5.0 POPULATION AND ECONOMY

The Mississippi Gulf Coast is a unique geographical slice of planet earth, populated by people who are proud to call "the Coast" home; survivors who did not merely survive but endured, rebuilt and rose to meet the special challenges—and to embrace the truly special opportunities—that come with life on the Mississippi Gulf Coast. The Coast is both the land--and the water--and the people; and the people move about on the land--and on the water--in ways and for purposes that sustain their common life and perpetuate their way of life. It is a way of life that has evolved over centuries. When Pierre le Moyne Sieur d'Iberville and the first French settlers arrived in the area 316 years ago, it was sparsely inhabited by the remnants of the Biloxi tribe who had survived a smallpox epidemic. When exactly the tribe arrived in the vicinity of what would eventually come to be known as the city of Biloxi is unknown. But they must have migrated southward from the interior of the North American continent, because they spoke a Siouan language unfamiliar to the other scattered inhabitants of the region and lived on a kind of linguistic island surrounded by speakers of Muskogean languages. The French brought another foreign tongue. Others who came later in large numbers to settle on the Mississippi Gulf Coast and change it in their own ways would speak Spanish, English, Croatian, Vietnamese and other languages. And yet somehow the Coast absorbed wave after wave of new people and new languages and remained what it was and always had been—an irreplaceable strip of inhabitable earth precariously perched between land and sea, populated by people who have come from near and far to live in this place and experience the best and worst that nature and the passage of time can send their way.

5.1 REGIONAL SETTING OF THE MISSISSIPPI GULF COAST

The Mississippi Gulf Coast is located on the northern shore of the Gulf of Mexico approximately 88.40 to 89.70 degrees west of the prime meridian and roughly 30.17 to 30.74 degrees north of the equator. The metropolitan planning area (MPA) defined for long-range planning purposes is the Gulfport-Biloxi-Pascagoula Metropolitan Statistical Area (MSA). The Gulfport-Biloxi-Pascagoula MSA includes the three southernmost counties in Mississippi: Hancock, Harrison and Jackson. Adjacent to the MSA on the west is the New Orleans-Metairie LA MSA; the Mobile AL MSA lies adjacent on the east. The Gulfport-Biloxi-Pascagoula MSA had a population of 370,702 in 2010, according to the decennial census. The U. S. Census Bureau estimate for 2014 showed an increase of more than four percent to 386,144. The 2014 estimate for the New Orleans MSA--1,251,849--was up more than five percent over the 2010 count of 1,189,866. The estimated population of the Mobile MSA was up only slightly from 412,992 in 2010 to 415,123 in 2014. The combined population of the three adjacent Gulf Coast MSAs was 1,973,560 in 2010 but now exceeds two million: 2,053,116, according to the Census Bureau's most recent estimates.

There are actually two distinct Census-designated urban areas within the Biloxi-Gulfport-Pascagoula MSA: The Gulfport Urban Area (UA) includes portions of all three Mississippi coastal counties; the Pascagoula UA lies wholly within Jackson County (see Figure 5-1). The Gulfport UA encompasses the cities of Bay Saint Louis and Waveland in Hancock County; Pass Christian, Long Beach, Gulfport, Biloxi and D'Iberville in Harrison County; and Ocean Springs in Jackson County; as well as adjacent unincorporated portions of all three counties. The Pascagoula UA encompasses the cities of Pascagoula and Moss Point, most of Gautier and adjacent unincorporated portions of Jackson County. The newer northern portion of the last-named city was designated a separate entity, the Gautier Urban Cluster (UC), by the U. S. Census Bureau.

Figure 5-1: Location of the Gulfport and Pascagoula Urbanized Areas

Source: U. S. Census Bureau; Gulf Regional Planning Commission.

Similarly the newly incorporated City of Diamondhead in Hancock County was designated an urban cluster separate from the Gulfport UA. Other nearby urban areas include the Slidell and New Orleans urbanized areas to the west; the Hattiesburg UA to the north; and the Mobile UA to the east. (*Urbanized area* is an older term which has been subsumed under the broader nomenclature of *urban area* by the Census Bureau.)

5.2 LAND USE PATTERNS AND NOTABLE FEATURES

In May 2013, Gulf Regional Planning Commission (GRPC) staff, as part of the development of a regional sustainability plan titled *Plan for Opportunity*, completed a coast-wide land-use assessment of existing conditions and then formulated future land-use predictions (see Figure 5-2). The full report can be read at www.gulfcoastplan.org or requested by calling 228-864-1167 or emailing contactus@grpc.com. An excerpt is included here as part of the Mississippi Gulf Coast Metropolitan Transportation Plan (MTP).

Land-use is the utilization of land for a specific activity, such as residential use that applies to a parcel with a home, or commercial use that describes property with a business. Land-use begins as similar individual parcels combine to become residential neighborhoods and commercial districts. These then turn into community-wide patterns of land-use that extend across jurisdictions, and ultimately the entire region. For the purposes of analysis, land-use is categorized in three ways:

Existing use: This is the activity currently present on property, e.g., residential, commercial, or industrial. In addition to the primary activity, other important existing characteristics include ownership type and land cover, e.g., crops on an agriculture use.

Planned use: This is the future use designated for properties in a jurisdiction's comprehensive plan. Future land-uses are normally generalized and applied to large geographic areas. These designations maintain existing uses in established neighborhoods, protect conservation areas, and guide growth in areas suitable for development and redevelopment.

Zoned use: This is the use currently allowed on property under a jurisdiction's zoning ordinance. Where a comprehensive plan may designate several blocks as residential, in the same area a zoning ordinance may designate certain blocks as single-family and other blocks as multi-family.

The Mississippi Gulf Coast region, including Hancock, Harrison and Jackson counties, encompasses approximately 2,300 square miles (see Figure 5-3). Coastal land-use patterns radiate from town centers along U. S. Highway 90 (US 90) and its north-south connector routes.

After a comprehensive evaluation of the region's land use three core findings emerged.

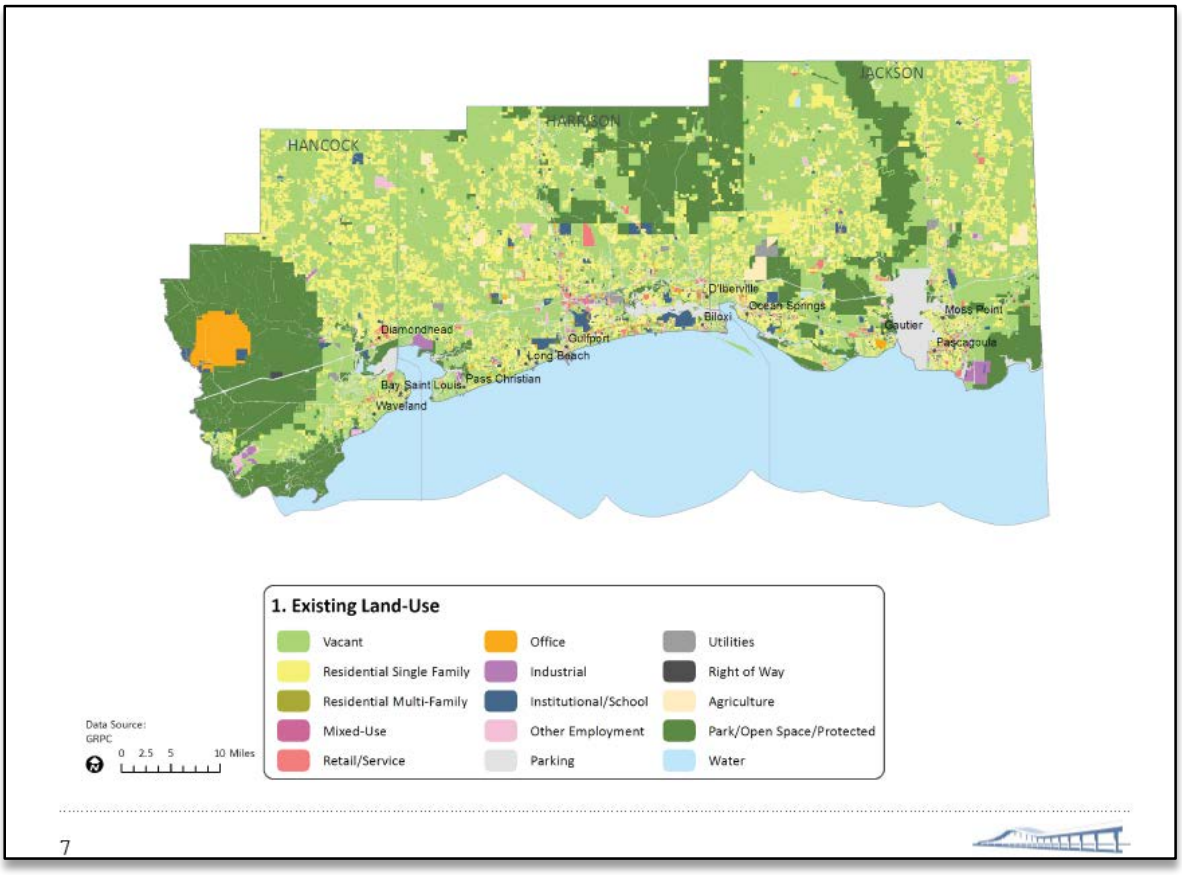
1. Park, protected and vacant land accounts for about 70 percent of the region's land area.
2. Single-family residential property accounts for about 20 percent of the land.
3. Seven percent of the land is utilized by commercial entities for commerce and employment.

Relation to Other Regional Sustainability Goals

Land-use and transportation are inextricably linked: Land uses generate vehicle-trips; land-use locations determine trip-lengths; land-use character at trip-ends influences mode selection; and together these create trip-times by mode. In addition to motor vehicle travel, the region's surface transportation system includes 194 miles of designated bike routes, 92 miles of fixed transit routes, and 247 square-miles of walkable areas (i.e., those with more than 125 intersections per square-mile). Almost all of these alternative mode systems are located along the coastline of the Mississippi Sound.

Strengthening established residential neighborhoods and providing land suitable for future housing needs are two fundamental roles of land-use planning. The region has about 160,000 dwelling units, approximately 81 percent of which are single-family dwellings. The region's single-family dwelling shares by daily household vehicle-miles traveled (VMT)—grouped into low, moderate and high-mileage areal categories--are 26 percent in the low-mileage areas, 44 percent in the moderate areas, and 30 percent in the high-mileage areas.

Figure 5-2: Mississippi Gulf Coast Existing Land Use



Source: Plan for Opportunity: Regional Sustainability Plan for the Mississippi Gulf Coast *(2013).*

This rural orientation is reflected in the fact that 88 percent of all dwellings are within one mile of a park, recreation facility, or open space. The region's multi-family dwellings are arranged with a stronger urban/suburban orientation at 54 percent in low-VMT areas, 41 percent in moderate areas, and only five percent in high-VMT areas. Region-wide, only 16 percent of all dwellings are within one-quarter-mile of a transit route.

Enhancing areas of current economic activity, and providing sufficient land for future employment growth, are also key functions of land-use planning. These economic areas fall into two broad categories: First, industries that require large sites with major infrastructure and buffers that ensure their compatibility with adjacent land-uses while providing room for growth; and second, the non-residential realm of retail, service, office and tourism sectors that interact closely with one other, along with housing and infrastructure. From a transportation mode-choice perspective, approximately 42 percent of all jobs in the region are within one-quarter mile of a transit route.

The land base has a variety of farm types, including cropland, pasture, and woodland. Land-based food production also includes poultry, cattle, and pork farms; and sites for the region's large marine food processing industry. At present, approximately 45 percent of the region's dwellings are within one mile of a full-service grocery or farmers' market.

Figure 5-3: Mississippi Gulf Coast Existing Land Use Acreage and Number of Parcels

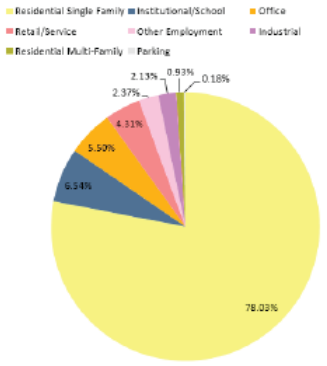
Table 1. Existing Land-Uses

Land-Use	Parcels	Acres	% Total Acres
Vacant	85623	662782	45.19%
Park/Open Space	5860	379602	25.88%
Residential Single Family	125489	301397	20.55%
Agriculture	706	25699	1.75%
Institutional/School	2465	25268	1.72%
Office	1513	21256	1.45%
Retail/Service	4796	16666	1.14%
Other Employment	1122	9171	0.63%
Industrial	326	8217	0.56%
Utilities	735	8228	0.56%
Residential Multi-Family	2837	3589	0.24%
Water	188	3448	0.24%
Parking	556	698	0.05%
Right of Way	67	640	0.04%
Total	232,283	1,466,663	100.00%

Table 2. Existing Developed Land-Uses

Land-Use	Parcels	Acres	% Total Acres
Residential Single Family	125,489	301,397	78.03%
Institutional/School	2,465	25,268	6.54%
Office	1,513	21,256	5.50%
Retail/Service	4,796	16,666	4.31%
Other Employment	1,122	9,171	2.37%
Industrial	326	8,217	2.13%
Residential Multi-Family	2,837	3,589	0.93%
Parking	556	698	0.18%
Total	232,283	1,466,663	100.00%

Figure 1. Developed Land-Uses



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Source: Plan for Opportunity: Regional Sustainability Plan for the Mississippi Gulf Coast *(2013).*

Future Land Use Modeling

Land-use scenario planning is a method of conceptualizing alternative land-use schemes, along with other plan elements, to create desired futures. Within the software system, planning staff can gauge future outcomes at the regional, community and parcel-based levels of analysis. The analytical process occurs in four steps:

1. Benchmarking of existing conditions to identify strengths and weaknesses, and prioritize action.
2. Goal-setting to protect strengths and correct weaknesses. The Gulf Coast Plan has five goals focused on lowering household and businesses costs, valuing the environment, and insuring a healthy populace and economy.
3. Establishing a regional approach for goal achievement. The review of comprehensive plans, utility plans, economic development strategies, historic and environmental conservation plans, federal installation plans, state park development programs, natural resource protection plans, as well as the region's long-range transportation plan, established the desire to focus jobs and multimodal transportation growth in established areas near housing and other amenities.

4. Focusing on the strongest locations for goal achievement, including high-priority natural resource areas deserving protection, and areas most suitable for growth based on compactness, completeness, and connectivity (see Figure 5-4).

The last component is geographic and poses the question: Which candidate areas will be protected as non-developable; and of the developable areas, where will growth be focused? The first question was thoroughly investigated in the November 2011 Conservation Legacy Plan which produced detailed recommendations for protection prioritized by local stakeholders. The second question, having to do with where to focus growth, is answered by the following set of regional place-types that adhere to the conservation plan's land-use objectives of compactness, completeness, and connectivity:

Activity center: Areas with housing, amenities and walkability or employment, where social and economic activities are presently concentrated.

Corridors: Taken from the transportation element of the sustainability plan, these are major routes used by households and businesses between activity centers. While currently auto-oriented, some possess long-term potential for multimodal travel between centers.

Planned activity centers: These are designated locations taken from local comprehensive plans for concentrated housing and/or employment at levels of mix and intensity comparable to current centers, and warranting corridor linkage.

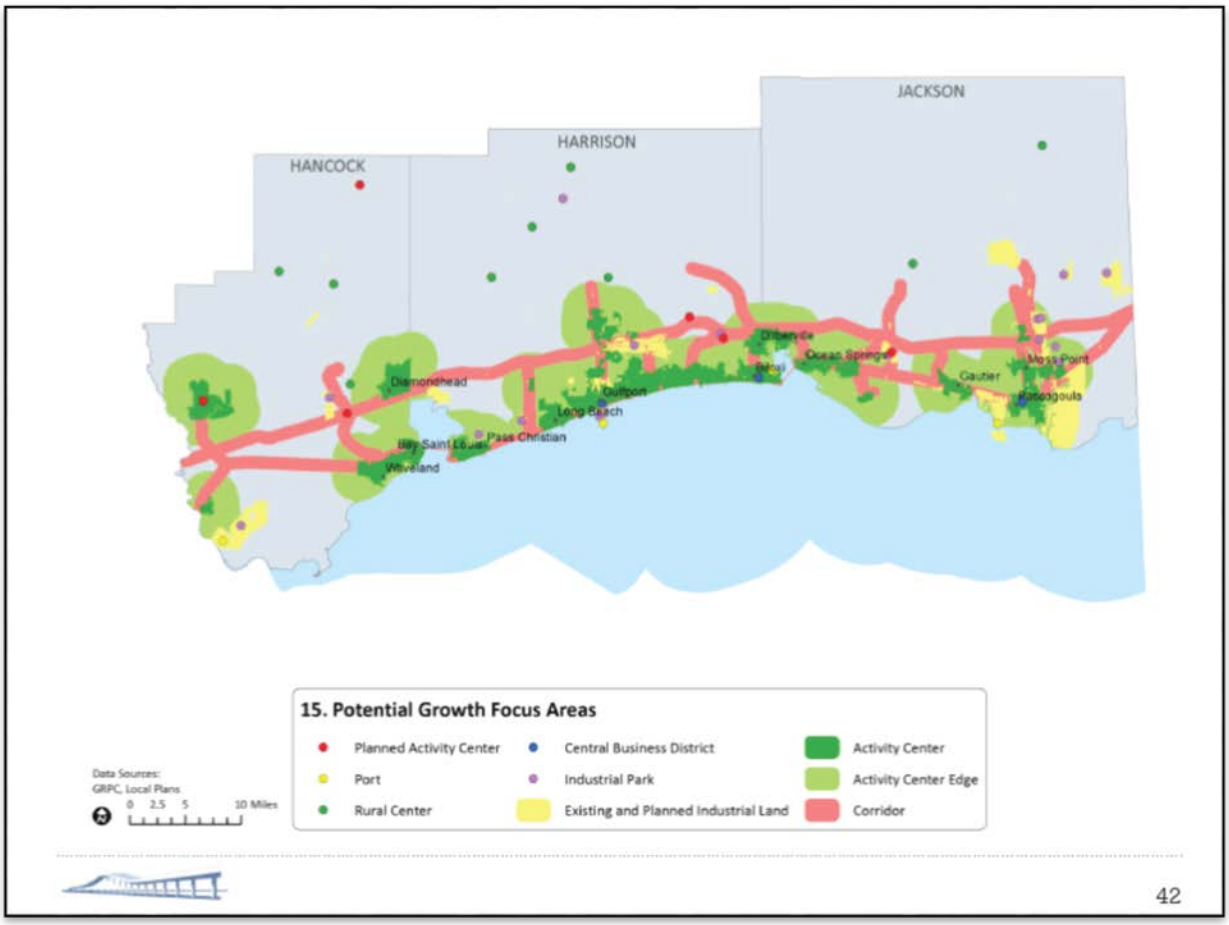
Economic development areas: Locations in activity centers or corridors, or other suitable sites, where employment is concentrated in accordance with local comprehensive plans.

Rural centers: Unincorporated hamlets, community centers and schools, and other local plan-designated concentrations of housing or employment in rural areas.

In general, the region has a large and widely dispersed supply of land to accommodate expected growth. Even when constraints are taken into account, there is more than ample land for siting expected housing and jobs. Assuming 90 percent of vacant and redevelopable acreage is designated residential, of the roughly 10,000 acres needed for new housing, the focus areas offer a total of 150,000 vacant and redevelopable acres. Of the approximately 4,000 acres needed for new jobs, the focus areas collectively possess about 16,000 acres for non-residential uses. The region's industrial parks alone have about 4,400 vacant acres. This large supply tends to keep land prices relatively low, which in the past has translated into greater suburban and exurban housing affordability, but at the expense of higher household transportation costs for travel to jobs and amenities in communities.

As transportation costs continue to rise, the advantage of inexpensive land will diminish. A clear change in location preference can be seen in the rising infill rate for new housing in the Gulfport-Biloxi-Pascagoula metropolitan area, where nearly one-fifth of new units built during the *aughts* (2000-2009) were on infill sites. Part of this was rebuilding after Katrina, but a share is undoubtedly due to householders seeking community amenities, convenience, and location affordability.

Figure 5-4: Mississippi Gulf Coast Potential Growth Focus Areas

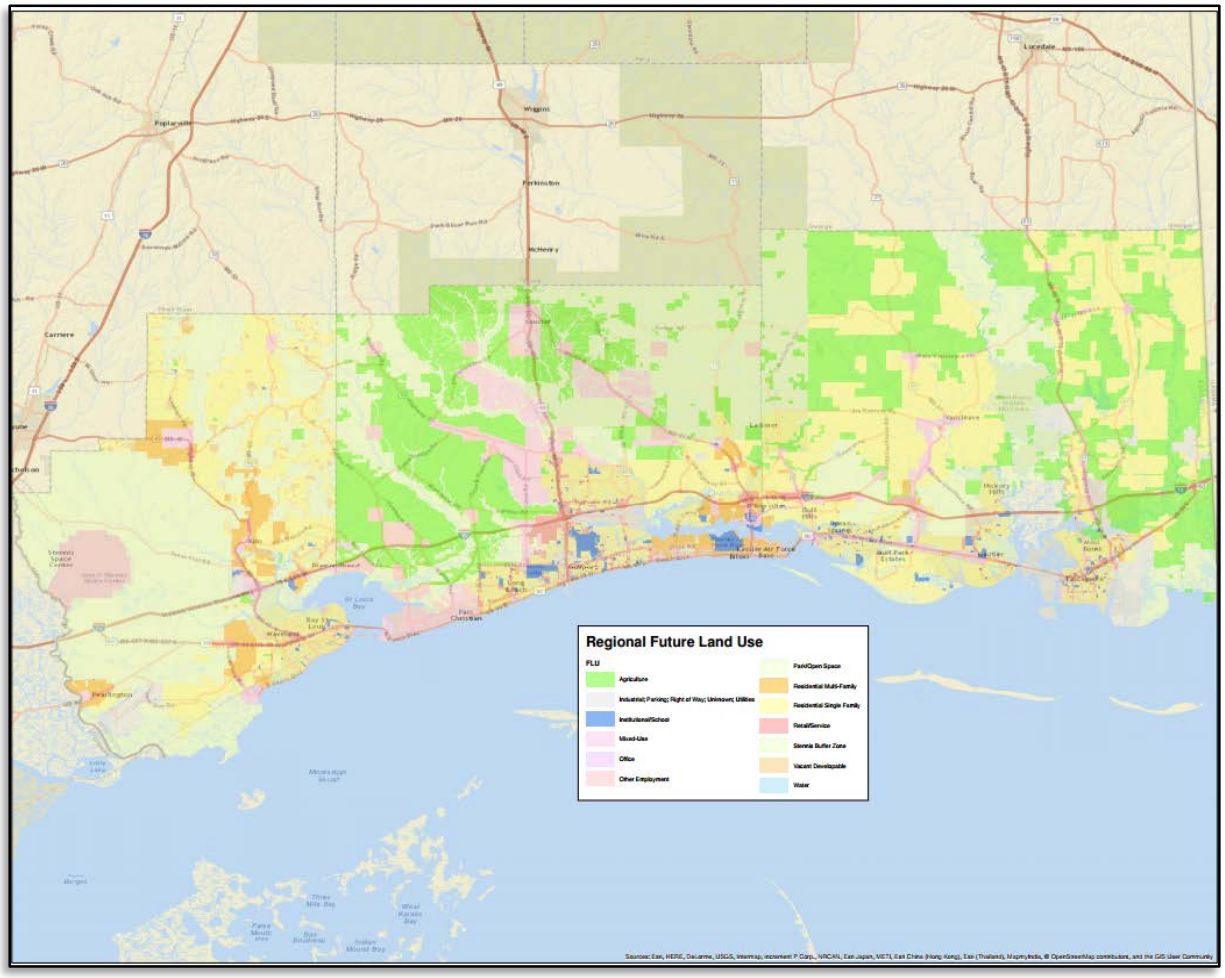


Source: Plan for Opportunity: Regional Sustainability Plan for the Mississippi Gulf Coast *(2013).*

GRPC used the *Scenario Planning Analytical Resources Core* (SPARC) and *INDEX ONLINE* (IXO) to complete the traffic analysis zone (TAZ) update for the long-range transportation plan. The process involves the production of land-use scenarios that allocate population and employment among TAZs, culminating in the selection of a final population-and-employment scenario meeting regional growth control total targets. This final TAZ allocation scenario was exported and modified post-SPARC/IXO by GRPC staff. The modified version was then delivered to the Mississippi Department of Transportation (MDOT) for inclusion in the long-range transportation model.

GRPC used the regional future land-use allocation from the *Plan for Opportunity* to underpin the vacant parcels and use as an accuracy guide for scenario modeling. The regional allocation was created by digitizing all of the city and county future land-use maps that were created from the comprehensive plans and updated after Hurricane Katrina. Most of these future land use plans were created between 2008 and 2012. GRPC then re-classified local land-use categories into several broader classes in order to account for the jurisdictions' different decisions on future land use (see Figure 5-5).

Figure 5-5: Mississippi Gulf Coast Regional Future Land-Use Allocation

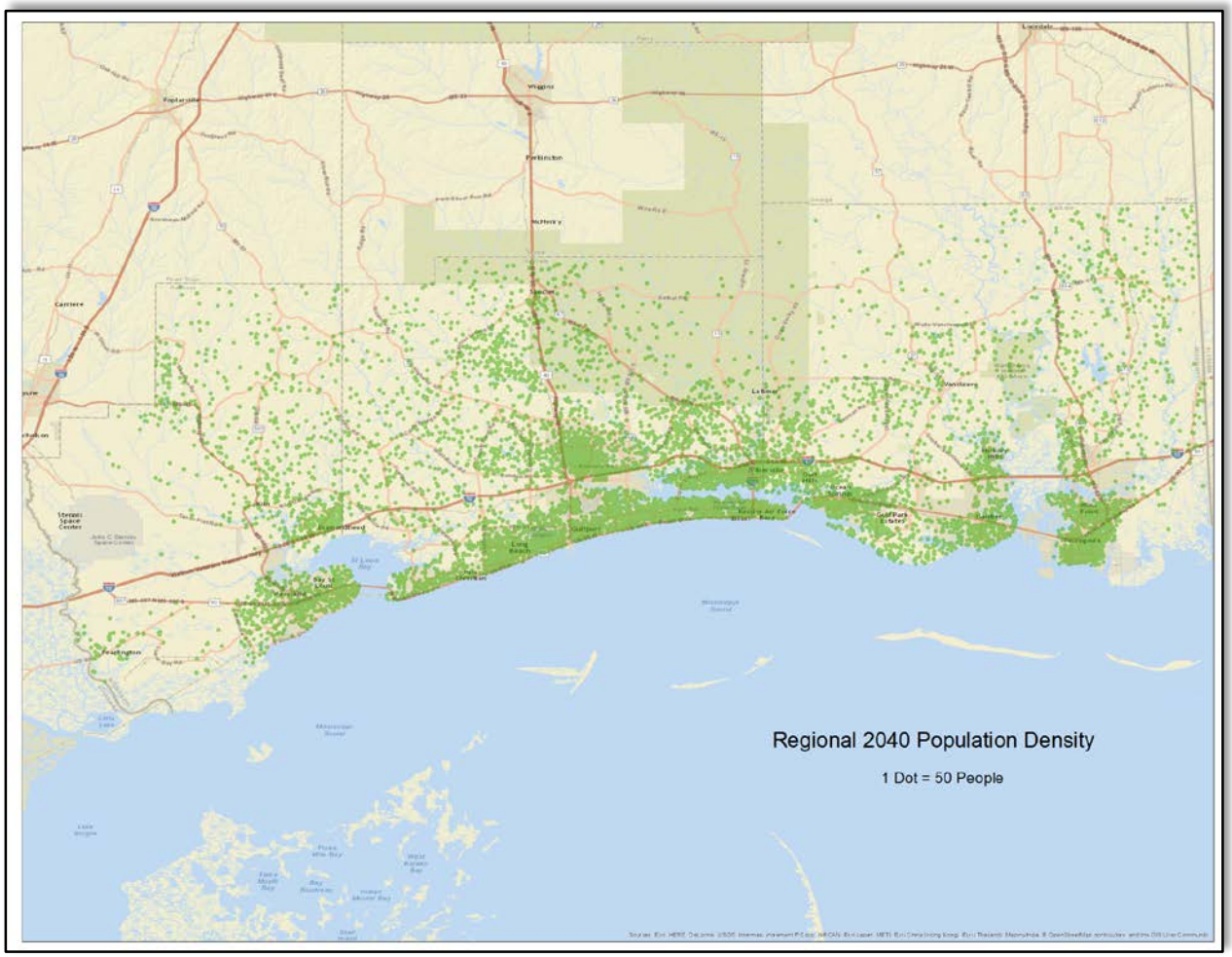


Source: Gulf Regional Planning Commission (2015).

Two scenarios were modeled for use in connection with long-range transportation plan development. The first scenario extended existing growth patterns over the next 25 years to 2040. This scenario shows conservative growth throughout the region and utilized recommended future land-use patterns (see Figure 5-6). The second scenario was based on the concept of Transit-Oriented-Development (TOD) or *concentrated development* patterns (see Figure 5-7). This scenario was a recommendation from the Regional Sustainability Plan and provides the greatest reduction in vehicle-miles traveled throughout the region.

The two outcomes were compared by overlaying the dot-density layers generated by each scenario. Scenario 1 produced a wider distribution of population-dots outside the urban area, representing a greater concentration of future population in areas that are still rural. The Scenario 2 dots were heavily concentrated south of I-10, representing a denser urban population. In this scenario the future population would be more reliant on existing infrastructure and domiciled in areas adjacent to employment centers and retail areas. This pattern of growth is considered more sustainable and creates less sprawl.

Figure 5-6: Scenario 1 Distribution of Future Population

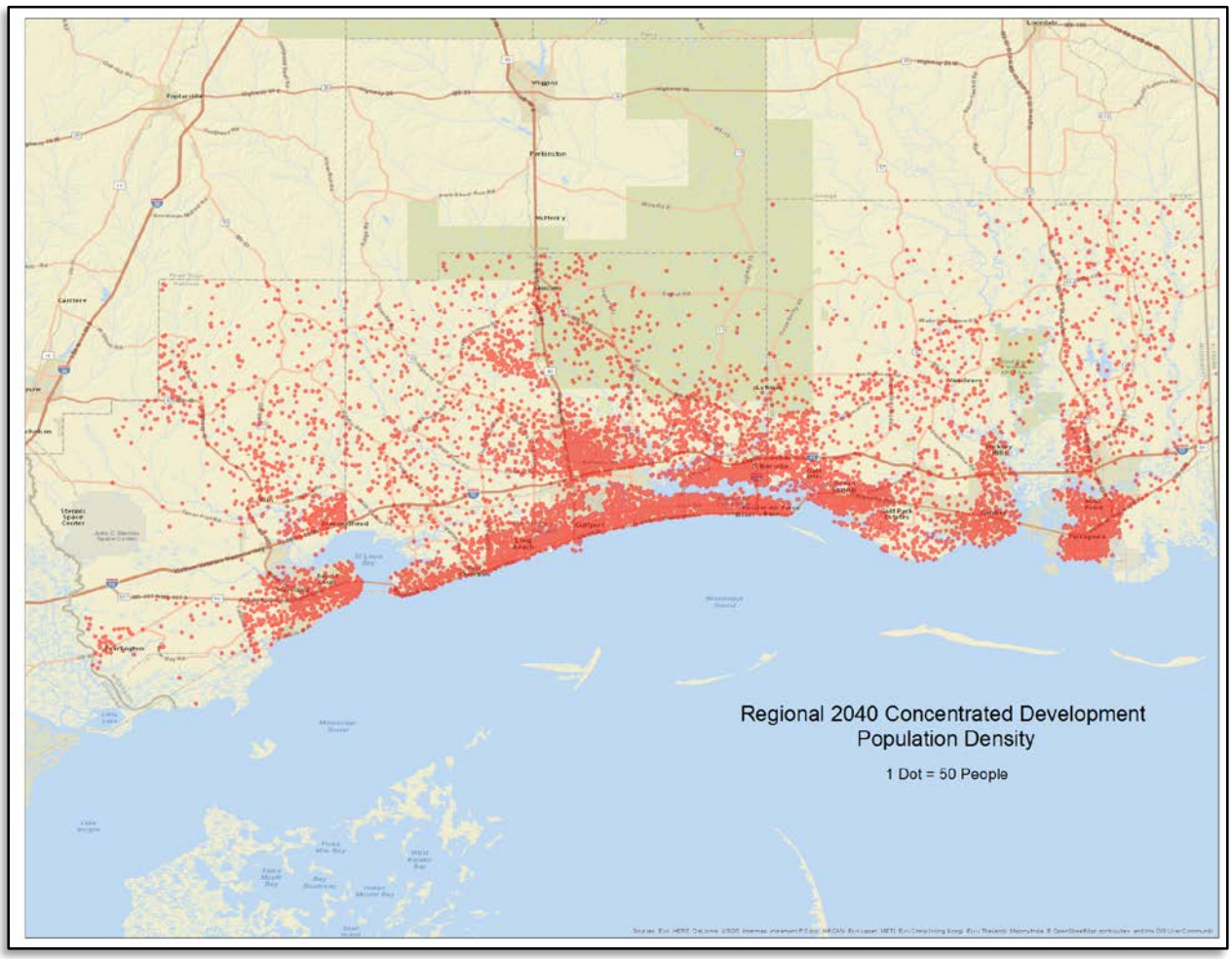


Source: Gulf Regional Planning Commission (2015).

5.3 POPULATION CHANGE AND ECONOMIC TRENDS

The combined population of Hancock, Harrison and Jackson counties was only 82,728 in 1940, according to the decennial census taken that year. But the number of people living in the three coastal counties increased by more than half in the next 10 years; by nearly half in the intercensal period following that (1950 to 1960); and by more than one-quarter in each of the next two decades, pushing the population of the area to 300,000. The 1980s were a period of relative stagnation: Population growth was limited to four percent. However, the in-migration associated with the arrival of casino gambling in the 1990s literally brought new life to the Mississippi Gulf Coast: More than 50,000 new residents were counted in the 2000 census. Then disaster struck. On August 29, 2005 Hurricane Katrina came ashore pushing the Mississippi Sound up onto the land. Suddenly thousands of people had no homes and had no choice but to move away in order to find shelter elsewhere. Some never came back. Nevertheless, by the time of the 2010 Census—less than five years after the storm—the recovery had advanced far enough that the area was able to register a slight gain in population (topping 370,000) compared to the 2000 Census count.

Figure 5-7: Scenario 2 Distribution of Future Population



Source: Gulf Regional Planning Commission (2015).

Over the 70 years from 1940 to 2010 the population of the Mississippi Gulf Coast grew at an annual rate in excess of two percent (see Table 5-1). The 2014 estimates published by the Census Bureau indicate renewed growth has continued unabated since 2010. If the long-term rate of more than two percent per annum were to continue for another decade there would be half a million people living on the Mississippi Gulf Coast by 2024. Harrison remains the most populous county in the study area, and has led the way in absolute growth, but the population of Jackson County has increased at a rate closer to three percent than two. The number of people living in each of the other two counties expanded at an annual rate just under two percent over the 70 years prior to the 2010 Census.

While population in the area more than quadrupled from 1940 to 2010, housing increased sevenfold. This resulted in a rather dramatic decrease in the ratio of persons to dwelling units (not to be confused with average household size which is based on occupied units, not total housing). This ratio has always been lowest in Hancock County where there are a significant number of summer or weekend residences owned

by people whose full-time domicile is located in the New Orleans area or elsewhere. The ratio of people counted in Hancock County to housing units in the county actually fell below two-to-one in the 1980 and 1990 censuses and, even after the great destruction that occurred in 2005, was barely above that level in the 2010 Census.

The number of people employed by establishments in the Mississippi Gulf Coast study area has increased by a little more than 30 percent in a little less than 25 years, according to the Mississippi Department of Employment Security (see Table 5-2). However, all of that growth occurred during the decade of the

Table 5-1:
MISSISSIPPI GULF COAST POPULATION AND HOUSING BY COUNTY: 1940-2010

	POPULATION							
COUNTY	2010	2000	1990	1980	1970	1960	1950	1940
Hancock	43,929	42,967	31,760	24,496	17,387	14,039	11,891	11,328
Harrison	187,105	189,601	165,365	157,665	134,582	119,489	84,073	50,799
Jackson	139,668	131,420	115,243	118,015	87,975	55,522	31,401	20,601
TOTAL	370,702	363,988	312,368	300,176	239,944	189,050	127,365	82,728

	PERCENT POPULATION CHANGE							
COUNTY	2000-2010	1990-2000	1980-1990	1970-1980	1960-1970	1950-1960	1940-1950	Annual Percent
Hancock	2.24	35.29	29.65	40.89	23.85	18.06	4.97	1.96
Harrison	-1.32	14.66	4.88	17.15	12.63	42.13	65.50	1.88
Jackson	6.28	14.04	-2.35	34.15	58.45	76.82	52.42	2.77
TOTAL	1.84	16.53	4.06	25.10	26.92	48.43	53.96	2.17

	TOTAL HOUSING UNITS							
COUNTY	2010	2000	1990	1980	1970	1960	1950	1940
Hancock	21,840	21,072	16,561	12,517	7,330	6,413	4,505	3,620
Harrison	85,181	79,636	67,813	57,954	41,541	35,227	23,164	14,062
Jackson	60,067	51,678	45,542	42,635	27,584	16,226	9,838	5,451
TOTAL	167,088	152,386	129,916	113,106	76,455	57,866	37,507	23,133

	POPULATION/HOUSING UNIT							
COUNTY	2010	2000	1990	1980	1970	1960	1950	1940
Hancock	2.01	2.04	1.92	1.96	2.37	2.19	2.64	3.13
Harrison	2.20	2.38	2.44	2.72	3.24	3.39	3.63	3.61
Jackson	2.33	2.54	2.53	2.77	3.19	3.42	3.19	3.78
TOTAL	2.22	2.39	2.40	2.65	3.14	3.27	3.40	3.58

Source: U. S. Census Bureau; calculations by Neel-Schaffer, Inc.

Table 5-2:
MISSISSIPPI GULF COAST ESTABLISHMENT-BASED EMPLOYMENT BY COUNTY: 1990-2014

	NUMBER OF EMPLOYEES							
COUNTY	2014	2010	2005	2000	1995	1990	Change	Percent
Hancock	13,840	14,500	13,580	14,080	12,320	10,630	3,210	30.20
Harrison	87,880	87,170	91,670	96,420	80,740	61,420	26,460	43.08
Jackson	52,430	54,050	50,470	53,970	51,160	45,120	7,310	16.20
TOTAL	154,150	155,720	155,720	164,470	144,220	117,170	36,980	31.56

Source: Mississippi Department of Employment Security (2005-2015).

1990s when casino gambling was legalized and new gaming establishments were opened in Hancock and Harrison counties. Establishment-based employment peaked at more than 164,000 in 2000 but has since fallen off to approximately 154,000. The drop-off in the number of people employed in the area actually occurred in the five-year period immediately prior to Hurricane Katrina. Surprisingly, estimated employment in 2010 was exactly the same as it had been in 2005 before the storm and was only slightly lower in 2014, according to the Mississippi Department of Employment Security. This probably says as much about continuing weakness in the national economy as it does about local economic conditions.