File 77-36

PLANNING OF

SHALLOW DRAFT PORT FACILITIES
JEFFERSON PARISH, LOUISIANA

LARGE TRAWLER DOCKING FACILITY
LAFITTE - BARATARIA

PREPARED FOR

GREATER JEFFERSON PORT COMMISSION

HD
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1979

COCCHIARA AND ASSOCIATES
and
FROMHERZ ENGINEERS, INC.
A JOINT VENTURE

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&
FROMHERZ ENGINEERS, INC.
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November 1, 1979

Honorable John C. Hooper
President
Greater Jefferson Port Commission
P. O. Box 462
Gretna, Louisiana 70054

Reference: Final Report; Planning of Shallow Draft Port Facilities, Jefferson Parish, Louisiana

Dear Mr. Hooper:

We are pleased to submit this final report "Large Trawler Docking Facility, Lafitte/Barataria," along with its companion volume "Multi Purpose Docking Facility, Grand Isle," in fulfillment of our responsibilities with respect to the above mentioned study.

It has been a pleasure to conduct this study on behalf of the Port Commission. If we can assist you in any way in the future, please call upon us.

Yours very truly,

COCCHIARA AND ASSOCIATES
&
FROMHERZ ENGINEERS, INC.
A Joint Venture

By:
Joseph G. Cocchiara, Jr.

By:
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jdd

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CHAPTER I

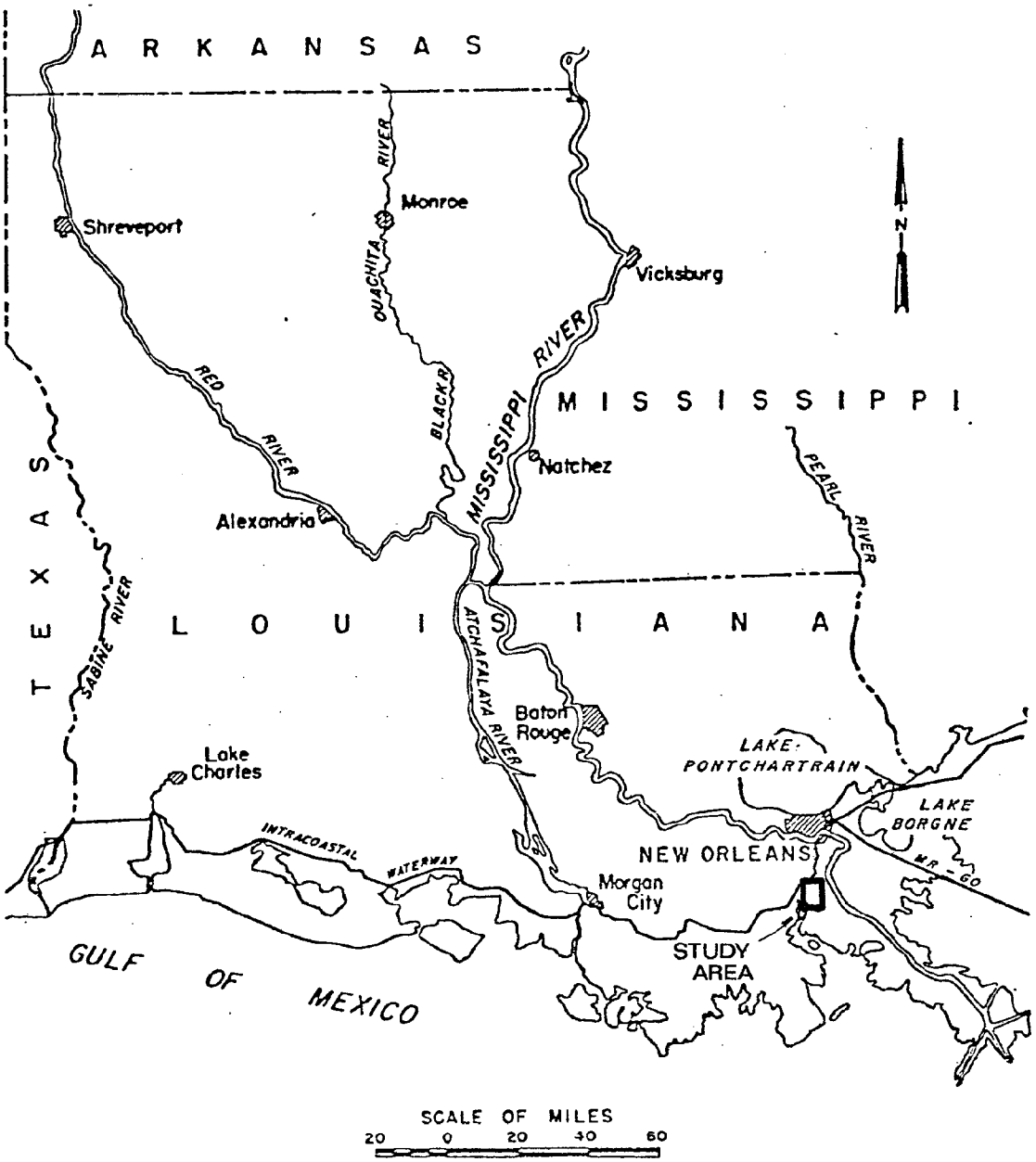
INTRODUCTION TO THE STUDY

The purpose of this study and report is to identify the major needs for docking facilities in the Lafitte/Barataria region of Jefferson Parish, and to develop a conceptual design for docking facilities to serve these needs. The study was conducted under the sponsorship of the Greater Jefferson Port Commission, utilizing federal Coastal Energy Impact Program (CEIP) funds administered by the Louisiana Department of Transportation and Development.

The study area is located along Bayou Barataria in the southern part of Jefferson Parish, and consists of the incorporated Village of Jean Lafitte and the unincorporated communities of Barataria, Lafitte and Crown Point. The area is rich in minerals, wildlife and fisheries resources, and is a major center of commercial and recreational fishing. The ecology of the study area is determined primarily by its location along a natural levee ridge in the coastal wetlands of the Mississippi Deltaic Plain. Both the economic activities and the ecologic setting of the area form the basis of the docking needs and development constraints analyzed in the study and reflected in the facility design concepts presented herein.

The study was conducted in three stages, permitting the Greater Jefferson Port Commission to review interim work products and provide direction. The first step was a preliminary analysis of docking needs. The findings of the preliminary analysis (presented in Appendix A) were supplemented by a public meeting to obtain citizen input (Appendix B). Based on these findings, the Port Commission selected the need for large trawler docking for further study.

Detailed analysis of this need and the required facility design parameters were developed through a questionnaire survey of large trawler owners in the area, and through a joint consideration of needs and area constraints. Findings of the detailed need analysis (Chapter III) and constraints analysis (Chapter IV) were reviewed by the Port Commission prior to beginning facility design.



VICINITY MAP

LAFITTE-BARATARIA
LOUISIANA

FIGURE I-1

An appropriate conceptual design was developed for facilities to serve this need, considering the design parameters and constraints identified; and construction and operating costs were estimated (Chapter V). A possible implementation schedule was producted (Chapter VI), as well as preliminary analysis of facility economics (Cahpter VII) and identification of major environmental impacts (Chapter VIII). Also identified were major sources of facility funding (Appendix C) and major regulatory and permitting requirements (Appendix D).

The study was conducted utilizing the best available published statistics, study reports and unpublished data, and applying sound engineering principals. In many cases, available data was insufficient for thorough analysis, and considerable use was made of specially conducted surveys, questionnaires, interviews and site visits. Research methodology used in the conduct of the study was aimed at increasing reliability of findings, to the extent possible in a conceptual level study. For example, where practical, projections were obtained from several different sources or by using different computational techniques, to allow a comparison of results.

There are limitations, however, to the material developed in the study, of which the reader should be aware. Projections made in the study are, like all projections, statements of what reasonably may be expected to happen in the future, given certain assumed conditions. Projections are not statements of fact, and should not be considered as such. Future conditions will be determined by many factors, which cannot be assured and which are not within the control of the researcher.

The financial analysis presented in Chapter VII is intended only to provide a rough indication of the amount of capital debt financing that can be supported from net revenues. The terms and conditions of debt financing mechanisms used in the analysis are for illustration purposes only, and are not intended to imply that the debt terms shown are or will be available. In the present volatile monetary situation, financial experts are unwilling and unable to determine what future debt terms will be.

Similarly, with respect to both the conceptual engineering design (Chapter V) and the identification of environmental consequences (Chapter VIII), sparse historical records and limited site specific data make it necessary to assume present conditions based on past experiences in the study area.

In a conceptual engineering study, the level of detail attainable in the design is restricted by a limited availability of meaningful and useful base data. This results in a conceptual design that is sufficiently detailed to allow only an order-of-magnitude cost estimate. Thus, analysis at the conceptual design level gives only a well studied indication of the final design and construction costs, and is adequate only to determine the feasibility of continued study.

The analysis of environmental impacts is subject to the same data shortage as the conceptual design studies. The preliminary analysis is based on a comparison of available impact information with historical government actions taken on projects of a similar nature. This analysis is not an environmental assessment, but serves only to identify environmental concerns related to project development, and to define the thoroughness of environmental studies necessary to adequately address the impact of the proposed project.

CHAPTER II

SUMMARY OF FINDINGS

Docking Needs

The major docking need in the Lafitte/Barataria area is for permanent home based docking facilities for the large shrimp trawlers (60 - 105 feet in length) domiciled in the area. Based on a survey conducted for this study of 75% of the owners of these vessels, it is estimated that 63 large trawlers in the area will need docking facilities in 1980, and their owners would be willing to pay a reasonable fee for such facilities. These are vessels either presently domiciled in the area or on order for delivery to the area.

Commercial shrimping is a thriving business in Lafitte/Barataria, and it is expected that more large trawlers will be utilized in the future. It is not possible to project this growth accurately, because of the uncertainty of influencing factors. Assuming a moderate growth, however, one might conclude that possibly 120 large trawlers could need docking in Lafitte/Barataria in 1985.

The survey conducted also identified the following shoreside facilities and services necessary to complement a docking facility developed to accommodate large trawlers in the area:

1. Loading areas for truck to boat transfers
2. Parking
3. Individual water and electric hookups
4. Solid and oily waste and sewage disposal
5. Cleanup, maintenance, supervision and security
6. Covered shed or work area
7. Public telephones
8. Dry dock and vessel repair facilities

Development Constraints

The major limitations to development of docking facilities in the Lafitte/Barataria area are limitations imposed by site configuration, environmental conditions and regulatory requirements.

Although several suitable vacant sites exist along the banks of Bayou Barataria, most are narrow strips of land requiring the development of a linear berthing facility, rather than a basin facility. Such vacant land is reportedly valued at approximately $300 per linear foot of water frontage.

Environmental conditions affecting facility development include hurricanes and tropical storms, flooding, soil conditions, bank erosion, channel siltation, lack of fresh water and sewerage, and the importance of maintaining the natural ecosystem in which Lafitte/Barataria is located. Problems related to the lack of fresh water and sewerage may be alleviated in the future by the installation of planned facilities.

The major regulatory requirements for development of a Lafitte/Barataria docking facility are for a permit from the U. S. Army Corps of Engineers under Section 10 of the River and Harbor Act of 1899 for construction in or adjacent to a navigable waterway, and possibly for a Corps permit under Section 404 of the Federal Water Pollution Control Act for discharge of dredge or fill material into surrounding waters or wetlands. The Corps permitting procedure might require 3 - 6 months to complete, depending on requirements for environmental assessment and public hearing. A formal Environmental Impact Statement probably will not be required.

Several state agencies and the Parish of Jefferson also may issue permits. If an approved permitting process is adopted, the Louisiana Coastal Commission may issue a coastal use permit.

No regulatory or permitting requirements were found which would prohibit development of a docking facility in Lafitte/Barataria, although design changes may be necessitated by regulatory involvement.

Conceptual Design

Based on natural site conditions, a linear docking facility was determined to be the best possible design for the Lafitte/Barataria study area. The proposed docking facility is a dredged slip located

on the bank of Bayou Barataria; the face of the slip is a revetted slope stabilized with a concrete block/filtermat combination. The area between the channel centerline and the toe of the revetted slope is dredged to -12' MSL so that any vessel able to use the Bayou Barataria channel can use the docking facility. The facility has 30 open timber piers which extend over the revetted slope into Bayou Barataria and can accommodate a maximum of 60 large trawlers ranging in length up to 110 feet. Each timber pier is supplied with individually metered water and electric outlets.

An area of compacted shell along the slip at the foot of the piers serves as a facility support area with comfort stations, net repair sheds and parking areas. A timber loading wharf designed for heavily loaded pickup trucks and space allocated for a future marine way are located at one end of the slip. The space allocated for the future marine way is left in an undeveloped condition.

Important services provided include a fire protection system based on the municipal water supply and dry chemical extinguishers, area lighting of piers, parking and loading areas, and a night security patrol.

Three of the proposed sites are of sufficient size to accommodate the entire facility. If these sites are not available, it is possible to develop the facility as a series of modules on smaller land parcels. However, separate facilities will result in greater costs due to unavoidable duplications.

Cost Estimates

An itemized facility cost estimate and an annual operating budget were developed for the proposed conceptual design based on current (2nd Quarter - 1979) costs.

Construction costs were estimated for all planned facility items with the exception of the marine way. The project cost estimate includes the expense of acquiring land for a future marine way, but does not include the actual construction cost, because such construction may be by either a public agency or private enterprise at an unspecified

future date. The total estimated project cost is based on construction of the entire facility at one location and includes the cost of land acquisition and appropriate allowances for legal, engineering and administrative services. The total project cost (1979) for the proposed docking facility is estimated to be $4,920,000.

The annual operating budget includes utility costs, maintenance costs, and personnel salaries and is estimated on the probable usage of the proposed facility. The annual operating budget (1979) is estimated to be $32,000 per year.

Implementation Schedule

Required government permits may be acquired as early as December, 1980. Detailed engineering work might require 5 months to complete. Site preparation and facility construction might begin in August, 1981, and might require 8 months. On this schedule, the facility might be completed as early as April, 1982.

Economics

Based on an assumed schedule of reasonable monthly docking fees and on full utilization of the facility (60 vessels), a potential annual revenue of $166,000 - $208,000 at assumed 1982 price levels was computed. (1982 price levels were used since the facility might start operations in 1982). With expected annual operating costs of $39,000 at 1982 price levels, the facility might generate net annual revenues of $127,000 - $169,000 at 1982 levels. Assuming conservatively that the facility would generate this constant level of net revenue for a 20 year nominal life, net revenue might be capable of paying debt service costs for roughly $900,000 - $1.65 million of capital financing (using tax free bonds or government secured debt).

Although these numbers are based on highly speculative assumptions regarding debt markets, they clearly show that facility generated revenues can finance only a small portion of the total capital cost of the facility, estimated at almost $6 million when the facility is constructed in 1981. Such a financial shortfall is not unusual for public facilities, including docking facilities. Substantial funding assistance will be required if the facility is to be developed as planned.

Various grant and loan assistance mechanisms of federal, state and local government might be available for facility development. Major federal assistance mechanisms include Coastal Energy Impact Program (CEIP) funds, Community Development funds, Economic Development funds and Public Works funds.

State assistance might be considerable. New state revenues from petroleum price deregulation and the first use tax on natural gas may represent major potential sources of funding for public projects. One mechanism for state capital funding of public projects is the Omnibus Bond Authorization Act. Discretionary funds also may be available.

Local assistance might consist of the provision of land, annual operating funds or needed services. A parcel of land owned by Jefferson Parish might be available for joint development, through the Parish Environmental and Development Control Department, as a commercial fishing research, education and docking complex.

Finally, private interests might assist in facility development, either through the provision of capital, land or usage guarantees, or in some other form of joint public/private development. Individuals in the Lafitte/Barataria area who own parcels of waterfront land have expressed an interest in possible joint development of a docking facility on their land.

Environmental Impact

The sites under consideration for the proposed docking facility are located in the Louisiana coastal wetlands, one of the most environmentally sensitive and valuable wetland habitats in the United States. At the present time, attention focused on the preservation of the natural environment is intense. This is particularly true in areas which are extremely sensitive to change, such as wetlands. Thus, development activities in wetland areas will be subject to close scrutiny by regulatory agencies, and the successful implementation of any facility development will depend on the degree to which facility impacts can be minimized.

There are a number of environmental impacts associated with a docking facility in the Lafitte/Barataria area which could present significant limitations to project approval. These are impacts to the natural environment such as the loss of wetland habitat and interference with the reproductive success of an endangered species, and impacts to the social environment such as the dislocation of business and private residences and the disruption of public works. These potentially significant impacts have been virtually eliminated by the initial site selections. It is expected that only Site 1 (Figure IV-1), which is located in close proximity to a nesting area of the Southern bald eagle (an endangered species) may present a significant limitation to project approval.

Thus, the initial analysis of environmental impact of the facility indicates that facility implementation will probably be environmentally acceptable, and that it is likely that the level of analysis required by regulatory agencies will probably be limited to an environmental assessment.

CHAPTER III

ANALYSIS OF NEED

Introduction

As the first step in the conduct of this study, a preliminary assessment was conducted of the need in the Lafitte/Barataria area for docking facilities, waterway improvements and related amenities. The detailed results of this preliminary assessment are provided in Appendix A of this report. Appendix A includes a description of conditions in the Lafitte/Barataria area and an analysis of vessel related needs in that area.

To obtain additional information, a public hearing was held in the Lafitte/Barataria area to solicit citizen input for the study. A description of the public hearing and the findings obtained from the hearing are provided in Appendix B.

Both preliminary assessment and public hearing strongly indicated that the major docking need in the Lafitte/Barataria area was for a home based docking facility for the large commercial shrimp trawlers domiciled in the area. These are vessels ranging in size from sixty-five feet to over one hundred feet in length, generally constructed of steel, and costing as much as $400,000.00 or more each.

The preliminary analysis indicated that some sixty to seventy of these large trawlers were presently domiciled on Bayou Barataria in the Lafitte/Barataria area, and that fifteen to twenty more were presently on order for delivery to owners on Bayou Barataria. In addition, it was found that forty to fifty smaller trawl boats in the fifty to sixty foot long class were also presently domiciled on the Bayou.

Surveys conducted in the area determined that only fourteen docking spaces were available at commercial marinas for these vessels. Some of these vessels were docked at facilities of the vessel owners, primarily the smaller boats. The preliminary assessment estimated that between fifty and eighty percent of the large trawlers were required to dock at wholesales, processors, and other "borrowed" spaces. It was common to witness large vessels at times docked three and four abreast.

The docking problem is even more acute during periods of bad weather when all vessels are in port. The present needs for docking facilities for large trawlers in Lafitte/Barataria will be increased in the near future when the Lafitte/Barataria Fisherman's CoOp begins construction of a new ice plant and additional processing capacity. Whereas formerly, the recently purchased facility docked as many as twelve vessels at one time, once construction begins at the end of 1979 and the new operations begin, only six vessels will be able to dock. It was estimated that at least one-half of the larger boats required suitable permanent docking, and that an additional small percentage of large and small boats would utilize a docking facility should one be made available.

Analysis of the area strongly indicated a healthy fishing industry, and a growing one. Many young adults have chosen to remain in the area, adopt fishing as their primary occupation and, where possible, purchase trawl boats of their own. Reasons for this trend include a strong sense of community in the area, long standing community involvement in the fishing industry, sizeable shrimp catches of 1976, '77 and '78 combined with respectable wholesale prices, and favorable terms available for trawler financing. There was also indication of a small in migration of outsiders seeking to share in these benefits. Commercial fishing should continue as a major economic activity of the area for the foreseeable future.

Further indication of the viability of the area with respect to the fishing industry is provided by statistics which show Lafitte/Barataria to be the third largest shrimp landing area in Louisiana. In 1977, 8.3 million pounds of shrimp were landed in the Lafitte/Barataria area, 12.5% of the state total. In the area there are twelve wholesale buyers, four partial processors, one canner and two major ice plants. It is expected that, when an adequate supply of fresh water is provided to the area, increased processing capacity and ice manufacture will be attracted to further augment the strength of the fishing industry in the area.

Because of the healthy nature of the fishing industry, the strong indication of need and the stated willingness of owners of large trawlers to pay a reasonable fee for suitable docking, it was decided to focus the detailed analysis on the needs of these vessels for a permanent home-based docking facility.

Detailed Analysis: Questionnaire Survey

Because of the well defined and relatively small number of potential users of such a facility, it was determined that a questionnaire survey of as many of these potential users as possible would provide the most reliable and thorough indication of facility need, as well as provide definite identification of potential users. The questionnaire was structured to provide the following information:

1. The name, place of residence, and telephone number of the vessel owner.

2. The number and size of vessels presently owned and on order.

3. Present and expected future need for docking space.

4. Willingness to utilize a new docking facility and to pay a reasonable rental fee.

5. Preference for dock location.

6. Needed shoreside facilities and services to complement the docking facility.

A sample copy of the questionnaire is shown as Figure III-1.

The questionnaire was administered by telephone, since this was considered to be the most effective method of reaching the greatest number of boat owners and of obtaining the most complete response possible. Lists of trawl boats and their owners were obtained from the field agent for the National Marine Fisheries Service. Additional names were obtained from the preliminary analysis, the public meeting, contacts with fishermen, wholesalers and processors, and by requesting further leads during the conduct of the questionnaire survey.

In all, approximately sixty-three owners of large trawlers were identified in the Lafitte/Barataria area, representing a total of approximately eighty-three large trawlers presently domiciled on Bayou Barataria, and approximately thirty-one additional large trawlers on order for delivery to the Bayou.

The questionnaire survey was successful in contacting seventy-five percent of these owners. The results were as follows:

FIGURE III-1

(# OF VESSELS OVER 50' _____)

LAFITTE TRAWLER OWNER QUESTIONAIRE (over 50' only)

NAME OF OWNER _____

RESIDENCE _____ TELEPHONE _____

TRAWLERS OWNED (#, Length, Width, Draft) _____

_____ _____

_____ _____

WHERE DOCKED NOW _____ MONTHLY RENTAL _____

NEED PERMANENT DOCKING FOR HOW MANY TRAWLERS _____

WOULD USE NEW DOCKING FACILITY IF RENTAL FAIR _____

PREFER RESERVED SPACE _____ FAIR RENTAL _____ MAX. RENTAL _____

OPTIMUM LOCATION FOR DOCK: 1ST CHOICE _____

2ND CHOICE _____

SUPPORT SERVICES/AMENITIES NEEDEL AT DOCK: PARKING _____ WATER _____

ICE _____ ELECTRICITY _____ FUEL _____ OTHER SUPPLIES _____

OILY WASTE DISPOSAL _____ SOLID WASTE DISPOSAL _____ PHONE _____

SHRIMP UNLOADING _____ PROCESSING PLANTS _____ SECURITY _____

NET REPAIR AREA _____ VESSEL REPAIR _____ MACHINE SHOP _____

STORAGE LOCKERS _____ SHEDS _____ TRANSPORTATION HOME _____

OTHER

Forty-eight owners responding to questionnaire.

Sixty-eight vessels presently owned by these owners.

Twenty-five vessels on order by these owners to be delivered in 1980.

Fifty-one vessels owned or on order by these owners needing docking facilities and willing to pay reasonable fee.

The size distribution of the vessels owned or on order by the owners responding to the questionnaire is shown in Table III-1.

TABLE III-1

QUESTIONNAIRE RESULTS

LENGTH OVERALL	EXISTING AND ON ORDER VESSELS SURVEYED		VESSELS NEEDING DOCKING	
	Quantity	Percent	Quantity	Percent
60 - 70 feet	14	15	6	12
71 - 80 feet	13	14	5	10
81 - 90 feet	56	60	31	60
91 - 100 feet	7	8	6	12
101 - 102 feet	3	3	3	6
TOTAL	93 vessels	100%	51 vessels	100%

The questionnaire survey shows that fifty-five percent of the vessels surveyed, including those presently owned and on order, need docking facilities and would use a docking facility if a reasonable fee were charged. Extending the analysis from the seventy-five percent of the owners surveyed to the entire community of large trawler owners in Lafitte/Barataria, the following statistics can be derived:

Sixty-three owners of large trawlers in Lafitte/Barataria.

Eighty-three large trawlers presently domiciled in Lafitte/Barataria.

Thirty-one large trawlers on order for Lafitte/Barataria to be delivered in 1980.

Sixty-three large trawlers owned or on order needing docking facilities and owners willing to pay reasonable fee.

In 1980, sixty-three large trawlers will need docking in Lafitte/Barataria, and their owners will be willing to pay a reasonable fee for that docking.

Growth of this need beyond the year 1980 will depend on a number of factors. Industry observers expect that the number of large trawlers will increase in the future because large boats are more efficient and better able to exploit the 200 mile fishing limit. Evidence of this trend has been seen in the recent past in Lafitte/Barataria, and the trend is expected to continue until the point at which the area becomes saturated with large trawlers, i.e. it is no longer economical to add another trawler to the fleet because of deminishing catch per boat. It is not possible, however, to determine how many large trawlers the area can support.

Another factor influencing the number of new vessels placed on order is the success of the fishing season. Fishermen generally expand their activities following years of good harvest, and contract or hold steady their activities following years of poor harvest. This has been particularly evident in Lafitte/Barataria in the past few years with greater numbers of new large trawlers being brought to Bayou Barataria following the bountiful catches of 1976, '77 and '78. These good years are undoubtedly responsible in large part for the fact that thirty-one large trawlers are presently on order for delivery to the area. While it is not possible to forecast the size of the shrimp catch from year to year, statistics do show a very strong cyclical fluctuation, with two or three years of good catch followed by two or three years of poor catch. Preliminary information from 1979 indicates that the catch will be considerably less than 1977 and '78.

Because of the uncertainties involved, it is not possible to provide an adequate basis to estimate accurately the number of new large trawlers which will be brought into the area in the future. A conservative projection can be made, however, by assuming that 1979 and 1980 will be relatively poor years for shrimping, and that these will be followed by two relatively

good years, and so on proceeding in a two-year cycle. If we also assume, for the sake of a conservative projection, that the area will approach saturation by 1985, and if we assume that 75 percent of the new trawlers delivered after 1980 need docking facilities (also a reasonably conservative estimate in view of present conditions), we might construct the scenerio shown in Table III-2.

TABLE III-2

PROJECTIONS OF NEED FOR LARGE TRAWLER DOCKING

YEAR	NUMBER OF NEW TRAWLERS (ASSUMED)	TOTAL NUMBER OF TRAWLERS	NUMBER OF TRAWLERS NEEDING DOCKING
1980	31 (Actual)	114	63
1981	15	129	74
1982	10	139	82
1983	20	159	97
1984	20	179	112
1985	10	189	120

This scenerio indicates that the total number of large trawlers in the Lafitte/Barataria area might increase from 114 to 189 between the years 1980 and 1985, and that the total number of large trawlers needing docking facilities in the area might increase from 63 to 120 in the same time period. This scenerio also assumes that the number of large trawlers would remain constant at 1985 levels for the foreseeable future. A docking facility developed to accommodate these needs might be designed conservatively to accommodate sixty to seventy vessels initially, with the possibility of expansion to accommodate one hundred vessels or more as the needs materialize.

Table III-1 showing the size distribution of vessels surveyed needing docking facilities provides a reasonable indication of the vessel mix to be accommodated in 1980. Because of the increasing trend toward larger vessels, it would be well to provide a somewhat greater percentage of berths for boats in the over ninety foot and over one hundred foot length

ranges than are indicated in the survey table. It is not expected, however, that trawl vessels in excess of 105 feet in overall length will be brought into service in the area.

The questionnaire survey and interviews with industry sources indicate that the following range of vessel sizes should be accommodated at any facility developed to serve these needs:

1. Overall vessel length, 60 - 105 feet
2. Overall Beam, 18 - 28 feet
3. Maximum draft 5 - 12 feet

The questionnaire indicated that practically all trawler owners surveyed desired reserved docking spaces for their vessels. The design of the facility should provide the capability for expansion when needs require and the possibility of accommodating vessels outfitted to catch species other than shrimp. Because of the limited total quantity of shrimp which can be caught, and because of the large yearly flucuations in total catch, it is expected that in the near future many large shrimp trawlers will be outfitted for other types of fishing in addition to shrimping.

The questionnaire survey also provided information regarding the types of shoreside facilities and services that would be necessary to complement a docking facility designed to accommodate large trawlers in Lafitte/ Barataria. Of the forty-eight owners surveyed, thirty-three provided sufficiently complete responses regarding support services to allow tabulation. Of the thirty-three useful responses, twenty-five or more mentioned the following support services and facilities as necessary:

1. Loading areas for truck to boat transfers.
2. Parking.
3. Individual water hookups.
4. Individual electric hookups.
5. Solid and oily waste and sewage disposal.
6. Clean up, maintenance and superivision.
7. Security.

8. Covered shed or work area for net repair and other repairs.

9. Public telephone.

10. Drydock and vessel repair facilities.

Approximately one-third of the respondents also mentioned as necessary individual storage lockers, fuel, supplies and ice.

The owners of the sixty-three large trawlers stating a need for docking in 1980 also stated a willingness to pay a reasonable fee for a suitable reserved docking space. Monthly docking fees of from $100.00 to $200.00 per vessel were mentioned as being reasonable. Considering the large monthly notes being paid on most of these boats, such a fee would represent a small percentage of the owners total monthly expense. Because of the limitations of obtaining this type of information by telephone questionnaire, it is expected that the actual docking fee that might be considered reasonable could be somewhat higher than $200.00 a month.

CHAPTER IV

ANALYSIS OF CONSTRAINTS

Introduction

In conjunction with the analysis of needs, a study was conducted of the potential constraints which might restirct or provide direction for the development of docking facilities. Potential constraints were found to fall into two categories:

1. Natural and manmade environmental conditions of the area, including the nature of available sites.

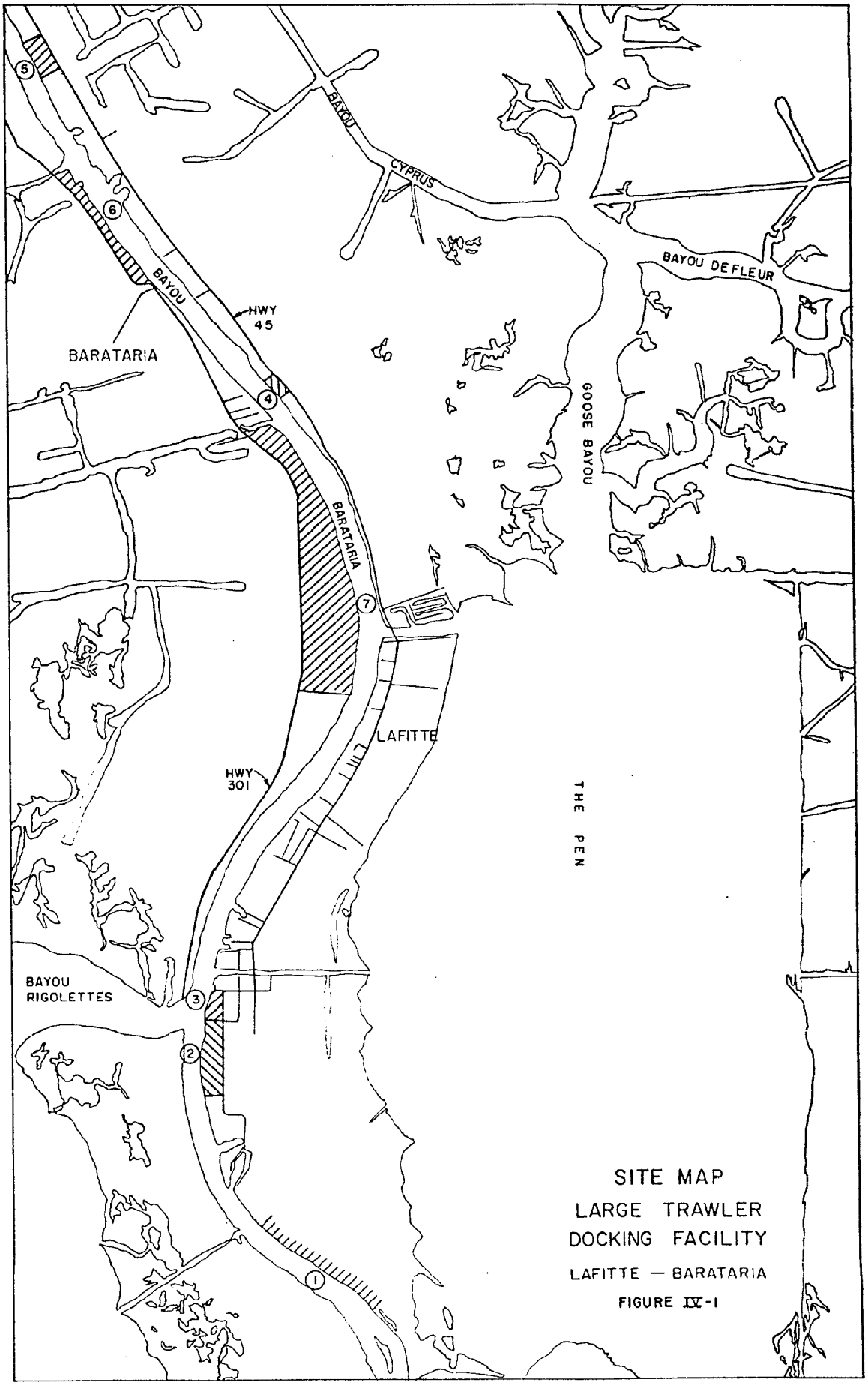
2. Governmental permitting and regulatory requirements.

This chapter will present an overview of the analysis of these factors as they relate to docking facility design and development.

Siting and Environmental Factors

One of the major factors determining allowable facility design relates to the nature of suitable vacant sites for the facility. Vacant land along both banks of Bayou Barataria in the vicinity of Lafitte and Barataria was found to be the most suitable location for a large trawler docking facility, because of ready access to the required navigational channel depths and to land transportation systems and needed services, and because elevations and soils along the Bayou are more amenable to development. Figure IV-1 shows vacant sites along Bayou Barataria which were identified by site visits and which are considered suitable for the development of the docking facility. Table IV-1 presents relevant information regarding the sites identified in Figure IV-1.

Sites further north along the bayou than those shown were not considered suitable because of the existence of the Kerner Ferry Bridge, an antiquated ground level swing bridge which crosses Bayou Barataria just north of site 5, and presents operational problems to vessels which must pass the bridge. Sites not on the bayou also were not considered suitable, because the need to dredge a deep water access channel and harbor would result in disruption of public works, greatly increase the quantity of dredge



SITE MAP
LARGE TRAWLER
DOCKING FACILITY
LAFITTE — BARATARIA
FIGURE IV-1

TABLE IV-1

KEY TO SITE MAP

VACANT SITES AT LAFITTE/BARATARIA

Site	Water Frontage	Acreage	Soil Type
1	3,500'	--	--
2	1,800'	18 acres	--
3	650'	4 acres	--
4	400'	3 acres	Sharkey Silty Clay Loam
5	900'	9 acres	Sharkey Silty Clay Loam
6	3,000'	14 acres	Commerce Silt Loam
7	6,250'	130 acres	Sharkey Clay

spoil and require the construction of a bridge over the access channel. Also, because most of the land away from the bayou is wetland, habitat impacts would be greatly increased.

The linear nature of vacant parcels along the bayou tends to restrict port development to the concept of a linear berthing facility. Such a design is generally compatable with vessels of similar size and function, and is adaptable to development in separate segments if necessary.

Important site conditions of the area affecting design and viability of a large trawler docking facility include rapid erosion of the banks of Bayou Barataria and siltation problems of the channel. The area is subject to flooding from tidal surges accompanying tropical storms and hurricanes.

Site 1 may support some wetland vegetation and is just north of a southern bald eagle nesting area. Both of these factors could cause difficulties during the governmental permitting process.

Site 3 is a parcel owned by Jefferson Parish. The Parish Environmental and Development Control Department has expressed an interest in developing this parcel as a commercial fishing research, education and docking complex. It is not known whether any of the other parcels are readily available for purchase or use. Similar vacant land in the area has sold in the recent past for approximately $300.00 per linear foot of water frontage.

Site 4 is a parcel owned by a private individual who might be interested in developing the land for large trawler docking facilities. This individual is also considering the purchase of an adjoining parcel with an additional 600 foot of water frontage to be used for the same purpose.

Other environmental conditions which might effect the development of a large trawler docking facility are the general lack of sufficient fresh water, of sewerage facilities and of adequate dry dock and repair capability for large vessels. It is expected that an adequate fresh water pipeline will be constructed in the Lafitte/Barataria area in the near future, providing sufficient supplies of fresh water. Availability of fresh water is presently a major constraint to the development of

additional ice making and shrimp processing capacity. In addition, a 201 Sewerage Facilities Plan is presently underway for the area.

Lack of sufficient dry dock and repair capability for large vessels in the Lafitte/Barataria area forces large trawler owners to utilize shipyards in Harvey and along Bayou Lafourche.

Permitting and Regulatory Requirements

Appendix D to this report provides an overview of the major permitting and regulatory requirements of governmental agencies for construction and operation of a large trawler docking facility. This section will discuss the most important of these requirements and their potential impact on the Lafitte/Barataria facility.

The major regulatory requirement for this facility is a permit from the U. S. Army Corps of Engineers under Section 10 of the River and Harbor Act of 1899, for construction of a structure in or adjacent to a navigable waterway. Major requirement of the Section 10 permit would be to prohibit mooring within 75 feet of the channel centerline, and to prohibit structures within 175 feet of the channel centerline.

If, in the construction of the facility, dredged material is disposed into surrounding waters, including wetlands, a permit also will be required from the Corps under Section 404 of the Federal Water Pollution Control Act. Requirement for a Section 404 permit might carry with it requirement for an environmental assessment and a public hearing, although a formal Environmental Impact Statement probably would not be required for this facility. A detailed site survey will be made by the Corps to determine whether an EIS is required and possibly whether a Section 404 permit is required. If dredged spoil is disposed on dry land sites, a Section 404 permit might be avoided altogether.

A routine permitting process requires approximately 65 days. For the Lafitte/Barataria Facility, considering the above mentioned possibilities, the permitting process might require 3 to 6 months. The receipt of certain types of federal grant or loan funds for project construction carries with it the requirement for preparation of an Environmental Impact Statement

or an environmental assessment. If an Environmental Impact Statement is required, the permitting process might require from 18 months to 2 years for completion.

Other important federal agencies which are capable of imposing requirements on a project through conditions placed on the Corps permit include the Environmental Protection Agency, the Fish and Wildlife Service and the National Marine Fisheries Service. EPA comments on Corps permit applications regarding project impacts, particularly on water quality. EPA is expected to implement new requirements early in 1980 for stringent water quality monitoring programs for dredged material disposal. The other two agencies actively comment on Corps permit applications with respect to project impacts on living organisms. Because of their involvement in the permitting process, direct discussions with these three agencies are recommended early in the planning process.

The major state agency commenting on the Corps permit application is the Department of Wildlife and Fisheries, which might recommend conditions to be placed on the permit to alleviate impacts of wetland dredging and dredged material disposal on the state's wildlife and fisheries resources. This agency also should be consulted directly early in the planning process. Permits might be required from the Division of State Lands for usage of state owned water bottoms, from the Bureau of Environmental Services for the installation of sewerage facilities and the disposal of solid waste, from the State Fire Marshall for the construction of structures, from the Office of Highways for construction affecting state highways and from the Archaeological Survey and Antiquities Commission for construction impacting historical and archaeological resources.

Should the Louisiana Coastal Commission implement a statewide permitting process for coastal activities, these docking facilities probably would require a permit under such a system, and would be required to comply with guidelines adopted by the Commission.

If any levees are affected by construction, approval of the appropriate Levee District must be obtained. The Levee District will comment on the Corps permit application.

Since none of the potential sites for docking facilities identified in this study are within the incorporated Village of Jean Lafitte, the approval of the local municipality should not be required. However, construction in the unincorporated area of Jefferson Parish requires a building permit from the Parish Department of Inspection and Code Enforcement, and a permit for sewerage facilities from the Parish Drainage and Sewerage Department. The Parish Environmental and Development Control Department will comment on the Corps permit application, and the Parish must provide a letter of no objection to issuance of the Corps permit. The potential sites identified in this study are zoned by the Parish as U-1, unrestricted development.

No regulatory or permitting requirements were found which would prohibit development of a docking facility in the Lafitte/Barataria area, although design changes may be necessitated by regulatory involvement.

CHAPTER V

CONCEPTUAL DESIGN AND COST ESTIMATE

Facility Information

General. This report presents a proposed conceptual plan and an order-of-magnitude cost estimate for a large trawler docking facility at Lafitte/Barataria, Louisiana. The plan and cost estimate are based on very preliminary information regarding the study area.

Conceptual Design Basis. The proposed large trawler docking facility design is based on recommendations presented in Chapter III which indicate the need for a facility which would exclusively accommodate large shrimp trawlers based in the Lafitte/Barataria area.

Chapter III presents general design criteria, specifies the extent of shoreside services and facilities, and designates the vessel mix to be accommodated at the Lafitte/Barataria facility. These criteria and recommendations form the basis of the design presented herein.

A docking facility for commercial fishermen must be purely functional, providing only needed facilities at the lowest possible cost. The most important needs include safe moorage under all weather conditions, security from fire, theft and vandalism, and necessary work areas such as net repair sheds, a loading dock and possibly a marine way.

Linear vs. Basin Facility. There are two principal types of small craft docking facilities; the basin facility, which is characterized by an enclosed or semi-enclosed water area optimized to develop maximum moorage space, and the linear facility, which is located along the margin of a water course and generally open to the water course along its entire length. Each type of facility has its own particular advantages and disadvantages. The type of facility best suited to a particular development is primarily determined by the proposed location of the facility and type of function that is to be fulfilled. The principal advantages of a basin facility are that it provides a protected mooring area and it allows operational control over vessels of differing size and function. Since the Lafitte/Barataria area is already protected from wave energies by natural levees and an inland

location, and because permanently assigned docking spaces and facility utilization by vessels of similar size and function eliminates operational control requirements, the need for a basin facility is minimized. Furthermore, at all but two potential sites, Sites 1 and 7, a basin would require disruption and relocation of current development on the natural levees, in particular public works such as roads and utilities. A linear facility located on the banks of Bayou Barataria would take advantage of existing natural protection while limiting disruption of public works. Thus due to local conditions, a linear facility is desirable. These factors, when combined with a linear facility's lower overall cost, limit consideration herein to a linear docking facility.

Several vs. One Facility. The linear facility is well adapted to development on a modular basis. This allows facility development in several segments if there is no land parcel available of sufficient size to contain the entire facility. There is no functional disadvantage to dividing the facility into separate segments. However, separate facilities, which require the development of several locations, rather than a single location, will result in greater costs due to unavoidable duplications. In addition, the development of several locations would create a more complex environmental assessment and could increase the difficulty of spoil disposal. It is therefore desirable to develop a single facility of sufficient capacity and design to accommodate the designated vessel mix.

The development of the docking facility at a single site with 60 berthing spaces, a loading wharf and space for a marine way will require 2,785 feet of bayou waterfront with the land parcel varying in width from 170 feet at the pier area to 350 feet at the location of the proposed marine way. The most efficient module size is that which would accommodate 20 vessels. This module, without support areas such as a loading wharf and a marine way, would require a land parcel 950 feet in length and 170 feet in width. While it is possible to develop sites with fewer than 10 piers (20 vessels), the cost per berthing space will continue to rise as increasingly smaller modules are developed. It is therefore recommended that the 20 vessel module be considered as the minimum size module. Both the single site development and an expanded view of a typical module are shown on Figure V-2.

Suitable Sites. The conceptual plan presented herein was not developed to fit any particular land parcel, rather an efficient linear plan was developed and the suitability of developing the land parcels under study was determined relative to the conceptual plan. Using this method, the amount of facility development that each site (Figure IV-1) can accommodate is given in Table V-1.

Facility Description. The proposed docking facility is a dredged slip located on the bank of Bayou Barataria; access to the facility is provided by the Bayou Barataria channel. The facility is illustrated on Figures V-2 and V-3.

The slip is dredged into the bank the minimum distance required so that the timber piers do not extend outward beyond the structure limit line established by the Corps of Engineers for the Bayou Barataria channel fairway. The face of the slip is a revetted slope stabilized with a concrete block/filter mat combination. The area between the channel centerline and the toe of the revetted slope is dredged to minus 12' MSL so that any vessel able to use the Bayou Barataria channel can use the docking facility. The trawlers are docked against 8 feet wide open timber piers which extend over the revetted slope into Bayou Barataria. The piers utilize double berthing, that is, a single trawler is berthed on each side of the pier. Mooring is by breasting against timber rub strips and tying-off to the pier support piles that are extended above the walkway deck. The piers are 131', 141' and 151' in length and are designed to accommodate vessels from 90' to 110' in length with an average beam of 26 feet. The entire facility is designed to accommodate 60 large trawlers at 30 open timber piers. The suggested distribution of pier sizes for the entire facility is given in Table V-2.

Shoreside development is located along the slip at the foot of the piers and to one end of the slip on land which is filled to plus 5 feet MSL. Along the slip at the foot of the piers is a 75 feet wide strip of compacted shell which serves as a support area with comfort stations, net repair sheds and parking areas. The three comfort stations provide the necessary sanitary facilities and showers for the docking facility. There

TABLE V-1

SITE SUITABILITY

LARGE TRAWLER DOCKING FACILITY

LAFITTE/BARATARIA

Site No.	Suitable for
1	entire facility
2	2 modules and loading wharf or marine way
3	*
2 & 3	3 modules
4	*
5	1 module
6	entire facility
7	entire facility

1 module = berthing for 20 vessels

entire facility = 3 modules + loading wharf + marine way

* = below recommended module size: suitable for loading wharf or marine way

TABLE V-2

LARGE TRAWLER PIERS

LARGE TRAWLER DOCKING FACILITY

LAFITTE/BARATARIA

Pier Length	Maximum Boat Size	Number of Piers	Number of Docking Spaces
131'	90'	21	42
141'	100'	5	10
151'	110'	4	8
	FACILITY TOTAL	30	60

are six net repair sheds, each providing room for one working crew, with provisions for future installations, if necessary. The net repair sheds are also equipped with public telephones and drinking water fountains. The shell areas between the net repair sheds are used for vehicle parking. At one end of the slip are located a timber loading wharf and space allocated for a future marine way. The timber wharf is designed for heavily loaded pick-up trucks and has an electrically operated derrick of 3,000 pounds maximum rated capacity to load heavy items. The space allocated for a future marine way is left in an undeveloped condition.

Services provided include a sewage collection system with a lift station, a water distribution system with strategically placed fire hydrants, dry chemical extinguishers, lighting of piers, parking and loading areas, individually metered electric and water outlets to each berth, public telephones and drinking fountains in the net repair sheds, trash and waste oil collection, and night security patrol.

Facility Item Descriptions

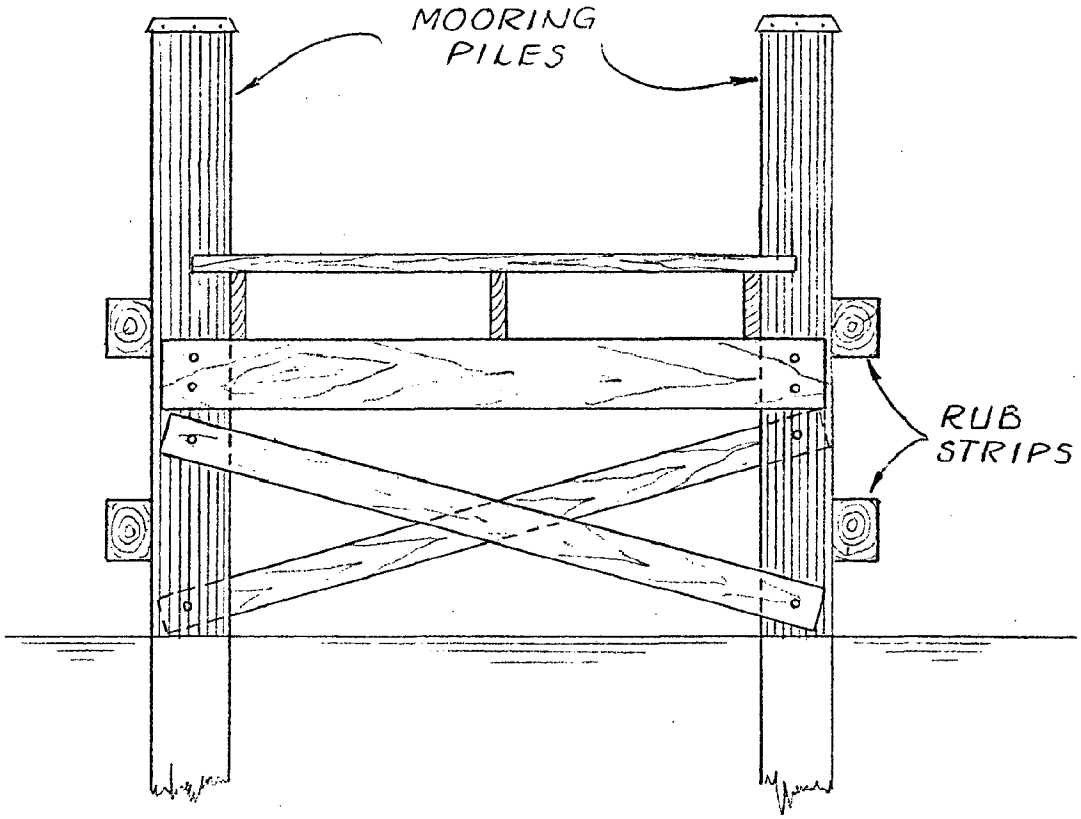
Open Timber Piers. The open timber piers are constructed of creosoted timber and supported by creosoted piles. The piers are 131', 141' or 151' in length and are designed to accommodate vessels from 90 feet to 110 feet in length with an average beam of 26 feet. The pier lengths are greater than the boat lengths because the piers must extend over the revetted slope before reaching deep water. The walkways are 8 feet wide and designed for foot traffic and hand trucks only. Mooring is by breasting against timber rub strips and tying-off to the pier support piles which are extended above the walkway. Each pier will berth two large trawlers which results in a total of 30 piers (60 boats) for the entire docking facility. The piers are illustrated on Figures V-1, V-2, and V-3, and the distribution of pier lengths is given in Table V-2.

Gobimat Revetment. Gobimat revetment is used to protect the slopes of the slip from wave erosion. Gobimat is a sheet of concrete blocks formed by bonding twelve pound concrete blocks to a filter mat base. The mats are placed on prepared slopes and bonded together to form a continuous barrier against erosion. The mats will extend from the top of the slope to three feet below low water.

Loading Wharf. The loading wharf located at one end of the proposed facility is designed for use by heavily loaded pickup trucks. The 50 feet by 50 feet wharf has a four inch thick deck supported by timber piles on eight feet centers each way with breasting pile clusters flanking the wharf for use by vessels during loading operations. The wharf bridges the revetted slope so that the mooring side of the wharf is over the toe of the revetted slope giving twelve feet deep water alongside the wharf. The wharf is equipped with a derrick to assist in loading operations.

Derrick. The derrick is an electric powered derrick with a maximum rated capacity of 3000 pounds at a twelve feet boom extension, decreasing to 1800 pounds rating at a twenty feet boom extension.

Net Repair Sheds. The proposed facility has six net repair sheds; there are two sheds associated with each comfort station with land allocated for future installations if additional sheds should be needed. The covered



OPEN TIMBER PIER

LARGE TRAWLER
DOCKING FACILITY

LAFITTE-BARATARIA

FIGURE V-1

area is approximately twenty-five feet by seventy-five feet, which is sufficient to accommodate one working crew. The sheds are lighted for night operations. In addition, the sheds are provided with drinking fountains and public telephones. The net sheds and their locations are shown on Figures V-2 and V-3.

The net repair sheds are of modified pole-type construction, built around treated timber piles partially driven, with the upper portions used as structural support for the wood roof construction. Roofing is of factory finished metal roofing sheets, while the sides of the structures are fully open.

Comfort Stations. There are three comfort stations in the proposed facility plan which are located so that no pier is any further than 400 feet from a station. Each station provides separate sanitary facilities for men and women, while the mens section is also equipped with hot water showers. The comfort stations and their locations in the facility are shown on Figures V-2 and V-3.

The comfort stations are constructed of concrete block masonry walls and partitions on a pile-supported reinforced concrete slab. Roof construction is of wood, with rafters and ceiling joists supported on load-bearing masonry walls. Interior finish is a fluid-applied glazed coating applied to concrete block, selected for ease of maintenance and resistance to moisture. Natural ventilation is provided by louvers and louvered doors in the front wall of the building, with screened openings at the top of the other three walls. The natural ventilation is assisted by electric powered fans. The stations are not heated or air conditioned.

Storage Building. A building for general storage is provided for the facility by extending a net repair shed approximately forty feet and enclosing the sides with walls of factory finished metal siding panels.

Shell Areas. An eight inch thick layer of compacted sand-shell is used to surface facility shoreside areas. These areas include the seventy-five feet wide strip of land at the foot of the piers which serves as an access road, parking area and building support area, and the access area to the loading wharf.

Dredging. The area between the Bayou Barataria channel centerline and the toe of the revetted slope is dredged to minus twelve feet MSL which is the depth of the Bayou Barataria channel. This depth (-12' MSL) allows the largest draft vessel capable of using the Bayou Barataria channel to dock at the piers and the loading wharf. Dredged material will be deposited behind spoil retention levees at the site to raise the land surface to approximately plus five feet MSL. Because of the absence of contours it is not possible to accurately estimate the quantity of dredge spoil material, but it is probable that twenty percent could be disposed of on site. The remaining dredge spoil (80%) must be disposed of offsite.

Site Work. The site work includes the construction of spoil retention levees at the site and at another site which will accommodate the bulk of the spoil material, and subsequent site grading following consolidation of the spoil material. In addition, site survey and soil analysis are included in this cost item.

Water Supply System. The water supply system serves the water needs of the comfort stations (sanitary fixtures, showers), net repair sheds (drinking fountains), dockside water outlets, and provides fire protection for the docking facility in general. The facility system connects directly to the municipal water supply system and distributes water throughout the facility through a six inch diameter water line. Individually metered 1½ inch diameter lines under the pier walkway supply water to each docking space.

Sanitary System. Sanitary wastes from the comfort stations are transported to a grinder pump lift station through an eight inch diameter ABS truss type gravity sewer. A marine holding tank pump-out located on the loading wharf utilizes its diaphram pump to transport holding tank wastes through a two inch diameter plastic line to the lift station. Wastes are pumped from the lift station collection tank through a two inch diameter plastic force main to the proposed municipal force main for transport to the proposed municipal treatment plant.

Electrical System. Electric power is supplied shoreside for area lighting, for the sanitary sewer system, for power loads in the comfort stations, and for lighting of the net repair sheds. Area lighting is provided by high pressure sodium lights mounted on fifty feet long timber poles which are located on approximately 150 feet centers on the parking area side of the fire lane. These lights will illuminate both shoreside areas and the docking area. Individually metered electric outlets provide power to each docking space with available power to be 1500 watts at 120 volts. The electrical feeders to the outlets are sized to provide, if required by the slip tenant, an electrical load of 10,000 watts at 240 volts, single phase.

Fire Protection System. Fire protection for the docking facility is based on two systems: the municipal water supply and dry chemical. Water hydrants are located on the six inch water distribution line in the vicinity of the foot of every third pier. In addition, due to the possibility of a water shortage and the probability of oil and gas fires, large wheeled (300 lb.) dry chemical extinguishers are located in the vicinity of the foot of every third pier.

Land Acquisition. The cost estimate is based upon the minimum land area required for the facility slip and support areas such as the shell areas at the foot of the piers, the loading area and the land allocated for the future development of a marine way. For estimating purposes the following land costs were utilized: Bayou front for 150 feet inland was assumed to be $300.00 per front foot, while all other land was assumed to be $1.00 per square foot. The resulting land acquisition costs are approximately $935,000.00.

Facility Cost Estimate

Project Costs - General. In order to derive a cost estimate without a selected site, it was necessary to make assumptions such as probable contours of the land surface and water bottom, spoil disposal available at or near the site, the channel located at the centerline of the bayou, the implementation of the areas' 201 facility plan, etc. In addition, while the estimate includes the cost of acquiring land for a future marine way, it does not include the actual construction cost, because such construction may be by either a public agency or private enterprise at an unspecified future date.

The cost of the large trawler docking facility is based on the development of the entire facility at a single location. While it will unquestionably result in greater costs to split the facility into various size units, it is not possible to accurately estimate these costs at this level of analysis.

Facility Cost Estimate. Construction costs for the Lafitte/Barataria large trawler docking facility are itemized in Table V-3. This estimate is based on current (2nd Quarter - 1979) costs.

Annual Operating Budget. Annual operations and maintenance costs for the Lafitte/Barataria large trawler docking facility are itemized in Table V-4. These costs are estimated on probable facility usage.

TABLE V-3

FACILITY COST ESTIMATE

LARGE TRAWLER DOCKING FACILITY
LAFITTE/BARATARIA

Open Timber Piers	$1,625,000
Gobimat Revetment	328,000
Loading Wharf	75,000
Derrick	7,500
Net Repair Sheds (6)	116,500
Comfort Stations (3)	97,000
Storage Building	7,500
Shell Areas	263,500
Dredging	120,000
Site Work	138,500
Water Supply System	125,000
Sanitary System	28,000
Electrical System	70,500
Dry Chemical Extinguishers	18,000
Miscellaneous	1,000
	3,021,000
Contingency (20%)	604,000
Estimated Construction Cost	3,625,000
Legal, Engineering and Administrative	360,000
Land Acquisition	935,000
Estimated Project Cost	$4,920,000

TABLE V-4

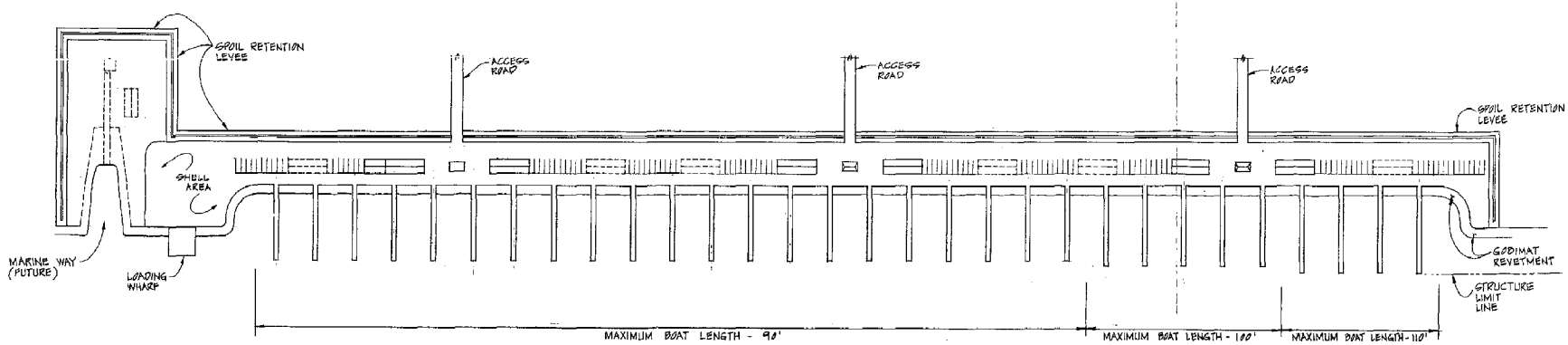
ANNUAL OPERATING BUDGET

LARGE TRAWLER DOCKING FACILITY
LAFITTE/BARATARIA

Water	$1,500
Electric	2,500
Trash Removal	1,000
Structural Maintenance	12,000
Janitorial Service	3,000
Security Guard	12,000
TOTAL	$32,000

* Utility Costs are based on current (2nd Quarter - 1979) costs and probably facility usage.

** Maintenance costs are average annual costs based on a 20-year project life.

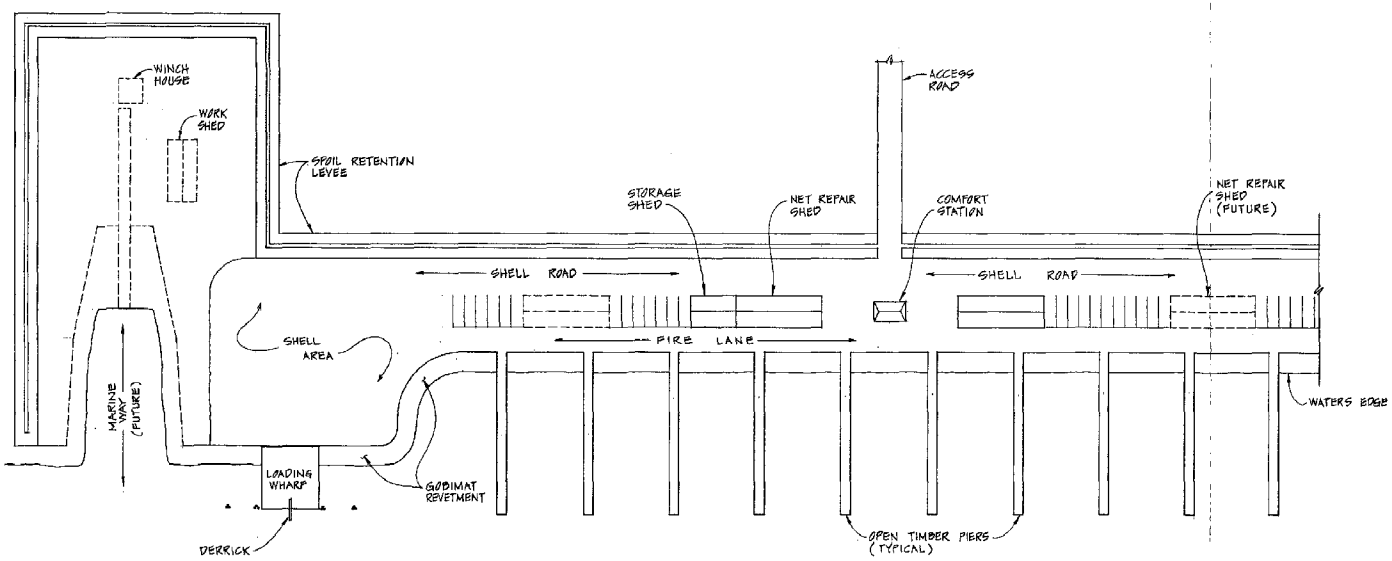


DOCKING FACILITY PLAN

SCALE: 1" = 100'-0"

LEGEND

- NET REPAIR SHED
- NET REPAIR SHED (FUTURE)
- COMFORT STATION
- PARKING AREA



DOCKING FACILITY MODULE (With Loading Area & Marine Way)

SCALE: 1" = 50'-0"

PROPOSED LARGE TRAWLER DOCKING FACILITY

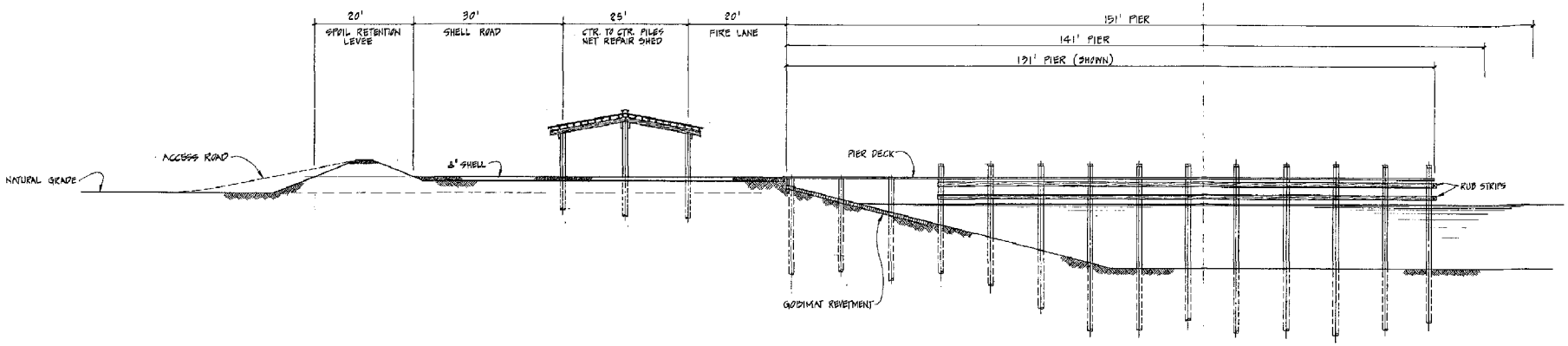
LAFITTE-BARATARIA
LOUISIANA

FROMHERZ ENGINEERS, INC.
CONSULTING ENGINEERS
NEW ORLEANS

DWG. NO.

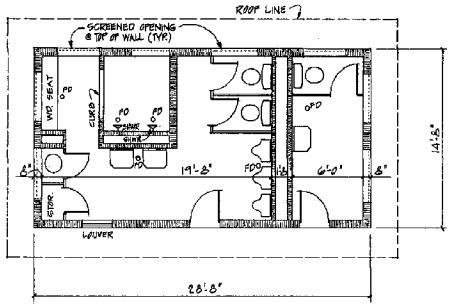
DRAWN J.R.
CKD. L.B.
SCALE AS NOTED
DATE SEP. 19, 74

FIGURE VI-2



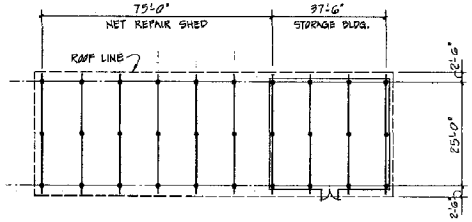
SECTION THRU DOCKING FACILITY

SCALE: 1" = 10'-0"



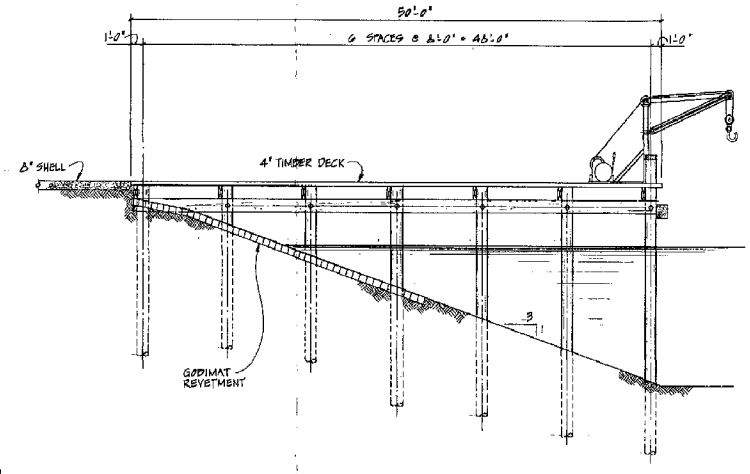
COMFORT STATION FLOOR PLAN

NOT TO SCALE



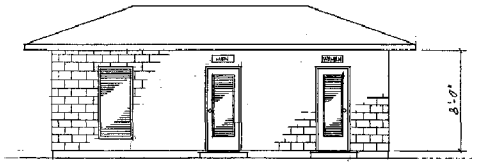
NET SHED/STORAGE BLDG. ROOF FRAMING PLAN

NOT TO SCALE



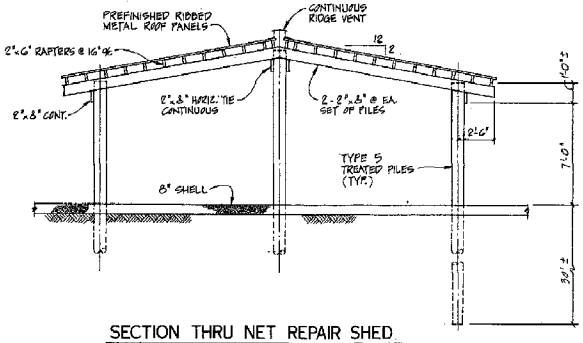
SECTION THRU LOADING WHARF

SCALE: 3/16" = 1'-0"



COMFORT STATION ELEVATION

NOT TO SCALE



SECTION THRU NET REPAIR SHED

SCALE: 1/4" = 1'-0"

PROPOSED LARGE TRAWLER DOCKING FACILITY

LAFITTE-BARATARIA
LOUISIANA

FROMHERZ ENGINEERS, INC.
CONSULTING ENGINEERS
NEW ORLEANS

DWG. NO.

DRAWN J.P.
CKD. L.B.
SCALE AS NOTED
DATE SEPT. 19, 79

FIGURE V-3

CHAPTER VI

SCHEDULE FOR IMPLEMENTATION

Based on the requirements for regulatory permitting, engineering and construction, a possible schedule for the development of the Lafitte/Barataria docking facility is outlined in Figures VI-1 and VI-2. Although activities would begin immediately to investigate funding sources and site availability and to prepare permit applications, major committment to the development of the facility would not be made until December, 1980, when permits were received and sources of funding would be known.

Construction would take place in 1981 and early 1982, and the facility would be in operation in 1982. This schedule assumes that a formal Environmental Impact Statement is not required for the facility.

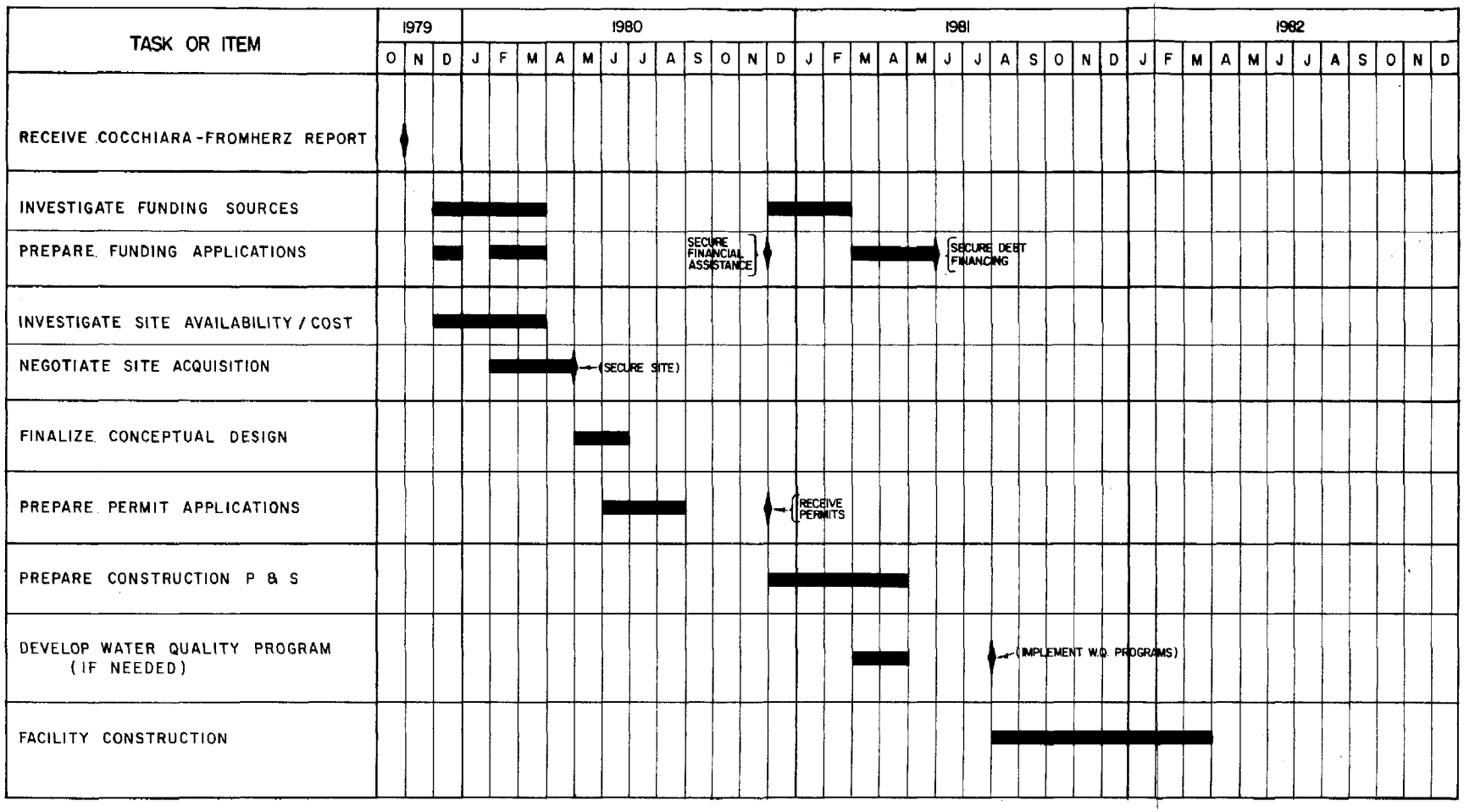
FIGURE VI-1

SAMPLE IMPLEMENTATION SCHEDULE

LAFITTE/BARATARIA: LARGE TRAWLER DOCKING FACILITY

Activity	Latest Date
Preliminary Decision to Proceed	Dec. 1, 1979
Begin investigation of funding sources and site availiability	Dec. 1, 1979
Secure site	May 1, 1980
Begin preparation of permit applications	June 1, 1980
Finalize conceptual design	July 1, 1980
Submit permit applications	Sept. 1, 1980
Final decision to proceed, receive permits, secure financial assistance, begin detailed engineering	Dec. 1, 1980
Complete detailed engineering	May 1, 1981
Begin site preparation and construction*	Aug. 1, 1981
Complete construction, begin operations	April, 1982

* Also implement water quality monitoring program, if required.



ACTIVITY SCHEDULE

LARGE TRAWLER DOCKING FACILITY

LAFITTE - BARATARIA LOUISIANA

FIGURE VI-2

CHAPTER VII

ECONOMIC ANALYSIS

Introduction

The purpose of this chapter is to provide preliminary indication of the financial capability of the large trawler docking facility designed in Chapter V. To accomplish this, projections were made for facility usage and chargeable fees, and rough approximations were made regarding methods and terms of financing.

The preliminary nature of the financial projections developed in this chapter cannot be stressed too strongly. These projections should not be construed as a statement of fact. The accuracy of any projection is dependent on the occurrence of future events which cannot be assured. Therefore, the actual results achieved may vary from the projection. This is particularly true in regards to the projections of future facility cost and docking fee escalation and of interest rates and terms for future bond issues and other debt instruments. In the present unstable financial market conditions, experts in the financial field are appropriately unwilling to project factors such as these. The terms assumed for future debt financing must be considered, therefore, as speculative assumptions.

Despite these serious difficulties and reservations, it is believed that the financial scenarios developed are plausible and provide a useful indication of the revenue generating financial capability of the docking facility in comparison to the capital and operating costs of the facility.

The primary conclusion that should be drawn from the projections of this chapter is that there exists a major discrepancy between the cost of the facility and the revenue generating financial capability of the facility. Such a financial shortfall is not unusual for public facilities, including docking facilities. This problem has increased considerably in recent years for many types of public facilities, because permissable usage fees have not kept up with rapidly escalating capital construction costs. Various forms of assistance are available for narrowing this gap. These mechanisms are briefly described at the end of the chapter and in more detail in Appendix C.

Usage, Docking Fees and Revenues

The projections in this chapter are based on the facility designed in Chapter V which accommodates sixty large shrimp trawlers. It is assumed that the dock is 100% leased. Because of the level of docking needs in the area, as indicated in Chapter III, and because of the ability to construct the docking facility in modular fashion, thereby matching size to demand, the assumption of complete utilization is reasonable.

As stated in Chapter III, the questionnaire survey conducted as part of this study indicated a willingness of vessel owners to pay between $100 and $200 per month per vessel for docking space. Based on further information, and recognizing the limitations of a questionnaire survey for eliciting personal financial information, it is believed that $200 per month would be considered a reasonable and acceptable docking fee, although the maximum acceptable docking fee might be somewhat higher. For the computations of this chapter, docking fees of $200 and $250 per month were used. $250 per month might be considered high, but acceptable.

Table VII-1 shows these docking fees both at present (1979) price levels, and at 1982 price levels. 1982 price levels for docking fees are used throughout the analysis because, as shown in Chapter VI, the facility could be in operation by 1982. The annual revenue produced from these fees is shown in Table VII-1, as are operating costs at present and 1982 levels. Docking fees might be expected to escalate at a rate of approximately 5% per year, while operating costs might be expected to escalate at 7% per year.

In the analysis which follows, the 1982 levels of net annual revenue are assumed to continue at a constant level for the foreseeable future, and at least for a twenty year nominal lifetime of the facility. This assumes that the fishing industry will continue as an important economic activity in the area. This also assumes that any increase in operating costs will be offset by acceptable increases in annual revenue. Although operating costs would be expected to increase at a somewhat greater rate than allowable rental fees, the fact that gross annual revenue is more than four times the level of operating costs indicates that net annual revenues

TABLE VII-1

REPRESENTATIVE FEE STRUCTURE AND
REVENUE PROJECTIONS LAFITTE/BARATARIA
LARGE TRAWLER DOCKING FACILITY (60 VESSELS)

	1979 Price Levels		1982 Price Levels	
Monthly Rental/Vessel	$200	$250	$231.53	$289.41
Gross Annual Revenue			$166,702	$208,375
Operating Costs	$32,000		$ 39,201	$ 39,201
Net Annual Revenue			$127,501	$169,174

Rental Fees escalated 5%/yr.

Operating Costs escalated 7%/yr.

might actually increase in the future. Since a possible increase in operating revenues is not considered in the following calculations, there is a margin of financial safety with respect to the facility.

Financial Capability

Table VII-2 provides a rough indication of the amount of capital financing that might be raised and supported by the net annual revenues derived in Table VII-1. Three debt mechanisms which might be available to the Port Commission are shown in Table VII-2: State General Obligation Bond, Port Commission General Obligation Bond and U. S. Government Guaranteed Loan.

It should be noted that Table VII-2 is intended only to allow a rough comparison of the revenue generating financial capability of the docking facility with the estimated total capital costs of the facility. Table VII-2 is not intended to indicate that the terms shown for each of the debt mechanisms might be available in 1981 when the bonds would be sold. Because of the present highly volatile and uncertain nature of debt markets, financial experts are unwilling and unable to project debt terms and conditions that far into the future. The terms shown are plausible assumptions, but must be considered highly speculative. Table VII-2 also does not reflect the financial effects of receipt and disbursal of capital funds between the time of bond sale and construction completion.

Table VII-2 is sufficient, however, to show the wide disparity between revenue generating financial capability and total costs of facility construction and land acquisition. The amount of capital that can be supported by revenues and might be available for the facility ranges from almost $900,000 to $1.65 million, using 1982 price levels. This compares unfavorably with an almost $6 million total capital cost when constructed in 1981. This leaves a substantial capital shortfall to be met by some form of financial assistance or cooperative arrangement.

Funding Assistance

Appendix C of this report provides an overview of the major sources of fudning assistance which might be available to the Greater Jefferson Port Commission for the development of the Lafitte/Barataria docking facility. Included in this appendix are discussions of the two bonding mechanisms illustrated in Table VII-2, and several other governmental grant and loan programs. This section will summarize the salient points of that appendix.

	Factor	Representative U.S. Government Guaranteed Loan @$231.53/mo.	@$289.41/mo.
Net Annual Revenue		$ 127,501	$ 169,174
Divide: Cover	1.0		
Annual Revenue av			
debt		$ 127,501	$ 169,174
Divide: Annu			
(Per $1,000	$109		
Bond Issue Amount		$1,169,734	$1,552,055
Less: Bond Re	10%		
Conting	-		
Underwr	-		
Misc. I	2%		
Capital Available		$1,029,366	$1,365,808
Facility Construct Acquisition Costs		$5,953,200	$5,953,200
Capital Shortfall		$4,923,834	$4,587,392

* 10%/yr. escalati

Port Commission general obligation or limited obligation bonds would be an appropriate mechanism for financing construction of the docking facility. Such bonds are backed by the limited or unlimited taxing capability of the Port Commission and would require a referendum of the property owners of the port area. Revenue bonds may be issued by the Port Commission, but are not considered suitable for this facility because of the absence of a suitable form of security for the bond issue other than the unassured revenues from the facility, and because of the Commission's lack of prior experience in operating facilities.

A substantial amount of capital might be obtained through inclusion in the State of Louisiana's Omnibus Bond Authorization Act, the mechanism for incurring general obligation debts of the State of Louisiana for the purpose of funding capital improvements. Funds may be provided through this mechanism either with or without the obligation to repay, but generally with the requirement that excess revenues generated by the facilities be returned to the State. Approval of the legislature is required.

Financing for the Lafitte/Barataria facility might be obtained through a direct loan or a guaranteed loan from an agency of the U. S. Government. Sources of such assistance include the Office of Coastal Zone Management in the Department of Commerce, under the Coastal Energy Impact Program; the Farmers Home Administration of the Department of Agriculture; the Economic Development Administration of the Department of Commerce; and the Small Business Administration. As Table VII-2 indicates, such financing often can be arranged under attractive terms because of government backing, despite the fact that such financing is in the taxable market.

Because these facilities serve economic needs of the area, they might qualify for federal and state grant in aid funds through several mechanisms. Sources of grant funds related to economic development might include the Community Planning and Development Agency of the Department of Housing and Urban Development; The Farmers Home Administration of the Department of Agriculture; the Economic Development Administration of the Department of Commerce; and the Ozarks Regional Commission. Grant funds may be available also from the Coastal Energy Impact Program.

Other sources might include the U. S. Army Corps of Engineers, which could provide assistance in dredging of access channels to the facility, and the discretionary fund account of the Louisiana Governor's Office.

Should the recently enacted state first use tax on natural gas be found constitutional, substantial revenues might be made available for the development of docking facilities. Perhaps more important, new state revenues from petroleum price deregulation may represent a major potential source of funding assistance for public projects.

Grant funds might also be available from the Parish of Jefferson. Other local assistance might include the provision of land and operating services, and the inclusion of the development of the docking facility with the development of other community facilities. The Parish of Jefferson owns a parcel of land along Bayou Barataria in Lafitte, and through its Environmental and Development Control Department has expressed a desire to develop the parcel for a commercial fishing research, education and docking complex. Although the parcel, with approximately 650 feet of water frontage, is too small for the entire docking facility, it may be useful for partial development or related development.

Finally, private interests might assist in facility development. Possibility might exist for joint public/private development, either through the provision of capital or land, or through usage guarantees. There are individuals in the Lafitte/Barataria area who own substantial parcels of waterfront land and have expressed an interest in the possibility of a joint development with the Port Commission on their private land.

Another mechanism that might be used for facility development is a local private development corporation formed by the owners of the vessels docked at the facility. Such a corporation might secure Small Business Administration direct or guaranteed loans for construction of the facility.

CHAPTER VIII

SIGNIFICANT ENVIRONMENTAL IMPACTS

Introduction

All development activities by their very nature involve change. As this change forces the natural and social environment to adjust, they are said to be impacted. The impacts may be either beneficial or adverse with the magnitude of the impact determined by the degree of deviation from the previously established equilibrium.

In an effort to obtain a more complete understanding of the environmental impacts, the review process incorporates evaluations of the impacts from both a local and national perspective. The diversity of opinions regarding the impacts can be great, because some impacts are non-quantifiable and the interpretation of data concerning those impacts that are quantifiable is often subject to debate. It is, therefore, difficult to arrive at a concensus regarding the magnitude of an impact, because of the many interested parties involved and their divergent views. It is clear that the determination of environmental impact is not only a subject of technical analysis, but also a socio-political process and as such is highly subjective.

As new technical information regarding impacts is developed and the socio-political attitudes change with time, the importance given to specific impacts in the environmental analysis is in a constant state of evolution. At the present time, attention focused on the preservation of the natural environment is intense; and this is particularly so in areas which are extremely sensitive to change, such as wetlands. Thus, it is likely both now and in the near future, that the successful implementation of many development projects will depend to a great extent on the degree to which their impacts on the natural environment can be minimized.

Docking Facility Impacts

Environmental impacts associated with docking facilities are many and varied. Each facility is unique with regards to its purpose, design, and geographic location. This section addresses only significant impacts that can be

expected from the implementation of a docking facility in the Lafitte/ Barataria area which is similar to the design presented in Chapter V. It is not the purpose of this section to be an environmental assessment, but to identify impacts which may be significant so that the impacts can be mitigated to the maximum extent practicable in the design phase and so that an estimate can be made of the level of environmental analysis that will probably be required by the regulatory agencies.

The facility will result in complex impacts to both the natural and social environment, not only during the construction phase, but also during the operations phase. The ability of the local environment to absorb these impacts depends on the degree that the environment has been stressed by previous development. If previous development has stressed the environment, it will be less able to absorb additional impacts. Therefore, an impact imposed on this environment can have a severe effect. However, if previous development has altered the environment beyond recovery to its previous condition, additional impacts may not be significant. Therefore, only rough estimates of impact severity are possible at this level of analysis, because of limited available information on site conditions.

Construction Impacts

This section addresses the direct and immediate effects which take place during the construction process and the effects which occur during the period of stabilization following completion of construction.

1. Natural Environment.

a. Habitat Impacts. Construction activities usually result in the loss or modification of natural habitats. Habitat loss is one of the most severe impacts to the environment, because it frequently represents an irretrevable loss of biological productivity. This is especially true of wetland habitats, because of the vital role wetlands play in maintaining the overall productivity of the estuarine system. Habitat modification is less severe. It occurs when the site is altered sufficiently to allow recolonization by opportunistic species which are not normally the dominant species occuring at the site. This almost always results in a reduction of overall biological productivity at the site.

The construction of the Lafitte/Barataria docking facility will involve activities such as dredging, spoil disposal, construction of spoil retention levees, shell surfacing, revetment stabilization and pier construction. These activities will result in the loss of habitat at the construction site and spoil disposal area, due to the removal of surface soil and burial of organisms, and the modification of nearby water bottom habitat due primarily to sediment deposition. Because such impacts are unavoidable, the impacts are usually minimized by selecting the least environmentally sensitive sites available and by using responsible design and construction techniques.

The potential sites in the Lafitte/Barataria area are located on the natural levee ridges of Bayou Barataria and can generally be characterized as upland sites which are either in their natural state or cleared for development. The sites which are in their natural state may support some wetland vegetation, but it is unlikely that they are classifiable as wetland sites. It is probable that losses of wetland habitat due to development of these sites will not be of significant impact to require mitigation by compensating purchase of a wetland reserve. The losses in biological productivity which occur due to construction of the facility will be partially replaced by the recolonization of the modified habitats and by the establishment of fouling organisms on the pier support piles and on the revetted slopes.

b. Water Quality Impacts. Degredation of water quality near the construction site is probably the second most important impact on the natural environment caused by the construction of the facility. The water quality degredation is due primarily to the dispersion of sediments and soil throughout the water column by dredging and spoil disposal activities, and by stormwater runoff from the poorly stabilized construction site. The dispersion of the soil materials into the water column results in increased turbidity, a possible reduction in oxygen content, and the possible release of contaminants from the dredged sediments. These impacts occur in a localized area and are temporary, generally occuring only during the dredging operations and initial site work. It is probable that the affected area will recover from these impacts because estuarine systems naturally experience and are tolerant of periodic high turbidity levels.

Because impacts on water quality are unavoidable, the impacts should be minimized to the maximum extent practicable by proper scheduling and site management techniques. When possible, dredging and initial site work are scheduled during periods of historically low rainfall to limit stormwater runoff from the disturbed soils at the construction site, and during periods when the degraded water quality will not interfere with critical life stages of important species. It may also be possible to schedule the facility site dredging concurrent with channel dredging activities. This may minimize the facility dredging impact if it is found that facility dredging would represent only a small incremental increase in the total impact to the water body. Site management techniques that can minimize water quality degredation include the use of upland spoil disposal areas with sufficient retention time to allow settling of most suspended matter prior to discharge into the water body; rapid stabilization of the construction site to limit soil erosion; and the use of interceptor ponds on the construction site to limit soil erosion so that some level of on-site containment of stormwater runoff can be achieved.

All potential sites in the Lafitte/Barataria area are located on the natural levee ridge of Bayou Barataria. There is insufficient detailed information available concerning contours and soil types to indicate that any site is superior with regards to water quality impact on nearby waters. It is probable that all sites will have an equal impact on water quality. This impact can probably be reduced to acceptable levels by applying appropriate management techniques during site construction and spoil disposal activities.

c. Noise Impacts. The impact of noise on animal species is a poorly defined area of study and is usually determined by regulatory agencies on a qualitative basis by using the degree of deviation from previously established conditions as a guide. Noise during construction is generated by a number of sources, such as equipment operation, pile driving, etc. Even though the construction phase is of short duration, the noise generated during this phase is frequently of greater intensity that noise generated by the completed facility. The impact of noise is highly site specific, because noise decreases in intensity with distance from the site. Therefore, any critical species affected are usually in close proximity to the site.

Therefore, noise generation by construction activities can become an important factor in project approval, if there is an important species near the site which is sensitive to noise disturbance during some stage in its life cycle.

d. Endangered Species. The presence of an endangered species in the area of a proposed development represents a special condition, because the species is afforded protection under the law. The southern bald eagle is an endangered species which has been found nesting in the Lafitte/Barataria area. Regulatory agencies have designated a protective zone around the nesting sites. Within this area any deviation from established conditions, such as an increase in human activity or an increase in noise, may possibly impact the nesting eagles. Site 1 (Figure IV-1) is located within this zone. The proposed construction of any facility on this site will be subjected to close scrutiny by regulatory agencies, and their determination with regard to impact severity will be an important consideration for project approval.

2. Social Environment

a. Social Impacts. The two most potentially significant social impacts associated with facility development, the dislocation of businesses and private residences and the disruption of public works, have been greatly reduced by the initial site selection. All of the proposed sites in the Lafitte/Barataria area are located on privately owned, vacant property, with the exception of Site 3 (Figure IV-1) which is the property of Jefferson Parish and supports several rental structures. Thus, no privately owned structures will require relocation, and only the development of Site 3 would result in the dislocation of individuals. Also, with the exception of Site 1 (Figure IV-1) which is located south of present development at the terminus of Highway 45, all sites are located between the existing roadway and the bayou front. This greatly reduces the need to disrupt public works because neither the roadway nor the public utilities that closely parallel the road will need to be relocated.

b. Economic Impacts. The economic benefits derived from facility construction will be short term and widely dispersed. The numerous contractors

involved in fabrication, transport and construction will employ workers from a wide area, and the employee wages will likewise be spread over a wide area. The local economy could benefit directly by the sale of construction materials and employment of residents at the construction site, and indirectly by supplying the needs of transient workers for temporary housing, food, and convenience items. While the stimulus to the local economy will not be large, it will be a definite beneficial impact.

c. Aesthetic Impacts. Impacts which impinge on human senses are generally termed aesthetic impacts. A docking facility involves primarily visual and noise impacts. While the visual condition of the construction site may not be pleasing, it is usually considered a necessary inconvenience. However, the reaction to noise generation is quite different. People are generally quite intolerant of noise generated during construction especially if it impinges on their private residence. Therefore, reducing construction noise where possible and limiting especially noise activities to midday will usually reduce aesthetic impacts to an acceptable level.

Operations Impacts

This section addresses the impacts which result from usage of the facility and the impacts generated by the presence of the facility.

1. Natural Environment

a. Habitat Impacts. The most potentially important habitat impact associated with facility operation is the effect of maintenance dredging and subsequent spoil disposal. The effects are similar to those previously discussed under Construction Impacts, but of a lesser magnitude. Overall impact will be determined by the frequency of dredging and the quantity of dredge spoil which requires disposal. Other impacts, which are caused by vessels using the facility, include the erosion of unprotected shorelines by boat wakes and the physical disruption of water bottom life by prop turbulence. These negative impacts are partially compensated by the establishment of fouling communities on pier support piles and revetted slopes, which provide a constant source of biological productivity to the estuarine system.

b. Water Quality Impacts. Stormwater runoff, which is a carrier of sediment, organic matter, motor vehicle wastes and various leachates, is probably the most significant factor in water quality degredation, because of the variety of pollutants involved and the frequency of occurrence. There are a wide variety of minor pollutants which may have a potentially adverse cumulative effect on water quality. These are pollutants such as sediments suspended by prop turbulence, boat sewage, bilge water, preservatives leached from timber piers, and wastes from boat maintenance activities. The actual degree of water quality degredation that occurs due to these pollutants is dependent not only on the quantity and type of the various pollutants, but also on the effectiveness of water exchange with nearby waters. Since the facility is open to the water course over its entire length, the possibility of a localized accumulation of pollutants is greatly minimized. Nevertheless, good management techniques dictate that the quantity of pollutants allowed to enter the water course be controlled to the maximum extent possible.

c. Air Quality Impacts. Locally reduced air quality can result from either a localization of existing emission sources in an area or from an influx of emission sources from outside the area. Reduction in air quality due to the existence of a small craft facility is usually a result of increased engine exhaust emissions. These emissions are generated by both the facility vessels and the motor vehicles of facility users.

The presence of the large trawler docking facility in the Lafitte/Barataria area will result in a slight localization of existing trawlers currently moored along Bayou Barataria. Because the facility will accommodate only vessels already in the area and since commercial fishing ports do not generate a significant vehicle traffic demand, there will probably be no increase in exhaust emission sources due to the presence of the facility. The localization of emission sources will probably not result in a significant concentration of air pollutants because the facility would simulate a line source approximately one-half mile long which would enhance atmospheric dispersion of the emissions. Thus, it is likely that operation of the docking facility will have no significant impact on air quality.

d. Noise Impacts. Noise occurring during facility operation is generated both at the facility by operation of vessels and motor vehicles, loading activities and miscellaneous patron activities, and in nearby water areas by vessels involved in transit to and from the facility.

The docking facility in the Lafitte/Barataria area will result in an increase in noise at the location of the facility due to localization of the large trawlers, but will not increase in noise generation on nearby water courses, because the facility only accommodates vessels currently utilizing the watercourses in the area.

While the noise generated by facility operations is not as intense as construction noise, it will continue for the life of the facility and represents a potentially chronic impact. The impact of noise is highly localized and usually affects only those species in close proximity to the source of noise generation. The impact of noise on animal species is a poorly defined area of study and is usually determined by regulatory agencies on a qualitative basis by using the degree of deviation from previously established conditions as a guide. Therefore, noise generated by facility operation can become an important factor in project approval, if there is an important species near the facility site or near access fairways to the facility which is sensitive to noise disturbance during some stage in its life cycle.

e. Endangered Species. The presence of an endangered species in the area of a proposed development represents a special condition, because the species is afforded protection under the law. The southern bald eagle is an endangered species which has been found nesting in the Lafitte/Barataria area. Regulatory agencies have designated a protective zone around the nesting sites. An increase in human activity or noise generation within this zone may possibly impact the nesting eagles. Site 1 (Figure IV-1) is located within this zone. The proposed operation of any facility on this site will be subjected to close scrutiny by regulatory agencies. Their determination with regard to impact severity will be an important consideration for project approval.

2. Social Environment

a. Social Impacts. The impacts of the docking facility on the social environment of the Lafitte/Barataria area will be minimal. The presence of the docking facility will not represent a significant departure from previously established cultural patterns and will not function as a stimulus for change because it will provide docking spaces for vessels currently operating from the area. There may be some relocations by residents seeking either to move nearer the facility to be closer to their boats or to move away from the facility to avoid the increased activity that the localization of the trawlers would create. However, the number of relocations is not expected to be significant. Perhaps the only significant change that might occur is that the presence of the facility may form a base for group actions by facility users to promote their common interests.

b. Economic Impact. The docking facility itself will represent only a minor direct benefit to the local economy because the only local expenditures will be for personnel salaries and the occasional purchase of maintenance items and services for facility repairs. However, the presence of the facility will result in a localization of trawlers currently moored along the bayou. This concentration of potential customers may result in the relocation of some small businesses to the area of the docking facility. The number of relocations will probably be influenced by the decision to develop the facility at a single location or at several locations. Therefore, the presence of the docking facility may possibly result in limited economic impact to the social environment of the Lafitte/Barataria area.

c. Aesthetic Impacts. Impacts which infringe on human senses are generally termed aesthetic impacts. The operation of the docking facility involves primarily visual and noise impacts. Both of these impacts are usually within acceptable levels if the facility is properly managed. Proper site maintenance and enforcement of operating regulations are the determining factors in the aesthetic quality of the facility. The facility has provisions for trash collection, oily waste disposal, and marine sanitary waste collection. These provisions will reduce potential aesthetic impacts at the facility.

Environmental Suitability of Sites

The preliminary analysis of potentially significant environmental impacts allows a rough estimation of the environmental acceptability of the potential sites. However, the limited information available at this level of analysis permits only a relative ranking of the sites in terms of environmental acceptability.

The most environmentally suitable site of those selected for study is probably Site 7 (Figure IV-1). Much of the natural habitat on the site has been cleared and the site probably contains no significant wetland areas. Therefore, construction activities at the site should result in minimal loss of natural habitat and, if small areas of wetland habitat are identified, the size of the site may allow relocation of the facility to avoid the wetland area. The available land area is sufficient to allow facility construction, disposal of spoil from construction dredging and possibly even maintenance spoil disposal to be restricted to one site. Thus impacts could be localized in a relatively non-sensitive area. In addition, there are no endangered or environmentally sensitive species known to be present near the site. Therefore, facility development at this site will probably result in minimal impacts to the natural environment. Facility construction at Site 7 will not result in dislocation of businesses or private residences, or disruption of public works. The facility will utilize potential residential land, but it is not likely that the presence of the facility will limit adjacent residential development. Therefore, the development of Site 7 will probably result in little impact to the social environment.

There are a number of sites which do not possess all the benefits of the most suitable site nor all the deficits of the least suitable site, and these are of intermediate environmental suitability for development. These sites are Sites 2, 3, 4, 5 and 6. Development of these sites should be environmentally acceptable, but there is insufficient information available to identify significant differences between the sites.

The least environmentally suitable site of those selected for study is

probably Site 1. The entire site is in a natural condition, although it is unknown if the site contains any significant wetland areas. All construction activities including facility construction, extension of roads and utilities to the site, and on-site spoil disposal will result in considerable loss of natural habitat. In addition, habitat loss to on-site disposal of maintenance dredge spoil could be significant because there is some indication of greater shoaling in Bayou Barataria south of Bayou Rigolettes. Facility construction and operation at this site could also impact the nesting area of the southern bald eagle, an endangered species. Site 1 is located within a protective zone which regulatory agencies have established around the nesting area. Even if regulatory agencies approved the presence of the facility, it is likely that both facility construction and operation would be subject to special restrictions. Facility development at the site could result in significant impacts to the natural environment. Finally, the development of Site 1 will probably result in little impact to the social environment because there will be no dislocation of business or private residences, or disruption of public works.

Conclusion

The sites under study for the proposed docking facility are located in the Louisiana coastal wetlands, one of the most environmentally sensitive and valuable wetland habitats in the United States. Wetlands throughout the United States have undergone rapid deterioration in the recent past due to man's development activities. As a result, any development activity which may affect this national resource will be subject to close scrutiny by both government agencies and local interests. To protect this valuable resource, the proposed development will be evaluated on its contribution to the cumulative impact of all local development on the surrounding area. This method of evaluation may impose more restrictive conditions on the proposed project than were imposed on previous developments, because the capacity of the area to absorb impacts is finite.

As a result of the more thorough evaluation of environmental impacts, it is necessary to incorporate environmental factors into the facility planning process from the inception of the project, in order to increase

the likelihood of receiving favorable decisions from regulatory agencies. If delays are incurred due to the regulatory process, or if an oversight in planning or design must later be corrected or mitigated, project costs can increase significantly. There are certain actions that should be taken early in the project planning process which can significantly reduce the possibility of delays and increase the probability of project implementation. The first and most important of these is the early establishment of communications with governmental agencies, special interest groups and concerned individuals. This process allows significant problem areas that could delay or terminate the project to be identified and addressed in the early planning stages. Second, site selection should consider environmental compatibility, especially with regard to minimizing habitat loss. Third, utilization of the least environmentally destructive techniques should be considered, including, where possible, scheduling of certain consturction activities to take into account climatic conditions and critical periods in the life cycles of important species. And fourth, stringent operating controls should be established so that facility usage does not result in chronic degredation of the environment.

Early in the feasibility study, initial communications were established with important government agencies for the purpose of obtaining information concerning potential environmental impacts in the study area. A number of potential environmental impacts associated with a docking facility in the Lafitte/Barataria area which could present significant limitations to project approval were identified. These were impacts to the natural environment such as the loss of wetland habitat and interference with the reproductive success of an endangered species, and impacts to the social environment such as the dislocation of businesses and private residences and the disruption of public works. These potentially significant impacts were greatly reduced by the initial site selections. It is expected that only Site 1 (Figure IV-1), which is located in close proximity to a nesting area of the southern bald eagle (an endangered species) may present a significant limitation to project approval.

The initial analysis of the environmental impact of the facility indicated that facility implementation will probably be environmentally acceptable. It is likely that the level of analysis required by regulatory agencies will probably be limited to an environmental assessment.

APPENDIX A

PRELIMINARY ANALYSIS OF DOCKING NEEDS IN THE LAFITTE/BARATARIA AREA

PRELIMINARY ANALYSIS OF DOCKING NEEDS IN THE LAFITTE/BARATARIA AREA

Introduction

The primary purpose of this preliminary analysis was to determine the major docking needs of the Lafitte/Barataria area, so as to provide information to assist the determination of which needs would be the focus of the detailed analysis. Waterway improvements needed in the study area were also identified, as well as related needs and potential constraints to development. The preliminary analysis was the first step in the planning process with which this report is concerned.

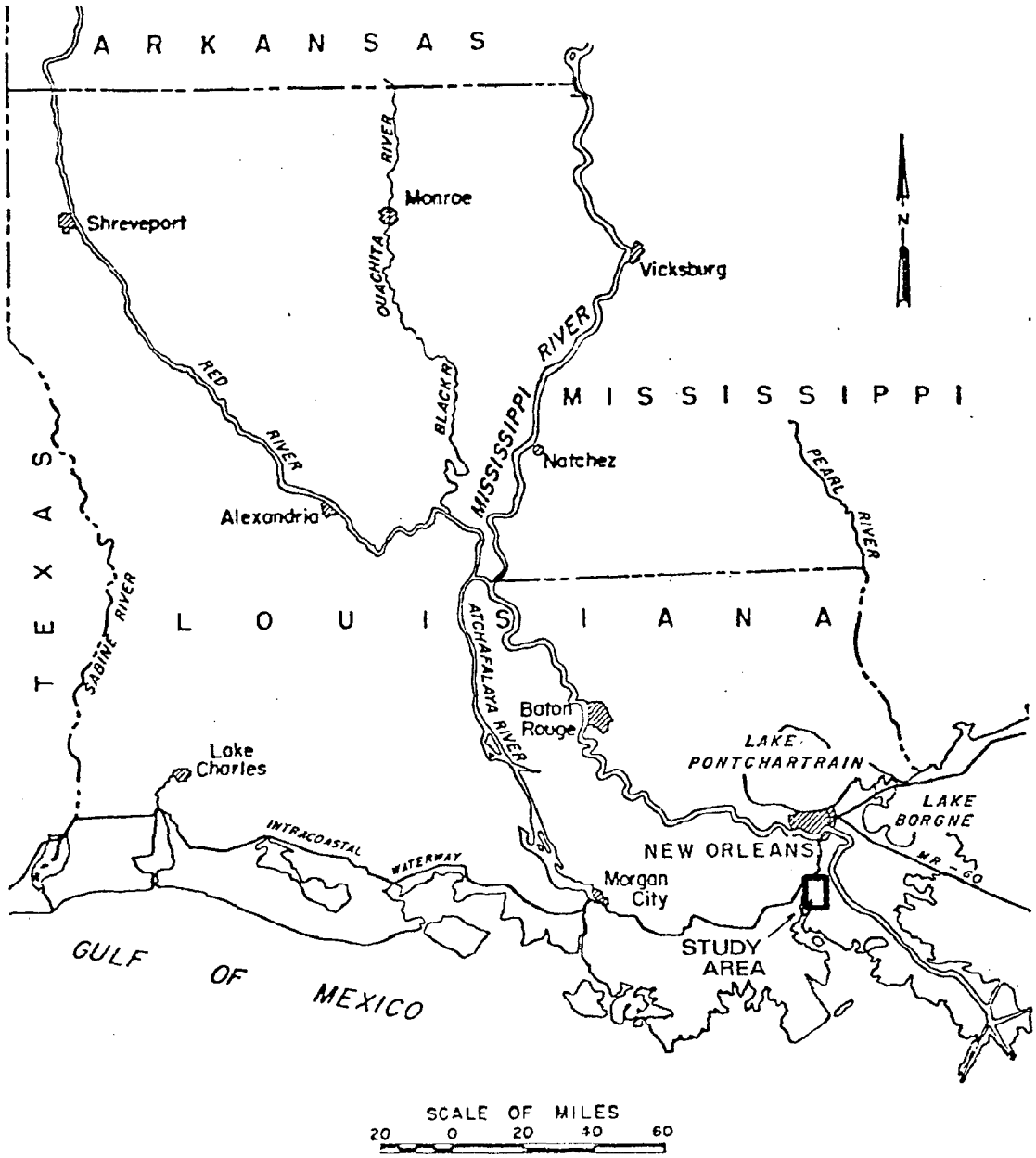
Major sources of information for the preliminary analysis included published statistics and studies related to the study area and to the activities generating docking needs in the area, and extensive in-depth interviews with knowlegable individuals involved in activities within the study area relevant to this analysis. Published statistics and studies were successful in clearly delineating those activities which generate major needs for docking facilities in the study area. Surveys, interviews and on-site inspections were necessary to pinpoint the specific requirements in the area and to provide an indication of the level of need.

This appendix will provide a brief description of the study area, an overview of the docking needs, waterway needs and related needs, and a brief description of potential constraints to development.

Description of the Study Area

The study area is located in the southern portion of Jefferson Parish, within Ward 6, and is composed of the incorporated Village of Jean Lafitte and the unincorporated areas of Barataria, Lafitte and Crown Point. Most development within the study area is clustered along the banks of Bayou Barataria south of the Gulf Intracoastal Waterway. Figure A-1 shows the location of the study area.

The area is located in the Mississippi Deltaic plain. Elevations range from below sea level to plus five feet mean sea level along the crest of



VICINITY MAP

LAFITTE-BARATARIA
LOUISIANA

FIGURE A-1

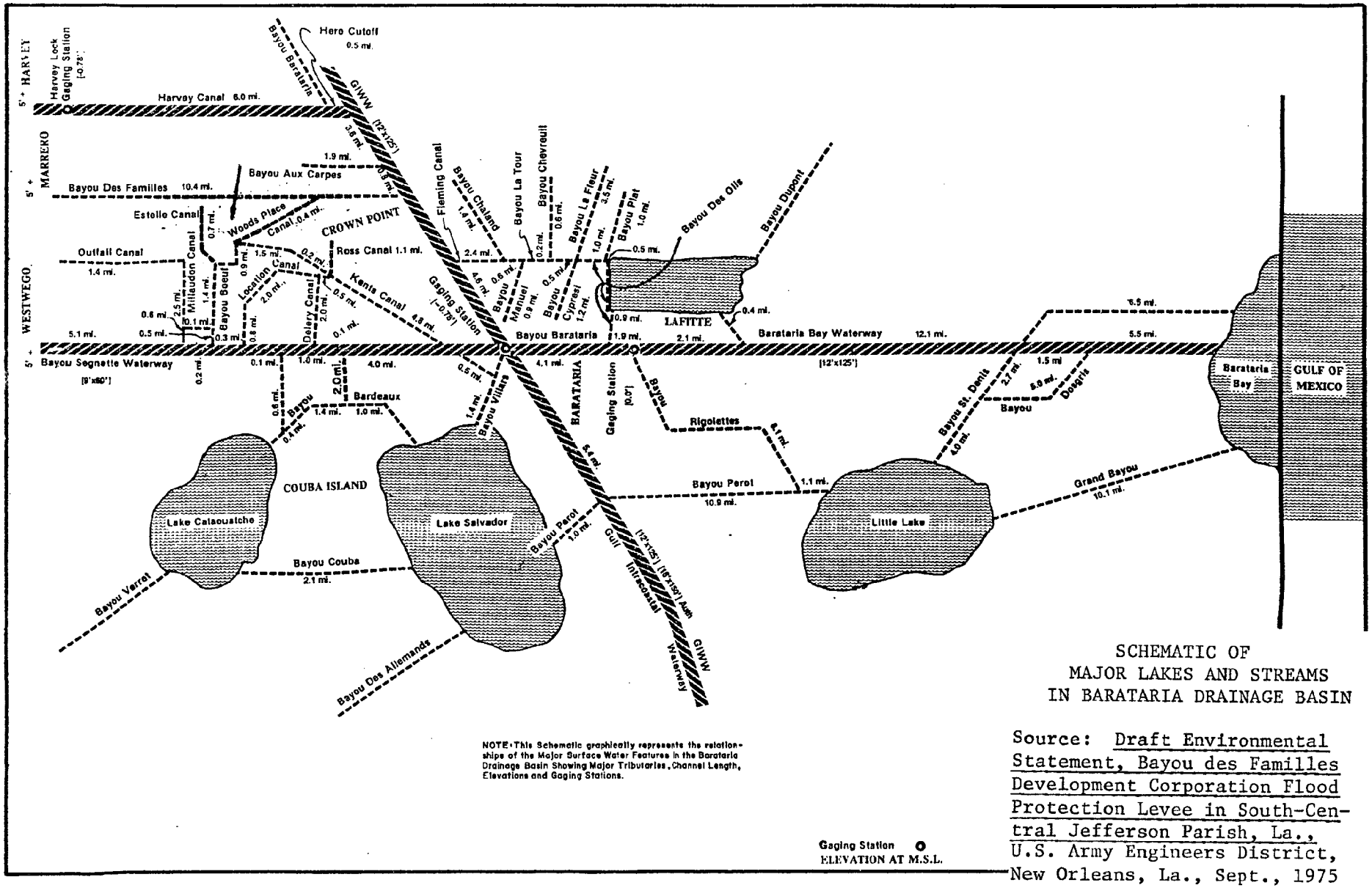
the natural levees, where most development is located. Surrounding the natural levees are wooded swamp lands and fresh and brackish water marsh. The area is susceptable to flooding from high tides and excessive precipitation, and from surges caused by tropical storms and hurricanes. The area is without effective levee protection from flooding and the proposed West Bank Hurricane Protection Levee will not encompass the area.

Fresh water is supplied to the study area by the Jefferson Parish Department of Water through a small pipeline. This waterline, which starts as a ten inch diameter line and ends in the southern part of the study area as a four inch diameter line, severely restricts the availability of fresh water in the area. It is expected that an adequate new line will be constructed in the near future.

Sewage disposal in the area is primarily by septic tank. A 201 sewerage facilities plan is presently underway. Shortage of fresh water and lack of sewerage are major present problems in the study area and major constraints to new development.

The study area is connected to the more developed sections of Jefferson Parish by Highway 45 and Highway 301, both narrow two lane winding roads south of the Intracoastal Waterway. Between Marrero and Crown Point, Highway 45 is being enlarged with the addition of a new four lane roadway. This roadway could stimulate development of the area north of the study area and to a limited extent in the northern part of the study area itself. Major new development in the study area is not expected, however, because of the severely limited availability of developable land, lack of effective levee protection and environmental opposition to development.

The Barataria Bay Waterway runs through the study area, and the Gulf Intracoastal Waterway traverses the northern boundary of the study area. These provide the major navigation and shipping channels for all waterway users in the area and for many users outside the area. Numerous smaller channels within and in the vicinity of the study area provide access to surrounding lakes and bays for smaller vessels. Figure A-2 shows the extensive system of waterways in the area.



NOTE: This Schematic graphically represents the relationships of the Major Surface Water Features in the Barataria Drainage Basin Showing Major Tributaries, Channel Length, Elevations and Gaging Stations.

SCHEMATIC OF
MAJOR LAKES AND STREAMS
IN BARATARIA DRAINAGE BASIN

Source: Draft Environmental Statement, Bayou des Familles Development Corporation Flood Protection Levee in South-Central Jefferson Parish, La., U.S. Army Engineers District, New Orleans, La., Sept., 1975

Figure A-2

Within the study area, the only incorporated municipality is the Village of Jean Lafitte, which is governed by a Mayor and three Aldermen. Jean Lafitte has a planning commission and is developing a zoning plan. The remainder of the study area is governed directly by Jefferson Parish. The Parish adopted a comprehensive zoning ordinance in 1976 which covers the study area. Figure A-3 shows zoning in the study area. Most of the study area is zoned U-1 Unrestricted development, except for the northern most section which is zoned S-1 Surburban, which allows low density single family residential development.

Jefferson Parish has also adopted a growth limits line and associated ordinance which restricts development outside of the line. The line is drawn to allow development generally within the presently developed portions of the study area.

Historical and projected population within the study area, including the Village of Jean Lafitte and Crown Point, Lafitte and Barataria, are estimated by the Jefferson Parish Planning Department as follows:

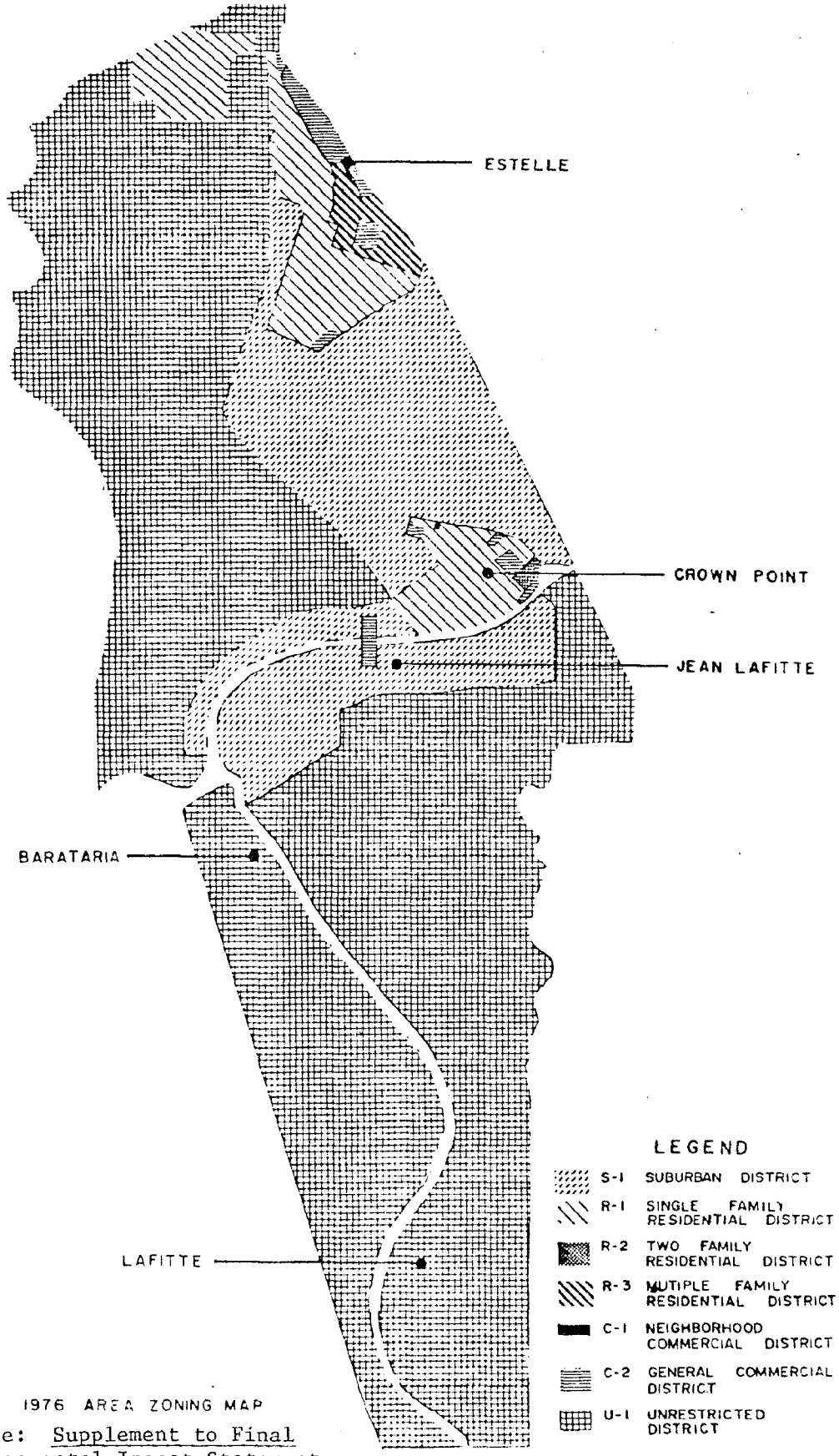
Year	1970	Population	5,538
	1975		6,594
	1985		8,706
	1995		10,818
	2005		12,930

Economic Activity

Employment within the study area is primarily within the fields of commercial fishing and fish processing, trapping, ship building and oil related activities.

Most of the employment in the study area is in commercial shrimp fishing. Approximately 500 to 550 commercial shrimping vessels, ranging in size from eighteen to twenty foot Lafitte skiffs to ninety-five foot steel trawlers, are owned and operated by fishermen living in the study area.

The Lafitte/Barataria area is considered the third largest shrimp landing area in Louisiana. Other important commercial species include oysters and blue crab. Table A-1 indicates the importance of these and other



1976 AREA ZONING MAP

Source: Supplement to Final Environmental Impact Statement, Marrero - Lafitte Water Line, Jefferson Parish, Louisiana Jefferson Parish Community Development Agency, Nov., 1977.

Figure A-3

TABLE A-1

COMMERCIAL FISH CATCH - JEFFERSON PARISH 1975

Species Name	Pound	Value (dollars)
Bluefish	100	7
Catfish & Bullheads	97,600	31,801
Croaker	82,900	10,976
Drum, Black	43,900	3,916
Drum, Red	198,900	46,286
Flounder	43,000	11,430
King Whiting/Kingfish	33,700	3,752
Mullet	1,000	47
Pompano	1,200	1,256
Sea Catfish	15,900	1,758
Sea Trout, Spotted	213,600	78,434
Sea Trout, White	22,100	3,197
Shark	4,000	218
Sheepshead	20,100	1,698
Snapper, Red	3,100	1,750
Spanish Mackerel	4,200	569
Spot	1,500	112
Tripletail	100	10
Unclassified	31,000	1,240
Crabs, Blue, Hard	3,243,400	429,630
Crabs, Blue, Soft/Peeler	77,400	110,946
Shrimp	7,221,000	5,533,532
Oysters, East. Public, Spring	276,500	85,460
Oysters, East. Public, Fall	2,900	1,605
Oysters, Private, Spring	428,900	134,378
Oysters, Private, Fall	250,500	173,923
TOTAL	12,318,500	6,667,931

Source: Final Environmental Impact Statement, Marrero - Lafitte Water Line, Jefferson Parish, Louisiana, Jefferson Parish Community Development Agency, November, 1977.

commercial species to the economy of Jefferson Parish. The importance of fishing to the study area is a direct result of the area's proximity to the Barataria Bay estuary system, which produces forty-four percent of the total Louisiana fishery harvest each year.[1]

Fisheries processing is another major employer, particularly with respect to the shrimp catch. In the Lafitte/Barataria area, there are twelve wholesale buyers, four partial processors, one canner and two major ice plants.

During the winter months trapping also is a source of income and employment. Commercial species include mink, muskrat, otter, nutria and racoon.

Approximately 100 area residents are employed by the four petroleum producing companies operating in the area. These are involved in inshore petroleum development activities. Gas and oil production in the area has been declining due to the age of field development, although this trend might reverse with deregulation.

Shipyards and vessel fabricators are major employers. The Lafitte/Barataria area contains:

1. Three or four aluminum vessel fabricators, generally in the vicinity of Crown Point.

2. Approximately fourteen other vessel fabricators and shipyards.

3. One offshore equipment fabricator.

Studies have indicated that approximately thirty percent of area residents live near or below the poverty level.[2] This is attributed to the irregularity and seasonality of commercial fishing activities.

Recreational Activities

The same factors making the Lafitte/Barataria area a center for commercial fishing create an ideal climate for recreational activities,

TABLE A-2

WETLANDS ORIENTED RECREATIONAL ACTIVITIES IN THE BARATARIA BASIN

ACTIVITY	USER DAYS
Saltwater fishing	934,119
Freshwater fishing	2,542,630
Crawfishing	812,278
Crabbing	610,462
Bird Watching	1,556,364
Hunting (small game)	1,880,273
Hunting (water fowl)	827,320
TOTAL	9,163,445

Source: "The Value of Wetlands in the Barataria Basin," Mumphrey, et. al., Louisiana Department of Transportation and Development, Coastal Resources Program, June, 1978.

particularly sport fishing. A fisherman can launch his boat at one of five major commercial marinas in the area and have access to both fresh water and salt water fishing opportunities in the lakes, bays and Gulf. There is generally a high level of such activity from April through December, especially on summer weekends.

The area is also a favorite for recreational hunters seeking white tailed deer, squirrel or waterfowl.

The magnitude of recreational activities in the study area is indicated by Table A-2 showing the number of user days of recreational activities in the Barataria Basin.

Jean Lafitte National Park is under development just north of the study area, and will enhance further recreational activities in the area.

Analysis of Needs

Although the above description of the study area is by no means exhaustive, it will serve to provide the setting for the discussion of docking and waterway related needs.

What follows are excerpts from a document prepared as part of this study, following completion of the preliminary analysis, to provide necessary information for the selection of needs to be investigated in the detailed analysis. This material presents, in brief and specific form, a discussion of the various needs for docking facilities, waterway improvements and related facilities investigated in the preliminary analysis.

The only major docking need in the Lafitte/Barataria area discovered in the course of the preliminary analysis was for docking facilities for large commercial trawlers domiciled in the area.

MAJOR NEED: LAFITTE-BARATARIA

Docking Facility for Large Trawlers

1. Need: Permanent docking facility for large commercial shrimp trawlers domiciled on Bayou Barataria.

2. Location: Along Bayou Barataria in the vicinity of Lafitte-Barataria.

3. Usage: Mostly trawlers 65-95 ft. long; plus some boats 50-65' long.
   Home-based docking. Reserved space.
   Boats docked 3-7 days or longer every 2 weeks.
   Needed all year long, but especially during winter when all boats forced out of the Gulf by storms.

4. Size: To be determined.
   Possibly accommodate 40-80 boats, or more.

5. Revenue Generating: Yes. Boat owners interested in paying for reserved, secure docking space.
   ($50/month is going rate for the limited number of spaces available at marinas).

6. Potential Constraints: Site availability. There is some vacant land along Bayou Barataria, particularly the west bank, but it is reportedly tightly held. Jefferson Parish owns a 3.8 acre parcel in Lafitte on the east bank of the Bayou with 660 ft. of water frontage.

7. Indication of Need:
   (a) 115-140 trawlers 50-95' long domiciled on Bayou Barataria in the near future:

- 60-70 trawlers 65-95' long presently domiciled on Bayou Barataria.
- 15-20 trawlers 65-95' long on order for delivery to owners on Bayou Barataria. The trend is to larger boats generally.
- 40-50 trawlers 50-65' long presently domiciled on the Bayou.

(b) Only 14 docking spaces at commercial marinas for these boats. Some of these boats are docked at own docks, primarily the 50-65' boats. Estimate that 50-80% of the 65-95' trawlers must dock at wholesalers, processors and other "borrowed" spaces. Boats are sometimes docked 3 and 4 abreast.

(c) Possibly 40-80 boats might use new docking facility:
- Estimate half of 65-95' boats need docking space (37-45 boats)
- Estimate additional quarter of all boats would also use a docking facility (total 66-79 boats).

(d) Fishing industry in the area is healthy and will probably grow if an adequate supply of fresh water can be provided to attract increased processing capacity and allow increased ice manufacture. Lafitte-Barataria is considered the third largest shrimp landing area in Louisiana. In the Lafitte-Barataria area, there are 12 wholesale buyers, 4 partial processors, 1 canner and 2 major ice plants.

(e) All sources of information investigated in the study, including interviews and public meeting, unanimously agree on the need for such a facility and the willingness of boat owner to pay for a suitable docking space.

OTHER DOCKING NEEDS INVESTIGATED: LAFITTE-BARATARIA

1. Docking Facility for Small Commercial Shrimp Boats

There are 400-450 commercial shrimp boats, less than 50' long, domiciled in the area. All of these are docked at owned docks or at marinas. Marinas in the area have available facilities and docking spaces for these boats at present.

No indication of present or immediate future need for a docking facility for these boats was discovered.

2. Docking and Launching for Sport Boats

Sport boating in the area is associated with recreational fishing and hunting. There is a generally high level of recreational activity from April through December. Summer weekends are the periods of heaviest recreational use.

5 major commercial marinas in the area cater to sport boats and provide:

666 wet and dry storage spaces
6 ramps and
3 hoists.

There is also 1 public ramp at Rosethorn Park.

Commercial marinas report their storage spaces are 65-80% full; and that they are seldom completely full or overcrowded. Some expansion is taking place.

All sources concurred that there is no present need for additional sport boat facilities, and that existing facilities generally meet demand. There is apparently some crowding, nonetheless, of roads and

major waterways during the peak summer weekends.

Commercial marinas will need to continue expanding to meet future recreational demand, since sport boating in the area is on the increase generally, and particularly in the Lafitte-Barataria area with the growth of the West Bank and the New Orleans Metro Area and the future development of Jean Lafitte National Park.

3. Oil Company Activities:

There are 4 major producing companies with docks in the area. These are used to supply only inshore activity, which is generally declining.

There are no needs for additional facilities.

4. Vessel Fabrication and Shipyards:

In the area there are:

3-4 aluminum vessel fabricators, most in the vicinity of Crown Point,

Approximately 14 other vessel fabricators and shipyards, and 1 offshore equipment fabricator.

These appear to be healthy, growing businesses. They generally take care of their own needs for docking facilities, and report no specific need for public improvements.

WATERWAY NEEDS

1. Barataria Bay Waterway: Controlling depth has been 9'. Presently being dredged to 12', which is authorized depth.

   Large trawlers need 12' operating depth. Fishermen in Lafitte-Barataria claim that certain parts of the waterway silt up as soon as dredged, particularly along the Dupre Cut and in Barataria Bay.

   The Waterway needs revetment, to stop siltation, marking, obstruction removal, and erosion protection. Bulkheading or rip-rap might be used for erosion protection of the banks of the Waterway, but rip-rap has the disadvantage of being capable of damaging vessel hulls if not properly prepared and placed. Bank erosion is a problem from Crown Point to below Lafitte.

   There is also the need to regulate speed of boat traffic along the developed part of the Waterway.

2. Kerner Ferry Bridge: Swing span over Barataria Bay Waterway in vicinity of Barataria, with 7' vertical clearance when closed.

   The bridge is reported to be antiquated, too low, slow to open and often broken. Fishermen and local officials expressed need for a new high rise bridge.

3. Numerous other waterways in the Lafitte-Barataria area are used by small boats. No major needs were discovered, other than some expression of need for marking entrances of main bayous at bays. (The Louisiana Fisheries Foundation is conducting a survey of underwater obstructions and should have information available in March).

4. Barataria Entrance Channel: Pass at eastern end of Grand Isle. Controlling depth is 12' across the bar. Will be dredged to 15' plus 3' advanced maintenance, and will be widened to 250' for its entire length in August 1980.

Large trawlers and oil company boats have difficulty crossing the bar in rough weather or during periods of sustained north wind. Fishermen claim that the entrance channel needs jetties and revetment to keep the pass clear, and needs better marking.

Dredging to 15' x 250' should serve the needs of the fishermen and help the oil industry. However, for full operational flexibility, the oil industry needs 20-25' depth in the entrance and 15-22' depth in Bayou Rigaud.

RELATED NEEDS: LAFITTE-BARATARIA

1. Fresh Water: A new water line is badly needed along Bayou Barataria for fire protection and general uses.

   Additional fresh water is critical to the future of the shrimping industry, for use on trawlers, in making ice and in processing. Additional fresh water could be expected to stimulate expanded ice manufacture and shrimp processing.

   Plans for a new water line are presently being held up by the U. S. Environmental Protection Agency, although local officials are attempting to work out a solution.

2. Ice: The commercial shrimping industry needs increased ice production. Some sources believe that capacity on the Bayou should double.

   Presently, there are two major ice plants, with smaller production facilities at shrimp wholesalers and marinas.

   Additional ice production will depend on the availability of additional fresh water.

3. Shrimp Handling and Processing:

   Handling capacity is generally adequate. However, most shrimp landed at Lafitte-Barataria are processed elsewhere. More processing capacity would be beneficial to commercial shrimping in the area. There is reported to be sufficient available labor for increased processing, and the opening of the new highway from Marrero to Crown Point in October will facilitate transportation to market. A major deterrent to increased processing is the availability of fresh water.

4. Road Transportation:

   A new 4 lane highway will open in October 1979 between Marrero

and Crown Point, connecting with the high rise Wagner Ferry bridge. Improvement of Highway 45 below the bridge is needed. The planned Lafitte-Larose highway is presently dormant because of environmental objection and low priority ranking.

5. Erosion Protection:

The banks of the Barataria Bay Waterway and the Gulf Intracoastal Waterway from Crown Point to below Lafitte are subject to severe erosion, which has caused considerable land loss. Many individual land owners and businesses have constructed their own bulkheads to remedy this problem.

Bulkheading is generally considered the best solution, although expensive. Presently under discussion is the idea of utilizing rip-rap from the West Bank Expressway demolition. Rip-rap used for erosion protection will have to be carefully placed to avoid the possibility of damaging vessel hulls.

6. Levees: Local officials claim better levees are needed to protect the area from flooding and salt water intrusion resutling from tidal surges.

7. Sewerage: Most homes and businesses use septic tanks. A sewerage facilities plan is presently under consideration for implementation.

The availability of adequate sewerage facilities will be crucial to the ability of the area to develop.

8. Shipyards: There are approximately 14 shipyards and boat fabricators between Crown Point and Lafitte. Only 1 or 2 of these handle large commercial trawlers. These boats generally must use shipyards on Bayou Lafourche or in Harvey.

There is a need in the area for additional repair capability for all boats, but especially for large trawlers.

9. Waste Dump: Commercial fishermen report a need for a place to dump waste oil and trash of all types.

10. Coast Guard Regulations:

Commercial fishermen believe that a new Coast Guard regulation requiring them to raise their booms when transiting the Barataria Entrance Channel (at the Gulf) is both dangerous and unnecessary.

Fishermen and local officials have requested that the Port Commission assist in having this regulation removed.

Potential Constraints to Development

Listed below, as identified in the preliminary analysis, are the major potential constraints that could effect docking facility development.

1. Government regulation, such as required permits from the Corps of Engineers and others, Coastal Zone Management, zoning, etc.

2. Environmental factors, including opposition from public interest groups, and natural features of the area such as hurricanes, flooding, soils, erosion, endangered species, etc.

3. Availability and cost of vacant sites.

4. Availability of adequate fresh water and sewerage facilities.

5. Availability of adequate highways and waterways.

These factors are not discussed further here because they are thoroughly discussed in other parts of this report.

REFERENCES: APPENDIX A

1. The Value of Wetlands in the Barataria Basin, Mumphrey, et. al., Louisiana Department of Transportation and Development, Coastal Resources Program, June, 1978.

2. Final Environmental Impact Statement, Marrero - Lafitte Water Line Jefferson Parish, Louisiana, Jefferson Parish Community Development Agency, November, 1977.

APPENDIX B

LAFITTE/BARATARIA PUBLIC MEETING

LAFITTE/BARATARIA PUBLIC MEETING

In order to supplement the preliminary analysis, to provide further information for the selection of docking needs for the detailed analysis, a public meeting was held on Tuesday evening, January 30, 1979 at the Jean Lafitte Town Hall. Public notices advertising the meeting were placed in the January 17 and 24 issues of the West Bank Guide. A copy of these notices is shown in Figure B-1. Additional notices were placed at prominent locations in the Lafitte/Barataria area by the Village of Jean Lafitte Mayor's office. The Mayor and the Aldermen of Jean Lafitte also telephoned numerous individuals to invite them personally to the meeting. Other telephone calls were placed to most of the waterway related business establishments in the vicinity. In addition, Parish and State officials representing the area were personally invited to the meeting.

The meeting was opened with a brief introduction and explanation of the purpose of the meeting. A questionnaire survey sheet was distributed to all those in attendance. The questionnaire was completed by the attendees as each item was explained. A sample of the questionnaire survey, including a tabulation of frequency of responses, is shown in Figures B-2 and B-3. Following completion and collection of the questionnaires, unstructured comment was solicited and received from those in attendance.

Of the eighteen individuals who attended the meeting, all but three were residents of either Lafitte or Barataria. The largest industry group represented were commercial fishermen (seven attendees), followed by seafood dealers (two), shipyard operators (two), and others (five).

Sixteen usable questionnaire responses were obtained and tabulated. Figure B-2 shows a tabulation of the frequency of responses to the questionnaire regarding various needs in the Lafitte-Barataria area. The responses show that the major need is for docking and repair facilities for large commercial trawlers. Some need is also perceived for docking facilities for small commercial trawlers and petroleum industry vessels.

FIGURE B-1

NOTICES OF LAFITTE/BARATARIA PUBLIC MEETINGS

WEST BANK GUIDE
January 17, 1979

Jeff Port Meeting Set

The Greater Jefferson Port Comission recently announced plans to conduct public meetings in Lafitte and Grand Isle to solicit citizen input for its recently initiated study of docking facilities and waterway improvements in lower Jefferson Parish.

The Grand Isle meeting will be held Tuesday, Jan. 23, at [illegible] p.m. in the Grand Isle Town Hall.

The Lafitte meeting will be held Tuesday, Jan. 30, at 7:30 p.m. in the Village of Jean Lafitte Town Hall.

"We want to invite the residents and waterway users in Grand Isle and Lafitte-Barataria-Crown Point to attend these meetings and give us their thoughts regarding needed improvements," noted Harvey H. Loumiet Jr., president of the Greater Jefferson Port Commission.

According to Loumiet, the purpose of the study is to plan for improvements in waterways and docking facilities to serve the needs of commercial fishermen, recreational boaters and the petroleum industry in the southern part of Jefferson Parish.

The port commission has selected a joint venture of the local consulting firms of Cocchiara and Associates, economic planners, and Fromherz Engineers, Inc. to conduct the study.

WEST BANK GUIDE
January 24, 1979

PUBLIC MEETING
JEAN LAFITTE TOWN HALL

7:30PM, TUESDAY, JANUARY 30, 1979

The Greater Jefferson Port Commission invites you to voice your opinion concerning the need for docking facilities and waterway improvements in the LAFITTE-BARATARIA-CROWN POINT area to serve commercial and recreational waterway users.

FIGURE B-2

PUBLIC MEETING JEAN LAFITTE TOWN HALL JANUARY 30, 1979

HELD BY THE GREATER JEFFERSON PORT COMMISSION

Please answer and return during meeting.

1. Resident of _____

2. Occupation(s) _____

3. Other water related interests _____

4. Judge adequacy of existing facilities in the area

	Excess all year	Adequate all year	Scarce during season	Scarce all year
Docking and mooring for:				
Large trawlers (com)	0	0	2	11
Small fishing boats (com)	0	1	4	6
Sport boats	4	4	0	3
Oil company boats	0	2	0	5
Launching and pickup for Sport boats	5	7	0	0
Repair and maintenance for:				
Large trawlers (com)	0	0	0	13
Small fishing boats (com)	0	1	3	6
Sport boats	2	2	0	4
Oil company boats	0	2	1	6
Shrimp unloading	3	1	4	1
Shrimp processing	1	2	2	3
Other - Specify				
_____				
_____				
_____				

5. Comment on need for additional facilities.

- OVER -

FIGURE B-3

CONTINUED FROM OTHER SIDE

6. Comment on adequacy of existing waterways (OK, Shallow, Narrow, Blocked, Unmarked, Eroding, Shoaling, Shifting)

Intracoastal Waterway OK-3; Need: Marking-2, Dredging-4

Barataria Bay Waterway OK-1; Need: Marking-5, Dredging-6

Barataria Entrance Channel OK-1; Need: Marking-7, Dredging-3

Bayou Villars OK-2; Need: Marking-1, Dredging-1

Bayou Rigolettes OK-2; Need: Marking-3, Dredging-2

Bayou Perot OK-2; Need: Marking-3, Dredging-2

Other - Specify _____

_____

7. Comment on adequacy of bridges (OK, Low, Narrow, Slow, other)

Wagner Ferry Bridge (High Rise) OK-8; Other-0

Kerner Ferry Bridge (Swing Span) OK-0; Low, Slow, Broken-13

Other - Specify _____

8. Comment on need for waterway and bridge improvements

9. COMMERCIAL FISHERMEN ONLY

List number and size of boats owned (over 20' only)

List number and size of boats on order or planned to order

Where do you dock your boats; where will you dock future boats

Do you need additional docking space _____

Would you pay going price for adequate docking space _____

10. COMMENTS - RECOMMENDATIONS

This finding with respect to oil industry vessels is contradictory to findings obtained from interviews conducted among petroleum industry operators in the Lafitte-Barataria area, who indicated no such needs.

The needs expressed for repair facilities for all vessels reflects the general shortage of repair capacity along Bayou Barataria, particularly for large vessels. Although shrimp unloading capacity is considered adequate, there is some perception of shortage of processing capacity, which is partially a result of shortage of fresh water in the area.

Figure B-3 shows a tabulation of frequency of responses regarding waterway and other needs in the area. Most of the waterways in the area are perceived as requiring some maintenance activity. With respect to the Intracoastal Waterway, Barataria Bay Waterway and Barataria Entrance Channel, this response reflects the large number of large trawler owners in attendance. With respect to Bayou Villars, Bayou Rigolettes and Bayou Perot, the perception of need relates to usage only by small vessels, since these are all shallow unmaintained waterways. Erosion of waterway banks, particularly the Barataria Bay Waterway, in the vicinity of Lafitte-Barataria, was also expressed as a problem.

A major need was expressed with regard to the old Kerner Ferry Bridge, which was widely perceived as being too low, slow to open, and often broken.

Of the seven commercial fishermen in attendance at the meeting, six own boats ranging in size from sixty-five feet to ninety feet in length. All six of these fishermen expressed a need for docking facilities and a willingness to pay the "going price" for suitable docking space.

Other comments on the questionnaires related to the needs for fresh water, a public dump and better levee protection. Owners of large trawlers expressed an urgent need for reserved, home base docking facilities. They expressed the willingness to pay for the use of such facilities, particularly if adequate security protection was provided.

Most of the individuals in attendance at the public meeting made verbal comments following completion of the questionnaire survey. These comments generally support the opinions expressed in the questionnaire, particularly the need for large trawler docking facilities, dumping facilities for waste oil and trash, shipyards and drydocks for large trawlers and other large vessels, fresh water and additional ice production capacity, and the problems related to siltation of the Barataria Bay Waterway and Barataria Entrance Channel and erosion of the banks of the Barataria Bay Waterway. Commercial fishermen and local officials requested assistance to convince the Coast Guard to rescind a new regulation requiring them to raise trawl booms when transiting the Barataria Entrance Channel.

APPENDIX C

MAJOR FUNDING SOURCES

MAJOR FUNDING SOURCES

Introduction

The purpose of this appendix is to provide identification and overview of the major sources of funding which the Greater Jefferson Port Commission might tap in the development of the type of docking facilities analyzed in this report. Mechanisms of local, state and federal government assistance as well as possible cooperative development with public and private entities, are presented. This discussion is intended to provide a basic familiarity with these mechanisms so as to allow a framework to be developed for discussions with the relevant public and private agencies, leading to the development of a funding package.

The major potential sources of funding identified include:

1. Mechanisms of Local Assistance
   a. Port Commission General Obligation Bonds
   b. Other Local Government Assistance

2. Mechanisms of State Assistance
   a. State General Obligation Bonds
   b. Division of Recreation Funding
   c. Other State funding

3. Mechanisms of Federal Assistance
   a. Office of Coastal Zone Management Grants and Loans
   b. Heritage Conservation and Recreation Service Grants
   c. Department of Housing and Urban Development Grants
   d. Army Corps of Engineers Assistance
   e. Small Business Administration Loans

4. Cooperative Arrangements with Public and Private Entities

Other mechanisms of financial assistance for which docking facilities developed by the Port Commission might be eligible are also discussed. These include state discretionary funds, U. S. Farmers Home Administration, Economic Development Administration, Small Business Administration and other federal programs, and possible future programs on state and federal levels.

Local Assistance

1. Port Commission General Obligation Bonds. General or limited obligation bonding is a major source of funding for port facility development

in the United States. These bonds are issued by a public entity, pay tax free interest and are secured by the taxing capability of the issuer. Because they are backed by the faith and credit of the issuing entity, and because they pay tax free interest, these types of bonds draw lower interest rates than other debt mechanisms.

Under Louisiana R. S. 34: 2021 et seq., the Greater Jefferson Port Commission is authorized "to incur debt for its lawful purposes and to issue in its name, negotiable bonds or notes therefore, and to pledge for the payment of the principal and interest of such negotiable bonds or notes the revenue derived from ad valorem taxes or other revenues derived from the operation of properties and facilities maintained and operated by it, or received by the commission from other sources; provided, however, that the amount of such bonds and notes outstanding at any one time shall not exceed 20 million dollars . . . All bonds, when authorized to be issued, shall constitute a general obligation of the commission to the payment of which the full faith and credit of the commission and the port area shall be and are hereby pledged." (La. R.S. 34: 2023) Approval of the State Bond and Tax Board and of a majority in number and amount of assessed valuation of the property owners of the port area is required for issuance of such bonds.

The Port Commission is further authorized to levy within the port area an ad valorem tax of 5 mils on all taxable property in Wards 1, 2, 3, 4, 5, 6 and 11 of the Parish of Jefferson; and the revenues from this tax may be pledged to pay the outstanding indebtedness of the Commission.

In order to float a general obligation bond issue, the Port Commission would probably be required to develop a prospectus and hire a bond counsel and an underwriter. Typical requirements of such a bond issue include provisions for a 6 to 7% contingency fund, a 10% bond reserve and a 5% legal and underwriting expense. There would also be a requirement that revenues available to pay off principal and interest should be 1.25 to 1.5 times the actual amount required to service the bond issue. State law limits maximum interest rate to 8% and maximum duration to 40 years.

2. Port Commission Revenue Bonds. Revenue bonds are another major mechanism of financing port improvements in the United States. In issuing a revenue bond, the issuing entity pledges as security the revenues to be generated by the facility, rather than its faith and credit. The interest received by holders of revenue bonds is free of federal taxation. Revenue bonds are considered riskier and, therefore, less attractive than general obligation bonds. Investors generally prefer purchasing revenue bonds from established operating agencies because of the usual lack of security for bond repayment other than successful operation of the facility.

The Greater Jefferson Port Commission is authorized, by the statutory language cited above, to issue revenue bonds. The Port Commission might find considerable resistance in the market place to the sale of these bonds, however, because of the lack of operating experience of the Commission. It is somewhat doubtful that an inexperienced entity like the Port Commission would be capable of fully subscribing a revenue bond issue unless a financially strong private entity guaranteed bond repayment.

As with a general obligation bond issue, revenue bonding requires a prospectus, bond counsel, underwriter, contingency reserve, bond reserve and legal and underwriting expense. A revenue issue might require a 2 to 2.5 times coverage ratio of revenue generated over actual bond servicing costs. State law limits maximum interest rate to 9% and maximum duration to 40 years.

3. Other Local Assistance. Because of the benefits accruing to the local community and to the parish at large from a new facility, it would not be unusual to receive construction and operating assistance from either or both of these groups. Such assistance might consist of a one time or annual monetary grants for capital construction or operations, or the provision of land or needed services such as police or fire protection. The Houma-Terrebonne Port Commission has received an annual operating grant from the Police Jury for its activities.

Local communities where the facility might locate are severely restricted in their capability to provide monetary assistance because of their

limited size, but might be able to help in other ways. The Parish of Jefferson might be able to assist both monetarily and with the provision of land or services.

State Assistance

1. State General Obligation Bond. The Omnibus Bond Authorization Act is the state mechanism for incurring general obligation debt of the State of Louisiana for the purpose of funding the five year state capital improvement program. Projects are authorized for funding by legislative enactment. Projects are ranked on a priority scale of one to four, depending upon the immediacy of the project, and funding is provided to highest priority projects first. Although a project may be included in the act, there is no assurance that the project will be funded, particularly if it is of low priority, since the annual state limitation on new bonded indebtedness usually falls far short of the total amount required for all projects in the act.

Funds provided by the Omnibus Bond Authorization Act can be made available with or without an obligation to repay. It is usual, however, to require that any excess revenue generated by the project be returned to the State treasury. The entity receiving funds from the act generally would be required to fund a bond reserve in the amount of the highest annual interest service.

Advantages of this funding mechanism include possibly lenient repayment terms or no requirement to repay, lowest available interest rates and minimum reserve requirements and related expenses. A major disadvantage of this mechanism is the need to compete politically for the limited funds available. This difficulty is compounded by the fact that port facilities are generally expected to be financed through the issuance of general obligation or revenue bonds by the operating entity.

Despite these difficulties, three local port commissions have been included in the Omnibus Bond Authorization Act. The Greater Lafourche Port Commission received funds for the development of Port Fourchon, and is repaying its indebtedness through the imposition of a 7.5 mill ad valorem tax. The Houma - Terrebonne Port Commission received construction funds from the State with no pay back requirement.

2. Division of Outdoor Recreation. The Division of Outdoor Recreation in the Department of Culture, Recreation and Tourism, is responsible for preparing the annual State Comprehensive Outdoor Recreation Plan (SCORP) and, through the Office of State Parks, for administering the system of state parks in Louisiana. Facilities serving public recreational needs developed by a public entity might be eligible for funding through this agency, particularly if the facility were a part of a state park. Inclusion of a project into the SCORP increases the likelihood of state and federal funding for recreational facilities.

3. Office of the Governor. A small amount of grant funding may be available from the discretionary funds account of the governor's office. No formal mechanism is established for obtaining these funds, and any request for such funds would necessarily compete with numerous other requests.

4. Pending Programs. Should the recently enacted state first use tax on natural gas be found constitutional, substantial revenues might be made available for the development of docking facilities either directly from the revenues generated by the tax or from increased funding. of the Omnibus Bond Authorization Act. Revenues from the tax are dedicated to restoring and maintaining the States' barrier islands and coastline and to paying off the state's bonded indebtedness. Twenty-five percent of the revenues are dedicated to the coastline and seventy-five percent are dedicated to the debt. This tax, and the revenue generated from it, could be tied up for years in litigation.

More importantly, substantial amounts of new state revenues will be obtained in the near future as a result of petroleum price deregulation. These revenues will represent a major source of funding for public projects.

Federal and Regional Assistance

1. Office of Coastal Zone Management. The Coastal Energy Impact Program (CEIP) of the Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management, was created by the Coastal Zone Management Act amendments of 1976 to assist states impacted by coastal energy activity. Grants, loans and loan guarantees

for up to 100 percent of the project cost are available to:

a. Plan and construct public facilities and services

b. Ameliorate environmental and recreational loss

c. Repay bonded indebtedness.

The CEIP program is administered through the La. Department of Transportation and Development. For fiscal year 1980, substantial grant funds are available, but loan funds are uncertain.

The Greater Lafourche Port Commission and the Houma-Terrebonne Port Commission have applied for CEIP grants and loans. This study was funded in part by CEIP planning grant funds.

2. Heritage Conservation and Recreation Service. The Heritage Conservation and Recreation Service of the Department of the Interior provides Land and Water Conservation Fund Grants to states and their political subdivisions for the acquisition and development of outdoor recreation areas and facilities for the general public. Up to fifty percent of the cost of public docking facilities serving recreational needs might be eligible for funding under this grant program. The program is administered through the La. Division of Outdoor Recreation.

3. Community Planning and Development Agency. The Community Planning and Development Agency of the Department of Housing and Urban Development administers two programs which might provide financial assistance for the docking facilities analyzed in this study. One program is the Community Development Block Grants/Small Cities Program, which provides project grant funds for construction of certain public works facilities and improvements. To be eligible for funding, projects should benefit low and moderate income persons. Up to 100 percent of project costs can be funded.

The second program is the Urban Development Action Grant (UDAG) Program, providing grants in support of projects furthering economic development and/or neighborhood revitalization. To be eligible for funding, the project should benefit distressed cities or distressed urban counties. Jefferson Parish generally is not eligible for UDAG funds because it is not considered distressed. A facility, however, in a small incorporated

municipality or within one mile of a municipality in Jefferson Parish might be eligible. Federal funding is only available through this program for a percentage of the costs of a project, and there is a requirement that there be a firm committment of private resources to the project.

There is indication that the facilities analyzed in this study might be eligible for funding through a new UDAG program known as "Pockets of Poverty."

The communities where the planned facilities are to be located must be designated by HUD as eligible for these programs.

4. Army Corps of Engineers. The Army Engineers are authorized to construct waterway improvements, such as breakwaters, jetties, navigation channels, turning basins, anchorage areas and harbors of refuge, related to the construction of public small boat harbors and other navigation improvements. The Corps will not construct docking facilities, but may provide a navigational access channel to a public facility from existing channels.

Federal participation under this program varies from 100 percent of the cost of projects benefiting commercial navigation, to 50 percent of the cost of projects benefiting recreational usage. Different approval mechanisms are required for different monetary levels of federal participation, namely:

a. Less than $1 million federal share, approved by the Secretary of the Army.

b. Between $1 million and $10 million federal share, approved by the Secretary of the Army if non controversial and if approved by the Public Works Committees of U. S. Senate and House.

c. Greater than $10 million federal share, approved by Congress.

Possibly the only assistance that might be provided by the Corps to the docking facilities under consideration might be a small amount of dredging required to connect the docking facilities with the existing channel.

5. Farmers Home Administration. The Farmers Home Administration of the Department of Agriculture administers two programs which might provide assistance to the docking facilities under consideration. First of these are loan guarantees for the consturction of community facilities in rural areas and villages of not more than 10,000 population. Local matching funds are not required for this program.

The second program are industrial development grants to assist the development of business, industry and related employment to improve the economy in rural communities. Matching funds are not required for this program.

6. Economic Development Administration. The Economic Development Administration (EDA) of the Department of Commerce administers several programs of grant and loan funding and loan guarantees intended to assist economic development generally in depressed areas. Jefferson Parish, because of its economic vitality, ranks very low in priority for EDA project funding. Requests for EDA funding substantially exceed the monies available, and only twelve EDA projects were funded in Louisiana in 1978. However, because the local area where the proposed docking facility would be located is much less economically vital than the urban portions of Jefferson Parish, a small possibility might exist to obtain EDA assistance.

Two programs for which the local areas might qualify are the grants and loans for Public Works and Development Facilities and the grants for Public Works Impact Projects. The basic grant rate for the first program is up to 50% of the project costs, and for the second program up to 80% of the project costs.

The community center in the Village of Jean Lafitte received an EDA Public Works Impact Project Grant. The Tampa Port Authority received a $1.5 million EDA grant to construct commercial trawler docking and packing facilities.

7. Small Business Administration. This agency provides direct loans and guaranteed/insured loans to small business and to state and local

development companies, in order to provide financing for small business activities. This would be an appropriate funding mechanism if private interests were to develop all or part of the docking facilities.

8. Ozarks Regional Commission. This organization provides supplemental grants to states and other entities to cover a portion of the local share of federal grant programs for project development. The portion of project costs which the Ozarks Regional Commission will provide depends upon the portion provided by other federal agencies, but in no case may the local share amount to less than twenty percent of total project costs.

9. Pending Programs. New federal legislation should be scrutinized to determine the availability of new federal funding for docking and port facilities. One such piece of pending legislation is H. R. 4310, known as the Biaggi Bill. This proposal would establish a Coast Guard monitored fund that would provide up to $20 million a year in federal matching funds for state recreational boating facilities.

Cooperative Arrangements

Various mechanisms might be investigated which would effectively reduce the cost to the Port Commission of developing new docking facilities. One fruitful approach might be a joint public/private development. Such development often is utilized by public port authorities to provide facilities for particular users. Possible mechanisms might include: the development of private facilities on publicly owned sites; long term lease of public facilities to private users; and the development of facilities by specially formed Local Development Corporations. Major users of facilities might provide facility financing. Also, there may be the possibility of developing public facilities on private land, to the mutual benefit of the land owners and the Port Commission.

Cooperative arrangements with local governments should also be probed. Possibility may exist to include the development of docking facilities with new or existing community centers, parks, etc. Such an arrangement might allow sharing of joint development costs and provide a broader base of grant-in-aid funding.

APPENDIX D

MAJOR REGULATORY AND PERMITTING REQUIREMENTS

MAJOR REGULATORY AND PERMITTING REQUIREMENTS

Introduction

This appendix provides a general overview of the major permitting and regulatory requirements of governmental agencies for the construction and operation of docking facilities of the type analyzed in this report and located in the southern portion of Jefferson Parish. Discussion of site specific regulatory requirements is provided in Chapter 4 of this report.

The major governmental permit required for construction and operation of the planned docking facilities will be from the U. S. Army Corps of Engineers. Numerous federal, state and local agencies of government will comment on the Corps permitting process and may impose requirements through the Corps permit. Permission of the local governing bodies and several state agencies is also required. In the future, another permitting process might be added on the state level, if the Louisiana Coastal Commission, in administering coastal zone management, develops an approved process.

Federal Agencies

1. Army Corps of Engineers. For construction of a structure in or adjacent to a navigable waterway, a permit is required from the Corps under Section 10 of the River and Harbor Act of 1899. For the disposal of dredged material into the waters of the United States, including the coastal wetlands, a permit is required from the Corps under Section 404 of the Federal Water Pollution Control Act.

The major requirement of the Corps for structures in navigable waters is for the provision of clearance between the navigational fairway and any structure or mooring area. For the Barataria Bay Waterway, mooring is prohibited within seventy-five feet of the channel centerline, and structures are prohibited within 175 feet from the channel centerline. If no disposal of dredged material into surrounding waters is involved in facility construction, only a Section 10 permit will be required, even if dredging takes place in the navigable waterway.

If dredging takes place in a wetland environment, or if dredged material is disposed in surrounding waters, including wetlands, a Section 404 permit from the Corps will be required. A detailed site survey will be conducted by the Corps to determine whether a Section 404 permit and an Environmental Impact Statement is required. The Section 404 permitting process is much more involved than a Section 10 process, because of the greater number of factors taken into consideration. Special emphasis in reviewing permit applications and in imposing permit conditions will be placed upon minimizing environmental impact, particularly detrimental impacts on water quality, wetlands and living organisms. Method of disposal of dredged material and its impact will be of prime concern.

Numerous federal, state and local agencies of government will be requested by the Corps to comment on the permit application. Their comments may form the basis for conditions placed on the Corps permit. Particularly important in this regard are the U. S. Environmental Protection Agency with respect to water quality, and the National Marine Fisheries Service of the Department of Commerce and the Fish and Wildlife Service of the Department of Interior with respect to impact on living organisms. These three agencies have effective mechanisms for requiring the Corps to impose conditions on its permit.

A routine permitting process will require approximately sixty-five days. For a project such as the port facilities analyzed in this study, an environmental assessment and public hearing might be required. Considering these possibilities, the permitting process might require approximately three to six months.

If the Corps determines that the project might involve a significant environmental impact, an Environmental Impact Statement will be required as well. In such an event, the permitting process might require from eighteen months to two years for completion. It should be noted that the receipt of certain types of federal grant or loan funding for project construction carries with it the requirement for preparation of an Environmental Impact Statement or environmental assessment. Coastal Energy Impact Program construction grants require the preparation of an Environmental Impact Statement.

2. Coast Guard. The Coast Guard, under the jurisdiction of the U. S. Department of Transportation, establishes, operates and maintains aids to navigation, establishes and enforces rules of the road for vessel operations, and regulates boating and boating safety. The Coast Guard must provide consent as to the location of fairways, moorages and roadsteds. The Coast Guard coordinates through the Corps of Engineers with respect to harbor and navigational areas.

3. Environmental Protection Agency. The EPA comments on Corps of Engineers' permit applications regarding environmental impact of the proposed project, particularly on water quality. EPA has issued guidelines for evaluating dredged material discharge under the Federal Water Pollution Control Act. New EPA requirements are expected to be implemented early in 1980 requiring a stringent water quality monitoring program for dredged material disposal. The Corps recommends that direct contact be established with EPA early in the planning process.

4. Fish and Wildlife Service. The Bureau of Sport Fisheries and Wildlife of the U. S. Fish and Wildlife Service, Department of Interior, actively comments on Corps permit applications with respect to project impacts on living organisms, particularly with respect to important commercial and recreational species. The Corps recommends that direct contact be established with this agency early in the planning process.

5. National Marine Fisheries Service. The National Marine Fisheries Service, National Oceanic and Atmospheric Administration of the Department of Commerce, comments on Corps permit applications in much the same manner as the Fish and Wildlife Service. This agency also is recommended for direct contact early in the planning process.

State Agencies

1. Coastal Commission. The Louisiana Coastal Commission has been established to administer coastal zone management within the State of Louisiana. The Commission has adopted use guidelines for coastal activities, but these guidelines have not, as of this writing, been accepted by the Federal Office of Coastal Zone Management. The adopted guidelines presently do not appear to preclude development of the type of docking facilities analyzed in this study. The Coastal Commission may implement a state permitting system for coastal activities. It so, these docking facilities probably would require a permit under such a system.

2. Department of Wildlife and Fisheries. The Department is the primary state agency concerned with protection and enhancement of the state's wildlife and fisheries resources. It comments on Corps of Engineers' permit applications with respect to the impacts on these resources of wetland dredging and dredged material disposal. The Department is particularly concerned with dredging activities which might impact active oyster leases. The Corps recommends that this agency be consulted directly early in the planning process. The Corps requires permit applicants to furnish copies of their drawings to this agency and to obtain a letter of no objection.

3. Division of State Lands. The Division of State Lands within the Department of Natural Resources permits usage of state owned water bottoms for dredge and fill activities and the construction of bulkheads and structures. A separate permit probably will be required from this office.

4. Bureau of Environmental Services. The Bureau of Environmental Services within the Office of Health Services and Environmental Quality, Department of Health and Human Resources, issues permits for installation of sewerage facilities and for the disposal of solid waste. This agency also comments on Corps permit applications. The Corps requires permit applicants to furnish copies of their drawings to this agency and to obtain a letter of no objection.

5. State Fire Marshall. The Fire Marshall in the Department of Public Safety has the authority to approve plans and specifications for all structures, including docking structures, and for water craft.

6. Office of Highways. The Office of Highways in the Department of Transportation and Development must review and approve any construction plans affecting state highways.

7. Office of Public Works. The Office of Public Works in the Department of Transportation and Development performs the coordinating functions with federal and local agencies on all state water projects. For certain state funded projects, including channel and berthing projects, the Office of Public Works provides engineering and supervision assistance.

The Office also comments on Corps permit applications. The Corps requires permit applicants to furnish copies of their drawings to this agency and to obtain a letter of no objection.

8. Archaeological Survey and Antiquities Commission. The Commission, in the Department of Culture, Recreation and Tourism, comments on Corps permit applications with respect to construction impacts on historic and archaeologic resources.

9. Stream Control Commission. The Stream Control Commission issues permits for industrial waste discharges into the waters of the State and establishes pollution standrads for state waters. The Corps requires permit applicants to furnish copies of their drawings to this agency and to obtain a letter of no objection.

Local Agencies

1. The Parish of Jefferson. The Parish administers a zoning ordinance for the unincorporated areas of Jefferson, and any construction within these areas will require a building permit from the Department of Inspection and Code Enforcement. Installation of sewerage facilities will require a permit from the Drainage and Sewerage Department. The Parish also has adopted a growth limit line and an associated ordinance. The growth limit ordinance should not preclude development of the docking facilities analyzed in this study, since the ordinance allows structures outside of the line which pertain to fishing, recreation and oil and gas exploration and extraction.

The Corps requires permit applicants to furnish copies of their drawings to the Parish and to obtain a letter of no objection. The Environmental and Development Control Department will comment on the Corps application.

2. Local Municipalities. Construction of facilities within the jurisdiction of incorporated municipalities would require approval of the planning commission and town council of that municipality. The Corps requires permit applicants to furnish copies of their drawings to the local municipality and to obtain a letter of no objection.

3. Levee District. The approval of either the Lafourche Basin Levee District or the new West Jefferson Levee District will be required for any construction activity involving a levee under the jurisdiction of the District. The corps requires permit applicants to furnish copies of their drawings to the levee district and to obtain a letter of no objection.

APPENDIX E

INTERVIEWS

INTERVIEWS

Aransas County, Texas Navigation District
Bernie DeForest

Camcraft, Inc.
Russel Kreppel

Chevron Companies
Chris Dufrene

Cochiara Marina and Shipyard
Jules Cochiara

Con Brown Harbor, Texas
Bob McCormick

Corpus Christi Municipal Marina
George Gable

Couevas and Sons Ventures
Quentin Couevas

Flagship Fabricators, Inc.
Welden Theriot

G. & M. Marine Insurance
Marshall Miller

General Electric Credit Corporation
Don Nicholls

General Motors Credit Corporation
George Smith

George Engine Co.
Dick Morse

Greater Lafourche Port Commission
Ted Falgout

Hamilton, Meyer and Associates, Inc.
Steve Cremillion

Howard, Weil, Labouisse, Friedrichs, Inc.
Owen Jones

Hughes Marina
M. D. Hughes

Jefferson Parish, Community Development Agency
Peggy Mitchell

Jefferson Parish, Environmental and Development Control Department
Bruce Burglass

Jefferson Parish
Harry Lee, Parish Attorney
Bob Lyons

Jefferson Parish, Office of Federal Relations
Roy Wiltey

Jefferson Parish, Planning Department
Doc Terranova

Joe's Landing
Joe Bourgeois

Jones Point Shipyard, Inc.
Charles Blank

Jules Nunez Seafood
Jules Nunez

L. & L. Oil Company, Inc.
Theriot Agoff

Lafitte - Barataria Fisherman's CoOp
Frank Kuhn

Lafitte Canning Company, Inc.
Tommy Favoloro

Lafitte Seaway Marine
Walter Shultz

Lafitte Shipyard and Marine Supply
Nell Curtis

Lafitte Welding Works, Inc.
Robert Desselle

Lafitte Yacht Pen
Steve Wildey

Latter and Blum
Hubert Stringer

Louisiana Bond Commission
Tom Burbank
Barry Carnes

Louisiana Department of Transportation and Development, Coastal Resources Program
Joel Lindsay
Phil Pittman

Louisiana Department of Transportation and Development,
Office of Highways
Henry Pylant
Dick Thevenet

Louisiana Department of Transportation and Development,
Office of Public Works
Curtis Patterson

Louisiana Division of Administration, Facility Planning and Control
Ed Land

Nichols State University
Don Gary

Orleans Marina
Mrs. Dieters

Otero and Stein
John Otero
Ernest Stein

Port Mansfield, Texas
Ruby McCarron

Port of Brownsville, Texas
Betty Houtalling

Port of Galveston
L. B. Prino

Port of Iberia
John Oubre

Port of New Orleans
Percy Pleasance

Regional Planning Commission
John Bordelon

Scharff and Jones, Inc.
Edward Roddy

Shrimp Unlimited
Joe Bosco

Swiftships Lafitte
Ken Maloney

Tampa Port Authority
Tom O'Connor

Terrebonne Port Commission
    Phillip Prejean

Texaco, Inc.
    Raime Ledet
    Eddie Rhodes

U. S. Army Engineer District, New Orleans
    Buddy Baer
    Charles Decker
    Henry Glaviano
    Everett Johnson
    Glen Lukos
    Jim Martin
    Charles O'Connell
    William Shell
    Bob Vick
    Hugh Wright

U. S. Coast Guard
    Captain Morgan
    Terry Haines

U. S. Department of Agriculture
    Dan Michell

U. S. Economic Development Administration, Department of Commerce
    Jack Kyle

U. S. Maritime Administration, Department of Commerce
    George Bornkessel

U. S. National Marine Fisheries Service, Department of Commerce
    Orville Allen
    Dan Callahan
    Gerald Freeman
    Ovide Pleasance

Village of Jean Lafitte
    Leo Kerner, Mayor
    Alvro Despaux, Alderman
    Chris Dufrene, Alderman
    Frederick Gros, Alderman
    Quentin Couevas, Sheriff

Watts Construction Company, Inc.
    Earl Pleasance
    Doug Wildey

APPENDIX F

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BIBLIOGRAPHY

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