

SUMMARY REPORT OF OCTOBER 1991 PUBLIC MEETINGS:
CITIZEN CONCERNS ABOUT THE PONTCHARTRAIN BASIN

Prepared for:

Lake Pontchartrain Basin Foundation
Post Office Box 6965
Metairie, Louisiana 70009-6965

as part of:

The Pontchartrain Basin Comprehensive Management Project

By:

Linda Stone Calvert and Rod E. Emmer, Ph.D.
University of New Orleans
College of Urban and Public Affairs
New Orleans, Louisiana 70148

February 1992
in partial fulfillment of
EPA Grant
No. X006710-01-0



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Funding for this publication and the planning process has been made possible through a \$500,000 grant (#361-10-6007) from the U.S. Environmental Protection Agency covering 95% of the costs of the project.

Any opinions, findings, and conclusions in this publication are the authors' and do not necessarily reflect the views and policies of the EPA or the University of New Orleans.

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PREFACE

The Lake Pontchartrain Basin Foundation (LPBF), in a cooperative effort with the Environmental Protection Agency, has been granted a \$500,000 congressional appropriation which covers 95% of the costs of a project to develop and implement a Comprehensive Management Plan (CMP) for the restoration and cleanup of Lake Pontchartrain by addressing problems at the source. According to technical reports, the Pontchartrain Basin is affected by both natural (riverine and coastal flooding, intense storms, hurricanes, subsidence, shoreline erosion) and "manmade" (urban and agricultural runoff, sewerage, industrial discharges, hazardous waste disposal, dredging, saltwater intrusion, freshwater diversions and flood control projects, oil and gas extraction, atmospheric deposition, development) sources. The CMP will address these problems.

The first step in developing the CMP was a series of four public meetings held in October, 1991 to solicit public opinion on what should be done in the Pontchartrain Basin. The output from these meetings is the subject of this report. The concerns voiced in Metairie, Mandeville, Destrehan and Hammond were divided into 29 subcategories which were then grouped into five general categories: Institutional, Pollution, Education/Outreach, Uses, and Renewable Resources. The concerns were then synthesized and analyzed by meeting location, category and subcategory. The resulting information, plus data from technical reports, will provide an Interagency Working Group (IAWG) with substantial background from which to develop the basin's first Comprehensive Management Plan.

The IAWG will consist of federal and state agencies, parishes and a municipal component, all of which have significant environmental regulatory authority. The LPBF will serve on the IAWG as a representative of the general public.

Working subcommittees will be formed from IAWG member agencies and technical advisors, each subcommittee to develop a portion of the CMP. The IAWG and subcommittees are scheduled to meet for five months beginning in early 1992. The final CMP will be a document that will be readily understood by the public; it will be specific, but will be amenable to change as new technology and ideas are developed. The plan will be a practical tool for taking the basin into the future.

I. INTRODUCTION

The Pontchartrain Basin

The Pontchartrain Basin is a 4700 square mile watershed in southeast Louisiana. Elevations range from over 300 feet mean sea level in the hills along the Mississippi state line to sea level throughout the coastal lowlands. Pleistocene terraces and uplands, the older geologic features, form the northern half of the basin, an area commonly referred to as the Florida parishes. South of the Florida parishes are the coastal lowlands, the Pontchartrain estuary. Many small rivers drain the Florida parishes and introduce freshwater into Lakes Maurepas and Pontchartrain, the great mixing zone of fresh and saline water. The largest of these rivers is the Amite which has its headwaters in the counties of southwest Mississippi. Watercourses crossing the northern parishes have eroded into the uplands, creating distinct river valleys. Bayous and tidal channels, those sinuous bodies of slow moving water commonly associated with south Louisiana, characterize the coastal lowlands.

On the higher uplands are the pines, while in the river valley and sloughs are the hardwoods. Coastal lowland vegetation includes natural levee and bottomland hardwoods, cypress-tupelo swamp and fresh to brackish marshes. The distribution and composition of vegetation associations are undergoing rapid changes, mostly man-related. East Baton Rouge Parish has grown rapidly during the past thirty years. From Hammond to Slidell, along I-12, small farms and woods have been converted into a suburban setting, houses, shopping centers and small businesses. In contrast are the petrochemical plants, grain elevators and refineries that have turned the Mississippi River into an industrial corridor from Baton Rouge to New Orleans. Flanking the plants are subdivisions and malls covering abandoned sugar cane fields. Finally,

Orleans, Jefferson and St. Bernard Parishes have defined their maximum extent of expansion with the construction of an elaborate hurricane levee protection system. Located in the center of this vibrant and dynamic basin is the state's largest waterbody, Lake Pontchartrain.

Lake Pontchartrain, formed 5,000 years ago, covers almost 630 square miles. The shallow lake (average depth 14 feet) is brackish, receiving fresh water from the Tangipahoa and Tchefuncte Rivers, Bayous Lacombe and Bonfouca, as well as drainage canals, and salt water from the Gulf of Mexico. Lakes and wetlands form a complex, estuarine ecosystem that performs many functions (Table I, Appendix "A"). During the spring and summer months, there is an influx of marine organisms as the water warms and the salinity increases (DEQ 1990).

For many years, the basin's wetlands have been channelized, drained and filled, and Lake Pontchartrain has served as the receiving waters for a variety of contaminants. The cumulative effects of wetland degradation and discharge of contaminants into the lake are eroded shorelines, dwindling grassbeds, diminished shellfish and fisheries, closed beaches and the occasional occurrence of "dead zones" in the lake. The Gulf of Mexico sturgeon, which was once commonly found in Lake Pontchartrain, and probably spawned in most of the rivers flowing into the lake, has so dramatically declined in abundance, that it is proposed for "threatened status" under the Endangered Species Act. Endangered species occasionally found in the Pontchartrain Basin are the Kemp's ridley sea turtle, the Brown Pelican and the West Indian manatee. Many other animals and plants are at risk as well from habitat destruction and pollution.

The Lake Pontchartrain Basin contains a rapidly increasing human population with concentrations in St. Tammany Parish. The urbanization pushing further into the wetlands conflicts with natural values and functions of wetlands, with

commercial fishing and recreation, and contributes a variety of impacts (Emmer 1984). Municipal runoff, sewerage from humans and farm animals, and industrial and agricultural discharges are several problems. Commercial ventures such as shell dredging, oil and gas exploration and development, and the maintenance of the Mississippi River Gulf Outlet (MRGO) and Inner Harbor Navigation Canal (IHNC) for shipping impact the basin as well.

Exploitation of the valuable resources within the Pontchartrain Basin, has resulted in conflicts among the many users. Unfortunately, existing federal and state programs do not permit a comprehensive approach for resolving these confrontations. Lack of an overall plan for addressing issues in the basin was identified in the Houck report (1989). In partial response to this void, the Lake Pontchartrain Basin Foundation (LPBF) was created.

Lake Pontchartrain Basin Foundation

The LPBF is a non-profit, publicly supported organization which was established and incorporated September 19, 1989. The purposes of the LPBF, as stated in its charter, are the restoration and preservation of the environmental and ecological balance of the Lake Pontchartrain Basin. A fundamental goal of the LPBF is the creation and implementation, for the first time, of a plan to address these purposes. This plan is to bring together the 25 or more federal, state and local agencies with responsibilities and/or regulatory authority affecting the basin's environment. The LPBF is guided by a 13 member board representing the parishes surrounding Lake Pontchartrain and the state agencies with specific basin-related responsibilities.

EPA Grant

In 1990 Congress appropriated \$500,000 to cover 95% of the costs of developing and implementing a Comprehensive Management Plan for the restoration and cleanup of the Pontchartrain Basin. The grant was provided to the LPBF through the Environmental Protection Agency (EPA), the oversight agency for the project. The final product of the first year's effort will be a twenty year Comprehensive Management Plan (CMP) containing implementation strategies for the first five years. The second year of the project will focus on implementation and demonstration of the plan.

The CMP will be developed by an Interagency Working Group (IAWG) consisting of federal and state agencies, parishes and a municipal component, all of which have significant environmental regulatory authority, and the LPBF will serve as a representative of the general public. Each participant has one vote. Federal and state resource agencies and local governments, as well as selected members of the private sector, will serve as advisors to the IAWG, and be actively involved on IAWG subcommittees. The plan and strategy will be developed through a series of six workshops, scheduled to begin in February, 1992.

In October, 1991, four public meetings were held. The purpose of these meetings was to explain the directions the LPBF is pursuing, to explain what is expected to be accomplished as a result of the development of the management plan, to seek active public and parish involvement, and to elicit the opinion of the public on what should be done in the Pontchartrain Basin. The information obtained is presented in this report which will be given to IAWG members at their first meeting.

Purpose and Organization of Report

This purpose of this report is to summarize and present the information and ideas obtained at the October 1991 public meetings. To give the public comments a frame of reference, a brief summary of environmental studies on the Pontchartrain Basin is provided below. Next, public meeting format and procedure are described and explained. The methodology is given for the analysis of public comments. In the conclusion, all categories of public concerns are provided, as well as a section mentioning those areas of concern that are found in the professional environmental studies of the basin but were not mentioned at the public meetings. Finally, an overview of the LPBF's Comprehensive Management Project outlines the sequence of events underway for development of the Pontchartrain Basin Comprehensive Management Plan.



II. BASIN ENVIRONMENTAL PROBLEMS

Natural

Natural problems may be defined as those intrinsic processes that adversely affect human habitation or those which negatively change the relationship among natural systems and in the long-term contribute to the degradation of resources. In other words, natural problems must be viewed in terms of man-nature relationships. In the Pontchartrain Basin the major naturally occurring problems affecting activities and long-term land use are: riverine and coastal flooding; intense storms; hurricanes; subsidence; and shoreline erosion (Earle 1984). In addition, geologic faults may be an issue in certain areas.

Riverine flooding may occur through flooding of the Mississippi River or other rivers discharging into the Pontchartrain Basin from the north. Since the Mississippi is essentially controlled by the United States Army Corps of Engineers (USACE), the more serious concern is riverine and coastal flooding of communities that have developed in floodprone areas. Such flooding occurs when there is a combination of elevated lake levels, an extended rainy period, or intense rainfall associated with frontal stalls. Such conditions are not infrequent. Orleans and Jefferson Parishes, protected by levees and dependent upon pumping systems to remove all water from the drainage system, are susceptible to flooding by intense storms. Such flooding is usually localized to small portions of the urban area.

Of serious consequence to the entire basin is the occurrence of tropical storms and hurricanes that strike the region on the average of once in three years (USACE 1983). Unleveed wetlands are inundated where uplands along the north shore can be battered by intense rain and wind. Elevated

water levels extend up the rivers and bayous connected to the lakes and may cause backwater flooding.

Virtually all of the lowlands between the southern boundary of the Florida parishes and the natural levees of the Mississippi River are subject to local subsidence. The problem is most severe in Orleans and Jefferson Parishes where former wetlands have been reclaimed for urban development. Subsidence causes increased costs for construction and the maintenance of all structures, facilities and infrastructure.

Shoreline erosion, caused by wave action and currents, varies in the Pontchartrain Basin. In part of St. John the Baptist Parish, shoreline retreat is as high as 25 ft/yr. In Tangipahoa it is as high as 8.2 ft/yr. Stabilized shorelines are found, for the most part, in Orleans, Jefferson and St. Tammany Parishes. Along these highly modified shores are little remaining productive wetlands. Land loss from erosion takes areas out of production as wildlife habitat or forest, reduces the storm buffer zone, and directly attacks urban and recreational uses on the lake edge.

Manmade

Manmade problems are defined as those human actions that place stress on life support systems by development, use, or destruction of resources. The problems include: urban runoff; sewerage; industrial discharges; hazardous waste disposal; agricultural runoff; dredging; saltwater intrusion; freshwater diversions and flood control projects; oil and gas extraction; atmospheric deposition; and proposed development (Earle 1984).

Urban Runoff

Urban runoff, the drainage from streets, roofs, parking lots, garages and other surfaces of the city, constitutes the

largest single unregulated source of pollution into Lake Pontchartrain (Reimers, Metcalf and Hart 1989). The pollutants from these sources are washed into the lake during rainfalls via drainage canals and pump stations. While varying in volume with local rainfall, these discharges contribute an unremitting and significant level of contaminants, some of which are toxic. The greatest volume, and therefore the greatest effects, of urban runoff originates in Orleans and Jefferson Parishes.

Sewerage

More than 500 sewerage treatment plants discharge treated, partially treated and, at times, untreated effluent into Lake Pontchartrain and its tributaries (Yates, Reimers and Metcalf 1989). These impacts have been reduced by the diversion of the major, direct south shore discharges into the Mississippi River, and will lessen with new treatment facilities on the Amite and Tchefuncte Rivers. Significant problems remain, however, in non-compliance by municipalities and private treatment systems, such as those along the Tangipahoa River. Additional problems are presented by the cumulative impact from broken sewer lines and the several thousand individual septic systems that line the north shore tributaries and camps along the shores of Lake Pontchartrain.

Industrial Discharges

Industrial discharges do not appear to present a major threat to the lake at this time. Individual facilities have, however, caused contamination on a localized basis; water quality problems in the Pontchartrain Basin associated with industrial waste water occur in St. John the Baptist Parish associated with the industrialization along the Mississippi River (Yates 1989; Earle 1984), and in St. Charles Parish

industrial impacts on the lake may increase with introduction of the Mississippi River water from a Bonnet Carre freshwater diversion scheduled for the mid-1990s. There is also evidence of contamination from industrial facilities along the Industrial Canal.

Hazardous Waste Disposal

Hazardous waste is disposed of through deep well injection as well as surface disposal areas and pits (Earle 1984). Approximately 300 waste sites in Louisiana have been targeted by the EPA for evaluation of potential hazards. Four of these sites are on the federal Superfund list for assistance in management and clean-up. Three of these (Inger Oil, Cleve Reber and American Creosote) lie within the Pontchartrain Basin. In addition, a number of other identified hazardous waste sites are located in the Basin, primarily in East Baton Rouge, St. Charles, Ascension and St. Tammany Parishes.

Agricultural Runoff

Agricultural discharges stem from a wide range of agricultural practices such as the use of fertilizers, pesticides and herbicides, and the occurrence of soil erosion (Kornfeld 1989). These practices are regulated as "non-point" sources of pollution (like urban runoff), which means that they have been largely unregulated at both state and federal levels. The Water Quality Act of 1987 called for new non-point plans to be developed. The Department of Environmental Quality's (DEQ) plan is in the process of being developed, and the Department has begun to address pollution from dairy farms on the Tangipahoa River.

Dredging

Shell dredging was, by volume, the single largest contributor of pollution to Lake Pontchartrain (Yates and Norris 1989). It increased the turbidity, resuspending mud and settled pollutants and heavy metals, and burying bottom dwelling flora and fauna under layers of mud. Thus all lake life was affected by the dredging. Other forms of dredging include: 1) access canals for oil and gas exploration, and 2) pipeline canals for transmission of petrochemicals. These are less frequent and therefore less disruptive. The two year moratorium, ending April 10, 1993, on new oil and gas leases in Lake Pontchartrain further lessens these impacts.

Saltwater Intrusion

The Inner Harbor Navigation Canal (IHNC) has been a major source of saltwater getting into Lake Pontchartrain since the Mississippi River Gulf Outlet (MRGO) was completed in 1963 (Poirrier 1989). Saltwater intrusion has increased the salinity in Lake Pontchartrain and, during periods of low stream flow, contributes to stress in the marshes and swamps which surround the lake. Saltwater entering from the IHNC produces salinity stratification in waters near the IHNC with adverse effects on bottom dwelling organisms.

Freshwater Diversions and Flood Control Projects

Freshwater diversion and flood control projects are under intense debate in the Pontchartrain Basin. In the case of freshwater diversion, it is not clear whether benefits will outweigh costs to the lake environment. The Bonnet Carre spillway is supposed to bring in freshwater to offset some of the saltwater intrusion, but it may bring in too many additional pollutants to be worth the effort. At least six water

resource projects in the upper Lake Pontchartrain Basin are under study by the U.S. Army Corps of Engineers and state agencies (Gobert 1989; Davis 1984). These projects and their attendant development, could have significant impacts on water quality and flows into Lakes Maurepas and Pontchartrain.

Oil and Gas Extraction

Nearly all oil and gas activities, whether related to the earlier phases of exploration or the later phases of production, have the potential to adversely affect many environments of the basin (Holder 1989; Earle 1984). Access to oil and gas sites encompasses the need for roads or canals in wetlands, and ports and sea lanes when sites are located in the lakes. Drilling can cause potential local disturbances to the environment through noise pollution, habitat change and destruction, pollution from fluid storage (drilling muds, brines, and petroleum products), from leaks and accidental spills, and an increased potential for subsidence of adjacent lands because of petroleum extraction. Before the ban on surface disposal of produced water, the heavy metal laden brine was often disposed into surface waters of the lake. Furthermore, in any extraction activity there is the potential, no matter how small, for catastrophic events such as blowouts and oil spills.

Atmospheric Deposition

Little is known of the contribution that atmospheric deposition of pollutants has on the water quality of Lake Pontchartrain. There is evidence, however, that airborne pollutants deposited either as a result of precipitation or dry fallout are a significant source of contaminants in water bodies nationwide (Hart 1989). Lake Pontchartrain would be especially vulnerable to this type of pollution being a large,

shallow estuarine system in close proximity to the Mississippi River Industrial corridor. The large surface to volume ratio of the lake associated with the prevalence of atmospheric sources of pollution suggests that Lake Pontchartrain may be susceptible to atmospheric pollution.

Proposed Development

Any additional development into wetland areas must be carefully considered. Development in wetland area decreases natural habitat and increases erosion and the risk of flooding (Houck et al. 1989).

Summary

The Pontchartrain Basin is a dynamic system that is being modified by an increasing population and significant resource extraction. Historic human practices are compounding natural processes and have resulted in degradation of the resource base. These issues must be addressed if the vitality of the basin is to be regained and enhanced.



III. THE PUBLIC MEETINGS

In October 1991, four public meetings were held in Metairie, Mandeville, Destrehan and Hammond. These meetings initiated the Comprehensive Management Program for the Pontchartrain Basin. The following analysis and discussion of the results of the LPBF sponsored public meetings summarizes the public's concerns on basin environmental issues, and shows how closely these issues parallel the problems cited by scientists and planners.

Procedure

Each public meeting opened with a short talk by Steve Cochran, Executive Director of the LPBF. Then Dr. Rod Emmer, Principal Investigator of the Pontchartrain Basin Comprehensive Management Program, explained the planning process and the logistics of the meeting, i.e., the use of small groups led by a facilitator and a recorder to gather public input, followed by a return to the plenary session to hear from each group. Appendix "B" contains the information packet distributed to each participant:

- A meeting agenda with dates and locations of all meetings.
- "Purpose of the Planning Effort and Schedule of Events for the 12 Month Project."
- Public meeting procedures including sequence of events in small groups.
- A map of the Pontchartrain Basin.
- A ballot.
- A list of key personnel involved in the Pontchartrain Basin Management Planning Program.
- A list of agencies with regulatory authority and oversight responsibility in the Pontchartrain Basin at the federal, state and local levels.
- A glossary.
- A bibliography of publications on the Pontchartrain Basin.
- An addressed, foldable sheet for mail-in comments.

Small Groups

The purpose of the small group format was to encourage an uninhibited sharing of ideas. A facilitator served as an objective catalyst, to assure orderly and constructive discussion and help keep group attention focused. The facilitator repeated each comment, sometimes shortening it, but always asking the speaker if what was written accurately portrayed his or her idea. The recorder wrote all comments on a large tablet which served as the "group memory."

After brief introductions, group members presented visions of what they would like the Pontchartrain Basin to be. They were then asked to describe goals to achieve the visions. The result was a combination of goals, concerns and issues which, for the sake of expediency, are referred to as "concerns" in this report. These concerns were sequentially numbered as they were recorded. Finally, small group members completed ballots provided in the meeting packets to select what they thought to be the first, second and third most important concerns confronting the people in the basin. The three concerns receiving the most votes were transferred to a summary sheet which was presented to the plenary session by a spokesperson from the small group. All "vision", "goal" and summary sheets were identified by meeting, date and small group. At the conclusion of each public meeting, the large sheets were compiled for inclusion in this report.¹

¹ Transcriptions of all visions, concerns and summary sheets appear in Appendix "C".

IV. ANALYSIS OF RESULTS

Results of the meetings were analyzed in two ways. First, the summary sheets from each meeting were reviewed for an overall sense of the public's principle concerns, resulting in weighted and non-weighted summaries. Secondly, all concerns (not just those appearing on the summary sheets) were categorized by the authors and analyzed by both subcategory and meeting location.

Categories and Subcategories

The authors reviewed each comment and assigned it a key word or phrase which seemed to most accurately represent the essence of the thought. Some comments contained a mix of two or three ideas and thus were described by several key words or phrases. Twenty-five topics were identified from the public meetings. These topics were grouped into five broad categories: (1) governmental operations or Institutional concerns; (2) matters of water quality or Pollution concerns; (3) Education/Outreach; (4) various Uses of the basin; and (5) those concerns having to do with the well-being of the basin's Renewable Resources. When the broad categories were developed, some miscellaneous concerns were subsumed under the categories and counted as individual topics so that the final number of topics (from here on referred to as "subcategories") was 29. The categories and subcategories are:

INSTITUTIONAL

Make/Enforce Regulations
Better Coordination
Basin Management
Out of Politics
More Planning
More Funds
Government Involvement

POLLUTION

Urban Runoff
Sewerage
Commercial Pollution
Freshwater Diversions
Agricultural Runoff
Saltwater Intrusion

USES

Recreation
Control Oil & Gas Activity
No Dredging
Hurricane Protection
Miscellaneous

RENEWABLE RESOURCES

Protect Wetlands
Preserve Natural Resources
Stop Erosion
Species Study
Miscellaneous

EDUCATION/OUTREACH

Education
Research
Public Participation
Monitoring
Assessment
Recycling

Weighted and Non-Weighted Summaries

As mentioned previously, at the end of each small group discussion, participants identified the first, second and third most important concerns. At that time, the concerns were not weighted. First, second and third choices were determined simply by the total number of votes received. However, some meeting participants were concerned that the results would differ if the concerns were weighted. To determine if weighting would make a difference, the concerns were weighted later by giving three points to the most important concern, two points to the second most important, and one point to the third. The results of the weighted and non-weighted summaries are very similar. Weighting did result in shifting some concerns between first and second or second and third place, and to eliminate some of the ties. Weighted and non-weighted summary tables can be found in Appendix "D".

There were slight differences between the various meetings for first, second and third choices. In Metairie the emphasis was on Institutional concerns, i.e., *more planning,*

basin management, and better coordination, and Education/Outreach. In Mandeville, top priority crossed the categories of Institutional, Education/Outreach and Pollution. Destrehan had a strong emphasis on Pollution concerns, while Hammond's priorities equally divided between Pollution and Institutional. Seldom mentioned were concerns about Uses and Renewable Resources in the first three choices at any of the meetings.

Mail-In Comments

One of the items in the packet given to meeting participants was a mail-in sheet for sharing additional ideas. Three pieces of information were received by mail. The post-meeting comments (Appendix "E") were coded along with the meeting concerns and are included in the analysis.

Breakdown into Numbers and Percentages

The number of concerns per category and subcategory, as well as what percentage of the whole those numbers represent are as follows (Figures 1A and 1B):

CATEGORY	<u>Number</u>	<u>Percent</u>
Institutional	110	36.4%
Pollution	72	23.8%
Education/Outreach	64	21.2%
Uses	29	9.6%
Renewable Resources	<u>27</u>	<u>8.9%</u>
Total	302	100.0%

FIG. 1A: CONCERNS BY CATEGORY (%)

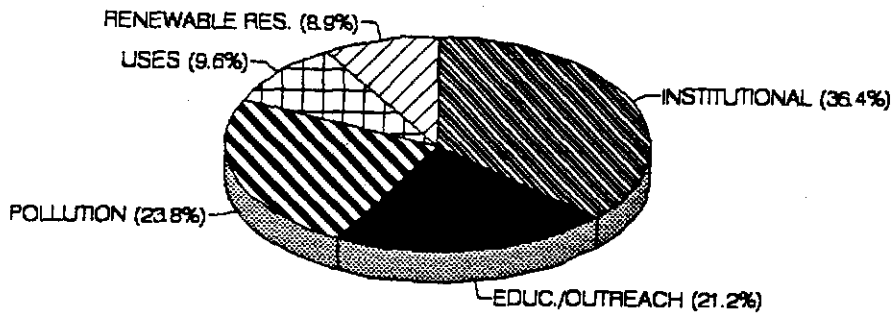
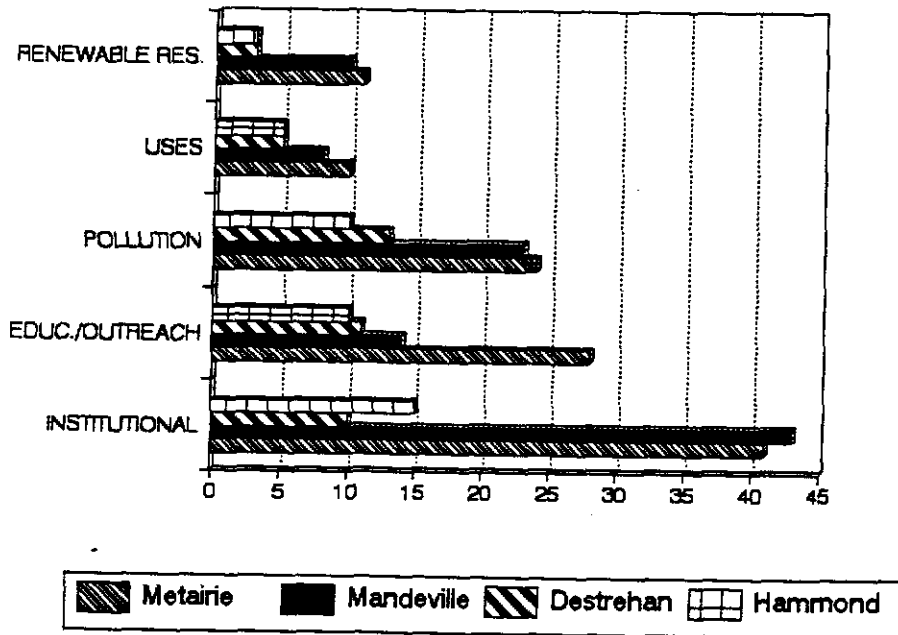


FIG. 1B: NO. OF CONCERNS BY CATEGORY



Within each of the categories, the breakdowns are:

INSTITUTIONAL	<u>Number</u>	<u>Percent</u>
Make/Enforce Regulations	41	37.3%
Better Coordination	15	13.6%
Basin Management	14	12.7%
More Planning	12	10.9%
More Funds	11	10.0%
Out of Politics	9	8.2%
Government Involvement	<u>8</u>	<u>7.3%</u>
Total	110	100.0%

POLLUTION	<u>Number</u>	<u>Percent</u>
Urban Runoff	21	29.2%
Sewerage	19	26.4%
Commercial Pollution	12	16.7%
Agricultural Runoff	9	12.5%
Freshwater Diversions	6	8.3%
Saltwater Intrusion	<u>5</u>	<u>6.9%</u>
Total	72	100.0%

EDUCATION/OUTREACH	<u>Number</u>	<u>Percent</u>
Education	26	40.6%
Public Participation	12	18.8%
Monitoring	10	15.6%
Research	9	14.1%
Assessment	6	9.4%
Recycling	<u>1</u>	<u>1.6%</u>
Total	64	100.0%

USES	<u>Number</u>	<u>Percent</u>
Recreation	14	48.3%
No Dredging	9	31.0%
Control Oil & Gas Activity	3	10.3%
Miscellaneous	2	6.9%
Hurricane Protection	<u>1</u>	<u>3.4%</u>
Total	29	100.0%

RENEWABLE RESOURCES	<u>Number</u>	<u>Percent</u>
Protect Wetlands	10	37.0%
Preserve Natural Resources	7	25.9%
Stop Erosion	6	22.2%
Species Study	3	11.1%
Miscellaneous	<u>1</u>	<u>3.7%</u>
Total	27	100.0%

Analysis of All Concerns

The second method of analysis was a coding of all concerns by the 29 subcategories listed above. Some concerns were coded for more than one subcategory, for example, the concern "Special management district for Basin with regulatory powers," was coded for both *basin management* and *make/enforce regulations*. There was no limit to the number of subcategories a concern could be coded for. A computer program was utilized to assist in separation of the data into subcategories.² Each occurrence of a computer-coded subcategory was

² The Ethnograph, A Program for the Computer Assisted Analysis of Text Based Data, Qualis Research Associates, Littleton, CO, Copyright 1985.

entered into a spreadsheet program³ which allowed summarization and graphing of the data. The spreadsheet is located in Appendix "F" and the graphs appear as figures.

Each meeting displayed a preference (Figure 2). The meetings in Metairie and Mandeville had the highest attendance, with 55 and 48 voters, respectively, while the Destrehan and Hammond meetings had 23 and 18 voters. Although Mandeville had fewer voters than Metairie, more topics were covered in Mandeville than in Metairie. In order to understand specific area concerns, and to account for the levels of attendance, each meeting is examined individually. The following analysis makes overall comments and reviews each meeting by categories. A final summary compares results from among the four meetings.

Institutional

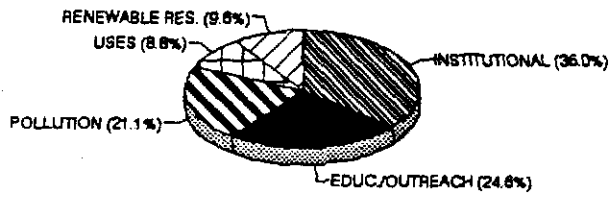
Overall

More concerns appear under the Institutional category than any other. Of a total of 302 coded concerns, 110, or 36.4%, fell under Institutional. The Institutional category consists of seven subcategories: (1) *make/enforce regulations*, which was most often mentioned with 41 occurrences of coded concerns, or 38.3% of all Institutional concerns; (2) *better coordination*, with 15 occurrences (13.6%); (3) *basin management*, 14 occurrences (12.7%); (4) *more planning*, 12 occurrences (10.9%); (5) *more funds*, 11 occurrences (10%); (6) *out of politics*, 9 occurrences (8.2%); and (7) *government involvement*, 8 occurrences (7.3%) (Figures 3A and 3B).

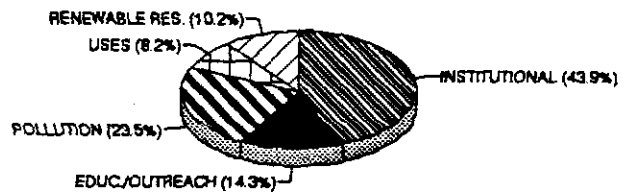
³ Quattro Pro 3.0, Borland International, Inc. Scotts Valley, CA, copyright 1987, 1991.

FIGURE 2: THE FIVE CATEGORIES BY MEETING

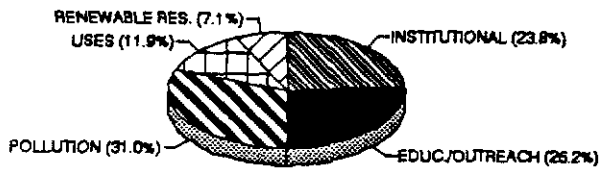
METAIRIE



MANDEVILLE



DESTREHAN



HAMMOND

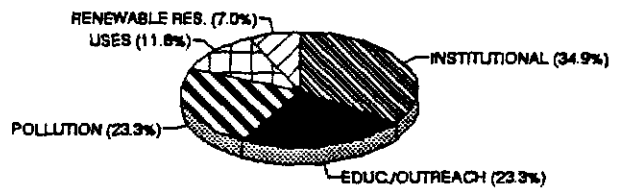


FIG. 3A: INSTITUTIONAL SUBCATEGORIES

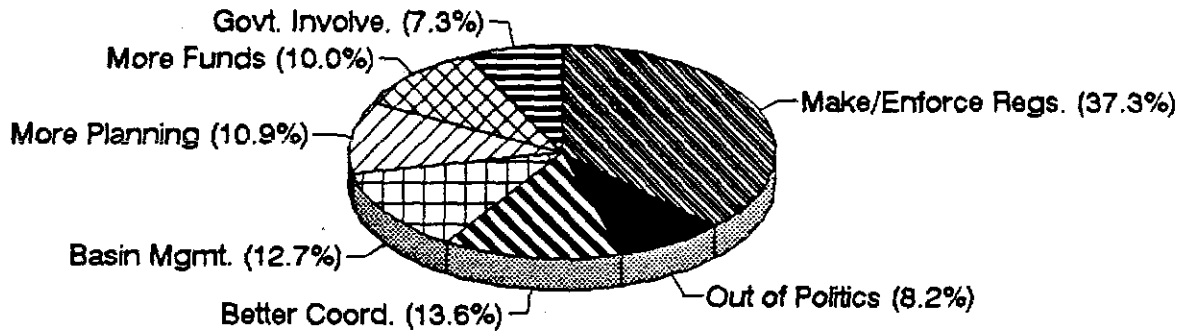
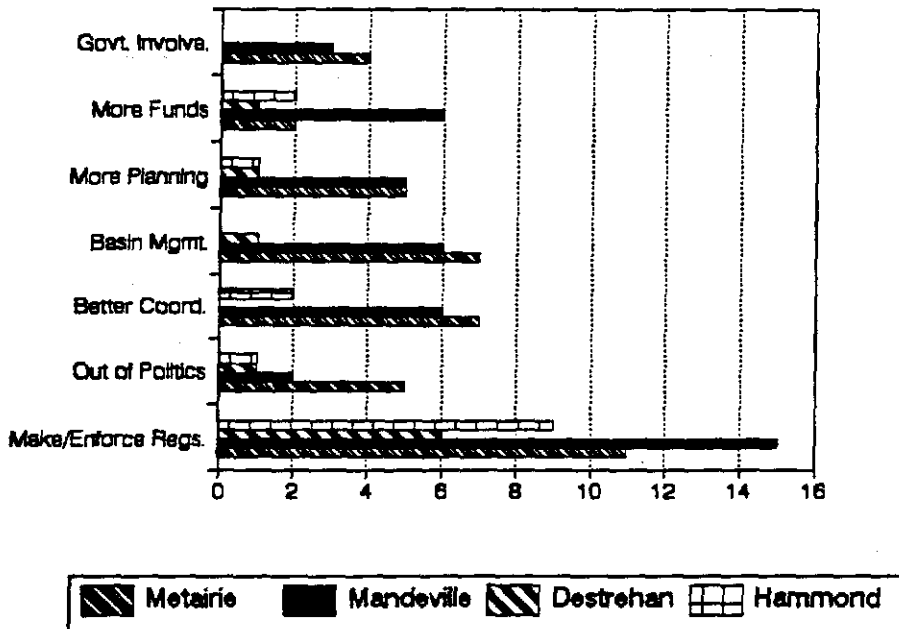


FIG. 3B: NO. OF INSTITUTIONAL CONCERNS



Metairie

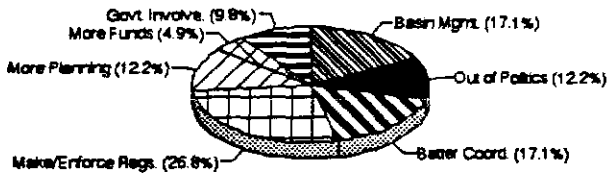
In Metairie 41 of 114 total coded concerns (or 36%) fell under the Institutional category. All seven Institutional subcategories were identified at the Metairie meeting. Most concerns (11) fell under *make/enforce regulations*, giving it 26.8% of the total 41. *Better coordination* and *specific basin management* tied for second (7 concerns), each with 17.1% of the total. *Keep the basin out of politics* and *more planning* tied for third, (5 concerns each) at 12.2%. *Government involvement* received 9.8% (4 concerns); and *more funds*, 4.9% (2 concerns) (Figure 4).

Metairie Institutional concerns focused on governmental actions. Participants wanted immediate government action to reverse pollution via a cooperative effort between state agencies, the legislature, and Louisiana and Mississippi. Participants expressed the necessity for a special management district for the basin (created through a joint effort of federal, state and local government agencies involved with the basin) which would have the authority to strictly enforce basin-specific regulations (i.e., stiffer fines for polluters; meeting EPA standards for urban/stormwater runoff; any and all pollution laws; and not allowing extensions of pollution control deadlines).

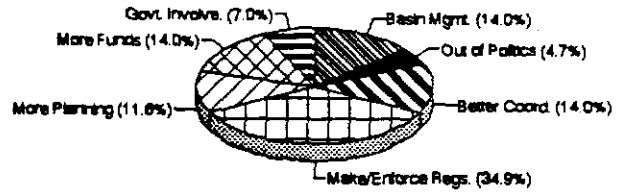
To get the program working there must be a new funding mechanism which includes federal participation. In addition, it was felt that an overseer/watchdog organization, independent of political pressure (such as the LPBF) should be responsible for such efforts as: a) conducting a comprehensive pollution study resulting in a scientific statement of what is feasible; b) keeping shell dredging out of politics; c) insuring public participation in the development of a basin-wide land use/management plan (which includes an awareness plan for schools and an action plan for agricultural runoff);

FIGURE 4: INSTITUTIONAL SUBCATEGORIES BY MEETING

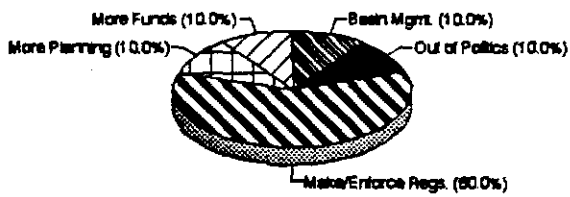
METAIRIE



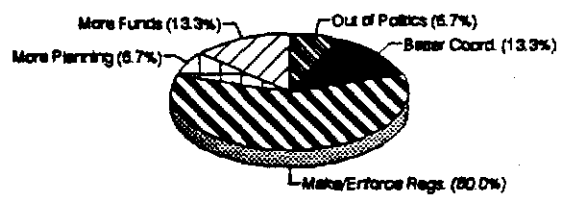
MANDEVILLE



DESTREHAN



HAMMOND



and d) maximizing citizen involvement in stormwater management programs.

Mandeville

In Mandeville 43 of 98 total coded concerns (or 43.9%) fell under the Institutional category. All seven Institutional subcategories were also identified at Mandeville. Mandeville meeting participants were drawn to the regulatory aspect (34.9% or 15 concerns). The next most important concerns with 14% (6 concerns each) were *more funding, better coordination, and specific basin management*. After that the subcategories were as follows: *more planning*, 11.6% (5 concerns); *government involvement*, 7% (3 concerns); and *keep basin out of politics*, 4.7% (2 concerns) (Figure 4).

The level of awareness in Mandeville is reflected by the breadth of ideas, particularly those under the Institutional category, where *make/enforce regulations, more funding and better coordination* were emphasized. Out of all the Institutional comments in Mandeville, only one did not fit under these three subcategories, and this was, "There must be a politically independent Wildlife and Fisheries Commission."

Mandeville meeting participants were especially concerned with funding. They suggested fostering public financial support, cost sharing incentives and an ongoing funding source, such as a regional trust fund, with specific accountability for all funds. Possible uses for the funds include: a) solutions to non-point pollution; b) encouraging sensitive use of marshland; c) corrective measures to create pollution-free water; d) general environmental basin maintenance; and e) building artificial marshes along the north shore.

Mandeville participants also wanted coordinated, non-political, interstate management of the basin by a consortium (perhaps the LPBF) of government agencies, non-profit organizations and citizens, essentially a regional or watershed

entity. This consortium would, through comprehensive and coordinated planning: a) develop a water management plan for the basin and its tributaries that includes education and monitoring components; b) address the problem of different EPA regions; c) provide more planning and zoning authority to municipalities outside corporate limits; d) develop an umbrella permit process; e) handle issues of public right-of-way; f) provide incentives for non-polluting users of the lake; and g) organize regular garbage pickups around the lake.

Mandeville participants were very action oriented. They proposed development of model codes and ordinances, an umbrella permit process, and public disclosure of all fines paid on environmental issues. In addition, they said that existing regulations for point and non-point pollution sources must be strictly enforced. Specifically mentioned were: sewerage, agricultural runoff, and removal of unused commercial and sport fishing equipment. It was recommended that schedules be established for having in place and operating wastewater treatment facilities: 5 years residential; 10 years municipal.

Destrehan

In Destrehan 10 of 42 total coded concerns (or 23.8%) fell under the Institutional category. Destrehan meeting participants were 60% for *make/enforce regulations* (6 concerns). The remainder of concerns at this meeting were for *more funds, more planning, specific basin management, and keep lake basin out of politics*, all at 10% (1 concern each) (Figure 4).

Under the Institutional category, Destrehan meeting participants were most concerned with enforcing pollution-related regulations. They want greater enforcement for all types of polluters: hunting and fishing violators, agricultural runoff, stormwater runoff, and point source discharges.