DIVISION OF PLANNING

ST. JOHN THE BAPTIST PARISH COMPREHENSIVE PLANNING PROJECT
PHASE II TASK II
Land Use Plan Report

Division of Planning
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I. Introduction

St. John Parish lies on the western outskirts of what is considered the New Orleans Metropolitan Area. Geographically, St. John Parish sits to the west of St. Charles Parish, and stretches from the marshes of south Louisiana to the western shores of Lake Pontchartrain. The Mississippi River bisects the Parish into East and Westbank sections, which are connected by the Luling-Destrehan Bridge, as well as a regularly operating ferry.

Several major federal and state roads connect St. John Parish to major population centers to the North, West, and East. Interstate 10 connects the Parish to the major regional centers of Orleans and Jefferson Parish to the East, and continues through Mississippi, Alabama and Florida, terminating at Jacksonville, Florida. Heading West, I-10 runs through Baton Rouge, the Louisiana state capital, and continues on through the Southwestern United States all the way through to the West Coast at San Diego, California. Interstate 55 links St. John Parish to the North and reaches the major Midwestern population centers terminating in Chicago, Illinois. The Louis Armstrong International Airport sits just minutes to the East of St. John and provides international travel and freight connections. Finally, several major rail corridors link the Parish to all parts of the U.S.

Despite a sporadic regional economy, St. John's population growth consistently outpaced other Parishes on the South-shore of Lake Pontchartrain. Since 1960, St. John Parish has seen sustained population growth and more recently, between 2000 and 2005, St. John's population growth equaled that of the decade between 1990 and 2000. This growth could accelerate even higher over the next 20 years. St. John, historically, has been a rural parish with an agrarian based economy, supplemented with many heavy commercial, industrial, and light manufacturing based jobs.

Ultimately, a multitude of factors will influence how much new development the Parish will see in the next 20 years. However, with large amounts of undeveloped land in the Parish and the expectation of improved hurricane protection for substantial amounts of that land, the potential exists for continued development in St. John Parish over the next 20 years.

One factor likely to spur immediate growth in St. John Parish is the impact of Hurricane Katrina. The damage from wind and flood displaced around 300,000 or more residents from Southeast Louisiana to the Gulf Coast. Particularly hard it from flooding was Orleans and Jefferson Parish, where upwards of 150,000 homes sustained significant damage. The need to find both short and long term living arrangements has accelerated the population growth in St. Tammany Parish on the Northshore, along with many of the problems concomitant with rapid population growth. St. John is beginning to find itself in a similar situation.

On the jobs and economic front, demand for gas will likely remain high worldwide, leading to an increase in refining and petrochemical operations in South Louisiana and the Gulf of Mexico. This can only benefit the economy long-term - both regionally and in St. John Parish - and create additional development pressures in the Parish. Over time, other economic development initiatives by the Parish will buttress the expected growth in this industry. All of these factors suggests future growth is likely to continue, and could become even more intense if significant numbers of displaced hurricane residents move permanently into St. John Parish.

The competition for capturing that future growth, both economic and residential will be fierce as local governments try to provide the highest quality of life combined with the best climate for economic growth. To that end, several Parish's and major cities in the surrounding region have developed or are on the verge of completing comprehensive plans or master land use and transportation plans (Jefferson Parish, Kenner, La., St. Tammany Parish).

Long-term comprehensive planning can provide a framework for St. John Parish to establish policies and programs that allow the Parish to channel new development in a smart and sustainable pattern. Doing so will provide the Parish with an economic and residential development base that will provide a stable tax environment for the Parish to provide the necessary infrastructure and public services needed to maintain a healthy quality of life for decades to come.

This Land Use report is the culmination of the initial steps St. John's leaders are taking to begin to develop the framework for planning the long term development of the Parish. This Future Land Use report provides a vision and policy framework to evaluate future land use and development decisions, an accounting of the expected amount of land needed to accommodate the future development in St. John Parish and provides a map where – in general- new land uses should go. Information related to resident's attitudes about land use and development, historical population trends, existing economic conditions, and future population growth were used to inform development of land use goals, objectives and policies that will guide future land use development. This report is the first step in St. John Parish's quest to develop a comprehensive approach to planning and development.

II. Demographic and Economic Analysis of St. John Parish

This section includes data and analysis of the existing St. John the Baptist Parish economic and population trends including population growth, racial composition, age composition, foreign born population, median income, job growth, and housing related data. This analysis is designed to provide a general snapshot of the existing population characteristics in St. John Parish. Where possible, the most recent data from the U.S. Census or other governmental entity is used as the basis for the analysis.

Historical Population for St. John Parish

Beginning in 1960, St. John Parish entered a three decade period of substantial growth in which the Parish's population more than doubled, adding over 21,000 new residents through 1990. Cumulative annual growth rates exceeded 25% in each decade, reaching a peak of 34.06% during the 1970's. During the last ten year period, however, the Parish only added slightly more than 3,000 residents, a precipitous drop in population growth rates.

Table 1: Population Growth 1960 - 2000

Year	Population	Change	Pct Change
1960	18,439		
1970	23,813	5,374	29.14%
1980	31,924	8,111	34.06%
1990	39,996	8,072	25.29%
2000	43,044	3,048	7.62%
2005*	46,293	3,249	7.55%

*U.S. Census Estimate

However, according to the 2005 U.S. Census population estimates the St. John Parish population increased by over 3,200 residents, or 7.55% from 2000 through July 1, 2005. This represents a growth rate that in five years equaled the population growth over the previous ten years between 1990 and 2000.

Table 2 provides a regional look at population growth. Regionally, Only St. Charles Parish exceeded St. John's Population growth in the 1990's. Table 2 identifies the extent of population growth and decline in the 1990's among South Shore Parish's. In contrast to St. John and St. Charles Parish, Orleans Parish continues to lose population, while Jefferson Parish's growth has flat lined.

Table 2: Overview of South Shore Population Change 1990 to 2000

State / Parish	1990 Population	2000 Population	Population Change	Percentage Population Change
Louisiana	4,220,164	4,368,967	148,803	3.53
St. John Parish	**39,996**	**43,044**	**3,048**	**7.62**
Orleans Parish	496,938	468,124	(28,814)	(5.80)
Jefferson Parish	448,306	453,165	4,859	1.08
Plaquemines Parish	25,575	26,407	832	3.25
St. Bernard Parish	66,631	67,264	633	0.95
St. Charles Parish	42,437	48.072	5,635	13.27
Data Source: 1990 and 2000 U.S. Census				

Racial Composition of the Population

There is a larger share of African American residents in St. John Parish than either the South Region or the Nation. Among the Southshore Parishes, only Orleans has a higher percentage of African American residents than St. John. The percentage of African American residents is more than double the regional percentage, and is more than triple the national percentage. It is also of note that the makeup of the Parish is predominately African American or white. Asians make up a considerably smaller share of the population among Southshore Parishes as well as in the South Region and the Nation.

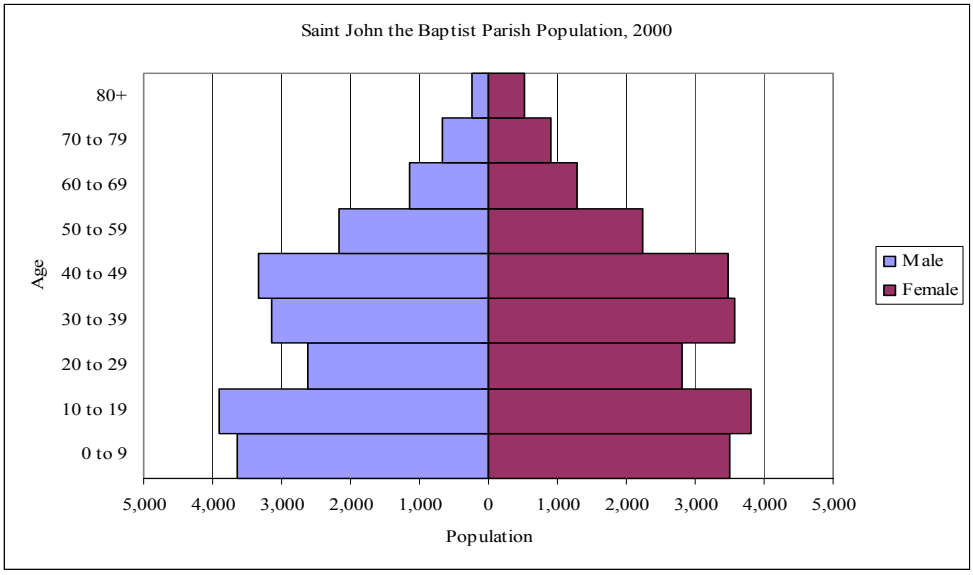
Table 3: Population Comparisons: Southshore Parishes, South Region, and the U.S.

	Population	*Pct. White*	*Pct. Af. Amer.*	*Pct. Am. Indian*	*Pct. Asian*	*Pct. Hispanic*
St. John the Baptist Parish	**43,044**	**52.42**	**44.56**	**0.29**	**0.73**	**2.94**
Orleans Parish	484,674	28.11	67.10	0.31	2.17	3.10
Louisiana	4,468,976	63.91	32.32	0.58	1.24	2.41
St. Charles Parish	48,072	72.32	24.93	0.19	0.80	2.84
Plaquemines Parish	26,757	69.91	22.85	2.03	2.38	1.81
Jefferson Parish	455,466	69.81	22.84	0.41	3.03	7.08
St. Bernard Parish	67,229	88.39	6.86	0.56	1.60	5.22
South Region	102,195,495	72.70	19.10	1.20	2.20	n/a
U.S.	288,764,438	75.10	12.60	1.40	4.10	n/a

Age Composition of the Population

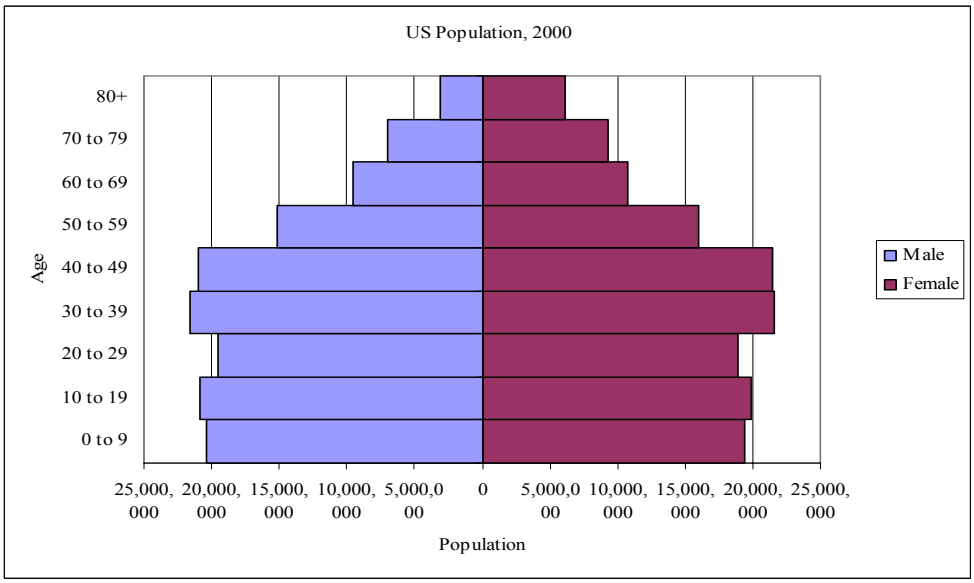
The population age structure of St. John the Baptist Parish compares reasonably well with the nation. Figures 1 and 2 compare the age composition of St. John Parish with the U.S. age composition. The major difference between the two populations is the lack of both males and females in the 20 to 29 age group in St. John Parish. There are also fewer adults in St. John Parish. Beyond the 10-19 age groups, the population shrinks more rapidly than the Nation.

Figure 1: Age Composition of St. John the Baptist Parish Population - 2000



Source: U.S. Census Bureau, Summary File 1- Table P12 Sex by Age (total Population)

Figure 2: Age Composition of U.S. Population - 2000



Source: U.S. Census Bureau, Summary File 1- Table P12 Sex by Age (total Population)

Median Household Income

Household income in St. John Parish grew little between 1989 and 1999 after adjustment for inflation. At the same time, income in the South Region increased nearly 8%. In 1999, household income was about equal to the South Region. Both areas have lagged the Nation during the study period.

Table 4: Median Household Income: St. John, Southshore Parishes, Region, and U.S.

	Med. HH Inc.*
St. Charles Parish	$45,139
U.S.	$41,994
St. John the Baptist Parish	**$39,456**
South Region	$38,790
Jefferson Parish	$38,435
Plaquemines Parish	$38,173
St. Bernard Parish	$35,939
Louisiana	$32,566
Orleans Parish	$27,133

*Data for Income Sorted in Descending Order

Table 5: Change in Median Household Income of St. John the Baptist Parish, LA 1989-1999 Compared to the South Region and the Nation Adjusted to 1999 Dollars*

			Change: 1989-1999	
	1989**	1999	$	%
St. John the Baptist Parish	$38,907	$39,456	$549	1.4%
South Region	$35,955	$38,790	$2,835	7.9%
United States	$40,275	$41,994	$1,719	4.3%

* CPI for 1999/CPI for 1989 = 1.34 per URBN 6020 data

** Adjusted to 1999 dollars

Source: US Census Bureau, 1990 and 2000 U.S. Census

Percent of Population Living in Poverty

The level of poverty is higher in St. John Parish than either the South Region or the nation, but trails Orleans and Plaquemine's among Parishes in the New Orleans Region. Overall, poverty in St. John Parish is about 33% higher than in the U.S.

Table 6: Poverty Rates in St. John Parish, the Region, the U.S., and New Orleans Aea

	Pct. Living in Poverty*
Orleans Parish	27.96%
Louisiana	19.48%
Plaquemines Parish	17.73%
St. John the Baptist Parish	**16.53%**
South Region	13.90%
Jefferson Parish	13.60%
St. Bernard Parish	12.91%
U.S.	12.40%
St. Charles Parish	11.28%

*Data for Poverty Sorted in Descending Order

Change in Housing Units

Construction of new housing units in the Parish is proceeding at a slower pace than either the Region or the Nation. Table 7 on the next page compares the change in housing units in St. John Parish, the South Region, and the Nation from 1990 to 2000. Vacancies in existing housing units are far below regional and national averages, and are declining steeply. If this trend continues, a housing shortage could develop.

Post Hurricane Katrina, the remaining available housing stock is quickly being bought or rented by displaced residents. The U.S. Census provides residential building permit data for St. John Parish.[1] As Table 8 indicates, new single-family building permits in the months prior to Hurricane Katrina seemed to be at a slower pace than in 2004, but picked up considerably at the end of 2005 and into the first part of 2006.

Given the significant increase in population from 2000-2005, the likelihood of accelerated growth from displaced residents, and the availability of land, St. John Parish faces a potentially booming housing market in the coming months and years.

[1] Data on residential building permits in St. John Parish is not available from the U.S. Census prior to January 2004.

Table 7: Change in Housing Units of St. John the Baptist Parish, LA 1990-2000 Compared to the South Region and the Nation

	1990	2000	Change: 1990-2000 #	Change: 1990-2000 %
St. John the Baptist Parish				
All housing units	14,255	15,532	1,277	8.2%
Occupied units	12,710	14,283	1,573	12.4%
Owner-occupied	10,128	11,573	1,445	14.3%
Renter-occupied	2,582	2,710	128	5.0%
Vacant units	1,545	1,249	-296	-19.2%
South Region				
All housing units	36,065,102	42,382,546	6,317,444	14.9%
Occupied units	31,822,254	38,015,214	6,192,960	19.5%
Owner-occupied	21,076,467	25,987,886	4,911,419	23.3%
Renter-occupied	10,745,787	12,027,328	1,281,541	11.9%
Vacant units	4,242,848	4,367,332	124,484	2.9%
United States				
All housing units	102,263,678	115,904,641	13,640,963	11.8%
Occupied units	91,947,410	105,480,101	13,532,691	14.7%
Owner-occupied	59,024,811	69,815,753	10,790,942	18.3%
Renter-occupied	32,922,599	35,664,348	2,741,749	8.3%
Vacant units	10,316,268	10,424,540	108,272	1.0%

Source: US Census Bureau, 2000 Census Summary File (SF-1) and 1990 Census Summary Tape File (STF-1)

Table 8: Building Permits by Month and Year in St. John Parish

	2004	2005	2006
January	20	9	11
February	15	22	***31***
March	31	***28***	57
April	34	***23***	
May	16	14	
June	28	***24***	
July	21	26	
August	13	***24***	
September	10	***28***	
October	13	***16***	
November	***20***	***22***	
December	16	36	
Total	237	272	99

*Bold Italized Numbers are U.S. Census Estimates for That Month

Home Ownership Rate

Homeownership is strong in St. John Parish, with 81% of residents owning their home. This is slightly less than St. Charles Parish, but higher than all other Metro New Orleans Parishes as well as both the South Region and the U.S. as a whole.

Table 9: Percent Owner Occupied

	Pct. Owner Occupied*
St. Charles Parish	81.42%
St. John the Baptist Parish	**81.00%**
Plaquemines Parish	78.86%
St. Bernard Parish	74.66%
Louisiana	67.93%
Jefferson Parish	63.85%
South Region	61.30%
U.S.	60.20%
Orleans Parish	46.50%

*Data for Percent Owner Occupied Sorted in Descending Order

Median Housing Value and Median Contract Rent

When adjusted for inflation, both the median housing value and the median contract rent fell in St. John Parish during the 1990's. At the same time, the Region and the Nation saw these values increase. Other data may provide a clue as to why this is happening. According to a New Orleans organization of realtors,[2] the price of a single-family home in La Place (a major "bedroom community" of the Parish) has grown from about $75,000 in 1996 to about

[2] Metro-new-orleans.com

$108,000 in 2002 (Unadjusted for inflation). This is an increase of about 44% in six years. If these figures are correct, the data would tend to indicate that the Parish housing stock may be undervalued by the owners.

The median housing value in the Parish has remained substantially below the national average for the past ten years, and the gap is growing. It is suspected that this is due to the large number of small dwellings and mobile homes in the Parish, both of which generally have low valuation.

Table 10: Change in Median Housing Value and Median Contract Rent
St. John the Baptist Parish 1990-2000
Compared to the South Region and the Nation
Adjusted to 2000 Dollars*

	1990**	2000	Change: 1990-2000 #	Change: 1990-2000 %
St. John the Baptist Parish				
Median Housing Value	$82,946	$79,000	-$3,946	-5.0%
Median Contract Rent	$493	$489	-$4	-0.8%
South Region				
Median Housing Value	$87,770	$88,500	$730	0.8%
Median Contract Rent	$543	$559	$16	2.9%
United States				
Median Housing Value	$105,190	$111,800	$6,610	5.9%
Median Contract Rent	$599	$602	$3	0.5%

* CPI for 2000/CPI for 1999 = 1.34 per URBN 6020 data

** Adjusted to 2000 dollars.

Source: US Census Bureau, 2000 Census Summary File (SF-3) and 1990 Census Summary Tape File (STF-3)

Housing Affordability Index

The Housing Affordability Index is designed to give an indication of the relationship between income and housing prices in a given area. This relationship is expressed as a ratio of Median Housing Value to Median Household Income. Based on this analysis, housing in St. John Parish grew slightly more affordable during the 1990's. Additionally, housing in St. John Parish was more affordable than either the South Region or the Nation as a whole.

Table 11: Housing Affordability Index for St. John the Baptist Parish LA 1990-2000* Compared to the South Region and the Nation

			Housing Affordability Index	
	1990**	2000	1990	2000
St. John the Baptist Parish				
Median Housing Value	$82,946	$79,000	2.13	2.00
Median Household Income	$38,907	$39,456		
South Region				
Median Housing Value	$87,770	$88,500	2.44	2.28
Median Household Income	$35,955	$38,790		
United States				
Median Housing Value	$105,190	$111,800	2.61	2.66
Median Household Income	$40,275	$41,994		

* Index = median housing value/median household income in all areas. Higher is less affordable.

** Adjusted to 2000 dollars.

Source: Calculated by CUPA from Tables 5 & 11

Change in Employment

On the next page, Table 12 compares employment in the Parish with the New Orleans region during the period 1989 - 2000. Total non-farm employment is increasing faster in the Parish (31.9%) than in the region (16.1%). Employment in St. John is increasing faster than in the Region in almost all sectors. In particular, the Mining sector in St. John increased by 21.7% while decreasing by 35.3% in the Region. However, it grew from a very small base, and added only 40 jobs. The Construction sector had the highest percentage of job increase (67%) in the region.

Table 12: Employment Change in St. John the Baptist Parish LA 1989 - 2000 Compared to the New Orleans Region

	New Orleans Region				Saint John the Baptist Parish			
	1989	2000	Absolute	%	1989	2000	Absolute	%
Total non-farm employment	672,107	780,231	108,124	16.1%	12698	16748	4050	31.9%
Ag. services, forestry, fishing	5,337	8,628	3,291	61.7%	108	170	62	57.4%
Mining	21,187	13,713	-7,474	-35.3%	184	224	40	21.7%
Construction	30,983	44,610	13,627	44.0%	1111	1855	744	67.0%
Manufacturing	49,912	48,736	-1,176	-2.4%	2498	2430	-68	-2.7%
Transportation and public utilities	49,770	49,101	-669	-1.3%	767	1236	469	61.1%
Wholesale trade	36,951	38,063	1,112	3.0%	624	649	25	4.0%
Retail trade	117,707	135,448	17,741	15.1%	1965	2937	972	49.5%
Finance, insurance, and real estate	49,065	55,529	6,464	13.2%	631	899	268	42.5%
Services	204,382	268,170	63,788	31.2%	2882	4070	1188	41.2%
Government and government enterprises	106,813	118,233	11,420	10.7%	1928	2278	350	18.2%
Federal, civilian	16,688	16,745	57	0.3%	65	107	42	64.6%
Military	13,813	10,982	-2,831	-20.5%	269	217	-52	-19.3%
State and local	76,312	90,506	14,194	18.6%	1594	1954	360	22.6%
State government*	20,726	25,975	5,249	25.3%	136	213	77	56.6%
Local government*	55,586	62,103	6,517	11.7%	1458	1741	283	19.4%

Source: Bureau of Economic Analysis, Regional Economic Information System
* estimated number employed for 2000

Distribution of Total Employment

The distribution of employment in St. John is depicted in Table 13 on the next page. The distribution is somewhat similar to the region in most sectors. The major differences are to be found in Construction and Manufacturing. The Parish has significantly led the New Orleans region during the study period in both these areas, even though manufacturing jobs are declining.

Table 13: Distribution of Employment in St. John the Baptist Parish by SIC Sector, 1989 and 2000

	New Orleans Region				Saint John the Baptist Parish			
	1989		2000		1989		2000	
	#	% of total	#	% of total	#	% of total	#	% of total
Total non-farm employment	672,107	100.0%	780,231	100.0%	12,698	100.0%	16,748	100.0%
Ag. services, forestry, fishing	5,337	0.8%	8,628	1.1%	108	0.9%	170	1.0%
Mining	21,187	3.2%	13,713	1.8%	184	1.4%	224	1.3%
Construction	30,983	4.6%	44,610	5.7%	1,111	8.7%	1,855	11.1%
Manufacturing	49,912	7.4%	48,736	6.2%	2,498	19.7%	2,430	14.5%
Transportation and public utilities	49,770	7.4%	49,101	6.3%	767	6.0%	1,236	7.4%
Wholesale trade	36,951	5.5%	38,063	4.9%	624	4.9%	649	3.9%
Retail trade	117,707	17.5%	135,448	17.4%	1,965	15.5%	2,937	17.5%
Finance, insurance, and real estate	49,065	7.3%	55,529	7.1%	631	5.0%	899	5.4%
Services	204,382	30.4%	268,170	34.4%	2,882	22.7%	4,070	24.3%
Government and government enterprises	106,813	15.9%	118,233	15.2%	1,928	15.2%	2,278	13.6%
Federal, civilian	16,688	2.5%	16,745	2.1%	65	0.5%	107	0.6%
Military	13,813	2.1%	10,982	1.4%	269	2.1%	217	1.3%
State and local	76,312	11.4%	90,506	11.6%	1,594	12.6%	1,954	11.7%
State government	20,726	3.1%	Est. 25,975	3.3%	136	1.1%	213	1.3%
Local government	55,586	8.3%	Est. 62,103	8.0%	1,458	11.5%	1,741	10.4%

Source: Bureau of Economic Analysis, Regional Economic Information System

Location Quotient Analysis

Location quotients show how specialized a region is in a particular industry with respect to the nation or some other study area. The higher the location quotient, the more specialized the region is with respect to the nation or the reference area

On the next page, Table 14 depicts the industries in the New Orleans region with the top 10 location quotients. The Parish is located in the New Orleans region. The New Orleans Region is highly specialized in tourism and related industries, and has very high location quotients for these jobs. Gambling is somewhat dependent upon tourism and therefore provides the highest number of jobs supported by regional exports. The region is also a major port, and is specialized in water transportation industries and petrochemicals.

Please note, however, that the location quotient is easily calculated, but is at best a rough indicator which is primarily dependent upon the quality and age of the data.

Table 14: New Orleans MSA - Industries with the Top 10 Location Quotients, 2000

NAICS	Industry	Location Quotient	Jobs	Jobs Supported by Regional Exports
4872	Scenic & sightseeing transportation, water	19.75	1,206	1145
4871	Scenic & sightseeing transportation, land	19.05	777	736
4831	Deep sea, coastal & Great Lakes water trans	16.95	3,820	3595
4883	Water transportation support activities	14.91	5,733	5349
3366	Ship & boat building	8.59	5,948	5256
7132	Gambling industries	8.12	7,750	6796
2111	Oil & gas extraction	8.08	3,159	2768
3241	Petroleum & coal products mfg	7.51	3,866	3352
3253	Pesticide, fertilizer & oth ag chem	7.31	1,249	1078
4861	Pipeline transportation of crude oil	5.54	175	143

Source: Calculations by author from course data

Shift-Share Analysis

Shift-Share is a way of determining the differences between job growth in a specific economy and job growth in a reference economy. The reference economy in this case is the New Orleans regional economy. Shift-Share divides growth into three parts. There is a national share which shows trends of a larger economy of which the specific economy is a part. There is an industrial mix which shows industry specific growth factors. Finally there is a local factor which depicts local influence on industry. The method is useful for determining strength or weakness in the local economy as opposed to other areas.

On the next page, Table 15 depicts the Shift-Share composition of the Parish compared to the New Orleans regional economy. The shift-share analysis shows that local factors are mostly responsible for growth in the Parish. Industry-specific growth factors are mainly declining.

Table 15: Shift-Share Components, Percentage Change, 1989-2001
St. John the Baptist Parish Compared to New Orleans Region

	Percentage Change			Employment Change			
	Regional Share	Industry Mix	Residual	Regional Share	Industry Mix	Residual	Total
	%	%	%	#	#	#	#
Ag. services, forestry, fishing	16.1%	45.6%	-4.3%	17	49	-5	62
Mining	16.1%	-51.4%	57.0%	30	-95	105	40
Construction	16.1%	27.9%	23.0%	179	310	255	744
Manufacturing	16.1%	-18.4%	-0.4%	402	-461	-9	-68
Transportation and public utilities	16.1%	-17.4%	62.5%	123	-134	479	469
Wholesale trade	16.1%	-13.1%	1.0%	100	-82	6	25
Retail trade	16.1%	-1.0%	34.4%	316	-20	676	972
Finance, insurance, and real estate	16.1%	-2.9%	29.3%	102	-18	185	268
Services	16.1%	15.1%	10.0%	464	436	289	1188
Government and government enterprises	16.1%	-5.4%	7.5%	310	-104	144	350
Federal, civilian	16.1%	-15.7%	64.3%	10	-10	42	42
Military	16.1%	-36.6%	1.2%	43	-98	3	-52
State and local	16.1%	2.5%	4.0%	256	40	64	360
State government*	16.1%	9.2%	31.3%	22	13	43	77
Local government*	16.1%	-4.4%	7.7%	235	-64	112	283

Source: Calculated by Author from Table 14

III. Land Use in St. John Parish

This section provides an overview of the existing land use breakdowns in St. John Parish, along with an analysis of the spatial distribution of land uses. Land use data was collected and organized using the American Planning Association's Land Based Classification Standards[3].

Existing Land Use

St. John Parish covers a total of 225,576 acres of land. Excluding the Mississippi River, the total acreage of land is about 212,910 acres. However, much of that land is swamp or marsh. Table 16 identifies the net general land use in St. John Parish for the area South of Interstate 10 and North of State Route 3127, which is where the major developable land lies in St. John Parish. The land outside of this area - 163,881 acres - is almost all marsh and swamp, and will likely never be suitable for development because of the tremendous cost required to make it and keep it developable. This marsh and swampland also provides a layer of protection from storm hurricane storm surges.

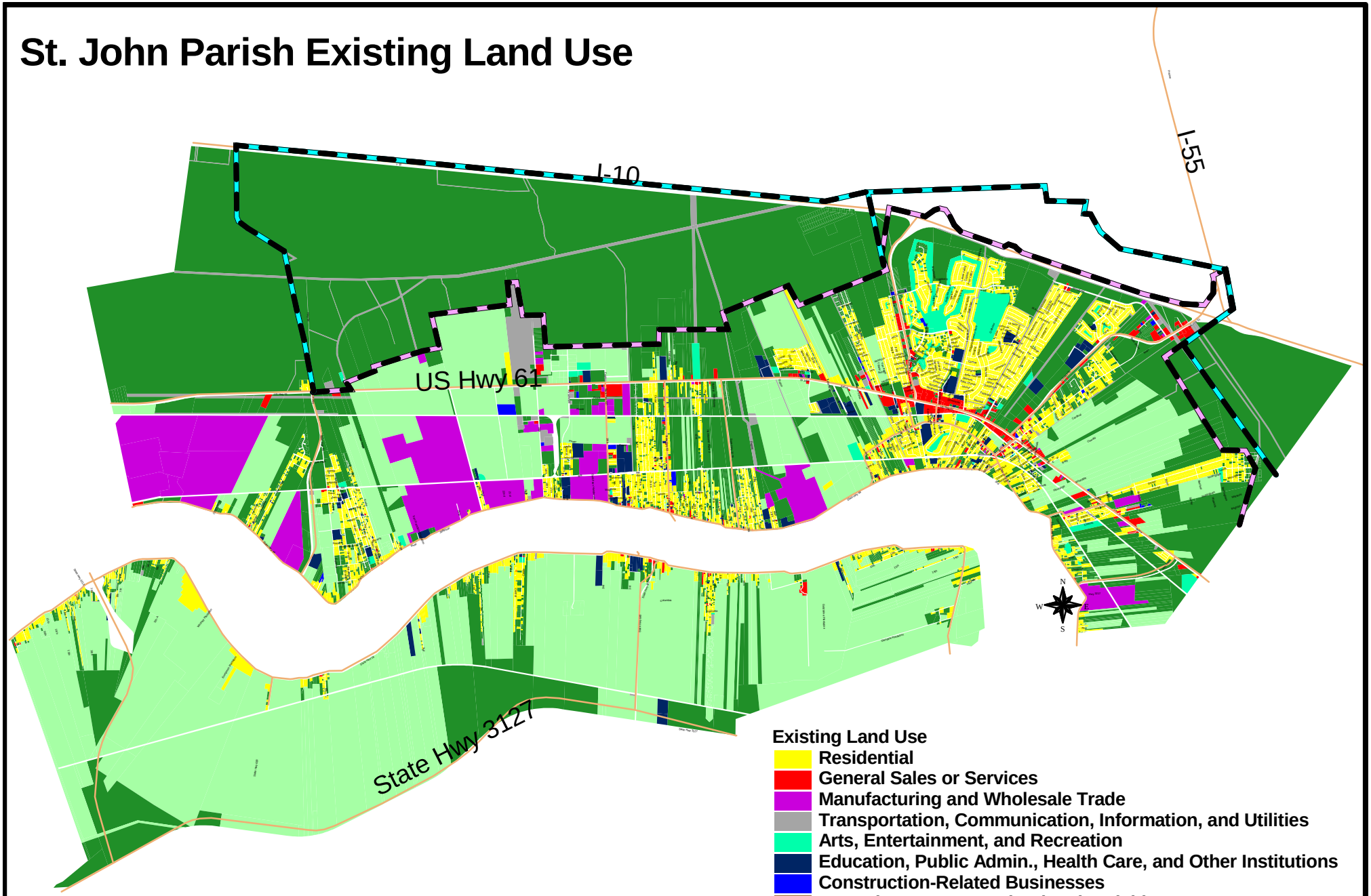
Undeveloped land and agricultural uses represent the vast majority – over 81% - of the overall land use in St. John Parish. Clearly, this indicates that the Parish is still relatively rural in nature, particularly if you consider the land outside of this area. Map 1 identifies Parish wide land use. In total, the land generally considered available for development represents only 23% of the total land area of the Parish. Residential, commercial, and other land uses make up only a small part of the remaining acreage.

Table 16: Existing Land Use in St. John Parish

LBCS Land Use Category	Acres	% of Total
Residential	3,615.87	7.37%
General Sales or Service	428.84	0.87%
Manufacturing and Wholesale Trade	2,579.93	5.26%
Transportation, Communication, Information, and Utilities	1,207.74	2.46%
Arts, Entertainment, and Recreation	521.01	1.06%
Education, Public Admin., Health Care, and Other Insitutional	529.09	1.08%
Construction-Related Businesses	47.99	0.10%
Mining and Extraction	0.00	0.00%
Fishing, Hunting, Forestry, and Agriculture	17,519.62	35.73%
Not In Use	22,579.29	46.05%
Total	49,029.37	100.00%

[3] An explanation of the land use data methodology and a further explanation of APA's LBCS are included in Appendix A.

St. John Parish Existing Land Use



Existing Land Use

- Residential
- General Sales or Services
- Manufacturing and Wholesale Trade
- Transportation, Communication, Information, and Utilities
- Arts, Entertainment, and Recreation
- Education, Public Admin., Health Care, and Other Institutions
- Construction-Related Businesses
- Natural Resources and Related Activities
- Fishing, Hunting, Forestry, and Agriculture
- Not In Use

- Proposed Levee Allignment - St. John Parish
- Proposed Levee Allignment - Corps of Engineers

Land Use Data Collected by:
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Map Created by:
UNO College of Urban and Public Affairs

Table 17 provides an overview of the level of site development for each site identified during the land use survey. Over 75% of the development site acreage is either land in its natural state (undeveloped) or in agricultural use. Developed sites - with or without buildings – or developing sites represent only about 23% of total land use. Clearly, the picture presented is that of a Parish still substantially rural in nature.

Table 17: Site Dimension Breakdown for St. John Parish

Site	Acres	% of Total
Site In Natural State	19,573.42	39.92%
Developing Site	2,773.22	5.66%
Developed Site--Crops, Grazing, Forestry	17,649.31	36.00%
Developed Site--No Buildings And No Structures	54.69	0.11%
Developed Site--Non Building Structures	2,025.17	4.13%
Developed Site--With Buildings	6,348.28	12.95%
Developed Site--With Parks	491.39	1.00%
Unclassifiable Site Development Character	114.28	0.23%
Total	49,029.75	100.00%

Table 18 identifies the land use breakdown for developed land excluding undeveloped and agricultural land. From this table it is easier to get a better handle on how the developed land is being used. Residential is the dominant use, but a significant amount of land is devoted to Manufacturing and Wholesale Trade. This is likely due to the large industrial sites located along the river. There is little commercial land use in St. John Parish, with more land devoted to both recreational and public use than commercial development.

Table 18: Landuse Breakdown of Developed Land

LBCS Land Use Category	Acres	% of Developed Land
Residential	3,615.87	40.49%
General Sales or Service	428.84	4.80%
Manufacturing and Wholesale Trade	2,579.93	28.89%
Transportation, Communication, Information, and Utilities	1,207.74	13.52%
Arts, Entertainment, and Recreation	521.01	5.83%
Education, Public Administration, Health Care, and Other Institutional	529.09	5.92%
Construction-Related Businesses	47.99	0.54%
Mining and Extraction	0.00	0.00%
Fishing, Hunting, Forestry, and Agriculture	17,519.62	Not Included
Not In Use	22,579.29	Not Included
Total	49,029.37	100.00%

Spatial Analysis of Existing Land Use

It is important to develop an understanding of the spatial patterns of the existing land use in order to provide the basis for evaluating the type and location future development. Avoiding Inconsistent and/or incompatible land use patterns can improve quality of life and encourage strong economic development.

St. John's patterns of land use distribution are clearly defined or influenced by the geography of the Parish, most notably the Mississippi River and the marshes and swamps to the north and south. All of the major urban development is located on the Eastbank between I-10 and the Mississippi River; while on the Westbank development is concentrated between the River and State Highway 3127. Many of the major transportation corridors generally follow along and close to the river, since this is traditionally the 'high ground'.

Eastbank Development

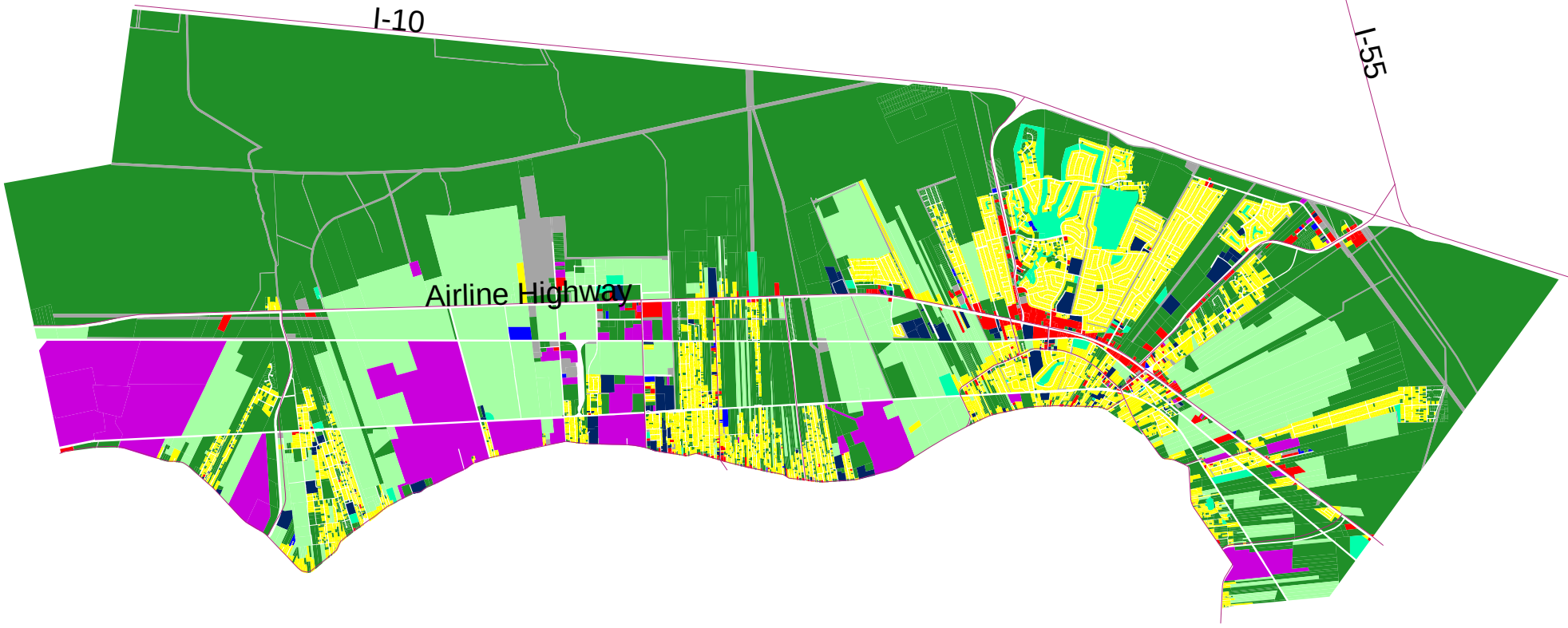
As stated previously a significant increase in the levels of urban development in the Parish occurred in the last 30 years, with the majority of this new development on the Eastbank. Despite the increased development the majority of the land still retains a rural character and pattern of development. Agricultural land uses and land not in use dominate much of the development on the Eastbank, and total acreages for these uses exceed all others combined. Map 2 depicts Eastbank landuse.

The majority of residential development on the Eastbank has occurred in the Laplace and Reserve areas. Further west to Garyville, residential development is concentrated in two clusters emanating from the river. There is much diversity in the types of residential development found on the Eastbank, with large portions of the residential development in Laplace similar to traditional suburban subdivision development, while a more rural pattern - with numerous mobile homes interspersed among older and new homes - dominating the remaining development on the Eastbank west to Garyville.

Commercial development is concentrated along the Airline Hwy. corridor, with the majority of this use located in Laplace. There is significant commercial development along the I-10 exit road to Airline Hwy. and sporadic commercial uses along the River Rd. Limited commercial development exists outside of the Laplace area.

In actuality, the visual character of new residential and commercial development patterns along the primary roadways exhibits a more suburban pattern with increasing levels of low density development. This suburbanization pattern, along with some of the problems associated with automobile driven development, contributes to the image of rapid urbanization.

St. John Parish Land Use: Eastbank



Eastbank Land Use

- Residential
- General Sales or Services
- Manufacturing and Wholesale Trade
- Transportation, Communication, Information, and Utilities
- Arts, Entertainment, and Recreation
- Education, Public Admin., Health Care, and Other Institutions
- Construction-Related Businesses
- Natural Resources and Related Activities
- Fishing, Hunting, Forestry, and Agriculture
- Not In Use

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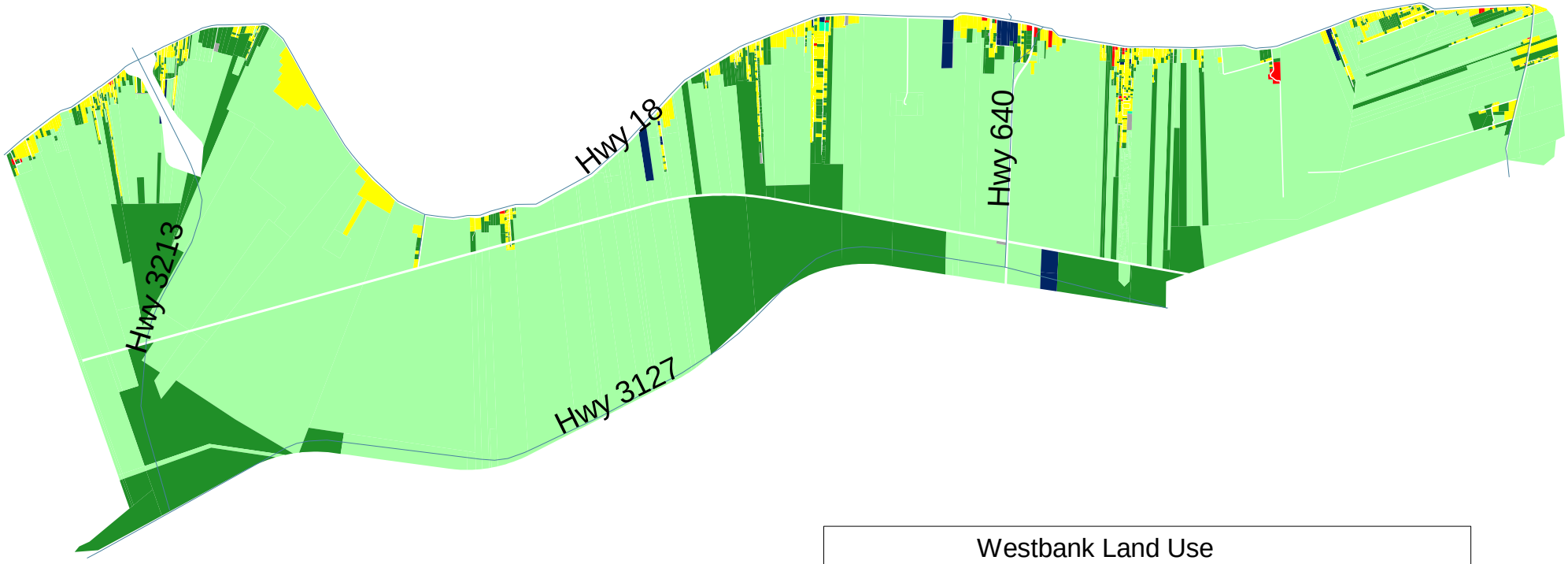
Land Use Data Collected by:
GCT, Inc.
Map Created by:
UNO College of Urban and Public Affairs

The industrial development sites on the Eastbank are concentrated along the river, with a few scattered close to Airline Hwy. in Reserve.

Westbank Development

Development on the Westbank is confined between the Mississippi River and State Hwy 3127. The overwhelming majority of land on the Westbank is in agricultural use or undeveloped. Residential and commercial developments are sporadic, and found mostly along the river and along roads emanating from the river. With respect to residential development, there are large numbers of mobile homes located on the Westbank. Map 3 depicts Westbank landuse.

St. John Parish Land Use:
Westbank



Land Use Data Collected by:
GCT, Inc.
Map Created by:
UNO College of Urban and Public Affairs

Westbank Land Use

- Residential
- General Sales or Services
- Manufacturing and Wholesale Trade
- Transportation, Communication, Information, and Utilities
- Arts, Entertainment, and Recreation
- Education, Public Admin., Health Care, and Other Institutions
- Construction-Related Businesses
- Natural Resources and Related Activities
- Fishing, Hunting, Forestry, and Agriculture
- Not In Use

IV. Future Population Projections

One of the keys to successful future land planning is a realistic expectation of future population in St. John Parish. However, population forecasting is, at best, an inexact science due to a multitude of social, economic, environmental, and regulatory factors acting separately and in concert to ultimately determine an area's future population. Population projection techniques range from the exercise of judgment to the use of complex mathematical models. Regardless of the method used, projections tend to be, at best, statistical guesses, and the more distant the planning horizon, the more uncertain the forecast.

To deal with these concerns we evaluated several population projection methodologies to determine the best method to project the likely future population for St. John Parish. It is always important to remember that these projections are only careful estimations of what is likely to be the future population, and that external factors, such as the economy and migration, can and likely will impact actual population growth.

Population Projection Methodology Evaluation

Several methodologies are available to project future population, as well as several public sources of future population[4]. Generally, most are delineated by the types of data required to establish a baseline population from which to project the future population. Several methods were evaluated for use in this project. These included trend extrapolation methods, cohort survival, official State Population Data Center Forecasts, and a build-out population analysis. A brief review of each is provided below.

Trend Extrapolation

Trend extrapolation is commonly used to make projections based on historical population data. Two of the most widely employed methods for extending past population data are: 1) Uniform progressive growth rate (arithmetic), 2) Constant percentage growth rate (geometric). Because small populations seldom grow at fixed rates, these two methods are generally used to develop short-term (1-10 year) population estimates, but can be used for longer periods if previous real growth has been along consistent patterns.

[4] The United States Census Bureau provides regular population updates and projections for most major counties and Metropolitan Statistical Areas. Additionally, the Louisiana Population Data Center provides official population projections for all Parishes in Louisiana.

Age Cohort Analysis[5]

This methodology predicts future population utilizing detailed age group cohort survival rates over a ten-year period. This requires specific data on individual age cohorts only available from the U.S. Census. Standardized birth and death rates are applied in conjunction with imputed migration rates, which are computed by analyzing growth and decline among the various cohorts.

One difficulty with the Age Cohort method is that only computes migration by analyzing shifts over time between individual cohorts. Uncommon shifts in migration cannot be accounted for, which can have a dramatic impact on future population. Generally, future migration rates are the most difficult aspect of population forecasting and are influenced by changing economic conditions. The Age Cohort method used here only infers migration as a function of deviations from the normal biological progression of the population.

State Population Data Center

The Louisiana State Population Data Center tabulates the official population projections for the state. These projections are made for each Parish in Louisiana and are regularly used by policy makers and professional planners. The State only projects population for St. John Parish as a whole, and does not make projections for the East or Westbanks of the Parish.

Suggested Population Forecasting Methodology

Table 19 below summarizes the population projections for five year increments to 2020 for St. John Parish using the methods outlined above. It should be noted that the cohort survival method projects population growth significantly higher than the other three by 2020.

Table 19: Summary of Population Projections to 2020

	Census Population Estimate	Cohort Survival Analysis	State Data Center	Arithmetic	Geometric
2005	46,293*	**46,667**	44,990	44,568	44,654
2010	n/a	**50,899**	46,700	46,092	46,324
2015	n/a	**53,628**	48,360	47,616	48,057
2020	n/a	**57,804**	49,890	49,140	49,855

* U.S Census Estimate

After testing the projections of the various models against previously known population points and against the U.S. Census population estimate for 2005 it

[5] The Age Cohort Model used in this analysis was obtained from "Spreadsheet Models of Urban and Regional Analysis", by Richard E. Klosterman, Richard K. Brail, and Earl G. Bossard. The model utilized a Microsoft Excel Spreadsheet provided by the authors.

became apparent that both the trend extrapolation methods and the projections made by the State Population Data Center all provided projections below the current Census estimates, while the Cohort Analysis method projected a population nearly identical to the 2005 estimate. For planning purposes the Cohort Survival method is the suggested methodology for projecting the likely future population for St. John Parish to 2020.

It is possible that given the additional population pressures resulting from displacement of residents affected by Hurricane Katrina, population growth could surpass even the current trends, which over the last five years is double the rate of the ten year span between 1990 and 2000.

V: St. John Vision and Land Use Policy Framework

St. John the Baptist Vision Statement

The vision statement for St. John the Baptist Parish encompasses the resident's vision of the ideal St. John Parish in 20 years. This vision statement is based on input generated from public meetings held throughout the Parish and is the framework that will guide the development of the larger St. John Parish Comprehensive Plan. The vision statement for St. John the Baptist Parish is:

> *St. John the Baptist Parish will be a modern, well-planned community that respects its rural and cultural heritage while providing a high quality of life for all residents by protecting existing neighborhoods and planning for high quality new ones; promoting economic development opportunities; and protecting and conserving the environment and natural resources of St. John the Baptist Parish.*

Land Use Goals, Objectives and Policy Framework

The land use and growth management policy framework presented below is supportive of achieving the vision of the residents and is based on the underlying philosophy of encouraging land development patterns that are compatible with existing development, that are supportive of cost efficient extension and delivery of public infrastructure and services, that protect the natural environment, and that provide for both urban and rural lifestyles. In some cases, explanation is provided to further clarify the intent of the policy.

Goal 1: Maintain St. John Parish's High Quality of Life

Objective 1.1: Encourage smart and sustainable growth and development in St. John the Baptist Parish on the East and Westbanks that does not diminish the quality and character of the natural environment and that can be readily supported or served by public resources and services.

Policy 1.1.1: Future growth patterns should be compatible with the available level of infrastructure and other public services.

Policy 1.1.2: Future development must protect the natural environment and preserve the rural landscape.

Policy 1.1.3: All development should be designed to minimize negative impacts on the quality of the natural environment.

Policy 1.1.4: Discourage development and growth in environmentally sensitive and environmentally significant areas of the Parish.

Policy1.1.5: Protect and preserve rural areas from incompatible urban development.

Policy 1.1.6: Promote intergovernmental cooperation and coordination in decision-making on regional land development and growth issues.

Policy 1.1.7: Begin development of additional elements of the St. John the Baptist Comprehensive Plan including Housing, Economic Development, Community Facilities and Services, Transportation, and Parks and Recreation.

Policy 1.1.8: Consider developing sub area plans for the communities of Laplace and Reserve in St. John Parish.

GOAL2: Provide Quality Neighborhoods in St. John Parish

Objective 2.1: Protect the viability of existing neighborhoods and residential areas.

> The Parish's existing housing stock and neighborhoods represent a substantial investment of both public and private sector resources. Maintaining the integrity of existing residential areas is important to ensuring the availability of an adequate supply of housing for residents of St. John Parish and to promoting continued private sector economic investment in the Parish.

Policy 2.1.1: Ensure that incompatible non-residential uses are not located in or adjacent to residential areas in order to maintain the viability of existing residential neighborhoods.

Policy 2.1.2: Where land use conflicts between residential development and non-residential uses are unavoidable, minimize conflicts through buffering/screening techniques and appropriate traffic controls that limit non-residential traffic movement through residential areas.

> Use buffering techniques to minimize potential negative impacts of incompatible land uses. Buffering techniques include fencing or other physical barriers, natural vegetation, or a gradual change in land use intensity. For example, duplex or lower density multi-family development can serve as a land use buffer between commercial development and lower density single family residential development. Using natural elements, such as trees, berms, open space, and /or landscaping in combination with structural screening, is an increasingly popular method of buffering. Advantages of natural buffers include:
>
> - Reduction of noise intensity
> - Reduction of air pollution and dust

- Reduction of buffer maintenance and replacement costs
- Creation of a more aesthetically pleasing environment
- Shielding from view nuisances or differing land uses

The degree or type of buffering most suitable is dependent on the degree of incompatibility between adjacent land uses, the size of the proposed development, and the intensity of the proposed development.

Policy 2.1.3: Identify appropriate areas for location for new mobile home sites.

Clearly, in the past the siting of mobile homes has been allowed in areas not zoned for such uses. Many sites permeate single-family areas. Where appropriate, additional mobile home sites may be permitted, but future mobile home sites should not be allowed to encroach into single-family areas where there is no previous precedent of mobile home sites.

Objective 2.2: Provide appropriate locations for residential development.

Policy 2.2.1: Residential development should not be encouraged in areas with severe environmental constraints.

In order to protect both the natural environment and residential property, residential development should be discouraged from locating in flood prone areas or other areas susceptible to environmental hazards. Development in the flood zone should be elevated above the 100-year flood level or otherwise designed to protect permanent structures from flood damage.

Policy 2.2.2: Encourage new residential subdivision development to locate in areas already served by public infrastructure or in areas where infrastructure can readily be extended.

If large scale residential development is proposed in areas which cannot be readily served by existing or programmed water, sanitary sewer and road infrastructure, the development should either not be permitted or the development should be required to bear a portion of the cost of extension or construction of such services.

Policy 2.2.3: The location of residential development should bear a reasonable relationship to the capacity of the existing and planned road network.

To ensure that residential development is compatible with the existing and planned major street network and to minimize potential traffic congestion, residential developments should be located and designed to take access from streets that have adequate capacity to handle the traffic that will be generated by the development.

Multi-family residential uses should be located adjacent to collector or arterial streets. Moderate density residential development, such as duplex housing, may be located on local residential streets. However, any large scale development that generates substantial traffic flow should take access from either collector or arterial streets.

Policy 2.2.4: New residential infill Housing should be encouraged in existing residential areas.

As growth continues one of the central challenges to the Parish and developers alike is the cost-efficient extension of public water and sewer services to new developments. The Parish should promote the efficient use of existing public facilities and orderly, cost-efficient extension of infrastructure and public services by encouraging housing infill development in areas that are already served or that can readily be served by public infrastructure.

Objective 3: Promote subdivision design that creates desirable living areas and that encourages cost efficient housing construction.

Policy 2.3.1: Promote the construction of cost-efficient housing by encouraging developers to use subdivision design techniques (lot layout) that minimize street, water, sewer and other utility development costs.

Policy 2.3.2: Encourage subdivision design that enhances a sense of neighborhood identity and that enables pedestrian access through the neighborhood and to public gathering areas where possible.

Where possible, encourage subdivision development that incorporates design elements for pedestrian movement and shared usable open space areas. For example, a subdivision layout based on interconnected streets and sidewalks or other walkways allows for easier pedestrian movement and communication with nearby neighbors.

Goal 3: Encourage Commercial Land Uses That Contribute to the Job Base in St. John Parish While Protecting the Character of the Parish.

Objective 3.1: Promote the development of well designed commercial and office uses that will assure a wide range of goods and services for the resident population and that are compatible with the natural environment and adjacent land uses.

Policy 3.1.1: Provide suitable locations for various intensities of commercial development.

Commercial uses should be located in areas that are well served by the transportation network and should be designed to have minimal negative

impact on adjacent, lower intensity land uses. Commercial areas should also have minimal negative impact on the natural environment.

Policy 3.1.2: Intensive commercial development should be adequately designed and buffered from adjacent residential areas to minimize negative impacts of lights, traffic, and noise on residential properties.

Policy 3.1.3: Commercial activities should be served by adequate levels of utilities and public infrastructure/services.

To promote the cost efficient delivery of infrastructure, commercial development should be encouraged to locate in areas where infrastructure is already available or can readily be extended. Accessibility to other public services, such as fire protection and law enforcement services, should also be considered in locating commercial development.

Policy 3.1.4: Commercial development should be designed to ensure adequate off-street parking and loading facilities and storm water management.

Policy 3.1.5: Encourage commercial development as an integrated use in a planned unit or mixed-use development.

Such planned developments should be encouraged to enable the development to be served by public water and sewer service. Including neighborhood commercial activities as an integral element of a planned residential development will help to reduce the length and number of vehicle trips for convenience purchases.

Objective 2: Ensure sufficient locations for well-designed office uses that are compatible with surrounding development and the natural environment.

Policy 3.2.1: Office use areas should take access from major roads (arterials and collectors) that have adequate capacity.

Policy 3.2.2: Office uses should be located so as not to contribute to congestion at major road intersections and to minimize the flow of traffic through adjacent residential areas.

Policy 3.2.3: Office uses should be encouraged locate in planned office parks or in cluster developments that utilize shared parking and access points.

Policy 3.2.4: Office uses should be encouraged to use effective design and landscaping to buffer adjoining neighborhoods from lights, signs, noise or other activities that may conflict with adjoining residential areas.

GOAL 4: Provide industrial areas that create opportunity for economic development and job creation and that are compatible with the natural environment.

Objective 1: Provide for well-designed locations for industrial uses that are served by appropriate infrastructure.

Policy 4.1.1: Industrial uses should locate in areas with adequate transportation access.

> Industrial activity should be directly accessible to one or more transportation facilities, such as arterial roads, highways, airports, or railroads. Industrial sites should be served by one or more major roads that have adequate capacity to carry freight traffic.

Policy 4.1.2: Encourage industrial uses to locate in areas where water and sewer infrastructure are available or in areas where necessary infrastructure can be provided by the developer.

> All industrial land uses should be served by adequate water and sewer infrastructure. Industrial uses should be encouraged to locate in appropriate locations where such services are readily available and there will be no or minimal impact on surrounding uses.

Policy 4.1.3: Encourage industrial uses to locate in industrial parks or in clustered locations with similar type uses. The location of industrial activity at sites that function as business parks or research parks should also be encouraged.

> Most modern day industry can best be served by locating in industrial or business parks that are designed to accommodate the specific needs of industrial production and the transportation of materials and finished products. Industrial parks typically provide appropriate utilities infrastructure and an internal traffic circulation system that can meet the needs of larger vehicles. Industrial parks also provide siting opportunities for the location of office, commercial, and service activities that support industrial operations.

Policy 4.1.4: Industrial development locations should be compatible with the natural environment.

> Industrial activity should not locate in flood prone areas or in other environmentally sensitive areas. Industries that are polluting or that pose a threat to the quality of the natural environment should not be permitted. Industries that handle materials such as corrosives, gases, flammable liquids and toxins, and those that create dust, smoke, odor or noise should not locate near residential areas.

Policy 4.1.5: Screen or buffer industrial uses from nearby residential areas. The intensity of buffering required should be dependent on the type and intensity of industrial activity.

Policy 4.1.6: Develop an Economic Development Element to the St. John Parish Comprehensive Land Use Plan

GOAL5: Provide for a diverse and high quality system of parks, recreation facilities and public open spaces that will meet the recreation and leisure needs of the resident and that will protect and enhance the environmental character of St. John Parish.

Objective 1: Foster intergovernmental cooperation in providing for shared use recreational facilities.

Policy 5.1.1: Develop a Parks, Recreation and Open Space element to the St. John Parish Comprehensive Plan

Policy 5.1.2: Encourage school district to cooperatively develop and share recreation facilities.

Policy 5.1.3: Encourage the development of multi-use recreation facilities that will provide recreation and leisure opportunities for various segments of the population.

> As the population continues to grow, the Parish should encourage the development of facilities that can be used for a variety of recreation and leisure activities by different age groups. A recreation facility designed for multi-generational use would enable the development, scheduling and use of the facility by different age groups and different time periods. The use of such a facility could be further expanded to include delivery of certain social or health services at scheduled times (ie. blood pressure checks) for different age groups. A multi-use, multi-generational facility located in a more rural area of the Parish would be an asset to the rural population where recreation opportunities are limited and where access to certain public services is not readily available.

Objective 2: Promote the provision of usable open space and trails development through the land development process.

Policy 5.2.1: Encourage developers to incorporate open space and trails within new residential developments.

> Cluster development can serve as a financial incentive option to encourage developers to provide for walking trails or other recreation amenities within their developments. For example, by allowing the

clustering of an approved number of houses on smaller lots, the developer can realize savings in the costs of infrastructure development. In exchange for cluster development allowed on a portion of the land tract, the balance of the land tract would be preserved in some form of permanent open space or usable recreation facility that can be used by the residents. This development option can help to increase the desirability of the neighborhood as a place to live while helping to meet the recreation needs of the residents.

Policy 5.2.2: If subdivision developments are approved based on the cluster development concept with reduced lot sizes, require that a portion of the land preserved or set aside for open space be "usable" space.

The intent of encouraging the use of the cluster development concept is to provide a benefit to both the development community and the larger community as well. Land that is proposed to be permanent open space or some form of recreation facility in a cluster development should be land that could otherwise be used. Land that would not otherwise be developable because of severe environmental hazards or other conditions should not be credited as usable, permanent open space in exchange for clustered housing on reduced lot sizes.

Policy 5.2.3: Use flood prone areas for open space and passive recreation activities in order to minimize flood damage to permanent structures.

For example, flood prone areas can serve as trail ways or other minimal impact open space uses. However, permanent recreation facilities that would be damaged in a flood event should not be located in flood plains. Sinkholes or other natural features that pose environmental hazards should not be considered "usable" for recreation as part of a cluster housing development.

Policy 5.2.4: Support development of a Parish wide multi use recreational corridor.

Activities such as walking, hiking and bicycling have become increasingly popular forms of recreation for all age groups in St. John Parish. The preservation of open space corridors and development of a trails system is a long-range activity that requires both public and private sector involvement in the planning and the land development process. The feasibility of a trails system in appropriate areas of St. John Parish can be further enhanced if trails developed as part of a subdivision development can be linked to a larger system of trails or walkways that may be developed through public resources.

Policy 5.2.4: Through the land subdivision process, encourage subdivision design and open space preservation that creates continuous open space linkages or corridors through the Parish.

> Creating a more continuous open space corridor that may include trails can enhance recreation opportunities for a greater number of people throughout the Parish and can also contribute to an increase in overall public health. Continuous open space corridors are also viewed as preferred habitats for wildlife preservation.

VI. Future Population and Land Use

This section provides an overview of the expected future population, a discussion of the proposed hurricane protection levee alignment, and the amount and proposed location of future general land uses in St. John parish.

Suggested Population Forecasting Methodology

Table 19 identifies the likely future population for St. John Parish through 2020 using the Cohort Survival Model population projections. As explained previously, this is the recommended projection methodology for generating expected population in St. John Parish.

Table 20: Summary of Recommended Population Projections to 2020

	Census Population Estimate	Cohort Survival Analysis
2005	46,293*	**46,667**
2010	n/a	**50,899**
2015	n/a	**53,628**
2020	n/a	**57,804**

* U.S Census Estimate

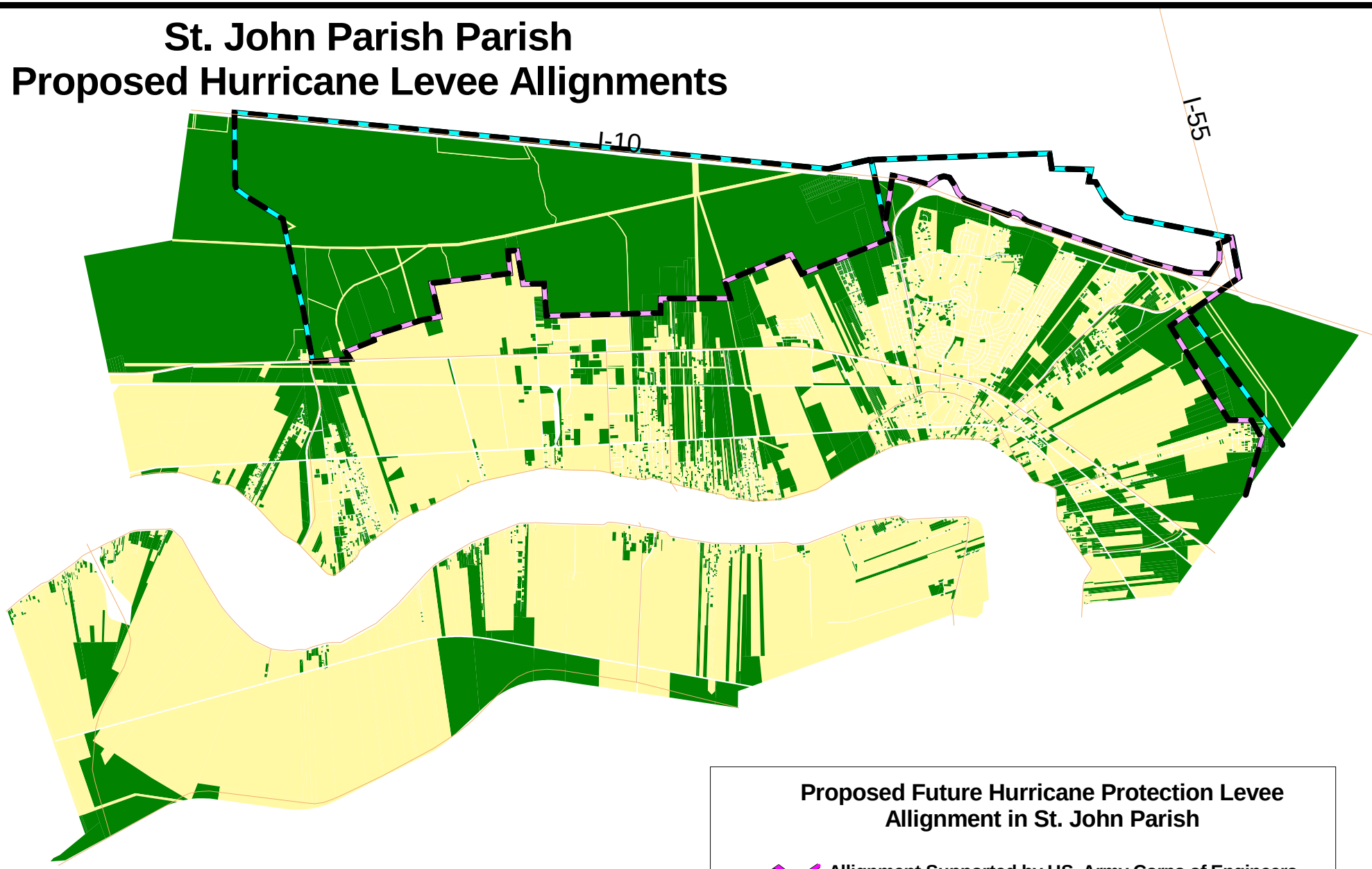
Hurricane Protection Levee Alignment

Currently, the United States Army Corps of Engineers is preparing to construct a hurricane levee on the Eastbank of St. John parish[6]. At the present time, there is a conflict between St. John Parish and the Corps of Engineers as to the levee alignment. Map 4 identifies the recommended Corps alignment, as well as the alignment supported by St. John Parish.

The Corps proposed alignment only protects the existing development pattern between their levee and the river, while the alignment supported by St. John Parish officials protects a substantial amount of the undeveloped land south of Interstate 10 and the corps proposed alignment. The final alignment, although not yet determined, will have a significant impact on the amount of land available for future development. The Corps has not finalized their recommended levee alignment.

[6] A copy of the Army Corps of Engineers initial report is included in Appendix C.

St. John Parish Parish
Proposed Hurricane Levee Allignments



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Land Use Data Collected by:
GCT, Inc.
Map Created by:
UNO College of Urban and Public Affairs

Proposed Future Hurricane Protection Levee Allignment in St. John Parish

- Allignment Supported by US. Army Corps of Engineers
- Allignment Proposed by St. John Parish
- Developed Land
- Undeveloped Land

Future Development Patterns

The future patterns of land development in St. John Parish will be dependent on current development patterns, land use policies, as well as both public and private sector investments in infrastructure and services necessary to sustain any future growth. If current development trends and economic conditions continue in the future, it is projected the following general pattern of land use and development will predominate in the Parish:

- Continued urbanization and strip development along the Parish's primary highways will further bring urban densities into the rural areas.
- Sanitary sewer and water improvements will open development potential in areas that are currently undeveloped or sparsely populated.
- Increasing economic development opportunities and increasing land prices in the Parish will increase interest and further development of residential subdivisions in the Parish, including both small lot subdivisions and large lot estates.

Development in the rural areas will not always be contiguous to prior public infrastructure investments, but would also involve extending utilities and roads past open land areas (sprawl development). The availability of sanitary sewer service is a key public infrastructure component affecting the growth and development potential in different areas of St. John Parish. The expansion of wastewater treatment facilities and sanitary sewerage systems in the Parish will be necessary in the near future. Planning the size and location of these improvements should begin immediately.

As development continues in St. John Parish, particularly in the western sections and on the Westbank of the Parish, there will be a growing need for preservation and expansion of public open space, parks and recreation areas. While there are numerous regional public and commercial recreation activities available to the residents of St. John Parish, there are limited public parklands and recreation facilities inside of the Parish for either active or passive recreation. Indeed, private or semi private golf courses account for the bulk of recreation land in the Parish. The recreation and leisure needs of the expanding population should be considered an integral component of planning for future land development and public investment in infrastructure and services in St. John Parish.

St. John Parish's population is projected to increase by at least 14,760 persons to 57,804 by the year 2020. This represents an increase of over 34%, or about 1.7% per year over the 20 years. Naturally, there will be more land required to accommodate this growth. Table 21 outlines the expected increase in developed land in various categories needed to accommodate the projected 2020 population.

Table 21: Land Required to Accommodate Projected Population in 2020

LBCS Land Use Category	Land Use In 2002	Required Land In 2020	Land Required Including 20% for Infrastructure
Residential	3,615.87	1,229.40	1,475.27
General Sales or Service	428.84	145.81	174.97
Manufacturing and Wholesale Trade	2,579.93	877.18	1,052.61
Transportation, Communication, Information, and Utilities	1,207.74	410.63	492.76
Arts, Entertainment, and Recreation	521.01	177.14	212.57
Education, Public Administration, Health Care, and Other Institutional	529.09	179.89	215.87
Construction-Related Businesses	47.99	16.32	19.58
Mining and Extraction	0	0.00	0.00
Fishing, Hunting, Forestry, and Agriculture	17,519.62	Not Included	Not Included
Not In Use	22,579.29	Not Included	Not Included
Total	49,029.37	3,036.36	3,643.63

The 2000 U.S. Census reports an average household size of 2.98 persons in the Parish. By the year 2020, approximately 5,000 new housing units will be needed in St. John Parish to accommodate the new population.

At the current overall net development density of 4.29 units per acre, the residential land needed to accommodate 5,000 future housing units in St. John Parish to the year 2020 is estimated to be about 1,230 acres. This does not include land needed for infrastructure - road construction and other public rights of way. Including an infrastructure component of 20% brings the recommended total accommodate new residential development up to 1,475 acres.
Based on existing development trends, the total amount of land required to accommodate all future growth in St. John Parish is about 3,644 acres. Map 5 shows a general depiction of where future land uses should go.

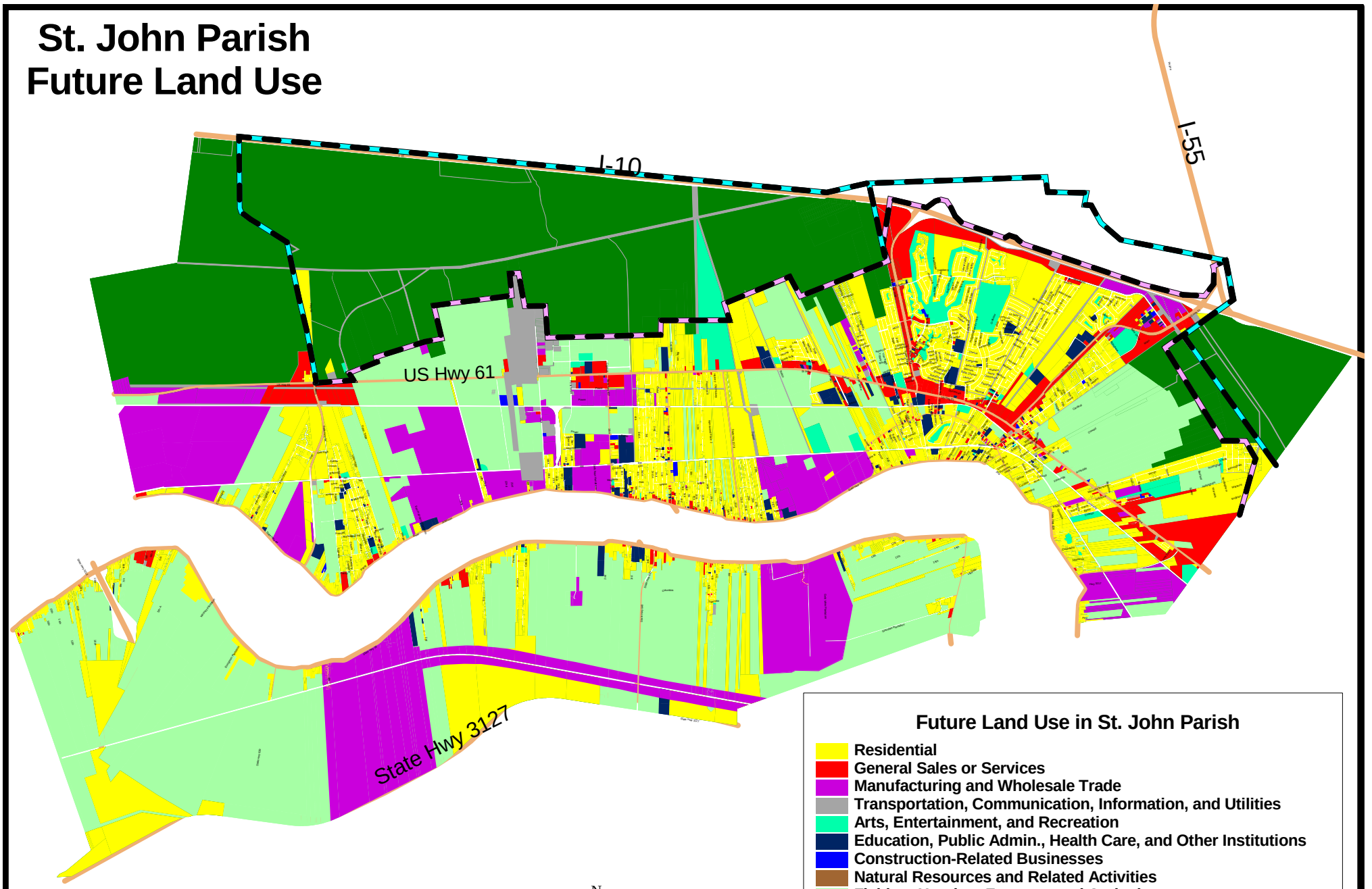
It is recommended that based on the limited recreational opportunities currently available, an additional 300 to 500 acres of land be allocated for active and passive recreational activities to accommodate the increased population. This brings the total amount of acres needed through 2020 to somewhere between 4,000 and 4,200 acres.

Based on the land use survey, it is clear that there is sufficient raw land to accommodate new residential development within either of the two hurricane levee options. However, infrastructure capacity must be addressed soon to insure adequate infrastructure is in place before significant new development occurs.

The land use and growth management goals, objectives, and policies for the future development of St. John Parish presented in the previous section provide the framework for future development and infrastructure decisions. These goals

are intended to provide broad guidance to decision-making on public and private land use development and to achieve the quality of community and quality of life desired by residents of St. John Parish.

St. John Parish
Future Land Use



Future Land Use in St. John Parish

- Residential
- General Sales or Services
- Manufacturing and Wholesale Trade
- Transportation, Communication, Information, and Utilities
- Arts, Entertainment, and Recreation
- Education, Public Admin., Health Care, and Other Institutions
- Construction-Related Businesses
- Natural Resources and Related Activities
- Fishing, Hunting, Forestry, and Agriculture
- Awaiting Final Hurricane Protection Levee Allignment
- Outside Both Proposed Hurricane Protection Allignments

Hurricane Protection Levee Allignments

- Allignment Proposed by US Army Corps of Engineers
- Allignment Proposed by St. John Parish

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Land Use Data Collected by:
GCT, Inc.
Map Created by:
UNO College of Urban and Public Affairs

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