Associates would assume their obligations because of these benefits, and they would remain associates to ensure continuity of these benefits. Thus the institution would perpetuate itself as a self-reinforcing functional entity, not as an instrument of power. Should this ideal be perverted, associates would drop out and the institution would fold.

The Delta-Region Preservation Commission would include representatives of the National Cultural Park Board; the larger cultural and environmental preservation community of the New Orleans region; Federal, State, and local governmental bodies having preservation and environmental management responsibilities; and business and industrial interests. The Commission's charter would give it responsibilities and authorities adequate to ensure enlightened public participation in regional environmental management decisions that would affect cultural resources or their natural settings. The Commission would be an advisory body, not a governing one: Its power as a watch-dog and advisor would stem from the enlightened public opinion that it would generate and its influence as a coordinator of that opinion to the end of enlightened decisions. Essential to this mode of functioning is a paid professional staff to keep track of regional developments, to furnish the Commission with useable data on those developments, and to perform the communications liaison that would take the Commission's positions and advisories to the public forum. (A sort of loosely organized "United Nations" for the delta.)

The Commission is an idea waiting to be filled with people. Existing agencies, groups, and individuals whose like interests in environmental conservation now result in fragmented effort would, through the Commission, have a place to bring those interests together and to unite their efforts. The Commission would not be superimposed upon these existing elements; it would be made up of them. This would be the institutional arrangement that could grapple with the level of problem represented by the ongoing subsidence of the Barataria area. Lacking such a level of coordinated concern, the national cultural park, even in its extended/Board form, would be like a tail trying to wag a dog. The Commission, then, becomes the essential institutional mechanism that lends the aura of long-term feasibility to the national cultural park concept.

Both the Park Board and the Regional Commission would need to be treated in any legislation relating to the Jean Lafitte National Cultural Park. Basic authorization for such institutions would have to provide for their funding subsidization to allow their professional staffing.





**RECOMMENDATION: EXTENDED JEAN LAFITTE
NATIONAL CULTURAL PARK**

Alternative 4 is the most feasible alternative. In summary review, here are the weak-to-strong evaluations of the alternatives:

ALTERNATIVE 1: NO PARK

An endorsement of a status quo marked by destructive dynamics. Acceptance of the inevitable loss of the Mississippi Delta Region as a cultural context and as a rich, life-supportive environment (unless other institutions can reverse present processes).

ALTERNATIVE 2: JEAN LAFITTE STATE PARK

Would serve some park needs of the localized region and improve quality of life during the interim until regional resources are exhausted. Then it would subside — literally and figuratively — with the rest of the delta.

ALTERNATIVE 3: NUCLEAR JEAN LAFITTE NATIONAL CULTURAL PARK

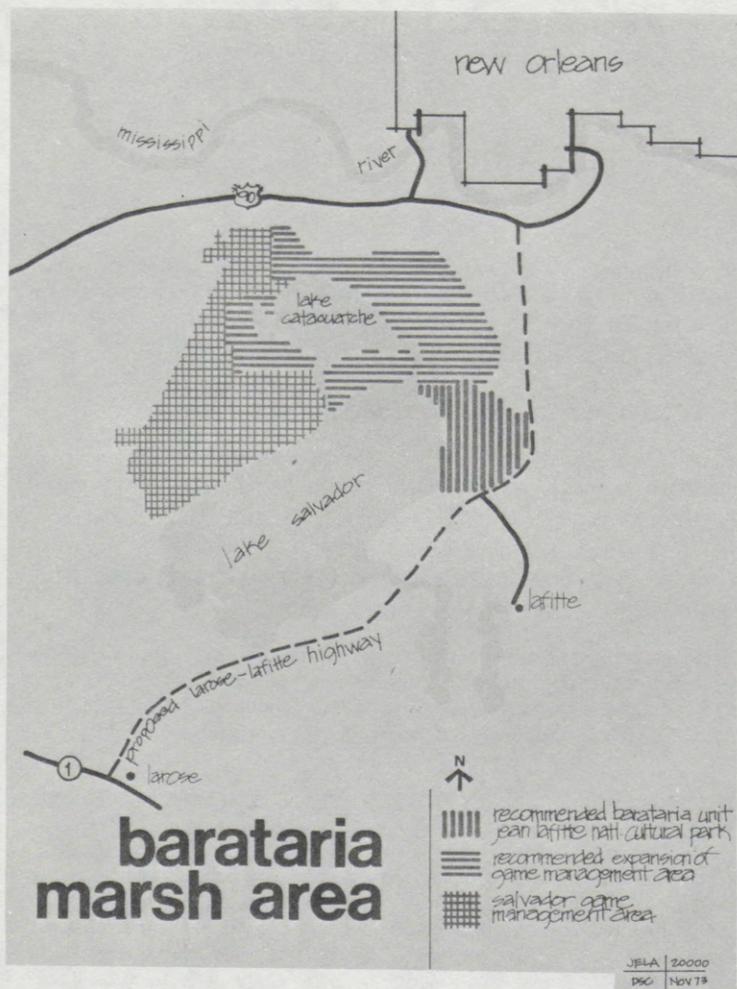
Would accomplish the same basic goals as the State park, but in greater depth and for a wider audience, during the remaining life of the delta. Then it too would die. Because national parks are intended to exist in perpetuity, foreseen termination of this park concept makes it infeasible.

ALTERNATIVE 4: EXTENDED JEAN LAFITTE NATIONAL CULTURAL PARK

Recognizes the need for a region-wide systems approach to environmental conservation — cultural and natural — in the delta region. Provides land base and institutionalized constituencies adequate for such an approach and adequate for visitor use of preserved resources. Cost outlays would be significant, but reasonable considering the benefits the national cultural park would generate among its associates and regional sponsors.

Accordingly, alternative 4 is the recommendation.

It is further recommended that, should Departmental and Congressional approval of this proposal be forthcoming, that there be initiated immediately a new-area study with master plan, environmental assessment and impact statement, and subsequent legislative support data. Tentatively, these studies have been programmed for Fiscal Year 1974.



barataria marsh area

EVALUATION: EXTENDED JEAN LAFITTE
NATIONAL CULTURAL PARK

To qualify as a unit of the National Park System, an area must pass three "tests": it must have national significance, suitability, and feasibility. Subordinate criteria within each of these groupings are established for each kind of national park area. Those for natural, historical, and recreational areas are presented in "NPS Criteria for Parklands" (see bibliography), while those for cultural areas are in "Criteria for National Cultural Parks" (see appendix). The former are long-established; the latter were approved by the Secretary of the Interior on June 17, 1971, following their recommendation by the Advisory Board on National Parks. (The "NPS Briefing Book - 1973" formally adds the cultural park category to the natural, historical, and recreational areas: "In recent years a new category of parks has been authorized by Congress for inclusion in the National Park System. Cultural parks will preserve folkways of the past as well as establishing sites for contemporary programs.")

Thus, the cultural park category anticipates this feasibility study, and established criteria had already been derived from a still-earlier assertion in a formal concept paper *that*: it is a national responsibility to preserve evidences of *way of life*, whether of lost or still-living cultures. The rationale for adding another park category was, in summary paraphrase, as follows: Each human-group adaptation to the world produces unique values, traditions, and tangible products that lend diversity to the general human experience. Such diversity - sensory, affective, and logical - has intrinsic value. A cultural species is as much to be enjoyed, wondered at, learned from as a biological species. Culture pools may be as valuable, pragmatically, as the gene pools of biology. We may find instructive analogs in other culture patterns that bear on our own search for quality life - even survival. Finally, if it is worthwhile to preserve the material products of a culture - as museums and historic sites attest - then, in all logic, it *must* be worthwhile to encourage perpetuation of the still-functional groups of people, i.e., the living cultures, that made those things.

At a more mundane level, it was recognized that national cultural parks could perform certain needed functions more appropriately than could traditional categories. Perpetuation of cultures and their natural and man-made contextual environments demands elements of activism and experimentation beyond the range of earlier park management approaches.

The approved criteria provide objective bases for evaluating the *national significance* of cultural expressions. All six criteria are pertinent affirmations of such significance in this park proposal. Integrity of sites, structures, and communities encompassed by this park proposal varies from place to place. In some places there exists direct threat from "the erosive effects of contemporary technology and its economic forces" (e.g., proposed highway, levee, and housing developments in the Barataria sector). But, in aggregate, the resource base possesses ample integrity for this new-park concept. This assertion is reinforced by a major premise built into the park proposal: This park — in a context of cooperative-administration and regional-commission assistance — would be a vehicle for preservation and reclamation of the resource base. It would be an active agent in retaining and regaining resource integrity.

The *suitability* of this park proposal, as to land-base sufficiency, depends on a sort of seed-money principle. The seed is the nuclear base administered by the National Park Service — including Chalmette National Historical Park (142 acres), a visitor center in the French Quarter (insignificant acreage), and the Barataria sector (7,000 acres). Having established this nucleus, it would then be possible to activate the cooperative-administration and regional-commission elements of the proposal, both having significant potential for land-base preservation (e.g., cooperatively administered sites), for protection of cultural resource settings (e.g., commission influence on land-use planning/zoning), and for development of appropriate public-use concepts (e.g., joint planning and technical interchange, interpretation, transportation systems, carrying capacities, off-site visitor facilities, and sensitive visitor use of cultural resources).

Assuming timely activation of these complementing elements, the proposed land-base nucleus is suitable for *initiating* the proposal.

Long-term suitability depends on the catalytic or multiplier effect of the nuclear cultural park. If the model provided by the nucleus successfully stimulates and mobilizes a cooperative, regional preservation/reclamation approach, major cultural resources of the New Orleans region can be perpetuated.

Based on the existence of organizations dedicated to such purposes in New Orleans (see appendix – "area contacts"), it is apparent that this proposal can be successfully implemented to encourage perpetuation of major cultural resources. The existing organizations, which today lack the coordinated scope that a Regional Commission would provide, have nonetheless won significant cultural conservation victories, as in the freeway/Vieux Carre issue.

Certainly the proposal is *feasible*: it meets the purpose of a national cultural park. In fact, it is hard to imagine that the cultural park concept was conceived without this proposal in mind! Furthermore, achievement of the park purpose through the cooperative, regional-commission elements of the proposal would produce spin-off benefits relating to other social and physical needs of the region.

Why a national cultural park as opposed to another category? The resource inventory demonstrates that many nationally significant historical resources would be included in this proposal (either directly administered by the National Park Service or associated with the national cultural park). This proposal, modified to meet the more specific historical-area criteria, would probably qualify in that category. Moreover, such a designation would fill a gap in the National Park System Plan, History (2b4. French Exploration and Settlement, Gulf Coast). *But*, modifications for historical-area classification would limit this proposal's range by inhibiting options and flexibilities essential to the cooperative/regional approach. Built into the national cultural park idea is an active social-agent function (not only preservation of discrete physical resources, but also reform of social processes for purposes of reclamation and perpetuation of physical *and* living cultural resources). To the more traditional aspirations of historical-area management, this emphasis is strange if not alien.

As to the natural and recreational categories, the national significance of resources and values contemplated by this proposal are marginal or unestablished. The limited sector of delta wetlands may be the best available sample of this ecosystem type, but it does not possess exemplary integrity of a quality to meet natural-area criteria. Recreational opportunities are many, but they are not of the explicitly physical type emphasized by the recreational-area criteria. Rather they are adjuncts of or vehicles for interpretive programs – many of which must be subdued to preserve cultural park atmospherics.

For these reasons, the national cultural park category is deemed most fitting. No other category could conceivably stimulate the popular sensitivity for the whole delta environment that is prerequisite to saving it.

A Caveat on Culture-Group Assistance

Living culture groups are complex systems of values, traditions, and material elements. They are too complex for direct manipulation by outsiders — even the best-intentioned ones. The Federal Government, acting through the instrumentality of a national cultural park, should not be involved in the delicate business of trying to mold, stop in time, or otherwise tinker with the way of life of, say, a Cajun village.

If the environmental context that has shaped and has been shaped by the culture group is healthy, so the culture group can continue to function, it will probably live on — evolving certainly, but retaining its substantive characteristics. If the heritage environment is destroyed or radically altered, the cultural syndrome will become dysfunctional and will be discarded. Efforts to perpetuate a culture in that circumstance would be sheer fakery.

So how to help? If people fish for a living, do not become preoccupied with the intangible cultural soul of the people. Make sure the environment will support fish. The culture will perpetuate itself.

APPENDIXES

- A: GLOSSARY
- B: LEGISLATION
- C: BIBLIOGRAPHY
- D: TEAM MEMBERS, AREA CONTACTS, AND CONSULTANTS

A: A BARATARIA GLOSSARY

Cultural Park — only a few years old and still in the process of evolution, the concept for a cultural park embraces traditional National Park Service functions of nature preservation, historical preservation, and recreation, and involves these with socio-economic conditions of an area in such a way that the whole provides a coherent story of a people on a land. It is environmental, presenting the overall ecological forces in the area and relating the resultant society's structure to them, as well as presenting their diversions and entertainments. A cultural park recognizes the validity of culture in the anthropological sense, but does not rank cultures except that some may inspire interest from a broader base. Cultural parks include the influence of ethnic groups and trace the contributions each has brought from former homelands. Interpretation is a vital element of a cultural park, even more so than for other kinds.

Creole — a Louisianian of French and/or Spanish descent, has an urban connotation.

Cajun — a person descended from the French "Acadians" displaced to the Louisiana bayou country from Nova Scotia following the Seven Years War.

Bayou — distributary of a river, bounded by natural levees, through which water is channeled by repeated divisions into the swamps, then marshes of a delta, and ultimately into the ocean.

Natural levee — higher ground along a bayou or river, over which flood waters pour, dropping their load of silt as they spread out from the channel and lose carrying capacity.

Swamp — lower land with cypress trees, flowing water, situated between natural levee and marsh.

Marsh — wet low ground along a bayou or river, over which flood waters pour, dropping their load of silt as they spread out from the channel and lose carrying capacity.

Pirogue — a dugout canoe used in swamps and marshes.

Lafitte skiff — a shallow-draft powered boat operating in the bayous.

B: LEGISLATION

WEDNESDAY, JUNE 14, 1972

House OKs Study For Lafitte Park

States-Item Bureau

WASHINGTON — The House yesterday approved an interior appropriations bill containing \$40,000 to study the feasibility of establishing a Jean Lafitte National Cultural

Park in Jefferson Parish.

The House passed by a vote of 367 to 3 the \$2.5 billion interior appropriation for the fiscal year beginning July 1. The bill, including the \$40,000 allocation to the National Park Service for the study, next goes to the Senate.

Rep. Hale Boggs of New Orleans said he was able to convince the House Appropriations Committee to include the park item in the appropriations bill without the usual authorization and accompanying delay. Funding for federal agencies is conventionally agreed to by the House and Senate in authorization bills before the final congressional step of appropriation.

The park service will study the feasibility of creating a 20,000 acre park in the bayou and marsh Barataria area adjoining Lake Salvador about 15 miles south of New Orleans.

The park would preserve the natural values of the region and would make possible such outdoor recreation as camping, boating and sport said Boggs.

The proposed park could be reached from New Orleans by state Highway 45, Boggs said. He said the Louisiana Highway Department plans to improve the highway.

The year-long study of the park by the National Park Service will be coordinated with local and state agencies, said Boggs.

93^D CONGRESS
1ST SESSION

H. R. 10665

IN THE HOUSE OF REPRESENTATIVES

OCTOBER 2, 1973

Mrs. Boggs introduced the following bill; which was referred to the Committee on Interior and Insular Affairs

A BILL

To authorize the establishment of the Jean Lafitte National Historical Park in the State of Louisiana, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
 2 *tives of the United States of America in Congress assembled,*
 3 That the Secretary of the Interior (hereinafter referred to
 4 as the "Secretary") is authorized to designate not to ex-
 5 ceed acres in Jefferson Parish, Louisiana, within
 6 the area designated on the map entitled "Jean Lafitte
 7 National Historical Park", numbered and dated
 8 . The Secretary may acquire lands, waters,
 9 and interests therein within the area so designated by pur-
 10 chase, exchange, or transfer, with the consent of the head

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1 of the administering agency and without monetary consid-
2 eration, from any other Federal agency. When the Secre-
3 tary determines that property has been acquired in an
4 amount sufficient to constitute an efficiently administerable
5 unit, he shall declare the establishment of the Jean Lafitte
6 National Historical Park by publication of a notice to that
7 effect in the Federal Register. Pending such establishment
8 and thereafter the Secretary shall administer property ac-
9 quired pursuant to this Act in accordance with the Act of
10 August 25, 1916 (39 Stat. 535), as amended and supple-
11 mented, and the Act of August 21, 1935 (49 Stat. 666),
12 as amended.

13 SEC. 2. There are authorized to be appropriated such
14 sums as may be necessary to carry out the provisions of this
15 Act, but not more than \$ for the acqui-
16 sition of lands and interests in lands and not more than
17 \$ for development.



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

UCT 12 1972

Dear Mr. Chairman:

Your Committee has requested a report on H.R. 11056, a bill "To authorize a study of the feasibility and desirability of establishing a unit of the national park system to commemorate the unique values of the Barataria region of Louisiana, and for other purposes, to be known as the Jean Lafitte National Cultural Park."

Because the Secretary now has authority to conduct the study that would be authorized by H.R. 11056, we believe that enactment of this bill is not necessary.

H.R. 11056 directs the Secretary to study, investigate, and formulate recommendations on the feasibility and desirability of establishing as part of the national park system, an area in the Barataria region of the State of Louisiana, to commemorate "the unique natural values and unique cultural values which have been shaped by history and the environment" in the area and to preserve and interpret "the cultural heritage, historical resources, and recreational opportunities of the area". The bill requires that other interested Federal agencies, and State and local bodies and officials be consulted, and that the study be coordinated with applicable outdoor recreation plans, highway plans, and other planning activities relating to the region. The Secretary is required, within 1 year after the effective date of the Act, to submit to the President and the Congress a report of the findings and recommendations of the National Park Service, as approved by him; the report is to include recommendations as to scenic and historic site preservation or marking. The bill authorizes \$40,000 to carry out its provisions.

The Barataria area is located south of New Orleans on the Gulf Coast, and is in large part a tidal area of overgrown cypress. The area has historical associations with Jean Lafitte, a buccaneer who aided the Americans during the War of 1812, and with the French Cajun culture. There is at present a State park authorized in the area, but the park has not yet been funded for acquisition or development.

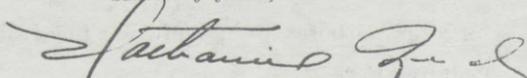
Because statutory authority now exists under the 1936 Parkway and Recreation Study Act (16 U.S.C. 17k-n) that would authorize the Secretary of the Interior to study the Barataria area, to determine if a portion of the area is suitable for inclusion in the national park system, we see no need for the enactment of H.R. 11056. The appropriations bill for the Department of the Interior for the fiscal year 1973, which was signed by the President on August 10, 1972, to become Public Law 92-369, contained an appropriation of \$40,000 for a "Feasibility study, Jean LaFitte Park, Louisiana". Such an amount would be adequate to carry out the study, and no further congressional action is needed.

The Department would not restrict a study of the Barataria area to determining whether a national cultural park could appropriately be located there, but would consider the full range of possible recreational and conservation uses in the area. The language of the House report on Interior appropriations bill, which directs a feasibility study for "Jean LaFitte Park, Louisiana" is adequate, we believe, to permit the Department to consider this broader range of options.

It should be possible to complete the proposed study in approximately a year, which is in accord with the time limit set by H.R. 11056.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,



Assistant Secretary of the Interior

Hon. Wayne N. Aspinall
Chairman, Committee on
Interior and Insular Affairs
House of Representatives
Washington, D.C.

92^D CONGRESS
1ST SESSION

H. R. 11056

IN THE HOUSE OF REPRESENTATIVES

OCTOBER 4, 1971

Mr. Boggs introduced the following bill; which was referred to the Committee on Interior and Insular Affairs

A BILL

To authorize a study of the feasibility and desirability of establishing a unit of the national park system to commemorate the unique values of the Barataria region of Louisiana, and for other purposes, to be known as the Jean Lafitte National Cultural Park.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That, for the purpose of commemorating the unique natural
4 values and unique cultural values which have been shaped
5 by history and the environment in the Barataria region of
6 Louisiana, and to preserve and interpret for the benefit of the
7 American people, the cultural heritage, historical resources,
8 and recreational opportunities of the area, the Secretary

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1 of the Interior (hereinafter referred to as the "Secre-
2 tary") shall study, investigate, and formulate recommenda-
3 tions on the feasibility and desirability of establishing as a
4 part of the national park system, an area in the State of
5 Louisiana, in the Barataria region, which may best accom-
6 plish the foregoing objective, to be known as the Jean
7 Lafitte National Cultural Park.

8 SEC. 2. As a part of such study other interested Federal
9 agencies, and State and local bodies and officials shall be
10 consulted, and the study shall be coordinated with applicable
11 outdoor recreation plans, highway plans, and other planning
12 activities relating to the region.

13 SEC. 3. The Secretary shall submit to the President and
14 to the Congress within one year after the effective date of
15 this Act, a report of the findings and recommendations of the
16 National Park Service, as approved by him. The report of
17 the Secretary shall contain, but not be limited to, findings
18 with respect to the scenic, scientific, historic, and natural
19 values of the land resources involved, including specifically,
20 recommendations as to scenic and historic site preservation
21 or marking.

22 SEC. 4. There are authorized to be appropriated not to
23 exceed \$40,000 to carry out the provisions of this Act.

Act 100

ACT No. 100

House Bill No. 658. By: Messrs. Eeason, Lauricella,
Schwegmann, Dwyer and
Blue and Senator Mollere.

AN ACT

To authorize and request the creation of the Lafitte State
Park in Jefferson Parish and to place said park under the
direction of the State Parks and Recreation Commission.

Be it enacted by the Legislature of Louisiana:

Section 1. The State Parks and Recreation Commission is
hereby authorized and requested to create the Lafitte State
Park, which shall be under its direction, operation and con-
trol.

Section 2. All laws or parts of laws in conflict herewith
are hereby repealed.

Approved by the Governor: July 2, 1966.

A true copy:

WADE O. MARTIN, JR.
Secretary of State.

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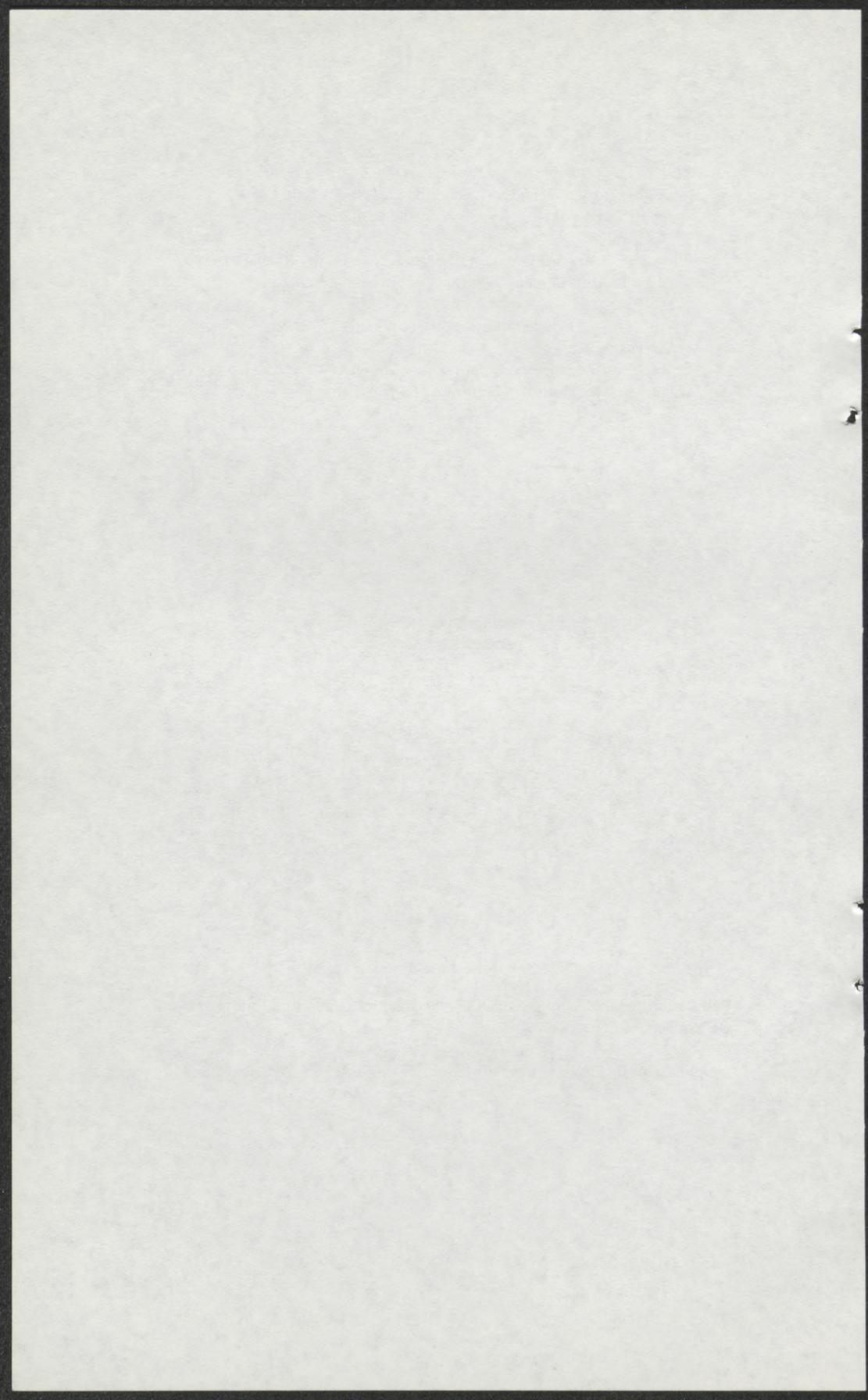
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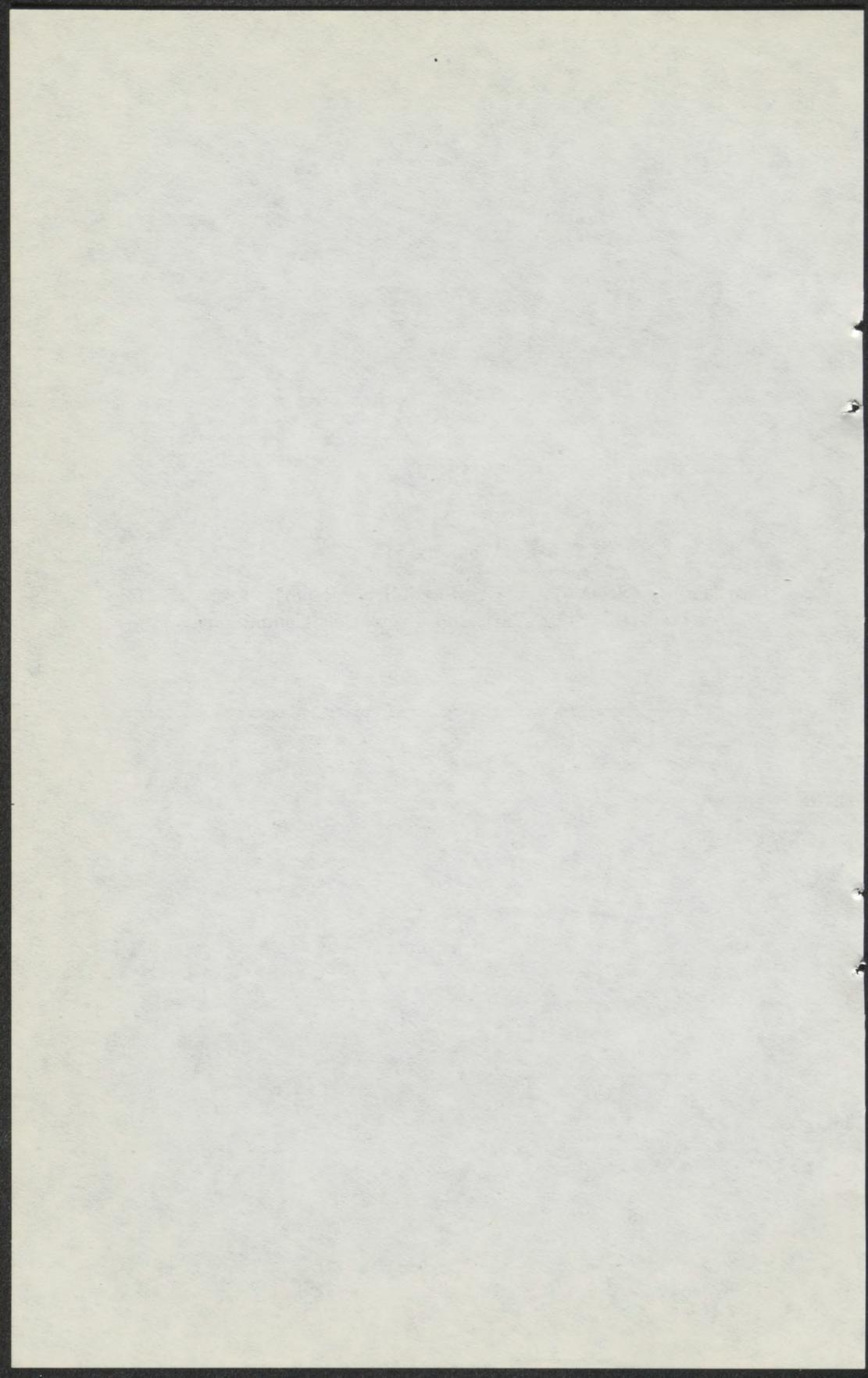
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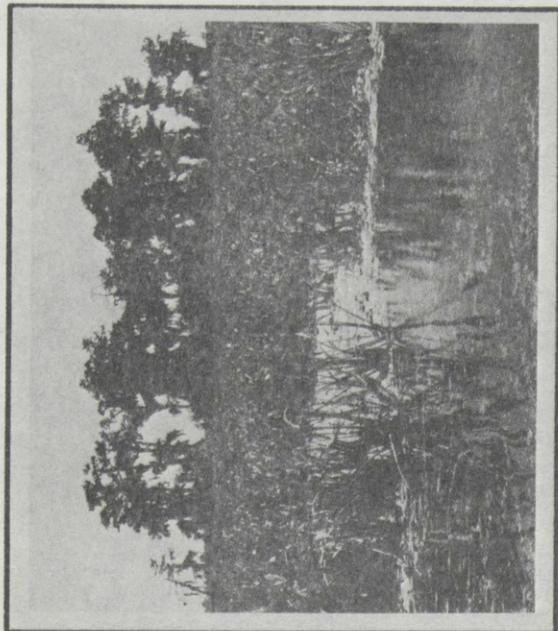
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APPENDIX II

Jean Lafitte State Park—A Feasibility Report, Prepared for
Louisiana State Park and Recreation Commission





jean lafitte state park

■ a feasibility report

(255)

A FEASIBILITY REPORT FOR THE PROPOSED
JEAN LAFITTE STATE PARK

PREPARED BY: James F. Fondren & Associates
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PREPARED FOR: Louisiana State Park and Recreation Commission
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April 1, 1975

The following is a summary of events concerning the proposed Lafitte Park including most recent status at the close of the 1974 Louisiana Legislative Session:

- 1966 State Legislature passed enabling legislation to create a Lafitte State Park and charged State Park Recreation Commission (SPRC) with planning. No money appropriated.
- 1966-70 A preliminary plan was drawn for Lafitte State Park though no in-depth study was made. No land was acquired, however, a lease on a small portion of land was arranged.
- 1970 Louisiana State Legislature designated \$75,000 from Jefferson Downs Racetrack funds for "development of Lafitte State Park".
- 1971 Congressman Hale Roggs introduced a Federal Bill authorizing a \$40,000 feasibility study for a Lafitte National Park as the study area. Approximately 20,000 acres were designated.
- 1972-73 Suitability study undertaken by National Park Service.
- 1973 Congressman Boggs introduced skeleton bill "to authorize establishment of Jean Lafitte National Historical Park".
- Dec. 73 National Park Service regional study team report declared Lafitte Park feasible and desirable. It also recommended acquisition of 7,000 acres.
- April 1974 SPRC prepares a 15 year bond program and does not include Lafitte because of its Federal status.
- Spring 1974 National Park Service declares Lafitte "not suitable".
- May 1974 Bills pertaining to Lafitte at May legislative session:
1. A bill authorizing approximately 1,000 acres of ground, Charity tract, to State Parks for Lafitte.
 2. A bill to free the \$75,000 in Jefferson Downs Racetrack money per year for research, planning, development, etc.
 3. An amendment to the State Park Reversion Bill designating \$3 million for Lafitte Park PROVIDED; that a feasibility study be done and that it fit in the State Park System criteria and that Federal matching funds can be obtained.
 4. A concurrent resolution "authorizing and directing the Louisiana State Parks and Recreation Commission to conduct feasibility studies and studies of development for the proposed Lafitte National Committee on Natural Resources on the acquisition and development of the proposed area for Lafitte State Park".

chronology



The objective of this study is to determine whether the proposed area for Jean Lafitte State Park meets the criteria for inclusion in the Louisiana State Parks System, and to further determine and specify classification type, location and cost of acquisition of the proposed site, utilization of the site, estimated cost of development, estimated cost of operation and maintenance, user benefits to be achieved, the self-generating revenue potential of the park, and acceptable means of financing the proposed acquisition and development.

history

The study area for the proposed Jean Lafitte State Park is in the southern portion of Jefferson Parish, Louisiana. The study area is generally bounded to the north by the proposed Interstate 410 alignment, to the east by the Harvey Canal and Bayou Barataria, to the south by Bayou Barataria, and to the west by Lake Cataouatche and Lake Salvador.

The proposed park area, like much of south Louisiana, was formed as part of the great delta system of the Mississippi River. As the river constantly changed its course, it left behind vast areas of rich, alluvial soil and a network of abandoned levee ridges which comprise most of the natural high ground in south Louisiana. Bayou des Familles, which runs along Louisiana Highway 45 on an abandoned ridge, was once a distributary of the river. Westward from the highway, the area represents a transition from firm land deposits to the formations of swamps, marshes and open lakes characteristic of the delta system. Vegetative types include lowland hardwood forests, tupelo gum swamps, and freshwater marsh communities.

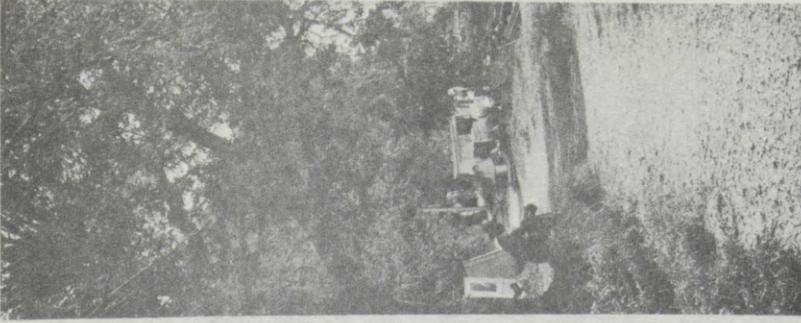
Man has inhabited the Lafitte area from its earliest periods of geologic stability. Early prehistoric Indians took advantage of the wealth of natural foods and maintained what was apparently an extensive civilization from 500B.C. to present. Within the park area shell middens and earth mounds contain evidence of their ancient way of living. Trapping

hunting and fishing remained a characteristic way of life in the Lafitte area from Indian time to the present. For a relatively brief time large plantations were successful in the area growing indigo and sugar. During the latter part of the 19th century the logging industry thrived in the region heavily cutting into the vast cypress swamps.

Certainly the most colorful period of the area's history is that time during which Jean Lafitte roamed its marshes and bayous. Jean Lafitte, although commonly referred to as a pirate, was actually a privateer and had a letter of marque or license from Cartagena which gave him the legal right to prey on Spanish ships. Lafitte and his men based their operation on Grand Terre Island. Their major bounty was slaves, which were in great demand at the auction blocks in New Orleans. Lafitte found the maze of bayous, marshes, and lakes to provide an ideal corridor into New Orleans, servicing his smuggling operation. Although welcomed by the populace, a price had been put on Lafitte's head by the federal and state authorities because of his slave trading activities.

Often Lafitte held his own contraband sales in the Lafitte area, and historically one of these sites is at the junction of Bayou Coquilles and Bayou des Familles. Here, approximately seven miles from the Mississippi River. Bayou Coquilles connected Bayou des Familles with Lake Salvador this confluence was the center of considerable Indian concentration for hundreds of years. The site can now be viewed as one of the most scenic spots on Highway 45 where giant oaks tower over the highway forming a soft canopy.

Jean Lafitte's career was climaxed with his assistance to General Andrew Jackson during the Battle of New Orleans after which he and his men were given an official federal



pardon for past activities. Many of Lafitte's men remained in their old Barataria haunt or on Grand Isle, both communities claiming many direct descendants. Others followed Lafitte to Galveston. Lafitte, eventually left there and settled into a quiet life in Alton, Illinois near present day St. Louis, where he died in 1854.

Until recently, life in the proposed park area had remained relatively simple and, as pointed out earlier, fishing and trapping remained a way of life for many residents. The physical characteristics of the park study area have remained relatively unchanged since the marshes and swamps were first formed, and Indians made them their home.

Presently, the trapping industry has almost vanished, and fishermen are finding their catch is dwindling. Modern subdivisions and commercial enterprises are moving south from the high land near the Mississippi River, and oil production has placed structures throughout the lakes and bayous. The proposed park area is under influence of more rapid change than at any other period of its history, and modern technology can make the change complete.

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1 RECOMMENDATIONS

we recommend:

- 1) That a State Park be established on a minimum 5,600 acres of land north of Lafayette, Louisiana in Jefferson Parish.
- 2) That \$5.4 million be appropriated by the Louisiana legislature in 1975 for land acquisition.
- 3) That federal, parish, local, and private sources of additional monies be contacted by the Louisiana State Parks and Recreation Commission to assist LSPRC in financing the acquisition and development of the state park.
- 4) That the State Parks and Recreation Commission retain a competent impartial appraiser to determine the value of all properties within the proposed park alignment. The estimated cost of this appraisal is \$10,000.
- 5) That the state legislature request the Jefferson Parish Council to place a "moratorium" on development of properties within the proposed park alignment until the appraisal has been completed.

findings

The New Orleans metropolitan area has a tremendous need for recreational opportunities near the city.

The proposed site possesses outstanding recreational potential in a natural setting.

The proposed site meets all the criteria established by LSPRC for selection as a State Park.

The proposed park site is located in State Park Planning Region 1A which had 27.4% of the state population in 1970 and 5.4% of the state park acreage. By 1980, Region 1A will have 29.4% of the population but only 2.2% of the state park acreage.

The proposed site is in the "highest priority zone" for development of State Parks as established by LSPRC.

The subject property will probably be "unavailable" at an economically feasible price if the property is not acquired before 1977.

The currently depressed real estate market combined with the newly enacted federal flood insurance provisions and the environmental laws make 1975 the most opportune time to acquire the park site.

The present funding of \$75,000 per year from Jefferson Downs Race Track is totally inadequate for land acquisition.

Development of proposed recreational facilities and camping will cost \$8.5 million if built in 1980.

The proposed funding through the State Parks Bill provides for \$3 million for a Lafitte State Park during 1985-1990 if the bonds are sold and if federal matching funds are obtained.

The annual operation and maintenance cost is estimated to be \$850,000 per year if completed in 1980.

The annual revenue once all the facilities are complete is expected to be \$1,080,000 in 1980. By 1985, revenues should be \$1,390,000.

2 CLASSIFICATION

The Louisiana State Parks and Recreation Commission's statement of policy is:

Preserving and protecting natural areas of unique of exceptional scenic value for the inspiration and benefit of not only the present generation but also of generations to come.

Establishing and operating state parks that provide recreational use of natural resources in an outdoor environment in natural surroundings.

Portraying and interpreting plant and animal life, geology, and all other natural features and processes included in the various state parks.

Preserving, protecting and portraying historic and scientific sites of statewide importance.

State Preservation Areas are areas of exceptional scenic value which should be preserved for current and future public enjoyment. "Exceptional scenic value" refers to rare natural scenery unlikely to be preserved if ownership is by private citizens and which is sufficiently distinctive to attract people from all parts of the state. Absolute minimum size standard is 500 acres if the land is donated, and the preferred minimum size is 1,000 acres if the land is to be purchased.

State Preservation Sites are smaller equivalents of a state preservation area, established primarily to preserve a unique natural feature of ecological or scientific interest. This classification is included to assure protection of features that are not large enough to be called Preservation Areas yet are considered important enough to be preserved. There is no minimum acreage size though the site must be large enough to encompass the feature to be preserved and to provide a buffer area sufficient to protect that feature.

State Parks are natural areas which possess outstanding potential for recreational utilization. The natural area must possess outstanding scenic and natural qualities to insure a recreation opportunity of high quality in a natural setting. The preferred minimum size is 400 acres, and the absolute minimum is 250 acres.

State Commemorative Areas is an area which, when evaluated on a statewide basis, possesses a historical, cultural, or memorial significance. These sites commemorate a historical event, a particular expression of culture, or the life of a person or collective goals of a group of people. The area required to completely encompass the commemorative area is the sole determinant of its total acreage, and consequently, there is no minimum acreage requirement.

State Experimental Sites are natural areas to be developed for experimentation and the training of park personnel. Studies of the use and revenue generating potential of conventional park facilities as well as innovative facilities and concepts would be carried out on the site. The site should be of sufficient size to allow for development of a "typical" state park development or for trial uses of innovative facilities and concepts.

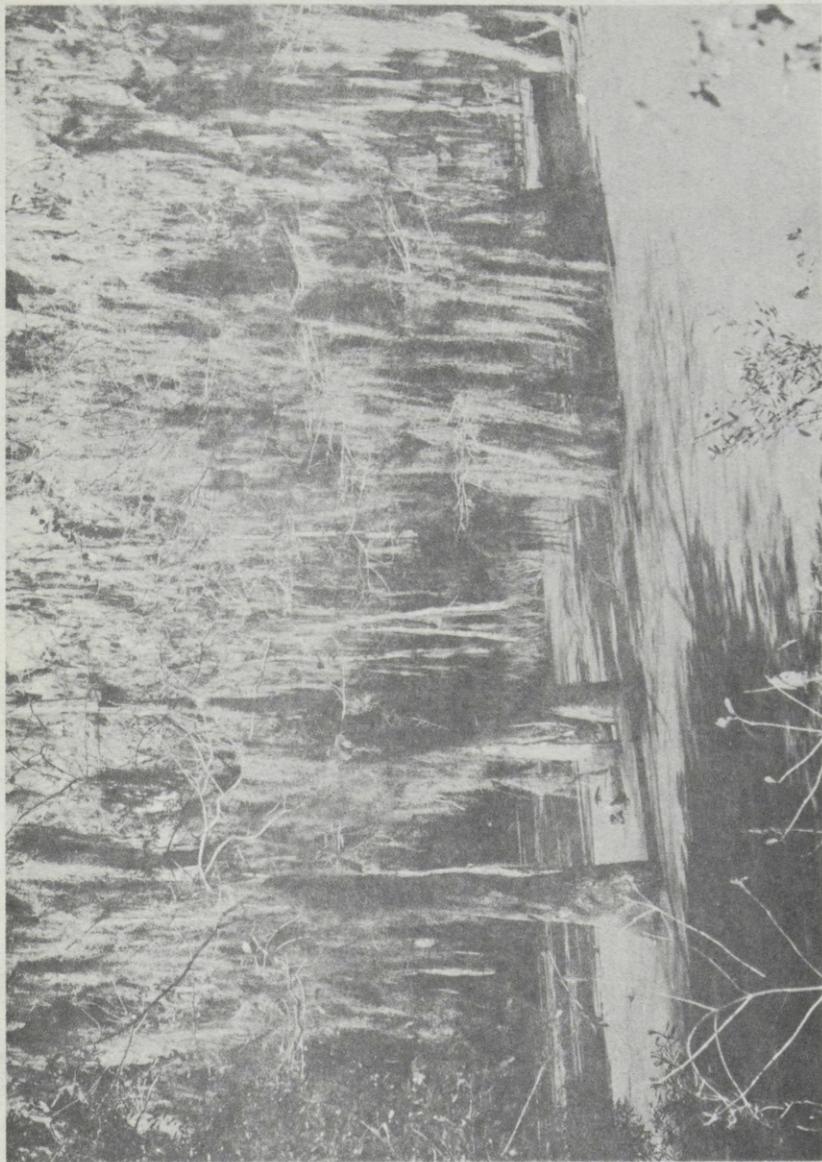
classification system

The main facts regarding the proposed site are:

- 1) The site is a totally natural undeveloped area.
- 2) The site is in Jefferson Parish and 12 miles from Orleans Parish
- 3) The site is well served by existing vehicular traffic arterials.
- 4) The site possesses many existing and potentially navigable waterways which connect to the extensive inland waterway network of southern Louisiana.
- 5) The site contains four ecological zones, each reflecting different soils, vegetation, and water resources. The zones are the Lowland Hardwood Forest, the Cypress-Tupelo Swamp, the Marsh, and the Lake Salvador shoreline.
- 6) The site's vegetational mosaic is one of the best in the region.
- 7) The site is representative of the Louisiana marsh ecosystem. Southern Louisiana is the most extensive marsh ecosystem in the United States.
- 8) The site is the habitat of a myriad of animal forms including the alligator, nutria, mink, deer, and thousands of birds.
- 9) The site possesses outstanding recreation potential. The four zones afford the possibility of a very broad and extensive facility development concept.
- 10) The site includes some very culturally important historical and archaeological sites. Jean Lafitte had his headquarters on or near the site, and the Indians centered their culture in the area.

The main findings and "facts" revealed through study of the Statewide Comprehensive Outdoor Recreation Plan, 1970-75 are:

- 1) The site is located in planning Region IA composed of Jefferson, Orleans, and St. Bernard Parishes.
- 2) State population six years of age and over totalled 3,098,032 in 1970 and 847,770 persons or 27.4% lived in Region IA.
- 3) Region IA is the largest region in terms of state population (27.4%) and the smallest in terms of acreage(3.7%).
- 4) Population projections indicate that by 1975, 28.2% of the Louisiana residents will live in Region IA. By 1980, 29.4% will live in Region IA. By 1985, 30.8% will live in Region IA.
- 5) The site is located in the highest priority zone for development of state parks as established by the Louisiana State Parks and Recreation Commission.
- 6) Presently, Region IA has 596 acres of State Parks or 4.8% of the state total.
- 7) According to the proposed state park development schedule, by 1980 Region IA will have 596 acres of State Parks or 2.2% of the state total.
- 8) In 1975, the recreational facility "needs" of Region IA are:
 - 1,470 boat ramps for fishing, water skiing, and boating
 - 1,553 acres for playing outdoor games
 - 6,335 picnic tables
 - 5,160 trailer camping spurs or spaces
 - 3,738 tent camping spurs
 - 261 miles of hiking trails
 - 271 miles of nature walks or trails
 - 31 swimming beaches
 - 80 swimming pools



determination of classification

After considering the characteristics of the site, the recreational needs of the area, the future development plans of the State Parks System, and the classification criteria system formulated by The Louisiana State Parks and Recreation Commission, it is concluded that the proposed site meets the criteria and will yield its greatest benefit to present and future generations through development as a State Park.

The proposed park site not only meets the criteria established for a state park, but also the criteria for a state commemorative area and a state preservation area. The site has "exceptional scenic value" which could be lost if the property were not established as a state preservation area. The existence of middens and historical sites associated with Jean Lafitte make the site historically and culturally significant and worthy of development as a state commemorative area. The establishment of a state park on the site, responsive not only to recreational needs but equally sensitive to preservation and commemorative factors, would best serve the community.

state parks criteria

A. Criteria for Selection

1. Size: A state park should be of sufficient size to insure efficient operation and maintenance of its recreational facilities and accommodations and have sufficient buffer to preserve the natural integrity of the area. The preferred minimum size is 400 acres, and the absolute minimum is 250 acres.
2. Location and accessibility: State parks are designed to serve people who are strongly attracted to recreationally-enhanced natural and man-made resources. For this reason, state park development is predicated upon resource-oriented recreation planning.

Although nonurban in character, primary site selection considerations must place priority on those areas that are located nearest to population centers.

Preference shall be given to specific recreational planning regions of the state which have a serious supply shortage of both public and private outdoor recreation facilities as determined by SCORP.

B. Criteria for Development

State parks shall be developed to provide a full range of active and passive recreational pursuits, implying that criteria for development within state parks shall be more liberal than those for preservation or historical areas.

Activities such as swimming, picnicking, fishing, bicycling, hiking, boating, horseback riding, walking for pleasure, and other outdoor functions should be provided as physical and managerial considerations permit. Overnight accommodations should provide for a range of camping experiences to include primitive campgrounds served by minor one-way roadways and foottrails, to formal recreational vehicle campgrounds, group camping and cabins.

The metropolitan area of New Orleans with its large population, high density, and lack of useable open space has tremendous need for outdoor recreation opportunities near the city.

Suitable natural sites for recreational development are almost non-existent in the area.

The proposed park is a large natural site within the New Orleans metropolitan area. It possesses outstanding recreational potential because of four ecological zones, each offering different opportunities. The zones are described below.

justification

ZONE 1 The forest area fronting the highway has the best soil for construction of roads and buildings and could easily accommodate trailer camping, group camps, tents, picnic areas, playfields, and hiking trails.

ZONE 2 The swamp area is a unique scenic botanical area where suitable recreation could include boardwalks (originating from the forest area), observation platforms, boating, water trails, and fishing.

ZONE 3 The marsh area offers broad horizontal views, and supports rich animal life including alligators, otter, and thousands of birds. Fishing, boating, and boardwalks with observation platforms would not injure this virtually undeveloped wildlife preserve.

ZONE 4 The edge of the property is the shoreline of Lake Salvador where swimming beaches, boat docks and fishing piers are possible.

And, Lake Salvador, though not within the site's boundary, offers boating, fishing, and water skiing potential.

3

ORGANIZATION OF LAND

organization of land

During this initial phase of contacting property owners in the study area of the proposed park, the owners have exhibited an interested cooperative attitude regarding purchase or lease of their land for a park. The currently depressed real estate market, the federal flood insurance regulations, and the new federal environmental laws are mitigating factors making the possible sale to the state an attractive possibility.

The depressed real estate market is a national phenomena. Last year when the market was depressed the reason given most frequently was high interest rates coupled with high prices due to rapid increases in material and labor costs. This year, the uncertainty of future economic conditions has caused buyers to adopt a "wait and see" attitude. With approximately 400,000 completed but unsold new single family homes on the market (representing 12 month supply at the January sales rate), the immediate term outlook for residential land development is weak.

The federal flood insurance regulations strongly affect the study area because the land is not protected by levees. Any new residential or commercial structures must be elevated above the 100 year flood level to avoid astronomical flood insurance rates. Severe design problems and cost inefficiencies are associated with elevated non-slab type construction. Developers and land owners in the study area are keenly aware of the flood insurance implications on development economics.

Newly enacted federal environmental laws are making suburban residential sprawl development in the "wetlands" a process of past thinking. At present, a large developer in the vicinity is being fined and closely scrutinized by the federal government for attempting to levee and drain a low lying area similar to the proposed park site.

While development and/or levees cannot be entirely dismissed in some wetland areas, federal regulations are making these activities more costly. Whereas land owners in the proposed park area may have purchased land with the intent of developing the land, new flood and environmental laws have changed the "economics" of development.

The combined factors of a depressed real estate market, federal flood insurance requirements and environmental laws make the immediate term a prime time to acquire property for a Lafitte State Park. Should acquisition funds not be available in the near term, the above mentioned depressing factors may be somewhat alleviated due to a natural balancing over the long run. Additionally, ownership patterns will become fragmented thereby increasing the difficulty of land acquisition.

The most feasible method of acquiring the park site would be through options and lease purchase agreements. These methods require less initial capital than outright purchase, though initially, some land may have to be purchased.

4 ACCESS

The proposed site is well served by existing major traffic arteries including Highway 45, Lapalco Blvd., and Highway 90. Additionally, the proposed Lafitte-Larose Highway and the proposed Interstate Highway 410 would increase traffic accessibility. See Exhibit for map of existing and proposed highways.

Highway 90 is one of two major east/west arteries in the northern portion of West Jefferson. Known locally as the "Westbank Expressway" this four lane highway runs from the Greater New Orleans Bridge to the Huey P. Long Bridge west into St. Charles Parish and beyond. Highway 90 provides a direct link to the densely populated portion of Orleans Parish via the Greater New Orleans Bridge and a direct link to densely populated East Jefferson via the Huey P. Long Bridge.

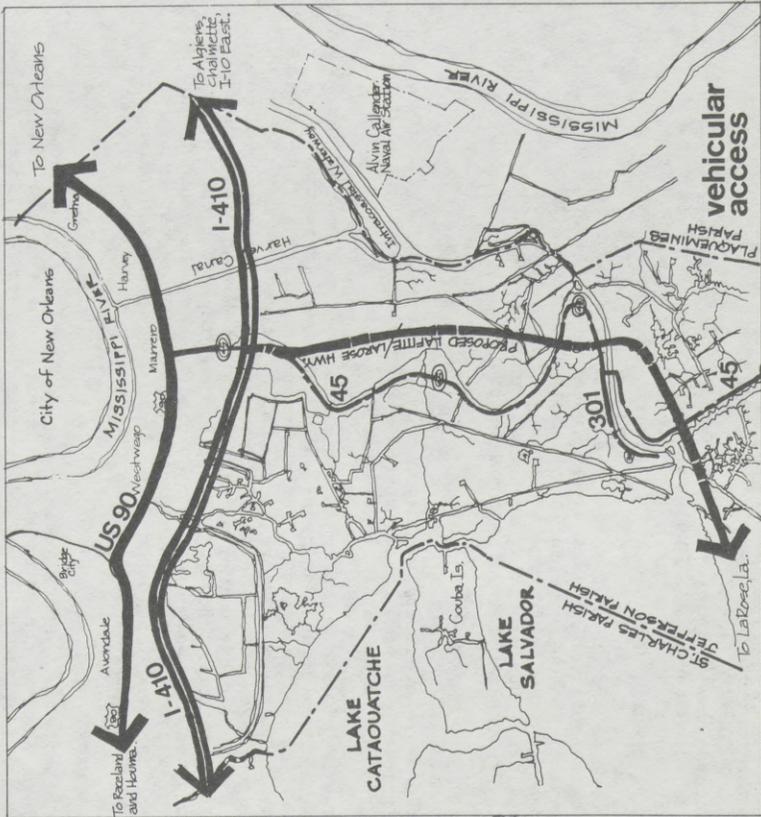
Lapalco Boulevard is the other major east/west arterial. This road runs parallel to and approximately two miles south of Highway 90 and was designed to ease traffic congestion on Highway 90.

Highway 45 is the major north/south arterial which bisects West Jefferson and runs from Lafitte in the South to Highway 90 on the north. This highway is presently being widened to a four lane thoroughfare. Access to the Jean Lafitte State Park will be accomplished by an access corridor originating on Highway 45.

The proposed Lafitte-Larose Highway is a north/south arterial to be built parallel to Highway 45. This proposed highway would increase significantly the accessibility of lower Jefferson Parish and the park area.

The proposed Interstate Highway 410 would traverse West Jefferson approximately five miles north the park and would be a limited access four lane freeway. This arterial would increase the ease of accessibility to the park for people from all parts of the state.

**vehicular
access**



vehicular access

Access to the recommended park site is exceptional via water routes.

Access from the Mississippi River via Harvey Canal, Intra-coastal Waterway and Bayou Barataria, make possible navigable water routes to the recommended park site from any location serviced by the Mississippi River.

Regional access routes from the west are also plentiful. To the south, navigable waterways extend to the Gulf of Mexico. Bayou Segnette is navigable from the existing boat launch facilities at "Westwego Canal" to Bayou Villars, thus providing an access route of regional interest potential worth consideration.

BAYOU CRUISES

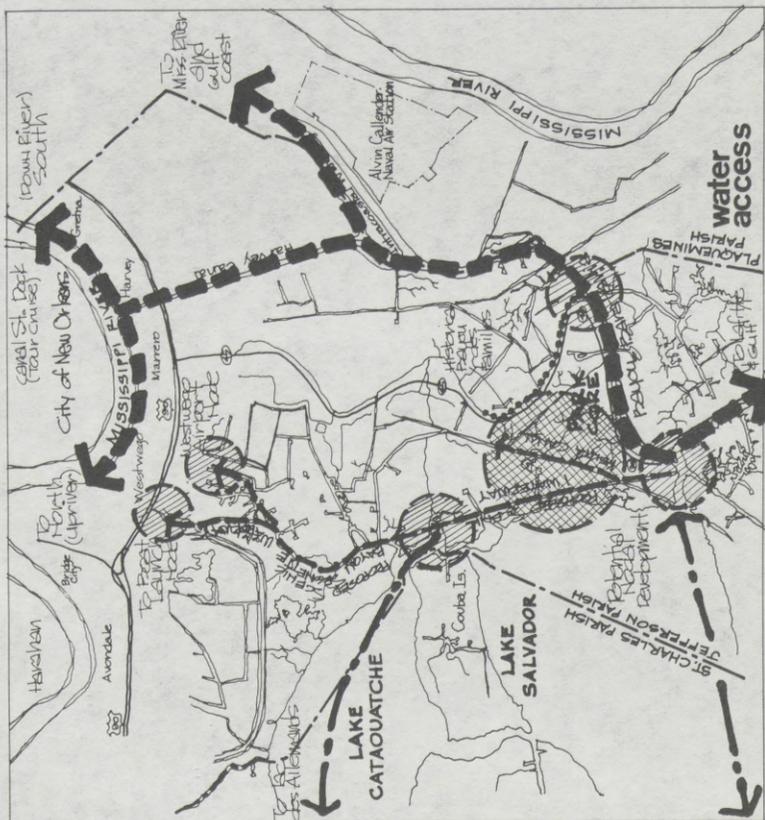
There are presently two Bayou cruise boats, that originate from Toulouse and Canal Street Docks and travel to Barataria area via Bayou Barataria and Harvey Canal.

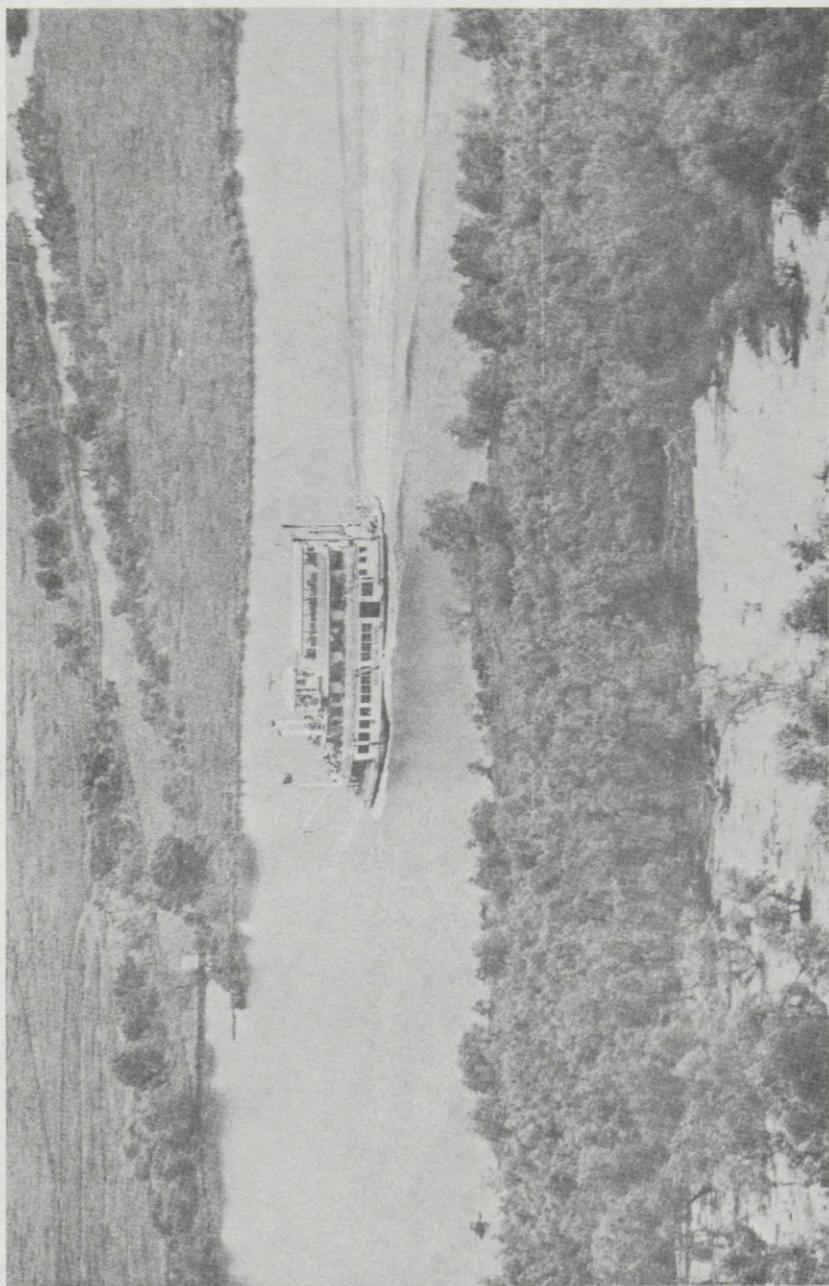
The Mark Twain cruise boat estimates that good weather brings an average of 200-300 people per day presently to the recommended park area. The Voyageur's capacity is 400 people. As the tourism industry increases, as projected, and if the recommended site's potential for unique and diverse development is realized the volume of tourist influx to the area would increase tremendously. With this need for additional water cruises, the park area is a natural to serve as a nodal hub for water cruises to additional points of interest in Barataria Region (Grand Isle, Grand Terre, Salvador Game Mgt. area, village of Lafitte, Bayou Segnette Water complex, etc.)

SUMMARY

The site is adequately served by numerous existing waterways and has the potential for creative utilization of water facilities within the recommended park boundaries for recreational development.

**water
access**





5

DEMAND & NEED

The access to the proposed Lafitte State Park is good utilizing existing roads. Therefore, persons desiring outdoor recreation which may be provided by such a park will encounter no problem reaching the park. The next question which must be addressed is whether the people in the "surrounding communities" have need of additional recreational areas due to demand or desire which exceeds the capacity of existing facilities to satisfy.

For determination and quantification of demand and need for additional facilities for outdoor recreation, the Statewide Comprehensive Outdoor Recreation Plan, 1970-75 (SCORP) prepared by Louisiana State Parks and Recreation Commission in June 1971 was utilized for the statistical analysis contained therein.

METHODOLOGY

Demand for outdoor recreation by Louisiana residents was measured utilizing a personal interview survey of 1,613 households including 6,195 persons during November 1968 by Louis, Bowls, and Grace, Inc. The primary objective was to determine how often the average person 6 years of age and over participates in 23 outdoor recreation activities during the summer and non-summer.

Exhibit 5-1 presents the high quarter participation rates for persons 6 years of age and over. The most popular outdoor recreational activity is swimming. The average Louisiana resident swims in a pool an average of 5 times each summer and swims at a beach an average of 2.83 times each summer. Summer is the most popular time for all 23 outdoor recreation activities except hunting.

By multiplying the participation rate times the population, the number of user days of demand for each activity may be quantified. It is assumed that Sunday is the most popular day for outdoor recreation and that Sunday demand is 2.6 times greater than an average daily demand. Thus, if the pool swimming participation rate is 5 times per summer and

recreational demand

there are 3,700,000 residents, the total demand is 18,500,000 user days per summer. To determine the facilities necessary to satisfy this demand, one must project the peak days and the number of persons utilizing the facility on the peak days and the capacity of a "standard" swimming pool. Since summer Sundays are the peaks, 18,500,000 total summer user days divided by 90 (days in summer) times 2.6 (cause Sunday is most popular) yields 534,444 users on a summer Sunday. Next, the SCORP study defines a "standard" swimming pool as being 5,000 square feet with a capacity of 372 persons at any given time and a turnover rate of 3 thereby meaning that one 5,000 square foot pool would satisfy 1,116 user days (3 x 372). Therefore, to satisfy the demand for swimming pools, 534,444 days divided by 1,116 equals 479 pools. These 479 pools could satisfy the demand if they are properly located throughout the state.

For statistical presentation purposes and good regional planning purposes, the state was divided into nine planning regions. Jefferson, Orleans, and St. Bernard Parishes comprise Region IA, and the proposed park site is within this region.

DEMAND

Utilizing the methodology briefly explained above, the SCORP document computes the facility demand for 1970, 1975, 1980, and 1985 for each of the nine planning regions within the state. After subtracting the existing supply, need for new facilities can be determined.

Statewide, facilities are needed for every recreation activity. However, the needs are greatest in Region IA (Jefferson, Orleans, and St. Bernard Parishes). Exhibit 5-2 presents the 1975, 1980, and 1985 need in percentage terms. This analysis highlights the critical need for facilities in Region IA. In Exhibit 5-2, we see that of the total 1970 statewide need for picnicking facilities, 35.1% of the need arises from Region IA. If Region IA had 35.1% of the state's

LOUISIANA OUTDOOR RECREATION
HIGH QUARTER PARTICIPATION*

1. Swimming	5.00
Pool	2.83
Beach	6.17
2. Bicycling	4.15
Driving for Pleasure	3.90
4. Outdoor Games	3.13
5. Fishing	2.79
Walking for Pleasure	2.42
7. Sightseeing	2.10
8. Attending Outdoor Sports	1.79
9. Picnicking	1.72
10. Motor Boating	1.66*
11. Hunting	
12. Camping	
Trailer	
Tent	.78
13. Crabbing	.56
14. Horseback Riding	.82
15. Bird Watching	.72
16. Water Skiing	.67
17. Crafishing	.60
18. Playing Golf	.49
19. Nature Walks	.45
20. Hiking	.41
21. Attending Outdoor Concerts, Plays	.33
22. Canoeing	.15
23. Sailing (Boat)	.14
	.07

* The Summer period is the high quarter for all activities except hunting.

population, then one could surmise that although the state was lacking in picnic facilities, at least Region IA was "holding its own". However, this is not the case.

For every outdoor recreation type, for every projected year, Region IA is not keeping pace with the other regions. The percentage of total state need arising from Region IA is always greater than the percentage of total state population residing in Region IA. In other words, the per capita need in Region IA is greater than the per capita need statewide.

It is not difficult to understand why Region IA has the greatest need when one realizes that presently, Region IA has 28.2% of the state's population and only 4.8% of the total acreage in Louisiana state parks.

What's more difficult to understand is that the Louisiana State Parks Plan 1975-1990 projects the development of 21,100 acres of state parks to be added during 1975-1985, and nothing will be added in Region IA. Thus, unless the legislature appropriates money for a park in Region IA, this region will have 30.8% of the population but only 1.8% of the state park acreage by 1985. This hardly seems equitable.

In all fairness to the Louisiana State Parks Commission, the reason a park was not included for Region IA is because everyone expected the National Parks Service to acquire the site discussed in this report for a National park. The National Park Service initiated studies which determined the site to be "feasible and desirable" though two weeks before the Louisiana legislature was to meet in 1974, the National Park Service declared the site "not suitable" (not because the site wasn't suitable for a park but rather because N.P.S. policywise decided to upgrade existing parks before adding any new parks). This two-week period was not adequate time to include a park for Region IA.

exhibit 5-2

REGION 1A PERCENTAGE OF NEEDS BY ACTIVITY 1975, 1980, and 1985						
ACTIVITY	1975		1980		1985	
	NEED AS PERCENT OF STATE	POPULATION AS PERCENT OF STATE	NEED AS PERCENT OF STATE	POPULATION AS PERCENT OF STATE	NEED AS PERCENT OF STATE	POPULATION AS PERCENT OF STATE
SWIM, POOL	43.0%	28.2%	43.6%	29.4%	44.7%	30.8%
BEACH SWIM	28.9	28.2	30.0	29.4	31.4	30.8
OUTDOOR GAMES	31.1	28.2	33.0	29.4	35.0	30.8
FISHING	31.5	28.2	32.6	29.4	34.0	30.8
PICNICKING	35.1	28.2	36.1	29.4	37.4	30.8
MOTOR BOATING	38.7	28.2	39.6	29.4	40.7	30.8
HUNTING	39.4	28.2	40.2	29.4	41.3	30.8
TRAILER CAMP	29.8	28.2	30.7	29.4	32.4	30.8
TENT CAMPING	32.6	28.2	33.8	29.4	35.1	30.8
SKIING	59.5	28.2	59.0	29.4	58.2	30.8
HIKING	30.2	28.2	31.2	29.4	32.7	30.8
HORSEBACK RIDING	28.8	28.2	30.0	29.4	31.4	30.8

SOURCE: Statewide Comprehensive Outdoor Recreation Plan 1970-75 prepared by Louisiana State Parks and Recreation Commission. Region 1A consists of Jefferson, Orleans, and St. Bernard Parishes and contains the proposed site for the Jean Lafitte State Park

So, an amendment was added to this bill which, if the bonds were sold, would make \$3 million available for a Region IA park during 1985-90 provided matching federal funds could be obtained.

However, as will be more fully explained later in this report, if funds do not become available in 1975 or 1976 for land acquisition, the site discussed in this report will become unavailable for a state park. With roughly 30% of the population and only 3.7% of the state's land area, possible state park sites are severely limited or almost totally lacking.

RESPONSIBILITY

The responsibility to provide facilities for the "needs" of Region IA does not solely rely on the Louisiana State Parks System. Rather the vast majority of responsibility rests on the local and parish authorities.

However, the Louisiana State Parks and Recreation does recognize that it has responsibilities to the people of Jefferson, Orleans, and St. Bernard Parishes. The SCORE document seeks to quantify this responsibility and their findings are reprinted on the following page.

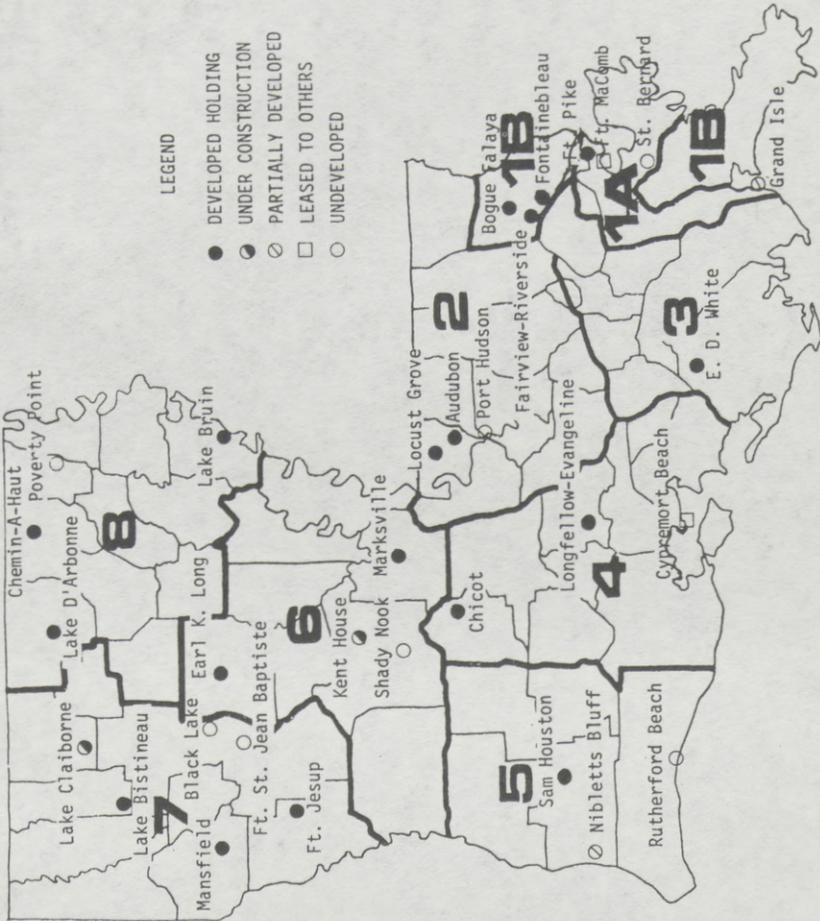
exhibit 5-3

FACILITY DEVELOPMENT NEEDS RESPONSIBILITY OF THE LOUISIANA STATE PARKS AND RECREATION COMMISSION 1975-1980											
		REGION									
		IA	IB	2	3	4	5	6	7	8	State
Swimming Pools - ^a each	6	1	4	1	3	-	3	2	1	21	
Beaches - acres	14	1	9	3	14	4	6	11	7	69	
Boat Ramps - ^b acres	104	8	64	20	94	18	29	56	32	425	
Picnicking - acres	64	4	35	14	48	10	25	35	26	261	
Trailer Camping - acres	45	3	30	11	48	14	20	34	20	225	
Tent Camping - acres	38	2	21	7	40	11	14	23	16	172	
Bridle Paths - ^c miles	67	6	44	16	71	24	28	54	29	339	
Hiking Trails	18	1	9	4	20	6	9	14	9	90	
Bikeways - ^c miles	43	3	26	10	51	15	18	35	19	220	

- a One pool including support facilities is equivalent to one acre
- b Fishing, boating, and waterskiing have been combined into a single boat ramp category, one ramp including support facilities is equivalent to one acre
- c A trail mile is equivalent to approximately one acre

Source: Gulf South Research Institute

existing parks



6

FACILITIES

The proposed JEAN LAFITTE STATE PARK site contains four ecological zones, typical of the South Louisiana Delta each reflecting different soils, vegetation, animal life, and water resources. These zones, because of their different natural characteristics, are individually suitable for certain types of activities and land useage. Because these zones blend into each other naturally, there are no distinct lines of change. Therefore, many activities could overlap from one zone to another. The following discussion briefly describes these four zones, and the most suitable activity or use for that zone.

Zone one is the Lowland Hardwood Forest adjacent to Highway 45. This zone encompasses an alluvial ridge formed by Bayou Des Familles, a distributary of the Mississippi River. This naturally drained ridge provides the most suitable site for construction of roads and bridges within the park boundaries. The vegetative cover, over these rich and stable soils, consists of oak, sycamore, willow, sweetgum, hackberry, red maple, and southern magnolia. These trees exist in thick stands. The forest is abundant in varieties of wildlife and forest floor vegetation; Natural character and beauty abound throughout the area. The Lowland Hardwood Forest zone is ideal for the core development of the proposed park. Based on the characteristics of this zone, the following functions are recommended: A parkway should be developed along Highway 45 to buffer roadside properties and provide a scenic corridor to the park entrance. Access roads into the park should be kept primarily along the existing highway area or into the forest area. Since the area is forested, trees will need to be subtracted for roadbeds and other facilities. The remaining woods, however, will serve as buffering and mature landscaping.

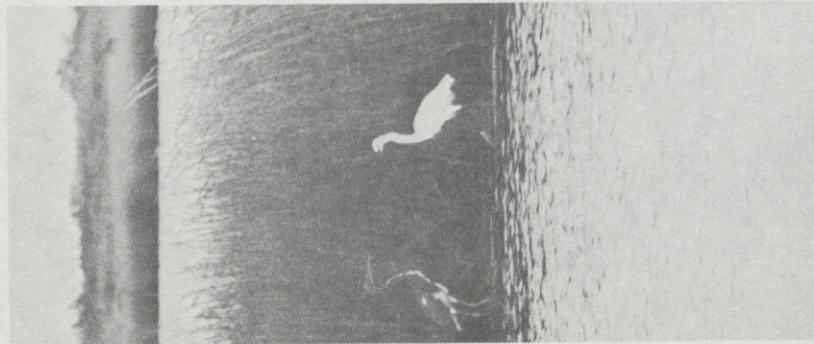
The forest area is well suited for a wide variety of recreational uses. Trailer camping, group camping, primitive camping, picnicking, hiking trails, and botanical gardens are particularly suitable. Additionally, the area

**facilities
potential**

may be easily modified to accommodate lagoon and pond viewing and fishing, footpaths, bicycle paths, and open areas for most field sports and spontaneous games. Since the forest is so flexible, much of the recreational activity of the park would occur here. There would be something for everybody, including the aged and handicapped. The forest area is well suited for building purposes. Facilities such as a visitors center, administration offices, and museums could be located amidst towering foliage. Support facilities such as concession buildings, parking lots, maintenance and storage structures could easily be accommodated. Specific recreational structures such as observation towers, open air pavilions, shelters or overnight cabins would also blend well within the forest environment. Maintenance-free designs and uses would be used whenever possible.

The provision of utilities to the proposed park would be accommodated off of the Highway 45 corridor. Since it has been established that the best building sites are in the forest zone near the highway, the placement of structures here would be of ease to utility costs. Power stations, water and gas meters, and sewerage facilities could be located near the highway, yet adequately buffered. This not only makes economic sense but also avoids the necessity of these elements protruding into natural and scenic portions of the forest and marsh zones.

Zone two, the Cypress-Tupelo Swamp, is a rich biological unit characterized by poor soils, a high water table, and mossy groves of cypress, tupelo gum, and red maple. The lowland forest drains into the swamp zone, and the swamp drains into marsh zone which responds to the tides. Because the swamp is neither water nor forest, it is a unique botanical and scenic area. With this in mind, its most suitable facilities include boardwalks (originating from the forest park area), observation platforms, canoe and pirogue water trails, and fishing. Emphasis here is on the aesthetic value of being a unique environment - a south Louisiana swamp.



The marsh, Zone 3, is a wet, spongy prairie with broad horizontal views and brilliant sunsets. In its vegetations of Delta duck potato, alligator weed, cattails, foxtail, deer pea, smart weed, and black mangrove are some of the richest animal life in the state. Here, are raccoon, nutria, muskrat, otter, mink, rabbit, whitetail deer, and the notorious alligator. Above this carpet of grass and animal life, fly flocks of heron, ibises, redwings, ducks, and the graceful snowy white egret.

It is in this picturesque setting that man can receive most inspiration. This portion of the park should be less developed, yet park goers must have access to use the area on a limited scale. Pond fishing and boating are encouraged. Boardwalks meandering through the swamp could terminate in the marsh zone with observation platforms. With the marsh virtually undeveloped and used as a wildlife preserve, the vistas and scenery would be extraordinary. The marsh will also serve its traditional roles of supporting fisheries in the surrounding bayous and lakes as well as a buffer area to the more intensely developed area of the park during storms.

The edge marks the transition of the park into Zone 4, Lake Salvador area. For all practical purposes, the lake, even though not in the park boundaries, would serve and become a significant part of the State Park. On this shoreline, dredge spoil from the Bayou Segnette Waterway would help stabilize erosion. New vegetation would occur. Nodal boat docks and fishing and crabbing piers could make attractive activity spots. Boating, fishing, and water skiing on the lake would be popular. Tour boats from the interior of the park could cruise the scenic shores and inlets of the area. The activity along the lake and the shoreline would add yet another diverse element to the enjoyment of the State Park scheme.

Although it is virtually impossible to determine the capacity of the proposed site to accommodate recreation facilities without causing some loss of the site's natural integrity, we have conservatively estimated the quantity and extent of recreational and camping facilities which could be executed on the site. The master plan phase will develop an increased data base for recreational planning, but for preliminary feasibility determination, our conservative estimates will be utilized. Our estimate of recreational and camping facilities include:

<u>Boating</u>	3 boat launching ramps, with 300 boat slips, 100 rental boats of modest proportions
<u>Fishing Pier</u>	3 separate beaches
<u>Swimming Beaches</u>	areas for 200 tables with grills
<u>Picnic Areas</u>	200 acres
<u>Open Play areas</u>	3 miles
<u>Nature Walks</u>	3 miles
<u>Boardwalk</u>	3 miles
<u>Bikeways</u>	3 miles
<u>Botanical Greenhouse</u>	7,200 square feet
<u>Tent Camping</u>	for 500 tents
<u>Trailer Camping</u>	for 200 trailers
<u>Overnight Cabins</u>	40 at various locations

We believe that the above facilities with their related support requirements (comfort stations, parking, etc.) could be executed without endangering the natural integrity of the site. These facilities would provide a high-quality recreational opportunity for the people in this and other parts of Louisiana. The demand for recreational opportunities far exceeds the capacity of this site.

proposed facilities

facilities development cost

GENERAL FACILITIES

General Site Work including fencing	\$ 950,000
Roads, Bridges, Parking, Lighting, Signs	1,500,000
Entrance Structure, Admin. Bldgs., Interpretive Centers and Concession Stand	180,000
Maintenance Bldgs. and Equipment	<u>225,000</u>
SUB TOTAL	\$2,855,000

RECREATIONAL FACILITIES

<u>Boating</u> includes 3 ramps, docks with slips for 300 boats, 100 rental boats, parking, comfort stations and related support.	\$ 675,000
<u>Fishing Pier</u> includes pier plus parking	60,000
<u>Swimming Beaches</u> include 3 beaches, bathhouses, comfort stations, and parking.	340,000
<u>Picnic Areas</u> include 200 picnic tables, 100 barbeques grills, trash receptacles, shelters, pavilions, comfort stations, and parking	240,000
<u>Open Play areas</u> include cleared areas totalling 200 acres	540,000
<u>Nature Walks & Boardwalk</u> include trail markers, interpretive signs, and parking for 3 miles of nature walks and 3 miles of boardwalk	345,000

Cost estimations were derived from the Gulf South Research Instituté's The Louisiana State Parks Plan, 1975-1990. This document contains facility cost estimates for 1975, 1980, and 1985. We have utilized the 1980 estimates to arrive at our estimation.

<u>Bicycling</u> includes 5 miles of bikeways capable of accommodating bike and wheelchair traffic with auto and bike parking	\$ 140,000
<u>Botanical Greenhouse</u> includes a 7,200 square foot greenhouse, plants, automatic heaters, sprinklers, vents, etc., and parking	<u>125,000</u>
	SUB TOTAL
	2,465,000
<u>CAMPING FACILITIES</u>	
<u>Tent Camping</u> includes 500 tent sites, picnic tables, barbeque grills, trash receptacles, potable water, toilet facilities, and parking	800,000
<u>Trailer Camping</u> includes 200 pads with hookups, dump station, picnic tables, barbeque grills, trash receptacles, and comfort stations with laundering facilities serving multiple units	770,000
<u>Overnight Cabins</u> includes 40 cabins of 750 square feet with utilities and parking	<u>840,000</u>
	SUB TOTAL
	2,410,000
TOTAL DEVELOPMENT AND FACILITY COST	\$7,730,000
PROFESSIONAL FEES AND CONTINGENCIES	<u>770,000</u>
TOTAL COST	<u>\$8,500,000</u>

7

LAND ACQUISITION

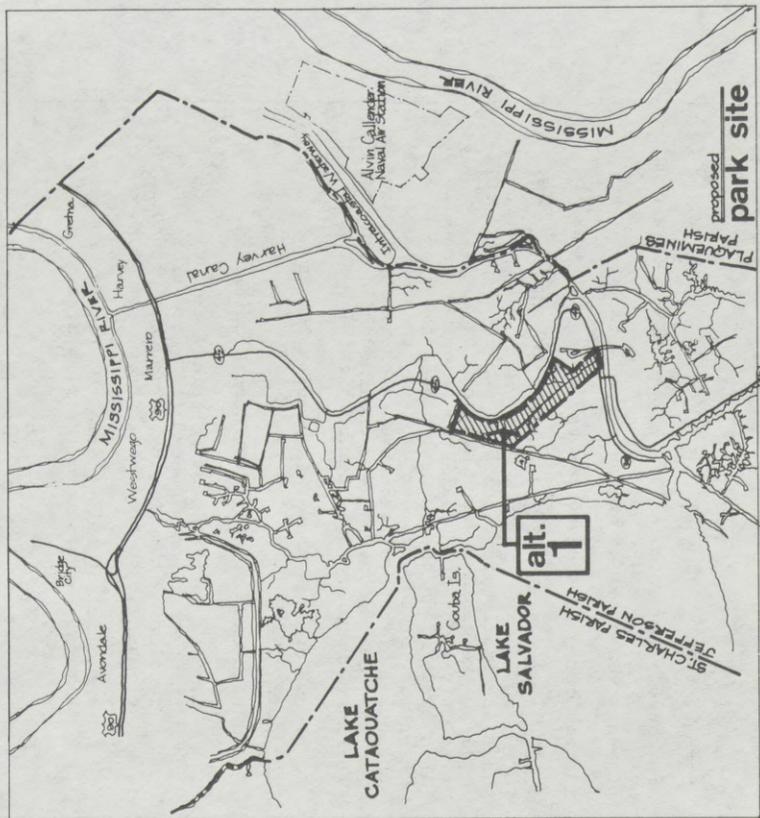
The land owners in the study area are differently motivated regarding ownership of land. Some purchased the land with the specific intent of residential or commercial development. Some purchased speculatively hoping to later sell at higher prices to developers. Some are primarily interested in the mineral rights. Other owners include public agencies to whom land has been donated.

The above motivations affect the method by which the State Parks System would acquire or gain control of the land. Some owners will prefer a direct sale of their land. It is expected that some owners will prefer a long term lease arrangement. For example, the owners interested in the mineral rights might lease land to State Parks for a nominal amount if they are allowed to continue drilling. The sale-price of this land might be astronomical because of the oil and gas potential.

In estimating the land acquisition cost, we have made assumptions as to how many acres should be purchased and how many should be leased. Serious negotiations with the owners after acquisition funding has been appropriated may change the lease or purchase characteristics we have assumed.

We have estimated the acquisition cost of land for four alternative park alignments. Although, our opinion is that only two of these alignments are feasible and cost effective, we shall present all four so that the cost ramifications of different alignments may be better understood.

background



alternate 1

Size = 1,300 acres

Purchase = 400 acres at \$6,000 per acre = \$2,400,000

Lease = 900 acres at nominal yearly amount

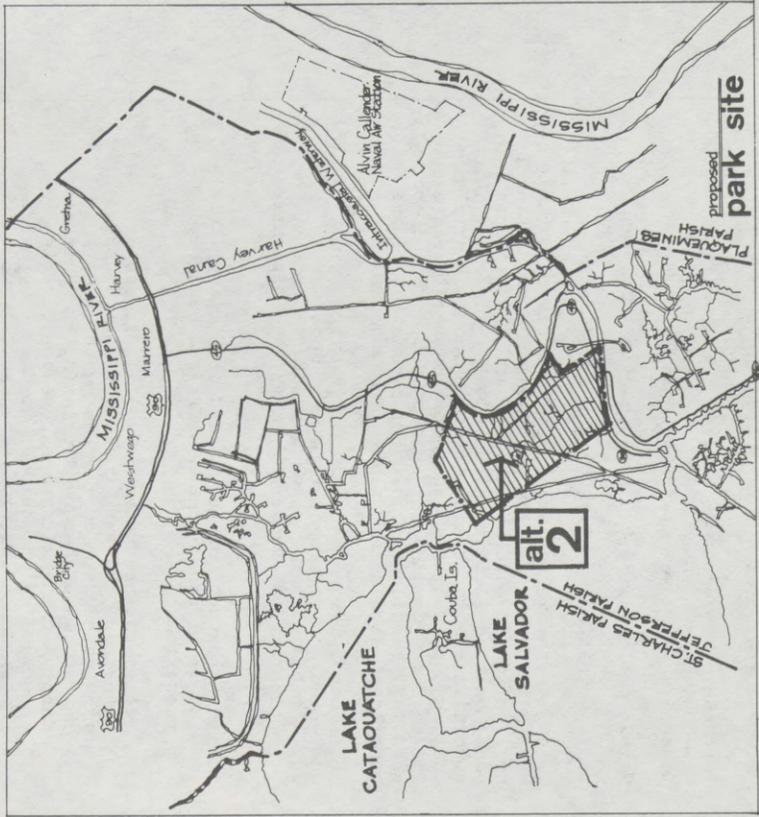
Total Cost = \$2,400,000 for use of 1,300 acres

Average Cost/Acre = \$1,846 over 1,300 acres

This alternative represents a "skeleton" park, full-filling the minimum size requirements for State Park classification but not all the selection criteria. This land, along the natural ridge, has good potential for development, though the recreational potential of this alternative is extremely limited, and the development concept recommended could not be accommodated on this limited site.

It is our opinion that this alternative is not feasible due to:

1. High cost per acre for land acquisition.
2. Limited recreational potential when viewed relative to the "needs" for recreation facilities thereby increasing the probability of overuse to the detriment of the park.
3. Insufficient buffer area to preserve the natural integrity of the park area.



Size = 4,150 acres

Purchase = 2,950 acres at \$1,407 per acre = \$4,150,000

Lease = 1,200 acres at nominal yearly amount

Total Cost = \$4,150,000 for use of 4,150 acres

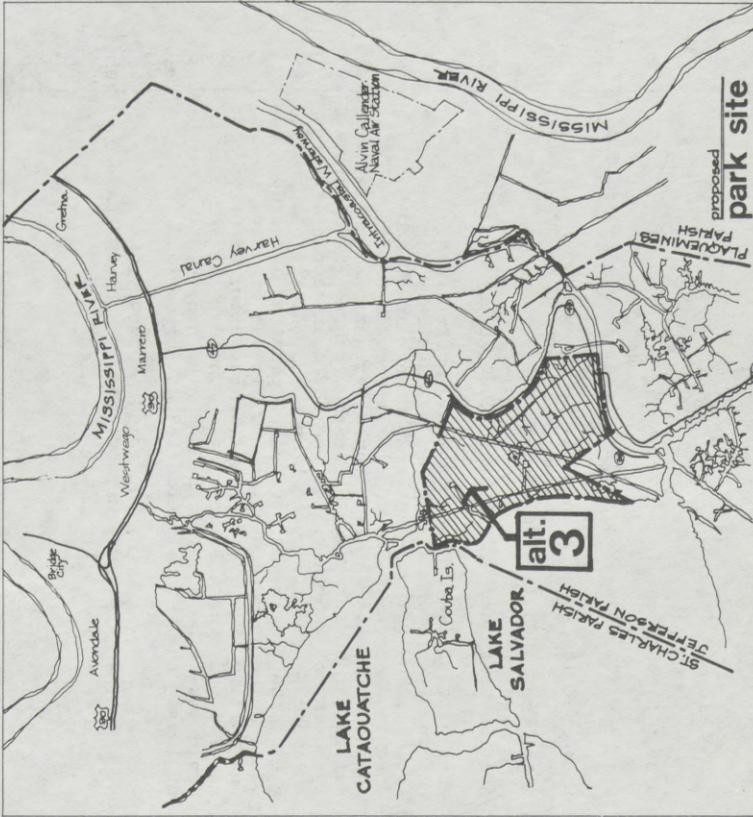
Average Cost/Acre = \$1,000 over 4,150 acres.

This alternative represents a significant improvement over Alternative 1. The potential for recreational utilization is much better as possibilities exist for nodal boating facilities, boardwalks and observation towers in the marsh area, a wider scope of primitive camping opportunities, and additional swimming areas. The facility development concept could not be accomplished in its entirety; however, a substantial and beneficial development scheme could occur.

It is our opinion that this alternative is not feasible and we do not recommend this plan because:

1. The buffer area is not adequate to protect the integrity of the park from private disruptive activities.
2. No "frontage" on Lake Salvador thereby limiting the water associated benefits to be derived therefrom.
3. Access to Lake Salvador would traverse private property. The park could not control private fishing camps, etc from being built on the private land thereby decreasing the aesthetic beauty of the marsh area. Also, certain waterways which could be dredged to provide better accessibility and useability would not be within the control of the park system.

alternate 2



alternate 3

Size = 5,600 acres

Purchase = 3,500 acres at \$1,537 per acre = \$5,380,000

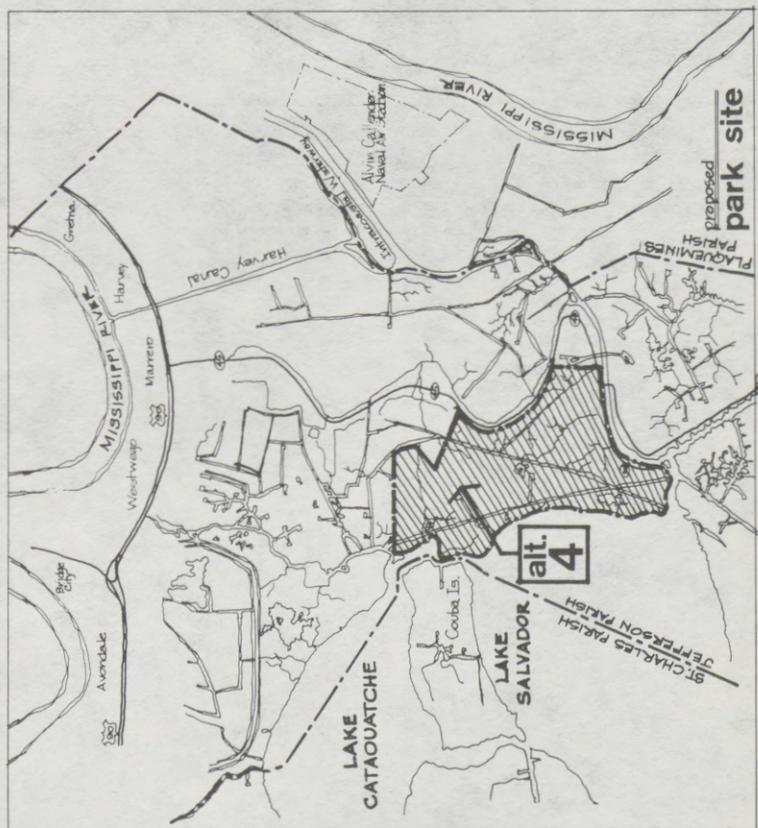
Lease = 2,100 acres at nominal yearly amount

Total Cost = \$5,380,000 for use of 5,600 acres

Average Cost/Acre = \$961 over 5,600 acres

This alternative is substantially better than Alternatives 1 and 2. Access to Lake Salvador can be accomplished without leaving the park area, and "frontage" on Lake Salvador will provide beneficial increases in the water oriented recreational activities. Sufficient buffer zones exist to preserve the natural integrity of the park. The increased acreage alleviates the necessity for a concentration of facilities, thereby giving the feeling of less development and more open vistas. The increased acreage will also minimize the possibility of overuse by allowing visitor sites to be distributed over a larger area. The development concept could easily be accomplished without danger of losing the natural integrity of the park.

WE RECOMMEND THIS CONFIGURATION
AS FEASIBLE, COST EFFECTIVE, AND DESIRABLE



alternate 4

Size = 7,300 acres

Purchase = 4,500 acres at \$1,462 per acre = \$6,580,000

Lease = 2,800 acres at nominal yearly amount

Total Cost = \$6,580,000 for use of 7,300 acres

Average Cost/Acre = \$901 over 7,300 acres

This alternative is better than Alternative 3 which we recommend as a feasible plan. Additional benefits from this plan include a larger buffer area, increased acreage and decreased density, and the possibility for increased nodal development of recreation facilities.

With the possible future expansion of Lake Salvador Game Management Area to include the northern and eastern shores of Lake Cataouatche, this configuration provides the opportunity for one contiguous land area, thus providing additional recreational resources.

WE RECOMMEND THIS PLAN AS FEASIBLE AND MOST DESIRABLE.

summary

The 5,600 acre park with a \$5.4 million land cost is economically feasible, cost effective, and desirable (Alternate 3).

The 7,300 acre park with a \$6.2 million land cost is economically feasible, cost effective, and most desirable (Alternate 4).

The 1,300 acre park (Alternate 1) and the 4,150 acre park (Alternate 2) are not economically feasible nor are they consistent with good state park planning.

We hope funding priorities would permit land acquisition of 7,300 acres. This would be an excellent park from which the entire state could benefit.

The 5,600 acre alternative would also afford the state with a tremendous recreational state park facility. We can recommend this as one of the best possible. Naturally, the 7,300 acre park is better, yet without knowledge of all the state's need in other functional areas, it is difficult to determine whether the difference in cost of \$1.2 million is justified.

In either case, the land acquisition plan would be exactly the same during the early stages thereby causing no wasted money or effort should the objective change from 5,600 acres to 7,300 acres or vice versa.

8

REVENUES

Critical to the projection of revenue is an estimation of the number of persons visiting the park. To estimate attendance, the following factors must be considered:

attendance

1. How many people live within an easy travel distance of the park?
2. What are the recreational demands of these proximal persons?
3. What recreational facilities presently exist to serve the demand?
4. What recreational facilities would be included in Jean Lafitte State Park?
5. What have other state parks achieved in terms of attendance, and what is the degree of their comparability to Jean Lafitte State Park?

Jean Lafitte State Park is located in Jefferson Parish (1970 population = 337,568) and is only 12 miles from Orleans Parish (1970 pop. = 593,471). The transportation network accessing the park is excellent.

The recreation demands of people in the area as determined in the SCORP document are tremendous, and existing recreational facilities are sorely lacking in number and scope. The facility development concept for Lafitte State Park is broad and represents a significant contribution towards satisfying the facility needs of the area.

Fontainebleau State Park, a 2,755 acre park approximately 35 miles from Jefferson Parish and 40 miles from Orleans Parish is the state park which is most comparable to Lafitte State Park. Fontainebleau presently offers cabins, camping, picnicking, and playgrounds. The recreational facilities conceptually planned for Lafitte include the same facilities as Fontainebleau plus swimming beaches, boat ramps and docks, rental boats, trails, fishing pier, greenhouse, and additional camping capacity.

If Lafitte had been operational in 1970, we estimate the attendance would have been 30% greater than the 5-year Fontainebleau average or 54,951 persons per month. Accounting for population growth in the area and increased visitor usage:

The 1975 estimate is 59,347 persons per month.

The 1980 estimate is 65,941 persons per month.

The 1985 estimate is 75,832 persons per month.

user fee structures

Facility/Activity	Fee	Unit	Time	Seasonality
Entrance	\$1.00	Car	Day	12 Months
Concession	.75 ²	Person	Day	12 Months
Swimming	.50	Person	Day	4 Months
Camping Tent	1.30	Space	Day	6 Months
Camping Trailer	1.80	Space	Day	6 Months
Cabins	7.00	Cabins	Day	9 Months
Group Camps	.85	Person	Day	6 Months
Boating	2.20 ²	Boat	Day	4 Months
Bridle Paths	2.00 ²	Horse	Hour	12 Months
Bikes	1.00 ²	Bike	Hour	12 Months
Museum	.50	Person	Day	12 Months

To estimate the revenue producing ability of the proposed Lafitte State Park, we have utilized the methodology employed by the Louisiana State Parks and Recreation Commission and Gulf South Research Institute for the SCORP Project.

¹ Fees derived from current Louisiana State Parks user fees structure and comparable data from other states.

² Concessionaire fee to state = 30 percent.

Source: Gulf South Research Institute

It is assumed that no special fee would be charged for use of picnic facilities, swimming beaches, hiking and nature fishing pier, greenhouse, boardwalks, and bike ways.

Utilizing 1970 fee schedule and the LSPRC methodology, the revenues of Lafitte State Park are estimated as follows:

revenue

Facility	Unit	Visitors	Percent Use	Fee	Time	Concession Fee	TOTAL
Entrance		54,951	25 ^a	\$1.00	12mo.	--	\$ 164,853
Concession		54,951	--	.75 ^b	12mo.	30% ^c	148,368
Camping	700 ^d	--	50	1.55	360days	--	195,300
Cabins	40	--	76	7.00	360days	--	76,608
Boat Ramps	150 ^c	--	60	1.00	360days	--	32,400
Boating - Rental	100	--	60	2.20	360days	30% ^c	14,256
Boat Docking	100	--	60	1.00	360days	--	64,800

If Jean Lafitte State Park had been operational in 1970, estimated revenue = \$696,585.

- Assume 4 persons per car and entrance fee is \$1.00 per car.
- Research indicated average visitor spends 75¢ per day on concessions.
- Concessions are franchised, but LSPRC receives 30% of gross revenue.
- Represents combination of 500 tents and 200 trailer camping spots.
- Three boat ramps could launch/recover 50 boats/day/ramp; 3 x 50 = 150.

PROJECTED FUTURE REVENUES JEAN LAFITTE STATE PARK				
REVENUE PERIOD	PRICE INDEX	POP RATE	1970 REVENUE	ESTIMATED REVENUE
1975	1.1438	1.08	\$696,585	\$860,494
1980	1.2948	1.20	696,585	1,082,326
1985	1.4458	1.38	696,585	1,389,829

Obviously, Lafitte State Park will generate no revenues for 1975 since the park does not exist. The 1975 revenue estimate is included to illustrate the estimation procedure.

If funds become available for land acquisition and facility development in 1975, it is possible that the facilities could be completed by 1980. However, we do not expect this to occur unless the legislature appropriates funding of at least \$10 million during 1975-76.

A realistic estimate of completion could be 1983 or 1984 if land acquisition money is provided now and additional funds are provided in subsequent years. The proposed facility development plan would be phased, and the park would generate some revenues during partial completion.

If the park was complete in 1984, the estimated revenues are projected to be \$1,389,829 in 1985 increasing thereafter due to population growth and increases in the fee schedule.

**projected
revenues**

9 OPERATION & MAINTENANCE

FACILITY	QUANTITY	ANNUAL COST/UNIT	TOTAL ANNUAL COST
Boat Ramps ^a	3 ramps	\$1,725	\$ 5,175
Boat Rental Area ^a	100 boats	77	7,700
Swimming Beaches ^a	3 beaches	9,137	27,411
Picnic Tables	200 tables	68	13,600
Playground acreage ^a	200 acres	716	143,200
Nature Trail ^a	3 miles	778	2,334
Tent Camping ^a	70 acres	2,534	177,380
Trailer Camping ^a	20 acres	5,810	116,200
Cabins ^a	40 cabins	3,000	120,000
General Park Area ^a	500 acres	102	51,000
Concessions ^a	10 unit	300	3,000
Boat Docking ^b	300 slips	400	120,000
Fishing Pier ^b	1 pier	2,000	2,000
Boardwalk ^b	3 miles	750	2,250
Greenhouse ^b	7,200 sq. ft.	5	36,000
Bicycle Paths ^b	5 miles	1,000	5,000
		TOTAL	\$832,250
		say	850,000

estimated operation and maintenance expenses

Sources of information:

a. SCORP document

b. James F. Fondren & Associates

10

FINANCING

current

Estimated acquisition cost for land	\$5,380,000
Estimated cost of development and facilities	8,500,000
Estimated cost of annual operation and maintenance	850,000

**methods
of
funding****proposed**

The current funding for the proposed park comes from an appropriation of approximately \$75,000 per year from the Jefferson Downs Race Track. This funding began in 1972, and currently there is \$221,000+ in an escrow fund with an additional \$75,000 due shortly, thus bringing the total to about \$296,000. Whether this \$75,000 yearly funding will continue after the new constitution takes effect is unclear, and clarification of this matter is now being sought.

potential

The Louisiana State Parks Revenue Bill introduced, passed by the legislature and signed by the Governor in 1974 calls for a \$100 million bond issue to finance acquisition and development costs of the State Parks System through 1990. An amendment to this bill provides that \$3 million would be made available for Lafitte State Park during the 1985-90 period provided that matching federal funds could be obtained. Due to technical deficiencies in the Bill, it must be re-submitted to the legislature this session, 1975. Therefore, at this time there are no state funds available for Lafitte State Park, except the Jefferson Downs appropriation.

Some of the potential sources of funding are:

1. Additional appropriation from the state legislature and governor.
2. Federal Sources.
 - a. Land and Water Conservation Fund, Department of the Interior.
 - b. Bureau of Outdoor Recreation, Department of the Interior.
 - c. Housing and Urban Community Development Act, Department of Housing and Urban Development.
 - d. Resource and Conservation Development Program, Soil Conservation Service, Department of Agriculture.
3. Private Sources.
 - a. Nature Conservancy.
 - b. Wealthy individuals, corporations, or foundations.



It is our opinion that Jean Lafitte State Park will not become a reality unless substantial funds become available for land acquisition in 1975 or 1976. The natural growth pattern of the New Orleans metropolitan area is presently exerting pressure to place this land into residential and commercial use. Tracts of land important to the park will be developed by private interests within the near future.

New Orleans is a unique area. Roughly 30% of the state's population lives on 3.7% of the state's land. The terrain is low and swampy except for a few natural ridges of high land and land created by leveeing and draining low lying areas. Very few of the natural ridges remain undeveloped. Drained and leveed land is not suitable for a state park with "natural integrity". Population growth and residential sprawl will first absorb the remaining parcels of high ground then exert pressure for additional levees and thereby destroying the natural areas. Someday we will turn around and all the natural beautiful swamp areas will be overtaken by development, and the remaining natural parcels will be accessible only by boat.

The proposed site is ideal for a State Park. Major portions of the area are natural swamps and marshes with high recreational potential and accessible by boardwalks. The land bordering the highway is a natural ridge thereby requiring no levees to construct the type of facilities which will be harmonious with the park's design. However, the high land along the highway is also well suited for commercial development because residential development will push into the park vicinity in the near future, and good land with highway frontage will be at a premium.

If funds do not become available for acquisition in 1975 or 1976, the high land along highway 45 which is vital to the park will be subdivided and sold. Ownership patterns will become fragmented, and scattered development will take place by private interests. Land acquisition for a park will become extremely expensive and infeasible; yet this might be the only potential park site, and it will be unavailable.

**consultant's
opinion**

The \$75,000 appropriation from the racetrack in not adequate to even begin land acquisition. However, once the key parcels have been acquired, the \$75,000 could be used for lease payments and would be very helpful.

The \$3 million "earmarked" for Jean Lafitte State Park in the State Parks Bill is a "non factor" in the acquisition of land for a park. First, the \$3 million is if the bonds sell and if matching federal funds can be obtained and if so, then only in the 1985-1990 period. Acquisition of the proposed site will be infeasible long before 1985. The key parcels will be developed by private interests. The ecology of the area will be changed by new levees and new residential and commercial development. The \$3 million is simply not a "real time" factor in acquisition. The \$3 million could be used for facility if the land has been acquired in 1975 or 1976.

If the legislature believes that the New Orleans area deserves a park, it must appropriate adequate funds in 1975 or 1976 for the commencement of land acquisition. The racetrack money is a minor factor at this point. Monies designated for Lafitte from the State Park Bill are, in our opinion, also a "non factor" as stated before. If a park acquisition plan is not implemented now, the future funds will be without purpose.

The necessary funding needed for land acquisition is estimated to be \$5.4 million, though the park land has not been appraised by a qualified appraiser, and the figure may vary.

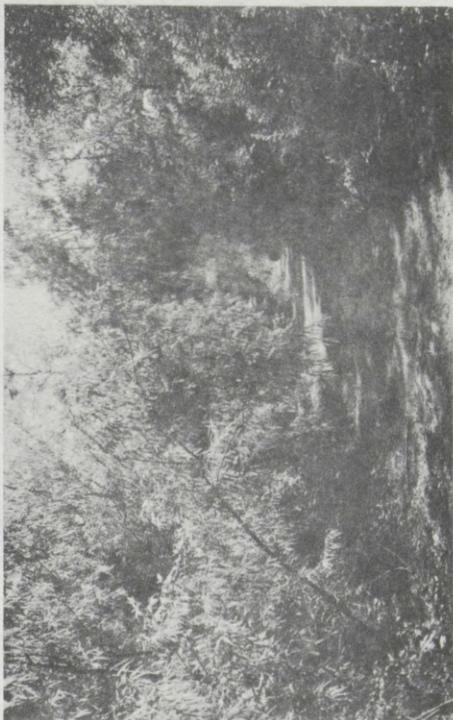
In the past, numerous efforts were made by citizens, legislators, and S.P.R.C. officials to secure leases and options on the land, but were unsuccessful because no funds were available.

Serious discussions with land owners cannot begin until there is a solid commitment of funds. After funding is committed, a land acquisition plan can be formulated.

Once the Louisiana Legislative appropriation is made, definite negotiations can begin with potential sources

of other funds, both federal and private. To date, the discussions with these outside sources have been necessarily hypothetical and all expressed the idea "come back when you've got a definite commitment, then we'll do some serious talking."

We feel confident that with a definite commitment by the state for substantial funding, federal money can be secured to assist Louisiana in providing this greatly needed park.



APPENDIX

Regular Session, 1974
 SENATE CONCURRENT RESOLUTION NO. 59
 BY MESSRS. E. J. NICHOLSON, TIEMANN, WINDHORST, NUNEZ AND
 LAURICELLA AND REPRESENTATIVES ULLO, ALARIO, GRISBAUM,
 DOUCET AND PATTI

A CONCURRENT RESOLUTION

To authorize and direct the Louisiana State Parks and Recreation Commission to conduct a feasibility study and master plan of development for the Joint Legislative Committee on Natural Resources, on the acquisition and development of the proposed area for Lafitte State Park.

WHEREAS, the creation of Lafitte State Park was authorized by Act 100 of 1966; and

WHEREAS, the proposed area is thought to possess unique historical, archaeological, ecological, and recreational features and opportunities of state-wide interest; and

WHEREAS, the State Parks and Recreation Commission is the agency of the state responsible for making such unique historical, archaeological, ecological and recreational features and opportunities available to the citizens of this state, and to tourists; and

WHEREAS, the State Parks and Recreation Commission has adopted criteria for the inclusion of such areas into the state parks system; and

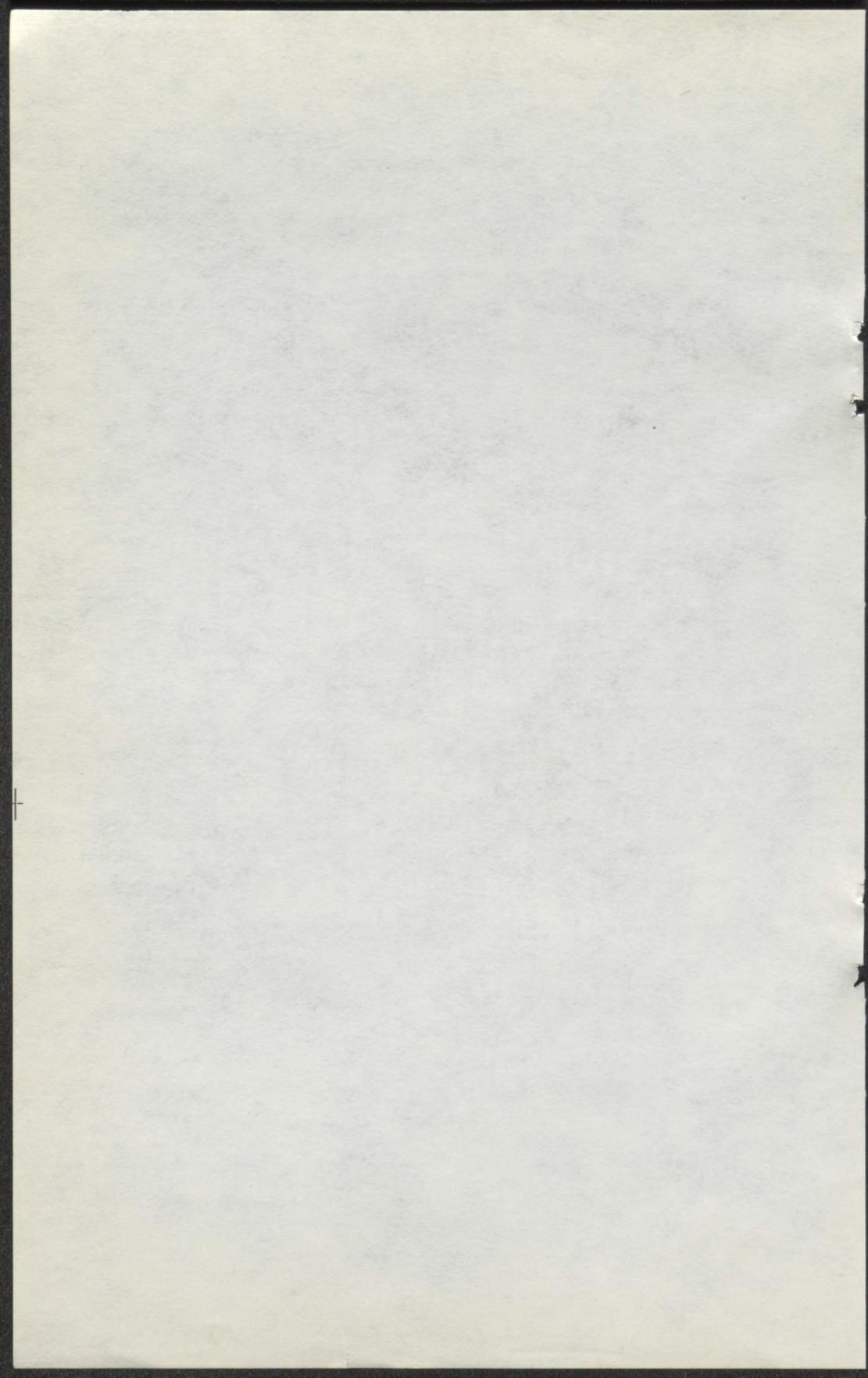
WHEREAS, a feasibility study and master plan of development is necessary to ascertain that an area meets the criteria for inclusion in the state parks system, and the costs thereof;

THEREFORE BE IT RESOLVED by the Senate of the Legislature of Louisiana, the House of Representatives thereof concurring, that the Louisiana State Parks and Recreation Commission is authorized and directed to conduct a feasibility study to determine whether the proposed area for Lafitte State Park meets the criteria for inclusion in the Louisiana State Parks system, and to further determine, through development of a master plan, the utilization of the site, the cost of land acquisition, the cost of architectural design and development, the cost of operation and maintenance, user benefits to be achieved, and self-generating revenue potential thereof, and report on same to the Joint Legislative Committee on Natural Resources on or before April 1, 1975.

BE IT FURTHER RESOLVED that a copy of this Resolution shall be delivered to the Louisiana State Parks and Recreation Commission.

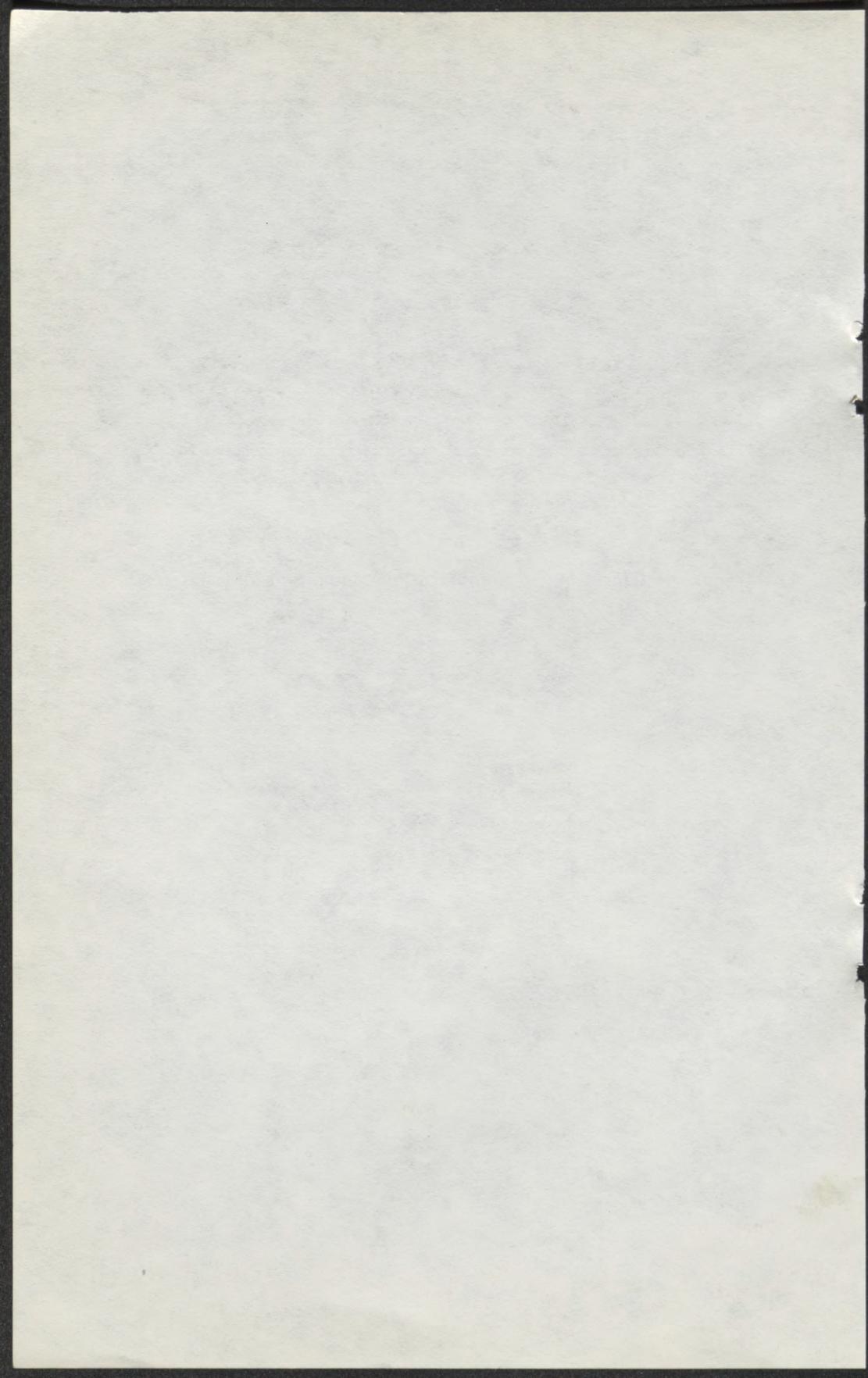
LIEUTENANT GOVERNOR AND PRESIDENT OF THE SENATE

SPEAKER OF THE HOUSE OF REPRESENTATIVES



APPENDIX III

Additional Statements and Communications Submitted for the Record



STATEMENT OF HON. DAVID C. TREEN, A U.S. REPRESENTATIVE FROM THE
STATE OF LOUISIANA

I regret that I am unable to appear in person today, but I do want to express my support for the creation of the Jean Lafitte National Cultural Park. I see this park as the force that will both promote and protect all that makes our area both desirable and unique.

Ours is an area rich in natural resources and wildlife. Our history is that of a people who have learned to co-exist with our bountiful, yet at times highly destructive environment. Our diverse culture has evolved around the Mississippi and the many people of various races and nationalities that have been drawn to this port city.

We live literally on top of a geologically growing and changing area, where the line between land and water changes from day to day and even from hour to hour. The delicate balance of nature in our coastal areas must be protected from unwise exploitation and development. On this last point, I might add that we have already taken many steps toward protecting our coastal areas and have even restored areas that have already been harmed.

This park will not only help protect our way of life, but it will make it possible for others to come and more easily share in it with us.

While the creation of the Jean Lafitte Park will promote and protect our culture, I must add that the way to preserve it is not to put it in a glass case and insulate it from the very forces that have made it productive and growing for the last two and one-half centuries. Rather, we must insure that we allow for continued natural growth.

With this park we should have three goals. We must first protect our fragile coastal areas from irreparable damage.

Secondly, we must preserve those aspects of our culture which have made us what we are.

Thirdly, we must promote continued growth so that our area does not stagnate. These are often conflicting, but not mutually exclusive goals. I believe that under the auspices of the Jean Lafitte National Cultural Park that all three of these goals can and will be accomplished.

As the U.S. Representative from Louisiana's Third Congressional District, I pledge my continued support for the park.

STATEMENT OF JAMES J. DONELON, COUNCIL CHAIRMAN, JEFFERSON PARISH

I would like to take this opportunity to reiterate my support of the designation of Jean Lafitte Park as a National Park and urge prompt consideration of this measure by your sub-committee of the Senate Committee on Interior and Insular Affairs for a variety of reasons.

First, our land base and cultural resources are eroding, and the commitment required to assure success of the Park will become greater as time passes. Second, Jefferson Parish—the fastest growing Parish in the State of Louisiana—has an extreme need for a recreational area of the size of the Jean Lafitte Park. Third, our area is not yet saturated by the National Park System. Fourth, the Park would provide a historical center of recreation for over one million citizens within easy access of the site. Finally, the Park is a truly representative mixture of the culture, heritage and natural resources which have made the Mississippi Delta famous.

For over a decade, residents of Jefferson Parish and southern Louisiana have demonstrated the value of the Jean Lafitte Park and have attempted to secure its preservation as a national landmark. We are justifiably proud of the unique blend of Spanish, French and English culture, the history of Jean Lafitte and his privateers, and the great Mississippi River and its Delta, and we feel that both residents and visitors alike would take advantage of the National Park and

utilize its unspoiled natural environment in a way that is encouraged by the National Park System.

Your review and deliberation of this matter, which holds great importance to us, is sincerely appreciated.

STATEMENT IN SUPPORT OF THE ESTABLISHMENT OF THE JEAN LAFITTE NATIONAL PARK

Although we do not directly represent the area which encompasses the Jean Lafitte Park, we support its designation as a National Park because of the positive effect it will have on the entire Parish of Jefferson. This area in the southern portion of the Parish has been inhabited from the earliest periods of geologic stability and is rich in historical significance. From the earliest days of Indian settlements to the era of Jean Lafitte, these lands have contributed greatly in natural resources which are representative of the entire Mississippi Delta.

Life today in the region of the Jean Lafitte Park is simple with hunting, fishing and trapping among major activities. The physical characteristics of the Park remain very much as they have been for centuries, and it is our feeling that it should be preserved as such.

Jefferson Parish has a tremendous need for recreational opportunities in the natural setting which the Jean Lafitte Park offers. The site lies in a relatively undeveloped area nearly twelve miles from the primary concentration of population and it is accessible by existing traffic arteries although comprehensive study on future highways is necessary to insure adequate ingress and egress. It possesses outstanding recreational potential and is truly reflective of the Louisiana marsh system, including continued habitation of a myriad of animals such as the alligator, nutria, mink, deer, and countless species of birds.

For the reasons outlined above, we support the establishment of the Jean Lafitte National Park, and we urge a favorable recommendation from the Subcommittee on Parks and Recreation of the Committee on Interior and Insular Affairs.

LAWRENCE W. HEASLIP, Jr.

Councilman-at-Large, Districts No. 3 and No. 4.

GEORGE J. ACKEL, Sr.,

Councilman, District No. 3.

ROBERT L. DEVINEY, Jr.,

Councilman, District No. 4.

LEAGUE OF WOMEN VOTERS
OF JEFFERSON PARISH,
Metairie, La., December 6, 1976.

To SENATOR J. BENNETT JOHNSTON,
*Senate Subcommittee on Parks and Recreation,
Care of Jefferson Parish Council, New Courthouse,
Gretna, La.:*

The League of Women Voters of Jefferson Parish urges that the proposed Jean Lafitte Park located in the Parish of Jefferson in the State of Louisiana be designated a national park and as such included in the National Park System. As an area of unusual natural and historical interest and significance located near urban centers it would be of lasting value to local and national visitors and users.

The following suggestions are offered by the League relative to its position on the preservation of areas of unique ecological importance within the parish and the state—particularly the coastal wetlands—

That the area designated be large enough to protect this uniqueness so typical of the predominant tupo gum and cypress swamp ecosystem;

That the area designated provide natural, rustic, passive types of recreation suitable for a wilderness setting, unaltered by drainage and development; and

That the area designated be further set off by a buffer zone allowing for wildlife management and protection of bayous, marshes and tidal lands affecting the continued renewal of the proposed national park.

The League of Women Voters of Jefferson Parish commends the efforts of Senator Johnston in providing for public participation in this most worthy

project and supports whole-heartedly both Senator Johnston and Congresswoman Lindy Boggs in their plans to introduce this proposal to the Congress.

The placing of a national park of this unusual kind within our parish and our state will provide countless citizens with a truly outstanding recreational and educational opportunity.

Respectfully submitted,

CHARLOTTE H. FREMAUX,
Environmental Committee,
League of Women Voters of Jefferson Parish.

LOUISIANA NATURE CENTER, INC.,
New Orleans, La. December 1, 1976.

Senator BENNETT JOHNSTON,
Senate Office Building,
Washington, D.C.

DEAR SENATOR JOHNSTON: It is very exciting to learn of the possibilities of the establishment of Lafitte National Park here in Louisiana. As you are aware, our state is in need of facilities which will interpret not only our colorful history, but also our natural environment.

Similarly, another interpretative project has begun which will also fulfill a need for environmental awareness. To be located in New Orleans East, the Louisiana Nature Center's goal is for a better understanding of the Mississippi, its delta, and the coastal zone. This goal is to be achieved by (1) providing programs and exhibits which stimulate interest and understanding of the regional environment; (2) providing classes, workshops and labs which stress the environment, and (3) providing programs for other educational institutions.

From its inception, the Board of Trustees of the Louisiana Nature Center realized that all people may not necessarily have access to the main facility and have planned for satellite sites throughout the area. These sites would provide local interpretative programs.

The Louisiana Nature Center, Inc. would like to go on record in full support of environmental interpretation. The Lafitte project is one which would further this concept. We wish you every success in this worthy endeavor.

BRUCIE RAFFERTY, *President.*
GARY L. SHADLE,
Executive Director.

AMERICAN LEGION,
JOSEPH ROBERT POST 344,
Lafitte, La. December 3, 1976.

U.S. SENATOR BENNETT JOHNSON,
Chairman of the Senate Interior Subcommittee on Parks and Recreation,
Washington, D.C.

HON. SENATOR JOHNSTON: The Joseph R. Roberts, Jr. Post 344, Mighty Second District, Louisiana Department, The American Legion made a motion and it was carried to indorse and recommend that the Jean Lafitte Park be restored as is and are in favor of the proposal to Create such a Park with facilities for hiking on nature trails, camping, swimming, boating, fishing and other sports activities.

As a National Executive Committeeman for Post and Community Activities for my Post I would like to go on Record and ask permission to serve on the Jean Lafitte Park Commission.

If in any way our Post, our District and Department can help your endeavor to bring good clean wholesome recreation to our Parish of Jefferson and to our Local Community, please don't hesitate to call on us, The Proud American Legion.

For God and Country and Community,
Respectfully,

ALVIN C. ADAM, Sr.,
National Executive Committeeman
Post and Community Activities.

P.S. I will with the help of my Post members, officers, and District we are willing to solicit other American Legion Posts for their indorsement of this endeavor of bringing this Park to a reality.

DECEMBER 6, 1976.

SENATOR BENNETT JOHNSON: The American Legion Joseph R. Roberts Jr. Post 344, Mighty Second District, Louisiana Dept., goes on record to support your efforts and the efforts of Mr. Ehreht for being very dedicated in restoring the proposed site of the National Park for our future generations, the youth of our nation, our parish and the 6th Ward, Baratarice Crown Point, Lafitte Area.

Our little post in Lafitte, La., the home of the Lafitte Veterans Club goes on record with some 400 member in our Veterans Club, our American Legion and our Wonderful ladies auxiliary off whatever help needed in helping make this dream of Mr. Ehreht become a reality.

As our Second District Commander, Aswald Falgout our La. Dept. Vice Commander, Philip Mayeau stated in our meeting Dec. 3, 1976, we are Cajun people, intelligent people dedicated to serving you our representatives in the Senate of our great country. We are from the marsh country where we make our living, where our children will in the future will make their living, where our forefathers made their living, Cajun people, a heritage we are proud of. They call our post the Santa Claus Post, our Commander Lawrence F. Chearmie, 19 years as a consecutive 100% American Legion Commander is our Santa Claus. He fits the bill 100% and believe me he does not need the pillows for stuffing. He's a natural.

Santa Claus has been accepted as an official member of our Post by our National Membership Chairman by our Louisiana Dept. Commander Abe Perri, and our Mighty Second District Commander Aswald Falgout, and the citizens of our great 6th Ward.

We go on record with our 100% Second District support of over 5,000 members for this restoring of nature as it is and advise everyone here today to lend their support to making this a reality.

For God, Country and Community.

Respectfully,

ALVIN C. ADAM,

National Executive Comm., Post and Community Activities.

P.S.—I want to make an apology for not being able to make this address personally, but due to prior commitments of a personal nature, I have to be elsewhere in the next hours.

NEW ORLEANS, LA., December 28, 1976.

Senator J. BENNETT JOHNSTON,
New Orleans, La.

DEAR SENATOR JOHNSTON: Thank you for allowing me to present at the December 6 hearing for the proposed Jean Lafitte National Park a synopsis of the historical significance of the Barataria Region of the proposed park as related to the history of the rest of the Mississippi Delta and to the history of this nation in general. With this letter I would like to add suggestions for implementation of the proposed park in relation to the cultural heritage of this region, and I would appreciate it if you would enter this letter into the records of proposals for the park.

I am wholeheartedly in favor of "Alternative #4" suggested in the 1973 National Park Service feasibility study, called an "Extended Jean Lafitte National Cultural Park," and the creation of a Delta-Region Preservation Commission, to encourage visitor access to and interpretation of the various cultural, as well as natural, resources of the Delta (forts, plantations, New Orleans neighborhoods, archaeological sites, etc.). I suggest that the study I compiled to aid the park service in 1973 entitled "Historic monuments of the Delta culture of South Louisiana within a 100 mile proximity of the proposed Lafitte Park site" be resurrected for use in the present considerations. Only one copy exists of this profusely illustrated study and it is in the hands of Bethlyn McCloskey, former chairwoman of the Jefferson Parish Environmental Development Board.

I further suggest that three monuments directly related to the Barataria estuary be acquired and/or administered by the park service as satellites to the nuclear area of the swamp park. These three monuments are within easy reach of the proposed swamp park and display three entirely separate aspects of the historic culture of the Barataria region and that of the entire Delta as well. Under the direction of the park service they could serve not only as a means of visitor understanding of the history of the Delta, but also, by arousing interest and curiosity, could serve as an impetus to encourage visitation of the other diverse attractions of the Delta.

The first monument I propose for such use is the ruin of Fort Livingston on Grande Terre Island at the Gulf end of the Barataria estuary. The brick fort was begun about 1840 on the site of Jean Lafitte's headquarters. Since colonial times, military control of the Delta influenced control of the entire Mississippi Valley and the fort could serve to display the military importance of the Delta. The American victory at Chalmette in the War of 1812 was, of course, a strategic battle. Historians feel that, when Federal forces defeated Confederates near the mouth of the Mississippi in 1862 and sealed off this great life-line of the South, the Confederacy was doomed to defeat even though the Civil War continued for several years. Fort Livingston is about 30 miles by water from the swamp park site and tour boats traveling to the island (either commercial or park service-operated) could give visitors a chance to experience the vast salt water marshes near the Gulf.

The second site I propose for satellite use is directly across Bayou Barataria from the proposed park area: the Berthoud Indian mound with its historic cemetery and adjacent bayou plantation house. The mound is one of the largest in the Delta and archaeological work at the site has not been conclusive but indications are that the mound may date from about 700 A.D. Pre-historic occupation of the Delta could be interpreted at this site, as well as the historic practice in the swampy Delta of using elevated Indian sites for burial grounds. This site is the best example of this practice in the Delta. Caution and discretion would have to be employed regarding visitation at the site so that the bayou inhabitants would not be discouraged from using the burial ground and continuing their unique and traditional practices there. Near the mound is the brick chimney of the sugar house of the Berthoud or Mavis Grove Plantation and, adjacent to this is the plantation house. The house may date from about 1800, is raised as a precaution against floods, and is a good example of the small, modest plantation houses that were probably characteristic of Bayou Barataria. Plantation owners in Barataria sometimes did not live on the bayou, but rather in a town house in New Orleans, or in a grander mansion on another plantation along the river. However, they visited their bayou properties at intervals and required a modest but comfortable house for their visits. This plantation house has a number of additions which were added to it through the years and which could be removed. Nearby, across the highway, is a small cottage which I believe to be another old plantation building, perhaps the overseer's house.

The third monument I would like to propose for consideration as a satellite interpretive center to be acquired and/or administered by the National Park Service, is the ruin of Seven Oaks Plantation House at Westwego, at the river end of the former Barataria deltaic tributary. This excellent example of the Classical temple-type plantation mansion with a continuous colonnade could serve to interpret the "Golden Age" of plantation life in the Delta, and the relationship of the Barataria wetlands to the commerce of the river and the culture of New Orleans. Several owners of Seven Oaks Plantation *also owned Barataria* and a canal which was dug on this plantation in the 1700s to connect Barataria with the river was for two centuries an important route of commerce and communication. The ruin of Seven Oaks is 10 miles distant from the proposed park site by land or water (scenic Bayou Segnette). "Sound and Light" productions (perhaps commercially operated) could be educational and moving experiences both at Seven Oaks and at Fort Livingston.

As for development of the swamp park itself, I, like everyone else, would like to be able to enjoy board walks and boat trails in order to experience the swamp. I would hope to see revitalization of the flora and fauna which was so unbelievably profuse to the Europeans who first explored and settled the Delta. I hope that the park service will not use restraint in this regard and will refer to the numerous historic records of abundant animal and plant life in the Delta. Archaeology work should be conducted at the midden sites in the park area and Indian life interpreted. I would also like to see some of the old Creole cottages, shotgun cottages and stores that are now abandoned and deteriorating along Bayou

Barataria transported to the park site, along with the oldest types of pirogues and Lafitte skiffs and paraphernalia characteristic of the historic livelihoods of the wetlands. I am sure that this can be done with the good taste always exhibited by the National Park Service in such projects. (A precedent for this idea is Wawona Village in Yosemite National Park where old log cabins were rescued from storms and vandalism in the mountains and brought to a site where they could be protected as well as easily enjoyed. Another example can be pointed out in the periodic placing of old log cabins along the Blue Ridge Parkway.)

Not the least of historic livelihoods in Barataria was smuggling and, on behalf of the patriotic smuggler for whom the park will be named, I would urge the National Park Service to utilize material now available to interpret the character of Jean Lafitte and the important role he played in the history of this nation.

Finally, I would like to see the geologic history of the great Mississippi Delta interpreted in displays. While the Delta is a mere infant when chronologically compared to the Grand Canyon, its geologic processes are no less fascinating and are little understood by the general public.

Please accept my offer of any services that I may be able to render in the creation of the park.

Sincerely yours,

BETSY SWANSON.

MARRERO, LA., November 29, 1976.

GENTLEMEN: These remarks are being submitted in accordance with your request that observations pertaining to the proposed Jean Lafitte National or State Park be admitted into the written record of the December 6, 1976 hearing on the park.

First of all, I am categorically in favor of the park, and in favor of any other proposal which would serve to preserve our swamps and marshes. Louisiana's wetlands have been and continue to be devastated on a massive scale, usually with the support of local and State officials, although such actions are in direct violation of national policy announced by the late President John F. Kennedy as early as 1961. This devastation occurs at the expense of the taxpayer, and to the great detriment of the taxpayer, the environment, and the world at large.

While I am in favor of the park, neither I nor any of my friends and associates wish to see the creation of a "mini-Playground USA". The driving force behind the local will to create Jean Lafitte Park has always been along the lines of a "Nature and Cultural" park. In effect, this would mean the construction of a visitor center and interpretive museum on a high-ground sector of the park, with the rest of the total area left in its natural condition, with the exception of board-walk nature trails, and canoe paths which would be kept clear enough of vegetation to allow free passage. Any camping within the park should be along the lines of that allowed in Okefenokee National Wildlife Refuge. I very strongly recommend the Okefenokee form of park management with one exception: no motorboats should be allowed within the Jean Lafitte Park, except for emergency rescue operations. The area is too small for powerboats to operate without unacceptable levels of pollution and noise. This ban would not affect Lake Salvadore, but no boat ramps, boat docks, or launch facilities should be built within the park itself, for this would remove needed revenues from the private sector, particularly with respect to the village of Lafitte. In other words, Crown Point, Lafitte, and Westwego should receive fringe benefits from the creation of a park, but no detrimental effects. Sanitized, portable toilets are another outstanding feature of the Okefenokee swamp park.

In connection with the establishment of a Jean Lafitte Park, certain steps must be simultaneously taken to ensure the parks integrity:

1. Bayou des Families should be included within the park's boundaries.
2. Buffer zones should be created to the North and East of the park. Natural buffers already exist to the South and West.
3. A massive campaign should be undertaken to eliminate pollution emanating from the Millaudon and Westwego Canals.
4. Any portion of the proposed Lafitte-Larose highway south of the existing V-shaped levee in Crown Point should be either elevated or not built at all.
5. New measures must be drawn up to eliminate the increased threat of saltwater intrusion, the effects of which can already be seen in Lafitte and Lake Cataouache.

Respectfully submitted,

JOSEPH I. VINCENT.

