Indian River County
2030 Comprehensive Plan

Chapter 2
Future Land Use Element
Indian River County Community Development Department
Adopted: _____________, 2010
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INTRODUCTION

As a significant component of the comprehensive plan, the Future Land Use Element defines the physical plan for the future development of Indian River County. In so doing, this element designates the appropriate location for future land uses and sets forth the policies regulating growth and development. These policies are not just limited to the density and intensity of appropriate land uses, but also address other land use development factors, including timing and location of future development.

Like the other elements of the Comprehensive Plan, the Future Land Use Element is a significant planning document capable of standing on its own merits. The Future Land Use Element is, however, the keystone of the Comprehensive Plan and, as such, must be consistent with all other elements and must incorporate the principles of those other elements into specific land use policies.

Included in this element is an Existing Land Use Map which identifies the location and distribution of land uses in Indian River County in 2007 and a Future Land Use Map which identifies the proposed location and distribution of land uses in the year 2030. According to state law, all policies contained in the Comprehensive Plan must be consistent with the Future Land Use Map, and all land development regulations in effect subsequent to the adoption of this plan must also be consistent with the Future Land Use Element. Going forward, Indian River County's land development regulations will rely on the Future Land Use Map and the Future Land Use Element policies for their rational basis.

The scope of this element is the unincorporated land of Indian River County. Although land uses within the municipalities of the County will not be governed by this plan, land uses within the municipalities are addressed in this element because of the influence of municipal land uses on surrounding unincorporated areas. Likewise, adjacent land uses in surrounding counties are also addressed.
Figure 2.1, Florida and Indian River County
GENERAL SETTING

Indian River County is located in southeast central Florida, along the Atlantic Ocean coast. The County has a total area of approximately 543 square miles (347,520 acres) of which 41.1 square miles (26,298 acres) are water, and 502 square miles (321,280 acres) are land area. Included in the land area are 5 municipalities containing approximately 76.4 square miles (48,888 acres).

Indian River County is about 33 miles wide from east to west and 22 miles long from north to south. In addition to the Atlantic Ocean, the County is bounded by Brevard County on the north, St. Lucie County on the south, Osceola County on the west, and Okeechobee County on the southwest.

Nearly two-thirds of the total land area is west of I-95; however, more than 90% of the population resides in the eastern third of the County. The City of Fellsmere is the only community in the western portion of the county.

Along the western boundary of the county, the land is primarily rangeland and pastureland with little residential development. To the east of that area is the St. Johns Marsh, a large freshwater wetlands extending the entire length of the County. Included in this significant wetland is the 6,000 acre Blue Cypress Lake. Between the marsh and I-95, the land is devoted primarily to agriculture. Much of this land is drained marshland now used for citrus or pasture. Other than the City of Fellsmere in the north, there is little human settlement in this area.

The eastern portion of the county can be divided into two major areas--the mainland and the barrier island. The southern portion of the eastern mainland is the most highly developed area of the County. In addition to the county seat, Vero Beach, this area contains the highest concentration of residential and commercial land uses in the county. This development pattern extends south along US 1 to the St. Lucie County line and west along SR 60 to 100th Avenue. The southwest portion of this area is devoted primarily to citrus production.

The central area of the mainland contains a mix of residential and agricultural uses. In the last ten years, significant residential development has occurred in this area.

The northern portion of the mainland contains Sebastian, the largest city in the county in terms of population. In this area, agricultural uses are confined to lands south of the city, while commercial uses are concentrated along US Highway 1.

The barrier island can be characterized as three distinct areas. The northern third of the island is the least developed. Natural vegetation covers much of the area. This area, however, is the most rapidly developing part of the island. Within this area, Disney's Vero Beach Resort and the Town of Orchid, an incorporated municipality which is being developed as an upscale, low-density resort type community, are located near the intersection of SR A1A and CR 510.
The Pelican Island National Wildlife Refuge, the first refuge in the nation, occupies several small islands in the Indian River as well as some wetland areas on the barrier island. The northernmost tip of the barrier island is occupied by the Sebastian Inlet Recreation Area. Portions of the island in this area are designated as an undeveloped coastal barrier, a designation which limits building potential due to the unavailability of Federal Flood Insurance.

The central area of the island is occupied by the Town of Indian River Shores. Characterized by large homes and private condominium developments, Indian River Shores is the wealthiest of the five municipalities in the county. To the south is the island portion of Vero Beach. Much different from the mainland portion of the city, this area contains oceanfront condominiums as well as a tourist commercial area containing small shops, hotels and restaurants as well as older single family homes.

The southernmost portion of the island is being developed almost exclusively with low density single family residences.

Recent patterns indicate that the greatest growth in the county is occurring in four areas: the South County, from Vero Beach to the St. Lucie County line; the State Road 60 corridor from Vero Beach to I-95; the Central County, primarily along 58th Avenue north of Vero Beach; and the North County in and around Sebastian and Fellsmere.

Much of the residential, commercial and industrial growth over the next twenty years is likely to occur in these four areas located on the mainland. At this time, the barrier island is nearly built-out.

**HISTORIC LAND USE**

The existing land use pattern is the result of past development in the county. Through the years, natural, social, economic and political forces have changed the county’s landscape. In an effort to understand these changes, it is useful to examine the historic land use patterns of the county.

This is accomplished by reviewing land use coverage for three periods of time. These periods were chosen because they represent different stages in the development of the county for which there is an availability of reliable land use data. This historic comparison is useful to establish land use patterns and trends. The three periods chosen for analysis are the mid 1940s, the late 1960s, and the early 1980s.

In 1943, Indian River County was a sparsely developed area with less than 10,000 inhabitants. World War II was nearing its end, and the nation and county were preparing for the many social and economic changes that were to occur during the post war period. By 1969, the second point in this examination, the county population had more than tripled to 36,000 residents. This period was prior to any comprehensive planning at the county level. Much development occurred during this time for both economic and speculative reasons, resulting in urban and agricultural land uses expanding at a rapid rate. The final point in time for this examination is 1984. By this time, the population of the county had increased to nearly 75,000 persons.
Prior to World War II, little development had taken place in Indian River County; however, several activities undertaken by the early residents set forces in motion for the eventual development of the county.

The early settlers of the late 1880's were attracted by lush vegetation and an attractive land offer from the government. At that time, much of the land in the county was in a jungle state and largely underwater. The only transportation was by boats on the Indian River. By 1920, the county had a population of fewer than 800 persons; however, efforts were already underway which would change the landscape.

In 1913, drainage work was begun in the vicinity of the main canal. Several years later, the Indian River Farms Water Control District and the Fellsmere Water Control District were established to serve the farming and agriculture needs of the area. These districts constructed numerous canals to improve the drainage and control the flooding of lands that had been underwater for all or part of the year. As in other parts of south Florida, the canal system provided much of the impetus for development. The other factors which contributed to the early development in Florida were the opening of the railroad and the construction of US 1 in the early part of the century.

In the 1920's, South Florida experienced a land boom. During that time, the county's population swelled to just over 2,000. Two events, the depression during the 1930's and World War II, kept growth in check. An important activity during this period was the expansion and conversion of the Vero Beach Airport into a training station by the U.S. Navy.

A comparison of land use patterns and land development trends over time provides information useful in establishing future land use plans. Data for this comparison were taken from two sources. Land uses for 1943 and 1969 were obtained from "Land Use in Indian River County, Florida; An Analysis"; by Louis C. Burney. This 1970 study was based on library research, aerial photographs, field surveys, and field interviews. Data for 1984 were taken from Landsat satellite images from the Florida Department of Community Affairs, "Mapping and Monitoring of Agricultural Lands Project 1984-1987".

While the specifics of these sources cannot be compared, the information is useful for developing an understanding of overall development and land use patterns. Certain adjustments, however, were required to provide somewhat better compatibility and comparability of the data. Whereas the Burney study focused on specific land use changes over time in three general categories: Cultural Non-Agricultural (Urban type) Uses, Agricultural Uses, and Natural Uses, the 1984 Landsat study addressed more general uses, focusing on changes to the agricultural land base. Some reported uses from the latter study were placed into natural categories for consistency.

One constraint of these data is that certain natural and agricultural classifications can easily overlap or be reported in one or both categories. Another constraint involves the total county...
Future Land Use Element

The data are presented in Tables 2.1 and 2.2. As shown in those tables, land uses changed from a dominance of natural uses (69.25%) in 1943 to agricultural (60.54%) in 1984. While urban use acreage increased nearly four fold from 9,936 acres in 1943 to 36,687 acres in 1984, agricultural acreage increased nearly two and a half times from 83,712 acres to 193,611 acres. Both of these developed uses expanded through the conversion of natural uses which declined from 69.25% of total acreage in 1943 (211,008 acres) to 27.99% in 1984 (89,509 acres).

The period from 1943 to 1969 was one in which large scale land speculation occurred. During that time, four large developments were platted or planned. Those were Sebastian Highlands in the City of Sebastian; Vero Beach Highlands, in the south county along the St. Lucie County line; the Moorings, on the southern portion of the barrier island; and Johns Island, in the Town of Indian River Shores. Of these, only Johns Island and the Moorings were substantially built by 1984. Between 1969 and 1984, much of the growth occurred in areas which had previously been classified as urban land, but which had not been built out.

From this information, several trends emerge. These, together with an examination of existing land use conditions, provide future land use planning considerations. The trends identified in the 1943 to 1984 land use comparison include the following:

- By 1984, urban and agricultural uses occupied over 70% of the county land area;
- Much of the expansion of urban uses was speculative in nature and occurred in advance of demand; and
- While increasing throughout the forty year period, population density was only two persons per acre of land classified as "urban" in 1984.

Existing land use is examined in greater detail in the inventory and analysis sections of this element and in the Coastal Management, Conservation, Recreation and Open Space, Transportation, Sanitary Sewer, Solid Waste, Stormwater Management, Potable Water, Natural Groundwater Aquifer Recharge, and Housing Elements.
Table 2.1, Historic Land Uses (Acreage), 1943 - 1984

<table>
<thead>
<tr>
<th>Land Use Element</th>
<th>1943¹</th>
<th>1969¹</th>
<th>1984²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>URBAN / NON-AGRICULTURAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airport</td>
<td>2,752</td>
<td>2,771</td>
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</tr>
<tr>
<td>Commercial</td>
<td>128</td>
<td>1,325</td>
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<tr>
<td>Industrial</td>
<td>128</td>
<td>147</td>
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<tr>
<td>Recreation</td>
<td>64</td>
<td>704</td>
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</tr>
<tr>
<td>Idle</td>
<td>2,752</td>
<td>429</td>
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<tr>
<td>Urban Residence</td>
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<td>Exurban Residence</td>
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<td>Refuge</td>
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<td>Nonvegetated Urban</td>
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<tr>
<td>Vegetated Urban</td>
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<td>not available</td>
<td>13,698</td>
</tr>
<tr>
<td>Rural/Urban Transitional</td>
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<td>not available</td>
<td>4,522</td>
</tr>
<tr>
<td>Bare Soil ⁴</td>
<td>not available</td>
<td>not available</td>
<td>4,952</td>
</tr>
<tr>
<td><strong>Total Urban</strong></td>
<td>9,969</td>
<td>29,407</td>
<td>36,687</td>
</tr>
<tr>
<td><strong>AGRICULTURAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tree Crops</td>
<td>15,488</td>
<td>65,575</td>
<td>81,237</td>
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<tr>
<td>Vegetable/Field Crops</td>
<td>5,376</td>
<td>211</td>
<td>16,732</td>
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<tr>
<td>Improved Pasture</td>
<td>1,920</td>
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<tr>
<td>Unimproved Pasture</td>
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<tr>
<td>Gross</td>
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<td>not available</td>
<td>32,873</td>
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<tr>
<td>Range</td>
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<td>not available</td>
<td>41,659</td>
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<tr>
<td>Bare Soil ⁴</td>
<td>not available</td>
<td>not available</td>
<td>4,952</td>
</tr>
<tr>
<td>Scrub/Brush</td>
<td>not available</td>
<td>not available</td>
<td>16,158</td>
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<tr>
<td><strong>Total Agricultural</strong></td>
<td>83,712</td>
<td>143,521</td>
<td>193,611</td>
</tr>
<tr>
<td><strong>NATURAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mangrove Swamp</td>
<td>2,944</td>
<td>1,152</td>
<td>not available</td>
</tr>
<tr>
<td>Coastal Strand</td>
<td>14,656</td>
<td>5,312</td>
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</tr>
<tr>
<td>Pine Flatwoods</td>
<td>54,144</td>
<td>30,272</td>
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<tr>
<td>Hardwood Swamp</td>
<td>4,032</td>
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</tr>
<tr>
<td>Cypress Swamp</td>
<td>6,272</td>
<td>6,227</td>
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</tr>
<tr>
<td>Sand Pine Scrub</td>
<td>5,760</td>
<td>1,875</td>
<td>not available</td>
</tr>
<tr>
<td>Mixed Pine Hardwood</td>
<td>3,520</td>
<td>3,219</td>
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</tr>
<tr>
<td>Open Scrub Cypress</td>
<td>1,216</td>
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<tr>
<td>Fresh Water Marsh</td>
<td>118,464</td>
<td>81,063</td>
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<tr>
<td>Upland Forest</td>
<td>not available</td>
<td>not available</td>
<td>15,598</td>
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<tr>
<td>Wetland Forest</td>
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<td>not available</td>
<td>17,857</td>
</tr>
<tr>
<td>Marsh</td>
<td>not available</td>
<td>not available</td>
<td>53,209</td>
</tr>
<tr>
<td><strong>Total Natural</strong></td>
<td>211,008</td>
<td>134,297</td>
<td>89,509</td>
</tr>
<tr>
<td><strong>Total Acreage</strong></td>
<td>304,689</td>
<td>307,225</td>
<td>319,807</td>
</tr>
</tbody>
</table>

Sources and footnotes listed after Table 2.2
### Table 2.2, Historic Land Uses and Percent of Total Land Coverage

<table>
<thead>
<tr>
<th></th>
<th>1943¹</th>
<th>1969¹</th>
<th>1984²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>3.27</td>
<td>9.57</td>
<td>11.47</td>
</tr>
<tr>
<td>Agricultural</td>
<td>27.47</td>
<td>46.72</td>
<td>60.54</td>
</tr>
<tr>
<td>Natural</td>
<td>69.25</td>
<td>43.71</td>
<td>27.99</td>
</tr>
</tbody>
</table>

Sources:  
¹ Land Uses in Indian River County, Florida; An Analysis; Louis C. Burney, 1970.  
² Mapping and Monitoring of Agricultural Lands; Department of Community Affairs, 1984.  
³ Some Urban Uses (Recreation, Idle, Refuge) reported in 1943, 1969 may be classified in part as Agricultural or Natural uses in 1984.  
⁴ Bare Soil 1984, 50% allocated to both Urban and Agricultural Groups.

### PREVIOUS COMPREHENSIVE LAND USE PLANS

In the past, Indian River County has undertaken several comprehensive planning efforts. Included among those efforts was a plan adopted by the Board of County Commissioners in 1982. The Land Use Element of the 1982 plan set forth objectives and standards for the immediate and long-range development of the county.

In the 1982 plan, the two major land use objectives centered on urban services and incompatible uses. According to that plan, higher intensity development was to be encouraged in areas which contained or were programmed for urban services, while lower intensity development was to be permitted in urban fringe areas and in environmentally sensitive areas. That plan also provided for the separation of incompatible uses and encouraged the use of natural buffers.

In addition, the objectives of the Land Use Element provided a basis for establishing specific land development regulation policies. With respect to commercial/industrial land uses, policies were intended to discourage strip development and enhance the traffic handling capacity of local roads through the use of compact activity areas.

On the other hand, agricultural policies were designed to prohibit urban encroachment into agriculturally productive lands. As to development along fringe areas, that was to be permitted if it was consistent with planned growth areas and the existing conditions in the immediate area of the proposed development.

In the 1982 plan, open space and recreational policies were intended to preserve existing open space and recreational areas, develop new open space and recreational areas, and maximize the utilization of scenic and cultural facilities whenever possible. Residential land use policies in the plan focused on regulating the density and location of residential neighborhoods to complement existing development patterns and to provide easy access to employment and commercial centers. Residential policies also addressed the location of mobile homes.
These general objectives and policies formed the basis of the county growth management strategy in the early 1980’s. That strategy was based on density, carrying capacity of the land, availability of existing and proposed facilities and services, and the fiscal ability of the county to provide community services and facilities. Density limitations were based on historic development patterns, proximity to urban centers and physical characteristics.
EXISTING CONDITIONS

The existing land use pattern of the county is depicted on the Existing Land Use Map (Figure 2.2). That map shows that the general patterns that were established in the 1940's have continued into the present. While the western part of the county (west of I-95) remains largely natural or agricultural, the area east of I-95 is largely urban or agricultural.

In the past, expansion of urban uses has followed development of the transportation system. As such, commercial and industrial land uses that require high visibility and access to both markets and suppliers are located along major transportation routes and centers. While residential uses are located in areas that offer natural and recreational opportunities and access to employment, educational facilities, and commercial centers, agricultural uses form a transition from natural to urban uses in more remote but easily accessible areas.

Table 2.3, Existing Land Use Designations (January 2008)

<table>
<thead>
<tr>
<th>Future Land Use Category</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG-1: Agricultural-1 (1 Unit/5 Acres)</td>
<td>28,101</td>
</tr>
<tr>
<td>AG-2: Agricultural-2 (1 Unit/10 Acres)</td>
<td>60,545</td>
</tr>
<tr>
<td>AG-3: Agricultural-3 (1 Unit/20 Acres)</td>
<td>48,250</td>
</tr>
<tr>
<td>BCID: Blue Cypress Improvement District (10 units/Acre)</td>
<td>20</td>
</tr>
<tr>
<td>C-1: Conservation-1 (0 Units/Acre)</td>
<td>87,418</td>
</tr>
<tr>
<td>C-2: Conservation-2 (1 Unit/40 Acres)</td>
<td>1,412</td>
</tr>
<tr>
<td>C-3: Conservation-3 (1 Unit/2.5 Acres)</td>
<td>358</td>
</tr>
<tr>
<td>C/I: Commercial/Industrial</td>
<td>5,070</td>
</tr>
<tr>
<td>L-1: Low-Density Residential-1 (3 Units/Acre)</td>
<td>11,802</td>
</tr>
<tr>
<td>L-2: Low-Density Residential-2 (6 Units/Acre)</td>
<td>13,217</td>
</tr>
<tr>
<td>M-1: Medium-Density Residential-1(8 Units/Acre)</td>
<td>4,691</td>
</tr>
<tr>
<td>M-2: Medium-Density Residential-2 (10 Units/Acre)</td>
<td>1,711</td>
</tr>
<tr>
<td>PUB: Public Facilities</td>
<td>722</td>
</tr>
<tr>
<td>R: Rural Residential (1 Unit/Acre)</td>
<td>511</td>
</tr>
<tr>
<td>RC: Regional Commercial</td>
<td>165</td>
</tr>
<tr>
<td>REC: Recreation</td>
<td>1,283</td>
</tr>
<tr>
<td>T: Transitional Residential (1 Unit/Acre)</td>
<td>29</td>
</tr>
<tr>
<td>MHRP: Mobile Home Rental Park (8 Units/Acre)</td>
<td>780</td>
</tr>
<tr>
<td>TOTAL COUNTY</td>
<td>266,085</td>
</tr>
</tbody>
</table>

Source: Indian River County Planning Division and Indian River County Property Appraiser
Figure 2.2, Existing Land Use
RESIDENTIAL

Within Indian River County, residential is the predominant non-agricultural land use category. While individual residences may be found in all areas of the county, the vast majority are located within 11 miles of the coastline, east of I-95. The exception to this is the City of Fellsmere, located about 2½ miles west of I-95 on CR 512, in the northern part of the county.

The residential land use category includes: single-family, duplex, and multi-family housing units; group quarters; mobile home parks and subdivisions; and condominium and cooperative housing developments.

This category does not include recreational vehicle and recreational campgrounds; hotels, motels and other transient housing, such as shelters or time-share facilities; seasonal units such as hunting or fishing cabins; nor farm residences on active farms.

Overall, the residential land use category is divided into three sub-classifications: single-family, multi-family, and mobile homes. Within Indian River County, single-family homes are generally developed in densities of less than 6 units per acre. In the urban areas and in the more developed eastern portion of the county, densities range from 3 to 6 units per acre. In transition, rural, and environmentally sensitive areas, densities range from 1 unit per acre to one unit per 5 acres.

Multi-family housing includes duplexes, condominiums, townhomes and apartments. Generally found in higher densities, these units range from 3 to 10 units per acre in the county. Manufactured homes (mobile homes) located in parks and subdivisions are generally sited in the 6 to 8 unit/acre density range.

According to Property Appraiser's records, residential land in the unincorporated county now totals 32,761 acres, of which 19,693 acres are developed and 13,068 acres are vacant. Vacant platted lots in subdivisions and vacant lots in areas predominated by residential uses are included in the vacant residential acreage category. Combined, vacant lots in existing subdivisions comprise 3,207 acres.

Figure 2.3, "Housing By Type in Indian River County", shows the general distribution of residential development in the unincorporated area of the county.
Figure 2.3, Housing by Type in Indian River County
Other land uses found within residential areas include roadways, schools, private recreation facilities which are part of residential developments, buffering, and undeveloped platted lands.

**Single-Family**

Most residential development in the unincorporated county consists of single-family subdivisions. In fact, property appraiser's data show that the county has approximately 15,823 acres of improved single-family land, an amount which represents approximately 80% of all developed residential land in the unincorporated county. Built at densities of less than 6 units per acre, single-family units are generally found in subdivisions in the eastern portion of the unincorporated county.

The largest concentration of single-family homes is in the southeast portion of the county. That area is bounded by the City of Vero Beach on the north, US 1 on the east, St. Lucie County on the south, and 58th Avenue on the west. During the 1996 to 2007 time period, a number of new projects were developed along the southern and western edges of the south county urban service area, while infill construction occurred throughout the south county area.

One new development in the south county is the “South County Initiative”, a development consisting of seven distinct residential projects with coordinated public improvements. These public improvements include an elementary school site, a new collector road, a neighborhood commercial center, parks, and interconnections. As of 2007, construction had commenced on only two of the seven projects comprising the “South County Initiative”.

The South Beach area, south of the City of Vero Beach on the barrier island, is also developed almost exclusively with single-family homes. This area contains a limited amount of vacant land just to the north of the St. Lucie County line.

While the south county area has experienced the most residential development, significant residential development has begun to occur in the central county and north county areas in recent

---

**Table 2.4, Housing by Type (2005)**

<table>
<thead>
<tr>
<th>TYPE</th>
<th># OF DWELLING UNITS</th>
<th>% OF TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year Round</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-Family</td>
<td>48,638</td>
<td>65.90</td>
</tr>
<tr>
<td>Multi-Family</td>
<td>17,967</td>
<td>24.35</td>
</tr>
<tr>
<td>Mobile Homes</td>
<td>7,193</td>
<td>9.75</td>
</tr>
<tr>
<td>Total</td>
<td>73,798</td>
<td>100.00</td>
</tr>
<tr>
<td>Vacant Seasonal and Migratory</td>
<td>6,745</td>
<td></td>
</tr>
</tbody>
</table>

Source: Indian River County Planning Division/Affordable Housing Needs Assessment
years. Since 1996, many new subdivisions have been constructed in the areas along 58th Avenue and CR 510. One project being developed along 58th Avenue is Waterway Village, a development of regional impact located on the east side of 58th Avenue, north of 49th Street. Consisting of 1,596 single-family and multi-family units, Waterway Village is the largest residential project approved in the unincorporated county since the Grand Harbor project was approved in the mid 1980’s.

In recent years, Vero Lake Estates also began to fill-in with single-family residences. Consisting of 5,804 platted lots in the unincorporated north county area, Vero Lake Estates is one of the largest subdivisions in the county. From its development in the 1950s until recently, Vero Lake Estates remained largely vacant. By 1996, only 634 lots (or 11 percent) had been developed. As of 2007, however, 2,343 single-family residences had been built in Vero Lake Estates. Of those 2,343 residences, 1,709 were constructed after 1996.

Smaller concentrations of single-family development are located in other parts of the county, including Roseland, Wabasso, the North Beach area, Gifford, Winter Beach, and the area immediately west of Vero Beach.

Several of these areas have unique land use patterns. The Roseland area, for example, is located just north of Sebastian along the Indian and St. Sebastian Rivers. No one land use dominates the area. While commercial uses and a hospital are located along US Highway 1, the area to the west is primarily residential. The residential area contains several subdivisions, mobile home parks and vacant land. Some of the older subdivisions contain a mix of single-family detached housing as well as mobile homes on individual lots. This is the only area in the county in which mobile homes are permitted alongside single-family homes. Another peculiarity of this area is the existence of home operated businesses, several of which are outside the scope of traditional home occupations.

Located just north of Vero Beach, Gifford is one of the oldest developed areas of the county. This area contains land uses ranging from low-density residential to heavy industrial. Within this area, several of the older residential subdivisions do not meet current county standards. In this area, multiple-family housing is also permitted at densities up to 10 units/acre.

On the east side of US Highway 1, across from old Gifford, is the Grand Harbor Development. This is an 800 acre multi-use development which, at build-out, is expected to contain approximately 2,000 residential units, residential care facilities, commercial space, a marina, golf courses and other recreational facilities.

Overall, commercial and industrial uses in the Gifford area are located along the US 1/Old Dixie Highway corridor and on the two major east/west roads, 41st Street and 45th Street. As referenced in the Housing Element, this area has a large number of incompatible land uses with inadequate buffering between them. The Housing Element also identifies Gifford as an area that contains a large number of persons below the poverty level and living in substandard housing.
Multiple-Family

In contrast to single-family development, multiple-family development occupies only 1,926 acres of land in the county. More likely to be found within the municipalities, multiple-family uses, generally ranging in density from 3 to 10 units/acre, can be found throughout the unincorporated county, but are concentrated in three areas. These areas are along Indian River Boulevard, along US Highway 1 in the south part of the county, and along SR 60 between 58th and 82nd Avenues.

Several other areas of the county contain smaller concentrations of multiple-family housing. One is Gifford, an area which contains scattered multiple-family development west of US Highway 1. Located east of US Highway 1, the Grand Harbor development is expected to contain nearly 2,000 multi-family units in a mixed use project when construction is completed. Other large multiple-family developments are located along SR A1A on the barrier island between the Town of Indian River Shores and CR 510, and in the Sebastian area, east of US Highway 1.

In the county, most multiple-family units are developed as condominiums and occupied by the county’s growing number of part-time seasonal residents. The newer, larger developments are multi-phased planned residential developments with a variety of residential and recreation options.

Recently, several affordable multiple-family projects were constructed in the county. These projects have tended to locate along Indian River Boulevard or within the SR 60 Corridor. The Housing Element addresses this issue in detail.

Mobile Homes

According to Property Appraiser’s data, there are 1,084 acres of mobile home/mobile home park use in the unincorporated part of the county. The largest concentration of mobile homes is near the SR 60/I-95 interchange. That area contains several large mobile home parks. The next largest concentration of mobile homes is along the US Highway 1 corridor in the Sebastian/Wabasso area. Areas with smaller numbers of mobile homes include Gifford and the US Highway 1/Old Dixie Highway corridor in the south county. Figure 2.4 identifies the location of mobile home parks in the county.
Figure 2.4, Mobile Home Parks and Developments
COMMERCIAL/INDUSTRIAL

In Indian River County, commercial land uses are confined primarily to commercial/industrial nodes. Nodes are areas with defined boundaries containing a concentration of similar land uses in a non-linear pattern surrounded by other land uses. Depicted on Figure 2.5, nodes are generally located at the intersections of arterial roadways.

Commercial/Industrial Nodes

Within the unincorporated county’s 34 commercial/industrial nodes, there are approximately 5,235 acres of land. Currently, 43% of the total C/I node acreage (or 2,394 acres) is developed with commercial and/or industrial uses. The remaining 57% of C/I node acreage is either vacant or developed with noncommercial or nonindustrial uses such as agricultural, residential, public, and other uses.

As Table 2.5 and Figure 2.6 show, eight of the C/I nodes are over 70% developed, while two C/I nodes are over 60% developed. These nodes are:

- C.R. 510 and S.R. A1A – 94.2% developed
- U.S. 1/Vero Beach City Limits to 8th Street – 89.6% developed
- U.S. 1/8th Street to 1st Street S.W. – 71.4% developed
- S.R. 60 and 58th Avenue – 78.0% developed
- Moorings – 74.4% developed
- 43rd Avenue and 1st Street S.W. – 68.9% developed
- U.S. 1/Schumann Drive to Breezy Village – 63.3% developed
- Roseland Neighborhood – 100% developed
- S.R. 60 & 66th Avenue – 100% developed
- S.R. 60 & 74th Avenue – 100% developed
Figure 2.5, Commercial/Industrial Nodes
Table 2.5, Commercial/Industrial Nodes (2006)

<table>
<thead>
<tr>
<th>Node Location</th>
<th>Acreage</th>
<th>Developed Acreage</th>
<th>Percent Developed</th>
<th>Undeveloped Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. 1 &amp; Roseland Road</td>
<td>135.04</td>
<td>74.30</td>
<td>55.0%</td>
<td>44.33</td>
</tr>
<tr>
<td>Gibson Street</td>
<td>14.51</td>
<td>5.88</td>
<td>40.5%</td>
<td>7.58</td>
</tr>
<tr>
<td>U.S. 1/ Sebastian City Limits to Schumann Drive</td>
<td>139.76</td>
<td>25.09</td>
<td>18.0%</td>
<td>81.9</td>
</tr>
<tr>
<td>U.S. 1/ Schumann Drive to Breezy Village</td>
<td>136.22</td>
<td>86.27</td>
<td>63.3%</td>
<td>26.74</td>
</tr>
<tr>
<td>U.S. 1 &amp; C.R. 510 (north)</td>
<td>283.27</td>
<td>74.65</td>
<td>26.4%</td>
<td>95.37</td>
</tr>
<tr>
<td>U.S. 1/ C.R. 510 to Hobart Road</td>
<td>180.77</td>
<td>67.22</td>
<td>37.2%</td>
<td>76.47</td>
</tr>
<tr>
<td>C.R. 510 &amp; S.R. A1A</td>
<td>16.19</td>
<td>15.25</td>
<td>94.2%</td>
<td>0.93</td>
</tr>
<tr>
<td>C.R. 510 &amp; 62nd Avenue</td>
<td>5.35</td>
<td>1.80</td>
<td>33.6%</td>
<td>2.08</td>
</tr>
<tr>
<td>C.R. 512 &amp; C.R. 510</td>
<td>42.16</td>
<td>1.09</td>
<td>2.6%</td>
<td>2.07</td>
</tr>
<tr>
<td>I-95 &amp; C.R. 512</td>
<td>274.87</td>
<td>96.71</td>
<td>35.2%</td>
<td>170.55</td>
</tr>
<tr>
<td>U.S. 1 / 77th Street to 69th Street</td>
<td>192.44</td>
<td>72.84</td>
<td>37.9%</td>
<td>92.84</td>
</tr>
<tr>
<td>U.S. 1/ 69th Street to 57th Street</td>
<td>90.63</td>
<td>42.34</td>
<td>46.7%</td>
<td>23</td>
</tr>
<tr>
<td>U.S. 1/ 57th Street to 49th Street</td>
<td>187.75</td>
<td>54.62</td>
<td>29.1%</td>
<td>97.76</td>
</tr>
<tr>
<td>U.S. 1/ 49th Street to 38th Lane</td>
<td>161.34</td>
<td>91.57</td>
<td>56.8%</td>
<td>48.29</td>
</tr>
<tr>
<td>U.S. 1 &amp; 37th Street/ Medical Node</td>
<td>452.47</td>
<td>217.28</td>
<td>48.0%</td>
<td>107.85</td>
</tr>
<tr>
<td>U.S. 1/ Vero Beach City Limits to 8th Street</td>
<td>217.27</td>
<td>194.61</td>
<td>89.6%</td>
<td>15.56</td>
</tr>
<tr>
<td>U.S. 1/ 8th Street to 1st Street S.W.</td>
<td>188.06</td>
<td>134.31</td>
<td>71.4%</td>
<td>44.04</td>
</tr>
<tr>
<td>U.S. 1/ 1st Street S.W. to 9th Street S.W.</td>
<td>116.04</td>
<td>66.22</td>
<td>57.1%</td>
<td>37.09</td>
</tr>
<tr>
<td>U.S. 1/ Oslo Road to 17th Street S.W.</td>
<td>58.94</td>
<td>34.98</td>
<td>59.3%</td>
<td>14.31</td>
</tr>
<tr>
<td>U.S. 1/ 17th street S.W. to S. County Line</td>
<td>39.11</td>
<td>19.74</td>
<td>50.5%</td>
<td>17.71</td>
</tr>
<tr>
<td>Grand Harbor</td>
<td>31.85</td>
<td>17.60</td>
<td>55.3%</td>
<td>1.48</td>
</tr>
<tr>
<td>Gifford</td>
<td>498.61</td>
<td>174.65</td>
<td>35.0%</td>
<td>261.95</td>
</tr>
<tr>
<td>S.R. 60 &amp; 58th Avenue</td>
<td>329.91</td>
<td>257.42</td>
<td>78.0%</td>
<td>55.7</td>
</tr>
<tr>
<td>S.R. 60 &amp; I-95</td>
<td>866.65</td>
<td>314.67</td>
<td>36.3%</td>
<td>524.67</td>
</tr>
<tr>
<td>Oslo Road &amp; 27th Avenue</td>
<td>61.53</td>
<td>29.28</td>
<td>47.6%</td>
<td>23.98</td>
</tr>
<tr>
<td>Oslo Road &amp; 43rd Avenue</td>
<td>90.16</td>
<td>49.68</td>
<td>55.1%</td>
<td>22.78</td>
</tr>
<tr>
<td>43rd Avenue &amp; 1st Street S.W.</td>
<td>17.61</td>
<td>12.13</td>
<td>68.9%</td>
<td>2.42</td>
</tr>
<tr>
<td>Oslo Road &amp; 74th Avenue</td>
<td>558.74</td>
<td>88.03</td>
<td>15.8%</td>
<td>194.41</td>
</tr>
<tr>
<td>Oslo Road</td>
<td>126.33</td>
<td>58.09</td>
<td>46.0%</td>
<td>42.76</td>
</tr>
<tr>
<td>Moorings</td>
<td>10.08</td>
<td>7.50</td>
<td>74.4%</td>
<td>0</td>
</tr>
<tr>
<td>Roseland Neighborhood</td>
<td>1.77</td>
<td>1.77</td>
<td>100.0%</td>
<td>0</td>
</tr>
<tr>
<td>S.R. 60 &amp; 66th Avenue</td>
<td>2.72</td>
<td>2.72</td>
<td>100.0%</td>
<td>0</td>
</tr>
<tr>
<td>S.R. 60 &amp; 74th Avenue</td>
<td>2.83</td>
<td>2.83</td>
<td>100.0%</td>
<td>0</td>
</tr>
<tr>
<td>County Line &amp; 27th Avenue</td>
<td>6.72</td>
<td>1.02</td>
<td>15.1%</td>
<td>1.31</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,538</strong></td>
<td><strong>2,394</strong></td>
<td></td>
<td><strong>2,137</strong></td>
</tr>
</tbody>
</table>
Figure 2.6, Development in Commercial/Industrial Nodes (2006)

IRC C/I Nodes - Percent Developed (2006)
Commercial

The commercial land use category includes land used for retail and wholesale trade, offices, hotels, motels, restaurants, service outlets, automobile service stations and repair facilities.

Commercial uses are generally located in proximity to concentrations of population and along major thoroughfares. The largest area of commercial land use is within the SR 60 corridor. That area includes a regional shopping mall, an outlet mall, 4 community shopping centers, a Wal-Mart super store, several other national retailers, and several restaurants. Other large concentrations of commercial land uses are located along the US Highway 1 corridor south of Vero Beach and the US Highway 1 corridor in the Sebastian area.

Many commercial uses, such as retail stores, offices, services, restaurants and grocery stores, are located in the 22 existing major shopping plazas in the county. These centers are shown on Figure 2.7. Seven of these centers are located along the SR 60 corridor; three are located along the US 1/Old Dixie Highway corridor, just south of Vero Beach; and two are located along the Oslo Road corridor. Another seven are in the northern portion of the county, along US 1 and CR 512, in the vicinity of Sebastian and Roseland.

The suitability of existing commercial land and the need for future commercial land are discussed in the land use analysis section.
Figure 2.7, Major Retail Shopping Centers
### Table 2.6, Retail Shopping Centers Over 50,000 Sq. Ft.

<table>
<thead>
<tr>
<th>MAP #</th>
<th>SHOPPING CENTER</th>
<th>SQ. FT.</th>
<th>ADDRESS</th>
<th>ANCHOR STORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Roseland Plaza</td>
<td>62,895</td>
<td>13640 US 1</td>
<td>Beall’s Outlet</td>
</tr>
<tr>
<td>2</td>
<td>Riverwalk/Home Depot</td>
<td>87,991</td>
<td>13523 US 1</td>
<td>Publix, Home Depot</td>
</tr>
<tr>
<td>3</td>
<td>Sebastian Square</td>
<td>61,129</td>
<td>11640 US 1</td>
<td>Vacant</td>
</tr>
<tr>
<td>4</td>
<td>Wal-Mart Superstore</td>
<td>173,772</td>
<td>2001 US 1</td>
<td>Wal-Mart</td>
</tr>
<tr>
<td>5</td>
<td>Sebastian Lakes</td>
<td>50,500</td>
<td>995 CR 512</td>
<td>Winn-Dixie</td>
</tr>
<tr>
<td>6</td>
<td>Shoppes of Sebastian</td>
<td>55,100</td>
<td>1451 CR 512</td>
<td>Publix</td>
</tr>
<tr>
<td>7</td>
<td>Publix at Indian River</td>
<td>53,362</td>
<td>9625 US 1</td>
<td>Publix</td>
</tr>
<tr>
<td>8</td>
<td>Miracle Mile Plaza</td>
<td>186,477</td>
<td>612 21&lt;sup&gt;st&lt;/sup&gt; Street</td>
<td>Fresh Market</td>
</tr>
<tr>
<td>9</td>
<td>Treasure Coast Plaza</td>
<td>146,067</td>
<td>415 21&lt;sup&gt;st&lt;/sup&gt; Street</td>
<td>Publix</td>
</tr>
<tr>
<td>10</td>
<td>Indian River Plaza</td>
<td>140,400</td>
<td>1501 US 1</td>
<td>K-mart, USPS</td>
</tr>
<tr>
<td>11</td>
<td>Luria’s Plaza</td>
<td>141,964</td>
<td>1465 US 1</td>
<td>Majestic Theater, Vero Bowl</td>
</tr>
<tr>
<td>12</td>
<td>Vero Mall</td>
<td>139,889</td>
<td>1255 US 1</td>
<td>Publix, Steinmart</td>
</tr>
<tr>
<td>13</td>
<td>South Vero Square</td>
<td>158,302</td>
<td>750 S. US 1</td>
<td>Publix</td>
</tr>
<tr>
<td>14</td>
<td>Ryanwood</td>
<td>108,670</td>
<td>5700 SR 60</td>
<td>Publix, Books-a-Million</td>
</tr>
<tr>
<td>15</td>
<td>Wal-Mart/Sam’s Club</td>
<td>331,992</td>
<td>5555 SR 60</td>
<td>Wal-Mart, Sam’s Club</td>
</tr>
<tr>
<td>16</td>
<td>Indian River Square</td>
<td>262,664</td>
<td>5800 SR 60</td>
<td>Target, Beall’s</td>
</tr>
<tr>
<td>17</td>
<td>Indian River Commons</td>
<td>277,085</td>
<td>6200 SR 60</td>
<td>Lowe’s, Best Buy</td>
</tr>
<tr>
<td>18</td>
<td>Indian River Mall</td>
<td>859,640</td>
<td>6200 SR 60</td>
<td>Macy’s, Dillard’s, Sears, J.C. Penney, AMC 24</td>
</tr>
<tr>
<td>19</td>
<td>Century Town Center</td>
<td>98,978</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Vero Fashion Outlets</td>
<td>333,900</td>
<td>9455 SR 60</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Oslo Plaza</td>
<td>57,775</td>
<td>2800 Oslo Road</td>
<td>Winn-Dixie</td>
</tr>
<tr>
<td>22</td>
<td>South Pointe</td>
<td>64,459</td>
<td>4125 Oslo Road</td>
<td>Publix</td>
</tr>
</tbody>
</table>

Source: Indian River County Planning Division
**Industrial**

The industrial land use category includes manufacturing, processing, warehousing, storage and supply activities. Like commercial uses, industrial uses are located in commercial/industrial nodes.

Because of their need to quickly and easily receive and distribute both raw and processed materials, industrial uses usually locate near transportation facilities such as major highways, airports, sea ports, and railroad tracks. Since both industrial uses and major transportation facilities may adversely impact nearby residential uses, those uses often locate away from residential development.

For these reasons, most industrial uses in Indian River County are generally located in the three commercial/industrial nodes along I-95, or along the US 1 Corridor, near the FEC railroad tracks. Major industrial businesses and their locations are identified in the Table 2.7.

**Table 2.7, Major Industrial Businesses**

<table>
<thead>
<tr>
<th>INDUSTRIAL BUSINESS</th>
<th>TYPE</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Piper Aircraft</td>
<td>Airplanes</td>
<td>2926 Piper Drive</td>
</tr>
<tr>
<td>Novurania of America, Inc.</td>
<td>Boats</td>
<td>2105 S US Hwy 1</td>
</tr>
<tr>
<td>Press Journal</td>
<td>Newspaper</td>
<td>1801 US Highway 1</td>
</tr>
<tr>
<td>M.A. Ford Manufacturing Company</td>
<td>Precision Machines</td>
<td>1775 98th Avenue</td>
</tr>
<tr>
<td>Florida Shutters</td>
<td>Window &amp; Door Products</td>
<td>1055 Commerce Avenue</td>
</tr>
<tr>
<td>Parker Hannifin Industrial Hose Division</td>
<td>Hoses</td>
<td>1625 98th Avenue</td>
</tr>
<tr>
<td>Macho Products, Inc.</td>
<td>Self-Defense Equipment</td>
<td>10045 102nd Terrace</td>
</tr>
<tr>
<td>Roger's Cushions</td>
<td>Textiles</td>
<td>410 3rd Lane SW</td>
</tr>
<tr>
<td>Faux Effects International</td>
<td>Painting and Coating</td>
<td>Suite A4 3435 Aviation Blvd.</td>
</tr>
<tr>
<td>Stock Building Supply</td>
<td>Wood Products</td>
<td>9555 N US Highway 1</td>
</tr>
<tr>
<td>Profold, Inc.</td>
<td>Cardboard Boxes</td>
<td>10300 99th Way</td>
</tr>
<tr>
<td>Community Asphalt</td>
<td>Paving</td>
<td>5100 29th Court</td>
</tr>
<tr>
<td>Bryant's Precision Manufacturing Corporation</td>
<td>Cutting Tools</td>
<td>1803 Wilbur Avenue</td>
</tr>
<tr>
<td>Florida Truss &amp; Fabricators, Inc.</td>
<td>Trusses</td>
<td>4310 45th Street</td>
</tr>
<tr>
<td>Ford Wire and Cable Corp.</td>
<td>Wires and Cables</td>
<td>7756 130th Street</td>
</tr>
<tr>
<td>Vero Machine Industries Inc.</td>
<td>Machine Shops</td>
<td>5400 85th Street</td>
</tr>
<tr>
<td>XStream Systems, Inc.</td>
<td>Irradiation Apparatus</td>
<td>10305 102nd Terrace, Suite 101</td>
</tr>
</tbody>
</table>

Source: Indian River County Planning Division
The suitability of existing areas and the need for future industrial land are discussed in the land use analysis section.

**AGRICULTURE**

Agricultural land use includes land used for the production of food, crops and supportive uses; land used for agricultural sales, rangeland and pasture land; as well as land lying fallow which is part of a parcel that is currently or previously was agriculturally productive. This category also includes single-family houses which may be associated with active agricultural operations.

At present, agriculture constitutes the largest land use category in the county. In 2008, 136,896 acres were designated for agricultural use. This represents over 51% of the unincorporated area of the county.

Currently, agricultural land uses are located throughout the county. This includes virtually all land west of I-95 except the City of Fellsmere, the St. Johns Marsh and a small portion of the I-95/SR 60 Commercial/Industrial Node. There are also significant areas of agricultural land within the area bounded by I-95, 58th Avenue, SR 60 and the City of Sebastian. In the south county, land between I-95 and 43rd Avenue also contains large agricultural areas; however, several other significant land uses in this area include the Oslo Road/I-95 Commercial/Industrial Node, the County Landfill, and the State Department of Corrections facility.

**RECREATION**

This category includes land used for neighborhood and community parks, public beaches and recreation areas, public golf courses and sports facilities, and some open space areas. Federal and state parks and lands are included in this category if they are developed or open for public use; otherwise, they are included as conservation land uses. Recreational facilities which are part of an educational institution are included in governmental and institutional land uses.

In the unincorporated county, there are 1,283 acres of recreational land. These lands are located throughout the county. Parks in Indian River County are shown on Figure 2.8.

Major recreational facilities in the county include: Kiwanis-Hobart Park in the Winter Beach area; Dale Wimbrow and Donald McDonald Park on the St. Sebastian River; South County Park at 20th Avenue and Oslo Road; North County Regional Park on CR 512; Gifford Park at 43rd Avenue and 49th street; and the Sebastian Inlet State Recreation Area on the barrier island. In addition, the county maintains several parks and beach access areas on the barrier island.

Recreational facilities and parks are discussed in the Recreation and Open Space Element. Other natural uses are discussed in the Conservation Element. Overall, parks and recreational facilities are important to the development pattern of the county. In addition to providing recreational benefits, many recreational areas buffer dissimilar uses and/or protect the natural features of the landscape.
Figure 2.8, Parks in Indian River County
CONSERVATION

Conservation land use includes publicly owned and publicly managed conservation lands. Many of these lands are estuarine wetlands, spoil islands, and other environmentally sensitive and important wetlands and uplands. Within these areas, most development is prohibited.

In 2007, there were 89,188 acres of conservation land on the county’s Future Land Use Map, a 12,383 acre increase since 1998. In addition, approximately 16,000 acres of recent acquisitions by the county and the St. Johns River Water Management District are not yet reflected in the Conservation land use category. With the recent acquisitions, the actual amount of conservation land in public ownership is now 105,186 acres. Currently, conservation designated land plus recent acquisitions account for about 39.5% of the unincorporated county area.

Encompassing approximately 75,000 acres in the western county, the Blue Cypress Lake and Fort Drum Marsh conservation areas, both of which are owned and managed by the St. Johns River Water Management District, form the county's largest conservation area. In addition to containing significant wetlands and Blue Cypress Lake, these marshes serve as the headwaters of the St. Johns River. The St. Johns River Water Management District maintains this significant freshwater wetland resource. Other conservation areas include land along the Indian River Lagoon and the St. Sebastian River. These areas contain freshwater and saltwater marshes, mangroves, and sea grasses, all of which provide significant wildlife habitat benefits.

Conservation land uses are addressed in the Conservation, Coastal Management, and Recreation and Open Space Elements, as well as the Natural Features section of this element.

PUBLIC FACILITIES/INSTITUTIONAL

This land use classification includes: Institutional/Public Buildings and Grounds, Educational Facilities and Public Transportation Facilities. The total area represented by this land use category in the unincorporated county is approximately 722 acres.

Institutional/Public Buildings and Grounds include: federal, state and local government office buildings, storage and maintenance facilities; police and fire stations; jails and correction facilities; existing and former landfills; and water, sewer and other utility and service facilities. Various Institutional/Public facilities are located within the urbanized area of the county. Because of the importance of these services and facilities, they can have a significant impact on land use patterns. Since these land uses are considered to be components of urban services, they are discussed in detail in the Facilities, Services, and Infrastructure section and the Land Use Analysis Section of this element.
HISTORIC, ARCHAEOLOGICAL, AND ARCHITECTURAL RESOURCES

Generally, historic sites and historic buildings provide a link to the past. In the unincorporated county, as well as in the cities of Vero Beach, Sebastian, and Fellsmere, fourteen sites and buildings are listed on the National Register of Historic Places. The county also contains numerous other historic sites including: shipwrecks and artifacts; Indian middens; and five historic and scenic roads. Many of these sites are listed on the Florida Master Site File. Figure 2.9 shows the location of the county’s 5 historic and scenic roads and 3 of the 14 sites listed on the National Register.
Figure 2.9, Historic Roads and Sites

1. Jungle Trail
2. Old Winter Beach Road
3. Dock Road
4. Gifford Dock Road
5. Fellsmere Grade
6. Quay Dock Road
7. Spanish Fleet Survivors Cemetery
8. Pelican Island Wildlife Refuge
9. Smith, Archie Fish House
10. McKee-Jungle Gardens
11. Huellstrom House

Historic Roads and Sites (Unincorporated Area)
VACANT LAND

Vacant land includes land with no active use, unbuilt lots in existing subdivisions, and land containing abandoned structures. According to the Indian River County Property Appraiser's data, there are currently 15,557 acres in this designation in the unincorporated county. Of that total, 2,489 acres are classified as vacant commercial/industrial, while 13,068 acres are classified as vacant residential.

Due to the residential activity that occurred in the early 2000s, the amount of vacant residential land in the county decreased significantly. Since 1996, vacant residential land, including vacant lots within existing platted subdivisions, decreased from 18,220 acres to 13,068 acres. While vacant residential land accounted for 53% of all residential land in 1996, the amount of vacant land had decreased to 40% of all residential land by 2007.

Of the 13,068 acres of vacant residential land in 2007, 9,861 acres consisted of undeveloped land. Accounting for 30% of all residential land, undeveloped land consists mostly of raw land, but also includes land with approved-but-unbuilt projects. As Table 2.8 illustrates, most of the undeveloped residential land is located within the county’s two primary low-density categories: L-1 and L-2. Combined, the L-1 and L-2 districts contain 78% of the undeveloped residential land (7,700 acres) in the county. In comparison, the county’s two medium-density districts, M-1 and M-2, contain only 17% of the county’s undeveloped residential land (1,712 acres).

Table 2.8, Undeveloped Land in Residential Future Land Use Categories (2007)

<table>
<thead>
<tr>
<th>Future Land Use Category</th>
<th>Total Acreage</th>
<th>Undeveloped Acreage</th>
<th>Percent Undeveloped</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCID: Blue Cypress Improvement District (10 units/Acre)</td>
<td>20</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>L-1: Low-Density Residential-1 (3 Units/Acre)</td>
<td>11,802</td>
<td>4,177</td>
<td>35%</td>
</tr>
<tr>
<td>L-2: Low-Density Residential-2 (6 Units/Acre)</td>
<td>13,217</td>
<td>3,523</td>
<td>26%</td>
</tr>
<tr>
<td>M-1: Medium-Density Residential-1 (8 Units/Acre)</td>
<td>4,691</td>
<td>1,512</td>
<td>28%</td>
</tr>
<tr>
<td>M-2: Medium-Density Residential-2 (10 Units/Acre)</td>
<td>1,711</td>
<td>200</td>
<td>12%</td>
</tr>
<tr>
<td>R: Rural Residential (1 Unit/Acre)</td>
<td>511</td>
<td>421</td>
<td>82%</td>
</tr>
<tr>
<td>T: Transitional Residential (1 Unit/Acre)</td>
<td>29</td>
<td>29</td>
<td>100%</td>
</tr>
<tr>
<td>MHRP: Mobile Home Rental Park (8 Units/Acre)</td>
<td>780</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>32,761</td>
<td>9,861</td>
<td>30%</td>
</tr>
</tbody>
</table>
Figure 2.10, Vacant Land in Indian River County
In 2007, there were 11 undeveloped residential sites in the unincorporated county over 100 acres in area. Most of these sites are an aggregation of multiple parcels. As Table 2.9 shows, many of those sites already have development entitlements in place.

**Table 2.9. Undeveloped Residential Sites Over 100 Acres (2007)**

<table>
<thead>
<tr>
<th>Location</th>
<th>Acres</th>
<th>Future Land Use</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>South side of CR 512, west of CR 510</td>
<td>479</td>
<td>L-1</td>
<td>Owned by Ansin Brothers of Miami</td>
</tr>
<tr>
<td>North side of CR 510, east of Vero Lake Estates</td>
<td>421</td>
<td>L-1</td>
<td>“North County Initiative” area; includes two entitled PDs: Bluewater Bay (128 acres) and Sebastian Park (152 acres)</td>
</tr>
<tr>
<td>South side of 77th Street, west of FEC Railroad</td>
<td>198</td>
<td>L-2</td>
<td></td>
</tr>
<tr>
<td>West side of 58th Avenue, north of 69th Street</td>
<td>206</td>
<td>L-1</td>
<td>Syngenta, an agricultural research facility</td>
</tr>
<tr>
<td>65th Street, east of Lateral G canal</td>
<td>375</td>
<td>L-1 &amp; L-2</td>
<td>Consists of two entitled PDs: Lost Tree Preserve (214 acres) and High Point (161 acres)</td>
</tr>
<tr>
<td>East side of US 1, north of North Relief Canal</td>
<td>414</td>
<td>L-1</td>
<td>Consists of Riverbend PD (an entitled project); proposed addition to Grand Harbor</td>
</tr>
<tr>
<td>North side of 49th Street, east of 58th Avenue</td>
<td>426</td>
<td>L-2</td>
<td>Future phases of Waterway Village (an entitled DRI project)</td>
</tr>
<tr>
<td>West side of 58th Avenue, north of 49th Street</td>
<td>192</td>
<td>L-1</td>
<td>Includes an entitled subdivision, Devonwood Lakes (144 acres)</td>
</tr>
<tr>
<td>West of I-95, south of SR 60</td>
<td>1,097</td>
<td>M-1</td>
<td>“98th Avenue Initiative” area; includes two entitled projects: Verona Trace (105 acres) and Portofino Village (229 acres)</td>
</tr>
<tr>
<td>West side of 82nd Avenue, south of 4th Street</td>
<td>245</td>
<td>L-1</td>
<td>Site of a proposed PD (Indian Springs)</td>
</tr>
<tr>
<td>Area bounded by 13th Street SW to the north, 20th Avenue SW to the east, St. Lucie County to the south, and the urban service area boundary to the west</td>
<td>853</td>
<td>L-1 &amp; L-2</td>
<td>“South County Initiative” area; undeveloped land consists of several entitled projects</td>
</tr>
</tbody>
</table>

Also in 2007, there were 10,098 vacant lots within existing, platted subdivisions. Those vacant lots in existing subdivisions accounted for 3,207 acres (approximately 10% of all residential land). Vero Lake Estates is the largest subdivision with a substantial number of vacant lots. Combined, the vacant lots in Vero Lake Estates total 680 acres.

**ADJACENT/SURROUNDING LAND USES**

For land use compatibility assessment purposes, it is necessary to examine land uses along the boundaries of the municipalities within the county and along the boundaries of the surrounding counties. Oftentimes, political boundaries are only lines on a map unrelated to natural features or barriers. For that reason, failure to consider surrounding land uses or provide for coordination among political units could result in the establishment of incompatible land uses, lead to inefficient duplication of public services, or require costly solutions to problems such as traffic.
congestion. For the most part, Indian River County does not contain land uses along its boundaries that differ greatly from surrounding jurisdictions. The following section briefly describes the current land uses along these boundaries. These land uses are also shown on Figures 2.11 to 2.16.

Adjacent Counties

Indian River County is bounded by Brevard County on the north, St. Lucie County on the south, Osceola County on the west, and Okeechobee County on the southwest.

- Brevard County

To the north, Indian River County shares its boundary with Brevard County. This boundary consists of an imaginary line along most of its distance. A natural boundary consisting of the St. Sebastian River and the Sebastian Inlet exists in the easternmost portion.

Along the county line, land uses are relatively consistent. The majority of the area west of I-95 consists of natural and agricultural uses. The most significant land use is the St. Johns Marsh. Man-made improvements along this boundary include various levees and canals. There is little human interaction in this area because of the sparse population.

In Brevard County, the City of Palm Bay now extends to the Indian River County boundary. Because of recent annexations, the City of Fellsmere also extends to the Indian River/Brevard county line. In this area, County Road 507 provides access from the City of Fellsmere to Palm Bay in Brevard County.

Between I-95 and the St. Sebastian River, land is undeveloped government owned conservation property in both counties. Further east, along the northern bank of the St. Sebastian River in Brevard County, there are single-family homes. North of those homes, there is a large mobile home development on the west side of US 1. In south Brevard County, many residents utilize US 1 for access to shopping centers in the Roseland/Sebastian Area. On the barrier island, the two counties are separated by the Sebastian Inlet. A state park and recreation areas occupy both sides of the inlet.

- Osceola County

The western boundary of the county is shared with Osceola County. Along the entire length of this boundary, land uses are natural land and agriculture, primarily cattle grazing. There is, however, a small residential settlement located just west of the county line along SR 60, as well as several highway oriented commercial establishments at the SR 60/Florida’s Turnpike interchange at Yeehaw Junction.
Okeechobee County

The county’s southwest border is shared with Okeechobee County. Just like other areas in the western portion of the county, land uses along the county line in this area consist of natural land and agriculture. Florida’s Turnpike forms a portion of this boundary.

St. Lucie County

The majority of Indian River’s south county boundary is shared with St. Lucie County. Along the western limits of this boundary (about 20 miles west of the Atlantic Ocean), most of the area consists of cultivated agricultural land, the turnpike and the St. Johns Marsh. While agriculture, in particular citrus, dominates the Indian River County area between the St. Johns Marsh and I-95; grazing and natural land uses are more readily distinguished on the St. Lucie side. East of I-95, residential uses predominate; however, an active landfill and a state correctional facility are located in Indian River County east of I-95 at the St. Lucie County boundary. In St. Lucie County east of I-95, a large mobile home community exists along the Indian River County border. On the barrier island at the counties' boundary, there is a state-owned park.
Figure 2.11, Adjacent County Land Uses
**Municipalities Within Indian River County**

There are five municipal governments within Indian River County. As with the surrounding counties, land uses are generally similar and compatible on both sides of municipal/unincorporated county borders. Often, the presence of a sign is the only indication of a municipal boundary.

- **City of Vero Beach**

  The mainland portion of Vero Beach shares its boundaries with the county on the north, west and south sides. The island portion has a common boundary with the county on its south side.

  At the northern limits of the city, east of US 1, low density residential development and a golf club constitute the primary city land uses; however, mangrove wetlands are found along the Indian River. West of US 1, the Vero Beach Municipal Airport occupies the northern limit of the city, west to 43rd Avenue. A large portion of the airport perimeter land is undeveloped vegetated land which provides a buffer for the high density Gifford area of the county. Much of the area west of 43rd Avenue and north of 26th Street consists of undeveloped, vegetated land, and low density residential development.

  The western limit of the city is generally 43rd Avenue from 26th Street south to 14th Street. Dodgertown, the former spring training complex of the Los Angeles Dodgers, occupies land south to the main canal. From the canal south to 16th Street (including the SR 60 intersection), land in the city is predominately commercial. On the west side of 43rd Avenue, the county has a commercial node at the SR 60/43rd Avenue intersection. In the unincorporated county, medium density residential uses dominate 43rd Avenue from 16th Street to 14th Street.

  The southern limits of the city, along 14th Street, are characterized by single-family residential development east to Old Dixie Highway and the City Cemetery. From the cemetery north and east along the US 1 corridor to 6th Avenue, land uses in the city are dominated by commercial uses; however, several older residential areas are interspersed. While moderate density residential uses dominate in the area east of 6th Avenue to the Indian River, the City of Vero Beach power plant and wastewater treatment plant are located along the river at the 17th Street Bridge. On the barrier island at the city limits, land uses are restricted to single-family homes.
Figure 2.12, City of Vero Beach Land Use Map
City of Sebastian

The City of Sebastian, the county’s largest municipality in population, is located in the northern area of the mainland, along the Indian River. Single-family residential is the dominant land use in the city. While a significant number of vacant residential lots exist in the city, that number has declined in recent years due to construction of new houses in the city. The second most dominate land use is the municipal airport. This general aviation facility is located in the northwest portion of the city.

Land uses east of the airport consist primarily of undeveloped county owned conservation property. Along the US Highway 1 corridor in the northern portion of the city, there is a concentration of industrial and commercial uses. To the east, Sebastian’s boundary is an irregular shape. Land uses in this area consist primarily of residential uses, except for commercial and industrial uses that are present where the city limits extend to the US 1 Corridor or Indian River.

City of Fellsmere

The City of Fellsmere is the only municipality in the county located west of I-95 and is also the county’s largest municipality in land area. Generally, the developed portion of the city is laid out in a grid pattern.

The core area of Fellsmere is easily divided into quadrants using County Road 512 and Broadway as the axes. While the northwest quadrant is developed in a single family residential pattern, the southwest quadrant is partially developed with single family homes and mobile homes. Although the southeast quadrant is primarily undeveloped, mobile homes are present along the city’s southern limit. The northeast quadrant is a partially developed single-family area. Commercial development is located along Broadway, north of CR 512, and along CR 512, east of Broadway. An extension of the core area is located east on CR 512. This extension of the core area contains a mix of uses including commercial businesses, single-family residences and mobile homes.

Between 1998 and 2008, the city’s land area increased significantly. During that 10-year period, the City of Fellsmere annexed 23,973 acres, or 37.5 square miles, of unincorporated county area. As a result of those annexations, the City of Fellsmere increased from 1,481 acres in 1998 to 25,454 acres in 2008. Agricultural land accounted for the vast majority of land annexed into Fellsmere during that time.
Figure 2.13, City of Sebastian Land Use Map
Figure 2.14, City of Fellsmere Land Use Map
➢ Town of Indian River Shores

The Town of Indian River Shores is an affluent residential community on the barrier island. To the west, the Indian River Lagoon provides a common boundary between the town and the county. On the south, the town abuts the City of Vero Beach, while the Atlantic Ocean forms its eastern limits. Only on the north does the Town share a common land boundary with the county.

Land uses along this common boundary consist of single- and multiple-family residences in planned residential developments. Because of the proximity of the ocean and the Indian River Lagoon, the barrier island has become an area dominated by high value housing.

➢ Town of Orchid

The Town of Orchid is the other municipality located exclusively on the barrier island. At the present time, land uses in the town consist of single-family lots, a golf course, a beach club, and approximately 110 acres of wetlands along the Indian River Lagoon. Those wetlands are protected under a conservation easement. Although the Town is unlikely to be developed at the maximum allowable density, the town’s approved master plan allows up to 425 residential units, approximately 340 of which are planned to be single-family homes. The town’s master plan also calls for limited commercial development on ±7 and ±3 acre parcels located on CR 510 and SR A1A, respectively.
Figure 2.15, Town of Indian River Shores Land Use Map
Figure 2.16, Town of Orchid Land Use Map
**NATURAL RESOURCES**

In Indian River County and elsewhere, natural features and resources affect the land use pattern. Singly, or in combination, they may prohibit, limit or support various types of land uses. For example, agriculture, which is a major component of the local economy, is highly dependent on soil resources and climate. Tourism, on the other hand, is dependent on natural amenities such as beaches, waters and climate to provide the many recreational opportunities that attract residents and visitors to the county. The county’s natural features and resources are described in detail in the Conservation, Coastal Management, and Recreation and Open Space Elements. This section is intended to provide a summary and generalization of the natural features.

**Climate**

The climate of Indian River County is characterized by long, warm, humid summers and mild winters. Overall, the moderating influence of the Atlantic Ocean and the Gulf Stream on the maximum temperatures in summer and minimum temperatures in winter is strong along the coast, but diminishes inland. Because of this moderation, the climate is considered to be humid and subtropical.

While the average county year-round temperature is 73.4 degrees F, the daily temperature ranges from 53 degrees to 73 degrees F in January and from 73 degrees to 90 degrees F in August.

On average, yearly rainfall ranges from 50 to 55 inches. Generally, September has the most rainfall, with July, August, June, and October following next in order. The period of lowest rainfall usually occurs from November to April.

**Topography**

The general land form of Indian River County is coastal low land. This coastal low land form includes several ancient marine terraces which were once part of the ocean floor when the Atlantic Ocean stood much higher. Those terraces are the Palmico and Talbot terraces.

The Palmico Terrace covers the area from the coast to the western edge of the St. Johns Marsh, a distance of approximately 24 miles. This terrace is marked by three distinct ridges: an offshore bar, the Atlantic Coastal Ridge and the Ten-Mile Ridge. Most of this area is less than 25 feet above sea level.

Located on the mainland, the Atlantic Coastal Ridge is a remnant of an offshore bar which was formed in the Palmico Sea. Reaching elevations of 50 feet, this ridge is parallel to and west of US 1 and is commonly referred to as the Sand Ridge. West of the coastal ridge is a flat, trough-shaped area that is analogous to the present Indian River Lagoon. Adjacent to this is the Ten-Mile Ridge which is a less pronounced sand ridge located approximately 7 miles west of the coastal ridge. West of the Ten-Mile Ridge is the St. Johns Marsh, which has an elevation of approximately 25 feet. The Talbot Terrace adjoins the western edge of the St. Johns Marsh. That
terrace extends into and beyond the northwest corner of the county and reaches elevations of approximately 40 feet above sea level.

The topography of the county is depicted in Figure 2.17. Overall, the relatively flat terrain of the county poses few constraints to development as compared to a rough or rugged terrain. The topography is also a key feature in the natural drainage system and must be examined along with other natural features to identify development opportunities and constraints. These potential opportunities and constraints are addressed in the analysis section of this element and examined in the Conservation, Coastal Management, and Infrastructure Elements.

Soils

Soils can greatly influence the value or development potential of land. On farmland, those soils which are rich in nutrients provide the potential for high crop yields, while other soils require extensive fertilization and treatment. Generally, structures cannot be built on soils with poor load bearing capacity unless costly methods are employed to overcome the problem. Soils can also severely limit the use of sanitary facilities such as septic tanks and landfills. While wet soils often cannot accommodate septic tanks, ground water can be polluted in highly permeable soils. Those soils with high water tables may also indicate the existence of a wetland vegetative community.

In Indian River County, the United States Soil Conservation Service has identified 58 different soil types. These soils are further classified into thirteen generalized soil types and distributed among five physiographic areas of the county as follows: sand ridges; coastal islands and tidal marshes; flatwoods, low knolls and ridges; sloughs, poorly defined drainage ways and hammocks; and freshwater swamps and marshes. The generalized soil types are depicted in Figure 2.18.

The suitability of soils for development is discussed in the analysis section of this element and in greater detail in the Conservation and Coastal Management Elements.
Figure 2.17, Topography of Indian River County
Figure 2.18, General Soil Map
Future Land Use Element

Figure 2.18 (continued)

LEGEN

SOILS OF THE SAND RIDGES

ASTATULA: ARCHIBOLD ST. LUCIE: Nearly level to gently sloping, excessively drained and moderately well drained soils that are sandy to a depth of 80 inches or more

SOILS OF THE COASTAL ISLANDS AND TIDAL MARSHES

CAVIVA-CAVITA-PALM BEACH: Nearly level to gently sloping, somewhat poorly drained to moderately well drained, and well drained to excessively drained, sandy soils that contain shell fragments

MCKEE-QUARTZ/PSAMMENTS-ST. AUGUSTINE: Level, very poorly drained, loamy soils that have very low soil strength; some nearly level, somewhat poorly drained to moderately well drained soils sand and shell fragments; and some level, somewhat poorly drained soils that are mixed sand and shell fragments

SOILS OF FLATWOODS, LOW KNOLLS, AND RIDGES

IMMONALEE-MYAKK-SATELLITE: Nearly level, poorly drained and somewhat poorly drained soils, some are sandy throughout, and some have a dark sandy subsoil

EAUGALLIE-OLDSMAR-WABASSO: Nearly level, poorly drained soils that have a dark sandy subsoil; some have a subsoil that is underlain by loamy material at a depth of less than 40 inches, and some have a subsoil that is underlain by loamy material at a depth of more than 40 inches

MYAKK-IMMONALEE: Nearly level, poorly drained soils that have a dark sandy subsoil

EAUGALLIE-MYAKK-RIVIERA: Nearly level, poorly drained soils: some have a loamy subsoil at a depth of less than 40 inches, some have a dark sandy subsoil at a depth of 20 to 30 inches, and some are sandy throughout and have a dark sandy subsoil at a depth of 20 to 30 inches

SOILS OF THE SLOUGHS, POORLY DEFINED DRAINAGEWAYS AND HAMM OCKS

RIVIERA-PINEDA-WABASSO: Nearly level, poorly drained soils: some have a loamy subsoil at a depth of 20 to 40 inches, and some have a dark sandy subsoil underlain by loamy material at a depth of less than 40 inches

WINDER-RIVIERA-MANATEE: Nearly level, poorly drained and very poorly drained soils that have a loamy subsoil at a depth of 20 inches or at a depth of 20 to 40 inches; some are loamy throughout and have a dark surface layer

BOCA-WABASSO-RIVIERA: Nearly level, poorly drained soils: some have a loamy subsoil underlain by hard limestone at a depth of 40 inches, some have a dark sandy subsoil underlain by loamy material at a depth of less than 40 inches, and some have a loamy subsoil at a depth of 20 to 40 inches

MYAKK-HOLOPAW-POMPANO: Nearly level, poorly drained soils that are sandy to a depth of more than 40 inches; some have a dark sandy subsoil at a depth of 20 to 30 inches, and some have a loamy subsoil at a depth of more than 40 inches

SOILS OF THE FRESHWATER SWAMPS AND MARSHES

TERRA CEIA-DATOR-CANDOH: Nearly level, very poorly drained soils: some are organic throughout; some have a moderately thick organic layer underlain by a sandy clay loam subsoil, and some have a thin organic surface layer underlain by a loamy subsoil at a depth of 20 to 40 inches

FLORIDA-DERRAY-HOLOPAW: Nearly level, poorly drained to very poorly drained soils: some have a loamy subsoil at a depth of 20 to 40 inches, some have a loamy subsoil at a depth of more than 40 inches, and some have a dark surface layer that is 10 inches or more thick

Compiled 1965

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
UNIVERSITY OF FLORIDA
INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES
AGRICULTURAL EXPERIMENT STATIONS
SOIL SCIENCE DEPARTMENT
FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

GENERAL SOIL MAP
INDIAN RIVER COUNTY
FLORIDA

Future Land Use Element 49
Geology/Hydrology

The geology and hydrology of Indian River County are closely related. Basically, the underground geologic formations contribute to the movement, availability, quantity and quality of surface and ground water in the county. Consisting of marine limestone, dolomite, shale, sand and anhydrite, these formations contain two aquifers. The aquifers are depicted in Figure 2.19.

Extending from the surface to depths of about 150 feet, the shallow aquifer is confined to the Anastasia and Fort Thompson Formations. Ranging from depths of about 250 to 500 feet below sea level, the Floridan aquifer underlies the entire county. These aquifers are separated by confining beds consisting of clay and other materials of the Hawthorne and Tamiami Formations.

Within Indian River County, the shallow aquifer is recharged mostly by direct infiltration of rainfall that does not return to the atmosphere by evapotranspiration and does not leave the area directly as overland flow. The principal area of recharge of the shallow aquifer is along the Atlantic Coastal Ridge, where coarse permeable sands are exposed at the surface. Water is also added to the shallow aquifer by artificial recharge of water withdrawn from Floridan aquifer wells for agricultural irrigation. Over the long term, all of the recharge to the shallow aquifer is discharged from the aquifer. Virtually all of the natural discharge occurs as subsurface flow into the Indian River Lagoon and the St. Johns Marsh. Little water moves downward from the shallow aquifer into the Floridan aquifer because of the confining beds.

Generally, the quality of water from the shallow aquifer is acceptable for domestic consumption with limited treatment. Currently, the City of Vero Beach municipal water system uses the shallow aquifer as one of its sources for potable water.

Unlike the shallow aquifer, the Floridan aquifer is recharged northwest of the county. In these areas, water entering the aquifer moves eastward, discharging into the Atlantic Ocean. Floridan aquifer water is also withdrawn through wells, tapped for irrigation, used for industrial and municipal purposes, and discharged through uncontrolled free flowing wells. Generally, the high chloride concentrations in the Floridan Aquifer water require treatment to render the water acceptable for potable use. In Indian River County, both the South County Water Treatment Plant on Oslo Road and the North County Water Treatment Plant on 58th Avenue use the reverse osmosis method to treat water from the Floridan aquifer to make the water acceptable for human consumption.

A critical concern regarding the Floridan aquifer is the intrusion of salt water as both increasing volumes are withdrawn and natural recharge areas are developed.

Community public water systems are depicted in Figure 2.20, and public well locations are depicted in Figure 2.21. A complete discussion of public water systems and community wells may be found in the Conservation and Infrastructure Elements.
Figure 2.19, Generalized Profile and Principal Aquifers

GENERALIZED PROFILE & PRINCIPAL AQUIFERS OF INDIAN RIVER COUNTY, FLORIDA

Source: Florida Department of Natural Resources Bureau of Geology
Jan. 2007
Figure 2.20, Community Public Water Systems
Figure 2.22, Soil and Mineral Resources
Minerals

In Indian River County, recoverable mineral resources are scarce. During the 1950's, sand mining operations occurred south of Wabasso. Those operations ceased in the 1960's. Current extractive industries are limited to sand and rock mining. This involves excavating sand and coquina to be used for building fill and road base material. Those operations usually result in the creation of small lakes, ponds and borrow pits. Figure 2.22 depicts areas of current and past mining operations. Minerals are discussed more fully in the Conservation Element.

Timberland

Timber resources in Indian River County are limited to Pine and Cypress. In the county, forested land totals approximately 20,867 acres. That land occurs in bands along the Atlantic Coastal Ridge, the Ten Mile Ridge, the far western portion of the county and along Blue Cypress Lake. Past cutting and management practices have virtually eliminated the commercial value of those resources. Timberland is discussed in greater detail in the Conservation Element.

Wetlands

Located in the western area of the county, the St. Johns Marsh is the headwaters of the St. Johns River. The marsh receives most of its water from rainfall that falls directly on the marsh. Additional water enters the marsh via some small streams that flow into Blue Cypress lake, which in turn spills over into the marsh.

While the depth of the marsh is estimated to be approximately three feet, an accurate survey has not been done to determine the actual depth. Overall, the marsh is prime habitat for many different animal and plant species, including deer, raccoons, river otter, maidencain and sawgrass.

Located on the western edge of the St. Johns Marsh, Blue Cypress Lake is a large freshwater lake that is approximately 6,555 acres in size. It is the only sizeable lake in the county. Generally, the lake level fluctuates in much the same way that the St. Johns Marsh level fluctuates. Over much of its area, the lake has an average depth of approximately 8 feet. During prolonged dry spells, some lake water is used for irrigation. Several types of fish, including large mouth bass, perch, and blue gill, can be found in Blue Cypress Lake.

Situated in the northern part of the county, the St. Sebastian River is the only true freshwater river in the county, as the Indian River is actually an estuarine lagoon. With a recent muck dredging project, the St. Sebastian River’s water quality has improved significantly.

The Indian River is the longest estuarine lagoon in the State of Florida. Associated with the lagoon are many areas of estuarine wetlands, both impounded and unimpounded. In the past, estuarine wetlands were impounded to control the mosquito population along the coastal areas of the county by keeping the impounded areas flooded during the mosquito breeding season. While impounded wetlands occur along the lagoon throughout the county, several large impoundments
occur on the barrier island near Orchid and near the St. Lucie County line. Since connection with the river is impeded for impounded wetlands, impounded wetlands are generally not productive nurseries for marine life.

While most unimpounded wetlands occur on the mainland side of the lagoon, unimpounded wetlands also occur on islands within the Indian River. Many of these islands are heavily forested with various species of mangroves. The mangroves provide protected nursery areas for fish, crustaceans and shellfish. They also provide food for fish species such as snook, snapper, tarpon, jack and sheepshead. Many animals find shelter in the roots and branches of mangroves, and the trees’ branches are rookeries for coastal birds such as the brown pelican and roseate spoonbill.

**Table 2.10, Wetlands and Deepwater Resources of Indian River County**

<table>
<thead>
<tr>
<th>RESOURCE DESCRIPTION</th>
<th>ESTIMATED ACREAGE (rounded to nearest 100 acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshwater Wetlands...............................................</td>
<td>83,500</td>
</tr>
<tr>
<td>St. Johns Marsh...........................................................</td>
<td>72,000</td>
</tr>
<tr>
<td>Freshwater Marsh...............................................................</td>
<td>6,300</td>
</tr>
<tr>
<td>Wet prairie/pine/flatwood wetlands............................</td>
<td>4,700</td>
</tr>
<tr>
<td>Open water .........................................................................</td>
<td>500</td>
</tr>
<tr>
<td>Estuarine Wetlands .........................................................</td>
<td>4,700</td>
</tr>
<tr>
<td>Mangrove scrub-shrub wetland.......................................</td>
<td>2,400</td>
</tr>
<tr>
<td>Salt Marsh .........................................................................</td>
<td>1,100</td>
</tr>
<tr>
<td>Mixed mangrove/salt marsh............................................</td>
<td>1,200</td>
</tr>
<tr>
<td>Blue Cypress Lake ...........................................................</td>
<td>6,500</td>
</tr>
<tr>
<td>Sebastian River ..............................................................</td>
<td>500</td>
</tr>
<tr>
<td>Indian River Lagoon ........................................................</td>
<td>16,300</td>
</tr>
<tr>
<td>TOTAL .............................................................................</td>
<td>111,500</td>
</tr>
</tbody>
</table>

Source: Florida Department of Natural Resources Bureau of Geology Marine Resource Council of East Central Florida Indian River County Planning Department
Floodplains

Large portions of Indian River County are subject to flooding. Among the factors contributing to this are the relatively low flat topography, the absence of natural drainage systems, and the relatively high annual rainfall.

Within the county, there are two ridges that parallel the coast and are remnants of offshore bars. The easternmost ridge is known as the Atlantic Coastal Ridge and is approximately ½ mile to 1 mile west of the Indian River Lagoon. This ridge has a maximum height of approximately 54 feet, but several places along the ridge have been reduced in elevation due to excavation associated with development. The second ridge is known locally as the Ten Mile Ridge and closely follows the I-95 corridor. That ridge is older than the Atlantic Coastal Ridge and has a maximum height of approximately 35 feet. Between the ridges lies a flat shallow depression that is a natural drainage basin that historically drained to the south prong of the St. Sebastian River. Today, the southern end of that basin is covered by a network of drainage canals which outfall to the Indian River Lagoon, and only a small portion of the basin in the north part of the county still drains to the St. Sebastian River.

West of I-95, the topography of the county is relatively flat, with a rise in elevation near the Indian River County/Osceola County line. The area between this rise and I-95 is marshy and poorly drained, with some drainage improvements having been made to benefit area citrus groves, cattle ranches and other agricultural interests. A large portion of western Indian River County is covered by the St. Johns Marsh. The marsh flows north to form the St. Johns River.

Two sources of flooding in the county are tropical storms and hurricanes. The flooding that is associated with those storms presents the greatest potential loss of life and property. In coastal areas, storm surges and tides up to 15 feet above sea level can occur in association with hurricane storm events.

Those areas of the county which are subject to flooding are identified on Figure 2.23.
Figure 2.23, Flood Prone Areas
Beaches, Shoreline and Estuarine Systems

In Indian River County, the barrier island has 26 miles of beach frontage. Associated with the coastal area is the Indian River. This estuarine lagoon separates the barrier island from the coastal mainland. The Sebastian Inlet, located at the northern limit of the county, provides water access to the Atlantic Ocean from the lagoon.

Along the 26 miles of the Indian River, there are approximately 15,000 acres of submerged and estuarine wetlands. These coastal areas provide a unique setting with exceptional social, economic and environmental opportunities. These topics are discussed in the Coastal Management and Conservation Elements.

Areas of Critical State Concern

Within Indian River County, there are no designated areas of critical state concern. In the early 1980's, however, the Hutchinson Island Resource Planning and Management Plan was developed. The study area for that plan included the barrier island in Indian River County. Because the State Department of Community Affairs found the county's comprehensive plan and land development regulations consistent with that plan, no area of critical state concern was designated.

FACILITIES, SERVICES, AND INFRASTRUCTURE

Because some natural features and resources restrict land use and limit land development, various man-made improvements are often made to increase the natural capacity of land to accommodate more intense uses at higher densities. Those public services, facilities and infrastructure not only increase the development capacity of land, but also encourage development in some areas while limiting it in others. For that reason, public and community based facilities have become essential aspects of urban development.

Without the provision of those services which ensure that an acceptable quality of life is maintained, it is unlikely that large scale development could occur. In the past, however, some development has occurred without adequate urban services being available. The problems associated with that type of development have resulted in degradation of the environment, congestion and other transportation problems, inefficient use of existing services and costly expansion of urban services.

As a group, these public improvements and infrastructure have become known as "urban services". Urban services include but are not limited to public water and sewer; solid waste and garbage collection and disposal; road, bridge and transportation facilities; public safety; education; and utilities such as gas, electric, cable television, and phone. These facilities are usually owned and operated by local governments or public and private corporations. The areas in which these services are made available and deliverable are designated as urban service areas.
Historically, the delineation of urban service areas was based on boundaries of proposed or existing services, political boundaries, or the extent of existing development. Oftentimes, the delineation of these areas was based on the provision of one or two base services, usually sewer and water. For use in this plan, the definition of urban services was expanded to include services and facilities provided by public and private suppliers which are generally or likely to be found in an established or emerging urbanized or suburban community.

In defining a service area, the major issue is not merely the availability of a particular service or services, but also the ability to deliver the service at a reasonable standard. For example, a community water system needs not only the capacity to purify water in certain quantities but also the capability to deliver the water to domestic and commercial users.

The second major aspect of these services is the development of standards regarding their availability, delivery or accessibility. These standards include, for example, the extension of a water line to a particular site, the ability of public safety units to respond to an emergency situation within an acceptable amount of time, and the location of public facilities within a reasonable distance of development. Several of these standards are established as levels of service and can be found in other plan elements. Other standards are based on service levels established by local experience or recommended by expert sources, professional organizations or governmental bodies.

As with any service standard, there may be exceptions to the rule. Elementary schools are an example. While it is commonly held that elementary schools should be located within residential neighborhoods and that new residential development should be located within established school service areas, such standards need not and possibly should not apply to housing specifically for the elderly. Another exception is the provision of different levels of service for established areas and for fringe or emerging areas.

The following section describes services as they currently exist in Indian River County. Included is a description of each service or facility, the existing service area and delivery system, the existing and potential capacity of the system, or other standards used to describe each system's service area. The composite of each service can then be used to establish the existence of an urban service area in the county.

A detailed discussion of the facilities planned for Indian River County is contained in the Infrastructure Element (consisting of the Sanitary Sewer, Solid Waste, Drainage, Potable Water and Natural Groundwater Recharge Sub-Elements) and the Transportation Element. The programming, financial feasibility and provision of local levels of service are discussed in the Capital Improvements Element.

**Concurrent Management System**

Consistent with state law, the county has developed a system to ensure that, for certain services, sufficient capacity is available to accommodate the impacts of development. That system is known as the Concurrency Management System (CMS). Through the CMS, potable water,
sanitary sewer, solid waste, stormwater management, roads, parks, and schools are monitored. If capacity for those services is not available to serve a proposed development project, no development permit for that project may be issued. Because commercial or industrial development does not directly impact park usage, the park capacity requirement is not applied to commercial or industrial development projects.

New development is also reviewed for its impact on other services. Those services include electricity, telephone, education, police, fire protection, emergency services, and social services. Because those services are not part of the CMS, however, lack of capacity of those services cannot be a basis to deny a development permit.

Transportation

For the development of land, access to a transportation system is essential. While commercial and industrial operations require easy access to consumer and supplier markets for their survival, residential developments are often located with access to employment centers in mind.

➢ Traffic Circulation

The components of the roadway system are detailed in the Transportation Element. Overall, the traffic circulation system of Indian River County is laid out on a grid of intersecting streets and roads. Each road is designated by a functional classification which describes the ultimate use of the roadway, including volume and capacity. Those classifications also describe the function of each road; that is, whether the road provides a means of travel from one area to another or whether it provides access only within a localized area.

The highest classification of roadway is the principal arterial. In Indian River County, these include Interstate 95, US Highway 1, State Road 60, and State Road A1A. Those roads serve as the primary routes into and out of the county as well as between the developed areas of the county; they are generally multi-lane facilities allowing relatively high travel speeds. Minor arterial roads provide some of the same functions as principal arterials, but at lower capacities. Those roads also provide access to the higher classified principal arterial roads. Collector roads provide for traffic movement within urban areas as well as access to roads with higher classifications. As would be expected, the existing roadway network is focused within the urban service area. Generally, all land area within the urban service area is within ¼ mile of a roadway designated as a collector or above.

Currently, there is sufficient capacity on all county roads to accommodate existing traffic at the county's adopted levels of service. Through its concurrency management system, the county ensures that roadway capacity is available for all development for which building permits are issued. Due to recent retail growth along the SR 60 corridor, however, several roads in that area are approaching their capacity limits. For that reason, scheduled roadway improvements have been prioritized to ensure that sufficient roadway capacity will exist through 2030.
To add flexibility and increase local control, state law provides that, under certain conditions, local governments have the option of allowing the level of service on certain roads to fall below adopted standards for a limited time. According to state law, a local government may issue a development order for a project for which insufficient road capacity exists, provided construction of the additional capacity needed to serve the project commences within three years of the issuance of the project's first building permit. As reflected in its concurrency management system, Indian River County has chosen to incorporate that provision in its regulations.

Within the county, some existing roads are deficient in right-of-way. Even those roadways that are not right-of-way deficient, however, seldom have adequate right-of-way to accommodate a widening or other improvement. Consequently, most roadway improvement projects require acquisition of right-of-way to accommodate the improvement. A detailed discussion of the county roadway network is contained in the Transportation Element.

- Mass Transit

Established in 1994, the GoLine is the fixed route transit service in Indian River County. Although available to all ages, the GoLine is operated by the Indian River County Senior Resource Association. Funding for the GoLine is provided from several sources, including the federal government, the State of Florida, Indian River County, the cities of Fellsmere and Sebastian, other non-profit agencies, and advertising revenue. In November 2009, there were fourteen routes providing fixed-route service throughout the county, with some routes operating five days per week and providing hourly service. In 2008, the fixed route system provided one-way trips to 508,977 riders, an average of 1,631 riders per service day.

Recently, the GoLine established a new north county hub near the CR 510/CR 512 intersection and relocated the Vero Beach hub to the former county administration building site. While four routes provide service to the north county hub, seven routes serve the Vero Beach hub. In addition, four routes provide service to the Indian River Mall, one of the GoLine’s busiest destinations.

Although the low density residential character of the county works as a deterrent to mass transit, there are some major trip generators and attractors located within the county. Those developments include the Indian River Mall and other shopping centers along SR 60, the 37th Street medical node, the Wal-Mart Supercenter in Sebastian, and multi-family developments.

- Aviation, Ports, and Rail

Indian River County has three public use airports. These are the New Hibiscus Airport, the Sebastian Municipal Airport, and the Vero Beach Municipal Airport. While the New Hibiscus Airport, just west of the I-95/SR 60 interchange, is used primarily for agricultural spraying from its grass runway, the Sebastian Municipal Airport has the capacity for light private and corporate aircraft. As the largest airport in the county, the Vero Beach Municipal Airport is capable of handling large commercial jet aircraft.
Water transportation is provided on the Intracoastal Waterway in the Indian River Lagoon. This federally maintained water route traverses the length of the county. The nearest deepwater ports are located at Ft. Pierce to the south and Port Canaveral to the north.

In Indian River County, rail service is provided by the Florida East Coast Railroad (FEC). The FEC maintains single and double tracks just west of and parallel to US 1. The nearest FEC freight yard is in Ft. Pierce.

Aviation, Ports, and Rail issues are also discussed in the Transportation Element.

**Sanitary Sewer**

Generally, wastewater is a service that has traditionally been supplied by local government. In addition to the more technologically sophisticated and efficient central systems, traditional methods of wastewater treatment, including septic tanks, are still employed in Indian River County.

The primary purpose of wastewater treatment is to remove solids and toxic chemicals from wastewater and render organic wastes inert. After treatment, the resulting water product is then reintroduced into the natural water cycle.

Presently, there are five publicly operated regional wastewater treatment plants operating in the county. Four of those plants are operated by the Indian River County Utilities Department, while the other plant is operated by the City of Vero Beach. There are also three privately-operated package treatment plants in the county.

While the county operated plants provide a level of service of 250 gallons/residential unit/day, the city operated plant provides a level of service of 197 gallons/residential unit/day. The combined design capacity of the regional plants is 13,370,000 gallons/day, an amount sufficient to accommodate their combined average daily demand of 8,274,000 gallons/day.

Currently, the service area of the regional system includes substantial portions of the urban area of the county. As such, wastewater lines extend to much of the county’s urban area, including portions of all three of the commercial/industrial nodes along I-95. In 2006, the county utilities department had 24,250 sanitary sewer customers.

With respect to septic tanks, the Indian River County Public Health Unit, Division of Environmental Health, currently estimates that there are approximately 36,039 septic tanks in use in Indian River County. While approximately 1,272 new septic tanks were installed in 2006 in the county, that number has decreased significantly in more recent years as the level of residential construction has declined.

Within the county, many of the older residential areas were developed with well and septic tank systems on lots which, by today’s standards, are small in size. The small lot size in those areas
often results in inadequate separation distances between wells and septic tanks. For that reason, some of those areas have experienced contamination of wells.

To address that health problem, county policy has been to connect those areas to the regional potable water system. Because connection to the regional potable water system is usually sufficient to eliminate health risks, connection of those areas to the regional sanitary sewer system has been on a much more limited basis.

Wastewater and sanitary sewer systems are addressed more fully in the Sanitary Sewer Sub-Element of the Infrastructure Element and in the Capital Improvements Element. The impact of those systems is also addressed in the Conservation Element.

**Potable Water**

Water is essential to human life and is a key ingredient in agriculture, commerce and industry. Traditionally, water in urban areas has been provided by local governments, while in rural areas individual wells or water systems have sufficed. This pattern is also present in Indian River County; however, it is not uniform in all areas of the county.

In Indian River County, the water delivery system is composed of private wells and public water systems. The potable water system is discussed in greater detail in the Potable Water Sub-Element and the Capital Improvements Element. Groundwater sources are discussed in the Natural Groundwater Aquifer Recharge Sub-Element and the Conservation Element.

As with the county’s population distribution, water systems other than private wells are primarily limited to the developed eastern third of the county land area. Currently, there are four publicly owned regional water treatment plants operating in the county. Two of those plants are operated by the Indian River County Utilities Department, while the other plants are operated by the City of Vero Beach and the City of Fellsmere. While the county-operated plants provide a level of service of 250 gallons/residential unit/day, the Vero Beach and Fellsmere plants provide a level of service of 351 and 200 gallons/residential unit/day, respectively. The combined design capacity of those plants is 24,720,000 gallons/day, an amount sufficient to accommodate their combined average daily demand of 15,990,000 gallons/day.

The plants operated by the county Utilities Department use the Floridan Aquifer as their primary water source. While the City of Vero Beach uses both the Surficial and Floridan Aquifers, the City of Fellsmere uses only the Surficial Aquifer. Because water drawn from the Floridan Aquifer contains impurities, that water must be treated to become potable. For water drawn from the Floridan Aquifer, the type of treatment used by both the city and county plants is reverse osmosis. For water drawn from the Surficial Aquifer, a lime softening treatment process is used.

A by-product of the reverse osmosis process is brine; brine is water with a high concentration of impurities. That brine is then treated prior to being discharged.
The service areas of the county’s potable water plants now include substantial portions of the urban area of the county. Currently, water lines extend to much of the urban area of the county, including all three of the commercial/industrial nodes along I-95.

**Stormwater Management**

Stormwater management is the process of controlling runoff from rainwater to minimize water quantity and water quality impacts. Because of the lack of natural drainage systems in the county, stormwater management plays an important role in land development in Indian River County. Within Indian River County, stormwater is managed by a system of detention and retention ponds, drainage ditches, and canals. That system is operated by several independent agencies created by the State of Florida. A permit from one of those agencies is required prior to commencing development that increases the amount of stormwater discharged into the system. Within the urban service area, the Indian River Farms Water Control District and the St. Johns River Water Management District have stormwater discharge permitting jurisdiction. In addition to the man-made stormwater management system, soils and topography also greatly impact the drainage capabilities of the land.

The county's stormwater management system is discussed in greater detail in four other plan elements. Those elements include the Stormwater Management Sub-Element of the Infrastructure Element and the Capital Improvements Element. Additionally, the Conservation Element discusses water quality issues related to stormwater runoff, and the Coastal Management Element summarizes stormwater management within the designated "Coastal Zone". The Coastal Zone includes most of the developed portion of the county.

Generally, Indian River County can be characterized as a ditched and drained community. In the county, early drainage systems consisted of canals to drain the land for agriculture. Those canals, which drain most of the eastern portion of the county, are still managed by water control districts, which are special governmental units created by the legislature. Despite the existence of those canals, state and federal regulations require that new development control the quantity and quality of runoff through on-site stormwater management facilities.

A review of the various drainage basins in the county indicates that existing facilities can accommodate existing development if current standards are maintained. Those standards include on-site detention of runoff from the 25 year/24 hour storm event, consideration of minimum floor elevations as determined by FEMA, and drainage limitations.

Besides mitigating flood hazards, county regulations provide for higher quality stormwater. The regulations also have the effect of reducing the amount of pollutants entering receiving bodies, notably the Indian River.

Finally, the county participates in the Federal Emergency Management Agency’s Community Rating System. Through that program, building owners within jurisdictions that adopt certain permitting and information distribution procedures are charged reduced flood insurance premiums.
Solid Waste

Solid Waste service includes the removal, storage and disposition of trash, garbage and other debris. In the county, Solid Waste service is provided as a joint public/private operation. As such, local collection is available throughout the entire county from municipal or private waste collection services. The county also maintains five transfer stations, or Customer Convenience Centers, throughout the county. Those transfer stations receive solid waste dropped off by county residents.

The County Landfill is located on a 595 acre tract in the southern portion of the county. That site is relatively isolated from development and is surrounded primarily by vacant land and citrus groves. Among the facilities at the landfill are an existing borrow pit and sedimentation ponds. By 2005, 1,098,528 cubic yards of solid waste mass had been accumulated at the landfill.

As of 2005, the countywide recycling program was recycling approximately 23% of the waste stream. That program includes curbside pick-up for single-family homes and either pick-up or drop-off service for businesses and multiple-family developments.

The county’s Solid Waste program is financed by a non ad valorem assessment and managed by the county’s Solid Waste Disposal District.

Solid Waste issues are also discussed in the Solid Waste Sub-Element, the Capital Improvements Element, and the Conservation Element.

Recreation, Parks, and Open Space

Convenient access to adequate parks, recreational programs, and open space is an important component of a high quality of life. In 2005, there were 70 public parks in the County. Of those parks, 27 were located in the unincorporated County. The unincorporated county parks consist of 7 neighborhood parks, 1 community park, and 19 regional parks or specialty parks (beach, river or lake access parks). According to the Indian River County Public Works Department, the 70 parks comprise approximately 1,528 acres. Currently, only 160 acres of parkland are located south of S.R. 60.

Within its service area, the county has prepared master plans for two of its regional parks as well as the county fairgrounds. Those regional park master plans are for the South County Regional Park and the North County Regional Park.

Since 1995, the county has made several improvements to its park and recreational facilities, including the fairgrounds. Among the improvements made to the fairgrounds were construction of a 20,000 sq. ft. Agricultural Exposition building, construction of a 20,000 sq. ft. open air agricultural pavilion, construction of perimeter fencing, and others.
Since 1998, all new county park and recreation facilities have been constructed to be handicapped accessible and barrier free with no access constraints. Also since 1998, the county retrofitted all of its existing parks and recreational facilities to ensure that the facilities are handicapped accessible.

Currently, the county's existing parkland is sufficient to serve the existing population of the county. As growth continues, however, deficiencies may occur. As detailed in the Recreation and Open Space Element, the county plans to conduct a needs assessment to determine recreation capital improvement priorities. Eventually, the county will need to increase parkland in the fast growing areas south and west of Vero Beach and west of Sebastian.

In addition to parks, the county contains other open space areas. In 2007, there were approximately 100,000 acres of publicly owned open space in the county. The largest publicly owned open space areas in the county are the St. Sebastian River Preserve and the Blue Cypress and Fort Drum Marsh conservation areas. Approximately 136,896 acres of agricultural land also provide significant open space in the county.

In addition to purchasing land, the county uses development exactions to preserve open space. Currently, County Land Development Regulations require that developers of land containing native upland plant habitat preserve 15% of that habitat. The preservation of that land is accomplished through conservation easements.

Parks, Recreation, and Open Space are discussed in more detail in the Recreation and Open Space Element.

Public Safety

Public safety services, including law enforcement and fire/emergency medical services, are unlike most other public services in that these services are delivered as needed on demand. Within the county, Fire/Emergency Medical Service Station locations are shown in Figure 2.24. A majority of the county population resides within a three mile radius of one of these locations.

- Law Enforcement

For the unincorporated sections of the county, law enforcement is provided by the Indian River County Sheriff's Department through routine patrol and emergency dispatch. Those services are headquartered in a Central Sheriff's Office/Jail facility located in Gifford, in the central mainland area of the county. The municipalities of Vero Beach, Sebastian, Indian River Shores and Fellsmere provide police protection within their own corporate boundaries. The Florida State Police also provide routine traffic patrol on State and Federal Highways within the county.

Correction facilities in the county are operated by the Sheriff's Department and the Florida Department of Corrections. Located on a 40 acre site in Gifford, just north of the Vero Beach Municipal Airport, the county jail facility is part of a complex occupied by the sheriff’s administration, law enforcement and corrections divisions. Existing facilities include a 166,000
square foot administration/operations building and a jail. This centrally located facility was designed to accommodate future expansion. In addition to the county jail, the Florida Department of Corrections operates a medium security facility in a remote area of the county near the landfill.

➢ Fire/Rescue

Fire/Rescue protection services are provided countywide, except for the Town of Indian River Shores, by the county’s Department of Emergency Services. Fire/Rescue staff are dual-certified as fire fighters and paramedics. At present, the county maintains 12 fire stations. Currently, the Town of Indian River Shores operates its own Public Safety Department which includes fire protection.

Fire/Rescue service standards are based on criteria established by the Insurance Services Office (ISO). ISO also provides ratings for local areas based on compliance with its standards. For planning purposes, the standards include a 5 mile distance to a manned Fire/Rescue station and the availability of a fire hydrant within 500 feet of commercial development and 1,000 feet of residential development. Ratings are on a scale of 1 to 10, with a rating of 1 being the highest.

Being within 5 miles of a Fire/Rescue station, most developed areas of the county are rated a 4 by ISO. Response times for areas with a rating of 4 are usually less than 8 minutes. In contrast, most areas outside of the urban service area are rated 9 or 10 by ISO.

The 11 stations east of I-95 are concentrated around Vero Beach and Sebastian, with large portions of those areas within 3 miles of at least one station. Only a few areas within the urban service area are not within a three mile service area. The area outside of the urban service area is largely undeveloped and would not warrant Fire/Rescue stations.

Hospitals

Indian River County is served by two general hospitals. While the Sebastian River Medical Center is a privately owned hospital serving the northern parts of the county, Indian River Medical Center is a non-profit community hospital located north of Vero Beach in the east central area of the county. This facility offers complete medical and surgical services to the entire county.
Figure 2.24, Fire/Emergency Medical Service Stations
**Education**

The Indian River County School District provides public education for the entire county. The district operates 23 schools for over 16,200 students. In addition, 5 charter schools, with a combined enrollment of over 1,300 students, operate in the county. Those educational facilities are shown on Figure 2.25.

Within the county, the 14 elementary schools serve grades K to 5. Those schools are primarily located in the southern portion of the county in and around Vero Beach, with exceptions being one school in Fellsmere and four schools in Sebastian. One elementary school designated as a Special Education Facility is located in Wabasso. Over 7,100 students attend the district's elementary schools.

Currently, four middle schools serve more than 3,700 students in grades 6 to 8. While South county middle school students attend Oslo Middle School, central county students attend Gifford Middle School or Storm Grove Middle School, which opened in 2009. The Sebastian River Middle School, just west of the City of Sebastian, is attended by north county students.

In the south county, 9th graders attend The Freshman Learning Center, while students in the 10th through 12th grades attend Vero Beach High School. In the north county, students in the 9th through 12th grades attend Sebastian River High School. There are also several private and parochial schools, providing education through the 12th grade, in the county.

Educational opportunities beyond high school are limited to the Mueller Center Branch of Indian River State College (IRSC). The Mueller Center is located within the SR 60 corridor, near the Indian River Mall. At that location, IRSC offers two-year and four-year degrees through several technical, vocational, and baccalaureate programs. IRSC’s main campus is located in Ft. Pierce. While the nearest four year college is Florida Institute of Technology, a private institution located in Melbourne, the nearest four year public universities are Florida Atlantic University in Boca Raton and the University of Central Florida in Orlando.

**Libraries**

There are four public libraries in the county. While the county owns and operates the Main Library in downtown Vero Beach and the North County Library in the City of Sebastian, the county and IRSC jointly control the Brackett Library on the Mueller Center campus. A private non-profit group owns and operates the Marian Fell Library in Fellsmere.
Figure 2.25, Public Schools in Indian River County

Indian River County Existing School Locations

Note: Original Map prepared by CivaTerra, updated by IRC Planning Division, February 2010 to include Storm Grove Middle School
ANALYSIS

This analysis section addresses the key factors necessary for rational and efficient land use planning. Among those factors are:

- the amount of land needed to accommodate growth;
- the suitability of vacant land to accommodate growth;
- development aesthetics;
- the retention of rural lands, both natural and agricultural; and
- the need for redevelopment.

While previous comprehensive plans have been successful with regard to dictating where development occurs and setting maximum densities for new development, the county needs to ensure that this development pattern does not lead to low-density suburban sprawl throughout the urban service area. Suburban sprawl is characterized by low-density development consisting of disconnected, segregated uses. As discussed in the analysis below, the county’s policy should be to promote clustered development; walkable, connected neighborhoods; and mixed use projects, while also sustaining the county’s overall development pattern.

As is highlighted in the final report of the Committee for a Sustainable Treasure Coast, the retention of rural lands is essential for the continued functioning of the region’s natural systems and a more sustainable development pattern. Rural lands consist of both natural areas and agricultural lands. Through public acquisition of natural lands for conservation purposes, a significant expansion of conservation lands has occurred in the county in recent years.

While significant progress has been made in achieving the county’s conservation objectives, agricultural lands have been faced with significant challenges and development pressures in recent years. Those challenges have included citrus diseases, the 2004 hurricanes, rising land values, encroachment of residential ranchettes, and municipal annexations. To protect existing agricultural uses, the county should limit the encroachment of rural sprawl, which consists of low density residential ranchettes, in agricultural areas and promote the preservation of agricultural uses.

LAND NEEDED TO ACCOMMODATE 2030 POPULATION

The starting point for developing land use patterns and policies for 2030 rests with projections of the amount of land needed in each major land use category to serve or support the future population. This is accomplished with population projections and existing land use ratios.

In assessing future land use needs, the agriculture and conservation land use groups were not included, since there is no rational connection between population and their use or need at the county level.
Residential

In 2007, there were 51,502 residential units in the unincorporated county. At that time, 19,693 acres of residential land had been developed. Consequently, there was an average of .38 acres per unit in 2007. According to projections, the unincorporated county will need 67,690 residential units in 2030, an increase of 16,188 units. Assuming that the mix of housing types in the county remains constant and using the .38 acres per unit proportion for the 2030 projection of 67,690 units needed, there would be a need for 25,883 acres of developed residential land at that time.

In the unincorporated county, 32,761 acres are currently designated for residential use. Because more land is already designated for residential use than will be needed in 2030, sufficient land is available to accommodate the county’s projected 2030 population. Therefore, no additional residential land and no density increases are needed at this time.

Because of recent annexations, the county’s municipalities, particularly the City of Fellsmere, now contain a significant amount of undeveloped residential land. As this land is developed in the future, the share of the county’s population located within the municipalities will likely increase. As the municipalities’ share of the county’s population increases, the unincorporated county’s share will decrease, thereby reducing the unincorporated county’s projection of housing need.

Currently, 66% of all residential units in the county are located in the unincorporated county area, while the remaining 34% are located within the county’s five municipalities. Upon build-out, the unincorporated county’s share of residential units will decrease to approximately 56%. This is largely due to the anticipated growth of Fellsmere, which annexed 39 square miles of land between 1998 and 2007. At this time, Fellsmere contains approximately 2% of all residential units in the county. Upon build-out, it is anticipated that Fellsmere will contain 26% of all residential units in the county, while the remaining four municipalities combined will contain only 18% of all residential units.

Residential Allocation Ratio

A Residential Allocation Ratio (RAR) compares the number of residential units permitted by a jurisdiction’s future land use map to the number of residential units that are needed to accommodate the jurisdiction’s projected population within its planning time horizon. Along with historic land use patterns and other factors, an RAR can be a useful tool to determine a jurisdiction’s residential land use needs. The time period used to calculate Indian River County’s current RAR is from 2007 to 2030.

The following formula is used to calculate the RAR:

\[
\text{RAR} = \frac{\text{Total number of units allowed by FLU Map} - \text{Existing units (2007)}}{\text{Projected number of units needed in 2030} - \text{Existing units (2007)}}
\]
Based on the best available data, including the latest population projections, the county’s current residential allocation ratio is:

\[
96,029 - 51,502 = 44,527 \\
67,690 - 51,502 = 16,188
\]

Thus, the county’s current RAR is: \(44,527 / 16,188 = 2.75\). With the current RAR of 2.75, the county’s Future Land Use Map allows approximately 2.75 times the residential units needed to accommodate the unincorporated county’s projected population growth by 2030.

- Decrease in RAR

Since 1998, the county’s RAR has decreased from ±4.62 to ±2.75. This is a reduction of approximately 41% in just twelve years. While the RAR has decreased significantly, the county continues to have sufficient land designated for residential development to accommodate demand through 2030. With the current RAR of 2.75, the unincorporated county has nearly three times the amount of residentially designated land needed to accommodate the increase in the unincorporated county’s population projected to occur between 2008 and 2030. Therefore, sufficient land and densities are provided by the county’s Future Land Use Map to allow residential growth beyond 2030. Consequently, no new areas need to be designated for residential development, and no density increases are needed in areas already residentially designated.

In 2007, the City of Fellsmere annexed more than 22,000 acres of agriculturally designated unincorporated county land. Under the county’s comprehensive plan, most of that annexed land was designated residential with a maximum density of 1 residential unit per 10 acres. Recently, the City of Fellsmere initiated the process to redesignate 18,545 acres of that land to allow for 19,750 residential units. If, for example, the 18,545 acres of annexed agricultural land were developed in the unincorporated county at 1 unit per acre, the county’s RAR would increase from 2.75 to 3.90, meaning that nearly four times more residential land would be available than needed to accommodate the county’s projected 2030 population.

**Non-residential**

Besides providing sufficient land area to accommodate the future population, the county must also provide sufficient area for non-residential land uses. In terms of methodology, the 2007 ratio of population to acres of non-residential land use was used to project the amount of non-residential land needed to accommodate the 2030 population. This method assumes that the land use intensity of non-residential development will remain constant.

Just as the county’s Comprehensive Plan limits residential development intensity, the plan also limits the intensity of development for areas designated as commercial/industrial. Like most local governments, Indian River County uses density, usually reported in units/acre, as its measure of residential land use intensity. For measuring non-residential land use intensity,
however, Floor Area Ratio (FAR) is the generally accepted standard. FAR is a measure of non-residential land use intensity expressed as the ratio of building floor space on a parcel to total parcel area. For example, a 10,000 square foot building on a 1 acre parcel has a .23 FAR \(\frac{10,000}{43,560} = .23\). In such a case, a 5,000 square foot second story would increase the FAR to .34 \(\frac{15,000}{43,560} = .34\).

While density limits are usually incorporated in comprehensive plans or zoning district regulations to control residential development intensity, FAR limits are often established to control non-residential development intensity. In addition to the FAR requirements in the Comprehensive Plan, the county also controls non-residential land use intensity in other ways. Through its land development regulations, the county has established standards for minimum open space, maximum building coverage, maximum building height, and minimum parking, as well as setback and stormwater management requirements. Together, those standards effectively limit non-residential development intensity.

Current state law, however, requires all local governments to adopt intensity standards in their comprehensive plans for all commercial/industrial land use designations. Those standards are implemented by applying a maximum allowed FAR to commercial/industrial development.

Different commercial/industrial uses, however, have different impacts on public facilities and services, and on surrounding areas. According to the Institute of Transportation Engineers (ITE), 1,000 square feet of retail uses, 6,000 square feet of general office uses and 14,000 square feet of general industrial uses all generate 98 peak hour trips. Therefore, one FAR limit is not appropriate for all commercial/industrial uses. For the impacts of different uses to be equal, it is necessary to allow a greater FAR for general industrial uses than for office uses, and a greater FAR for office uses than for retail uses.

Within Indian River County, most existing commercial and industrial developments generally have FARs within the 0.1 to 0.2 range. While the highest FAR is approximately 0.45, the lowest FAR is approximately 0.07. Therefore, the county’s land development regulations generally result in development occurring at an intensity of less than a 0.45 FAR.

In order to project the maximum potential impact of commercial/industrial development on public facilities, the county has historically calculated the maximum development potential of commercial/industrial land as 10,000 square feet of retail per acre of land. That figure is based on analysis of two factors. One of those factors is county land development regulations that regulate land use intensity (e.g. minimum open space, maximum building coverage, maximum building height, minimum parking, setback and stormwater management requirements and others). The other factor is the impact on public facilities by particular uses. Through that analysis, the county determined that the most intense commercial/industrial use allowed would be 10,000 square feet of retail development per acre of land.

Overall, a maximum intensity level equal to 10,000 square feet of retail per acre is consistent with the low-density, low-rise character of the county. One way to maintain that character while
allowing for development is to limit the FAR of retail uses to 0.23, the FAR of office uses to 0.35, and the FAR of industrial uses to 0.50. Setting a three-tiered FAR limit recognizes the different impacts of different commercial/industrial uses. Those standards also ensure that the land use intensity of non-residential development will remain constant through 2030.

Although the referenced FARs are appropriate for commercial/industrial uses generally, there are some circumstances where higher FARs are appropriate. Those circumstances involve developments where higher intensity uses are necessary. Specifically, this includes mixed use development, traditional neighborhood design projects, and new towns. Accordingly, the county’s policy should be to allow higher FARs for the above referenced types of development.

According to the Introductory Element, the county’s functional population is the county’s residential population plus its seasonal population. The county’s seasonal population is comprised of those persons who visit the county or reside in the county for a period of less than 6 months (e.g. tourists, migrant farm workers, and other short-term and long-term visitors). In 2010, the functional population of Indian River County is projected to be 164,474. The Introductory Element projects that the county’s functional population will increase an additional 37%, to 224,915, by 2030. Based on that rate of increase and Property Appraiser data from 2007, it is possible to determine non-residential land use needs for 2030. Table 2.11 provides that information.

Table 2.11, Non-Residential Future Land Use Needs

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>2007 Acres</th>
<th>2030 Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial/Industrial</td>
<td>2,394</td>
<td>3,280</td>
</tr>
<tr>
<td>Recreation</td>
<td>1,283</td>
<td>1,758</td>
</tr>
<tr>
<td>Public Facilities</td>
<td>722</td>
<td>989</td>
</tr>
</tbody>
</table>

Source: Indian River County Planning Division

When compared to the amount of land currently available for development in each category, the information in Table 2.11 can be used to determine how much land should be designated for each category in the unincorporated portion of the county. Currently, there are 5,538 acres of commercial/industrial designated land within the unincorporated county area. Since the 5,538 acres of C/I designated land exceeds the projected 3,423 acres needed by 2030, there is sufficient land designated for commercial and industrial use. While the county has sufficient commercial/industrial land through 2030, additional land will need to be designated for recreation and public facility uses by that year.

**VACANT LAND**

According to the Indian River County Property Appraiser's 2007 data, the county contains approximately 15,557 acres of vacant land within the unincorporated urban service area. Of that total, 2,489 acres are classified as vacant commercial/industrial, while 13,068 acres are classified as
Future Land Use Element

Generally, the development potential of the county’s vacant land is influenced by the factors discussed below--soil, topography, and natural and historic resources. The availability of services and facilities also greatly influences the development potential of vacant land.

Within the county’s urban service area, there are few development constraints due to natural features or lack of facilities and services. As detailed in the Land Needed to Accommodate Population section, there is more than enough existing vacant land within the urban service area to accommodate the projected 2030 population.

**Vacant Residential Land in the Urban Service Area**

Within the unincorporated county area, vacant land now accounts for 40% of residential land. Of the 13,068 acres of vacant residential land, approximately three-fourths (9,861 acres) consists of undeveloped raw land. The remaining 3,207 acres of vacant residential land consist of vacant lots in existing, platted subdivisions, such as Vero Lake Estates. In total, there are 10,098 vacant lots in existing, platted subdivisions at this time.

During the 2004-2006 residential development boom, development projects were proposed on much of the county’s vacant residential land. While many of those projects never became more than proposals, a significant number of those proposed projects received entitlements for residential development. It is expected, however, that many of those projects will not be developed in the near future. In many cases, the current development entitlements will expire in the next few years. Future development of those parcels would then be subject to the development regulations in effect at that time.

At this time, there are only a few 100 acre-plus vacant residential parcels inside the urban service area in the unincorporated county that do not already have development entitlements. Consequently, it is unlikely that any new residential Developments of Regional Impact (DRI) will be proposed in the unincorporated county.

Currently, sufficient vacant residential land exists within the urban service area in the unincorporated county to accommodate expected growth through the 2030 horizon year. According to projections, the unincorporated county will need 67,690 residential units in 2030, an increase of 16,188 units. At this time, the county contains 10,098 vacant lots in existing subdivisions as well as 9,861 acres of undeveloped raw land. This vacant land is sufficient to accommodate population growth between 2010 and 2030.

**Build-Out Potential**

Based on existing allowable densities, the unincorporated county is nearly 50% built-out at this time. In 2007, there were 51,502 residential units in the unincorporated county. Upon build-out, the unincorporated county is projected to contain 106,661 residential units. Because single-family development occurs at densities substantially less than the maximum allowed by the
Future Land Use Element, the 106,661 units projected at build-out represent fewer units than the maximum allowed by the Future Land Use Map. If single-family development continues to occur at densities substantially less than the maximum allowed by the by Future Land Use Map, then it can be expected that the unincorporated county’s build-out potential will be reduced in the future.

Currently, comprehensive plan policies direct the vast majority of residential development to land inside the urban service area. Of the projected 106,661 residential units at build-out, 96,029 units (or 90%) will be located inside the urban service area. The remaining 10,632 units will be located outside of the urban service area.

Because of the recent municipal annexations and the future land use plan densities expected to be assigned to those annexed areas, the build-out potential for the total county has increased significantly. Upon build-out, it is projected that the unincorporated county and the county’s municipalities will contain 188,848 residential units. At that time, the county’s five municipalities will contain 82,187 residential units. Of these residential units, 49,474 residential units will be in the City of Fellsmere, while the remaining 32,713 residential units will be located in the county’s other municipalities.

**Use Suitability of Soil**

Within the county, soils can limit development activity in two major ways: load bearing capacity and suitability for sanitary facilities. Those characteristics are addressed in the United States Department of Agriculture Soil Conservation Service’s soil survey for Indian River County. In addition to mapping the different soils, the survey also provides an analysis of the soils. The analysis, which includes the physical, chemical, and hydric composition of each soil type, provides a basis to evaluate the soil potential for different uses. Table 2.12 is a summary of soil ratings and limitations from the Soil Survey. (Soils are also discussed in the Conservation Element). That table indicates that most soils in the county present severe limitations for site development and sanitary facilities.

Usually, building limitations are due to the wetness of the soil. The wetness of the soil can result in the ponding of water, flooding and caving of excavation. The wetness also presents severe limitations to sanitary facilities and, in particular, to septic tanks. Since wetness and ponding lead to poor filtering and slow percolation, wet soils are unable to adequately drain.

Within the county, those limitations can be reduced through the use of certain building techniques and standards. Those techniques and standards include raising the elevations of sites through the use of fill dirt and enhancing the natural drainage area of development projects.

Throughout the county, septic tanks are permitted by the Environmental Health Department. To ensure that adequate sanitary facilities are provided for sites not connected to the county’s centralized sanitary sewer system, county building regulations require the issuance of a septic permit prior to issuance of a building permit. Several standards used by the Environmental
Health Department to guarantee the viability of septic systems include: a minimum septic tank elevation requirement of 48" above the wet season water table; a minimum separation distance requirement between septic tanks and potable water wells of 75 feet; and a limitation on total building square footage based on lot size and drainfield requirements.

Because of the limitations associated with on-site septic systems, the county’s policy should be to expand the public sanitary system throughout the urban service area. The Sanitary Sewer Sub-Element provides additional analysis of septic tank suitability in the county and the regulatory framework under which septic tanks are permitted.

<table>
<thead>
<tr>
<th>Soil Drainage</th>
<th>Corrosivity</th>
<th>Irrigation</th>
<th>Septic Fields</th>
<th>Dwellings</th>
<th>Pond</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Steel</td>
<td>Concrete</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorly Drained</td>
<td>Moderate to High</td>
<td>Low to High</td>
<td>Wetness, Droughty, Fast intake</td>
<td>Severe limitations – Wetness, Percolates slowly</td>
<td>Severe limitations – Wetness</td>
</tr>
<tr>
<td>Moderately Drained</td>
<td>Low to Moderate</td>
<td>Low to Moderate</td>
<td>Wetness, Droughty, Fast intake</td>
<td>Severe Limitations – Percolates slowly, Poor filtering</td>
<td>Slight to Severe Limitations – Wetness</td>
</tr>
<tr>
<td>Excessively Drained</td>
<td>Low</td>
<td>Moderate to High</td>
<td>Droughty, Fast intake, Soil blowing</td>
<td>Slight – Very poor filtration. Potential for groundwater contamination</td>
<td>Slight</td>
</tr>
</tbody>
</table>

Data Source: U.S.D.A. - Soil Conservation Service

Figure 2.26 shows soil characteristics which present severe limitations to development.

**Use Suitability of Topography**

The topography of Indian River County is generally flat with the exception of several ridges. Due to the lack of rough or rugged terrain, topography does not present any major limitations to development. Only a few areas along the coastal ridge have slopes steep enough to constrain development.

Overall, topography is one of the principal influences on the drainage system. Because much of the county consists of relatively low flatlands, many of those areas, including the highly developed eastern mainland, would be underwater for portions of the year without man-made drainage ditches and canals. There are, however, certain county areas, such as the barrier island, the sand ridges, the St. Sebastian River area, and the higher elevations in the western county, which have a topography that results in the natural runoff of stormwater.

Going forward, the county’s policy should be to require that stormwater runoff from new development does not negatively impact adjacent properties or receiving water bodies. Because of the county’s flat terrain, stormwater management systems are necessary to direct and retain stormwater runoff in developed areas of the county. Without such systems, frequent flooding
would occur in many areas of the county. Stormwater drainage is discussed in detail in the Stormwater Management Sub-Element.

**Use Suitability of Natural Resources**

Natural features may singly, or in combination with other features, place severe limitations on the development potential of a land parcel. Since natural features are more likely to be obstacles to development rather than incentives, they are considered constraints. The constraints presented herein are intended to be generalized and not site specific; individual parcels need further evaluation to determine specific constraints and limitations.

- **Wetland Resources**

The many and varied wetland resources of the county play a vital role in the overall ecosystem of the county. In addition to serving as prime habitat for many different plant and animal species, wetland resources also serve residents of the county by providing scenic vistas and open space as well as recreation. Therefore, wetlands are an important component of the quality of life and the economy of the county. For those reasons, development of wetlands should be avoided, if possible. Additionally, development near wetlands should be designed in a manner that has the least impact on the wetlands.

Wetland resources, along with policies aimed at their protection, are discussed in greater detail in the Conservation and Coastal Management Elements. Figure 2.27 identifies those areas of the county which contain significant swamp or marsh areas as well as specific wetland sites.

Recognizing the importance and value of wetland resources, county comprehensive planning policies should reflect various techniques to protect wetlands from development. These should include land use and zoning designations to limit densities, the transfer of development rights from wetland areas to contiguous upland parcels for planned developments, and restrictions on the dredging and filling of wetland areas. In areas where wetlands are developed, those losses should be mitigated by the creation of new wetland areas.
Figure 2.26, Soil Characteristics in Indian River County
Figure 2.27, Generalized Wetland Densities

Source: USFWS National Wetlands Inventory (1986)
Indian River County Planning Division

IN INDIAN RIVER COUNTY

SCALE

Miles

Source:

0 1 2 3 4

Percent wetlands coverage

0-20% 21-40% 41-60% 61-80% 81-100%

ATLANTIC OCEAN
Water Bodies and Floodplains

In Indian River County, naturally occurring freshwater streams are limited to the St. Sebastian River in the northern part of the county and several less defined sloughs and creeks in the western part of the county draining into the St. Johns Marsh. The estuarine system includes the Indian River Lagoon and associated wetlands. Besides those waterbodies, the county also has 26 miles of Atlantic Ocean beach.

In addition to providing ecological and aesthetic resources, those areas are among those most prone to flooding. Currently, Indian River County participates in the National Flood Insurance Program (NFIP). The NFIP provides the county with Flood Insurance Rate Maps (FIRM) which depict the various flood zones within the county. Two categories of zones are of special concern: those within the 100 year flood plain and those in velocity zones (subject to wave action). Figure 2.23 depicts the areas within the county that are subject to flooding using National Flood Insurance criteria. Those areas in the eastern portion of the county subject to flooding include most of the barrier island, the areas of the mainland abutting the Indian River (mostly estuarine wetlands), the St. Sebastian River wetlands, the drainage areas along I-95 in the northern part of the county, and a large portion of the south county between I-95 and 58th Avenue. In addition to limiting development within areas prone to flooding, county comprehensive plan policies should require that development in flood prone areas be consistent with NFIP standards.

Despite being flood prone, areas along natural bodies of water are attractive for residential development, primarily for aesthetic and recreational reasons. Those areas are also likely to contain important ecological habitats. For those reasons, county comprehensive plan policies should limit development in those areas to only low density residential uses, while directing all other development to adjacent uplands.

Woodlands

Throughout the county, forest and woodlands are scattered in bands along the ridges and in the westernmost part of the county. Having no commercial value at this time, those woodlands serve as green areas and wildlife habitat. Compared to other natural areas, woodlands generally have fewer development constraints. The exception, however, is Xeric Scrub. That habitat is rare and supports several protected species of plants and animals. In the future, the county’s policy should be to protect environmentally sensitive lands by limiting building densities, by requiring set-asides (or conservation areas), and by permitting the transfer of development rights. Depicted on Figure 2.28, wooded areas are discussed in greater detail in the Conservation Element.
Figure 2.28, Florida Flatwoods
Groundwater Recharge Areas

Underlying Indian River County are two aquifers that provide county residents with all water for domestic consumption. Those aquifers are recharged or filled by the percolation of rain and surface water through soil layers into the underground reservoirs. Those areas which provide the greatest potential for recharge are classified as "Prime Recharge Areas" and are shown on Figure 2.29. While excessive development of those areas can result in changes to natural drainage patterns and reduce recharge potential, excessive use of septic tanks and hazardous materials in those areas can increase the possibility of contamination of the aquifer.

For the county public water system, the public water supply source is the deep aquifer which, because of its depth, is less likely to be subject to contamination from ground sources. Recharge areas for that aquifer are located northwest of the county.

Within the county, those areas which contain community wells that draw large quantities of water are especially subject to contamination or pollution. Generally, groundwater contamination can result from excessive or improper use of septic systems and other wastewater treatment facilities, the leakage of chemicals and fuels stored underground, seepage from landfills and other waste storage areas, or surface spills of hazardous materials. For each of the community wells or wellfields in the county, zones of influence have been calculated. Those zones vary in size due to the amount or volume of flow, depth of the well and the porosity of the aquifer. Within those zones, the county’s policy should restrict uses that could contaminate community wells.
Figure 2.29, Aquifer Recharge Areas
Summary of Use Suitability of Natural Resources

Overall, the natural features of the county provide various constraints to development, many of which can be overcome through modern building and engineering techniques. In fact, one natural resource constraint that has been mitigated through engineering is drainage. With respect to drainage, large areas of the county would be underwater, if it were not for the county’s extensive system of drainage canals and ditches.

In some cases, modifications are relatively simple and provide minimal adverse impacts to the environment. Where only slight modification is required, areas are generally suited for most types of development. Other areas require extensive man made improvements to achieve even the lowest intensity of development. Often those improvements include the wholesale destruction of important and sensitive habitats. In those areas, development should be kept to a minimum and highly regulated to ensure the protection of natural features and resources.

Figure 2.30 is a composite of the natural constraints in the county. In those areas which contain severe constraints, the county’s policy should be to restrict development.

A review of existing development and natural land uses reveals the following important facts:

- destruction of natural areas is most evident in the eastern portion of the county, especially waterfront areas along the Indian River and on the barrier island;
- continued reliance on septic tanks increases the potential for pollution of the shallow aquifer;
- the use of septic tanks in soils which are not suited for septic tanks and development in areas with low elevations require large amounts of fill dirt obtained by mining;
- the large amounts of runoff that result from development can lead to the need for expensive drainage improvements, pollution of natural water bodies, and localized flooding; and
- development of wetlands, woodlands and other natural areas results in the destruction of natural habitat, upsetting the natural balance of the ecosystem.

Wherever development occurs, the natural state of the land is altered, most of it without serious consequences. Certain areas, however, are of such a sensitive nature that their alteration can lead to serious problems for nature and humans alike. In the past, much of the land area of the county was drained and cleared for agriculture. While it is impossible to preserve all natural areas, development policies and land use regulations can and should protect sensitive areas and limit the destruction of the environment.
Figure 2.30, Natural Constraints Composite
**Use Suitability of Historic Resources**

In April 1989, an historic properties survey was completed for unincorporated Indian River County. That survey identified 284 historically or architecturally significant existing buildings that were constructed between circa 1900 and circa 1940.

Besides buildings, Indian middens are a prevalent archeological resource in Indian River County. Since many areas within unincorporated Indian River County which contain or are suspected of containing Indian middens are presently under public ownership (e.g. Pelican Island National Wildlife Refuge, and the Oslo Road Conservation Area), a significant number of middens are currently protected.

For those middens not located on public land, the county’s policy should be to protect the middens to the extent possible. Consequently, the county should require developers who discover middens during the construction of a development project to take several steps. Those steps should involve the developer notifying the county and ceasing most activities immediately. At that point, it is the county’s responsibility to survey the historic resource to determine if it is significant. If the find is determined to have sufficient significance, a protection plan should be developed and implemented.

**DEVELOPMENT IN THE URBAN SERVICE AREA**

Since 1990, Indian River County has had a designated urban service area (USA). Located almost entirely east of Interstate 95, the USA is that portion of the county where urban services and facilities are provided. As such, the USA is that part of the county which can accommodate higher intensity development.

While the principal purpose of the urban service area is to establish where urban facilities such as water and sewer lines are constructed and where urban services are provided, the USA also serves as an urban growth boundary. In that capacity, the USA serves as the area in which urban development is encouraged, and outside of which urban development is prohibited.

In its present position, the urban service area boundary provides a clear delineation between urban and rural areas. Since the uses allowed outside the USA are limited to extremely low density residential uses or clustered development, as well as agricultural and natural uses, the USA serves to maintain the rural character of the land outside the urban service area. For that reason, the USA provides an important function in directing urban and rural development to appropriate locations.

An important aspect of the county’s comprehensive plan and future land use map is to direct residential, commercial, and industrial growth to property inside the urban service area. In so doing, the plan ensures that infrastructure investments are made in an efficient and cost effective manner, while urban development occurs in a generally compact pattern.
In the future, the county’s policy should be to maintain its urban service area. In so doing, the county should maintain its current USA boundary, except for those areas where commercial/industrial nodes need to be expanded for economic development purposes. Also, the county should continue to restrict urban development outside the USA.

**Residential Development**

As of 2007, a majority of the residential land in the unincorporated county urban service area had been developed. Developed land consists of those residential parcels with either an existing residential unit or a building permit to construct a residential unit. By 2007, 19,693 acres (or 60%) of residential land in the unincorporated county urban service area had been developed.

In addition to the developed land described above, the unincorporated county, in 2007, contained 10,098 vacant lots in existing, platted subdivisions. Those vacant platted lots comprised 3,207 acres of residential land. Combined, developed residential land as well as vacant platted lots comprise 22,900 acres, representing 70% of the 32,761 acres of residually-designated land in the unincorporated county urban service area.

Within the unincorporated county urban service area, significant development potential still exists. In addition to the 10,098 vacant lots in existing, platted subdivisions, there are approximately 9,861 acres of undeveloped residential land. Because more land is already designated for residential use than will be needed in 2030, sufficient land is available to accommodate the county’s projected 2030 population.

- **Residential Densities**

Besides dictating where residential growth occurs, comprehensive plan policies also dictate the density of new residential development. In the past, new residential development in all residential categories has occurred at or below the maximum densities specified in the comprehensive plan.

Generally, single-family residential growth has occurred in areas designated L-1 and L-2. Combined, those two land use categories account for over 76% of residential land within the urban service area. In both L-1 and L-2 areas, new single-family developments have been built at densities lower than the maximums allowed by the county’s Future Land Use Map. In the L-1 category (up to 3 units/acre), for example, the corresponding zoning district is typically RS-3 (single-family residential, up to 3 units/acre). While both the L-1 future land use category and the RS-3 zoning district allow up to 3 units/acre, most L-1/RS-3 subdivisions are developed at less than 2 units/acre. Similarly, subdivisions developed in the RS-6 zoning district (single-family residential, up to 6 units/acre), the corresponding single-family zoning district to the L-2 future land use category, are typically built at approximately 3 units/acre. In 2006, for example, new RS-3 subdivisions had an average density of 1.7 units/acre, while new RS-6 subdivisions had an average density of 2.3 units/acre.
Generally, multi-family residential development has occurred in areas designated M-1 and M-2, as well as in some areas designated L-2. In those areas, the density of new multi-family residential projects has been close to the maximum allowed by the L-2, M-1, and M-2 (6, 8, and 10 units/acre, respectively) designations.

Because the L-1 and L-2 land use categories account for over 75% of residential land within the county, the county needs to ensure that the development pattern in those areas does not lead to low-density suburban sprawl throughout the urban service area. Suburban sprawl is characterized by low-density development consisting of disconnected, segregated uses. To achieve an efficient and compact land use pattern with an overall low density character, the county’s policy should be to promote clustered development; walkable, connected neighborhoods; and mixed use projects.

- Development of Vacant Lots in Existing Subdivisions

During the 1996-2007 period, a significant amount of residential construction occurred on vacant lots in existing, platted subdivisions. The three existing subdivisions with the highest number of single-family residences constructed during this period were Vero Lake Estates (1,709 homes), Vero Beach Highlands (466 homes), and Oslo Park (382 homes).

Consisting of approximately 5,000 lots in an area of approximately three square miles, Vero Lake Estates is the largest subdivision in the unincorporated county. During the 1996-2007 period, the number of residences in Vero Lake Estates nearly quadrupled, increasing from 634 in 1996 to 2,343 in 2007.

As of 2007, the unincorporated county area contained 10,098 vacant lots in existing, platted subdivisions. Of those lots, nearly a quarter (2,376 lots) are in Vero Lake Estates. The remaining vacant lots are dispersed in subdivisions, including both older and newer developments, throughout the unincorporated county area.

While the long-delayed construction of the Vero Lake Estates subdivision is beneficial to the county, the rapid pace of construction in that subdivision does create challenges. Such challenges result from inadequate infrastructure within the subdivision (roads, water, and sewer) as well as increased demands on county roads used to access Vero Lake Estates. Because of the challenges resulting from construction of homes in older subdivisions with inadequate infrastructure, the county will need to make infrastructure improvements in existing subdivisions such as Pine Tree Park, Oslo Park, Vero Lake Estates, and others. In particular, unpaved roads need to be paved, and water lines need to be constructed. Usually, these types of improvements are done through assessment projects, where benefiting land owners pay their fair share of the improvement costs.

Aesthetics of Residential Development

Oftentimes, new residential developments are disconnected from adjacent neighborhoods and have insufficient pedestrian networks. In addition, some new residential developments have insufficient landscaping and monotonous architecture.

Future Land Use Element
In the future, the county’s policy should be to promote walkable, connected neighborhoods; to promote the integration of residential and commercial uses via mixed use projects; and to address aesthetic concerns regarding landscaping and residential architecture. Those areas of concern are discussed below, with the exception of promoting mixed use projects which is discussed later under “Commercial Development”. Also discussed is one approach to resolving those issues, traditional neighborhood design (TND).

Connectivity

Connectivity refers to interconnecting streets among and between individual developments to create an interconnected system of local roads. In residential areas, those interconnections can be vehicular (interconnected streets or driveways) or pedestrian (sidewalks or trails). The resulting system provides convenient pedestrian routes and alternatives to major roadways (arterials and collectors) for some vehicle trips. Benefits of interconnected streets include reduced trips on nearby major thoroughfares, reduced trip lengths for journeys between nearby developments, and more efficient integration of land uses.

Prior to the 1960s, it was common in Indian River County, as well as many localities across the nation, for residential subdivisions to be laid-out in a simple grid pattern of public streets. Local examples include original town areas of Vero Beach and Fellsmere, Vero Lake Estates, Paradise Park and Oslo Park. During that era, some modified public street grid layouts were approved and developed. McAnsh Park in Vero Beach is an example of a modified grid. The grid systems of those older subdivisions were extended to project boundaries and were picked-up and extended when adjacent sites were developed.

In recent decades, typical subdivision layouts in the county, and throughout the nation, have consisted of self-contained, curvilinear and cul-de-sac systems of private streets. Many of those developments are gated communities with private streets. Those subdivisions have few connections to the "outside" public street system and most often no connections to adjacent residential developments.

Several factors limit the creation of interconnected roadway systems, including:

- Physical constraints such as canals, environmentally sensitive lands, FDOT outfall ditches, existing development, and other factors that physically preclude connections.
- Opportunity constraints relating to "piece-meal" development of individual projects over time vs. the opportunity to coordinate individual projects at the same time (e.g. South County Initiative).
- Opportunity constraints relating to the "funneling effect", whereby there is only one potential inter-connection that leads through a small existing neighborhood from a large project. Such situations, where significant traffic from a large project would be funneled through a street serving a few residences, should be avoided.
- Objections from existing residents potentially affected by proposed connections. Such objections and concerns are widely reported in localities across the nation and stem from
fears of increased traffic, “cut-through” traffic, and attendant nuisance and safety concerns. Existing residents rarely perceive that a proposed interconnection will provide access benefits that outweigh the potential adverse impacts. Consequently, connectivity requirements are easier to implement in areas with few or no existing residents.

Because interconnections between adjacent developments are beneficial for the reasons identified above, new development projects should be required to provide interconnections. Where new development projects abut undeveloped property, the county’s policy should be to require that the development be designed to accommodate interconnection at a future date when the undeveloped property is developed. Exceptions could be allowed for roadway segments that would create a “funneling effect” through an existing neighborhood or roadway segments that have no potential for providing interconnectivity or through-street benefits (e.g. segments that dead-end into water bodies, developed properties, or environmentally sensitive areas). In conjunction with promoting connectivity, the county should develop traffic calming standards and designs to address concerns about the speed of “cut-through” traffic.

➢ Enhancing Pedestrian Options

One critical component in any community is a viable pedestrian network. Prior to 2005, sidewalks were required only in subdivisions with densities exceeding 3 units/acre. In that year, the county’s development regulations were amended to require sidewalks on at least one side of all streets in new residential developments inside the urban service area.

The provision of sidewalks, however, is merely a first step in the development of a successful pedestrian system. Because sidewalks generally follow streets, street patterns often determine the walkability of a community. Grid street networks, or other patterns featuring multiple interconnections, promote walkability by providing multiple options to pedestrians. On the other hand, street patterns that include many conventionally designed dead-end streets or cul-de-sacs reduce walkability by limiting the options available to pedestrians, thereby increasing dependence on automobiles. For those reasons, interconnections need to be provided between adjacent new developments, and new dead-end streets, including cul-de-sacs, should be designed with special pedestrian connections or limited to only roadway segments that have no potential for providing interconnectivity or through-street benefits (e.g. segments that dead-end into water bodies, developed properties, or environmentally sensitive areas).

As discussed in the Transportation Element, a successful pedestrian system also connects residential neighborhoods to nearby pedestrian attractors such as schools, parks, and neighborhood commercial areas. Consequently, county policies should promote the construction of sidewalks in areas surrounding schools, parks, and neighborhood commercial areas. Currently, the county requires a sidewalk on at least one side of all new residential streets. That sidewalk requirement should be expanded to require sidewalks on both sides of streets in higher density residential and mixed-use projects.
Residential Landscaping/Buffers

In addition to minimizing impacts on residential properties from adjacent roadways and incompatible uses, landscape buffers also enhance the natural aesthetics of a residential development. In recent years, the county has strengthened landscape requirements for residential developments by increasing buffer and common open space requirements and by establishing a two canopy tree requirement for every new single-family residence.

Current development regulations emphasize landscaping along project perimeters. While landscape buffers are necessary along project boundaries abutting busy streets or incompatible uses, landscape buffers along boundaries abutting other residential uses benefit only a limited number of residents, specifically those whose lots back-up to the buffer. In contrast, common open space areas benefit all project residents. Therefore, county policies should emphasize landscaped common open space areas accessible to all project residents in place of perimeter buffers abutting similar residential uses.

Appearance of Single-Family Residences

Oftentimes, new single-family subdivisions exhibit a monotony, or lack of variation, in residential architecture. Generally, design monotony results from the overuse or too-frequent repetition of a model or similar models within a subdivision. Additional causes of monotony include lack of articulation (particularly for two-story residences), garage placement at the front of a house, and building mass/scale that is not in proportion to lot size.

To combat monotony, the county’s policy should be to require design guidelines that apply to the appearance of houses within certain types of new residential development. In particular, design guidelines should be required of all new planned developments (PDs). Such guidelines would need to address garage placement and scale, frequency of use for a model within the same subdivision, building materials (façade and roof), building massing and architectural details that relate to articulation, the project’s appearance from adjacent public streets, and internal streetscaping. For all new residential PDs, design guidelines should be project-specific and require approval by the Planning and Zoning Commission prior to release of development plans.

Commercial/Industrial Development

As discussed above in the “Land Needed to Accommodate 2030 Population” section, the county has an adequate supply of commercial/industrial designated land on its Future Land Use Map to accommodate projected 2030 demand.

Currently, there are 2,394 acres of developed commercial and industrial land within the county’s C/I nodes. Those 2,394 acres represent only 43% of the total 5,538 acres within the C/I nodes, suggesting that the county has sufficient commercial and industrial designated land. Based on current employment trends and estimated future population growth, there will, by 2030, be a need within the overall county (unincorporated county plus the municipalities within the county).
for approximately 3,557 acres of commercial/industrial designated land. That means that, if none of the municipalities within the county had any commercial, office, and industrial uses, the county would still have an excess of 1,980 acres of commercial/industrial designated land by the year 2030.

The projections of future commercial/industrial needs are based on the assumption that historical county employment and demographic trends will continue. Since 1980, approximately 40% of the county’s overall population has remained employed, a figure that is somewhat low when compared to other area counties. That percentage has remained relatively constant and is relatively low because the county’s economy is predominately service based and because the county has a high percentage of retired people.

Although the county has enough commercial/industrial designated land to meet 2030 demand based on current assumptions, the county intends to increase its economic development efforts in the future. With the objective of attracting more basic industry, the county recently increased its jobs grant incentive amounts and is currently pursuing adoption of an economic development property tax abatement program. Coupled with the county’s participation in the regional Research Coast economic development program, those initiatives could increase demand for industrial land around the county’s interstate interchanges.

Consequently, the county should maintain the current commercial/industrial designations in most areas of the county. In recognition of the county’s enhanced economic development efforts, however, the county should consider expansion of the I-95/SR 60 commercial/industrial node. That expansion will provide a greater opportunity for growth in basic industries (businesses that export a majority of their products), consistent with the policies of the Economic Development Element.

➤ Changes in Commercial/Industrial Node Acreage

Since 1998, several commercial/industrial node boundaries have been revised, in some cases reducing the overall size of a node. For instance, the U.S. 1 from 69th Street to 57th Street node acreage was reduced by 147.65 acres, and the developed acreage for the node was reduced by 57.52 acres. That was due to reallocation of developed and vacant land associated with property splits and recent development approvals. In addition, the U.S. 1 from 57th Street to 49th Street node had its developed acreage reduced by approximately 84.59 acres. That was due to the swapping of residential and commercial/industrial designated land. In that case, the former Whispering Lakes Golf Course on 53rd Street at the end of Indian River Boulevard was converted to residential development. The commercial/industrial designation of that land was then shifted south of 53rd Street and west of Indian River Boulevard.

Overall, those commercial/industrial node changes increased the county’s land use efficiency by putting C/I land where it is needed. In the future, the county should support land use designation swaps where such swaps are appropriate and increase land use efficiency.
SR 60/58th Avenue Node

Currently, the SR 60/58th Avenue commercial/industrial node contains the Indian River Mall and multiple shopping centers, and is a regional shopping hub for the county. As of 2008, the node was over 78% developed and contained over 2 million square feet of commercial building square footage. Because of the concentration of retail in that area, that node is one of the most visited in the county. Consequently, the SR 60/58th Avenue intersection is one of the busiest intersections in the county.

Given the intensity and concentration of commercial uses within that node, however, and given the amount of traffic that traverses the SR 60/58th Avenue intersection, the county should cap that node at its current size and prohibit its expansion.

Roseland Node

One component of the Historic Roseland Neighborhood Plan is that the county will initiate a Future Land Use Element amendment to “cap” the commercial/industrial node boundaries in Roseland. That plan determined that there is sufficient land within that node to accommodate needed commercial and industrial uses for area residents. At this time, the Roseland/U.S. Highway 1 Node is 55% developed. Consistent with the Historic Roseland Neighborhood Plan, the size of that node should be capped, with no expansion permitted.

Oslo Road/74th Avenue Node

Eventually, expansion of the Oslo Road/74th Avenue node may become necessary. Besides normal growth, a possible Oslo Road/I-95 interchange would likely create a need for expansion of the node. If that interchange is constructed, a significant amount of developable land in the node would be converted to road right-of-way. Also, construction of the interchange will increase demand for additional commercial/industrial development within the node. For those reasons, expanding the node eventually may be necessary. An expansion of that node to the east side of 74th Avenue would capitalize on existing infrastructure improvements within the 74th Avenue right-of-way and would not adversely affect existing uses (groves and packinghouse use) east of 74th Avenue. Because expansion of the node would allow for additional employment opportunities in the south county, the county should consider expansion of that node if the Oslo Road/I-95 interchange is constructed.

Strip Development of Commercial Areas

In the past 50 years, the development of commercial shopping areas along arterial roadways has been common practice throughout the United States. That pattern was initially designed to take advantage of high traffic volumes and easy access. Initially, that design pattern achieved its desired results; however, the intended purpose was often defeated with increased development. Eventually, however, excessive curb cuts, unlimited access, lack of frontage roads, high traffic
volume, and the difficulty of entering and exiting the arterial roadway compounded highway safety problems, often requiring expensive traffic control improvements.

In Indian River County, strip commercial development already exists in some areas. One such area is along US Highway 1 south of the Vero Beach city limits. In the future, strip development has the potential to emerge along SR 60 and along US Highway 1 in other portions of the county. Going forward, the county’s comprehensive plan and future land use map should address that problem by directing commercial and industrial activity into designated nodes and mixed use areas.

Along SR 60, comprehensive plan policies have successfully prevented strip commercial development by limiting new commercial development to the existing SR 60/58th Avenue and the SR 60/I-95 nodes. By requiring a minimum 1 ½ mile separation between nodes, the county’s land use policies have also prevented the convergence of those two nodes along SR 60. That 1 ½ mile node separation requirement also allows residential uses to develop in the areas between commercial nodes, thereby ensuring that a residential market exists near commercial nodes. By requiring residential uses between the commercial nodes along SR 60, the Future Land Use Map also promotes the development of housing near retail employment centers. In the future, the county’s node separation requirement should be retained.

Currently, access management regulations require interconnections between adjacent commercial establishments that front arterial roads. Interconnections not only limit curb cuts along arterials, but also improve traffic circulation by providing alternative routes for short trips between nearby establishments. Those regulations have been successful along SR 60 as well as in other areas with new commercial development and should be maintained.

As a result of commercial development during previous decades, strip development is already present along US Highway 1 in the south county. Consequently, the potential for more strip development is actually greater along US Highway 1.

In the north and central county areas, a strip development pattern does not presently exist because much of the commercially designated land is undeveloped. While less commercial land is developed along US Highway 1 in those areas, the potential for strip development exists because of the significant amount of undeveloped commercial land.

Unlike SR 60, where commercial nodes have distinct boundaries, commercial land use designations exist along one or both sides of US Highway 1 in a continuous pattern through the north and central county areas. To limit the potential emergence of strip commercial development as more commercial development occurs in the north and central county areas, the county’s policy should be to integrate residential uses into commercial areas through mixed-use development. In commercial areas, the county’s land development regulations already permit mixed-use development as a matter of right.
Industrial/Business Parks

In the past, absorption of industrial land has been relatively slow within the county. Based on past industrial development trends, the county currently has an adequate supply of industrial designated land within most C/I nodes. As a result, there is vacant industrial land located in all three C/I nodes adjacent to I-95, the county’s major north/south transportation corridor. Due to their proximity to I-95 and the limited amount of residential development surrounding the nodes, those three nodes have the greatest potential for further industrial development.

Among the three C/I nodes adjacent to I-95, the I-95/SR 60 C/I node has the greatest potential for attracting new industrial uses. That is because that node is located along SR 60, a major east/west statewide transportation corridor. That node also contains two recently approved development ready business/industrial parks. Those business parks were planned with necessary infrastructure, including centralized stormwater retention facilities, drainage, paved roads, potable water, and sanitary sewer, to attract new industrial uses. Both of those business/industrial parks contain relatively small parcels that can be used for small businesses and start-up businesses. Those parcels can also be assembled to create larger parcels for large industrial uses.

Although the two industrial parks referenced above were recently completed, both parks are relatively small, with a combined size of less than 250 acres. Since there may be demand for more industrial land and for larger industrial sites in the I-95/SR 60 area, the county should expand the I-95/SR 60 node and limit the node expansion area to primarily industrial uses.

While there is an adequate supply of industrial sites within the referenced industrial areas and business parks, challenges will exist if a new large scale industrial user desires to locate in the county. One challenge is that large industrial buildings are limited by county Land Development Regulations. This has the potential to exclude certain new industrial uses. For instance, the recently constructed CVS distribution center could not be built on another site within the county because of building height regulations. For that reason, the county’s land development regulations should be amended to allow for larger industrial uses in appropriate locations. In general, the best locations for large industrial/warehouse buildings are in close proximity to the county’s Interstate 95 interchanges. That is because industrial uses require easy access to major transportation routes. Also, those areas are somewhat removed from residential areas.

In general, retail uses are located in areas zoned CL, Limited Commercial, or CG, General Commercial. Often, the county receives applications to rezone areas from CH, Heavy Commercial, or IL, Light Industrial, to CG to allow for new retail development. While rezoning areas from CH or IL to CG is appropriate in many cases, the county will need to preserve sufficient land that is zoned CH and IL to support future economic development. For that reason, the county should preserve existing areas zoned CH and IL that are located near the I-95 interchanges or adjacent to railroads.
Jobs/Housing Balance

Within the Transportation Element, there is an analysis of the geographic balance between jobs and housing within the county. That analysis compares three subareas (the north county area, the central/Vero Beach area, and the south county area) in the county to what is considered to be a “balanced” jobs/housing ratio. Generally, a jobs/housing ratio of between 0.8 and 1.2 is considered to be “balanced” and has average trip lengths 29% shorter than in other areas.

The results of the jobs/housing analysis revealed the following:

- None of the 1996 or 2005 study areas (including the north, central/Vero Beach, and south county areas) can be considered to have a “balanced” jobs-to-housing ratio;
- Overall, the county has enough commercial/industrial designated land to accommodate job growth in the coming years;
- Near the end of the planning period, there will be a need for an additional Commercial/Industrial area in the south county at the 74th Avenue and I-95 C/I node; and
- Commercial/Industrial designated land in the north area will be partially accommodated near the I-95/CR 512 interchange by the City of Fellsmere.

By encouraging mixed use development such as Traditional Neighborhood Design (TND) projects, infill development, and residential projects near employment centers, the county can improve the jobs/housing ratio. Unlike traditional sprawl development, TND communities are characterized by residential, commercial, and employment centers in close proximity to one another. Although the number of those communities in the county is small, proposed new TND developments, such as Liberty Park, may reduce trip lengths in those areas. To facilitate increased development of TND projects, the county should remove the impediments that make approval of TND projects more arduous than conventional development.

Going forward, the county’s policy should be to ensure that the jobs/housing balance in the north county, central county, and south county subareas is not lowered beyond the 2005 baseline values when changes are made to the county’s Future Land Use Map. Doing so will provide a means to gauge the county’s overall success in the creation of jobs in close proximity to housing and the resulting decrease in trip lengths.

Locational Criteria for New Industrial Districts

Currently, the county has two industrial zoning districts: IL, Light Industrial, and IG, General Industrial. While the IL district is intended to provide opportunities for limited manufacturing and industrial uses while minimizing the potential for any adverse impacts upon nearby properties, the IG district permits a broader range of industrial activities.
Although current comprehensive plan policies contain locational criteria for establishing new IL and IG districts, the current IL and IG locational criteria are nearly identical and require new industrial districts to be located along arterial roads or railroad tracks, near existing industrial areas, and separated from residential, retail, and office areas. Because uses permitted in the IG district can have a greater impact on adjacent properties, the county should establish separate IG district location criteria that provide a greater separation from residential areas than do IL districts.

**Aesthetics of Commercial Development**

In recent years, changes to the county’s design regulations have improved the aesthetic quality of development projects throughout the county. While landscape regulations have increased vegetation requirements, corridor architectural requirements have resulted in more attractive buildings than would have occurred otherwise. To enhance the appearance of new development projects throughout the county, some corridor regulations should be extended countywide.

- **Extend Corridor Requirements to Non-Corridor Areas**

Currently, all major commercial arteries, as well as the Roseland area, the north barrier island, and the 37th Street medical node, are subject to corridor design standards. In all of those corridors, development projects must comply with additional design requirements affecting landscaping, building appearance, and signs. Since their inception, the county’s corridor regulations have been successful in improving the aesthetic quality of new development and redevelopment projects in the designated corridor areas, particularly the SR 60 Corridor.

In the future, the county’s policy should be to implement some corridor requirements on a county-wide basis. In particular, corridor standards for foundation landscaping, building color, pitched roof, signage, screening, and lighting could be applied to areas outside of the currently designated corridors. As is now the case in corridors, certain exemptions would be necessary for multi-family developments as well as industrial/warehouse projects.

Applying corridor design requirements to neighborhood commercial areas in mixed-use planned developments would be particularly beneficial. Because one purpose of the county’s corridor regulations is to ensure compatibility between commercial uses and nearby residential areas, corridor regulations applicable to neighborhood commercial areas will ensure that neighborhood commercial uses are compatible with nearby residences. Those corridor-type regulations will also ensure that lighting and signs are not obtrusive features, and that pitched roofs and foundation plantings are required.

- **Signs**

In all corridor areas, new freestanding signs must be monument-style signs. Outside of designated corridors, pole signs are permitted. Within corridor areas, signs are also subject to reduced maximum sizes in comparison to other areas. Because of the special sign requirements
in corridors, corridor areas contain less sign clutter than other areas. To minimize sign clutter, corridor-type sign regulations should be extended throughout the unincorporated county.

Within the county, another cause of visual clutter is temporary signs. Generally, temporary signs are used to advertise political candidates, community events, real estate, and businesses and/or services. Often, temporary signs violate county regulations relating to the location and purpose of such signs. While many temporary signs are placed in public rights-of-way, others are located on private property. To control the visual clutter created by temporary signs, the county should establish limits on where temporary signs are to be allowed, on the number of temporary signs, and on the duration that temporary signs may be posted.

**Integration of Commercial and Residential Uses**

Throughout the county, commercial projects and residential projects have been developed with little regard to their integration. Generally, developers of residential projects that border commercial zoning districts install fences and/or landscaping with berms to buffer the project from the adjacent commercial uses. On the other hand, developers of commercial projects that border residential zoning districts are required to provide buffering to protect the existing or potential future adjacent residents. Consequently, vehicular, pedestrian, and bicycle access is most often provided to commercial and residential sites primarily along major roadways, with limited or no access provided between adjacent commercial and residential uses. As a result, commercial site design is focused on the major roadway that provides direct vehicular access to the site, with dumpsters and loading docks most often placed in the rear of commercial buildings in locations that face residential property.

This separation of commercial and residential uses is practiced nationally as well as locally and is largely the product of zoning regulations that promote the separation of uses for compatibility purposes. That separation of uses results in increased trip lengths, extra miles of driving, added traffic on arterial roads, increased gasoline consumption, and added air pollution. Because of that lack of commercial/residential interconnectivity, pedestrians and cyclists are forced to walk and/or bike long distances through neighborhoods and then adjacent to busy roadways. These longer distances can ultimately discourage people from walking and biking between residential and commercial destinations. Because of those negative impacts, there is a need for the mixing of commercial and residential uses.

- **Opposition to Integration of Commercial and Residential Uses**

Usually, the lack of integration between residential and commercial sites is due to neighborhood concerns and opposition. Because of concerns related to perceived threats such as cut-through traffic, increased crime, and reduced property values, adjacent residents often oppose the connection of commercial sites to residential areas. Opposing residents often conclude that the perceived threats outweigh the positive impacts of conveniently accessible commercial opportunities and services.
Generally, commercial and residential sites can be successfully integrated through appropriate site design where concerns of adjacent neighbors are addressed. With good design, commercial buildings can complement the appearance of homes in adjacent residential neighborhoods. That can be done through the use of similar building materials, textures, and design styles. Also, dumpster locations and delivery docks on commercial sites can be screened so that they are aesthetically pleasing and hidden, and commercial sites can be designed to provide pedestrian access and pedestrian amenities at the rear of commercial buildings.

With good building and site design, buffering between commercial and residential uses can be reduced, and both vehicular and pedestrian access can be provided between residential and commercial sites. Within residential neighborhoods, streets that provide direct access to commercial sites can incorporate traffic calming designs such as “bulb-outs” and can incorporate signs and enforceable approval conditions prohibiting use of the streets by delivery vehicles. To provide a transition from residential to commercial uses, entrances to commercial sites from local residential streets can be attractively designed.

To accomplish the integration of commercial and residential sites, the county should take a number of actions. Those actions primarily involve revising existing county land development regulations for landscaping and buffering, vehicular and pedestrian access, traffic calming, aesthetics, and site design to provide for the interconnectivity and overall integration of commercial and residential uses. One of the most effective regulatory tools that the county has available to it to achieve the integration of commercial and residential uses is the mixed use planned development.

- **Mixed-Use Planned Developments**

According to the county’s Planned Development (PD) regulations, PD projects can allow for the integration of commercial and residential uses into a single mixed-use project. Moreover, neighborhood commercial uses can be integrated into residential areas via special site plan and urban design techniques applied through the PD process. Within PD projects, commercial areas can be connected directly to residential areas through local roads and pedestrian walkways.

Other than its PD regulations, however, the county does not have a mechanism to ensure the effective integration of commercial uses into residential areas. In fact, county regulations have had the effect of separating commercial and residential uses. One action that the county should take to promote mixed use development with integration of commercial and residential uses is to eliminate the allowance of stand-alone neighborhood nodes. Doing so would provide an incentive for developers to use the county’s PD regulations that permit commercial uses to be developed as a component of an overall residential project.

In the past, the county’s allowances for incorporating neighborhood commercial uses into residential PDs have been ineffective. While the county has been successful in approving plans for neighborhood commercial uses to be integrated into residential areas as part of PD projects
(such as Grand Harbor, Pointe West, Citrus Springs, and Waterway Village), none of those neighborhood commercial or town centers have been constructed to date.

In the past, the county has allowed residential PDs with at least 100 units to incorporate an accessory commercial area into the project. That accessory commercial area, however, has been limited to a maximum of 3% of a project’s total area, a requirement which generally limits commercial uses to only larger PDs. Another impediment to mixed-use projects is that the county has limited the location of a mixed-use project’s commercial area to within the project’s interior. Current planning theory is that commercial uses incorporated into residential areas should also have frontage on a major road to provide increased visibility to potential customers outside the development.

Because PDs can be an effective way to integrate commercial and residential uses, the county should encourage developers to incorporate commercial uses in residential PDs. To ensure that mixed-use PDs contain an adequate mix of uses, the county’s policy should be to allow commercial uses to constitute up to 25% of a project’s land area. The commercial uses allowed in mixed-use PDs should be limited to lodging, institutional, office, retail, and restaurants.

In the future, the county should allow commercial areas within PDs to front upon thoroughfare roads. Where such commercial uses would face residential uses outside the project, buffering and compatibility improvements should be required to mitigate any impacts. Within such PDs, common architectural themes, common hardscape and signage themes, and multiple pedestrian connections should be required to integrate nonresidential uses with residential uses.

Going forward, the county should limit commercial uses within residential PDs to sites within the L-1, L-2, M-1, and M-2 future land use categories. In those areas, mixed-use PDs should be limited to a maximum project area of 40 acres, while mixed-use projects larger than 40 acres should be required to be TND (traditional neighborhood design) developments.

**Traditional Neighborhood Design (TND)**

Over the last several years, the concept of "traditional neighborhood design" (TND) has been emphasized and refined in the fields of land use planning and real estate development. Traditional neighborhood design emphasizes the clustering and mixing of various residential, work, recreational, and social/civic activities in a compact area in a manner that fosters a tightly-knit community fabric. The aim of such development designs is to allow persons of all ages to live, work, play, and socialize within a fairly compact neighborhood area. For the county, TND development is desirable in terms of promoting innovative housing opportunities and reducing urban sprawl.

A review of current literature on the subject indicates that TND projects work best when the following design characteristics are provided:

- a mix of building types;
the vertical mixing of uses around designated town centers, main streets, mixed-use centers, and central squares and greens;
compact clustered development;
separate uses, such as residential and commercial, within a five minute walking distance from each other;
a grid or modified grid street network;
maximum block widths of 400 feet;
native canopy trees along streets;
mid-block alleys for utilities;
rear parking, and garbage pick-up;
parking lots not located between a local street and the building; and
7 foot wide sidewalks on both sides of streets.

According to research, the following mix of uses produces successful TND projects:

a. Community open spaces, such as squares or parks, accessible to the public and comprising a minimum of 5% of the total project area.

b. Civic uses, such as post offices, community centers, meeting halls, schools, day care centers and cultural facilities, comprising a minimum of 1% of the total project area.

c. Residential uses, comprising a minimum of 50% and a maximum of 70% of the total project area.

d. Commercial and office uses, comprising a minimum of 25% and maximum of 35% of the total project area.

Since 1998, development has commenced on one TND project (Pointe West), while two additional TND projects (Liberty Park and Sunnyside Up) have been approved (the development of Windsor, a gated TND development located on the barrier island, commenced prior to 1998). Both Pointe West and Liberty Park are located along the edge of the urban service area, while Sunnyside Up is located on 26th Street adjacent to the Indian River Mall. While both Pointe West and Liberty Park straddle the urban service area boundary and utilized incentives for projects located partially outside the urban service area, Sunnyside Up is located entirely within the urban service area and utilized the county’s 10% density bonus for such TND’s.

As stated above, only one TND project has been proposed on a site located entirely within the urban service area since 1998. During this same period, numerous conventional suburban-style projects have been developed in the urban service area. While TND developments require approval via the Planned Development (PD) process, conventional development is generally allowed by-right in all zoning districts.

In the future, county policies should not favor conventional, suburban style development over TND development. To facilitate increased development of TND projects, the county should remove the regulatory impediments that make approval of TND projects more arduous than
conventional development. As an initial step, the county should permit TND development as an allowable use in existing zoning districts. Within the urban service area, TND development should be allowed as an administrative permit use, which is a type of conditional use reviewed by staff and the Planning and Zoning Commission. Since the PD process is particularly cumbersome for smaller projects, such an allowance should be limited to TND projects that are less than 40 acres in size. As is the case for all administrative permit uses, specific criteria, addressing design aspects such as project scale, lot widths, setbacks, mix of uses, street layout, rear alleys, and building design, will need to be established for TND development.

To encourage TND development, the county should retain its existing TND incentives. These incentives include a 10% density bonus for TND developments located within the urban service area, as well as an allowance for TND projects that straddle the urban service area boundary. For those inside USA/outside USA TND projects, a 1 unit/acre density is allowed for the non-USA area incorporated into the TND project.

➢ Form-Based Codes

Because conventional zoning codes regulate development primarily based on land use, conventional codes establish separate zoning districts for different land use categories (e.g. residential, commercial, or industrial). As a result, the development pattern that emerges from conventional zoning consists primarily of segregated uses. Residential uses, for example, are separated not only from nonresidential uses, but also from other types of residential uses. The resulting development pattern consists primarily of sprawling, segregated uses in a largely automobile-dependent environment. Like most communities, Indian River County has a conventional zoning code.

Form-based codes are a different approach to land development regulation. The emphasis of form-based codes is on the physical form of the built environment (e.g. the location and size of buildings, placement of parking, etc.) rather than the regulation of uses, which is the emphasis of conventional zoning. In general, form-based codes promote walkable, mixed-use communities incorporating traditional neighborhood design (TND) principles.

Unlike conventional codes, form-based codes establish districts based on physical form. Typically, districts range from urban form to rural form based on the concept of the “transect”, first promulgated by Andres Duany (see Figure 2.31). Special districts are often needed for certain civic and industrial uses.
In a form-based system, land use is largely controlled by regulating the location, size, and scale of buildings. By not segregating uses into separate districts as conventional zoning codes do, form-based codes promote mixed uses, particularly mixtures of multi-family residential and commercial uses. While many form-based codes avoid use-classification by districts altogether, some form-based codes establish separate districts for single-family residential and industrial uses.

Because form-based codes focus on the physical form of a community, such codes also regulate the streetscape, which includes public open space within rights-of-way as well as private open space adjoining rights-of-way. Creating a pleasant streetscape not only involves the design of the street, sidewalks, and landscaping in public rights-of-way, but also the manner in which buildings on private property relate to the public space. Such building design requirements involve façade treatments as well as criteria relating to the size, scale, and placement of buildings in relation to the public space.

A key component to every form-based code is the regulating plan. The regulating plan essentially functions as the zoning map that accompanies the form-based code. Using districts similar to those depicted on the transect, a regulating plan identifies the type of buildings allowed in specific areas. Thus, a regulating plan depicts the vision of a community’s desired development.

In recent years, many communities across the United States have adopted form-based codes. Sonoma, California; Louisville, Kentucky; and Fayetteville, Arkansas are a few examples of communities that have adopted form-based codes. In Florida, Sarasota County has adopted a form-based Planned Mixed-Use Infill District, while St. Lucie County has adopted a form-based code for the “Towns, Villages, and Countryside” planning area of northern St. Lucie County.
While Indian River County has a conventional zoning code, the county has used the Planned Development (Traditional Neighborhood Design) District as a form-based regulatory mechanism in the past. This approach is similar to that used by Sarasota County, which adopted its Planned Mixed-Use Infill District in 2007. While the structure and terminology of Sarasota County’s Planned Mixed-Use Infill District and Indian River County’s Planned Development (Traditional Neighborhood Design) District are different, both counties utilize the planned development process to implement a form-based approach to regulating development. In Indian River County, three projects have been approved using the Planned Development (TND) process. Those are Pointe West, Liberty Park, and Sunnyside Up.

Because the county’s PD(TND) district already provides a regulatory mechanism for permitting form-based development similar to form-based districts used in other jurisdictions, it is not necessary for the county to implement a new form-based code. Going forward, the county should continue to utilize the PD district to allow TND projects. While the PD(TND) district is appropriate for larger TND projects, the PD process can be too cumbersome for smaller TND projects, such as those on sites less than 40 acres. As discussed above under “Traditional Neighborhood Design”, the county should allow TND projects as an administrative permit use on sites less than 40 acres.

AGRICULTURAL LAND

In Indian River County, all land designated for agricultural use is located outside the urban service area. In 2007, agriculturally-designated land accounted for approximately 51% of the unincorporated area of the county.

Decline in Agricultural Activity

Within the county, agriculture is in a state of decline. In the past several years, citrus groves and pasture land within the urban service area have been converted to new residential and commercial uses, while land outside of the urban service area is being converted to large-lot single family residential development, sand mines, and other uses. As market demand for new residential and commercial development increases, it is expected that these trends will continue. In addition, it is expected that significant development will occur in agricultural areas recently annexed by municipalities.

Several factors have contributed to the recent decline in agriculture within the county. Those factors include:

- The rapid increase in property values that occurred between 2000 and 2006;
- The encroachment of residential ranchettes;
- The introduction of two separate citrus diseases;
- The 2004 hurricanes; and
- Municipal annexations.
Increase in Property Values

Between 2000 and 2006, the county and many parts of the U.S. and Florida experienced a substantial increase in property values. That inflated price of land was seen as an opportunity by agricultural property owners to sell their land to developers for new housing developments. Since 2006, however, there has been a significant decline in the demand for new housing. That has eased the pressure for conversion of agricultural land to residential uses. As the inventory of excess housing is gradually removed from the market by new residents, however, it is expected that the pressure to convert agriculturally used property to alternative uses will again increase. Since that could frustrate the county’s policies for preserving agriculturally designated land, the county should maintain its urban service area boundary and prohibit non-clustered urban development outside the urban service area.

Citrus Disease

Like the rest of Florida, Indian River County has seen a substantial decline in the number of acres dedicated to growing citrus. In fact, there has been a reduction of 21,942 acres in the past eight years alone (nearly a 36% decline). Due to the spreading of two diseases (citrus canker and citrus greening), the decline in citrus acreage is expected to continue for some years and then level off.

While citrus canker is a bacterial disease that causes premature leaf and fruit drop, citrus greening, also a bacterial disease, is a disease that causes citrus trees to produce bitter misshaped fruit and kills trees over the course of several years. Throughout the southern portion of the state, citrus canker was widely spread from the winds of the 2004 hurricanes. According to the USDA, 100% of Indian River County citrus acreage has been or will soon be infected with citrus canker. The USDA has also estimated that Indian River County is infected with citrus greening and will be completely infected with citrus greening by 2010-2011.

Although citrus canker and citrus greening will be present for some time to come, the citrus industry is expected to remain profitable, although infected trees will have to be removed and replaced on a recurring basis until cures can be found for the two diseases. As the two diseases spread and as infected trees are removed, production will decline. This will result in fewer citrus jobs and less money coming into the county from selling citrus outside of the county. Those factors will also have an impact on other businesses within the county, in that less money will be spent on goods and services in the county by the citrus industry and employees. In the future, the county should work with citrus growers and other agricultural producers to explore the opportunity for other crops, such as biofuel feedstock, to supplement citrus and other agricultural products.
Residential Development in Agricultural Areas

Within the county, a serious threat to agriculture is the encroachment of residential development into agricultural areas. Not only does residential development exert pressure on agricultural land owners to convert their agricultural land into residential use, but residential development is also often incompatible with agriculture. Typical agricultural practices (e.g., aerial spraying) are often considered to be a nuisance to residential owners.

In recent years, there has been a proliferation of large-lot residential development in agricultural areas. One way in which the county has encouraged residential development in agricultural areas is by allowing affidavit of exemption (AOE) projects. Because AOE’s are exempt from most required subdivision improvements (e.g. paved roads, drainage, buffers), those projects have been less expensive to build than traditional subdivision projects.

Since 1998, affidavit of exemption projects and agricultural planned developments have been responsible for converting approximately 1,607 acres of agriculturally designated land to residential use. As is the case with all areas designated for agricultural use, such land is located outside the urban service area. Even at low densities, such residential development represents a blurring of the county’s urban service boundary, one of the county’s primary tools for controlling sprawl.

In the future, it will be important for the county to preserve agriculture and to limit the encroachment of urban uses into agricultural areas. To protect existing agricultural uses, the county’s development regulations should not further accelerate the conversion of agriculturally-designated land into residential ranchettes. For that reason, the county’s policy should be to limit affidavits of exemption to small projects consisting of no more than 19 lots. All other residential development in agricultural areas should be limited to agricultural planned developments or subdivisions.

An important aspect of planned developments in agricultural areas is the preservation of open space for either agricultural, conservation, or recreational uses. To preserve the rural ambience of agricultural PD’s and because open space areas also function as wildlife corridors, the county should require that open space within agricultural PD’s be located in contiguous areas.

Agricultural Preservation

Because of the combination of development pressure and citrus disease, citrus grove owners are and will continue to face pressure to convert their land to alternative uses, thereby permanently removing land from agricultural production. With the decline in the citrus industry, farmers will need to evaluate the land dedicated to citrus and consider other allowed uses for citrus property. This might include water farming, growing new types of crops for producing biofuels, or developing solar farms.
To preserve agricultural land, the county also needs to take action. That can involve using planning tools available to the county including transfer of development rights, purchase of development rights, promotion of cluster development, use of the state’s Rural Lands Stewardship Program, and allowance of small-scale accessory uses that support agricultural operations. Each of those options is discussed in more detail below.

- Transfer of Development Rights

Transfer of Development Rights (TDR) is a tool that involves conveying the rights to develop from one property to another, typically involving the relocation of development from an area undesirable for development (e.g., agricultural land) to an area suited for development, such as residential or commercial designated land within the county’s urban service area.

Currently, the county allows for transfer of development rights internally within PD projects and transfer of development rights from historic and environmentally significant lands to PD projects. Agriculturally designated land is specifically excluded from being a receiving site for the transfer of development rights.

Most recently, the TDR program was used with the Liberty Park PD. In that project, which was approved in 2008, development rights from land at various locations within the county were transferred to the Liberty Park project.

One reason that the use of TDR’s within the county has been limited is due to the lack of a developed market for them. Currently, developers have the burden of identifying potential sending sites and presenting them to the county for consideration as part of a PD rezoning process. If one or more sending sites are deemed suitable by the county, the sending sites are ultimately rezoned to PD zero density, and the receiving sites are rezoned to PD with the increased density from the sending site(s) added to the receiving site. The monetary benefit to the sending site is determined through private market negotiations between the owners of the sending site and the owners of the receiving site.

Without an understanding of the TDR process and its benefits, owners of sending sites will not advertise the availability of development rights. As a result, the burden of identifying available development rights that can be transferred remains on the developer of potential receiving sites. For the use of TDRs to preserve open space and environmentally sensitive land to increase, overall benefits, processes, and procedures need to be understood by property owners of both potential sending sites and potential receiving sites. Consequently, clear guidelines regarding what types of properties qualify as sending sites need to be made available to the public and owners of sending sites. Owners of sending sites then have the burden of appropriately pricing the development rights so that they can be sold.

Through TDR regulations, agricultural land can be preserved, while natural areas can be protected. In fact, the use of TDR’s for agricultural preservation is specifically recommended by the Committee for a Sustainable Treasure Coast as a means to preserve active agricultural
operations. As part of the county’s agricultural preservation efforts, the county should adopt TDR policies to allow transfer of development rights from agriculturally designated land to PD’s, new towns, and other suitable areas that the county might identify as acceptable receiving zones.

Generally, successful TDR programs are located in high growth areas, where there is sufficient demand to support a market for development rights. Because of that fact, the applicability of a TDR program may be limited to periods when growth pressures are high. Previously, such periods occurred during the 1980s and the mid-2000s.

One issue, however, is that TDR’s will not work at the densities allowed under current agricultural zoning regulations (1 dwelling unit per 5, 10, and 20 acres). This is because the price that an agricultural land owner can obtain for residential development of his land at existing zoning densities is usually greater than what a development rights purchaser would be able to pay and still have a profitable TDR receiving zone project. To address that issue, the county should establish density credits for AG-1, AG-2, and AG-3 designated land in Indian River County at 1 unit per acre, 1 unit per 2 acres, and 1 unit per 4 acres, respectively. Additional density allowances up to 1 unit per 2 acres should be allowed for environmentally significant portions of AG-3 designated land.

In addition to setting an appropriate density transfer credit for agricultural areas, the county will need to establish criteria for new TDR receiving zones. Such zones should be located in areas suited for higher density, such as within and adjacent to commercial/industrial nodes. New towns, which are discussed below, constitute another suitable TDR receiving area.

- Purchase of Development Rights

Another tool that the county has used in recent years to preserve agricultural land is the purchase of development rights and the subsequent establishment of conservation easements. Through its conservation land acquisition program, the county has preserved over 2,000 acres of agricultural land in the county. Preserved agricultural lands include the Sexton Ranch (462 acres located along 82nd Avenue) and the Padgett Branch conservation area (1,585 acres located on SR 60 near the 20-mile bend). In both cases, development rights were purchased using funds from land acquisition bonds. Currently, there are not sufficient funds remaining to allow for the purchase of additional agricultural sites. Going forward, the county’s policy should be to continue using the purchase of development rights to preserve agriculturally significant land. If approved by voters, future land acquisition bonds could fund the purchase of development rights from additional sites.

- Clustering

Clustering is another method of preserving agricultural land. In a clustered development, new residential lots are situated in close proximity to each other, while the majority of a project’s area is set-aside as open space. In some cases, the open space can be dedicated to agricultural uses.
Two methods in which Indian River County allows clustered development on agricultural land are through agricultural planned developments (discussed above under “Residential Development in Agricultural Areas”) and new towns (see below).

- **Rural Lands Stewardship Program**

Established by the Florida legislature in 2001, the Rural Lands Stewardship Program (RLSP) is another planning tool available to local jurisdictions to preserve significant agricultural and environmental lands. The goal of the RLSP is to provide rural landowners with economic incentives to protect environmental features and beneficial agricultural uses, while allowing development in appropriate settings. Where adopted as an overlay by a local jurisdiction, the RLSP establishes a trading program that assigns development credits to natural resources. To build in a stewardship area, a developer needs to purchase development credits from rural land owners. To date, the only jurisdiction in the state to establish an RLSP is St. Lucie County. That RLSP project covers the Adams Ranch and Cloud Grove properties. Recently, that project was terminated. While started in Collier County prior to establishment of the RLSP by the state legislature, Ave Maria is the project which most resembles an RLSP project in Florida.

- **Accessory agricultural uses**

Another action that the county should take to preserve agriculture is to amend its land development regulations to allow for small-scale accessory agricultural facilities in agricultural areas. In case biofuel crops become economically viable, the county should allow small-scale biofuel processing facilities as part of agricultural operations in areas designated AG-2 and AG-3. For economic reasons, biofuel processing facilities need to be located near the crops that are grown. Allowing small-scale biofuel processing facilities as part of agricultural operations will provide agricultural land owners with new crop opportunities should citrus continue to be embattled with disease.

- **Water farming**

Water farming is the conversion of agricultural land into surface reservoirs for water storage. In addition to providing an alternative use for agricultural land, reservoirs may serve as an alternative water supply source, may serve to treat stormwater, or may serve as an irrigation source, while also attenuating the flow of stormwater into the Indian River Lagoon, where excessive stormwater runoff can adversely impact water quality. Also, water farming can maintain the rural character of the county’s agricultural areas and provide agricultural land owners with an additional source of income.

In its final report, the Committee for a Sustainable Treasure Coast recommends the use of agricultural lands for reservoirs. To this end, the county’s policy should be to promote the development of reservoirs in agricultural areas.
Interlocal Service Boundary Agreement (ISBA)

An ISBA is an agreement authorized by Florida Statutes Chapter 171, Part II. The intent of an ISBA is to promote intergovernmental coordination in planning and to address issues such as service delivery and municipal annexations. While adoption of an ISBA can be for a term of up to 20 years, periodic review and renegotiation of an ISBA are required.

If structured properly, an ISBA can be a mechanism to regulate land use changes, including height and density, within annexed areas. With an ISBA, the influence of each jurisdiction over land use changes is entirely dependent on the terms and processes agreed to by the jurisdictions signing the ISBA.

Through an ISBA, jurisdictions can identify and agree to future growth limits of each jurisdiction. Those future growth limits can be established through the creation of municipal annexation reserve areas. The reserve areas can include land in an unincorporated county urban service area and land outside an unincorporated county urban service area.

Since the summer of 2007, the county and the municipalities in the county have been working on an ISBA as the preferred option for managing growth on a countywide basis. At this time, however, the ISBA has not been finalized. Initially, the draft Indian River County ISBA reflected municipal annexation reserve areas covering a substantial amount of the non-conservation, non-urban service area unincorporated portion of the county. With that scenario, much of the county’s agricultural area would have eventually been annexed and then subject to municipal land use regulation.

As the ISBA process continued, municipal annexation reserve areas were reduced in size. With the smaller annexation reserve areas, there is now more non-urban service area remaining under the county’s land use regulatory jurisdiction. As referenced in the draft ISBA document, the county’s new town allowance is identified as an alternative development option for non-urban service area unincorporated county land.

Among the benefits of the proposed ISBA is a limitation on the amount of land available for municipal annexations. Because of the overall possible benefits, the county should continue to work with the municipalities within the county to adopt an ISBA.

New Towns

To retain rural lands, the Committee for a Sustainable Treasure Coast recommends planning for new towns. That is something that the county has done in the past. Since 1990, the county has provided for the establishment of new towns outside the urban service area. That allowance requires that new towns be compact, self-contained projects, having a mix of commercial and residential uses with traditional neighborhood design features, and located on large sites surrounded by agricultural or natural land greenbelts. Rather than limit development to the
density of the underlying agricultural designation, the county has allowed new towns a density bonus of one unit per acre as an incentive.

One advantage of new towns is that they allow for non-sprawl development outside the urban service area with the tradeoff of significant agriculture and natural area preservation. Not only does the new town allowance provide a potential development yield for large landowners outside the urban service area, it also represents a better development alternative than the default land use which is ranchette development. Unlike new towns, ranchette development constitutes rural sprawl and does not preserve agriculture or natural areas.

Although the county has allowed new towns since 1990, no new town proposal has gone beyond the conceptual stages. This is likely due to a combination of the standards that must be met in developing a new town, the complexity involved in getting a new town project approved, and the high absorption rate needed.

For new towns to be a viable option to the rural sprawl of 5, 10, or 20 acre ranchettes, the density allowance for new towns needs to be sufficient for new town developments to achieve critical mass. Given that a new town with a range of uses from employment areas, shopping areas, recreation areas, civic areas, and cultural areas needs a population of about 5,000 and given that a reasonable size for a new town is about 2,500 acres, the allowable density for new towns should be 2 units per acre.

Going forward, the county’s policy should be to allow new towns outside the urban service area as an alternative to rural sprawl. Those new towns should have an overall allowable density of 1.5 units per acre with an additional 0.5 units per acre allowed by transferring density to the new towns from off-site areas. The county’s new town policy should also require that new town development be clustered in compact areas based on TND principles, that new towns be surrounded by greenbelts, and that the number of new towns be limited.

**INDIAN RIVER LAGOON**

The Indian River Lagoon is the most important natural resource in the county from both an economic and ecological standpoint. The importance and value of this resource is discussed in detail in the Conservation and Coastal Management Elements. While the lagoon and surrounding land enjoy a symbiotic relationship in their natural state, development on the land can have adverse impacts on the lagoon system.

**Lagoon Water Quality**

In recent years, Indian River Lagoon water quality has remained fairly constant. Within the lagoon, water quality is measured at various points. At each point, water quality generally fluctuates within established ranges. Recently, water quality at several water monitoring stations showed improvement. That improvement may be the result of several recent water quality projects,
including: muck dredging in the St. Sebastian River, the creation of stormwater marshes to purify polluted water, and improved sedimentation and erosion control practices.

While the majority of the lagoon’s water within Indian River County maintains the Florida Department of Environmental Protection (DEP) designation of “Outstanding Florida Waters”, lagoon water quality is poorer in the southern portion of the county. According to the 2008 DEP Surface Water Quality standards report, Class II waters exist within the northern section of the Indian River Lagoon and within the extreme southern section of the Indian River Lagoon within Indian River County. From the North Relief Canal south to the northern tip of Round Island, however, the Indian River Lagoon is designated as Class III. While Class II is a designation that allows for shellfish propagation or harvesting, Class III is a lower standard that allows for recreation, propagation and maintenance of a healthy, well-balanced population of fish and wildlife (note: Class I is sufficient for potable water, Class IV is sufficient for agricultural water supplies, and Class V is sufficient for navigation, utility, and industrial use).

Among the earliest developments in the county was the construction of a massive drainage system with three outfalls to the Indian River Lagoon. Those outfalls are the Main Relief Canal, the North Relief Canal, and the South Relief Canal. Throughout the southeastern portion of Indian River County, stormwater runoff is transported to the lagoon via that drainage system.

In the future, the Indian River Lagoon’s water quality can be improved by reducing the amount of stormwater that flows into the lagoon as well as by improving the quality of stormwater flowing to the lagoon. In the past, excessive discharges of freshwater into the Indian River Lagoon have had an adverse impact on the lagoon’s salinity.

By diverting some runoff into reservoirs or wetlands that allow stormwater filtration into the surficial aquifer, the amount of stormwater runoff that flows into the Indian River Lagoon can be reduced. One project that accomplishes this is the Sebastian Stormwater Park that was recently developed by the City of Sebastian in coordination with the SJRWMD. The 166-acre Sebastian stormwater park utilizes pumps to divert water from the Collier Canal into the park’s system of interconnected ponds and wetlands. In addition to removing pollutants from stormwater runoff, those ponds and wetlands also recharge the shallow aquifer. Stormwater parks such as that not only improve water quality, but also provide passive recreation opportunities for local residents.

To clean up stormwater flowing into the lagoon, the county, in late 2007, commenced construction on a filtration system to treat 200 million gallons of water per day flowing from the Main Relief Canal into the lagoon. In addition, construction of a second water quality project known as the Egret Marsh commenced in late 2008. The Egret Marsh project will treat 10 million gallons of water per day in the Lateral D canal.

In the future, the county’s policy should be to develop additional stormwater treatment facilities similar to the Sebastian Stormwater Park, the Main Relief Canal filtration system, and the Egret Marsh project. In the unincorporated portions of the county, stormwater parks could be constructed at locations adjacent to canals. Potential sites include the Oslo transfer station adjacent to the South...
Relief Canal and land along the north side of the North Relief Canal in the vicinity of Bent Pine. By filtering stormwater before it flows into the lagoon, those projects will contribute towards the improvement of the lagoon’s water quality.

**Dredged Material Management Areas**

Formerly known as dredged spoil disposal sites, dredged material management areas are utilized by the Florida Inland Navigation District (FIND) for the storage of material dredged from the Atlantic Intracoastal Waterway. Between 1996 and 2000, FIND acquired 275 acres, at three different locations along the Indian River Lagoon in the county, for the management of dredged material. Because those management areas will be used only for temporary storage of dredged material, sufficient land is available for FIND’s dredging activities on a permanent basis. As the management areas reach capacity in the future, FIND will remove dredged material using conventional truck hauling, thereby restoring capacity for future dredging activities. Consequently, no additional dredged management areas will need to be designated in the future.
Figure 2.32, Dredged Material Management Areas

INTRACOASTAL WATERWAY
DREDGING REACHES AND
DREDGED MATERIAL MANAGEMENT AREAS
IN INDIAN RIVER COUNTY

Source: Florida Inland Navigation District, 2008
Figure 2.33, Coastal High Hazard Areas
HAZARD MITIGATION

According to state law, local governments are required to prepare Local Mitigation Strategies (LMS) to identify actions that permanently reduce or eliminate the long term risk to people and property from the different types of hazards faced by Florida residents. In 1999, the county adopted its first LMS. That document was subsequently updated in 2005.

Since adoption of the LMS, the county has undertaken the actions identified within the strategy. Those actions include acquiring and preserving environmentally sensitive land in flood and storm surge prone areas, regulating the removal of vegetation in flood and surge prone areas, and construction of a new county Emergency Operations Center.

Overall, the county has focused on identifying natural hazards and addressing those hazards. In fact, a report produced by the Florida Department of Community Affairs titled Integrating Hazard Mitigation into Comprehensive Planning that was published in 2006 stated that “[t]he county has done a great job of integrating hazard mitigation into their comprehensive plan and Local Mitigation Strategy. Therefore, a main recommendation to the county is to ensure the enforcement of the comprehensive plan and LMS.” The county’s policy should be to continue to update the LMS periodically as necessary.

COASTAL HIGH HAZARD AREA (CHHA)

As implied by its title, the Coastal High Hazard Area (CHHA) is an area of increased risk to life and property due to hurricanes and/or severe storms. For that reason, certain land uses may not be appropriate within the CHHA.

In 2006, the state legislature modified the definition of the Coastal High Hazard Area (CHHA). Prior to that change, the CHHA encompassed all evacuation areas for a category 1 hurricane. As a result of the 2006 legislation, the CHHA is now defined as the area below the storm surge line of a category 1 hurricane as established by a Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computer model. That storm surge line is depicted in the county’s Local Mitigation Strategy (LMS).

Overall, unincorporated land within the CHHA is low density in character. In fact, there are several large tracts of land within the CHHA that consist of environmentally sensitive estuarine wetlands. In the unincorporated area, those lands, located along both sides of the Indian River Lagoon, are designated C-2 on the future land use map. C-2 designated lands may be developed at 1 unit/40 acres or used for a density transfer of 1 unit/acre to an upland site.

Most of the rest of the unincorporated land within the CHHA consists of residential land with development potential and permitted densities ranging from 3 to 10 units/acre. A substantial portion of that land is currently developed. Much of that development took place at a time when the CHHA was more narrowly defined as land on the barrier island, east of the Coastal...
Construction Control Line. That relatively narrow strip of land consists mostly of dunes and sandy shoreline.

In the future, the county should ensure that allowable densities within the CHHA are not increased. By limiting future development in the CHHA to existing allowable densities, the county will ensure that there will not be any increased risks associated with development in the CHHA. Going forward, the county should also limit capital expenditures for infrastructure within the CHHA to that necessary to maintain the adopted levels-of-service for the existing allowable land use densities and intensities.

Finally, the county should recognize the difficulty of evacuating adult congregate living facilities, nursing homes, homes for the aged, total care facilities, and similar developments, in the event of a disaster. For that reason, the county should prohibit new development of such uses within the CHHA.

NONCONFORMITIES

As defined, a nonconforming lot of record is a lot that met applicable requirements when created but no longer complies with the county’s minimum lot width and/or area requirements. Within the county, some existing subdivisions consist almost entirely of nonconforming lots of record; those subdivisions include Vero Lake Estates, Oslo Park, Pine Tree Park, and Paradise Park. In the last few years, a significant amount of new home construction occurred on vacant lots within those subdivisions, particularly Vero Lake Estates.

Besides nonconforming lots of record, various nonconforming uses exist in the county. Defined as a use that was lawful when established but would now be prohibited because of the subsequent adoption or revision of local regulations, a nonconforming use is permitted to continue operation unless abandoned for a continuous period exceeding one year. Because adjacent property owners are often affected by a nonconforming use, the county should require that adjacent property owners be notified whenever a staff determination is made regarding the status of a nonconforming use.

Within the county, there is one area that was made nonconforming with the 1990 adoption of the Future Land Use Map. That area is a portion of The Moorings, a development located on the barrier island that was constructed prior to the adoption of the county’s Future Land Use Map.

When The Moorings was developed, the project was structured like a planned development, with a combination of higher density multi-family uses mixed with single-family homes. Although the county, in the 1990 comprehensive plan, designated the entire south barrier island as L-1 (3 units/acre) to reflect the area’s almost exclusive single-family development pattern, the county did not address The Moorings multi-family areas, which are zoned RM-10. Because RM-10 is not a zoning district permitted within the L-1 future land use category, the county should expressly allow the existing RM-10 zoning inside The Moorings by establishing a policy to that effect.
Urban sprawl refers to scattered, untimely, poorly planned urban development that occurs in urban fringe and rural areas and frequently invades lands important for environmental protection, natural resource protection, and agricultural production. Urban sprawl typically manifests itself in one or more of the following patterns: leap frog development, ribbon or strip development, and large expanses of low-density, single-dimensional development.

The unchecked spread of residential and related land uses into previously undeveloped land can have serious consequences in a rapidly growing community such as Indian River County. Those consequences include the increased cost of public services and facilities, loss of valuable agricultural and open natural land, and the possibility of negative environmental impacts.

**Urban Sprawl is Energy Inefficient**

Because urban sprawl is a dispersed land use pattern, it is not energy efficient with regards to transportation or utility infrastructure. Generally, a pattern of dispersed development on large tracts of inexpensive land compounds the effort to provide public services in an efficient and economic manner. Such development provides for an increased demand for services which are already unavailable in many areas of the county, while in other areas, services and facilities operate below capacity because of the dispersed development pattern. This can result in the building of expensive new facilities rather than the expansion of existing ones. A system of small dispersed facilities is generally more expensive and less efficient than a compact system. In addition, renovation, rehabilitation, and extension of certain public facilities can reduce per capita expenditures.

With regards to transportation, urban sprawl is an inefficient land use pattern dependent upon high levels of fuel consumption. Because of its low-density character and segregation of residential uses from nonresidential uses, sprawl increases vehicle trip lengths and the overall share of trips made by automobile. Compared to sprawl, compact mixed use development, such as Traditional Neighborhood Design (TND) development, is much more energy efficient. By mixing uses and providing multiple vehicular and pedestrian connections, compact mixed use development can reduce both the number of trips made by automobile as well as the length of trips by automobile.

Another consequence of urban sprawl is a land use pattern that is not energy-efficient with regards to utility infrastructure. Because sprawl consists of land uses separated at greater distances, the amount of utility infrastructure needed to serve a sprawling land use pattern is increased. With uses located in close proximity to each other, a compact development pattern reduces utility infrastructure costs in comparison to urban sprawl.

One of the county’s primary tools for controlling sprawl is the urban service area boundary. The urban service boundary is a regulatory mechanism which restricts new residential, commercial, and industrial development to the easternmost portion of the county. To further combat the spread of urban sprawl, this comprehensive plan also includes policies that promote clustered development; walkable, connected neighborhoods; and mixed use projects.
Future Land Use Element

Energy Conservation Areas

While the county’s urban service area boundary has successfully controlled where urban development has occurred in recent years, much of the development that has occurred within the urban service area can be classified as suburban-style sprawl. Suburban sprawl is characterized by low-density development consisting of disconnected, segregated uses and excessive dependence on the automobile for nearly all transportation. Because of the predominance of suburban-style development within the urban service area, much of the urban service area could be classified as an energy conservation area. As defined by the state, an energy conservation area is an area characterized by an inefficient land use pattern and transportation system in need of retrofitting to increase energy conservation.

To increase energy conservation in the county’s urban service area, the county should promote mixed use development, consider the impact of proposed amendments to the Future Land Use Map upon the county’s jobs/housing balance, strengthen pedestrian and vehicular connectivity requirements between adjacent developments, and allow traditional neighborhood design (TND) developments as conditional uses in conventional zoning districts.

Environmental Consequences of Urban Sprawl

A second major urban sprawl concern is the loss of valuable land to development. Those lands can include agriculture or farm land; open space and native land; and land which is environmentally sensitive. Once developed, there is little chance for reconversion of that land to its native or natural use. At the same time, large tracts within the developed areas of the county remain vacant.

As the result of sprawl, environmental degradation is likely to occur in two ways: the first is the outright loss of natural lands and environmentally sensitive lands. Those lands play an important role in maintaining the natural balance of the ecosystem as well as contributing to the aesthetic beauty and recreational resources of the county. The second is the result of development without public services and infrastructure. As development in those areas increases, the dependence on individual well and septic systems can result in the contamination of underground water supplies and can require expensive clean up measures, development of services and facilities, and the removal of public health threats.

Greenhouse Gas Emissions

According to a 2007 report by the International Panel on Climate Change, scientific consensus now exists that greenhouse gas accumulations due to human activities are contributing to global warming with potentially catastrophic consequences (“the enhanced greenhouse effect”). One of the primary causes of the enhanced greenhouse effect is air pollution resulting from automobile emissions. By increasing vehicle trip length and the share of overall trips made in automobiles, a sprawling land use pattern is a contributor to the enhanced greenhouse effect.
In its 2007 report, *Growing Cooler: The Evidence of Urban Development and Climate Change*, the Urban Land Institute identifies different strategies that need to be adopted at the federal, state, and local level to reduce greenhouse gas emissions. The recommended local government strategies include changing development rules to allow mixed-use compact development, streamlining the approval process for mixed-use compact development projects, and promoting infill development.

Going forward, the county’s policy should be to implement the local government strategies recommended by the Urban Land Institute to reduce greenhouse gas emissions. Specific actions that the county should take include promoting mixed-use projects, strengthening pedestrian and vehicular connectivity requirements between adjacent developments, limiting rural sprawl resulting from the development of ranchettes in agricultural areas, and allowing traditional neighborhood design (TND) developments as conditional uses in conventional zoning districts.

**Loss of Agricultural Lands to Sprawl Development**

As indicated in the Economic Development Element, agriculture is one of the major industries in the county. Based on the amount of land designated for agriculture, the revenue generated and the number of employees, one of the most important resources of the county to be preserved is agricultural land. While planning for rural areas, the following issues should be considered: promoting agricultural diversification, maintaining the rural character of rural areas by separation of urban and rural land uses, protecting natural systems and environmentally sensitive areas, permitting the conversion of agricultural lands to other uses when and where appropriate, and maximizing the efficient provision and use of public facilities and services.

Addressing the above issues and allowing a certain amount of development in agricultural areas is possible through application of innovative land development regulations. One such regulation is a requirement for all non-agricultural activities in rural and agricultural areas to be approved as Planned Developments (PD) with required clustering of residential and other non-agricultural uses and maintenance of enhanced open space. As discussed previously, one mechanism to accomplish that involves establishment of new towns. New town development can provide for a wide diversity of land uses in rural areas and, if needed, will allow a higher residential density than the density allowed in the agricultural portion of the county and allow for development of a portion of the project as commercial and office uses. To work successfully, new towns need to be self-sufficient communities that provide opportunities for the residents to live, work, shop, and attend recreational activities in the same place.

Generally, a new town project can meet the intent of providing a self-sufficient community and capturing trips internally if it has sufficient size and density to support such a community. Since agricultural densities are as low as one unit per twenty acres, such densities are not suitable for new town projects; a new town project needs to have a higher density than the underlying agricultural density.

By requiring residential and non-residential activities to be clustered, a new town designation can provide for the maximum use of open space. In so doing, the new town designation will
eliminate ranchette type of development in agricultural areas and will provide working open space which could be used for agricultural and recreational uses while providing for residential and other non-agricultural development. Finally, this type of designation will reduce the threat of urban sprawl.

Together, those tools will promote a compact, low-density land use pattern in Indian River County. According to the Urban Land Institute, “compact development does not imply…high density, but rather higher average ‘blended’ densities. Compact development also features a mix of land uses, development of strong population and employment centers, interconnection of streets, and the design of spaces at a human scale.” [(Growing Cooler: The Evidence of Urban Development and Climate Change (2007)].

**NEED FOR REDEVELOPMENT**

Defined as areas that contain neglected and abandoned structures that are in need of repair or demolition, blighted areas usually occur in older and poorer areas of a community. In the unincorporated county, there are three areas that currently contain incompatible uses and experience varying degrees of blight. Those three areas are the Wabasso community in the north county, the Gifford community in the central county, and the Oslo Road area in the south county. Those blighted areas have some of the same negative impacts that are often found in association with incompatible uses.

In recent years, the county has used Community Development Block Grants (CDBG), State Housing Initiative Partnership (SHIP) funds, and local funds to make improvements within the identified blighted areas. In 2002, for example, Indian River County was awarded a $750,000 Housing Community Development Block Grant. Those funds were used to rehabilitate approximately 24 homes within the Gifford community.

Between 2005 and 2008, the county used approximately $727,228 in CDBG funds to install new water lines within the Wabasso community. Using CDBG funds, the county constructed a new fire station in the Gifford community during 2009. Various other public improvements, including road and drainage improvement projects, have also been made in those blighted areas. Complementing those improvements has been an increase in code enforcement activities in those areas. Overall, the code enforcement initiatives have been successful in getting property owners to clean up their properties through removal of old cars, demolition of unsafe structures, and general property maintenance.

A review of the Wabasso, Gifford, and Oslo Road areas reveals several similarities commonly associated with blighted places. Those include a higher than average proportion of low income residents with lower educational achievement, a larger proportion of children, and a high proportion of minorities. The similarities of those areas cease at that point. As discussed below, each area has unique constraints and opportunities for renewal and development.
**Wabasso**

Wabasso is an old unincorporated community at the intersection of US 1 and CR 510. Extending north and south along US 1 and west on CR 510, the community is primarily rural in character and has only recently received public water and sewer services. Along US 1, commercial uses predominate. Those uses range from those which serve the immediate community to those which take advantage of the relatively high traffic volume to serve a larger area. While citrus packing and processing is the largest commercial/industrial use, residential uses including single family homes and mobile homes extend along US 1 and CR 510. Within Wabasso, the blighted portion of the area is concentrated west of the FEC Railroad along CR 510 and consists primarily of residential uses. That area has been targeted in the past for assistance by the county.

As a result of its strategic location at the entrance to the north bridge and the barrier island, the Wabasso area is likely to undergo changes in the future. In fact, recent and future growth on the barrier island and in the Sebastian area to the north will most likely act as a catalyst for land use changes in this area. The likely result will be the elimination of some older and smaller commercial uses and residential uses in favor of larger commercial uses dependent on the high traffic volumes.

Recognizing the potential for change, the Wabasso community has worked with the county to initiate and develop a Wabasso Corridor Plan. That plan contains special standards to ensure well managed growth along US 1 and CR 510 in Wabasso.

In Wabasso, one obstacle to major development is the difficulty in assembling enough parcels to create a site large enough for commercial development. Because redevelopment happens slowly if at all, it is important that the county continue to eliminate substandard housing and maintain code enforcement activity in West Wabasso.

**Gifford**

The Gifford area in the central portion of the county is the largest of the three blighted areas, as well as the area with the most public investment. Currently, Gifford contains a variety of uses, ranging from heavy industrial uses including junk and salvage yards to single family subdivisions. Unlike many blighted areas, Gifford is served by public water and wastewater. The area also contains three public schools, a community center and a recreation facility and is the location of the county sheriff's administration offices and the county jail. Several low income subsidized residential developments also are located in Gifford.

On the east side of US 1 near Gifford, major developments include the Indian River Medical Center and Grand Harbor, a 2,000 unit residential, recreation and commercial development. Both of those developments have and will continue to attract related commercial and business support services in the vicinity, most likely along US 1.
While the increase in business activity and construction has added jobs to this area, it is not evident whether the impact has benefitted the depressed area of the community. Like many depressed areas, Gifford contains a mix of land uses and a supply of vacant industrial and commercially designated land. Going forward, the county should continue to eliminate substandard housing and maintain code enforcement activity in Gifford.

- **Gifford Enterprise Zone**

In 2005, Indian River County and the City of Vero Beach jointly established an Enterprise Zone encompassing properties in and around the City of Vero Beach Municipal Airport and properties within the Gifford Community. An Enterprise Zone is an area designation approved by the state to encourage new economic growth and investment in distressed areas. The state accomplishes this in part by providing tax incentives to residents and businesses within Enterprise Zones. Those tax incentives include job tax credits, sales tax refunds, property tax credits, and other tax credits.

With the Enterprise Zone, Indian River County and the City of Vero Beach have the ability to offer state sponsored incentives to local companies. Those additional incentives are another tool that the County and the City of Vero Beach have at their disposal to help retain and expand existing businesses and help to attract new businesses.

With a possible expansion of the Piper Aircraft facility and the increasingly available industrial land within the Enterprise Zone, additional development can be expected to occur in the future within the Enterprise Zone. In fact, the Indian River Industrial Center, an industrial/business park consisting of 7 lots on 12.5 acres, was recently constructed on the north side of 41st Street, west of 49th Avenue. Besides the Indian River Industrial Center, another industrial/business park is in the planning stages along 41st street in the Gifford Community, between 28th Avenue and 43rd Avenue (Vero Beach Business Park). That business park is proposed to have a total of 15 lots.

**Oslo**

The third blighted area is located west of US 1 along Oslo Road in the southern portion of the county. Oslo Road (9th Street, S.W.) is a principal east/west arterial road in the south county from US 1 to I-95. It is expected that the county's third interchange to I-95 will be located at Oslo Road.

In Oslo, the blighted area consists chiefly of old platted and unplatted residential areas. Because that area was developed before infrastructure improvements were constructed, many of the roads and lots in the area do not meet county development standards. While increased and continued code enforcement activity is necessary to identify specific structures for repair or removal, a more concerted effort involving individual property owners, the county, and third party developer-financiers will be needed to resolve many of the roadway and infrastructure deficiencies caused by development during the first half of the 20th century.
DEVELOPMENT AND REDEVELOPMENT IN FLOOD PRONE AREAS

Generally, development in flood prone areas presents various problems, the most serious of which is the potential for loss of life from flood waters and storm surges. Flooding can also cause loss or damage to property and degradation to the environment. Besides the hazards, development costs may also be higher in those areas due to the extensive site modifications or enhanced building techniques required. Because of high costs and/or environmental limitations, public facilities and services are often not extended to those areas.

In 1988, the US Federal Emergency Management Agency (FEMA) completed a Flood Insurance Rate Study for Indian River County. That study identified the limits of Coastal Flood Zones, the 100-Year Flood Plain and the 500-Year Flood Plain. As shown on Figure 2.23, the county has a significant amount of flood prone land. At this time, FEMA is updating its flood study of the county and will be issuing new flood maps in 2010-2011.

Within the county, the largest flood prone area is west of I-95 and includes the St. Johns Marsh area. Land uses in that area include the marsh, citrus groves, row crops and cattle grazing. The area surrounding the City of Fellsmere also contains flood prone areas which follow the pattern of drainage canals and ditches. That area contains a mixture of agricultural uses and rural residential development on large (5 acre+) lots.

East of I-95, flood prone areas are confined to 4 general areas. The first area extends along the east side of I-95 from the Brevard County line to approximately 2 miles north of SR 60 and east to 90th Avenue and the St. Sebastian River. With the exception of the area along CR 512, land uses are limited to cattle grazing and vacant land. A commercial/industrial node is located at the CR 512/I-95 interchange, although much of that node was recently annexed by the City of Fellsmere. Largely undeveloped, the northeast quadrant of that node contains several high-tech industrial manufacturing plants and highway commercial establishments. Immediately south of CR 512 is the Vero Lake Estates Subdivision (see residential land use, vacant land use). A Municipal Service Taxing Unit (MSTU) has been created for that 5,000 lot subdivision to provide for roadway and drainage improvements.

The second flood prone area is located in the central county at the western terminus of the north relief canal. That flood prone area is confined to agricultural areas west of 66th Avenue.

A large area of the county, south of SR 60 to St. Lucie County between 43rd Avenue and 74th Avenue, is the third flood prone area. Served by the Indian River Farms Water Control District, that area is largely devoted to citrus production; however, residential uses are present between 43rd Avenue and 58th Avenue, south to the South Relief Canal. In addition, the Pine Tree Park subdivision is located between 58th Avenue and 66th Avenue, south of 8th Street. Localized flooding has occurred within that area, and the Water Control District has embarked on studies to identify critical areas for improvement.

The fourth area of the mainland prone to flooding extends along the Indian River Lagoon shoreline. That flood zone includes the low lying areas along the length of the river. Much of the
flood zone is confined to wetlands and impounded wetlands; however, some development has occurred within the flood zone. Since most of that development is newer, finished floor elevations are above the 100 year flood plain, and wetland areas have been preserved for flood storage.

Portions of the barrier island are also included within the flood plains identified by FEMA. While a ridge running almost the entire length of the island has elevations above the flood plain, the land generally east of the dune bluff line and the land along the Indian River Lagoon are in the flood plain. In the unincorporated portion of the county south of Vero Beach, much of the development is located east of SR A1A where flooding would result only in the event of a major hurricane. The area between SR A1A and the Indian River Lagoon is part of the river flood basin. Most development in that area incorporates drainage systems designed for the 25 year/24 hour storm.

The portion of the barrier island between Indian River Shores and CR 510 also contains flood prone areas along the Indian River and the beach area. Land uses in that area consist primarily of large residential developments with recreation facilities. Those new developments provide for retention of more than the first inch of runoff before discharging into the Indian River Lagoon. Undeveloped areas west of SR A1A drain directly into the Lagoon.

North of CR 510, the flood plain follows the same pattern, except that the northernmost 3 miles of the island are entirely within the flood plain. That area contains the Sebastian Inlet State Park and single family residences along the narrow land mass. The area to the south includes impounded wetlands, the Pelican Island National Wildlife Refuge (on numerous small islands within the Indian River), citrus groves, and residential development at SR A1A and CR 510. Two large county beachfront parks also exist in that area.

Along the entire barrier island, most development has occurred recently. Consequently, those developments were designed with drainage systems that meet the stormwater management requirements of the county and jurisdictional agencies. Also, much of the barrier island contains excessively drained soils which permit the rapid percolation of stormwater.

Within the county, development in flood prone areas has not been a major problem. Because most development in those areas is relatively new, that development meets county stormwater regulations, with structures having higher finished floor elevations. Those characteristics greatly reduce problems associated with flooding.

As indicated above, little development that has occurred within flood plains in the county requires redevelopment. For areas with problems, redevelopment can occur in two ways. One approach is to retrofit or expand drainage facilities to improve the capacity of the drainage system. That lessens the likelihood of flooding without extensive property renovation. The second approach requires the renovation or removal of individual structures. It is likely that the second method would occur only in those areas with severe flooding problems or where the economic value of the structure does not warrant the maintenance expense. In Indian River County, the first method (improvement of the drainage system) is the preferred method. Along
with drainage system improvements, new development in those areas will meet the current stormwater management and water quality standards of the county and regulatory agencies. That new development will also be required to meet the minimum finished floor elevations established by the Federal Emergency Management Agency.

Improvements required within individual drainage basins are identified in the **Stormwater Management Sub-Element**. To ensure that new development meets existing drainage and stormwater management requirements, the county planning and public works departments coordinate all development proposals with the appropriate water control and water management districts. Going forward, the county should continue to regulate development in flood prone areas in a manner that is consistent with the National Flood Insurance Program.
GOALS, OBJECTIVES, AND POLICIES

VISION STATEMENT

To maintain and promote the “Small Town Character” of Indian River County as a low density, low rise and “green” county, while providing for a variety of housing and transportation choices.”

The goals, objectives, and policies are the most important parts of each comprehensive plan element. This section identifies the future land use element goals, objectives, and policies. This plan uses the following definitions of a goal, an objective, and a policy:

Goal: Long term end toward which programs or activities are directed.

Objective: A specific, measurable, intermediate end that is achievable and marks progress toward a goal.

Policy: The course of action or way in which programs and activities are conducted to achieve an identified goal or objective.

GOAL

Land development in Indian River County will occur in an orderly and controlled manner which ensures balanced growth that optimizes the potential for economic development, provides for the efficient use of facilities and services, and ensures the protection of the county's rich and varied environmental resources.

OBJECTIVE 1: COMPACT, ENERGY EFFICIENT, LOW-DENSITY DEVELOPMENT

Indian River County will have an efficient and compact and energy efficient land use pattern; an overall low density character; and adequate land for utility facilities necessary to support development. By 2020 and 2030, the overall residential density of the unincorporated portions of Indian River County, within the Urban Service Area, will be between 0.60 and 0.881.75 units/acre.
Policy 1.1: Indian River County hereby adopts the Future Land Use goal, objectives, policies as well as Figures 2.89, 2.1718, 2.1920, 2.2023, 2.2424, 2.2225, 2.2326, 2.2527, 2.2729, and 2.2933; and The Official Future Land Use Map.

Policy 1.2: Indian River County hereby adopts the following land use designations to be depicted on the Future Land Use Map (Figure 2.34):

- C-1, Conservation-1 (zero density)
- C-2, Conservation-2 (up to 1 unit/40 acres)
- C-3, Conservation-3 (up to 1 unit/2.5 acres)
- AG-1, Agriculture-1 (up to 1 unit/5 acres)
- AG-2, Agriculture-2 (up to 1 unit/10 acres)
- AG-3, Agriculture-3 (up to 1 unit/20 acres)
- R, Rural Residential (up to 1 unit/acre)
- T, Transitional Residential (up to 1 unit/acre; or up to 3 units/acre for Planned Development Projects)
- L-1, Low-Density Residential-1 (up to 3 units/acre)
- L-2, Low-Density Residential-2 (up to 6 units/acre)
- M-1, Medium-Density Residential-1 (up to 8 units/acre)
- M-2, Medium-Density Residential-2 (up to 10 unit/acre)
- MHRP, Mobile Home Rental Park (up to 8 units/acre)
- BCID, Blue Cypress Improvement District (up to 10 unit/acre)
- C/I, Commercial/Industrial
- RC, Regional Commercial
- PUB, Public Facilities
- REC, Recreation
- Mixed Use (floating land use designation; not depicted on the future land use map)

Policy 1.3: Indian River County shall maintain, periodically review, and revise if necessary, its various zoning districts (including special districts) and overlay districts as may be warranted to ensure the implementation of the comprehensive plan. The zoning districts shall be based on the comprehensive plan and shall directly govern specific land uses, lot area, building type, and size and dimension criteria.

Additionally, Indian River County shall maintain, periodically review, revise if necessary, and enforce land development regulations. Those land development regulations shall be the primary mechanism through which the county shall implement the Comprehensive Plan. The criteria and standards established in the various elements of the comprehensive plan shall be the basis for the land development regulations. Those regulations shall include, but not be limited to, provisions for:

- The use of land and water consistent with the Future Land Use Map and the Comprehensive Plan;
- The subdivision of land;
• The use of areas subject to periodic flooding and the provision of adequate drainage and stormwater protection;
• The protection of potable water wellfields;
• The protection of environmentally sensitive lands;
• The regulation of signage, landscaping and other aesthetic controls;
• The provision of safe on-site and off-site traffic circulation and adequate parking; and
• The review of all development applications and modifications to ensure that all provisions of the Comprehensive Plan are enforced.

Policy 1.4: Indian River County’s land development regulations shall, through various means, ensure that adjacent land uses are compatible. Those means shall include, but not be limited to, use of the following:

• vegetative buffers;
• setbacks;
• open space;
• physical separation;
• regulation of lighting;
• regulation of hours of operation; and
• regulation of access.

Policy 1.5: The Conservation Land Use designations shall be applied to those areas which contain or possess lands with qualities and features which play a vital or essential role in the normal functioning of the county’s ecosystems and have been so identified in the conservation element or merit preservation as vestiges of once common county ecosystems.

Policy 1.6: Development of conservation designated land shall be limited to the following:

C-1, Conservation-1 (Publicly owned or controlled conservation areas)
Conservation Uses
Passive Recreational Uses
• including, but not limited to, nature centers and trails, hiking trails, canoe launches, observation towers, scenic areas, wildlife sanctuaries, wildlife feeding stations, hunter education centers (including shooting ranges), picnic areas, bathrooms, and parking areas
• up to 0.25 FAR

C-1 designated parcels shall be specifically depicted on the future land use map. C-1 designated parcels include but are not limited to land owned by the St. Johns River Water Management
District for its Upper Basin Project, publicly owned spoil islands in the Indian River Lagoon, and other environmentally important land owned or controlled by public entities for conservation purposes.

C-2, Conservation-2 (Privately owned estuarine wetland and undeveloped lagoon island conservation areas)

Conservation Uses
Passive Recreational Uses
  1. including, but not limited to, nature centers and trails, hiking trails, canoe launches, observation towers, scenic areas, wildlife sanctuaries, wildlife feeding stations, picnic areas, bathrooms, and parking areas
  2. up to 0.25 FAR

Residential Uses
  1. up to 1 unit/40 acres (on-site)
  2. up to 1 unit/acre (Transfer of Development Rights)

C-3, Conservation-3 (Privately owned xeric scrub conservation areas)

Conservation Uses
Passive Recreational Uses
  1. including, but not limited to, nature centers and trails, hiking trails, canoe launches, observation towers, scenic areas, wildlife sanctuaries, wildlife feeding stations, picnic areas, bathrooms, and parking areas
  2. up to 0.25 FAR

Planned Development
  1. residential uses up to 1 unit/2.5 acres (on-site internal transfer of development rights)
  2. residential uses up to 1 unit/acre (external transfer of development rights)
  3. places of worship, up to 0.25 FAR

C-2 and C-3 designated areas shall be generally depicted on the future land use map; specific boundaries shall be established pursuant to Policy 1.7 of the Future Land Use Element.

Residential development in C-2 designated areas and in C-3 designated areas shall be limited to approved Planned Developments (PDs). The county shall require cluster development and density transfers to limit the impact of development on conservation lands. The PD and clustering requirements shall not apply to single-family lots along the east side of the St. Sebastian River that were legally created prior to February 13, 1990.

The following criteria shall apply to PDs in C-2 and C-3 designated areas:

  1. The density of the project shall not exceed the maximum density of the C-2 (for wetlands) or C-3 (for xeric scrub uplands) designated areas, as applicable; no density transfers from off-site lands and no density bonuses shall be permitted within PD projects on C-2 or C-3 designated lands;
2. Lots created through the PD process shall not exceed one acre in size and shall be clustered, with the remainder of the area designated as open space;

3. Open space areas shall be retained as natural areas; however, up to ten percent of the open space in C-3 designated areas may be used for passive recreation (including nature centers and trails, scenic areas, wildlife sanctuaries and feeding stations, and picnic areas), and historical sites, as appropriate.

4. Within C-3 designated areas, the total area of xeric scrub disturbed by a PD project shall not exceed 20% of the total xeric scrub area occurring on site.

Policy 1.7: Conservation land use designations shall be depicted on the future land use map. The exact boundaries of the C-2 and C-3 Conservation designated areas shall be determined by environmental survey. With one exception, any area which is depicted as a C-2 (wetlands) area or C-3 (upland xeric scrub) area on the Future Land Use Map, but which is determined by environmental survey not to be wetlands (as defined in the Conservation Element) or xeric uplands (as defined by the presence of xeric scrub vegetation and Orsino fine sand, 0 to 5 percent slopes, or Electra sand, 0 to 5 percent slopes) will have the same land use designation as the contiguous adjacent property.

The exception applies to land located east of the St. Sebastian River and depicted as C-3 on the future land use map. If determined by environmental survey not to be xeric uplands, then that land shall be designated R, Rural Residential (up to 1 unit/acre).

All areas depicted as C-3 on the Future Land Use Map which have xeric scrub vegetation and Orsino fine or Electra sands will be deemed environmentally important, notwithstanding whether or not such areas meet the 5 acre minimum threshold for environmental importance established in Conservation Element Policy 6.11 for other districts in the county.

The determination of the exact outer boundaries of C-2 or C-3 areas will be made by the county environmental planning staff based on verification of the vegetation and soils criteria referenced above, as applied to the environmental boundary survey conducted by the landowner/applicant or his agent at the time of application for any development permit (other than a comprehensive plan amendment or rezoning).

The county environmental planning staff shall not make its determination of importance or sensitivity until after consultation with all appropriate local, state and federal agencies. Such consultation shall be ongoing, as required for proper coordination, throughout the land development permit approval process.

Policy 1.8: C-2 and C-3 designated lands shall be considered for public acquisition.
Policy 1.9: The Agricultural Land Use designations shall be applied to those areas of the county that have been traditionally used for agricultural purposes and are sufficiently removed from urban areas. The Agricultural Land Use categories will ensure the continuation of the agriculture industry, protect agricultural lands from urban encroachment, and provide valuable green and open space.

Policy 1.10: Development of agriculturally designated lands shall be limited to the following:

- **Agricultural Uses such as Farming, Groves, Range and Livestock Activities and Forestry Excavation Activities**
- **Agricultural Planned Developments consistent with Future Land Use Element Policy 5.8**
- **Single-Family Residential Uses**
  - Up to 1 unit/lot or parcel on legally established non-conforming lots or parcels of record, existing on October 1, 1990
  - Up to 1 unit/5 acres in AG-1 designated areas
  - Up to 1 unit/10 acres in AG-2 designated areas
  - Up to 1 unit/20 acres in AG-3 designated areas
- **Agricultural Research Uses**
- **Agriculturally Related Businesses**
- **Recreational Uses**
- **Public Facilities**
- **Institutional Uses**
- **Public Schools**
  - (Public schools shall be permitted on agriculturally designated lands only within mixed use projects and traditional neighborhood design projects, or on sites located outside of, but contiguous to, the urban service area boundary.)
- **New Towns**
  - As permitted by Future Land Use Element Policies 1.37 and 1.38
  - **Public and Private Utilities, Limited and Heavy**

Policy 1.11: The Low-Density Residential Land Use designations shall be applied to those areas which are suitable for urban and suburban scale development. Except for two areas that are adjacent to the City of Fellsmere, Low-Density Residential designated areas shall be limited to lands that are located within the urban service area and near existing urban centers.

The two exceptions are the L-1 designated Homewood Subdivision generally located along the City of Fellsmere’s south boundary, and the L-2 designated Tropical Village Estates and Morningside Subdivisions located at the southeast corner of CR 512 and 130th Avenue.
Policy 1.12: Development in low-density residential areas shall be limited to the following:

**Single-Family Residential Uses**
- up to 1 unit/acre in R designated areas
- up to 3 units/acre in L-1 designated areas
- up to 6 units/acre in L-2 designated areas

**Multiple-Family Residential Uses**
- up to 3 units/acre in L-1 designated areas
- up to 6 units/acre in L-2 designated areas

**Recreational Uses**
- up to 0.35 FAR

**Public Facilities**
- up to 0.35 FAR

**Institutional Uses**
- up to 0.35 FAR

**Schools (not including business and vocational schools)**
- up to 0.35 FAR

**Excavation Activities (in R designated areas only)**

**Agricultural Uses (as permitted in Future Land Use Element Policy 6.3)**

**Professional Office Uses**
- as permitted by Future Land Use Element Policy 1.34
- up to 0.35 FAR

**Mixed Use Development Projects**
- As permitted by Future Land Use Element Policy 5.6

**Public and Private Utilities, Limited**

The FAR of mixed use projects shall be calculated by assigning a portion of the total development area to each use. The sum of the portions assigned to each use must equal the total development area. An exception shall be allowed for accessory residential uses within primarily non-residential projects. That exception shall allow the entire development area to be used to calculate the number of units allowed, without restricting the amount of development area available for calculating the maximum FAR for primary uses.

Policy 1.13: The Medium-Density Residential Land Use designations shall be applied to those areas which are suitable for urban scale development and intensities. Those areas shall be limited to lands that are located within the urban service area and near existing urban centers.

Policy 1.14: Development in medium-density residential areas shall be limited to the following:

**Single-Family, Multiple-Family, and Mobile Home Residential Uses (excluding Mobile Home Rental Parks 15 acres or larger)**
- up to 10 units/acre in M-2 designated areas
Future Land Use Element

- up to 8 units/acre in M-1 designated areas

Recreation Uses
- up to 0.35 FAR

Public Facilities
- up to 0.35 FAR

Institutional Uses
- up to 0.35 FAR

Schools (not including business and vocational schools)
- up to 0.35 FAR

Professional Office Uses
- as permitted by Future Land Use Element Policies 1.31 & 1.37
- up to 0.35 FAR

Mixed Use Development Projects
- As permitted by Future Land Use Element Policy 5.6

Public and Private Utilities, Limited

The FAR of mixed use projects shall be calculated by assigning a portion of the total development area to each use. The sum of the portions assigned to each use must equal the total development area. An exception shall be allowed for accessory residential uses within primarily non-residential projects. That exception shall allow the entire development area to be used to calculate the number of units allowed, without restricting the amount of development area available for calculating the maximum FAR for primary uses.

Policy 1.14.15: The Mobile Home Rental Park Land Use designation will be applied only to those properties that contain mobile home rental parks fifteen (15) acres or more in size within the unincorporated portions of the county and limited to lands that are located within the urban service area.

Policy 1.14.216: Development in a Mobile Home Rental Park Land Use designation shall be limited to the following:

Mobile Home Residential Uses
- up to 8 units/acre

Recreation Uses
- up to 0.35 FAR

Public Facilities
- up to 0.35 FAR

Institutional Uses
- up to 0.35 FAR

Policy 1.15: The Commercial/Industrial Land Use designation shall be applied to those areas which are suitable for urban scale development and intensities. Those areas shall be limited to lands that are located within the urban service area and near existing urban centers.
Policy 1.4618: Development in Commercial/Industrial designated areas shall be limited to the following:

<table>
<thead>
<tr>
<th>USE</th>
<th>MAXIMUM INTENSITY/DENSITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Trade</td>
<td>0.23 FAR</td>
</tr>
<tr>
<td>Offices</td>
<td>0.35 FAR</td>
</tr>
<tr>
<td>Business and Personal Services</td>
<td>0.35 FAR</td>
</tr>
<tr>
<td>Residential</td>
<td>8 units/acre</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>0.50 FAR</td>
</tr>
<tr>
<td>Assembly</td>
<td>0.50 FAR</td>
</tr>
<tr>
<td>Materials Processing</td>
<td>0.50 FAR</td>
</tr>
<tr>
<td>Heavy Repair Services</td>
<td>0.50 FAR</td>
</tr>
<tr>
<td>Wholesale Trade and Distribution Centers</td>
<td>0.50 FAR</td>
</tr>
<tr>
<td>Storage/Warehousing</td>
<td>0.50 FAR</td>
</tr>
<tr>
<td>Public Facilities</td>
<td>0.35 FAR</td>
</tr>
<tr>
<td>Recreational</td>
<td>0.35 FAR</td>
</tr>
<tr>
<td>Schools</td>
<td>0.35 FAR</td>
</tr>
<tr>
<td>Institutional</td>
<td>0.35 FAR</td>
</tr>
<tr>
<td><strong>Public or Private Utilities, Limited or Heavy</strong></td>
<td><strong>0.50 FAR</strong></td>
</tr>
</tbody>
</table>

The Floor Area Ratio (FAR) in Commercial/Industrial designated areas shall not exceed the above cited limits. The FAR is determined by dividing the gross floor area of all floors of all buildings on a development site by the area of that development site. If there is a question concerning which FAR category applies to a particular use, then the applicable FAR category shall be the same category that applies to the use having the most similar characteristics to the use in question. County staff shall determine which use has the most similar characteristics to the original use in question. Factors used to make that determination shall include the type and volume of traffic generated, parking requirements, and the Standard Industrial Classification Code.

The FAR of mixed use projects shall be calculated by assigning a portion of the total development area to each use. The sum of the portions assigned to each use must equal the total development area. An exception shall be allowed for accessory residential in Commercial/Industrial designated areas. That exception shall allow the entire development area to be used to
calculate the number of units allowed, without restricting the amount of development area available for calculating the maximum FAR for primary uses.

**Policy 1.17**: Land development regulations shall provide performance standards for commercial/industrial development which at a minimum address, but are not limited to, the following:

- Land use compatibility, buffering and landscaping
- Access points, traffic controls, and parking
- Signage
- Gross floor area, impervious surface ratios
- Open space
- Character of an area
- Environmental impact

**Policy 1.18**: Commercial/Industrial designated areas shall be structured as nodes. These nodes shall be located along roads with functional classifications appropriate to the level of activity.

**Policy 1.19**: Indian River County recognizes that, because of the scale of the Future Land Use Map, the exact boundaries of Commercial/Industrial nodes delineated on the map may require interpretation in order to determine the exact land use designation of various parcels, lots, and tracts. Therefore, when necessary, the following criteria shall be used to establish the location of a specific node boundary line on large-scale node boundary maps and on the county's zoning atlas:

a. A node boundary line is subject to interpretation only when an inspection of the Future Land Use Map reveals that a boundary line does not obviously correspond to a major roadway right-of-way, canal, water body, section line, or corporate limit delineated on the Map.

b. If the location of a node boundary line is subject to interpretation because it does not obviously correspond to a natural or man-made feature listed above, then the location of the boundary line shall be determined by the following criteria:

1. If inspection of the Future Land Use Map and maps depicting lot, parcel or tract lines reveals that a node boundary line splits a lot, parcel or tract, and if the portion of the split lot, parcel or tract within the node is precluded from development, as permitted by the Future Land Use Map designation, because of such split, then the node boundary line shall be located to exclude the entire lot, parcel or tract from the node; or

2. If inspection of the Future Land Use Map and maps depicting lot, parcel or tract lines reveals that a node boundary line splits a lot, parcel or tract, and if the portion of the split lot, parcel or tract outside the node is precluded from
development, as permitted by the Future Land Use Map designation, because of such split, then the node boundary line may be extended up to 500 feet to incorporate the entire split lot, parcel or tract provided that no more than five additional acres are added to the node. An extension of a node boundary line to include within the node an entire lot, parcel or tract that would otherwise be precluded from development if the boundary line were not extended shall be approved by the Board of County Commissioners upon recommendation by the Planning and Zoning Commission in conjunction with a rezoning of the affected property. To prevent repetitive extension of the boundary line, a node boundary line may be extended one time only and shall be permanently fixed and final unless changed by an approved plan amendment.

c. Reference in this policy to the terms "parcel, lot or tract" shall not include any alterations to the property's tax parcel legal description that are made after February 13, 1990.

Policy 1.2022: Node size shall be based on the intended use, service area population, existing land use pattern, and other demand characteristics.

Policy 1.2423: Node configuration shall provide for the most efficient use of land, and of transportation and other public facilities and services, while eliminating sprawl and strip development.

Policy 1.2224: No node shall be expanded unless 70% of the subject node’s land area (less rights-of-way) is developed with non-residential and non-agricultural uses, or approved for non-residential and non-agricultural development, or otherwise warranted by the proposed development.

Otherwise warranted may include but not be limited to the following:

- Developed percentage of a node is between 60% and 70% and the node expansion meets one of the following criteria:

  - expansion of the node is necessary to accommodate the expansion of an existing use where there is not suitable vacant land adjacent to the use within the node, the land proposed for inclusion is owned or controlled by the owner of the site containing the use proposed for expansion, and a finding is made by the Board of County Commissioners that no other land in the node can feasibly accommodate the expansion of the referenced use, or

  - expansion of an existing node is necessary to adjust a node boundary that splits a small parcel of land and a finding is made by the Board of County Commissioners that development of the parcel is not feasible with the split land use designation and that inclusion of the parcel in the node is more appropriate than exclusion of the parcel from the node.
• Expansion of a node is necessary to accommodate a use (such as a regional mall or a large-scale industrial park) which has a substantial land area requirement and no alternative suitable sites are available in existing nodes.

• Expansion of a node is necessary to compensate for existing or proposed right-of-way which was included within the node boundary and included in the node size calculation, where the node expansion will not exceed the acreage represented by the right-of-way.

• Expansion of a node is necessary to accommodate a substantial change in circumstances affecting a property adjacent to the node, where said change has had the effect of making the property unsuitable for residential use. Such change could include establishment of an adjacent, incompatible use, or a significant change in adjacent development patterns due to an act of government such as road development and expansion.

• Expansion of a node is necessary to include existing adjacent non-conforming commercial or industrial uses where a finding is made by the Board of County Commissioners that the non-conforming uses cannot be otherwise eliminated.

• Expansion of a node is necessary to facilitate a swap of land use designations involving more than one node where all involved nodes impact the same public facilities and the swap will not increase the overall land use density or intensity depicted on the Future Land Use Map. The total area added to any expanding node or nodes shall be equal to or less than the total area removed from any other involved node or nodes.

• Expansion of a node is necessary to correct an oversight or a mistake in the plan affecting property that meets the following criteria:

  - the property is residentially designated;
  - the property was given a residential designation as a result of an oversight or a mistake;
  - the property is unsuitable for residential use;
  - the property is adjacent to a node; and
  - the property is no more than 10 acres in size.

Policy 1.2325: Commercial/industrial nodes shall not be created or expanded to within 1 ½ miles of an existing commercial/industrial node. This policy shall apply only to commercial/industrial nodes that conformed to the 1½ miles requirement on December 31, 1997. This policy shall not apply to neighborhood commercial nodes.

Policy 1.26: Given the existing concentration of commercial uses in the SR 60/58th Avenue
commercial/industrial node and the volume of traffic that traverses the SR 60/58th Avenue intersection, the county hereby caps the SR 60/58th Avenue commercial/industrial node at its present size, which is 329.91 acres.

Policy 1.27: Consistent with the Historic Roseland Neighborhood Plan, the county hereby caps the Roseland/US Highway 1 commercial/industrial node at its present size, which is 135.04 acres. That plan determined that there is sufficient land within that node to accommodate needed commercial and industrial uses for area residents. This limitation on node expansion shall not prohibit the expansion of the node for medical uses.

Policy 1.24: The Board of County Commissioners may initiate a land use designation amendment to change C/I designated land to residential, provided that all of the following conditions exist:

- The parcel has been redesignated to C/I, Commercial/Industrial, since comprehensive plan adoption on February 13, 1990; and
- The parcel is currently designated C/I; and
- More than two years have passed since approval of the ordinance redesignating the parcel to C/I; and
- No construction activity has commenced on the parcel since approval of the ordinance redesignating the parcel to C/I.

Such action will not conflict with current property rights laws, because all comprehensive plan amendments since 1990 designating property to C/I have been subject to this reverter condition.

Policy 1.25: Node locations and estimated sizes shall be listed in Table 2.12.

Policy 1.26: In addition to Commercial/Industrial Nodes, the County shall also designate Neighborhood Commercial Nodes, not to exceed 5 acres, for limited retail and convenience uses. New Neighborhood Nodes shall be no closer than 1 mile to existing commercial or neighborhood nodes. Neighborhood Commercial Nodes are not shown on the Future Land Use Map. The existence of a neighborhood node shall not prevent the expansion of an existing non-neighborhood node.

Policy 1.27: The Regional Commercial land use designation shall be applied to regional malls and associated retail shopping centers designed to accommodate the needs of the retail market areas that extend beyond the boundaries of the county. These developments will include one or more "magnet" retail stores that are branches of statewide, multiple-state, or national organizations and satellite stores integrated through a common plan of development approved
through the Chapter 380, F.S., Development of Regional Impact process. Sites will typically range in size from 90 to 150 acres to accommodate 750,000 to 1,500,000 gross square feet of leasable area (mall plus peripheral commercial) with a minimum open space ratio of 0.25, a maximum building coverage ratio of 0.40 and maximum impervious surface ratio of 0.75. All Regional Commercial designated land shall be located within the urban service area.

**Policy 1.28:** The Public Facilities land use designation shall be applied to land used for public facilities and services including, but not limited to, government offices, service centers, public utilities and transportation facilities, schools, parks, libraries, police and fire stations, dredged spoil disposal, and landfills and related uses such as recycling equipment operations, composting facilities and operations, incineration of solid waste, borrow pit operations for fill material, industrial waste and leachate treatment and management, equipment storage and maintenance, and water and wastewater treatment facilities. Not all public land uses are shown on the Future Land Use Map. Public facilities are not limited to the Public Facilities Land Use designation. The maximum intensity standards established by Future Land Use Element Policy 1.16–18 (commercial/industrial intensity standards) shall also apply to uses within the Public Facilities land use designation.

**Policy 1.29:** The Recreation land use designation shall be applied to land used for active and passive public parks and recreation facilities, including but not limited to ball fields, swimming pools, tennis courts, racquetball courts, handball courts, shuffleboard courts, basketball courts, volleyball courts, children’s playgrounds, golf courses, fairgrounds, community/activity centers, walking/jogging/fitness trails, canoe launches, picnic areas, scenic areas, nature centers, bathrooms, and parking areas. Not all recreation sites are shown on the Future Land Use Map. Public parks and recreation facilities are not limited to this land use designation. The maximum Floor Area Ratio (FAR) for development within the Recreation land use designation shall not exceed 0.25.

**Policy 1.30:** The Blue Cypress Improvement District (BCID) is a special land use designation that shall be applied to the existing Blue Cypress Fish Camp on the western shore of Blue Cypress Lake. Development within this district shall be limited to single-family and mobile home residential uses and conditioned on the provisions outlined in Ordinance 85-55. The BCID is not intended for expansion to adjacent or otherwise undeveloped property. Densities in the BCID shall not exceed 10 units/acre.

**Policy 1.31:** The county zoning code shall contain provisions for a Professional Office District. That district shall be limited to land that is within the medium- and low-density residential land use designations and is located along arterial roadways. The purpose of this zoning district shall be to encourage infill development and the redevelopment of blighted or declining residential areas which are no longer appropriate for strictly single-family use but are not considered appropriate for a broad range of commercial uses, as permitted in other commercial zoning districts.
Policy 1.3235: Indian River County shall regulate the use of land in proximity to large scale public facilities such as airports and landfills in order to protect the facilities from encroachment by non-compatible uses and protect the public from any potentially hazardous impacts.

Policy 1.3336: The county shall maintain a concurrency database which identifies areas with facility surpluses and deficiencies. Development shall be directed to areas with adequate facility capacity through publication of this information and through implementation of the county's concurrency management system.

Policy 1.3437: The new town land use designation shall be a floating zone which may be overlaid on any property with an agricultural land use designation (AG-1, AG-2, and AG-3). Each new town designation shall be approved as a Planned Development (PD) and shall meet the requirements of Policy 1.3538.

The size, density, and design of a new town shall allow for a sustainable new town population with an adequate level of commercial activity, as well as a sufficient greenbelt area. The new town shall be designed to accommodate a build-out population of at least 5,000 persons (approximately 2,500 residential units).

No new town designation shall be approved except as an amendment to the Future Land Use Map of the Comprehensive Plan. Such amendments shall identify the location of the new town on the future land use map and shall update the plan's data and analysis section to reflect the population impacts of the new town. Compliance with all new town designation requirements shall indicate that a proposed new town district amendment is consistent with the comprehensive plan and warrants approval.

A new town amendment shall meet the following criteria:

a. No new town district shall be established unless it meets the following minimum size requirements:

<table>
<thead>
<tr>
<th>LOCATION OF NEW TOWN</th>
<th>MINIMUM SIZE (CONTIGUOUS ACRES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>East of Interstate 95</td>
<td>1,500</td>
</tr>
<tr>
<td>West of Interstate 95</td>
<td>4,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BOUNDARY TO BOUNDARY DISTANCE FROM URBAN SERVICE AREA</th>
<th>MINIMUM SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>* one mile or less</td>
<td>1200 acres</td>
</tr>
</tbody>
</table>

Future Land Use Element
Future Land Use Element

Policy 1.35: The new town land use designation shall be established through the Planned Development (PD) process. For any land to receive the new town land use designation, a PD project must be approved which clusters residential and non-residential uses in a manner which protects agricultural and open space areas, protects natural resources, creates a self-sufficient community, minimizes off-site traffic, and does not increase urban sprawl.

All new town projects shall be approved as Florida Quality Developments pursuant to Chapter 380, F.S., and such designation shall require submittal and approval of a PD project having the following characteristics:

a. **A proper mix of land uses that results in a sustainable small town rather than merely an ameliorated residential community.** The project shall have the following mixture of land uses that shall satisfy the following criteria:

1. **Residential areas;** these are areas that provide for single-family low density, single-family medium density, and/or multiple-family medium density.
residential development units, including residential units behind or over businesses.

2. Shopping areas; these are areas that provide for the sale of goods and services to accommodate the residents of the project new town. Allowed uses are retail commercial and personal services.

3. Work areas; these are areas that provide work employment opportunities for the residents of the project new town. Allowed uses are office uses, educational, and light industrial, resource management and tourism, and agricultural uses and related industries.

4. Public facilities and institutional uses; these are areas which provide for public facilities, cultural facilities, and religious facilities as needed by the residents of the project including schools, fire/police stations, cultural and community facilities, and places of worship.

5. Recreational uses; these are areas which provide for active and passive recreational facilities as needed by the residents of the project.

6. Natural open spaces and agricultural areas; these are areas which will be preserved due to their environmental importance or will be used for active agricultural production.

b. All residential and commercial/office uses shall be clustered. Activity or town centers shall mixed use centers containing both nonresidential and residential uses, while residential uses not located within town centers shall be in compact neighborhoods.

c. The gross residential density of the project new town may exceed the underlying agricultural maximum densities; however, the project new town density shall not exceed one 1.5 units per acre of gross project area unless development rights are transferred to new towns from off-site properties. In such cases, the overall gross density of the new town shall not exceed 2 units per acre. Consistent with that allowance, new towns may be receiver sites for development rights sent from conservation or agricultural preservation areas that are located outside the urban service area and are not adjacent to the project. Sending areas shall be stripped of development rights as part of the new town approval. Density credits eligible for transfer shall not exceed 1 unit per acre for AG-1 sending areas, 1 unit per 2 acres for AG-2 sending areas, and 1 unit per 4 acres for AG-3 sending areas. Additional density allowances up to 1 unit per 2 acres may be allowed for environmentally significant portions of AG-3 sending areas.

d. Uses within a new town PD shall be identified in the mixed use new town PD project application. The land use mix shall be supported by data and analysis submitted by the applicant which shows that the proposed project will capture one hundred (100) percent
of neighborhood, convenience, and community shopping trips and a minimum of fifty (50) percent of employment trips. The following standards serve as a minimum criteria for mixed use project land use distribution and shall comply with the following criteria.

1. Commercial, personal services, and office and light industrial use areas shall constitute at least five (5%) percent but not more than ten (10) percent of the entire PD area. The floor area ratio of areas designated as shopping and working areas should be at least 0.10 shall be provided at ratio of three (3) to ten (10) acres per 1,000 residential units.

2. Public facilities, including but not limited to water plants, sewer plants, schools (excluding university campuses or similar uses), fire stations, and police stations, and public institutional use areas, should not exceed five (5) percent of the entire PD area.

3. Residential use areas shall constitute at least fifteen (15) percent but not more than thirty-five (35) percent of the entire PD area.

4. Employment areas, including industrial, business, and office uses, shall comprise at least two (2) percent of the entire PD area.

e. The following additional standards shall be met by any new town PD project application.

1. Affordable/Workforce Housing: Affordable and/or workforce housing units shall be provided to ensure that there is housing available within the project area for workers employed within the project area. Therefore, at least thirteen ten (13\frac{10}{10}) percent of the total housing units shall be affordable and/or workforce housing units. A housing unit shall be considered affordable if it has a market value less than two (2) times 80% of the county’s annual household medium income, or it has a monthly rent less than one-twelfth (1/12) times 30% of 80% of the county’s annual household medium income, as defined in the county’s land development regulations. The applicant shall provide sufficient data and analysis to justify the number and percentage of affordable housing units needed by his proposed project. This amount of affordable housing shall then be provided within the project; however, the total amount of affordable housing shall in no case be less than thirteen ten (13\frac{10}{10}) percent of the total number of housing units in the project.

2. Open Space: At least fifty (50) percent of the entire PD area shall be preserved or provided as open space. Open space areas shall be retained as natural areas or used for agricultural purposes, or used for recreational purposes, stormwater management, water supply, or similar uses that complement the rural nature of the area.
(a) At least seventy (70) percent of the minimum required common open space area shall be located along main project boundaries and shall function as perimeter greenbelts or shall be in the form of a large contiguous block of land. If a proposed new town shares a boundary with land identified as conservation either through easement or by comprehensive land use designation, then the required greenbelt perimeter/open space block shall have a contiguous boundary with the conservation area. If a new town shares a boundary with multiple existing conservation areas, the project design shall provide greenway connections between conservation areas.

(b) For purposes of the fifty (50) percent common open space requirement, such green space shall not include conventional, individual private yard areas and shall not include any areas already in conservation. Common open space areas may include agricultural areas (e.g. crop lands, pastures, and equestrian areas), parks and recreation areas, conservation and natural areas (e.g. uplands, wetlands, and re-created natural areas), and water bodies (not to exceed thirty percent of the open space requirement).

(c) Active recreational uses shall be limited to less than a maximum of twenty-five-four (25.4) percent of the designated open space, but shall not exceed twelve (12) percent of the entire PD area, whichever is less.

43. Timing of Land Uses: At the time of new town approval, commitments must be made as to the timing of developing work places and non-residential uses. A sufficient amount of job-producing and non-residential uses shall be developed in initial project phases to prevent creation of a de-facto residential only or bedroom community and to ensure development of a job-producing "anchor tenant" to sustain the new town’s economy. To ensure that all phases of the project develop as a viable new town development with a mixture of residential, shopping, working, recreational, and open space areas, various uses for each phase of the project shall be approved and developed in a proportional manner. Commercial and personal service uses, office and light industrial uses and residential uses shall generally constitute the same percentage of area for each phase as they constitute in the project as a whole. No more than twenty-five (25) percent of the proposed residential use development will be permitted until at least twenty-five (25) percent of the proposed commercial and personal service uses and office and light industrial uses occur.

4. Form: The project shall meet the Traditional Neighborhood Design standards of the Future Land Use Element Policy 18.1. Each new town project shall be buffered from adjacent land uses. At a minimum the following buffer requirement shall be met. In so doing, the new town shall have a perimeter edge and a center. Along the perimeter edge, a significant greenbelt shall be provided.
and that greenbelt shall consist of natural areas, agricultural areas, and/or “no-build” areas designated on large acreage parcels. A project center shall be established for the concentration of residential and commercial uses. Major roadways shall run through or near the project center. The project design shall reflect the following:

(a) A network of ungated and open to the public interconnected streets in a grid or modified grid pattern.

(b) An interconnected pedestrian sidewalk/path system that serves and integrates residential and non-residential uses.

(c) Appropriately sized blocks and pedestrian improvements that provide a layout that maximizes residential development in clusters around town centers. Town centers shall include but not be limited to public squares or parks, as well as commercial and residential uses.

(d) Wide sidewalks, street trees, and on-street parking in the town center.

5. Integration into Major Street Grid: Each new town project shall have multiple connections to major roads, and extend major roads planned to traverse the rural area in which the project is located.

6. Building Height: Residential structures shall be limited to a maximum height of 35 feet, while nonresidential and mixed use structures shall be limited to a maximum height of 50 feet. For all structures, architectural embellishments may exceed the maximum height limitation by no more than 15 feet.

i. A setback of at least eighty (80) feet with a type "B" buffer and a six foot opaque feature as set forth in Chapter 926, Landscaping and Buffering of the County Land Development Regulations, shall be provided along all project boundaries.

ii. No commercial, personal services, office, or light industrial development shall be permitted closer than two hundred (200) feet from any arterial or collector roadway.

f. The project shall meet the Traditional Neighborhood Design standards of the Future Land Use Element Policy 18.1, for Street Networks, Centers, and Public Building subsections.

Policy 1.3639: The county shall limit the use of the 101.8 acres of C/I designated property located at the northeast corner of SR 60 and 102nd Avenue to industrial uses only. Those uses include an industrial park, light manufacturing and assembly, and distribution centers. This policy shall be implemented through zoning and/or planned development requirements.
**Policy 1.3740:** The county shall permit Planned Development zoned projects located on residentially designated land between 41st Street and 45th Street, and between US 1 and Indian River Boulevard to consist of a mix of office and residential uses. No more than 20% of the project area shall be devoted to office uses.

**Policy 1.38:** The county shall coordinate with the State Department of Environmental Protection to have approximately 120 acres of state owned land along 102nd Terrace and adjacent to the I-95/CR 512 Commercial/Industrial Node declared surplus and transferred to the county. At that time, both the node and the urban service area will be expanded to include the entire surplussed property.

**Policy 1.3941:** The county shall encourage the school board to locate schools near urban residential areas. The county will do this by allowing schools within all residential zoning districts; by coordinating with the school board to establish a process for preliminary county review of school sites before the school board acquires or leases property for a new school; and by limiting school sites within agriculturally designated areas to mixed use projects, traditional neighborhood design projects, and sites that are contiguous to the urban service area boundary.

**Policy 1.4042:** To the extent feasible, the county shall collocate public facilities, such as parks, libraries, and community centers, with schools.

**Policy 1.4143:** The Board of County Commissioners shall rezone land only in a manner that is consistent with Future Land Use Element Table 2.1314. Furthermore, the Board recognizes that not every zoning district allowed in a land use designation is appropriate for every site within that land use designation. For any parcel, the Board of County Commissioners may deny a rezoning request (even when the requested zoning district is consistent with the parcel’s land use designation) if the denial serves a legitimate public purpose. A Board of County Commissioners’ determination that the requested zoning district is not appropriate for the parcel may also be based upon the absence of the following locational criteria:

---1. For the OCR, Office, Commercial, Residential zoning district:
   - adjacent to existing office uses
   - as a buffer between residential zoning districts and arterial roads or other commercial zoning districts.
   - at node perimeters

---2. For the MED, Medical zoning district:
   - within commercial/industrial nodes containing hospitals and major medical facilities
   - separated from industrial areas

---5.3. For the CL, Limited Commercial zoning district:
   - areas that are easily accessed from residential areas
   - between residential areas and general commercial areas or major roadways
   - separated from industrial areas
• at node perimeters

4. For the CG, General Commercial zoning district:
   • along arterial roads and major intersections
   • separated from residential development
   • separated from industrial areas
   • near retail and office areas

9.5. For the CH, Heavy Commercial zoning district:
   • along arterial roads
   • along railroad tracks
   • between general commercial and industrial areas
   • separated from residential development

10.6. For the IL, Light Industrial zoning district:
   • along arterial roads
   • along railroad tracks
   • near industrial areas
   • separated from residential development
   • separated from retail and office areas

7.7. For the IG, General Industrial zoning district:
   • along arterial roads and major intersections
   • along railroad tracks
   • near industrial areas
   • separated from residential development by a major roadway or intervening property
   • separated from retail and office areas

15.8. For single-family zoning districts:
   • adjacent to other single-family areas
   • separated from major commercial areas and industrial areas

9.9. For multiple-family zoning districts:
   • adjacent to other multiple-family areas
   • adjacent to employment centers
   • along arterial and collector roads, particularly to buffer single-family areas
   • adjacent to commercial uses, particularly to buffer single-family areas
   • not abutting single-family areas on all sides

Additionally, the Board hereby adopts the following general criteria regarding the location of residential zoning districts:

19.10. Where medium density residential lands abut low density residential land, the medium density land may be zoned an intermediate density.

11. Residually designated land that is located between higher density and lower density zoned areas may be zoned an intermediate density even when the intermediate zoned area has a land use designation that allows a higher density.
Policy 1.44: The county will evaluate requests to rezone CH and/or IL-zoned areas to CL or CG to ensure that sufficient CH and IL zoned land will remain if the rezoning is approved. In so doing, the county will favorably consider those types of rezonings where the subject property is located along high-volume roadways or adjacent to residential areas. The county shall maintain existing CH or IL zoning areas that are not located along high-volume roadways or not located near residential areas.

Policy 1.445: The Transitional Residential Land Use designation may be applied to those areas which serve as a transition area between urban and agriculturally designated land and are suitable for urban and suburban scale development. Additionally, Transitional Residential designated land must meet all of the following criteria:

- it must abut an arterial road that contains county water and sewer lines within its (the road’s) right-of-way;
- it must abut a commercial/industrial node where at least 70% of the subject node’s land area (less rights-of-way) is developed with non-residential and non-agricultural uses, or approved for non-residential and non-agricultural development; and
- it must be at least 20 acres in size.

Land that meets all of the above criteria may be included in the urban service area and may be redesignated to T, Transitional Residential.

Policy 1.446: Development in transitional residential areas shall be limited to the following:

- Single Family Residential Uses
  - up to 1 unit/acre; or up to 3 units/acre for Planned Development Projects
- Recreational Uses
  - up to 0.35 FAR
- Public Facilities
  - up to 0.35 FAR
- Institutional Uses
  - up to 0.35 FAR
- Schools (not including business and vocational schools)
  - up to 0.35 FAR
- Excavation Activities
- Agricultural Uses (as permitted in Future Land Use Element Policy 6.3)

The FAR of mixed use projects shall be calculated by assigning a portion of the total development area to each use. The sum of the portions assigned to each use must equal the total development area. An exception shall be allowed for accessory residential uses within primarily non-residential projects. That exception shall allow the entire development area to be used to calculate the number of units allowed, without restricting the amount of development area available for calculating the maximum FAR for primary uses.
Policy 1.44: To mitigate and reduce potential impacts between residential and agricultural uses, the following special regulations apply within areas designated as Transitional Residential:

- Caribbean Fruit Fly host plants shall be prohibited on T designated lands.
- When platting lots in residential projects on T designated land, the land owner shall place an informational note on the plat and on the deed of each lot informing interested parties of the Florida Right to Farm Act, Section 823.14, Florida Statutes (2001) as amended, and stating that active farm operations occur nearby.

Policy 1.45: When vacant land within the urban service area is located adjacent to developed property that is built to a density lower than the allowed density of the vacant property, the vacant property shall have a transition area next to the built property with a density in that transition area comparable to that of the built property.

Policy 1.49: The county hereby designates the entire urban service area as an Energy Conservation Area. The county shall maintain its urban service area boundary in a manner consistent with Policies 2.1, 2.2, and 2.3.

Policy 1.50: Within Energy Conservation Areas, the county shall regulate all new development and redevelopment in a manner that promotes energy conservation.

Policy 1.51: The county shall encourage Traditional Neighborhood Design (TND) projects that are consistent with Policies 18.1, 18.2, and 18.3. Consistent with Policy 18.4, the county shall permit TND developments as conditional uses in the county’s conventional zoning districts.

Policy 1.52: Within the urban service area, the county shall permit mixed use developments that are consistent with Policy 5.6.

Policy 1.53: In areas located outside the urban service area, the county shall promote clustered development, such as new towns and agricultural planned developments. New towns shall be consistent with Policies 1.37 and 1.38, while agricultural planned developments shall be consistent with Policy 5.9.

Policy 1.54: In reviewing new development proposals, the county shall require vehicular and pedestrian connections as specified in Policy 4.5.

Policy 1.55: The county shall consider the impact of proposed amendments to the Future Land Use Map upon the county’s jobs/housing balance in a manner consistent with Policy 4.8.

OBJECTIVE 2: URBAN SERVICE AREA

In unincorporated Indian River County, all residential development greater than 0.2 units/acre, and all non-agriculture related commercial/industrial uses will be located within
the urban service area, which contains the infrastructure and services needed to accommodate such development.

Policy 2.1: Indian River County hereby adopts the 2020-2030 Urban Service Area depicted on the County’s Official Future Land Use Map. The Urban Service Area includes land where services necessary to support urban development are available at levels identified in this and other elements of the Comprehensive Plan.

At a minimum, those services shall include centralized utilities service, improved roadways, solid waste disposal, stormwater management, police protection, fire protection, educational facilities, and park and recreational facilities.

Policy 2.2: Indian River County shall encourage and direct growth into the 2020-2030 Urban Service Area through zoning, subdivision, and land development regulations. Such regulations shall promote efficient development by requiring utilization of the existing street system, extension of public facilities where necessary, connection to the centralized potable water and sanitary sewer systems where available, and incentives for mixed use projects.

Policy 2.3: Indian River County shall require all development except agricultural uses, residential uses with less than 0.2 units/acre, recreation/open space uses, Mixed Use Overlay Projects, and Traditional Neighborhood Design Overlay Projects to be located within the Urban Service Area.

Policy 2.4: Public services and facilities shall be designed with capacities sufficient to meet the levels of service established in this plan, support the needs of the projected population, and accommodate the intensity of development as identified on the Future Land Use Map.

Policy 2.5: The county may expand the urban service area if the expansion is warranted based on the need to accommodate additional projected population. Any expansion area of public services and facilities shall be based on an area's environmental suitability for urbanization, existing and future land uses, and the availability of other services and facilities.

Policy 2.6: Indian River County shall coordinate with the Florida Department of Transportation to define the needed right-of-way for proposed roadway improvements, roadway extensions, and new roadway corridors, and shall acquire and protect needed future right-of-way as identified in the Transportation Element of this plan.

Policy 2.7: Indian River County shall maintain a program to locate and acquire property for the services and facilities identified in the Transportation, Infrastructure, Recreation and Open Space and other elements of this plan. This action is intended to provide for the needs of future development while minimizing disturbance to existing development.

Policy 2.8: The county hereby adopts level-of-service standards for selected public facilities as follows:
a. Correctional Facilities

The county adopts the following correctional facilities level-of-service standard:
- County wide level-of-service standard of 4.5 beds/1,000 permanent plus weighted peak seasonal population

b. Fire/EMS

The county adopts the following Fire/EMS level-of-service standard:
- County wide (excluding Indian River Shores) level-of-service standard of .089 Stations per 1,000 permanent plus weighted peak seasonal population

c. Law Enforcement

The county adopts the following Law Enforcement level-of-service standard:
- Unincorporated County level-of-service standard of 2.09 officers per 1,000 permanent plus weighted peak seasonal population

d. Libraries

The county adopts the following Libraries level-of-service standards:
- County wide level-of-service standard of 580 building square feet per 1,000 permanent plus weighted peak seasonal population
- County wide level-of-service standard of 3,200 library material items per 1,000 permanent plus weighted peak seasonal population
- County wide level-of-service standard of 0.7 computers per 1,000 permanent plus weighted peak seasonal population
- County wide level-of-service standard of 0.2 other library equipment items per 1,000 permanent plus weighted peak seasonal population

e. Public Buildings

The county adopts the following Public Buildings level-of-service standard:
- County wide level-of-service standard of 1.99 building square feet per capita for permanent plus weighted peak seasonal population.

f. Schools

The county adopts the following Schools level-of-service standards:
- County wide level-of-service standard for Elementary Schools of 144.71 building square foot per student station
- County wide level-of-service standard for Middle Schools of 117.26 building square foot per student station
County-wide level of service standard for High Schools of 147.57 building square foot per student station
County-wide weighted average level of service standard for all schools of 139.07 building square foot per student station

g. Transit

The County adopts the following transit level of service standard:
One hour headways shall be maintained on all fixed transit routes.

Policy 2.9: Indian River County shall coordinate with private utility providers including electric, gas, telephone and cable TV to ensure the efficient delivery of utility services.

OBJECTIVE 3: LEVELS OF SERVICE

Through 2020-2030, the provision of public services and infrastructure in Indian River County will be at a level consistent with this plan.

Policy 3.1: For all facilities and services, the minimum levels of service established in this and other elements of the comprehensive plan will be maintained.

Policy 3.2: Regardless of land use designation or zoning district, no development shall be approved unless it is consistent with the concurrency management system in the capital improvements element, and the levels of service established in this element and other elements of the Comprehensive Plan.

Policy 3.3: Using the County’s established concurrency management system, the County shall review proposed developments, assess their impact on services and facilities, and make determinations of adequacy or inadequacy of public facilities and services.

Policy 3.4: Consistent with the Capital Improvements, Infrastructure, Transportation, and Recreation and Open Space Elements of this plan, county land development regulations shall ensure that level of service standards for potable water service, sanitary sewer service, solid waste disposal service, stormwater management, traffic circulation, and parks and recreation are maintained. Those standards must be met by all proposed development prior to building permit.

Policy 3.5: The county will design and construct public facilities with capacities sufficient to meet the levels of service established in this plan, support the needs of the projected population, and accommodate the intensity of development as identified on the Future Land Use Map.

Policy 3.6: Indian River County shall define the needed right-of-way for proposed roadway improvements, roadway extensions, and new roadway corridors, and shall acquire and protect needed future right-of-way as identified in the Transportation Element of this plan.
Policy 3.7: Indian River County shall maintain a right-of-way/land acquisition program to locate and acquire property for the services and facilities identified in the Transportation, Infrastructure, Recreation and Open Space and other elements of this plan. This action is intended to provide for the needs of future development while minimizing disturbance to existing development.

Policy 3.8: The county hereby adopts level-of-service standards for selected public facilities as follows:

a. Correctional Facilities: The county adopts the following correctional facilities level-of-service standard:
   • County wide level-of-service standard of 4.5 beds/1,000 permanent plus weighted peak seasonal population

b. Fire/EMS: The county adopts the following Fire/EMS level-of-service standard:
   • County wide (excluding Indian River Shores) level-of-service standard of .089 Stations per 1,000 permanent plus weighted peak seasonal population

c. Law Enforcement: The county adopts the following Law Enforcement level-of-service standard:
   • Unincorporated County level-of-service standard of 2.09 officers per 1,000 permanent plus weighted peak seasonal population

d. Libraries: The county adopts the following Libraries level-of-service standards:
   • County wide level-of-service standard of 580 building square feet per 1,000 permanent plus weighted peak seasonal population
   • County wide level-of-service standard of 3,200 library material items per 1,000 permanent plus weighted peak seasonal population
   • County wide level-of-service standard of 0.7 computers per 1,000 permanent plus weighted peak seasonal population
   • County wide level-of-service standard of 0.2 other library equipment items per 1,000 permanent plus weighted peak seasonal population

e. Public Buildings: The county adopts the following Public Buildings level-of-service standard:
   • County wide level-of-service standard of 1.99 building square feet per capita for permanent plus weighted peak seasonal population.

f. Schools: The county adopts the following Schools level-of-service standards:
   • County wide level-of-service standard for Elementary Schools of 144.71 building square feet per student station
   • County wide level-of-service standard for Middle Schools of 117.26 building square feet per student station
   • County wide level-of-service standard for High Schools of 147.57 building square feet per student station
• County wide weighted average level-of-service standard for all schools of 139.07 building square feet per student station

g. Transit: The county adopts the following transit level-of-service standard:
• One-hour headways shall be maintained on all fixed transit routes.

Policy 3.9: Indian River County shall coordinate with private utility providers, including electric, gas, telephone, and cable TV, to ensure that utility services are delivered efficiently.

Policy 3.10: The county shall provide infrastructure improvements to existing subdivisions with inadequate infrastructure, such as Vero Lake Estates, Paradise Park, Oslo Park, and Pine Tree Park, through the petition paving program and the utility assessment process.

OBJECTIVE 4: EFFICIENT MIX OF USES TO REDUCE TRAFFIC DEMAND AND GREENHOUSE GAS EMISSIONS

By 20202030, Indian River County will have a land use pattern that maintains the number of daily automobile trips per capita and the length of trips on county roadways at or within 10% of 2005 levels. Those levels were 4.53 daily automobile trips per capita and 18.94 minutes per trip. Reduces the number of daily automobile trips per capita and the length of trips on county roadways from 1995 levels. Those levels were 3.9535 daily automobile trips per capita and 14.39 minutes per trip.

Policy 4.1: Land use districts shall be located in a manner which concentrates urban uses, thereby discouraging urban sprawl.

Policy 4.2: By January 20092011, Indian River County shall identify and map target areas for redevelopment and infill development.

Policy 4.3: For the areas targeted for redevelopment and infill development in Future Land Use Element Policy 4.2, Indian River County shall, by 20042012, assess the potential for future development, review infrastructure capabilities and needs, and develop special overlay or use districts and regulations, if warranted.

Policy 4.4: By January 20022013, Indian River County shall work with property owners, developers, and the public to develop and implement a plan to promote development of the areas targeted for redevelopment and infill development. That plan shall examine the feasibility of reduced development fees, streamlined application processing, mixed uses, density bonuses, Traditional Neighborhood Design, home/work linkages and other innovative techniques to promote development in those areas.

Policy 4.5: Where proposed development projects abut undeveloped or developed property, the county shall require that such development be designed and constructed or guaranteed to accommodate both vehicular and bicycle/pedestrian interconnections. Interconnections may
include shared roadways or driveways that provide local traffic circulation. Exemptions shall be granted where interconnections would create a “funneling effect” through an existing neighborhood or have no potential for providing interconnectivity or through-street benefits (e.g., segments that dead-end into water bodies, built facilities, or environmentally sensitive areas).

Policy 4.6: By 2011, the county shall adopt traffic-calming standards and designs to address concerns about the speed of “cut-through” traffic. Traffic calming improvements shall be constructed with project interconnections where necessary.

Policy 4.7: The county shall require that developers construct sidewalks on both sides of internal project streets in higher density residential developments and mixed-use projects.

Policy 4.8: When reviewing amendments to the Future Land Use Map, the county shall consider the impact of the proposed amendment upon the jobs/housing balance of the following subareas: north county, central county, and south county. In so doing, the county will not approve amendments where the effect will be to lower the jobs/housing balance in the north county, central county, and south county subareas from their 2005 baseline values.

**OBJECTIVE 5: DIVERSITY OF DEVELOPMENT**

Indian River County will have a diverse mix of land uses, development patterns, housing densities, and housing types. By **2010** and **2030**, thirty percent of the County’s housing units will be in multiple-family, mixed use, or traditional neighborhood design projects.

Policy 5.1: The county’s adopted Land Development Regulations (LDRs), including zoning, shall constitute the county’s minimum requirement for land development. All LDRs shall be consistent with the provisions of the comprehensive plan.

Policy 5.2: The residential densities depicted on the future land use plan map shall be the maximum densities permitted. Where density bonuses are applicable, density maximums may be exceeded.

Policy 5.3: Indian River County zoning districts shall permit a variety of residential building and development styles.

Policy 5.4: To prevent the emergence of strip development along US Highway 1, the county shall allow residential uses within commercial areas through mixed-use development. Such accessory residential uses shall be allowed by right in commercial zoning districts.

Policy 5.45: Indian River County LDRs shall contain a special Planned Development (PD) zoning district. That district shall be designated as an overlay on the County’s Zoning Atlas. The PD zoning district is intended to provide for the development of projects which require flexibility in order to maximize open space and conserve natural features, provide...
alternative and energy-efficient/sustainable designs, incorporate recreational facilities, and incorporate a mix of uses, and provide a variety of housing choices.

Policy 5.56: By 1999-2011, Indian River County shall develop criteria for residential PDs to develop up to 10% of the site with commercial uses, while ensuring land use compatibility. Adopt development regulations allowing mixed use PDs in residentially-designated areas. All mixed use PDs in residentially designated areas shall meet all of the following criteria:

Development Parameters

1. The maximum project area for a mixed use PD in a residential area shall be 40 acres. Mixed use projects exceeding 40 acres shall be designed as Traditional Neighborhood Design (TND) developments and shall comply with Future Land Use Element Policies 18.1, 18.2, and 18.3.

2. Mixed use PDs shall be limited to areas designated L-1, L-2, M-1, and M-2 and shall be located along SR 60, US 1, Indian River Blvd., 58th Avenue, CR 510 (west of the Indian River Lagoon), CR 512, or Oslo Road. Alternatively, mixed use PDs in M-1 and M-2 designated areas may be located on sites that are adjacent to C/I nodes.

Mix of Uses

3. To ensure that mixed use PDs contain an appropriate mix of residential and commercial uses, commercial uses shall be allowed to constitute no more than 20% of a project’s land area in L-1 and L-2 designated areas and no more than 25% of a project’s land area in M-1 and M-2 designated areas.

4. The vertical mixing of uses is allowed and strongly encouraged. Where residential and/or office uses are designed and located above commercial uses, the amount of commercial area may constitute up to 25% of the project’s land area in L-1 and L-2 designated areas and up to 30% of the project’s land area in M-1 and M-2 designated areas.

5. For purposes of these mixed use regulations, commercial area shall include buildings, parking areas, and adjacent improvements that serve commercial uses. Open space areas and common areas/improvements that are shared with residential uses, however, shall not be treated as commercial area.

6. Commercial uses allowed in mixed-use PDs shall be limited to lodging, institutional, office, retail, personal service, and restaurant uses.

7. Within mixed use PDs, the Floor Area Ratio (FAR) for commercial uses shall be applied to the commercial area. For the commercial area, the maximum FAR shall be 0.35.
8. Within mixed use PDs, the maximum number of allowable residential units shall be derived by applying the applicable comprehensive plan land use designation density allowance to the entire area of the project and, in addition, may include any applicable density bonuses.

9. Within mixed use PDs, commercial areas may be internal to the project or may be located along a project’s boundary, where such boundary abuts a thoroughfare road or is adjacent to C/I-designated property. Where such commercial uses would face residential uses located outside the project, buffering and compatibility improvements shall be required to mitigate any adverse impacts.

10. On-street parking shall be allowed within mixed use projects.

11. All mixed use PDs shall be designed to include a transit stop within the project.

Building Design and Setbacks

12. Within mixed use PDs, common architectural themes, common hardscape and signage themes, and multiple pedestrian connections shall be required to integrate nonresidential uses with residential uses. Common architectural themes shall apply to both commercial and residential areas of the project.

13. Within mixed use PDs, no individual commercial building shall exceed 25,000 sq. ft. in commercial floor area. Lodging uses shall be exempt from this limitation.

14. Where a nonresidential building in a mixed use PD is adjacent to residential buildings located outside the project, the nonresidential buildings shall be compatible with nearby residential buildings. The scale of such nonresidential buildings may be minimized by articulating the building’s mass, using sloped roofs instead flat roofs screened by parapets, and/or by planting canopy trees around the building’s foundation. For residential buildings adjacent to a mixed use PD, an existing buffer may be used to satisfy the compatibility requirement.

Street Network

15. Each mixed use PD shall offer alternative routes and connections between destinations within the project and to appropriate uses on adjacent sites by designing and constructing a street network that consists of a grid or modified grid pattern that accommodates connections to appropriate uses on adjacent sites.

16. The project shall contain a network of interconnected streets, sidewalks, and pathways. Streets shall be designed to balance pedestrian and automobile needs, to
discourage high automobile speeds, to effectively and efficiently accommodate transit systems, and to distribute and diffuse traffic rather than concentrate it.

17. Street trees shall be provided so as to shade sidewalk areas and buffer sidewalk areas from automobile traffic.

Timing of Construction

18. In each mixed use PD, no commercial construction shall be permitted until at least 25% of the proposed residential development has been permitted, and no commercial construction shall be issued certificates of occupancy unless at least 25% of the total residential development has received certificates of occupancy. Commercial construction shall not be 100% built and issued certificates of occupancy until at least 50% of the residential development has received certificates of occupancy.

Policy 5.67: PDs shall be permitted throughout the county, without amendment of the future land use map, provided the proposed development is shown to be consistent with the goals, objectives and policies of the Comprehensive Plan. PDs shall be consistent with the maximum density permitted by the future land use map unless density bonuses are permitted consistent with Future Land Use Element Policy 5.78.

Policy 5.78: Within the urban service area, Indian River County’s Land Development Regulations shall encourage the use of Planned Developments (PDs) with diverse development by allowing density bonuses and development rights transfers in PDs that:

- include housing units that are affordable to very low and low income households, in accordance with the housing element; and/or
- include development rights transferred from conservation designated areas.

Density bonuses for PDs shall not increase the project’s density to more than 25% over the maximum allowed by the project’s underlying land use designation.

Policy 5.89: All Planned Development (PD) projects approved in any agriculturally designated area shall meet the following criteria:

- The density of the project shall not exceed the maximum density of the underlying land use designation; no density transfers from off-site lands, and no density bonuses shall be permitted within PD projects in agriculturally designated areas;
- At least 80% of each Agricultural PD’s overall project area shall be open space;
• Residential lots created through the PD process shall not be less than 1 acre with the remainder of the area designated as open space;

• The open space shall be in contiguous areas;

• Common open space, if provided, shall be under the control of an appropriate entity and maintained in perpetuity, through an open space, recreation, conservation and/or agricultural preservation easement(s), to be created through Deed Restrictions, with infill prohibited;

• Agricultural PDs shall implement Best Management Practices submitted to and approved by staff;

• All recreational amenities shall be depicted on the PD plan; no recreational uses that could constitute a nuisance to adjacent properties shall be permitted.

**OBJECTIVE 6: AGRICULTURAL PROTECTION**

In recognition of the Indian River County’s desire to protect agriculture despite the challenges and changes facing the citrus industry, the county’s objective is to retain Indian River County will, through 2005, retain at least 125,000 acres of land in the unincorporated county that is used for active agricultural operations.

According to the United States Department of Agriculture’s 2007 Census of Agriculture, there were 157,196 acres of land that were used for active agricultural operations that year. Of this land, approximately 139,000 acres are located within the unincorporated area of the county.

Currently, there are 182,454 acres of land that is used for active agricultural operations.

This objective, by itself, does not justify or suggest a need for Future Land Use Amendments from Agricultural Designations.

Policy 6.1: Indian River County shall not provide public services or facilities which would induce or encourage the development of agriculturally designated lands. As such, the county shall not provide water and sewer service outside the urban service area except in the following instances:

• To provide for the health and safety of existing residents in a manner consistent with Sanitary Sewer Sub-Element Policy 2.4 and Potable Water Sub-Element 2.4;

• Lots or portions of lots which front on a public roadway that serves as an urban service boundary, as long as the provision of utility service is consistent with Potable Water Sub-Element Policy 5.7 and Sanitary Sewer Sub-Element Policy 5.8;
-and

• To serve Agricultural Planned Developments;

• To serve Traditional Neighborhood Design Developments that meet the requirements of policies 18.1, 18.2, and 18.3 of the Future Land Use Element;

• To serve New Town Districts that meet the requirements of policies 1.34 and 1.35 of the Future Land Use Element; and

• Approved To serve approved agricultural businesses and agricultural industries where at least a portion of the development site is located within one mile of a public roadway which serves as an Urban Service Area boundary as depicted on the Official Future Land Use Map.

Policy 6.2: To protect and conserve agriculturally designated lands, Indian River County shall maintain its development regulations which control the division and development of agriculturally designated lands.

Policy 6.3: Indian River County shall permit the continuation of agricultural uses within the urban service area where those uses serve as or enhance open space and green-belt areas of the county.

Policy 6.4: The county shall require that residential subdivision projects, site plan projects, and planned development projects located inside the urban service area where new residential lots or units are proposed adjacent to the urban service area boundary include provisions for a special buffer along that boundary. This buffer shall protect adjacent agricultural lands from conflicts with new residential uses.

Within the urban service area, the county shall require subdivision and planned development projects that propose new residential lots adjacent to active agricultural operations to provide special buffers.

Policy 6.5: Indian River County land development regulations shall require the following special conditions for Affidavit of Exemption, Administrative Permit, Special Exception and/or Planned Development approval of projects on agriculturally designated land; and for Administrative Permit, Special Exception and/or Planned Development approval of projects within the urban service area that are located near active citrus groves:

• Caribbean Fruit Fly host plants and Asian Citrus Psyllid host plants shall be prohibited on the subject site. That prohibition shall be enforceable through the county code enforcement board; and
A deed restriction, acceptable to the county attorney's office, shall be recorded and established on the subject site. That deed restriction shall prohibit the occurrence of host plants for either the Caribbean Fruit Fly or the Asian Citrus Psyllid Caribbean Fruit Fly host plants on the subject site and shall be acceptable to the county attorney's office. The deed restriction may be structured to sunset the prohibition if circumstances change such that the prohibition is no longer necessary.

Policy 6.6: Residential projects created via the affidavit of exemption process shall be limited to nineteen or fewer lots.

Policy 6.7: The county shall maintain its land development regulations requiring additional public notification of mining applications in agricultural areas.

Policy 6.8: To facilitate the preservation of agricultural land, the county shall allow the transfer of development rights from agriculture property to eligible receiving sites. Density credits eligible for transfer shall not exceed 1 unit per acre for AG-1 sending areas, 1 unit per 2 acres for AG-2 sending areas, and 1 unit per 4 acres for AG-3 sending areas. Additional density allowances up to 1 unit per 2 acres may be allowed for environmentally significant portions of AG-3 designated land.

Eligible receiving sites are new town projects, Traditional Neighborhood Design (TND) projects, and projects within the urban service area which are located on land suited for high density. Receiving sites within the urban service area shall be within or adjacent to a commercial/industrial node; shall be designated L-2, M-1, or M-2; and shall not be located within the Coastal High Hazard Area.

Individual sending and receiving sites shall be approved through the PD rezoning process. With the exception of new towns, transferred density shall not increase a receiving site’s density by more than 20% of its base density. In cases where transferred density is being used in conjunction with other density bonuses (e.g. TND, affordable housing), the combined density bonus may exceed 20% of the base density.

Policy 6.9: By 2011, the county shall adopt development regulations allowing small-scale biofuel processing plants as accessory agricultural uses in areas designated AG-2 and AG-3. The equipment, processing areas, and transport facilities of accessory biofuel-processing plants shall occupy no more than 20 acres or 10% of a site, whichever is less. Such facilities shall be subject to staff-level site plan approval and shall be located at least 300’ away from nearby residential uses. Larger scale biofuel processing plants shall be allowed in areas designated AG-1, AG-2, and AG-3 if approved through the special exception process.

Policy 6.10: Because reservoirs and water farming allow the reuse of stormwater for irrigation or other uses while also attenuating the flow of stormwater into the Indian River Lagoon, the county’s land development regulations shall permit the development of reservoirs and water
farming in agricultural areas. The county acknowledges that public or private utilities may be a necessary mechanism for water farming to occur.

**OBJECTIVE 7: PROTECTION OF NATURAL RESOURCES**

By 2007, there will be at least 108,500 acres of environmentally important land under federal, state, or county ownership or control within the unincorporated portion of Indian River County. In 2007, there were 105,186 acres of conservation land in public ownership.

Policy 7.1: Indian River County shall regulate development of areas which are prone to flooding and areas within the 100 year floodplain in a manner that is consistent with the regulations established by the National Flood Insurance Program.

Policy 7.2: The County shall continue to provide for the transfer of development rights (TDR) from estuarine wetlands to approved uplands. All projects involving TDRs must be Planned Development projects. No density can be transferred to agriculturally designated land. Deed restrictions and/or easements shall be used to ensure that land from which density has been transferred is preserved and protected. The development rights transferred shall be up to 1 unit per acre of estuarine wetlands provided, however, that the maximum density permitted on the upland project area receiving the density transfer shall not increase by more than:

- twenty percent of the maximum density allowed by the receiving site’s underlying comprehensive plan land use designation(s) where the receiving site is not adjacent to the area from which density is transferred; or

- fifty percent of the maximum density allowed by the receiving site’s underlying comprehensive plan land use designation(s) where the receiving site is adjacent to the area from which density is transferred.

Policy 7.3: The County shall provide protection to environmentally sensitive lands through land development regulations that limit building densities, require mitigation for impacted areas, permit the transfer of development rights, and promote the use of conservation easements, dedications, and public acquisition.

Policy 7.4: Any development activity in areas designated as environmentally sensitive or important, as defined in policies 5.4 and 6.11 of the Conservation Element, shall require an environmental survey as part of the approval of a development order. Based upon the results of the environmental survey, development projects shall be required to provide a site design which minimizes impacts upon endangered and threatened plants and animals.
Policy 7.5: Stormwater - The county shall review and evaluate proposed development projects to ensure that stormwater runoff from the new development shall not negatively impact adjacent properties or receiving surface waterbody quality.

Policy 7.6: Indian River County shall maintain and enforce regulations to protect wetlands from the negative impacts of development. These regulations address building setbacks, protection from solid and liquid wastes including pesticides and herbicides, dredging or filling of wetlands, incorporation of wetlands into a site’s development scheme, and mitigation of lost or destroyed wetlands.

Policy 7.7: Indian River County acknowledges the environmental importance of the prime aquifer recharge areas shown on Figure 2.2729. The county shall regulate the development of these areas. Regulations include an overlay district which restricts land uses, implements special siting requirements for septic tanks to mitigate soil drainage characteristics, and regulates other factors which impact the recharge capability of the land.

Policy 7.8: The county shall protect public water supply wells by prohibiting the placement of septic systems; stormwater retention/detention areas; wastewater treatment plant effluent discharges, including but not limited to percolation ponds, surface water discharge, spray irrigation, and drainfields; sanitary landfills, feed lots and other concentrated animal facilities; mining and excavation activities; and the handling, production, and storage of regulated substances within wellfield cones of influence.

Policy 7.9: Consistent with the Potable Water Sub-Element, the county shall continue to extend the county water system, enabling the acquisition of small public water systems, thereby reducing the number of residents using the shallow aquifer, which is subject to groundwater pollution threats.

Policy 7.10: Through the use of fee simple purchase, transfer of development rights, and conservation easements, Indian River County shall coordinate with other state, federal and local agencies to identify and protect vegetative communities identified in Conservation Element policies 6.1 through 6.7.

Policy 7.11: The county, in cooperation with the local Environmental Health Department, shall continue to regulate the siting of septic tanks including siting requirements to mitigate soil characteristics.

**OBJECTIVE 8: PROTECTION OF HISTORIC RESOURCES**

Through 2005-2015, at least 95% of unincorporated Indian River County’s historic properties (as identified in Historic Properties Survey of Indian River County, Florida, prepared by Historic Property Associates, Inc., April 1989) will continue to be preserved in fair, good, or excellent condition.
Policy 8.1: The Historic Resources Advisory Committee shall provide guidance and advice to the Board of County Commissioners on matters concerning historic and archaeological preservation. Committee members shall represent a broad base of county interests and have interest in and knowledge of historic matters. The committee shall meet on an ad hoc basis to review:

- proposed changes to county regulations protecting historic and archaeological resources; and
- projects which may impact historical and archaeological sites identified on the Florida Master Site File or designated as significant by the Board of County Commissioners.

Policy 8.2: Indian River County shall use incentives such as transfer of development rights, tax relief, mitigation, and public acquisitions; and penalties such as fines and imprisonment, to protect and preserve historically and archaeologically important resources. The following criteria are used to determine the historical significance of a resource:

- whether or not the resource is at least 50 years old;
- whether or not the resource contains significant character, interest or value as part of the historical, cultural, aesthetic and architectural heritage of the county;
- whether or not the resource displays historical, political cultural economic or social trends of community history;
- whether or not the resource displays unique and/or distinguishing characteristics of an architectural style, design period, construction method, detail, craftsmanship, or material; and
- whether or not the resource is a work by a prominent architect, designer, engineer, builder or landscape architect.

Policy 8.3: All public and private development or redevelopment proposals shall be reviewed for their impact upon designated historic resources.

Policy 8.4: Public and private development and redevelopment activities shall cease, at least temporarily, if historic or archaeological artifacts are discovered, in order to allow for evaluation of historic significance.

Policy 8.5: Indian River County land development regulations shall include provisions for land use management techniques such as Transfer of Development Rights, Tax Relief, Mitigation or Public Acquisition to ensure compliance with the provisions of these policies and to minimize the impact on property owners.

Policy 8.6: The county shall periodically update its historic properties survey. In addition to providing a more accurate assessment of the condition of historic properties, such updates will also allow the inclusion of newly-eligible properties.
OBJECTIVE 9: PROMOTE AESTHETIC DEVELOPMENT

Through the implementation of land development regulations, Indian River County will have aesthetically pleasing buildings, signs, landscaping, parking areas, and roads.

Policy 9.1: By January, 20002012, Indian River County shall establish guidelines to ensure that all new county buildings and facilities will be compatible with the architectural character of the surrounding neighborhood.

Policy 9.2: By January 2005, Indian River County will enhance the and maintain landscaping and aesthetic hardscape improvements within county owned rights-of-way along roads that serve as entranceways to the county, and along other roads for which the county determines such landscaping is appropriate major arterials running through the county.

Policy 9.3: By January 2000, Indian River County shall formally examine the feasibility of developing maintain corridor plans and special corridor regulations for development located along roads that serve as entranceways to the county and along other major roads, as determined by the county. The county shall continue to implement the recommendations of the Wabasso Corridor Plan, and the SR 60, n̄orth barrier island, and Roseland Corridor plans.

Policy 9.4: By January 2000, Indian River County shall coordinate with the State Department of Transportation to install landscaping within existing road rights-of-way of roads that serve as entrances to the county. That landscaping will be installed when the appropriate portions of the road are being improved.

Policy 9.5: Indian River County land development regulations shall require the use of natural and manmade buffers between incompatible land uses.

Policy 9.6: Indian River County shall enforce sign code regulation standards, including standards contained in corridor plans, for the type, location, size, number, and maintenance of signs.

Policy 9.7: Indian River County shall encourage, through its land development regulations, the use of native vegetation in meeting landscaping requirements.

Policy 9.8: Indian River County land development regulations shall include minimum landscape and maintenance requirements for all development requiring site plan approval.

Policy 9.9: Indian River County shall provide guidelines for use of landscaping and other buffers to shield parking, driveways and loading areas from surrounding development, and public rights-of-way.

Policy 9.10: Indian River County shall support the cultural enrichment of the county by evaluating community cultural facilities and, where appropriate, the design of county buildings shall incorporate artistic and cultural amenities.
Policy 9.11: Indian River County Land Development Regulations shall address aesthetic concerns regarding telecommunication towers and antennas by several means including: providing incentives for co-location of antennas on existing structures, limiting the possible location of future towers, setbacks, landscaping, camouflaging, and requiring unobtrusive lighting (day/night lighting).

Policy 9.12: The county shall implement certain corridor standards on a countywide basis. Those corridor standards to be applied countywide will include standards for foundation landscaping, building color, pitched roof, signage, screening, and lighting. As is done within designated corridors, exemptions will be allowed for multi-family developments as well as industrial/warehouse projects.

Policy 9.13: By 2011, the county shall control the visual clutter created by temporary signs by adopting development regulations that establish limits on where temporary signs are to be allowed, on the number of temporary signs allowed, and on the duration that temporary signs may be posted.

Policy 9.14: To combat monotony in single-family residential developments, the county shall adopt development regulations requiring that applicants submit design guidelines for all new residential planned developments. Such guidelines shall be project-specific and require approval by the Planning and Zoning Commission prior to release of development plans for construction. PD design guidelines shall address all of the following criteria:

- garage placement and scale;
- variations in building placement;
- frequency of use for a model within the same subdivision;
- building materials (façade and roof);
- building massing and architectural details that relate to articulation;
- the project’s appearance from adjacent public streets;
- internal streetcape;
- enforcement mechanisms; and
- any additional requirements deemed necessary by the Planning and Zoning Commission to limit residential monotony within the project.

Policy 9.15: The county shall not require buffers between similar residential uses.

OBJECTIVE 10: NONCONFORMING USES

With the exception of legally established non-conformities, all new development in Indian River County will be consistent with the future land use map.

Policy 10.1: Indian River County land development regulations shall allow legally established non-conforming uses to continue until ceased. When a non-conforming use has ceased, it can be
replaced only with a conforming use. All new development, even development associated with non-conforming structures, must meet current regulations.

**Policy 10.2:** To allow for the reasonable use of such properties, Indian River County shall permit the development of non-conforming lots of record legally established prior to July 17, 1985 under regulations in effect at the time that the lot was created. Provisions of this policy shall not apply to plats of reclamation, except when non-conforming parcels have been transferred by deed prior to February 13, 1990.

**Policy 10.3:** The county shall provide courtesy notification to adjacent property owners regarding staff determinations involving existing nonconforming non-residential uses.

**Policy 10.4:** Multi-family residential sections of The Moorings that were zoned RM-10 prior to February 13, 1990 shall be allowed to maintain their RM-10 zoning and shall be considered conforming uses within the L-1 designation. These phases include Windward, Southwinds, Harbour Side, The Pointes, River Mews, and South Passage.

**OBJECTIVE 11: BLIGHTED AREAS**

By 2004, Indian River County will have taken action to encourage redevelopment in at least three blighted areas.

**Policy 11.1:** By 2002, Indian River County shall develop guidelines and regulations to designate areas in need of redevelopment.

**Policy 11.2:** Within one year of designating a redevelopment area, Indian River County shall determine the needs and deficiencies as well as remedies and solutions for that area.

**Policy 11.3:** Indian River County shall enforce the provisions of the PRO, Professional Office zoning district. The purpose of this zoning district shall be to encourage infill development and the redevelopment of blighted or declining residential areas which are no longer appropriate for strictly single-family use but are not considered appropriate for a broad range of commercial uses, as permitted in other commercial zoning districts.

**Policy 11.4:** Indian River County shall encourage the development, redevelopment, and upgrading of undeveloped and underdeveloped subdivisions through mechanisms such as Block Grant Programs, Municipal Service Tax Units, creative finance and development proposals, zoning, and simplified replatting procedures.

**Policy 11.5:** In order to monitor the structural condition of residences and assist in code enforcement and redevelopment efforts, Indian River County shall, by 2005, update its housing survey of the county.
Policy 11.65: Indian River County shall maintain a vigorous code enforcement program operating in all areas of the unincorporated county.

OBJECTIVE 12: COORDINATED PLANNING

All development in Indian River County will be consistent with the resource planning and management activities of the state, and with approved management plans including the Hutchinson Island Management Plan.

Policy 12.1: The county acknowledges the application of the Hutchinson Island Resource Planning and Management Plan (HIRPMP) to Indian River County. Past county actions have resulted in development regulations consistent with the HIRPMP. All new development on the unincorporated barrier island will be consistent with the HIRPMP by implementing the policies of this comprehensive plan.

Policy 12.2: As part of the county’s periodic Capital Improvements Element evaluation and update process, the impact of new development on hurricane evacuation times and the need for improvements and the timing of improvements to evacuation routes in order to maintain or reduce evacuation times shall be assessed.

Policy 12.3: Indian River County shall include within its land development regulations a mechanism to assess the impact of new development on emergency evacuation.

OBJECTIVE 13: LOCAL PLANNING

By 2005, the County will have a formal coordination mechanism with other federal, state, regional, and local governments and agencies for land use planning activities, provision of facilities and services, and funding and implementation of programs.

Policy 13.1: Indian River County shall ensure that land development activities, development orders and permits, rezonings, and comprehensive plan amendments are coordinated, as may be appropriate, with the municipalities of the county, adjacent counties, regional and special districts, and state and federal agencies.

Policy 13.2: Indian River County, through coordination with municipalities within the county, shall ensure that future annexation will not create enclave areas.

Policy 13.3: By 1999, the county shall encourage municipalities to identify potential areas for annexation, develop criteria for annexation decisions, and execute interlocal agreements with the county to formalize these criteria.

Policy 13.4: By 2000, the county shall identify and inventory parcels, owners, and existing uses of enclaves.
Policy 13.5: By 2002, the county shall notify enclave landowners of annexation procedures and assist them in requesting annexation to appropriate municipalities.

Policy 13.6: The county shall prepare an annual report on enclave annexation results.

Policy 13.4: Indian River County shall coordinate with municipalities within the county to amend the proposed interlocal service boundary agreement between the county and municipalities to address annexation issues, maintenance of established level of service standards, extra-jurisdictional developmental impacts, upfront coordination on land use amendments and rezonings, and establishment of a dispute resolution process.

**OBJECTIVE 14: PLAN AMENDMENT AND REVIEW**

Indian River County will have a mechanism for review and amendment of the comprehensive plan.

Policy 14.1: Indian River County shall provide for the amendment of the Comprehensive Plan in accordance with the provisions of Chapter 163, FS. Applications to amend the future land use plan map may be submitted by the owner or the agent for the owner of property proposed for redesignation, by the county planning staff, or by the Board of County Commissioners. Where an individual application is submitted, land development regulations shall provide for payment of an appropriate fee and disclosure of all individuals having an equitable interest in the proposed change. Applications to amend other portions of the comprehensive plan may be submitted by any interested party, the planning staff, or the Board of County Commissioners. Unless the proposed amendment is specified as an exemption in rule 9J-11.006(1)(a)7, FAC, applications to amend the comprehensive plan will be accepted only during the months January and July.

Policy 14.2: Applications requesting amendments to the Comprehensive Plan or Future Land Use Map shall be evaluated to consider the following:

- consistency with the Goals, Objectives and Policies of the comprehensive plan;
- impacts on public facilities and services;
- environmental impacts;
- compatibility with surrounding areas; and
- other timely issues.

Policy 14.3: Indian River County shall approve plan amendments only upon a showing that one of the following criteria has been met:

- The proposed amendment will correct an oversight in the approved plan.
- The proposed amendment will correct a mistake in the approved plan.
• The proposed amendment is warranted based on a substantial change in circumstances. For Future Land Use Map amendments, the change in circumstances must affect the subject property.

• For Future Land Use Map amendments, the proposed amendment involves a swap or reconfiguration of land use designations at separate sites and, that that swap or reconfiguration will not increase the overall land use density or intensity depicted on the Future Land Use Map.

Policy 14.4: The county shall require applications to amend the comprehensive plan to include a written statement discussing the following:

- The proposed amendment’s consistency with all the goals, objectives, and policies of the comprehensive plan;
- The proposed amendment’s impact on public facilities and services;
- The proposed amendment’s environmental impacts; and
- For Future Land Use Map amendments, the proposed amendment’s compatibility with surrounding areas.

Policy 14.5: The county may utilize the small scale development amendment process, as described in section 163.3187(1)(c)2., FS, only for Future Land Use Designation Amendment requests that meet all of the following criteria:

1. the applicant requests in writing that the proposed amendment be processed as a small scale development amendment;
2. the requirements of 163.3187(1)(c)2., FS, as amended, are satisfied;
3. the subject property does not contain any environmentally sensitive land as defined in Conservation Element Policy 5.4, or any environmentally important land as defined in Conservation Element Policy 6.11;
4. the subject property is located within the existing urban service area;
5. the proposed amendment does not expand the existing urban service area;
6. the proposed amendment does not expand the SR 60/58th Avenue commercial/industrial node; and
7. the proposed amendment does not create a new commercial/industrial node.

OBJECTIVE 15: PROTECTION OF PRIVATE PROPERTY RIGHTS

Indian River County will have land development regulations that are consistent with the protection of private property rights.

Policy 15.1: Consistent with Chapters 125 and 163, Florida Statutes, Indian River County shall give adequate public notice to landowners of any application to change the land use designation or zoning of their land.
Policy 15.2: Indian River County will regulate the use of land only for valid public purposes in a reasonable manner, in accordance with due process.

**OBJECTIVE 16: PROTECTION OF THE INDIAN RIVER LAGOON**

**Through** 2020, **the portion of the Indian River Lagoon within unincorporated Indian River County will have a class II state water quality rating.**

Policy 16.1: Indian River County land development regulations shall require an environmental impact analysis of development within conservation districts or lands abutting the Indian River or St. Sebastian River.

Policy 16.2: Indian River County shall prohibit land use activity which results in the alteration, degradation or destruction of coastal and estuarine resources except when necessary to prevent a public hazard or provide public benefits which exceed those lost as a result of such activity. Public benefits of such resources include floodplain protection, natural habitat for threatened and endangered plants and animals, natural aquifer groundwater recharge, aquiculture, and recreation.

Policy 16.3: Indian River County shall continue to provide technical, monetary and political support to conservation programs aimed at land acquisition on the barrier island and in other coastal conservation areas.

Policy 16.4: Indian River County shall review all proposed land use changes for consistency with policies set forth in the Conservation and Coastal Management Elements.

Policy 16.5: To improve the Indian River Lagoon’s water quality, the county shall develop additional stormwater projects that reduce the amount of stormwater that flows into the lagoon and/or improve the quality of stormwater flowing into the lagoon. In recent years, successful stormwater treatment projects have included the Sebastian Stormwater Park, the Main Relief Canal filtration system, and the Egret Marsh project.

**OBJECTIVE 17: COASTAL POPULATION CONTROL**

**During the 1995-2020 time period Through 2030, the county will have no increase in land use designation density or intensity within the Coastal High Hazard Area.**

Policy 17.1: The county shall not approve plan amendments that increase the residential density or land use intensity within the Coastal High Hazard Area.

Policy 17.2: The county shall support programs of land acquisition on the barrier island for natural resource preservation, recreation or both.
Policy 17.3: The county shall limit densities in the coastal high hazard area to ensure timely evacuation of the barrier island.

Policy 17.4: The county shall prohibit new development of adult congregate living facilities, nursing homes, homes for the aged, total care facilities, and similar developments within the Coastal High Hazard Area.

Policy 17.5: The county hereby adopts the Coastal High Hazard Area boundary depicted on the county’s Future Land Use Map.

**OBJECTIVE 18: TRADITIONAL NEIGHBORHOOD DESIGN (TND) COMMUNITIES**

Between January 1, 1998 and January 1, 2010, ten percent of new residential development (dwelling units) occurring in unincorporated Indian River County will be located in Traditional Neighborhood Design projects.

Policy 18.1: By January 2011, the county shall adopt land development regulations that establish the TND, Traditional Neighborhood Design zoning district. The TND district shall be limited to planned developments. To qualify as a TND development, projects must meet the following criteria:

**Development Parameters**

1. The minimum contiguous project land area shall be 40 acres.

2. Land shall be under unified control, planned and developed as a whole in a single development or as an approved series of developments or neighborhoods. The project shall be approved under the Planned Development (PD) rezoning process.

**Street Network**

3. In order to disperse traffic by offering many alternative routes and connections between destinations within the project and to appropriate uses on adjacent sites, the street network shall consist of a grid or modified grid pattern and shall accommodate connections to appropriate uses on adjacent sites.

4. Not more than 10% of blocks shall have a block with a perimeter measuring more than 1,800 feet. Within commercial and mixed use areas, no block face dimension should exceed 400 feet.

5. The project shall contain a network of interconnected streets, sidewalks, and pathways.
6. Streets shall be designed to balance pedestrian and automobile needs, to discourage high automobile speeds, to effectively and efficiently accommodate transit systems, and to distribute and diffuse traffic rather than concentrate it.

7. Street trees shall be provided so as to shade sidewalk areas and buffer sidewalk areas from automobile traffic.

8. Streets and adjacent buildings shall be sited and designed to encourage interactions between the street and buildings through the use of amenities such as reduced building setbacks, “build-to” lines, front porches, stoops, rear and side yard parking lot locations, and other means.

9. Projects shall decrease the prominence of front yard driveways, garages, and parking lots through one or more of the following: mid-block alleys, garages located toward the rear of lots, rear and side loaded garages, garages which are not the predominant architectural feature of the front elevation of buildings off-street parking at the rear of buildings, restricted driveway connections to streets, and traffic calming techniques.

Mixing of Uses

10. The project shall be designed as a compact or clustered development. Projects may include the following mix of uses occurring together in close proximity:

- single-family residential,
- accessory dwelling units,
- multiple-family residential,
- commercial and work place,
- civic and cultural, and
- open space.

11. The following ratios shall apply to land uses within the project:

a. Community open spaces open to the public, such as squares, plazas, or parks, shall comprise a minimum of 5% of the total project area.

b. Civic uses, such as post offices, churches, community centers, meeting halls, schools, day care centers and cultural facilities shall comprise a minimum of 1% of the total project area.
c. Residential uses shall comprise a minimum of 50% and a maximum of 80% of the total non-conservation and non-agricultural project area.

d. Commercial and office uses located on residentially or agriculturally designated land shall not exceed 10% of the total land area designated on the land use plan as residential and agricultural.

12. The vertical mixing of uses is allowed and strongly encouraged around designated town centers, main streets, mixed-use centers, and central squares and greens.

**Centers (Locus of Community Activity)**

13. Each project must have at least one public square, town center, or mixed use area within a ¼ mile walking distance from 50% of the project’s residential units and within ½ mile walking distance from 75% of the project’s residential units.

14. To accommodate increased pedestrian use, 50% of sidewalks in public squares, town centers, or mixed use areas shall have a minimum unobstructed width (clear and passable for pedestrians) of at least seven feet.

15. On-street parking shall be allowed within public squares, town centers, or mixed use areas.

16. Off-street parking lots within public squares, town centers, or mixed use areas shall be provided only at the rear of buildings.

17. The center shall accommodate space for a transit stop and a civic building.

**Edges (Perimeter of the Community)**

18. Project edges located outside the Urban Service Area shall be established and designed for environmental, agricultural, recreational, or other open space uses.

**Public Buildings**

19. Public buildings, such as schools, churches, post offices, and community centers, shall be provided in prominent, accessible locations within the project. Such locations generally are at the termination of streets, the perimeter of the neighborhood center, or the frontage along a designated main street of a neighborhood or adjacent thoroughfare plan road.

Policy 18.2: The county shall provide incentives to develop Traditional Neighborhood Design projects within the urban service area. Those incentives shall include, but not be limited to, the following:
Future Land Use Element

- 10% density bonus for TND projects located entirely within the urban service area;
- reduced building setback requirements;
- reduced lot size requirements;
- increased maximum impervious surface limits for individual lots;
- reduced right-of-way and travel lane widths;
- reduced corner radii requirements; and
- reduced off-street parking requirements.

Policy 18.3: To facilitate TND projects east of I-95 that are partially outside but adjacent to the urban service area, and to continue to preserve the agricultural and natural character and function of the area, the county shall allow portions of TND projects to be located outside of the urban service area. A minimum of 60% of the total project density shall be derived from the portion of the project located within the urban service area. Density shall be calculated and allowed based upon:
- the land use designation underlying the portion of the project within the urban service area; and
- 1 unit/acre for project property located outside of the urban service area.

Policy 18.4: By January 2011, the county shall amend its land development regulations to permit TND development, on multi-family zoned project sites that are less than 40 acres in size, as an administrative permit use in the county’s conventional zoning districts. As is the case for administrative permit uses, the land development regulations shall specify criteria addressing design aspects such as project scale, lot widths, setbacks, mix of uses, street layout, rear alleys, building design, and compatibility with adjacent uses.

OBJECTIVE 19: HAZARD MITIGATION REPORT RECOMMENDATIONS

Within one year of the issuance of a Hazard Mitigation Report by Indian River County or the Treasure Coast Regional Planning Council, any recommendations that identify land use conflicts or inconsistencies will have been implemented.

Policy 19.1: Indian River County shall issue Hazard Mitigation Reports following natural or manmade hazardous incidents. Such incidents may include, but not be limited to, hurricanes and tropical storms, tornadoes, flooding, hazardous material accidents, nuclear power plant accidents, armed violence (civil disturbance, terrorism, or military conflict), mass immigration, coastal oil spill, freezes, fires, and drought.

Policy 19.2: Following the issuance of any Hazard Mitigation Reports, Indian River County shall review its comprehensive plan for consistency with that Hazard Mitigation Report. Appropriate Hazard Mitigation Report based plan amendments shall be processed at that time.

OBJECTIVE 20: DREDGED SPOIL DISPOSAL SITES
By 2005, in the county, sufficient land will be available for dredged spoil disposal material dredged by the Florida Inland Navigation District (FIND), will be available and By 2011, all dredged material management areas appropriately shall be designated in the county’s comprehensive plans PUB, Public Facilities, on the county’s Future Land Use Map.

Policy 20.1: The county hereby adopts the following dredged spoil disposal site selection criteria:

- sites should be located close to the Indian River Lagoon;
- sites should be altered, non-native upland vegetation areas;
- sites should not abut residential land unless sites are sufficiently large to accommodate adequate buffers;
- sites should not support endangered species; and
- sites should not be wetlands, unless wetlands are degraded/non-functional.

Where they abut residential land, sites shall provide adequate buffers. Where sites impact degraded/non-functional wetlands, wetland impacts shall be mitigated.

Policy 20.2: The county shall redesignate land that FIND has acquired for dredged spoil disposal to the PUB, Public Facilities, land use designation.
FUTURE LAND USE MAP

The previous sections have provided a description of the existing land use pattern, capabilities and constraints of the natural and man-made systems to support future development and an analysis of the future land use needs, demands and trends. With the addition of population projections, these form the basis for delineating the Future Land Use Map. Two major factors should be considered as givens for the future land use pattern regardless of the map designation.

Despite a high projected population growth rate, the county has an ample supply of land to accommodate the full range of land uses for a period well beyond the planning horizon. The fact that the county will not reach a buildout condition within the planning period must be considered in determining the future land use map.

Large portions of the county consist of virtually undevelopable land. This includes the vast St. Johns Marsh and other environmentally important publicly owned property. Those areas provide no building potential but serve a vital role in supporting development.

POPULATION PROJECTIONS

The analysis of need for various land use categories as well as public facilities and services is based on population projections for 2030 contained in the Introductory Element of the comprehensive plan. Those projections are summarized in the table below. In that table, the functional population is the resident population plus the seasonal population.

Table 2.13, Indian River County 2030 Population Projections

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<th>Resident Population</th>
<th>Seasonal Population</th>
<th>Functional Population</th>
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<td>Indian River County</td>
<td>196,900</td>
<td>28,015</td>
<td>224,915</td>
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Source: Indian River County Planning Department
Bureau of Economic and Business Research, University of Florida

LAND OUTSIDE THE URBAN SERVICE AREA

The urban service area boundary depicted on the Future Land Use Map divides the county into two distinct areas: the agricultural and conservation areas outside the urban service area and the developed area within the urban service area.

Including virtually all land area west of Interstate 95 and a portion of land area east of I-95 in the northern, southern and central portions of the county, the nonurban area represents over 80% of the unincorporated area of the county (or over 224,000). The vast majority of this area consists of four land use designations. Those are the county’s three agricultural designations (AG-1, AG-2, and AG-3) and a conservation designation (C-1).
The Publicly Owned or Controlled Conservation Designation

The C-1, Publicly Owned or Controlled Conservation, designation is found both outside and within the urban service area. Outside the urban service area, C-1 designated land encompasses over 75,000 acres of the St. Johns Marsh. As the name implies, the conservation designation limits land uses to wildlife and natural resource management and recreation uses. The public ownership and conservation designation precludes development of this property. There are two other conservation districts, C-2 and C-3, which are located within or close to the urban service area.

The Agricultural Designations

The Agricultural Districts encompass nearly 137,000 acres. Over 48,000 acres located west of the marsh and used for primarily for cattle operations are designated AG-3 (up to 1 unit/20 acres). The AG-2 (up to 1 unit/10 acres) land use category encompasses over 60,000 acres located between I-95 and the marsh. That land is devoted to citrus, plant crops, and grazing. The remaining 28,000 acres, mostly located east of I-95, are designated AG-1 (up to 1 unit/5 acres). That land is largely undeveloped and is used for citrus and cattle grazing.

The density assigned to this land use provides an underlying value to the property as well as specific development rights. There is little likelihood of substantial development in this area. The only area west of I-95 with substantial development is immediately surrounding the City of Fellsmere.

The development potential of the non-urban service area is severely limited by natural, man-made and economic constraints. Many of the soils are poorly drained and within the flood plain. Where agricultural operations such as citrus or crops exist, drainage improvements have been made; however, these improvements would not be capable of supporting large scale development. Few improved roads exist west of I-95. State Road 60, CR 512, and CR 507 are the only paved roads. A few unpaved roads also exist; however, the major access is by way of canal maintenance roadways and between parcels.

Land Within the Urban Service Area

The urban service area encompasses the remaining portions of the county. It is this area of the county that is scheduled for the infrastructure and services that are demanded or required by the increasing population. This area contains enough land area to support projected population growth. Despite land uses which permit urban and suburban residential densities, and the accompanying commercial/industrial and public land uses, much of this area probably will not be developed within the planning horizon.

The Commercial/Industrial Designation

Land uses in the urban service area include the 5,070 acres of C/I, Commercial/Industrial, designated land. This land use designation is primarily located along the US 1 corridor, the SR
60 corridor, and at 3 locations adjacent to I-95. Much of the commercial land in the US 1 corridor is in a strip pattern that has developed historically. This pattern has been enhanced by the presence of the FEC Railroad just to the west. The resulting narrow band of property between these transportation routes has little development potential except as designated. Table 2.5 gives the location and size of the county’s commercial/industrial nodes.

**The Residential Designations**

The majority of land in the urban service area has been designated for residential use. The county’s five residential land use designations provide for a variety of development types and densities.

- **Low Density**

  The Low Density Residential designations are R (up to 1 unit/acre), L-1 (up to 3 units/acre), and L-2 (up to 6 units/acre). These designations have the largest land area (25,530 acres) of all the residential designations. These districts fill-in the urban service area between transportation corridors and along the medium density districts. The L-1 and R designated areas are intended for single-family residential development, while the L-2 designation is also suitable for townhouse, duplex, and limited multiple-family development. These land use designations also permit a variety of nonresidential uses which support residential uses. These include schools, churches, recreation facilities and communication and utility uses.

- **Medium Density**

  The Medium Density Residential designations are M-1 (up to 8 units/acre) and M-2 (up to 10 units/acre). Located in areas with fully developed services and infrastructure, these designations allow the highest residential densities in the county. Medium density areas are located along major transportation routes near shopping, employment, and service centers. Located along US 1, along Indian River Blvd., along SR 60, and in Gifford, these land use designations are intended for multiple-family apartments, condominiums, townhouses, and mobile home developments. These land use designations do not preclude the development of single-family residences. Together, the medium density districts encompass approximately 6,402 acres.

- **Mobile Home Rental Parks**

  Within the urban service area, approximately 780 acres of land is designated as MHRP, Mobile Home Rental Park (up to 8 units/acre). In MHRP designated areas, development primarily consists of mobile home parks.
The Conservation Designations

- Publicly Owned or Controlled

The C-1, Publicly Owned or Controlled Conservation, designation is found both outside and within the urban service area. Inside the urban service area, C-1 designated land encompasses approximately 1,200 acres including the Oslo Riverfront Conservation Area, the Wabasso scrub habitat, and properties along the Indian River Lagoon. As with C-1 designated land outside the urban service area, this land use designation limits land uses to wildlife and natural resource management and recreation uses. The public ownership and conservation designation precludes development of this property.

- Estuarine Wetlands

The C-2, Estuarine Wetlands Conservation, designation includes land along the Indian River Lagoon and the St. Sebastian River, as well as undeveloped islands within those water bodies. Limited residential development at densities of one unit per 40 acres is permitted, and a density transfer of one unit per acre is applied to these lands to encourage their continued preservation.

- Xeric Scrub

Located along the St. Sebastian River, the C-3 designation consists primarily of upland and xeric scrub; it allows a density of 1 unit/2 acres. Approximately 2,860 acres of this habitat exist within Indian River County.

The Public Facilities and Recreation Designations

The remaining designations in the urban service area include recreation and public use. These designations provide land for public parks and services. Together, these designations encompass approximately 2,005 acres.
Figure 2.34, Future Land Use Map
Figure 2.35. Commercial/Industrial Future Land Use Map

[Map of Commercial/Industrial Future Land Use Map with various land use areas marked.]
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P - District permitted
T - District permitted when used as transition from less intense/dense development or consistent with existing development
Shaded - District not permitted
PLAN IMPLEMENTATION

Implementation is one of the most important parts of any plan. The actions taken to execute the plan’s policies result in the achievement of the plan's objectives.

The implementation of the Future Land Use Element will involve numerous activities. The most extensive of these will be the enforcement and development of land development regulations and ordinances. Other implementation activities will involve additional planning studies and recommendations, and the execution of interlocal agreements and coordination. In addition, the Future Land Use Element’s implementation is contingent on the implementation of the other elements of the comprehensive plan, especially those that are service and facility oriented.

Overall implementation responsibility rests with the county planning staff. The staff will bear the primary role of developing the land development regulations and the ensuing permitting and enforcement. The planning staff must also provide the local planning agency and Board of County Commissioners the information and analysis upon which their actions and decisions will be based. The plan implementation actions and responsibilities are shown in Table 2.15.

Table 2.15, Future Land Use Element Implementation Matrix

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<td>Responsibility</td>
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<td>Review Plan</td>
<td>PS</td>
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<td>PS/FIND</td>
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<td>20.2</td>
<td>Plan amendment</td>
<td>PS</td>
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</table>
EVALUATION AND MONITORING PROCEDURES

To be effective, a plan must not only provide a means for implementation; it must also provide a mechanism for assessing the plan's effectiveness. Generally a plan's effectiveness can be judged by the degree to which the plan's objectives have been met. Single objectives are structured, as much as possible, to be measurable and to have specific timeframes, the plan's objectives are the benchmarks used as a basis to evaluate the plan.

Table 2.16 identifies each of the objectives of the Future Land Use Element. It also identifies the measures to be used to evaluate progress in achieving these objectives. Most of these measures are quantitative, such as development densities, number of daily automobile trips per capita, and amount of environmentally important land under public ownership or control. Besides the measures, Table 2.16 also identifies timeframes associated with meeting the objectives.

Planning staff will be responsible for monitoring and evaluating the Future Land Use Element. This will involve data collection, record keeping, and development tracking. This will be done on a regular basis.

While monitoring will occur on a continual basis, formal evaluation of the Future Land Use Element will occur every five years in conjunction with the formal evaluation and appraisal of the entire comprehensive plan. Besides assessing progress, the evaluation and appraisal process will also be used to determine whether the Future Land Use Element objectives should be modified or expanded. In this way the monitoring and evaluation of the Future Land Use Element will not only provide a means of determining the degree of success of the plan's implementation; it will also provide a mechanism for evaluating needed changes to the plan element.

Table 2.16, Future Land Use Element Evaluation Matrix

<table>
<thead>
<tr>
<th>Objective #</th>
<th>Measure</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Residential density within the Urban Service Area.</td>
<td>By 2030</td>
</tr>
<tr>
<td>2</td>
<td>Amount of residential development greater than 0.2 units/acre, and amount of non-agricultural related commercial/industrial development occurring outside of the Urban Service Area.</td>
<td>Through 2030</td>
</tr>
<tr>
<td>3</td>
<td>Number of public services and facilities operating below level-of-service standards.</td>
<td>Through 2030</td>
</tr>
<tr>
<td>4</td>
<td>Number of daily automobile trips per capita and length of trips.</td>
<td>By 2030</td>
</tr>
<tr>
<td>5</td>
<td>Percentage of the county’s housing units in multiple-family, mixed use, or TND projects.</td>
<td>By 2030</td>
</tr>
<tr>
<td>Objective #</td>
<td>Measure</td>
<td>Timeframe</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>6</td>
<td>Number of acres used for active agricultural operations.</td>
<td>Through 2017</td>
</tr>
<tr>
<td>7</td>
<td>Number of acres of environmentally important land under public ownership of control.</td>
<td>By 2015</td>
</tr>
<tr>
<td>8</td>
<td>Percent of historic properties preserved.</td>
<td>Through 2015</td>
</tr>
<tr>
<td>9</td>
<td>Implementation of regulations.</td>
<td>Through 2030</td>
</tr>
<tr>
<td>10</td>
<td>Percent of new development that is consistent with the future land use map.</td>
<td>Through 2030</td>
</tr>
<tr>
<td>11</td>
<td>Number of blighted areas where action is taken to encourage redevelopment.</td>
<td>By 2016</td>
</tr>
<tr>
<td>12</td>
<td>Percent of new development that is consistent with the Hutchinson Island Management Plan.</td>
<td>Through 2030</td>
</tr>
<tr>
<td>13</td>
<td>Existence of a formal coordination mechanism.</td>
<td>By 2015</td>
</tr>
<tr>
<td>14</td>
<td>Existence of a mechanism for plan review and amendment.</td>
<td>Through 2030</td>
</tr>
<tr>
<td>15</td>
<td>Existence of regulations.</td>
<td>Through 2030</td>
</tr>
<tr>
<td>16</td>
<td>Indian River Lagoon water quality.</td>
<td>Through 2030</td>
</tr>
<tr>
<td>17</td>
<td>Number of future land use map amendments increasing land use density/intensity within the CHHA.</td>
<td>Through 2030</td>
</tr>
<tr>
<td>18</td>
<td>Percentage of new residential development located in TND developments.</td>
<td>By 2020</td>
</tr>
<tr>
<td>19</td>
<td>Implementation of Hazard Mitigation Report recommendations.</td>
<td>Through 2030</td>
</tr>
<tr>
<td>20</td>
<td>Amount of land available for and appropriately designated for dredged spoil disposal.</td>
<td>Through 2030</td>
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