

ROOKERY BAY LAND USE STUDIES

ENVIRONMENTAL PLANNING STRATEGIES FOR THE
DEVELOPMENT OF A MANGROVE SHORELINE

STUDY No. 1

"THE DEMOGRAPHIC, POLITICAL, AND ADMINISTRATIVE SETTING"

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THE CONSERVATION FOUNDATION

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THE ROOKERY BAY AREA STUDY PROGRAM

The mangrove shores and islands, the bays and lagoons, and the marshes and creeks of the southwest Florida coast are a natural resource unit of exceptional value that support a rich and varied population of fish, birds, and wildlife. Yet the accelerated shore development of the 1950's and the 1960's caused widespread environmental damage wherever it collided with these beautiful and productive estuarine areas. With little appreciation of ecological principles of land use and water management, shorelands were stripped of mangroves, bay bottoms were scoured for land fill, and waters polluted with silts, nutrients, and bacteria. The unique and haunting loveliness of the shorelines of Tampa Bay and Ft. Meyers were largely replaced by the geometry of development.

South of Naples, a large part of the mangrove shoreland remained undeveloped -- but threatened. This region is now beginning to experience the pressures of waterfront development: construction of drainage canals, dredging of estuaries, and ripping out and filling of mangrove swamps. Uncontrolled, this movement will destroy much of the area's natural value; if future development does not respect the vital elements of the mangrove-estuary environment, coastal Florida will lose the very qualities that have attracted people to it.

Ecologically sound land-use planning can provide a basis for solving much of the coastal land-use dilemma. The intensity of conflict between developmental stability, and the unusually high values of south Florida's natural resources, make this an ideal region for exploring ways of reconciling these major land-use conflicts. In recognition of this, the Conservation Foundation, in 1967, launched a demonstration planning project centering on the Rookery Bay region between Naples and the Ten Thousand Islands, an ecosystem characteristic of the mangrove-estuarine environment of south Florida. Rookery Bay itself, and the mangrove shores immediately surrounding it, are held as a wildlife sanctuary by the National Audubon Society. Lands surrounding the sanctuary are still largely undeveloped, but most are in private ownership and development pressure is building strongly. Such development not only threatens the Sanctuary, but could threaten the entire Rookery Bay estuarine ecosystem.

The original goal of the Foundation in undertaking the study was to determine the extent and kind of development which the area could support without destroying the natural estuarine ecosystem. The project was conducted by Foundation staff and consultants through a series of environmental and cultural studies designed to show how development could proceed in ways that respected both environmental fundamentals and economic imperatives.

The study was carried out in two phases. The first, supported primarily by the Ford Foundation, ended in 1969. The major report of this study, Rookery Bay Area Project, was published by the Conservation Foundation in 1968. It presented a trial plan for development which would leave the mangrove forests intact in the interest of protecting the Sanctuary ecosystem.

The second phase, supported primarily by the U.S. Department of the Interior, Office of Water Resources Research, extended from 1970 to mid-1973. It was

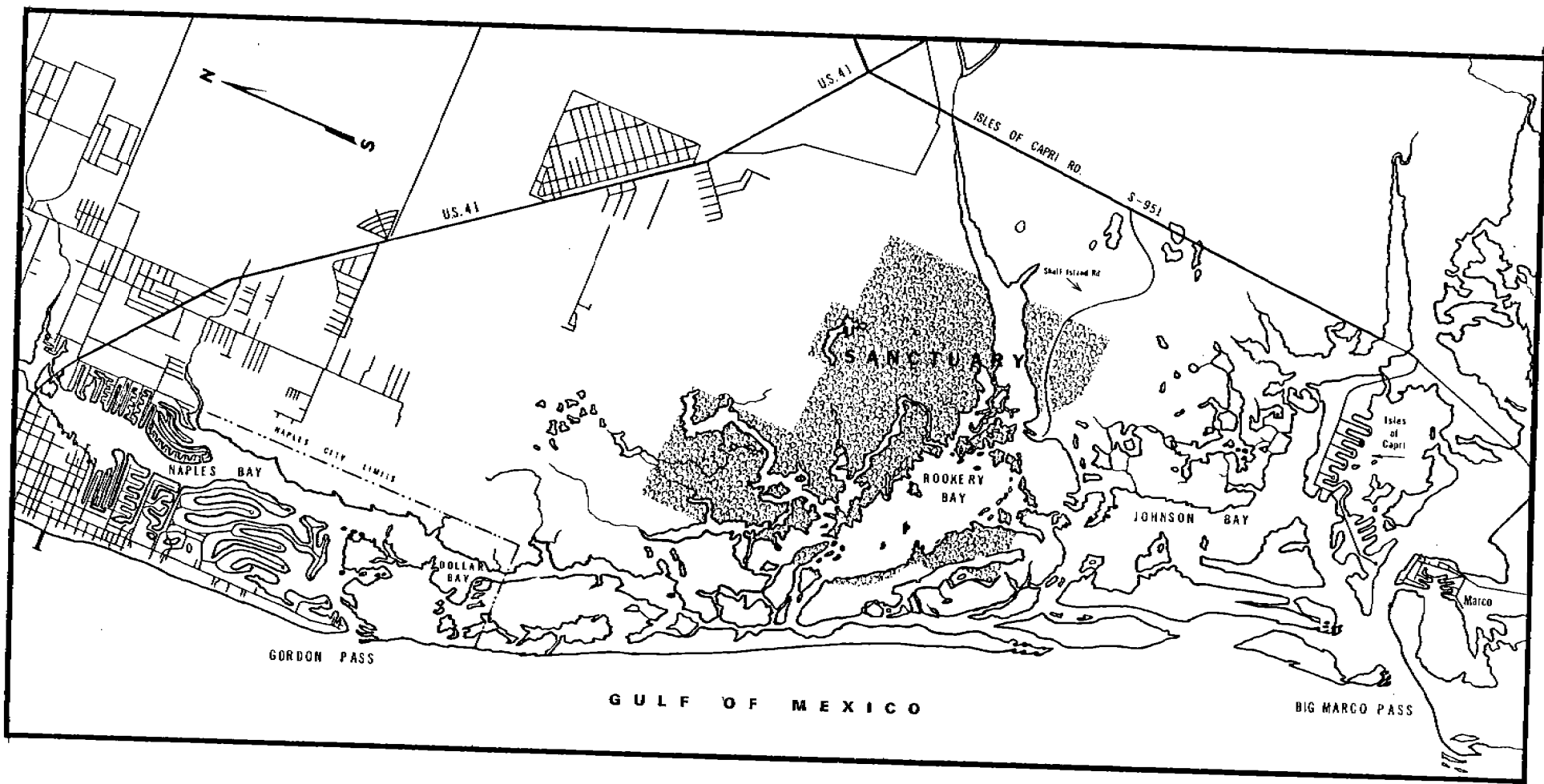
designed to obtain extensive biological, physical, social, and economic data and to devise methods to incorporate these data into planning strategies designed for compatibility between development and environmental quality. One specific goal was to predict in detail the environmental consequences of the 1968 trial Rookery Bay development plan. Another was to provide the technical basis for a second generation plan and to determine its usefulness to a wider area of the coastal zone and a broader spectrum of effects.

This study is one in a series by Conservation Foundation and University of Miami consultants and staff members reporting individual aspects of the second phase studies. The conclusions reported are those of the authors and do not represent the views or policies of either the Conservation Foundation or the Office of Water Resources Research.

Arthur A. Davis
Vice President-Operations
The Conservation Foundation

TABLE OF CONTENTS

Introduction	1
Alternatives	3
Recommendations	4
Population and Employment	6
Land Ownership	15
Governmental Decisionmaking Agencies	16
Planning	18
Citizen Environmental Activities	20
Development Pressures and Impacts	22
Protection of Rookery Bay	24
General Observations on the Political Climate	26
Acknowledgements	28
Selected References	29



THE DEMOGRAPHIC, POLITICAL, AND ADMINISTRATIVE SETTING

The future of the Rookery Bay area is as uncertain as the future of almost all of the coastal areas of Florida and of the United States. Although the Rookery Bay Sanctuary encompasses nearly 5,000 acres of mangroves and water, it is not ecologically self-sufficient. Continued existence in its present condition must depend upon the confluence of sea water from the Gulf and fresh water from inland country, connecting through a branching network of mangrove channels and marsh creeks.

The Rookery Bay area, approximately 20,000 acres, lies between the city of Naples and the community of Marco Island, bounded on the west by the Gulf of Mexico and on the east by State Road S-951. The area comprises Rookery Bay and Johnson Bay, Henderson Creek and Stopper Creek estuaries, and mangrove-covered islands. It has remained completely undeveloped, due largely to the efforts of the Collier County Conservancy, a local non-profit organization. The Rookery Bay area has a variety of natural and social values, including:

1. nutrient-rich nursery for shell and game fish;
2. protective habitat for various species of tropical wildlife, especially birds;
3. unique locus for water recreation within a rapidly urbanizing area;
4. natural buffer from storm floods for the Naples urban area; and
5. aesthetic contrast to the visual monotony of an urbanized coast.

In 1965, with the assistance of the Nature Conservancy, the National Audubon Society, the Florida Board of Conservation, and over 1,500 local contributors, a vital area within this ecosystem was selected and purchased by the Collier County Conservancy for approximately \$450,000. Between 1965 and 1968, land acquisitions consolidated an area of about 3,000 acres surrounding Rookery Bay, and title to the area was given to the National Audubon Society. A second fund drive in 1971 and early 1972 raised \$400,000 to pay the balance due on the lands. The Rookery Bay Sanctuary was thus formally removed from the development inventory.

In 1968, the Conservation Foundation initiated a study of the entire Rookery Bay area, recognizing that as part of a larger ecosystem the Sanctuary was still subject to perturbation by dredge-fill activities, decreases in fresh water runoff, and increases in pollutants. The purpose was to demonstrate ways in which development and preservation could co-exist as valuable social goals. The result was the Rookery Bay Project Report, a joint effort of scientists, planners, local civic leaders, and local developers. Published in 1968, the report set forth trial recommendations which could, in the view of its authors, lead to profitable development with minimal damage to the Sanctuary.

The Conservation Foundation has been evaluating these trial recommendations since 1968. In the interim, subdivision plots for land surrounding

the Sanctuary, which call for extensive dredge-fill of adjacent water areas, concrete canals, and condominium high-density dwellings, have been approved by the County Commission. Lots have been sold for several subdivisions (e.g., Marco Shores) even though many are underwater (a practice long sanctioned in Florida to encourage development). Some development has been attempted without permits.

The Sanctuary itself remains in much the same ecological state as it was in 1968, although higher salinity counts and higher coliform and fecal coliform counts indicate that developments (e.g., trailer parks) along Henderson Creek and the Tamiami Trail pose immediate threats to the entire ecosystem. If the plans of developers proceed, the system would be drastically threatened by fertilizer runoffs into poorly flushed box canals (causing eutrophication) and decreased fresh-water drainage into the bays.

Since the approximately eight square miles of Rookery Bay Sanctuary are only part of a larger ecosystem, the value of retaining and protecting the Sanctuary can be considered logically only within the context of the whole system. If it is feasible to permanently retain the natural characteristics of this system at high quality, then we must look at the total area between Gordon Pass and Johnson Bay. The coastal waters of Florida are being destroyed so rapidly that within the next 25 years we can expect the failure of the fishing industry, shrimping, and sports fishing. Evidence to this effect has been cited numerous times by top scientists. It is evident that the remaining natural ecosystems must be protected in order to maintain the essential nutrient cycles on which so much life depends. With these facts in mind, we assign much higher values to the Rookery Bay Sanctuary than to those associated only with immediate scientific inquiry, open space considerations for Collier County, or speculative real estate cash values.

This report sets forth the cultural context -- including sociologic, economic, and political aspects -- in which decisions affecting the future of this invaluable natural area will be made. It is our hope that this analysis of cultural elements relevant to the ultimate fate of the Rookery Bay ecosystem will prove helpful in developing strategies for assuring environmentally-sound decision making for the area.

ALTERNATIVES

The National Audubon Society has the strongest interest in the future of the Rookery Bay Sanctuary and adjoining land and waters. But there are many other private and public interests involved -- local, regional, state, and federal. We have derived six current alternatives for the Sanctuary:

1. The Sanctuary area would be retained as presently exists with no additional investment beyond current expenditures on personnel and upkeep. Little effort would be made to prevent changes in the natural systems which occur as a result of man's presence.

2. The Sanctuary would remain untouched by the National Audubon Society, but the Society would attempt to prevent adverse land and water uses on property adjacent to the Sanctuary. For instance, it might engage in legal interventions to exert environmental controls, such as the current intervention in Water Pollution Board hearings on Deltona's proposed Marco Shores development.

3. The National Audubon Society would approach all property owners within Rookery Bay's area of environmental influence, in collaboration with the Collier County Conservancy and others, to form a voluntary association of property owners as a protective body made up of private interests. This alternative, partially spelled out in the Conservation Foundation's 1968 report, has not been tested, and there is local skepticism as to its feasibility or ultimate effectiveness. It should be tested, but its best chances would come after completion of county land use planning studies (Recommendation 5).

4. The National Audubon Society and other interests would seek from Collier County more stringent land-use regulations applying to a defined zone of influence. The Society, with the help of the Collier County Conservancy, would maintain a vigilant system to prevent breakdown of such regulations.

However, enactment of stringent land-use regulations would require local support. The National Audubon Society has an excellent record of influencing public policy throughout the country. We must assume that the Society would recognize the need for developing a public relations and public involvement program to maintain and increase public support for the Sanctuary on a continuing basis.

5. It appears that the new Florida environmental legislation for preservation of natural ecological systems is gaining strength. It is also clear that the reorganized regional water management districts will have strong planning power relating not only to flood control and water supply but also to water quality. The future of the existing Collier County Water Management Board has not been determined, but presumably its functions will be absorbed in some measure by the new regional body. The National Audubon Society has the opportunity as a major land owner to seek assistance in the acquisition of additional lands and waters essential for Sanctuary protection. It may wish to request the use of eminent domain to obtain protective

easements and the use of other police power mechanisms to assure permanent protection of the Sanctuary from upland misuse.

6. The National Audubon Society would persuade the state and federal governments to acquire, in fee, substantial privately-held lands and water areas, including beaches, in order to retain the character of the entire area.

RECOMMENDATIONS

Considering the above alternatives we recommend:

1. The Rookery Bay Sanctuary be considered part of an essential natural system -- Rookery Bay Conservation Area -- approximately eight miles in length, extending from Johnson Bay north to Naples Bay. This area should be limited on the west by the Gulf of Mexico and on the east by the 5½-foot contour line (above MSL) and such other considerations as may be defined scientifically.
2. The National Audubon Society, the Nature Conservancy, the Conservation Foundation and the Collier County Conservancy inform the Governor of Florida that the Rookery Bay area and the Ten Thousand Islands archipelago, taken together, should be added to the Everglades National Park from its northernmost extension above Everglades City.
3. The private existing developments on Marco Island and the Isle of Capri be considered intrusions in the natural systems plan for the southwest coast of Florida north from the Everglades National Park to Naples, and no further such development be permitted by the State of Florida within Collier County.
4. The National Audubon Society, as owner of the largest natural reserve south of Naples, assume an activist role, enlarge its operating mechanisms at Rookery Bay, and announce its goals and objectives for the Sanctuary as part of an educational and public relations program to gain public acceptance of the new mechanisms needed to preserve the Sanctuary, and to gain public support for the above recommendations. (See Recommendation 7.)
5. The National Audubon Society, Collier County Conservancy, Inc., and the Nature Conservancy enlist support of the new south Florida regional water management district for the goals of this report, including long range planning essential for the protection of the entire Rookery Bay Conservation Area. The purpose of intervention would be to control and police land use and water bodies and sources which are outside of the proposed Rookery Bay Conservation Area but which directly affect its present and future protection.
6. Legal research be undertaken to determine the need for strengthened state legislation affecting the acquisition of natural systems easements and the funding mechanisms for policing and control of such easements.
7. The National Audubon Society, in association with the Governor, other conservation organizations, and special interest groups, approach the

National Park Service, in the Department of Interior, on the subject of extending the Everglades National Park through the Ten Thousand Islands to Naples Bay to include the Rookery Bay Conservation Area in the National Park System; or to include the Rookery Bay Conservation Area in any other national seashore, wildlife or wilderness system as would appear to be appropriate for federal and state aid by legislative definition.

POPULATION AND EMPLOYMENT

The coastal areas have absorbed most of Florida's tremendous population growth, from 4,951,560 in 1960 to 6,789,443 in 1970. In a recent report, the Florida Coastal Coordinating Council states that over 70 per cent of the state's population resides in 16 coastal counties.

Collier County, located on the Gulf of Mexico on the extreme southwest coast of the peninsula, has directly felt the impact of this growth. From a rural, fishing-oriented area of 6,488 persons in 1950, it grew to 15,753 persons in 1960 and within the next decade increased by 142 per cent to 38,040 (Table 1). Over two-thirds of this growth has occurred within the coastal zone in and around Naples and on Marco Island to the south (Table 2).

The urban region of the county is located along the coast to the north and south of the Rookery Bay Sanctuary and in 1970 contained more than two-thirds of the total population of the county (26,896 of a total population of 38,040). The city of Naples made up the bulk of this population with 12,042 persons (Table 2). Other urban areas include Naples Park, North Naples, East Naples, and Marco Island.

The Naples area has experienced tremendous population growth since the late 1950's. In 1950, the city was the winter home of multi-millionaires. The stable, year-round population was primarily made up of laborers and domestics who served them, and commercial fishermen. Observers of the community have noted efforts of mercantile interests and land-developers to encourage large in-migration of middle-class retirees and millionaires of "lesser status," and point out the strains caused in the community by this shift in population base. Naples' political arena was, and still is, a place where conflicts among long-established millionaires, "lesser" millionaires, retirees, merchants, and landowner-developers surface over problems of growth (i.e., zoning, densities, and land use). Each group has a distinct view of what kind of area Naples is and should be. The wealthy would prefer to maintain the secluded and "exclusive" atmosphere that was once Naples' dominant feature. The retirees desire a stable, healthy community which provides public services at a moderate cost. The merchants and landowner-developers see the area as a potential gold mine for profit in land sales and home building.

Census data (Tables 3 and 4) reveal the large, increasing number of wealthy and retired people living in Naples. The median income is \$13,733, and less than seven per cent of the families fall below the poverty level. Over 45 per cent of the families receive annual incomes in excess of \$15,000. In 1950, persons 55 years old and over made up 15.9 per cent of the total population; in 1970, 41.6 per cent. For Collier County as a whole, the figures for this age group were 13.1 per cent in 1950 and 28.0 per cent in 1970.

The growth of the Naples area is primarily due to a continuing in-migration of retirees. Over 43 per cent of the population in 1970 were living in a different state in 1965 (Table 3). The Naples population as a whole grew at a rate of 158.7 per cent between 1960 and 1970; persons 65 years old and over increased at the astonishing rate of 357.5 per cent during the same period

Table 1

Population of Collier County by Age

Age Group	1970	% Change	1960	% Change	1950
under 5 yrs.	2,897	+58.7%	1,825	+157.4%	709
5-14 yrs.	6,934	+126.7%	3,059	+164.6%	1,156
15-24 yrs.	4,998	+88.8%	2,647	+190.9%	910
25-34 yrs.	4,123	+116.3%	1,906	+86.5%	1,022
35-44 yrs.	3,978	+94.6%	2,044	+90.5%	1,073
45-54 yrs.	4,446	+119.9%	2,022	+163.6%	767
55-64 yrs.	5,341	+236.8%	1,586	+200.9%	527
65 yrs. and over	5,323	+312.5%	1,291	+298.5%	324
TOTAL	38,040	+141.5%	15,753	+142.8%	6,488

Source: U.S. Department of Commerce, Bureau of the Census. 1950 Census of Population: Characteristics of the Population--Florida, Table 41;
1960 Census of Population: Characteristics of the Population--
Florida, Table 27; 1970 Census of Population: General Population
Characteristics--Florida, Table 35.

Table 2

Comparative Coastal Zone Populations of Naples

	<u>1970</u>	<u>1960</u>	<u>% Change</u>
Naples District	26,896	9,133	194.5
City of Naples	12,042	4,655	158.7
East Naples	6,152	.....	.....
Naples Park	1,522	.....	.....
North Naples	3,201	.....	.....

Source: U.S. Department of Commerce, Bureau of the Census, 1970 Census of
Population: Number of Inhabitants--Florida, Table 10.

Table 3

General Profile of Collier County Population,

Based on 1970 Census Data

	<u>Collier County</u>	<u>Naples</u>	<u>East Naples</u>
I. <u>Population</u>	38,040	12,042	6,152
Negro	3,183 (8.4%)	1,171 (9.7%)	.....
Foreign born	1,763	656	363
II. <u>Migration</u>			
% of population born in different state	61.7% (23,484)	75.2% (8,550)	63.9%
% of population (5 yrs. +) living in different county in U.S. in 1965	39.6 (13,920)	43.1% (4,979)	36.6%
III. <u>Education</u>			
Median school yrs. completed	12.2	13.2	11.5
} male			
} female	12.3	12.9	....
% of population (25 yrs.+) with 4 or more years of college	10.2% (3,601)	29.1% (2,500)	3.6% (129)
IV. <u>Family Income</u> TOTAL FAMILIES	10,758	3,830	1,685
% of families with \$15,000+ income	25.2% (2,706)	45.4% (1,738)	12.8% (215)
Median income	\$9,136	\$13,733	\$8,275
% of families with income below poverty level	11.1% (1,196)	6.6% (253)	8.6% (145)
type of income			
a. wage-salary	72.8%	61.2%	81.8%
b. social security	28.3%	37.8%	23.6%
c. other	43.2%	66.0% (mean \$15,718)	30.5%

-
- Sources: I. 1970 Census of Population: General Population Characteristics--Florida, Tables 34, 27, 31;
- II. 1970 Census of Population: General Social and Economic Characteristics--Florida, Tables 102, 117, 119;
- III. 1970 Census of Population: General Social and Economic Characteristics--Florida, Tables 103, 117, 120;
- IV. 1970 Census of Population: General Social and Economic Characteristics--Florida, Tables 107, 118, 124.

Table 4

Population of City of Naples by Age

Age Group	1970	% Change	1960	% Change	1950
under 5 yrs.	518	39.6	371	136.3	157
5-14 yrs.	1,679	113.3	787	245.2	228
15-24 yrs.	1,230	198.5	412	120.3	187
25-34 yrs.	908	86.1	488	117.9	224
35-44 yrs.	1,172	92.0	611	142.5	252
45-54 yrs.	1,525	117.5	701	281.0	184
55-64 yrs.	2,224	229.0	676	376.1	142
65 yrs and over	2,786	357.5	609	569.2	91
TOTAL	12,042	158.7%	4,655	217.7%	1,465

Sources: 1950 Census of Population: Characteristics of the Population--Florida, Table 40; 1960 Census of Population: Characteristics of the Population--Florida, Table 22; 1970 Census of Population: General Population Characteristics--Florida, Table 28.

(Table 4). Of those eligible to work, 45.9 per cent were not in the work force in 1960, 53.1 per cent were not in the work force in 1970 (Table 5).

Whereas Naples reflects a population base weighted toward the retired and the wealthy, East Naples, located on both sides of the Tamiami Trail (U.S. 41), is largely made up of working class and service personnel who provide the people of Naples with goods and services. East Naples reflects a more balanced population structure, fewer migrants, and a more modest income profile (Table 3). Almost 82 per cent of the family income in East Naples comes from wage-salary sources, compared to 61.2 per cent for the city of Naples (Table 3).

The economic data in Tables 5, 6, 7, and 8 illustrate a dominant feature of this area: few sources of income and employment are independent of the migration phenomenon. Only 3.7 per cent of the labor force in Collier County is employed in manufacturing industries, with comparable figures of 3 per cent and 4.4 per cent for Naples and East Naples, respectively. Only 2.4 per cent of personal income in the county in 1969 came from manufacturing (Table 8). However, employment in the construction industry is quite high, and accounts for over one-fifth of personal income in the county. An examination of change factors in Tables 5, 6, 7, and 8 reveals that, as the economic base expanded between 1960 and 1970, consistent proportional increases occurred only in professional, managerial, mercantile (sales), clerical, and service occupations for both Naples and the county (Tables 5 and 6). In short, the economy of the area relies heavily on providing goods and services for immigrants to the area.

Table 5

City of Naples Employment Data

	1970		1960	
I. % of population (16 years and over) in labor force:	42.2	(-7.3)	50.5	
--persons 16 years and over	9,629		3,563	
--persons in labor force	4,068		1,800	
II. % of population (16 years and over) not in labor force, excluding persons enrolled in school and inmates in institutions:	53.1	(+7.2)	45.9	
--persons 16 years and over	9,629		3,563	
--persons not in labor force	5,112		1,636	
III. Labor force in major occupational categories; with % of total sector:				
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Professional, Technical Workers	734	18.4	233	12.5
Managers, Administrators	739	18.5	331	17.8
Sales Workers	505	12.6	230	12.3
Clerical Workers	662	16.6	280	15.0
Craftsmen, Foremen	326	8.2	179	9.6
Operatives (Manufact. & Transport.)	139	3.5	84	4.5
Laborers, (nonfarm)	295	7.4	182	9.8
Farmers	34	.8	...	...
Farm Laborers	67	1.7	12	.6
Service Workers	351	8.8	129	6.9
Private Household Workers	140	3.5	162	8.7
IV. Labor force in selected industries; with % of total sector:				
Agriculture, Forestry and Fishing	227	5.7	68	3.7
Construction	457	11.4	239	12.8
Manufacturing	119	3.0	76	4.1
Retail Trade	864	21.6	403	21.6
Wholesale Trade	71	1.8		
Finance & Real Estate	482	12.1	209	11.2
Personal Services	377	9.4	322	17.3
Entertainment & Recreation	83	2.1	24	1.3
Professional & Related Services	805	20.2	256	13.7
Public Administration	147	3.7	83	4.5
TOTAL EMPLOYED	3,992		1,863	

Sources: 1960 Census of Population: Characteristics of the Population--Florida, Table 81; 1970 Census of Population: General Social and Economic Characteristics, Tables 104, 105, and 106.

Table 6

Collier County Employment Data

	1970		1960	
I. % of population (16 years and over) in labor force:				
--persons 16 years and over	51.9	(-4.9)	56.8	
--persons in labor force	27,532		11,130	
	14,281		6,317	
II. % of population (16 years and over) not in labor force, excluding persons enrolled in school and inmates in institutions:				
--persons 16 years and over	44.1	(+7.7)	36.4	
--persons not in labor force	27,532		11,130	
	12,131		4,054	
III. Labor force in major occupational categories; with % of total sector:				
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Professional, Technical Workers	1,667	12.0	482	8.0
Managers, Administrators	1,736	12.5	746	12.3
Sales Workers	1,066	7.7	372	6.2
Clerical Workers	1,834	13.2	529	8.8
Craftsmen, Foremen	2,180	15.7	846	14.0
Operatives (Manufact. & Transport.)	1,071	7.7	709	11.7
Laborers, (nonfarm)	985	7.1	478	7.9
Farmers	126	.1	114	1.9
Farm Laborers	1,117	8.0	757	12.5
Service Workers	1,767	12.7	578	9.6
Private Household Workers	355	2.6	247	4.1
IV. Labor force in selected industries; with % of total sector:				
Agriculture, Forestry, & Fishing	1,680	12.1	1,204	19.9
Construction	2,045	14.1	834	13.8
Manufacturing	510	3.7	511	8.5
Retail Trade	2,613	18.8	996	16.5
Wholesale Trade	339	2.4	84	1.4
Banking, Insurance, Finance & Real Estate	1,266	9.1	341	5.6
Personal Services	1,381	9.9	699	11.6
Entertainment & Recreation	298	2.1	90	1.5
Professional & Related Services	2,145	15.4	301	5.0
Public Administration	463	3.3	224	3.7
	TOTAL EMPLOYED	13,904	6,041	

Sources: 1960 Census of Population: Characteristics of the Population--Florida, Tables 83, 84, 85; 1970 Census of Population: General Social and Economic Characteristics--Florida, Tables 121, 122, 123.

Table 7

East Naples Employment Data

	1970	1960
I. % of population (16 years and over) in labor force:		
--persons 16 years and over	59.8	....
--persons in labor force	4,336	....
	2,595	....
II. % of population (16 years and over) not in labor force, excluding persons enrolled in school and inmates in institutions:		
--persons 16 years and over	40.2	....
--persons not in labor force	4,336	....
	1,741	....
III. Labor force in major occupational categories; with % of total sector:		
	<u>No.</u> <u>%</u>	<u>No.</u> <u>%</u>
Professional, Technical Workers	163 6.4	(NA)
Managers, Administrators	222 8.8	
Sales Workers	165 6.5	
Clerical Workers	387 15.3	
Craftsmen, Foremen	634 25.1	
Operatives (Manufact. & Transport.)	217 8.6	
Laborers, (nonfarm)	180 7.1	
Farmers	... ...
Farm Laborers	23 .1	
Service Workers	433 17.1	
Private Household Workers	105 4.2	
IV. Labor force in selected industries; with % of total sector:		
Construction	509 20.1	(NA)
Retail Trade		
Wholesale Trade	575 22.7	
Manufacturing	112 4.4	
Finance, Insurance & Business Services	216 8.5	
Professional & Related Services	315 12.5	
Public Administration	106 4.2	
Communications & Utilities	134 5.3	
Other	549 21.7	
TOTAL EMPLOYED		2,530

Source: 1970 Census of Population: General Social and Economic Characteristics, Tables 117, 118.

Table 8

Personal Income Earned by Industrial Sector in Collier County
(thousands of dollars)

Year	Sector										
	Total	Farming	Gov't.	Manufact.	Mining	Construct.	Transport., Communicat., Pub. Util.	Wholesale- Retail	Finance, Insurance, Real Estate	Services	Other Industry
1965	39,516	7,456	3,681	1,467	(NA)	(NA)	409	7,624	5,973	6,514	1,194
% of total		18.9	9.3	3.7	..	..	1.0	19.3	15.1	16.5	3.0
1967	53,718	9,813	4,619	2,470	(NA)	11,981	1,198	9,924	7,001	9,437	1,588
% of total		18.3	8.6	4.6	..	22.3	2.2	18.5	13.0	17.6	3.0
% change	(+35.9)										
1969	87,467	11,937	6,073	2,076	(NA)	18,317	2,654	15,749	(NA)	15,371	1,647
% of total		13.6	6.9	2.4	..	20.9	3.0	18.0	..	17.6	1.9
% change	(+62.8)										

Source: Bureau of Economic and Business Research, Florida Statistical Abstract, 1971; University of Florida Press, (Gainesville) 1971, Table 5.372.

LAND OWNERSHIP

The most critical land holdings in Collier County in terms of size and location are owned by three groups: the Collier Development Corporation, the Lely Corporation, and the Norris family.

The founder of the Collier empire "built the county" and is said to have owned 90 per cent of the land (estimated at 900,000 acres) in the county at one time. Through the years a large part of those holdings were liquidated in sales made to individual absentee buyers through land promoters. Much of that land has not been developed because, according to some observers, it is under water. The Collier holdings are now estimated at approximately 400,000 acres.

The Mackle brothers, land promoters headquartered in Miami and engaged in multi-million dollar operations throughout the state, deal in Collier land, and have moved into development. Operating through the Deltona Corporation, they have dredged and filled in Collier County to create Marco Islands and, more recently, Marco Shores, the center of statewide controversy.

The Lely Corporation's land holdings in Collier County are considerable. This Swiss-controlled corporation plans to undertake large-scale waterside development when it learns how to cope with water problems in the area.

While not nearly as sizeable as those of the Collier and Lely Corporations, the Norris family's land holdings, part of which is located along the Rookery Bay shoreline, have provided a barrier to threatening development in that area. The elder Norrises have been benefactors of the local citizens' environmental group, the Collier County Conservancy, through their gifts of money and land for the Sanctuary and its protection. However, the fate of their remaining private holdings in the area remains uncertain.

GOVERNMENTAL DECISIONMAKING AGENCIES

For an understanding of how decisions are made which have an impact on the future of the Rookery Bay ecosystem, a brief description of the Collier County, state, and federal decisionmaking structures -- and their relationships -- is useful.

Collier County Board of Commissioners -- The Commission consists of five members, each of whom is elected from the district in which he resides on a partisan ballot for a two-year term.

The Commission relies heavily on its sources of information. In this regard, it is noteworthy that the county manager, tax assessor, tax collector, and county clerk are former employees of the Collier Development Corporation. In addition, as noted below, much of the information and advice which the County Commission receives from its advisory boards is development-oriented.

The county manager is appointed by and responsible to the County Commission. All of the advisory boards discussed below report to the County Commission through the county manager.

Coastal Area Planning Commission -- The Coastal Area Planning Commission (CAPC) is a six-man advisory board established in 1965. It now operates under a 1967 Special Act (Fla. Law 67-1246) and is charged with reviewing and making recommendations to the County Commission on applications for zoning variances, and developing a comprehensive plan for the coastal area. Members of the commission are appointed by the County Commission and serve two- or four-year terms. The membership majority has been strongly pro-development. Operating expenses are provided from the general county budget. CAPC's past primacy in power is now assumed by the Water Management Advisory Board.

Water Management Advisory Board -- A Special Act of the Florida Legislature in 1961 (Fla. Law 61-2037) enabled the County Board of Commissioners to engage in water management activities, including the creation of sub-districts and the construction of drainage facilities, reservoirs, dams, levees, sluiceways, pumping stations, etc. The Board of Commissioners also has the authority to assess all county residents to obtain operating funds and to set special assessments for landowners benefited by any special project.

In the late 1960's the County Commission established the Water Management Advisory Board (WMAB) to act as a review and recommendation body concerned with all types of water problems. The seven-man board has a strong sense of independence; it does not readily accept input from conservation interests and rejects pressures from developers.

As a result of action by the 1972 session of the state legislature, the arena of water management activities appears to be shifting to the state level. The 1972 Land and Water Management Act provides for division of the state into regional water management districts. District lines are drawn by the State Planning Director (a position now held by a former Dade County Commissioner) and require approval of the legislature. Collier County is

included in a revised southern district.

Environmental Advisory Board -- The recently created Environmental Advisory Board was established by the chairman of the County Commission to advise him on "everything environmental" in the county. Members of this five-member board were chosen to represent a mix of "environmental preservationists" and "moderate developers," but also include a vice president of the Collier Development Corporation. The primary activity of the board has been review of development plans and plats. The board is reputed to have little influence on land-use decisions in the county.

South Florida Regional Planning Council -- Collier County is presently included in the South Florida Regional Planning Council, together with Broward, Dade, Palm Beach, Lee, and Hendry Counties. The Council was created by the state to perform essentially a clearinghouse function for approval or disapproval of applications from the region for federal grants in a total of some 45 categories, including water pollution control, housing, urban renewal, and sewer and water facilities. Of the west coast counties represented on the Council, only Collier has its own planning body which could serve as a link between local and regional planning activities.

Some observers have questioned whether the problems of the southwest coast can receive high priority by a council likely to be dominated by Dade, Broward, and Palm Beach counties on the east coast. Others believe that the advice and support of east coast members is necessary to assure that the developing west coast does not make the same mistakes as were made in the Miami area.

Internal Improvement Trust Fund Board -- The Internal Improvement Trust Fund Board (IITF) has jurisdiction over dredge-fill operations which affect navigable waterbodies below mean high tide (Fla. Stat., Sect. 253.124). IITF is also required by law to protect the health and public welfare of the citizens of the state (Fla. Stat., Ch. 253). The Board is appreciative of input from conservation interests, as are the Division of Interior Resources and the Game and Freshwater Fish Commission which advise the IITF Board. It is increasingly difficult for developers to obtain permit approvals from the IITF.

Pollution Control Board -- Local conservation interests have a positive working relationship with the Pollution Control Board. The Board, with limited personnel, relies on information from a variety of sources and has accepted major input from the Collier County Conservancy. The Board is responsive to ecological issues and does not freely grant permits to developers.

U.S. Army Corps of Engineers -- Under the Rivers and Harbors Act (33 U.S.C.A., Section 403), the Corps of Engineers must approve dredge-fill operations affecting navigable bodies of water. For many years, permits were "rubber stamped" by the Corps because of limited (navigational) criteria upon which permits were judged. Recent court rulings and federal legislation, such as the National Environmental Policy Act of 1969, require the Corps to expand its criteria to include environmental quality factors.

PLANNING

Collier County does not have a full-time planner; the Board of Commissioners relies upon the input of its zoning advisory board, the Coastal Area Planning Commission (CAPC). Up to now the zoning ordinance process has been fairly perfunctory; the county has relied on a land-use plan drawn up over ten years ago by a consulting firm. CAPC is now developing a new master plan for the coastal area.

Much of the land in the Rookery Bay area is in a greenbelt zoning category and must be rezoned for development. Variances of this sort must be reviewed by CAPC and then voted upon by the Board of Commissioners. All building and zoning codes are enforced by the county Department of Zoning.

The process of permit acquisition is somewhat more complicated. All plans are subject to review by CAPC, the Water Management Advisory Board (WMAB), and the Environmental Advisory Board (EAB). Regardless of their recommendations, however, permits are approved or rejected at the county level by the Board of Commissioners. If the land to be developed is high and dry (a rarity in the low coastal topography of the area), a county building permit authorizes a developer to begin construction. If, however, dredge and fill activities affecting navigable water bodies are required, other state and federal permits must be obtained by the developer.

Following county approval, the developer must move to the state government level. A permit must be secured from the Internal Improvement Trust Fund Board (IITF), whose members are the State Cabinet. Pursuant to approval by IITF, the Board must seek surveys and advisory statements from the Division of Interior Resources and the Game and Freshwater Fish Commission of the Department of Natural Resources. A second application must be approved by the Pollution Control Board of Florida's Department of Air and Water Pollution Control. If the developer succeeds to this point, he need only obtain approval by the U.S. Army Corps of Engineers to begin dredge and fill operations.

At present the only governing body charged with the authority to implement zoning ordinances and land-use plans influencing the Rookery Bay area is the Collier County Board of Commissioners. In order to assure that the future growth of the coastal area will not endanger the Sanctuary and its environs, the decisions of the Commission must reflect ecological input as well as great foresight.

The Commission has at least four sources of planning initiative. First, the Commission has contracted with a private urban planning firm to work with CAPC and the City of Naples to develop a master plan for coastal area land use. Second, WMAB has recommended that an ecological study of the Rookery Bay area (Water District No. 6) be undertaken by the Collier County Conservancy, a private consultant, and the engineering consultants to WMAB. The Board plans to make zoning recommendations to the County Commission based on this study. Third, the Florida Legislature established a conservation-oriented coordinating agency in 1970 (Fla. Stat. Section 370.0211) to develop a plan for preserving the coastal zone resources of Florida. That agency, the Coastal Coordinating

Council, has now completed the first phase of mapping and surveying the entire coastal zone and will present recommendations to county governments which incorporate a preservation-conservation-development classification scheme. Finally, the Florida Department of Administration through its Bureau of Planning is charged with developing a comprehensive plan for growth and land use in the state. It is not known at this time how this plan will be implemented or the extent to which an ecological approach will be employed.

Long-range planning in Collier County barely exists. Although a consulting firm has been retained to prepare a general plan, neither the city nor the county has adequate planning staffs or funds for staff, and no means of implementing a plan. Our studies show that there are innumerable ad hoc groups concerned with environmental protection and planning, but their powers and funding are limited and their abilities to implement a planning program are not evident. The South Florida Regional Planning Council is too new and its headquarters too far away for it to exert significant influence on local policy. The plans which will be prepared under the new contract for the city and the county will undoubtedly point up areas and issues needing immediate attention and action. Unfortunately, there are no existing mechanisms which would provide any agency considering these plans with the power or ability to put them into effect. As has been indicated above, the substantial amount of land and water which must be placed into an environmental protection category implies expensive compensation to owners of innumerable holdings. It is difficult to conceive of any local regulatory body or any portion of local government undertaking such a politically onerous responsibility even in the unlikely event of a favorable referendum.

CITIZEN ENVIRONMENTAL ACTIVITIES

Environmental action in Collier County, particularly in relation to the Rookery Bay Sanctuary, has been led by the politically powerful Collier County Conservancy (C.C.C.). C.C.C. is headed by an executive director, whose responsibilities include day-to-day operation of the organization, and an Executive Committee of six persons, who together define goals, devise strategies, and plan activities. Planning decisions made by this committee are subject to approval of a larger group of Directors (25 persons) chosen from the financial supporters (Trustees) of the Conservancy. The number of Trustees has grown from about 250 in 1970 to 500 in 1972.

The Trustees and Executive Committee are made up of the "cream" of Naples' civic elite. They provide a stable source of funds and lend prestige to the Conservancy. However, because many of them are elderly, and are not full-time residents of the area, they do not constitute a permanent base of support for the organization.

C.C.C. had its origin in 1964, when a group of Naples' area residents organized themselves informally to fight a proposed road along the coast from Naples to Marco Island. The group felt this road would inevitably attract subdivisions and condominiums. The road was not built, but its opponents realized there would be other threats to the area. This interest group, made up of a number of Naples' civic elite, incorporated in 1965 as the Collier County Conservancy, with the primary goal of assuring that the most vital portion of the area would be preserved.

Since its formation, C.C.C. has been very active in an effort to persuade policy makers to accept ecological input to the decisionmaking process. The Conservancy's activities include: providing technical assistance to local governing bodies; conducting critical reviews and making recommendations concerning projects which have environmental impact; monitoring projects and developments in progress which might degrade the environment; and informing and educating interested groups in the area about environmental problems.

The interests of C.C.C. are no longer confined to Collier County, but extend to the entire South Florida area. Such an expansion of domain has had two distinct consequences. First, conflicts between the Conservancy and other groups and persons in the county have increased. In the beginning, support for C.C.C. was nearly universal; both wealthy retirees and developers contributed funds. Now the developers have largely withdrawn as some Conservancy efforts threaten their plans. Second, the Conservancy's constituency has expanded and more middle-class persons have become trustees.

Although the National Audubon Society holds title to the 5,000-acre Rookery Bay Sanctuary, C.C.C. is the primary local articulator of the Sanctuary's values. The Conservancy's basic goal for the Sanctuary is to preserve it as is, which requires C.C.C. to engage in both preventive and planning strategies.

Preventive strategy is essentially reactive; it involves attempts to modify or halt plans initiated by developers which, if implemented, would despoil the environmental quality of the Rookery Bay area. The most threatening activities are those aimed at creating waterfront subdivisions (e.g., Marco Shores) which involve extensive dredge and fill activities, construction of box canals, and a greater degree of pollutants from lawns and paved areas running into the waters of the area. C.C.C.'s strategy can be applied at various points during either of two processes: (1) development, adoption, and review of zoning ordinances and building codes and (2) presentation of counter-testimony during permit-review proceedings. (Each of the formal decisionmaking bodies involved in these processes is discussed above.)

DEVELOPMENT PRESSURES AND IMPACTS

Between the northern end of the Everglades National Park at Everglades City and the southern end of the city of Naples, the remaining mangrove estuaries are largely in private hands. Further north there are other scattered patches left between Naples and Fort Myers, at the mouth of the Caloosahatchee, on Sanibel and Captiva Islands, and in patches around Charlotte Harbor. Between Big Marco Pass and Gordon Pass, the remaining stretch is being blocked off at both ends and probably will be reduced to five or six miles in length along the inland waterway.

The varied penetrations inland also will change depending upon the ability of the Florida Coastal Coordinating Council, the Collier County Conservancy, the Collier County Coastal Area Planning Commission, the Collier County Environmental Advisory Board, the Collier County Water Management District No. 6, to exert protective controls over fill, canalization, and marina development. In each instance as applications are made for "improvement," there is a flurry of investigation and debate. However, the state and national public interests in conservation are directed to the larger issues of Big Cypress Swamp and possible extension of the Everglades National Park northward to encompass the remainder of the Ten Thousand Islands. The debate on the location of the new I-75 across the Glades to Miami from Naples also absorbs the interests of major environmental organizations. Since Rookery Bay Sanctuary is not in immediate trouble, and there are many proposals of plans for its future protection, its importance in the total context of southwest Florida conservation efforts remains a lesser public concern.

Biologists are not greatly alarmed by the adulterants which enter Henderson Creek, although they do admit to some nervousness about the big new mobile home and residential development at the critical crossing of Henderson Creek by the Isles of Capri Road, SR 951. Since Henderson Creek is the prime source of fresh water other than rain water which keeps the Sanctuary's essential biological cycles in operation, there is growing concern about its potential as a prime source of pollution also. Development at this critical point has occurred since the 1968 Conservation Foundation report; at any rate, it was not a specific concern in the lengthy discussion of the Creek in that report (pages 43-49).

The general sense of security about Rookery Bay's internal condition is easily shaken by an overflight of Water Management District No. 6 and its adjacent area to the south because of the urbanization of Marco Island, the growth of the Isles of Capri, the threat of Marco Shores at Johnson Bay, the vast Golden Gate, the growth of the Lely developments, and innumerable small projects. It is safe to assume that within five or six years there will be continuous linear development from the Naples city limit south to Marco on both sides of the highway. We can anticipate major heavy development concentration at Henderson Creek, the one navigable stream which penetrates to the highway between Naples Bay and the Marco Island causeway.

Primary concern should center on the pollution potential of two major canals converging from the eastern uplands at the Henderson Creek critical

point as well as new drainage patterns which may flow into Naples Bay and along the connecting channels below Dollar Bay opposite Keewaydin Island, down to Rookery Bay. This entire area of upland west of U.S. 41, the Tamiami Trail, is ripe for development, and includes larger holdings of the Collier Company, Inc., Lely Corporation, and the Norris interests.

The Lely Corporation plans a 6,000-acre development on an unidentified upland tract, presumably on one of the above upland drainage canals. An overflight of the Naples-Fort Myers area shows all the symptoms of development seeding which can sprout areas like Golden Gate, Cape Coral, North Port Charlotte, or Marco Island. The Florida land boom does not appear to have peaked. The Sanctuary still remains just what its name implies. The question is, can it hold out? Is it self-sufficient and is it self-protecting from upland development impact? And for how long?

On the Gulf of Mexico side, little has changed since 1967. Keewaydin Island, the beach barrier, remains largely untouched. The Rookery Bay Inlet shifts its channels naturally. Normalcy holds. However, Collier County still pressures for a recreation area at the northwestern corner of the Rookery Bay. The master plan still permits high rise, multi-family construction on Keewaydin Island and there are no regulatory measures which would prevent its shoreline development from resembling the new, massive mega-development recently erected on the Marco Island beaches or the growing wall of condominiums on the Naples north shores. It is quite conceivable that sunset from the Sanctuary will be blocked by similar walls and marinas will be built on the land side of Keewaydin Island along the Inland Waterway.

Pollution of the Gordon River and Naples Bay proceeds. The pattern, on a small scale, is no different from what has happened at Charlotte Harbor, Sarasota Bay, Tampa Bay, Boca Ciega Bay, continuing all the way up to the north border of Pasco County and beyond. What will happen to water quality in Johnson Bay and Big Marco Pass is unknown but may possibly be influenced by Tallahassee and the new regional water management district when it is formed in 1973. One thing is certain: these shores and bodies of water are not remaining wild areas. The process of change is everywhere.

PROTECTION OF ROOKERY BAY

That the Rookery Bay Sanctuary is still biologically and physically intact is a minor miracle. The Collier County Conservancy certainly deserves credit for its efforts. However, the upland area west of the highways, and between the highways and Rookery Bay is available and attractive to developers. The Sanctuary cannot hold out by itself. Its present character is doomed without early and very specific protective action.

Collier County, still in the long process of conversion from primarily undeveloped and rural land to some form of urbanization, has had the form of government power structure most common in a land boom society in this country. The real estate industry is without question Collier County's biggest and most profitable enterprise and is the major subject of discussion in Collier County. Land is the prime commodity and development the prime objective. Real estate, therefore, is a principal concern of government, and it is frequently the chief business of public officials.

It was a remarkable phenomenon that non-profit, private interests, without government assistance, could voluntarily remove from the real estate market nearly eight square miles of land and shallow bodies of water immediately accessible to the Gulf of Mexico. The creation of Rookery Bay Sanctuary through voluntary citizens' action, apparently fully supported by local groups, and its retention by non-profit organizations (the National Audubon Society and the Nature Conservancy) as a non-income-producing and untaxed area must be recognized for the highly special "sacrifices" it represents. Nowhere else along the shoreline of the Naples area do we find the equivalent of what must be regarded as a special kind of philanthropy. Undoubtedly the contributions of many citizens over several years for establishment of Rookery Bay Sanctuary has favorably impressed local public officials and businessmen and engendered their support.

Certainly the feeling of proprietary interest makes local citizens feel at home while fishing for snook in the mosquito-ridden back channels of mangroves. The Sanctuary may be owned in fee by the National Audubon Society and the Nature Conservancy, but the waters belong to the people, and there is no question of who has the right to use them. This is not the usual real estate canal system; rather it is "kind of like a public park."

It would be unreasonable to expect the citizens of Naples and Collier County, who gave generously for the establishment of the Sanctuary, to understand and be concerned with the maintenance of the water quality-life cycle formulas with which the ecologists are so concerned. They have not been educated about the interdependency and fragility of ecosystems. In discussing the possible need to expand the Sanctuary area to develop feasible ways of protecting it from ecological destruction, we found little comprehension that the Sanctuary is not self-contained or self-sufficient, and that, without question, new government mechanisms, new private mechanisms, and more time and money will be needed if the Sanctuary is to remain intact.

In the last four years interest in the future of the Rookery Bay area -- outside of the functions of the Collier County Conservancy -- has not been sufficient to induce those who generously assisted in the establishment of the Sanctuary to devise further means for its protection. In the American system, public open spaces operated and maintained by public agencies are built into a public system of management and budgeting. Private open space such as golf clubs have their own type of managerial systems. However, unless the character of a private nature preserve is clearly defined as to purposes, goals, and objectives, and articulated through a well-developed public educational program, public appeal and support decreases. The Rookery Bay Sanctuary is too new in the public mind for this to happen in the near future, but the public does not feel the urgency to devise further means of protection. There is no certainly of strong popular support for removing additional lands from the tax rolls and requiring further public expenditures.

GENERAL OBSERVATIONS ON THE POLITICAL CLIMATE

On the basis of the foregoing analysis of some of the major factors operating in the social, political, and cultural environment of the Rookery Bay area, the following general observations and conclusions are offered:

1. Thus far, those who have supported the cause of controlled development and protection of the environment in the area have relied upon the leadership of the Collier County Conservancy. That leadership has been remarkably effective in marshalling local resources to resist development which would despoil the area, and recruiting environmentally-oriented citizens for public office. The Conservancy has sought to provide information to local and state agencies engaged in planning for and regulating development, and has been especially successful with the new leadership of state agencies.

The Conservancy's base of support has primarily consisted of seasonally-resident millionaires of the city of Naples, and, more recently, affluent, middle-class retirees who have established year-round substantial homes in the Naples area. The suggestion made earlier that this might not constitute a permanent base of support needs further explanation. This group is not being replenished by young people who identify with and remain in the area to provide continuity of leadership. Due to the absence of economic activity and institutions which could provide employment and careers, the area does not attract or retain the young, especially those with education and understanding of environmental problems.

2. Continuity of political leadership in Collier County has been provided by native or long-time residents, many of whom have been either employed by or associated with land owners or speculators. Some of these traditional leaders have been replaced in elective offices by relative newcomers who, if not dedicated conservationists, appear to be somewhat more receptive to inputs from the conservationists. However, no one in public office in Collier County can afford to ignore the presence, and the votes, of increasing numbers in the county who, in addition to the large landholders and developers, are likely to benefit economically from accelerated development, and who, in many cases, will be completely dependent on land development for a livelihood if they remain in the area. In this regard, the following elements in the population of the county can be identified:

- a) Mercantile interests who stand to gain from increased population and purchasing power.
- b) Mobile home producers and operators. The mobile home industry in Florida is a large and powerful statewide interest which exerts considerable influence in state government, especially in vetoing efforts to tax and regulate the industry. It is estimated that there are now 30,000 mobile home lots in Collier County.
- c) The construction industry and its employees.

- d) Lower income groups engaged in various types of service and for whom there is a serious housing shortage.
- e) Financial and banking interests in the county.
- f) Road builders and other interests who are urging the extension of the interstate highway (I-75) from Miami to Naples.

These groups are likely to be most receptive to developers and politicians who assert that building homes and providing jobs for people are more important than preserving mangrove swamps.

3. The arena of political decisionmaking in Florida on matters affecting the environment appears to be in transition from the local to the state level. This is a welcome prospect to environmentalists, who have found the new, young executive leadership of the state receptive to environmental values. However, environmentalists should not lose sight of the fact that land speculators and developers in the state have thus far resisted most efforts -- state as well as local -- to effectively regulate their activities. Despite the enormity of the Marco Island and Marco Shores projects, much of the major land development in Collier County has not yet begun. Major land owners are still selling land to each other to consolidate certain strategic holdings for development. Once the draining, dredging, filling, and construction are under way and developers have made substantial commitments of time and money, they can be expected to attempt to gain access to state agencies -- as they have with local bodies in Collier County. Even the "new breed" of leaders in state agencies will be under great cross pressures as this occurs. Organizations such as the Collier County Conservancy, which are essentially local in their active support base, will be competing for access to decision centers with development interests which have more resources and greater freedom to utilize them in achieving their goals.

4. It follows from the above discussion that active leadership for preservation of the Rookery Bay Sanctuary area must be assumed by the National Audubon Society, not because it is the primary owner of the Sanctuary, but rather because it has the kind of support base, prestige, expertise, experience, and independence required to operate effectively at the state and national government levels, where the future of the area will ultimately be decided. In the long run the shoreline and natural resources of areas such as Rookery Bay can only be preserved if they are designated as part of the nation's wealth, to be protected by federal and state partnership.

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