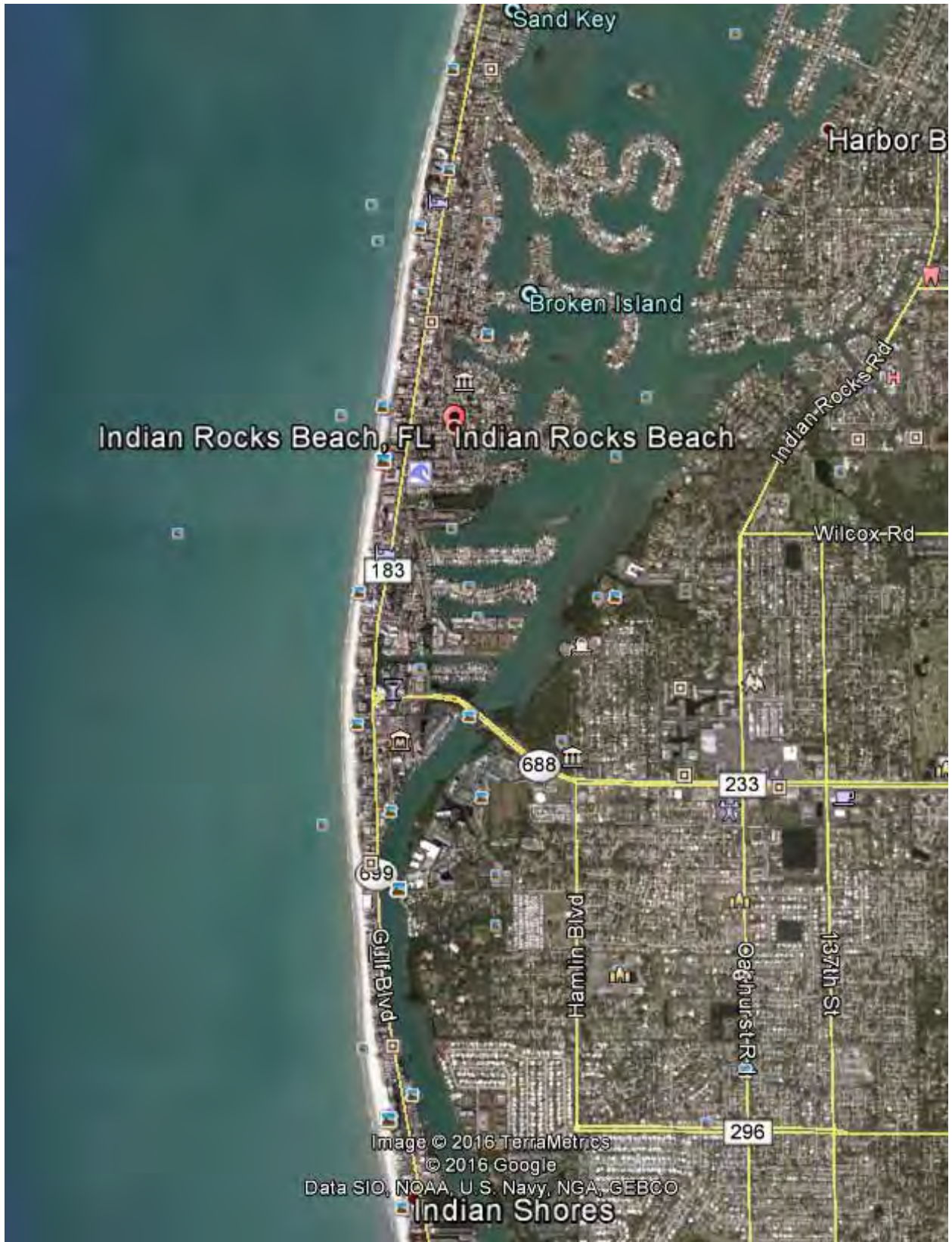


City of Indian Rocks Beach Comprehensive Plan

Adopted by the Indian Rocks Beach City Commission
January 2021



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Executive Summary

A. OVERVIEW

The City of Indian Rocks Beach is a barrier island community located on Sand Key along the Gulf of Mexico shore of Pinellas County. It is bordered on the north by the towns of Belleair Shore and Belleair Beach, and on the south by Indian Shores. To the east can be found the Intracoastal Waterway “Narrows”, which connects Boca Ciega Bay and Clearwater Harbor while on the west is the Gulf of Mexico.

To effectively create a comprehensive plan that reflects the needs of the city, the social characteristics that define the community must be considered. Using information obtained from the 1990 and 2000 U.S. Census, and the 2018 American Community Survey the following items list several socio-economic facts regarding Indian Rocks Beach.

- In 2018, the largest age group, by percentage, was the 65 to 74 with 19.2 percent of the population, while the smallest was the under 5 years group with 2.1 percent. The Census found that children, through the age of 19, comprised 8.7 percent of the population; and, 2.2 percent of the population was aged 85 or older.
- In 2010, the largest age group, by percentage, was the 55 to 59 with 11.4 percent of the population, while the smallest was the 85 years and over group with 1.7 percent. The Census found that children, through the age of 19, comprised only 11 percent of the population; and, 21 percent of the population was aged 65 or older.
- The population in 2010 was composed of 50.1 percent female and 49.9 percent male. The median age increased from 48 in 2000 to 52.1 in 2010.
- In 2010, the city remained predominantly white (96.2%).
- The city had a higher percentage of residents with a high school diploma (94.6%) or four or more years of college (38.6%) than either the county or state.
- In 1990, 86 percent of the city’s population was born out-of-state, but that percentage had declined to 72.6 percent by 2000.
- In 1990, 48 percent of households earned between \$10,000 and \$34,999 annually, but that percentage decreased to 29.2 percent in 2000. Twenty four percent of the population earns between \$75,999 and \$149,999 per year. It is important to note that in 1990 12 percent earned less than \$10,000 annually, but that statistic was decreased to 5.2 percent by 2000.
- In 2000, Indian Rocks Beach had a per capita income of \$40,195 and the median income of \$65,724 exceeded that of both the county and state.
- In 2000, the city had a lower percentage (4.7%) of persons (238) living below the poverty level than either the county (10%) or state (12.5%).

**Table 1
Permanent and Seasonal Population
Estimates and Projections, 2010-2035**

Table 1 shows the permanent and seasonal population projections for the City of Indian Rocks Beach through the year 2035.

Year	Estimates	Seasonal & Tourist Population		Total Population
		Seasonal	Tourist	
2020	4,394	1,574	1,103	7,072
2025	4,415	1,576	1,120	7,111
2030	4,453	1,578	1,137	7,168
2035	4,490	1,580	1,154	7,224

B. LAND USE

**Table 2
Existing Land Use Acreages**

Table 2 shows the acreage and the corresponding density or intensity allowances for the land uses.

Existing Land Use	Acres	Percent
Commercial	13.7	3.3%
Duplex/Triplex/Fourplex	35.0	8.5%
Institutional	8.7	2.1%
Mixed Use	1.5	0.4%
Multifamily	80.0	19.5%
Office	4.2	1.0%
Preservation	10.7	2.6%
Recreation/Open Space	13.9	3.4%
Resort	16.5	4.0%
Single-Family	195.6	47.6%
Transportation/Utility	1.1	0.3%
Vacant	27.8	6.8%
Water/Drainage	2.3	0.6%
<u>TOTA</u>	410.09	100.00%

* upa = Units per acre

** FAR = Floor Area Ratio

Source: Pinellas Planning Council and Pinellas County Property Appraiser, 2020

As can be seen in the above table, approximately 48 percent of the city is developed with single-family residences which are concentrated on the finger islands projecting into the Intracoastal Waterway. Another 35 percent is developed with multifamily residential uses located primarily on the east side of Gulf Boulevard.

Commercial uses tend to focus around the areas visited by residents and tourists. In an effort to expand the range of commercial/office uses in the city, a plan for redevelopment of the Narrows aka “Business District Triangle” has been developed.

The City of Indian Rocks Beach is reaching the point of being a “built-out” community. There are approximately 36 acres of vacant/undeveloped land representing approximately 8 percent of the total land area. The majority of this land can be found in two tracts at Gulf Boulevard just south of 25th Avenue and the intersection of Miami Avenue and 2nd Street. The remaining acreage is in individually platted residential lots. Table 3 outlines the vacant land by future land use category and the corresponding acreage, density or intensity.

**Table 3
Vacant Land by Future Land Use Category**

Vacant Land by Future Land Use Category	Acres	Percentage
Commercial General	4.1	11.2%
Institutional	0.1	0.3%
Preservation	8.4	22.9%
Recreation/Open Space	6.3	17.2%
Residential Medium	5.5	15.0%
Residential Urban	6.0	16.3%
Residential/Office General	0.5	1.4%
Residential/Office/Retail	1.4	3.8%
Resort Facilities High	3.7	10.1%
Transportation/Utility	0.7	1.9%
Total	36.7	100.0%

* upa = Units per acre

** FAR = Floor Area Ratio

Because of the limited amount of vacant land, emphasis has been placed on redevelopment rather than development. Extensive redevelopment has been taking place along the west side of Gulf Boulevard, much of which has resulted in the demolition of single-family residences, duplexes, beach bungalows, and “mom and pop” motels, and the erection of condominiums and commercial tourist facilities.

The rezoning and change of land use within the “Narrows aka “Business District Triangle” is also providing redevelopment opportunities for the city and its businesses. Some unique revitalization opportunities exist for the area with regard to the following:

- Parking;

- Landscaping;
- Pedestrian access;
- Upgrading property values; and
- Rejuvenation of the entire area.

C. TRANSPORTATION

Two major highway facilities are located within the community. Gulf Boulevard (S.R. 699) runs north/south the length of the Pinellas barrier islands. The Indian Rocks Causeway (S.R. 688) connects Sand Key with the mainland. All other facilities are classified as local streets. Residents of the city must go either north to the Belleair Causeway in Belleair Beach, south to the Park Boulevard Bridge in Indian Shores, or use the Indian Rocks Bridge to reach the mainland.

In 2020, all roadway segments, with the exception of S. R. 688 to Belleair Causeway, were operating at the adopted level of service (LOS) standard “D” or better. S. R. 688 to Belleair Causeway is currently operating at LOS “F”.

D. HOUSING

The city is a predominantly residential area, with a great deal of focus on a single-family home environment. Its location on a barrier island has attracted residential development not only for permanent, but also for seasonal residents. However, because it is almost built out, there is limited opportunity for future growth.

Since the City of Indian Rocks Beach is not directly involved in the building and maintenance of housing, the responsibility lies with the private sector for both owner-occupied and rental housing. By ordinance, the city has adopted the *Southern Standard Building Code* and *Housing Code*, along with a health and sanitary code, but beyond these guidelines, its role is minimal. The private sector remains the main provider and preserver of the housing stock. Table 4 is an inventory of the housing types based on the 1990 Census. Table 5 is based on 2000 U.S. Census data and estimates from the *Pinellas County Population Projection Report, 2007*

**Table 4
2000 Housing Types**

Type	Indian Rocks Beach		Pinellas County**	
	# of Units	% of Total	# of Units	% of Total
Single-Family	1,541	38%	261,008	54%
Multifamily	2,491	62%	169,202	35%
Mobile Home	0	0%	50,264	11%
Other*	0	0%	1,099	0%
Total	4,032	100%	481,573	100%

**Table 5
2000 Housing Tenure**

Tenure	Indian Rocks Beach		Pinellas County**	
	# of units	% of total	# of units	% of total
Owner-Occupied	2,189	62.98%	415,876	82.57%
Renter-Occupied	1,284	37.02%	87,578	17.43%
Total Households	3,476	100.0%	503,634	100.0%

As projected by the University of Florida and based on Pinellas County population projections, Table 6 shows the total housing need through the year 2025.

**Table 6
Projected Housing Need**

Housing Type	2005 # of units	2010 # of units	2013 # of units	2020 # of units	2025 # of units
Single-family	1,230	1,245	1,249	1,258	1,260
Multifamily	1,763	1,786	1,791	1,804	1,807
Total Housing Units	2,993	3,031	3,040	3,062	3,067

E. INFRASTRUCTURE

1. Potable Water

Pinellas County Utilities System (PCUS) provides potable water to Indian Rocks Beach residents and maintains the water distribution system up to individual property lines. Thereafter, property owners are responsible for those lines located on their land. Currently serving 62 percent of the county's population, the PCUS estimates current potable water demand at 120 gallons per capita a day. According to the Pinellas County Planning Department, potable water will adequately meet the projected needs of the service area through 2025.

2. Sanitary Sewer

The City of Indian Rocks Beach owns and maintains those sanitary sewer lines located within its municipal boundaries, with the majority of these lines installed approximately 30 years ago. All city sewage is treated at the South Cross Bayou Reclamation Facility, located on the mainland. Owned and operated by the PCUS, in 2007, South Cross Bayou was operating at an average daily flow of 21.04mgd, or 64 percent of capacity. Serving an estimated population of 252,695 persons, the wastewater treatment plant was operating at a level of service of 113

gallons per capita per day (gpcd). South Cross Bayou has adequate capacity to serve expected demand through 2025.

3. Solid Waste

Solid waste collection for Indian Rocks Beach is provided by the city. All solid waste, excluding items left to be recycled, is sent to the Pinellas County Waste-to-Energy Plant or the Bridgeway Acres Sanitary Landfill located at 3001-114th Avenue North. In 2005, the average generation rate for solid waste was 16.71 pounds per capita a day. Of this, 60 percent or 10 pounds was incinerated or buried. The remaining six pounds were recycled.

4. Stormwater Management

Extensive urbanization within Indian Rocks Beach has destroyed virtually all natural drainage patterns. With most properties developed prior to the adoption of local stormwater management facility requirements, flooding during heavy rainfall occurs in many areas of the city. Current land development regulations state that no development can discharge more stormwater onto adjacent rights-of-way or properties than was previously discharged from the site in its natural unimproved state. Furthermore, all new development and select redevelopment must adhere to the drainage requirements of a 10-year frequency, 60-minute storm event.

F. COASTAL MANAGEMENT AND CONSERVATION

The City of Indian Rocks Beach has been extensively altered by the effects of development. Apart from two offshore islands, the only natural areas remaining include pockets of wetlands fronting the Intracoastal Waterway shoreline. The city supports local, state, and federal programs aimed at preserving these vital resources and consistently apply regulations that protect them from further destruction. Indian Rocks Beach is entirely located within the Coastal Storm Area and as such, is most susceptible to the threat of strong storms and hurricanes. Hurricane preparedness, mitigation, and post-disaster recovery procedures are outlined in the *Indian Rocks Beach Emergency Response Manual* that works in conjunction with the Pinellas County *Emergency Management Plan* and *Post-Disaster Recovery Guide*.

G. RECREATION AND OPEN SPACE

The City of Indian Rocks Beach is well-served by its recreational opportunities, many of which are focused on the Gulf of Mexico. The city meets all level-of-service standards for parks, open spaces, and activities, with the exception of needing 1 Play and Tot lot and .5 miles of bicycle lanes or trails. Adequate access to these facilities is provided for residents, tourists, and visitors of varying ages and physical ability levels.

H. INTERGOVERNMENTAL COORDINATION

The City of Indian Rocks Beach maintains intergovernmental relations with a variety of local, regional, and state entities. Those relationships are essentially the same as they were when the original comprehensive plan was adopted in 1989. By the end of 1999, together with all other municipalities and counties, Indian Rocks Beach updated and adopted a new Intergovernmental Coordination Element in accordance with state law.

I. CAPITAL IMPROVEMENTS

The City of Indian Rocks Beach complies with all budget preparation and financial reporting requirements. The capital improvements program, together with the operating budget, provides the citizenry with a wealth of information about the community. Needed capital improvements have been identified and incorporated into the adopted Schedule of Capital Improvements and made part of the comprehensive plan goals, objectives, and policies. The city's financial position is good and all projected needs can be financed from current or anticipated revenue sources.

Goals, Objectives and Policies

FUTURE LAND USE

Goal 1:

The residential/family character of the City of Indian Rocks Beach shall be maintained and protected while:

- *Ensuring that development takes place according to the natural resources available and the ability to provide services to all residents;*
- *Minimizing the threat to health, safety, and welfare posed by hazards, nuisances, incompatible land uses, and environmental degradation;*
- *Maximizing the potential for enjoyment of natural and man-made resources by citizens and visitors alike;*
- *Encouraging mixed-use development and redevelopment with the emphasis on pedestrian-friendly compact urban development, infill, reuse, and revitalization;*
- *Protecting private property rights, in accordance with established law, especially for municipal actions not classified as a regulatory taking; and*
- *Encouraging the use of Leadership in Energy & Environmental Design (LEED™) and Florida Green Building Council design standards in building construction and retrofitting.*

Objective 1.1: Future Land Use Map and Land Use Designations

Development within the City of Indian Rocks Beach shall be in accordance with the land use categories adopted herein and continued enforcement of land development regulations consistent with the comprehensive plan.

Policy 1.1.1:

The City adopts the future land use categories established on the Future Land Use map, which implement this Comprehensive Plan based on and consistent with the following residential density and nonresidential intensity standards. These future land use categories shall be consistent with the uses listed in the Forward Pinellas Countywide Rules. Unless listed below, these future land use categories shall be consistent with the locational standards established in the corresponding categories of the Countywide Plan Map as established below.

<u>Future Land Use Map Category</u>	<u>Density/Intensity</u>		<u>Countywide Plan Map Category</u>
Residential Urban	Residential: Non-Residential:	0 to 7.50 dwelling units per acre 0.40 FAR and 0.65 ISR	Residential Low Medium

<u>Future Land Use Map Category</u>	<u>Density/Intensity</u>		<u>Countywide Plan Map Category</u>
Residential Medium	Residential: Non-Residential:	0 to 15.0 dwelling units per acre 0.50 FAR and 0.75 ISR	Residential Medium
Residential/Office General	Residential: Non-Residential:	0 to 15.0 dwelling units per acre 0.40 FAR and 0.70 ISR	Office
Residential/Office/Retail	Residential: Non-Residential:	0 to 15.0 dwelling units per acre 0.40 FAR and 0.70 ISR	Retail & Services
Resort Facilities High	Residential: Non-Residential:	0 to 30 dwelling units per acre 0.5 FAR and 0.7 ISR	Resort
Commercial General	Residential: Non-Residential:	0 to 18 dwelling units per acre 0.55 FAR and 0.70 ISR	Retail & Services
Commercial General- Temporary Lodging Density 50- Business District Triangle	Residential: Non-Residential:	0 to 50 units per acre for temporary lodging 1.2 FAR and 0.90 ISR for temporary lodging	Retail & Services
Preservation	Non-Residential:	0.10 FAR and 0.20 ISR	Preservation
Recreation/Open Space	Non-Residential:	0.25 FAR and 0.60 ISR	Recreation/Open Space
Institutional	Residential: Non-Residential:	N/A 0.65 FAR and 0.85 ISR	Public/Semi-Public
Transportation/Utility	Non-Residential:	0.70 FAR and 0.90 ISR	Public/Semi-Public
Water/Drainage Feature	N/A	N/A	N/A

Policy 1.1.2: The City of Indian Rocks Beach hereby adopts those land use categories identified in Policy 1.1.1 and defined in this policy as those which shall govern residential and commercial development within the community.

a. Residential Urban (RU)

Purpose - It is the purpose of this category to depict those areas of the City that are now developed, or appropriate to be developed, in an urban low density residential manner; and to recognize such areas as primarily well-suited for residential uses that are consistent with the urban qualities and natural resource characteristics of such areas.

Use Characteristics - Those uses appropriate to and consistent with this category include:

- Primary Uses - Residential
- Secondary Uses - Institutional; Transportation/Utility; Public Educational Facility; Recreation/Open Space

Locational Characteristics - This category is generally appropriate to locations removed from, but in close proximity to urban activity centers; in areas where use and

development characteristics are urban residential in nature; and in areas serving as a transition between more suburban and more urban residential areas. These areas are generally served by and accessed from minor and collector roadways which connect to the arterial and thoroughfare highway network.

Density/Intensity Standards - Shall include the following:

- Residential Use - Shall not exceed seven and one-half (7.5) dwelling units per acre.
- Non-Residential Use - Shall not exceed a floor area ratio (FAR) of .40, nor an impervious surface ratio (ISR) of .65. The standard for the purpose of establishing relative intensity and potential impacts shall be a FAR of .24 and an ISR of .50.

Other Standards - Shall include the following:

Acreage Limitations - The following uses shall not exceed the respective acreage threshold designated for such uses. Any such use, alone or when added to existing contiguous like use(s), which exceeds the designated threshold shall require a plan map amendment that shall include such use and all contiguous like uses:

1. Transportation/Utility Use - Shall not exceed a maximum area of three (3) acres.
2. Institutional Use (except Public Educational Facilities which are not subject to this threshold) - Shall not exceed a maximum area of five (5) acres.

b. Residential Medium (RM).

Purpose - It is the purpose of this category to depict those areas of the City that are now developed, or appropriate to be developed, in a moderately intensive residential manner; and to recognize such areas as primarily well-suited for residential uses that are consistent with the urban qualities, transportation facilities and natural resource characteristics of such areas.

Use Characteristics - Those uses appropriate to and consistent with this category include:

- Primary Uses - Residential
- Secondary Uses - Residential Equivalent; Institutional; Transportation/Utility; Public Educational Facility; Recreation/Open Space

Locational Characteristics - This category is generally appropriate to locations within or in close proximity to urban activity centers; in areas where use and development characteristics are medium density residential in nature; and in areas serving as a transition between less urban and more urban residential and mixed use areas. These areas are typically in close proximity to and may have direct access from the arterial and thoroughfare highway network.

Density/Intensity Standards - Shall include the following:

- Residential Use - Shall not exceed fifteen (15) dwelling units per acre.
- Residential Equivalent Use - Shall not exceed an equivalent of 2.0 to 3.0 beds per permitted dwelling unit at 15 dwelling units per acre. The standard for the purpose of

establishing relative intensity and potential impacts shall be the equivalent of 2.5 beds per dwelling unit.

- Non-Residential Use - Shall not exceed a floor area ratio (FAR) of .50, nor an impervious surface ratio (ISR) of .75. The standard for the purpose of establishing relative intensity and potential impacts shall be a FAR of .30 and an ISR of .56.

Other Standards - Shall include the following:

Acreage Limitations - The following uses shall not exceed the respective acreage threshold designated for such uses. Any such use, alone or when added to existing contiguous like use(s), which exceeds the designated threshold shall require a plan map amendment that shall include such use and all contiguous like uses:

1. Transportation/Utility Use - Shall not exceed a maximum area of three (3) acres.
2. Institutional Use (except Public Educational Facilities which are not subject to this threshold) - Shall not exceed a maximum area of five (5) acres.

Policy 1.1.3: The City of Indian Rocks Beach hereby adopts those land use categories identified and defined in this policy as those which shall govern mixed-use development within the community.

c. Residential/Office General (R/OG).

Purpose - It is the purpose of this category to depict those areas of the city that are now developed, or appropriate to be developed, in an office and/or medium density residential use; and to recognize such areas as primarily well-suited for mixed use of an office/residential character consistent with the surrounding uses, transportation facilities and natural resource characteristics of such areas.

Use Characteristics - Those uses appropriate to and consistent with this category include:

- Primary Uses - Residential; Office
- Secondary Uses - Residential Equivalent; Institutional; Transportation/Utility; Public Educational Facility; Personal Service/Office Support; Ancillary Non-Residential; Recreation/Open Space

Locational Characteristics - This category is generally appropriate to locations where it would serve as a transition from an urban activity center or more intensive non-residential use to low density residential or public/semi-public use; and in areas where the size and scale of office and residential use is appropriate to free standing office, medium density residential or a combination thereof. These areas are typically in close proximity to and served by the arterial and major thoroughfare highway network, as well as by mass transit.

Density/Intensity Standards:

- Residential Density: 0 to 15 units per acre.
- Maximum floor area ratio (FAR) of 0.4.
- Maximum impervious surface ratio of 0.7.

- Citywide percentage land use distribution of 60 to 80 percent residential and 20 to 40 percent office.
- Residential Equivalent Use: Shall not exceed an equivalent of 2.0 to 3.0 beds per permitted dwelling unit at 15 dwelling units per acre. The standard for the purpose of establishing relative intensity and potential impacts shall be the equivalent of 2.5 beds per dwelling unit.
- Mixed Use: Shall not exceed, in combination, the respective number of units per acre and floor area ratio permitted, when allocated in their respective proportion to the net land area of the property.
- Personal Service/Office Support Use: Such use shall not exceed a floor area of five thousand (5,000) square feet; and no combination of such uses in any single multi-tenant building or, in the alternative, in any group of buildings that are integral to and function as part of a unified project, shall exceed ten (10) percent of the gross floor area of said buildings.

Other Standards - Shall include the following:

Acreage Limitations - The following uses shall not exceed the respective acreage threshold designated for such uses. Any such use, alone or when added to existing contiguous like use(s), which exceeds the designated threshold shall require a plan map amendment that shall include such use and all contiguous like uses:

1. Ancillary Nonresidential; Transportation/Utility Use - Shall not exceed a maximum area of three (3) acres.
2. Institutional Use (except Public Educational Facilities which are not subject to this threshold) - Shall not exceed a maximum area of five (5) acres.

d. Residential/Office/Retail (R/O/R).

Purpose - It is the purpose of this category to depict those areas of the City that are now developed, or appropriate to be developed, in residential, office and/or retail commercial use; and to recognize such areas as well-suited for mixed use of a residential/office/retail character consistent with the surrounding uses, transportation facilities and natural resource characteristics of such areas.

Use Characteristics - Those uses appropriate to and consistent with this category include:

- Primary Uses - Residential; Office; Retail Commercial; Personal Service/Office Support; Commercial/Business Service; Temporary Lodging
- Secondary Uses - Institutional; Transportation/Utility; Ancillary Non-Residential; Recreation/Open Space; Research/Development

Locational Characteristics - This category is generally appropriate to locations where it would serve as a transition from an urban activity center or more intensive non-residential use to residential, office or public/semi-public use; and in areas where the size and scale of development will accommodate true mixed residential, office and retail use. These areas are typically in close proximity to and served by the arterial and major thoroughfare

highway network in and adjacent to activity centers where mixed use development allows interaction between uses and encourages mass transit and non-vehicular trips.

Density/Intensity Standards:

- Residential Density: 0 to 15 units per acre.
- Maximum FAR of 0.40.
- Maximum ISR of 0.7.
- Citywide percentage land use distribution of 0 to 20 percent residential, 0 to 20 percent office, and 10 to 90 percent commercial.
- Temporary Lodging Use: Shall not exceed fifteen (15) units per acre.
- Mixed Use: Shall not exceed, in combination, the respective number of units per acre and floor area ratio permitted, when allocated in their respective proportion to the net land area of the property.
- Research/Development: May be allowed in this category subject to the land development regulations which address, at a minimum, the following criteria in relationship to the nature of the proposed use:

1. Neighboring uses and the character of the commercial area in which it is to be located;
2. Noise, solid waste and air quality emission standards;
3. Hours of operation;
4. Traffic generation; and
5. Parking, loading, storage, and service provisions.

Other Standards - Shall include the following:

Acreage Limitations - The following uses shall not exceed the respective acreage threshold designated for such uses. Any such use, alone or when added to existing contiguous like use(s), which exceeds the designated threshold shall require a plan map amendment that shall include such use and all contiguous like uses:

1. Ancillary Nonresidential; Transportation/Utility Use - Shall not exceed a maximum area of three (3) acres.
2. Institutional Use (except Public Educational Facilities which are not subject to this threshold) - Shall not exceed a maximum area of five (5) acres.

e. Resort Facilities High (RFH).

Purpose - It is the purpose of this category to depict those areas of the city that are now developed, or appropriate to be developed, in high density residential and resort, tourist facility use; and to recognize such areas as well-suited for the combination of residential and Temporary Lodging use consistent with their location, surrounding uses, transportation facilities and natural resource characteristics of such areas.

Use Characteristics - Those uses appropriate to and consistent with this category include:

- Primary Uses - Residential; Temporary Lodging

- Secondary Uses - Tourist Facilities; Office; Personal Service/Office Support; Convention Center; Commercial Recreation; Institutional; Transportation/Utility; Ancillary Non-Residential; Recreation/Open Space

Locational Characteristics - This category is generally appropriate to locations where it would identify existing highly intensive mixed residential and hotel/motel use in the City; in locations where unique recreational assets warrant the combination of permanent and temporary accommodations in close proximity to and served by the arterial and major thoroughfare network, as well as by mass transit. New development at this density will be discouraged in coastal high hazard areas and evacuation level “A” areas.

Density/Intensity Standards:

- Residential Density of 0 to 30 units per acre.
- Maximum FAR of 0.5.
- Maximum ISR of 0.7.
- Citywide percentage land use distribution of 70 to 90 percent residential and 10 to 30 percent temporary lodging.
- Temporary Lodging Use: Shall not exceed 30 units per acre. Such use shall be located on the west side of Gulf Boulevard.
- Mixed Use - Shall not exceed, in combination, the respective number of units per acre and floor area ratio permitted, when allocated in their respective proportion to the net land area of the property.

Other Standards - Shall include the following:

Acreage Limitations - The following uses shall not exceed the respective acreage threshold designated for such uses. Any such use, alone or when added to existing contiguous like use(s), which exceeds the designated threshold shall require a plan map amendment that shall include such use and all contiguous like uses:

1. Ancillary Nonresidential; Transportation/Utility Use - Shall not exceed a maximum area of three (3) acres.
2. Institutional Use (except Public Educational Facilities which are not subject to this threshold) - Shall not exceed a maximum area of five (5) acres.

Policy 1.1.4: The City shall examine innovative techniques used elsewhere to support mixed-use development. Such techniques shall support planned residential developments and mixed land use development, and shall include design guidelines and intensity and use restrictions with the goal to make these developments more energy-efficient, livable, economically viable and compatible with the surrounding neighborhood and natural environment.

Policy 1.1.5: The City of Indian Rocks Beach hereby adopts those land use categories identified and defined in this policy as those which shall govern other use development within the community.

f. Commercial General (CG).

Purpose - It is the purpose of this category to depict those areas of the City that are now developed, or appropriate to be developed, in a manner designed to provide community and Citywide commercial goods and services; and to recognize such areas as primarily consistent with the need, relationship to adjoining uses and with the objective of encouraging a consolidated, concentrated commercial center providing for the full spectrum of commercial uses.

Use Characteristics - Those uses appropriate to and consistent with this category include:

- Primary Uses - Office; Personal Service/Office Support; Retail Commercial; Commercial/ Business Service; Temporary Lodging; Wholesale/Distribution (Class A); Storage/Warehouse (Class A);
- Secondary Uses - Commercial Recreation; Residential; Residential Equivalent; Institutional; Transportation/Utility; Recreation/Open Space; Research/Development.

Locational Characteristics - This category is generally appropriate to locations in and adjacent to activity centers where surrounding land uses support and are compatible with intensive commercial use; and in areas in proximity to and with good access to major transportation facilities, including mass transit.

Density/Intensity Standards:

- Maximum floor area ratio (FAR) of 0.55.
- Maximum impervious surface ratio (ISR) of 0.7.
- Residential density of 18 units per acre.
- Residential Equivalent Use: Shall not exceed an equivalent of 2.0 to 3.0 beds per permitted dwelling unit at 18 dwelling units per acre. The standard for the purpose of establishing relative intensity and potential impacts shall be the equivalent of 2.5 beds per dwelling unit.
- Mixed Use: Shall not exceed, in combination, the respective number of units per acre and floor area ratio permitted, when allocated in their respective proportion to the net land area of the property.
- Research/Development: May be allowed in this category subject to the land development regulations which shall address, as a minimum, the following criteria in relationship to the nature of the proposed use:

1. Neighboring uses and the character of the commercial area in which it is to be located;
2. Noise, solid waste and air quality emission standards;
3. Hours of operation;
4. Traffic generation; and
5. Parking, loading, storage, and service provisions.

Other Standards - Shall include the following:

Acreage Limitations - Institutional; Transportation/Utility Use - Shall not exceed a maximum area of five (5) acres. Any such use, alone or when added to existing contiguous like use(s), which exceeds this threshold shall require a plan map amendment which shall include such use and all contiguous like uses.

g. Recreation/Open Space (R/OS).

Purpose - It is the purpose of this category to depict those areas of the City that are now used, or appropriate to be used, for open space and/or recreational purposes; and to recognize the significance of providing open space and recreational areas as part of the overall land use plan.

Use Characteristics - Those uses appropriate to and consistent with this category include:

- Primary Uses - Public/Private Open Space; Public/Private Park; Public Recreation Facility; Public Beach/Water Access; Golf Course/Clubhouse
- Secondary Uses – Electric substations

Locational Characteristics - This category is generally appropriate to those public and private open spaces and recreational facilities dispersed throughout the City; and in recognition of the natural and man-made conditions which contribute to the active and passive open space character and recreation use of such locations.

Density/Intensity Standards:

- Maximum FAR of 0.25.
- Maximum ISR of 0.6
- Transfer of development rights may be allowed subject to the standards of the land development regulations.

Other Standards - Shall include the following:

An appropriate buffer as determined by the City's LDRs, shall be provided between any such Transportation/Utility use, authorized pursuant to F.S. 163.3208, and any other adjoining use.

h. Preservation (P).

Purpose - It is the purpose of this category to depict those areas of the City that are now characterized, or appropriate to be characterized, as a natural resource feature worthy of preservation; and to recognize the significance of preserving such major environmental features and their ecological functions.

Use Characteristics - Those uses appropriate to and consistent with this category include:

- Primary Uses - Open and undeveloped areas consistent with the following natural resource features and considerations: Tidal Wetlands including Saltwater Marsh, Saltwater Swamp, Estuary; Non-Tidal Wetlands including Freshwater Swamps, Freshwater Marsh; Undeveloped Barrier Islands and Spoil Islands; 25-year Floodplains; Natural Drainageways; Land Seaward of a seawall or revetment; Land Seaward of the Coastal Construction Control Line; Beach Areas; Dune Systems; Habitat for endangered or threatened species as designated on applicable local government comprehensive

plans; and such additional areas determined to have environmental significance and recognized in the City's Comprehensive Plan.

- Secondary Uses - Use characteristics provided for and located in adjoining Countywide Plan Map categories which are accessory to or are the incidental extension of the permitted adjoining use e.g., pile supported observation decks, walkways, dune walkovers and docks.

Locational Characteristics - This category is generally appropriate to those natural resource features it is designed to recognize wherever they may appear and at a size significant to the feature being depicted in relationship to its surroundings. In recognition of the natural conditions which they are intended to preserve, these features will frequently occur in a random and irregular pattern interposed among the other categories.

Density/Intensity Standards:

- Maximum FAR of 0.1.
- Maximum ISR of 0.2
- Transfer of development rights (TDRs) may be allowed subject to the city's land development regulations; lands, identified as dune systems, and land situated under water at mean high tide shall not be calculated for the purposes of determining available TDRs.
- Where an entire parcel of property is located seaward of the Coastal Construction Control Line and no transfer of development rights has occurred, the property shall be permitted a minimum beneficial use subject to the various provisions of land development regulations, the Plan and the Future Land Use Plan Map, but private property shall not be taken without due process of law and the payment of just compensation. In particular, any such property shall be permitted, as a minimum, one (1) dwelling unit irrespective of parcel size, and a maximum of one (1) dwelling unit per acre. The platted lots located seaward of the Coastal Construction Line on the Future Land Use 2025 map are the only lots to be allowed the permitted density for transfer of development rights. These lots were in place at the time of the adoption of the City's 1989 Comprehensive Plan.

Other Standards:

- An appropriate buffer, as determined by the Plan, shall be provided for wetland Preservation areas.
- Where the mapped delineation of these areas is inconclusive due to the scale of the Future Land Use Plan Map, or the nature of the environmental feature, a field determination and mapping of the actual boundary at an appropriate scale may be required as part of any amendment or project approval determination. Where determined necessary, such field survey will be conducted by the City, the Pinellas County Environmental Management Department, or by a qualified Consultant, consistent with the above described purpose and use characteristics.

i. Institutional (I).

Purpose - It is the purpose of this category to depict those areas of the City that are now used, or appropriate to be used, for public/semi-public institutional purposes; and to recognize such areas consistent with the need, character and scale of the institutional use relative to surrounding uses, transportation facilities, and natural resource features.

Use Characteristics - Those uses appropriate to and consistent with this category include:

- Primary Uses - Public Educational Facilities; Private Schools; Colleges; Hospital, Medical Clinic; Church, Religious Institution, Cemetery; Funeral Home/Mortuary; Social/Public Service Agency; Child Day Care; Fraternal, Civic Organization; Municipal Office Building, Courthouse; Library; Public Safety Facility, Emergency Medical Service Building; Convention Center and other related uses.
- Secondary Uses - Recreation/Open Space; Transportation/Utility; Ancillary Non-Residential

Locational Characteristics - This category is generally appropriate to those locations where educational, health, public safety, civic, religious and like institutional uses are required to serve the community; and to recognize the special needs of these uses relative to their relationship with surrounding uses and transportation access.

Density/Intensity Standards:

- Maximum FAR of 0.65.
- Maximum ISR of 0.85.

Other Standards - Shall include the following:

Acreage Limitations - Ancillary Nonresidential; Transportation/Utility Use - Shall not exceed a maximum area of ten (10) acres. Any such use, alone or when added to existing contiguous like use(s), which exceeds this threshold shall require a plan map amendment which shall include such use and all contiguous like uses.

j. Transportation/Utility (T/U).

Purpose - It is the purpose of this category to depict those areas of the City that are now used, or appropriate to be used, for transport and public/private utility services; and to recognize such areas consistent with the need, character and scale of the transport/utility use relative to surrounding uses, transportation facilities, and natural resource features.

Use Characteristics - Those uses appropriate to and consistent with this category include:

- Primary Uses - Marina; Coast Guard; Electric Power Generation Plant; Utility Transmission Line; Municipal Water Supply, Wastewater Disposal Facility; Solid Waste/Refuse Disposal; Transfer/Recycling; Public Works Garage/Storage; Electric Power Substation; Telephone Switching Station
- Secondary Uses - Storage/Warehouse (Class A) and (Class B); Recreation/Open Space; Institutional; Ancillary Non-Residential

Locational Characteristics - This category is generally appropriate to those utility installations, major transmission lines, refuse disposal and public works facilities serving the City; and to reflect the unique siting requirements and consideration to adjoining uses required in the placement of these facilities.

Density/Intensity Standards:

- Maximum FAR of 0.7.
- Maximum ISR of 0.9.

Other Standards:

- An appropriate buffer shall be provided within and between the Transportation/Utility category and any other adjoining classification.
- Where a utility transmission line otherwise included within this category is located in an easement as distinct from a right-of-way, this category shall be shown as an overlay, superimposed over, and applicable in addition to, the otherwise applicable underlying category.
- Acreage Limitations - Institutional; Ancillary Nonresidential Use - Shall not exceed maximum area of ten (10) acres. Any such use, alone or when added to existing contiguous like use(s), which exceeds this threshold shall require a plan map amendment which shall include such use and all contiguous like uses.

k. Water/Drainage Feature (as noted on the Future Land Use Plan Map)

Purpose - It is the purpose of this category to depict those water bodies and drainage features, now committed to, or proposed to be recognized for, these respective functions based on their physical characteristics and use. Water bodies include ocean, estuary, lake, pond, river, stream and drainage detention areas. Drainage features recognize existing natural and man-made drainageways and water bodies, and proposed drainageways and water bodies.

Use Characteristics - Those uses appropriate to and consistent with this category include:

- Primary Uses - Open and undeveloped areas consistent with the water and/or drainage feature(s) which characterize these locations.
- Secondary Uses - Use characteristics limited to drainage structures/facilities, environmental restoration, and non-permanent open space and recreation uses; and use characteristics provided for and located in the adjoining Plan Map category which are accessory to or are the extension of the permitted adjoining use in the case of a water feature.

Locational Characteristics - This category is designed to reflect water bodies and drainage features as defined herein and located on the Plan Map, as same may be revised from time to time through the map amendment or map adjustment process, and subject to their actual location on the ground.

Density/Intensity Standards:

- FAR and ISR are not applicable to this category.

- Submerged Land at Mean High Tide; Drainage Feature – No density/intensity allocation.

I. Commercial General – Temporary Lodging Density 50 – Business District Triangle (CG-TLD50–BDT)

Purpose –It is the purpose of this district to provide for temporary lodging at a density of 50 units per acre, subject to a development agreement as specified below. The CG-TLD50-BDT land use district’s location is restricted to the business district triangle. The CG-TLD50-BDT shall only be implemented in the text of the land development regulation and on the city’s official zoning map as a planned development district (PDD).

It is also the purpose of this category to depict those areas of the City that are now developed, or appropriate to be developed, in a manner designed to provide community and Citywide commercial goods and services; and to recognize such areas as primarily consistent with the need, relationship to adjoining uses and with the objective of encouraging a consolidated, concentrated commercial center providing for the full spectrum of commercial uses.

- Use Characteristics - Those uses appropriate to and consistent with this category include:
- Primary Uses - Office; Personal Service/Office Support; Retail Commercial; Commercial/ Business Service; Temporary Lodging; Wholesale/Distribution (Class A); Storage/Warehouse (Class A);
- Secondary Uses - Commercial Recreation; Residential; Residential Equivalent; Institutional; Transportation/Utility; Recreation/Open Space; Research/Development.

Locational Characteristics - This category is generally appropriate to the business district triangle as defined in the Indian Rocks Beach Code of Ordinances Section 110-135.

Density/Intensity Standards:

- Maximum floor area ratio (FAR) of 0.55.
- Maximum impervious surface ratio (ISR) of 0.7.
- Residential density of 18 units per acre.
- Temporary lodging density of 50 units per acre.
- Temporary lodging floor area ratio (FAR) of 1.2 applies to temporary lodging use, residential dwelling uses integrated into the same structure with the temporary lodging use, associated parking structures and uses accessory to temporary lodging uses such as meeting space, restaurants, spas, clubs, etc. For development that includes a combination of temporary lodging and residential dwelling use, each use shall be allowed in proportion to the size of the property and the permitted density and intensity of the respective use.
- Temporary lodging impervious surface ratio (ISR) of 0.90

- Residential Equivalent Use: Shall not exceed an equivalent of 2.0 to 3.0 beds per permitted dwelling unit at 18 dwelling units per acre. The standard for the purpose of establishing relative intensity and potential impacts shall be the equivalent of 2.5 beds per dwelling unit.
- Mixed Use: Shall not exceed, in combination, the respective number of units per acre and floor area ratio permitted, when allocated in their respective proportion to the net land area of the property.
- Research/Development: May be allowed in this category subject to the land development regulations which shall address, as a minimum, the following criteria in relationship to the nature of the proposed use:
 1. Neighboring uses and the character of the commercial area in which it is to be located;
 2. Noise, solid waste and air quality emission standards;
 3. Hours of operation;
 4. Traffic generation; and
 5. Parking, loading, storage, and service provisions.

Other Standards - Shall include the following:

- Acreage Limitations - Institutional; Transportation/Utility Use - Shall not exceed a maximum area of five (5) acres. Any such use, alone or when added to existing contiguous like use(s), which exceeds this threshold shall require a plan map amendment which shall include such use and all contiguous like uses.
- A development agreement is required for temporary lodging densities greater than 15 units per acre. The development agreement shall be prepared pursuant to the following:
 1. The development agreement shall be prepared and approved pursuant to Chapter 163, Sections .3220-.3243, F.S., as amended.
 2. The development agreement shall indicate the ability of the local government, or the applicable service provider, to meet the concurrency management standards for sanitary sewer, solid waste, drainage, potable water, parks and recreation, and schools, as required pursuant to Section 163.3180, F.S., and the applicable local government or service provider plan and regulations.
 3. The provision for all temporary lodging uses shall comply with all county and local hurricane evacuation plans and procedures to ensure orderly evacuation of guests and visitors pursuant to the Pinellas County Code, Chapter 34, Article III. In particular, all temporary lodging uses which are located in Hurricane Evacuation Level A, as identified by the Pinellas County Emergency Management Agency, shall prepare a legally enforceable mandatory evacuation/closure covenant, stating that the temporary lodging use will be closed as soon as practicable after a hurricane watch is posted for Pinellas County by the National Hurricane Center. Further, a plan implementing the closure and evacuation procedures shall be prepared and submitted to the county or municipal emergency management coordinator, whichever is applicable, within 90 days of the issuance of a certificate of occupancy. This plan will be updated and sent for review when there is a change of ownership or substantive change to the plan or as required by the county or municipal emergency management coordinator, whichever is applicable.

4. Design considerations in Section A, the mobility management system provisions in Section B and the restrictions on temporary lodging use in Section C set forth the following:

A. Design Considerations. The purpose of the design considerations is to enable the local government to authorize increased density and intensity, subject to a determination that the project is compatible with the size, location, configuration and character of the site, its relationship to the Countywide Plan Map category in which it is located, and to adjoining uses; and that the overall principles of quality urban design as set forth in Pinellas By Design: An Economic Development and Redevelopment Plan for Pinellas County are furthered.

In particular, design considerations applicable to the proposed use shall address the following in the Development Agreement so as to ensure compatibility in terms of context-sensitive design, and the scale and placement of the proposed use so as to achieve a harmonious relationship and fit relative to its location and surroundings:

- i. Building scale, including height, width, location, alignment, and spacing.
- ii. Building design, including elevations, façade treatment, entrance and porch or balcony projections, window patterns and roof forms.
- iii. Site improvements, including building and site coverage, accessory structures, service and amenity features, walkway and parking areas, open space, and view corridors.
- iv. Adjoining property use, including density/intensity, and building location, setbacks, and height.

B. Mobility Management System. The purpose of this provision is to ensure that a project authorized to use the increased density and intensity is consistent with the Metropolitan Planning Organization (MPO) countywide approach to the application of mobility management system for transportation facilities. In particular, transportation analysis for the project shall include the following:

- i. Recognition of standard data sources as established by the MPO.
- ii. Identification of level of service (LOS) standards for state and county roads as established by the MPO.
- iii. Utilization of proportionate fair share requirements consistent with Chapter 163, F.S., and the MPO model ordinance.
- iv. Utilization of the MPO Traffic Impact Study Methodology.
- v. Recognition of the MPO designation of “Constrained Facilities” as set forth in the most current MPO Annual Level of Service Report.

C. Operating Characteristics and Restrictions. The purpose of this provision is to ensure that a project authorized to use any portion of the increased density and intensity is built, functions, operates, and is occupied exclusively as temporary

lodging. In particular, temporary lodging uses at higher densities/intensities shall comply with the following restrictions:

- i. No temporary lodging unit shall be occupied as a residential dwelling unit, and a locally-determined maximum length of stay for any consecutive period of time shall be established by the local government to ensure that any temporary lodging use does not function as a residential use.
- ii. Temporary lodging units shall not qualify or be used for homestead or home occupation purposes.
- iii. All temporary lodging units must be included in the inventory of units that are available within a temporary lodging use.
- iv. No conversion of temporary lodging units to residential dwelling units shall be permitted unless the conversion is in compliance with the Countywide Rules with respect to the permitted residential density and, where applicable, the intensity for associated nonresidential uses.
- v. Accordance with the Pinellas Countywide Plan Rules Section 5.2.1.3.4(E) temporary lodging use may include accessory uses, such as recreational facilities, restaurants, bars, personal service uses, retail uses, meeting space, fitness centers, spa facilities, parking structures and other uses commonly associated with temporary lodging uses. All such uses shall be included in the calculation of allowable floor area ratio.
- vi. Any license required of a temporary lodging use by the local government, county, or state agency shall be obtained and kept current.
- vii. Temporary lodging uses shall be subject to all applicable tourist development tax collections.
- viii. A reservation system shall be required as an integral part of the temporary lodging use, and there shall be a lobby/front desk area that must be operated as a typical lobby/front desk area for temporary lodging would be operated.
- ix. Temporary lodging uses must have sufficient signage that complies with local codes and is viewable by the public designating the use as a temporary lodging use.
- x. The books and records pertaining to use of each temporary lodging unit shall be open for inspection by authorized representatives of the applicable local government, upon reasonable notice, in order to confirm compliance with these regulations as allowed by general law.
- xi. The applicable local government may require affidavits of compliance with this Section from each temporary lodging use and/or unit owner.

5. A Development Agreement prepared pursuant to this Section shall be approved by the local government governing body, recorded with the Clerk of the Circuit Court pursuant to Section 163.3239, F.S., a copy filed with the Property Appraiser's Office, and a copy submitted to the PPC and CPA for receipt and filing within fourteen (14) days after recording. The development limitations set forth in the Development Agreement shall be memorialized in a deed restriction, which shall be recorded in the Official Records of Pinellas County prior to the issuance of a building permit for the temporary lodging use

Objective 1.2: Land Development Regulations

Future growth and development shall be managed through the implementation and enforcement of land development regulations as codified in the *Indian Rocks Beach Code* consistent with this comprehensive plan.

Policy 1.2.1: The land development regulations shall contain provisions which implement guidelines for the administration of those land use categories adopted for the city.

Policy 1.2.2: Current land development regulations adopted pursuant to Section 163.3202, Florida Statutes, shall continue to be enforced and future amendments to them shall support and further the provisions and intent of this comprehensive plan.

Policy 1.2.3: The City shall adopt land development regulations which recognize the limitations of development on a barrier island (e.g., 100-year floodplain, vulnerability to tropical storms, topography and soil conditions).

Policy 1.2.4: The City shall continue to enforce land development regulations that contain specific and detailed provisions required to implement this comprehensive plan, which, at a minimum shall:

- Regulate the subdivision of land;
- The land development regulatory system shall include the identification of “deficient” roadways, including facilities operating at peak hour level of service (LOS) E and F and/or volume-to-capacity (v/c) ratio 0.9 or greater without a mitigating improvement scheduled for construction within three years. *Deficient roads will be identified through the annual MPO Level of Service Report.* The level of service for the State Highway System during peak travel hours in the urbanized areas is level-of-service (LOS) D.
- Protect the limited amount of marine wetlands remaining in the community and those lands designated as Preservation on the *Future Land Use Map* and in the *Coastal Management and Conservation Element*;
- Regulate signage;
- Ensure all development is consistent with National Flood Insurance Program regulations;
- Ensure that all development is consistent with those coastal construction regulations as may be adopted and/or amended by the State of Florida, Pinellas County, or the City of Indian Rocks Beach;
- Ensure the compatibility of adjacent land uses and provide for adequate and appropriate buffering;
- Ensure that development orders and permits are issued only when it is documented that such development is consistent with the level of service standards for the affected public facilities adopted by this comprehensive plan;
- Provide for drainage and stormwater management, based on the minimum criteria established by the Southwest Florida Water Management District, as may be amended, the City of Indian Rocks Beach, or other appropriate governmental

- agencies, and the *Pinellas County Master Drainage Plan* ;
- Provide requirements for the provision of open space, and safe and convenient on-site traffic flow and parking requirements;
 - Require the use of native vegetation and drought-tolerant species in the landscaping of multifamily and commercial developments;
 - Provide provisions for the control of erosion and runoff from construction sites; and
 - Encourage land development which highlights scenic amenities and ensures public access to the waterfront.
 - Provide design guidelines to regulate aesthetic qualities and compatibility of development.
 - Encourage compact development and energy efficiency in building construction and retrofitting.

Policy 1.2.5: The land development regulations shall contain provisions whereby all applications for development approval shall be subject to site plan review unless exempted in the regulations.

Objective 1.3: Residential Development

The integrity and quality of life, as exhibited by the continuation of the city’s beach community, family-oriented, residential character, will be maintained in residential neighborhoods.

Policy 1.3.1: The land development regulations shall encourage that development or redevelopment of multi-use projects be developed as a planned unit development.

Policy 1.3.2: The land development regulations shall continue to contain provisions which govern the development of a planned unit development, the intent of which is to provide flexible standards and guidelines while maintaining and protecting the desired coastal community character.

Policy 1.3.3: The planned unit development regulations shall, at a minimum, address the following:

- Allowance for a creative approach for development or redevelopment;
- A requirement that more open space be provided than that called for by the strict application of the minimum requirements of the land development regulations;
- A harmonious development of the site and the surrounding areas and community facilities while providing safe and efficient traffic circulation;
- An allowance for zero lot line, cluster or other non-traditional lot layout or site design;
- The establishment of minimum acreage and dimensional requirements;
- The establishment of procedures for the granting of increase structure height in exchange for increased open space and decreased amounts of impervious surfaces; and
- Other provisions as deemed appropriate by the city in keeping with the intent of the Planned Unit District.

Policy 1.3.4: Existing residential land uses shall be protected, through provisions contained in the land development regulations, from the encroachment of incompatible activities.

Policy 1.3.5: The land development regulations shall ensure that residential land uses are located and designed to protect life and property from natural and manmade hazards such as flooding, excessive traffic, subsidence, noxious odors, noise, and deterioration of structures.

Policy 1.3.6: The land development regulations shall ensure that residential land uses are encouraged in a manner which is compatible with the type and scale of surrounding land uses.

Policy 1.3.7: Land development regulations shall contain performance standards which address buffering and open space requirements within residential land uses, as appropriate.

Objective 1.4: Nonresidential Development

Commercial development compatible with environmental and economic resources shall occur in a planned and orderly fashion.

Policy 1.4.1: The land development regulations shall contain provisions which identify those specific uses and such other requirements or restrictions deemed appropriate, for those commercial activities permitted within the Resort Facilities High land use category.

Policy 1.4.2: The land development regulations shall contain provisions which encourage mixed-use development within the Residential/Office/Retail and Residential/Office General land use categories.

Policy 1.4.3: The land development regulations shall contain provisions which discourage the use of the Residential/Office/Retail and Residential/Office General land use categories for single use purposes only.

Policy 1.4.4: The land development regulations shall contain provisions which create a smooth land use transition within any mixed use development that includes:

- a. Variable buffers, combining land and landscaping to achieve adequate separation of uses, appropriate open space, reduction of potential noise, light, glare and pollution and screening of physical features of a proposed development;
- b. Variable setbacks, based upon degree of difference in proposed use, density, intensity, scale, mass or height;
- c. Placement and effective screening or shielding of site features such as lights, signs, dumpsters, loading areas, parking areas, outdoor storage or other features with potential negative impacts;

- d. Effective transitions of on-site densities, intensities, scale, mass and height; and,
- e. Other innovative site design features that effectively achieve compatibility and effectively mitigate potential negative impacts.

Policy 1.4.5: In order to minimize incompatibility when residential and commercial land uses share a common boundary, the land development regulations shall continue to require the installation of buffering, as appropriate, where there is a change of use or increase in intensity.

Policy 1.4.6: Commercial land uses shall, through provisions contained in the land development regulations, be located in a manner which ensures the compatibility with the type and scale of surrounding land uses and where existing or programmed public facilities (based on the adopted level of service) shall not be overburdened.

Policy 1.4.7: The land development regulations shall contain provisions which ensure that single use commercial developments are located so as to serve residential land uses without disrupting their quality of life. Such provisions shall include:

- a. Appropriate buffers, which combine land and landscaping to achieve adequate separation of uses, appropriate open space, reduction of potential noise, light, glare and pollution and screening of physical features of a proposed development;
- b. Appropriate setbacks, based upon proposed use, intensity, scale, mass or height;
- c. Placement and effective screening or shielding of site features such as lights, signs, dumpsters, loading areas, parking areas, outdoor storage or other features with potential negative impacts;
- d. Other innovative site design features that effectively achieve compatibility and effectively mitigate potential negative impacts.

Policy 1.4.8: Temporary lodging, at a maximum density of 15 units/acre, shall be located in the Commercial General and Residential/Office/Retail land use categories; the Resort Facilities High land use category at a maximum density of 30 units/acre shall be located on the west side of Gulf Boulevard. The CG-TLD50-BDT shall be located within the boundaries of the business district triangle and shall have an alternative maximum temporary lodging density of 50 units per acre in accordance with the Countywide Rules Section 4.2.7.7

Policy 1.4.9: The land development regulations shall contain provisions establishing the guidelines under which ancillary commercial uses associated with seasonal tourist facilities and limited commercial development may be incorporated into the Resort Facilities High land use category.

Policy 1.4.10: In order to encourage the best use of the Residential/Office/Retail, Residential/Office General, and Commercial General land use categories, the land

development regulations shall include provisions which enhance the opportunities for the redevelopment or rehabilitation of existing commercial land uses.

Policy 1.4.11: The City shall, through provisions contained in the land development regulations, ensure that commercial areas are located and designed so as to enhance safety by providing adequate off-street parking and loading areas and by separating pedestrian and vehicular traffic.

Policy 1.4.12: Strip commercial development that compounds traffic and land use conflicts is strongly discouraged through cooperation with the Florida Department of Transportation and Pinellas County through provisions contained in the land development regulations which minimize the amount of direct access onto major roads by controlling the number and location of curb cuts.

Policy 1.4.13: The land development regulations shall contain provisions which encourage the concentration or clustering of commercial activities, within commercial nodes such as the Narrows aka “Business District Triangle” and along Gulf Boulevard. Such provisions may include alternative parking strategies or a Multi-Modal Transportation District (MMTD).

Policy 1.4.14: The City shall require minimum design standards for drainage and stormwater management, open space, and safe and convenient on site pedestrian circulation, traffic and parking.

Objective 1.5: Redevelopment

The enhancement and protection of the city’s existing character shall be achieved through redevelopment which ensures an orderly and aesthetic mixture of land uses.

Policy 1.5.1: The City shall encourage redevelopment of a type consistent with the *Future Land Use Map*.

Policy 1.5.2: The City of Indian Rocks Beach shall promote business and civic activities in the Narrows aka “Business District Triangle” and along Gulf Boulevard by encouraging redevelopment and revitalization of the area.

Policy 1.5.3: The land development regulations shall contain incentives encouraging redevelopment and/or revitalization through the use of either the Residential/Office/Retail or Residential/Office General land use categories.

Policy 1.5.4: In order to ensure the continued maintenance of its beach residential character the City shall require new development and substantial renovation projects be compatible with the character of the surrounding environment by recognizing and

enhancing the architectural character that reflects the city's unique resident and tourist friendly environment.

Policy 1.5.5: The land development regulations shall contain provisions whereby redevelopment activity is consistent with the availability of public facilities and services. The City of Indian Rocks Beach will coordinate with Pinellas County with the implementation of the mobility management system.

Policy 1.5.6: Redevelopment proposals and plans shall be reviewed for compliance with the goals, objectives and policies of the Comprehensive Plan and other appropriate plans and regulations, including the City's regulations governing Floodplain Management.

Policy 1.5.7: The City will encourage the preservation and enhancement of working waterfronts and marinas.

Objective 1.6: Nonconforming Uses

Existing land uses or structures which are either incompatible or inconsistent with this adopted *Future Land Use Plan* shall be deemed nonconforming.

Policy 1.6.1: Those commercial and residential activities existing as of the effective date of this comprehensive plan which were conforming prior to such adoption and have now been rendered nonconforming, shall be considered grandfathered, as defined in the land development regulations.

Policy 1.6.2: As a condition of redevelopment, the developer/property owner shall:

- a. Bring their property into compliance with the Plan and land development regulations; or
- b. If it is physically impossible to bring the site into compliance with the Plan and land development regulations due to the size of the site and physical layout of the structure, the site shall be brought into compliance with all applicable NFIP, floodplain and stormwater requirements.

Objective 1.7: Natural Resources

Development activities shall ensure the protection of natural resources.

Policy 1.7.1: The City shall ensure that land is developed in a manner which respects necessary ecological functions and suitability for urban development.

Policy 1.7.2: In order to protect environmentally sensitive areas located east of Gulf Boulevard, the City shall continue to allow for cluster zoning or transfer of development rights to be consistent with planned unit development regulations.

Policy 1.7.3: The City shall ensure unique and/or irreplaceable natural resources are protected from the adverse effects of development, except in cases of overriding public benefit.

Policy 1.7.4: The City shall ensure that species of flora and fauna listed in the *Coastal Management and Conservation Element* of this plan as endangered, threatened or species of special concern, as defined by federal law or Florida statutes, are protected through compliance with appropriate federal and state regulations.

Policy 1.7.5: The City shall prohibit the removal of trees and wetland vegetation, unless specifically permitted.

Policy 1.7.6: The City shall protect the coastal vegetative communities, coastal wildlife habitats, and dune systems from the adverse effects of development.

Policy 1.7.7: Any project which may produce changes in tidal circulation patterns shall be approved only after sufficient hydrographic information is available to allow an accurate evaluation of the possible impacts of the project. If the City determines the project will negatively impact tidal circulation patterns, the project shall not be approved.

Policy 1.7.8: The City shall not permit any land use proposals which could potentially increase point-source air and water pollution.

Policy 1.7.9: Dredge and fill activities shall be conducted only when necessary and permitted, as determined after review, and comment by the appropriate governmental agencies and interested citizens, and in a manner least harmful to the surrounding environment.

Policy 1.7.10: In order to limit the specific and cumulative impacts of development and redevelopment, enhance coastal resources and ensure the continued economic viability of the City, the City shall give priority to water dependent uses over water related. Water dependent and water related uses shall take priority over uses that are not water dependent or related.

Objective 1.8: Public Facilities Availability

All development orders and permits for future development and redevelopment activities shall be issued only if public facilities necessary to meet the level-of-service standards adopted pursuant to this comprehensive plan are available concurrent with the impacts of the development.

Policy 1.8.1: The City of Indian Rocks Beach shall ensure that all development and redevelopment taking place within its municipal boundaries do not result in a reduction of the level- of-service requirements established and adopted by this comprehensive plan.

Policy 1.8.2: Recognizing the limitations of the potable water supply available to serve this community, the City shall implement those applicable provisions of water conservation ordinances which may be adopted by Pinellas County or recommended by the Southwest Florida Water Management District, including reducing the City's potable water demand and wastewater generated based on use of reclaimed water.

Policy 1.8.3: The development of residential and commercial land shall be timed and staged in conjunction with provision of supporting community facilities (e.g., streets and utilities), unless otherwise provided by this Plan.

Policy 1.8.4: The City shall work with the appropriate governmental agencies in an attempt to avoid any unnecessary conflicts between highway traffic and Intracoastal Waterway traffic.

Policy 1.8.5: Public facilities and utilities shall be located so as to maximize the efficiency of services provided; to minimize their cost; and to minimize their impacts on the natural environment.

Policy 1.8.6: The City adopts by reference the Pinellas County Utilities' Water Supply Facilities Work Plan. The City and Pinellas County shall work together to reduce the City's potable water demand consistent with Pinellas County Utilities' Water Supply Facilities Work Plan.

Objective 1.9: Utilities

The City shall, through site plan review, continue to ensure the availability of suitable land for utility facilities necessary to support proposed development.

Policy 1.9.1: The City shall, through site plan review, assure that adequate land is available for the maintenance of those public utility facilities provided by the city necessary to support proposed development.

Policy 1.9.2: The City will, through site plan review cooperate with those public utilities providing service to the community to assure that adequate land is available for those facilities.

Policy 1.9.3: Consistent with state law, with the exception of Preservation, new electric substations shall be permissible in all land use categories in the city.

Objective 1.10: Historic Preservation

The City shall assist property owners in the identification, preservation, and protection of historical, archeologically, and architecturally significant sites.

Policy 1.10.1: By providing referral to the appropriate governmental agency(ies), the City shall assist property owners in the identification of historically significant structures.

Policy 1.10.2: The City shall assist property owners of historically or architecturally significant structures in applying for and utilizing state and federal assistance programs.

Policy 1.10.3: The City shall support the efforts of the Indian Rocks Beach Historical Society to identify and preserve significant historic resources, and to educate residents and visitors regarding those resources.

Objective 1.11: Educational Facilities

The City of Indian Rocks Beach shall support efforts that facilitate coordination of planning between the City and the School Board for the location and development of public educational facilities.

Policy 1.11.1: The City of Indian Rocks Beach supports public school siting pursuant to Section 235.193, Florida Statutes, through the passage of Resolution 96-101, dated September 18, 1996.

Policy 1.11.2: Educational facilities are an allowable use within the following future land use categories:

- Residential Urban
- Residential Medium
- Residential/Office General

Objective 1.12: Private Property Rights

The City shall recognize property rights pursuant to Sections 70.001 and 70.51, Florida Statutes.

Policy 1.12.1: The City shall, upon need, prepare and adopt procedures to deal with the appeal process as outlined in the *Bert J. Harris, Jr. Private Property Rights Protection Act* and the *Environmental Dispute Resolution Act*.

Goal 2:

- ***To comply with Chapter 88-464, Laws of Florida, as amended, by participating in the countywide planning process through representation on and coordination with the Pinellas Planning Council, to ensure consistency between the city and the Countywide Comprehensive Plan.***

Objective 2.1: Future Land Use

The *Future Land Use Element of the City of Indian Rocks Beach Comprehensive Plan* shall be consistent with the *Countywide Future Land Use Plan* and Rules.

Policy 2.1.1: Through its *Future Land Use Element*, the city shall maintain consistency with the *Countywide Future Land Use Plan* by requiring the following:

- Identification of any inconsistencies between the *Future Land Use Element* and plan maps of the City of Indian Rocks Beach and the *Countywide Future Land Use Plan and Rules Concerning the Administration of the Countywide Future Land Use Plan, As Amended*.
- Processing for action by the Pinellas Planning Council and the Board of County Commissioners, acting in their capacity as the Countywide Planning Authority, all land use plan amendments required to reconcile outstanding inconsistencies between the respective land use plans, such processing to be initiated by the city.

Policy 2.1.2: Per Chapter 88-464, Laws of Florida, as amended, the City's land development regulations shall contain density/intensity standards and other standards consistent with the *Rules Concerning the Administration of the Countywide Future Land Use Plan, As Amended, including criteria and standards for nomenclature, continuum of plan classifications and categories, use and locational characteristics, map delineation, other standards, and special rules*

TRANSPORTATION

Goal:

A safe, convenient, and energy efficient multimodal transportation system that serves to increase the mobility, reduce the incidence of single-occupant vehicles, efficiently utilize roadway capacity, reduce the contribution to air pollution from motorized vehicles and improve the quality of life shall be available for all residents and visitors to the city and its environs.

Objective 1.1:

The City of Indian Rocks Beach shall maintain a safe and energy efficient multimodal transportation system that increases mobility for bicyclists, pedestrians and transit users as well as motorists.

Policy 1.1.1: The City shall review all proposed development or redevelopment for consistency with the Pinellas County Metropolitan Planning Organization (MPO) Long Range Transportation Plan, the Pinellas County Transportation Element, the Pinellas County Mobility Plan, this *Transportation Element* and impacts upon the adopted LOS standards:

- The transportation analysis will utilize the latest and best methodology available at the time.
- No development orders or permits that affect access to state roads shall be issued until FDOT completes a review and gives conceptual approval of the development site access plan.

Policy 1.1.2: The City shall ensure that new development and redevelopment projects address their transportation impacts and street connectivity consistent with the City's small town character and the redevelopment objectives of the comprehensive plan. The City shall coordinate with Pinellas County in the implementation of the mobility management system.

Policy 1.1.3: The City shall continue to monitor roads with an existing level-of-service problem (Gulf Boulevard from SR 688 to Park Boulevard), along with implementation of proposed solutions to these problems. The City will, in coordination with the Pinellas County MPO adopt multimodal transportation strategies into the comprehensive plan when they have been adopted by Pinellas County.

Policy 1.1.4: The City shall require that programmed transportation improvements, required to maintain the LOS, shall be in place within three (3) years of the issuance of the building permit.

Objective 1.2:

Transportation planning shall be coordinated with the *Future Land Use Map*, the *Schedule of Capital Improvements* and the *Pinellas County MPO Long Range Transportation Plan and Mobility Plan*. Roadway right-of-way needs shall be identified, protected, reserved, acquired, or dedicated to the public in accordance with the City's land development regulations.

Policy 1.2.1: The setback requirements for new or existing roadways shall be enforced through provisions contained in the city land development regulations, and shall be taken from the ultimate right-of-way line of these roadways.

Policy 1.2.2: The City shall review the *Future Land Use Map* when planning roadway construction and improvements to ensure that roadways are designed to serve the needs of the affected land uses.

1.2.3 Policy: The City shall work cooperatively with the MPO and other local governments to complete the biennial update of the Multi-modal Impact Fee Ordinance through the MPO planning process, which includes review by the MPO Technical Coordinating Committee and MPO Policy Board.

1.2.4: Policy: The City shall continue to work with the Pinellas Suncoast Transit Authority (PSTA) to increase the efficiency of the fixed-route system by encouraging mass transit use through the application of the Pinellas County Mobility Plan and the City of Indian Rocks Beach site plan review process.

1.2.5: Policy: The City shall work with the MPO and other local governments to coordinate the application of the Pinellas County Mobility Plan throughout the County.

Objective 1.3:

Motorized and non-motorized vehicle parking, and bicycle and pedestrian ways shall be provided.

Policy 1.3.1: The City shall enforce parking requirements through provisions contained in the city land development regulations. Parking lots shall be paved and on-site retention provided for the proposed multi-family and commercial uses to reduce fugitive dust. The City shall allow the use of permeable materials such as grass, geoweb, or turfblock.

Policy 1.3.2: The City, County, or State shall provide bicycle, golf carts, and pedestrian ways for connecting residential areas to recreation areas, school, shopping areas, and transit terminal areas.

Policy 1.3.3: Storage areas, for bicycles and golf carts, at shopping and recreational areas, shall be established through land development regulations.

Policy 1.3.4: The City, County, and State shall provide crosswalks and sidewalks on roadways of high pedestrian usage in their jurisdiction to the extent possible given right-of-way limitations.

Policy 1.3.5: The City encourages the continued implementation and supports the installation of facilities as outlined in the *Pinellas County Bikeway Plan*.

Objective 1.4:

The City transportation system shall emphasize safety and aesthetics and shall reduce the environmental impacts of water, air, and noise pollution.

Policy 1.4.1: The City shall fund the maintenance and landscaping of its local roadways through the operating budget.

Policy 1.4.2: The City shall develop and enforce the signage requirements along roadways through provisions contained in the land development regulations.

Policy 1.4.3: The City shall request and monitor accident reports provided by the Sheriff's Office, County, and State for the roadways under their jurisdictions to identify needed safety improvements.

Policy 1.4.4: The City, in cooperation with Pinellas County and the Florida Department of Transportation, shall control connections or access points of driveways to the roadway system through provisions contained in the land development regulations.

Policy 1.4.5: The City, shall through the land development regulations, require all development and redevelopment to provide safe and convenient on-site traffic flow, considering needed motorized and non-motorized vehicle parking.

Objective 1.5:

The City shall encourage the development and utilization of a safe, convenient, and energy efficient multi-modal transportation system.

Policy 1.5.1: The City shall encourage, by distributing bus schedules at appropriate public places, the increased use of available public transportation.

Policy 1.5.2: The City shall identify and encourage the use of non-motorized vehicles, golf carts, bicycle and pedestrian ways.

Policy 1.5.3: The City shall review all proposed development and redevelopment for its accommodation of non-motorized vehicles, golf carts, bicycle and pedestrian traffic needs.

Policy 1.5.4: The City shall coordinate with the Community Transportation Coordinator (Pinellas County MPO) regarding the provision of transportation disadvantaged services.

Policy 1.5.5: The City may consider the implementation of an alternative parking plan within the City's redevelopment and revitalization areas, such as the Business Triangle District.

Policy 1.5.6: The City shall require that development commit to off-site roadway improvements, such as traffic signal timing and intersection improvements within the area of impact, in order to improve level of service and/or traffic flow, prior to the issuance of a building permit.

Policy 1.5.7: The City shall, through its designated representative on the Pinellas MPO, ensure that future improvements to Gulf Boulevard incorporate pedestrian, golf carts and bicycle paths and bicycle and non-motorized vehicle friendly design standards into plans for future roadway projects within the city.

Policy 1.5.8: The City shall support the future development of non-motorized corridors for cycling, golf carts, jogging, and walking.

Policy 1.5.9: Indian Rocks Beach will cooperate with Pinellas County to support federal fuel volatility regulations as a means of significantly reducing mobile source pollutant emissions.

Objective 1.6:

Transportation planning shall be coordinated with the city comprehensive plan, the Florida Department of Transportation Long Range and 5-Year Transportation Plans, the Pinellas County Metropolitan Planning Organization (MPO) 5-Year Transportation Improvement Program (TIP) and Long Range Transportation Plan, and plans of neighboring jurisdictions.

Policy 1.6.1: The City shall review subsequent versions of the Florida Department of Transportation and the Pinellas County MPO 5-Year Transportation Improvements Program and Long Range Transportation Plan in order to update or modify this element, as necessary.

Policy 1.6.2: The City shall review for compatibility with this element, the transportation plans and programs of neighboring municipalities and Pinellas County as they may be amended.

Policy 1.6.3: All amendments to this transportation element shall be supported by an appropriate transportation analysis.

Objective 1.7:

Future growth and development shall be managed through the continued implementation and enforcement of land development regulations consistent with this adopted comprehensive plan.

Policy 1.7.1: Continue to adopt and enforce land development regulations, consistent with Section 163.3202(1), Florida Statutes, which addresses the provisions and intent of the objectives and policies contained in this transportation element.

HOUSING

Goal 1:

The City shall promote decent, safe and sanitary housing in suitable neighborhoods at affordable costs to meet the needs of the present and future residents of the city, free from arbitrary discrimination because of race, sex, handicap, ethnic background, age, marital status, or household composition.

Objective 1.1 : Adequate Housing

The City shall assist the private sector in providing an appropriate number and type of attainable and affordable housing units to meet the needs of the city's existing and projected workforce population and households with special housing needs.

Policy 1.1.1: The City shall provide information and technical assistance to the private sector to maintain a production capacity sufficient to meet the housing needs.

Policy 1.1.2: The City shall review and amend ordinances, codes, regulations, and the permitting process to eliminate excessive requirements and minimize development costs and delays, and shall establish principles to guide conservation, rehabilitation, and demolition program techniques and strategies, while continuing to ensure the health, welfare, and safety of the residents.

Policy 1.1.3: The City shall support the location of attainable workforce housing and affordable housing for very-low, low, and moderate income households, including any necessary supporting infrastructure and public facilities.

Policy 1.1.4: The City shall continue to allow a variety of residential densities and housing types in order to enhance the opportunity for the private sector to provide housing in a wide range of types and costs; and shall examine, and consider for inclusion into the land development regulations, commonly used incentives for retaining pre-existing housing stock.

Policy 1.1.5: The City shall provide incentives for the private sector development of low income housing by offering the waiver of city permitting fees, the reduction of parking requirements, and other incentives as may be specified in the land development regulations.

Policy 1.1.6: The City will continue its participation and uphold the cooperation agreement with Pinellas County for the administration of the Community Development Block Grant Program, with particular emphasis upon attainable workforce housing.

Policy 1.1.7: Decisions regarding proposed development shall consider the ability of the proposal to provide affordable or attainable workforce housing and shall treat such

housing as infrastructure to the extent that the cost of such housing is factored into proposed developments that create the need for affordable or attainable workforce housing. Tools such as restrictive covenants to require affordable housing could be utilized to strengthen development proposals.

Policy 1.1.8: Encourage employers to offer assistance in meeting the housing needs of employees who are cost burdened.

Policy 1.1.9: Support region-wide programs, in cooperation with other local governments and the banking industry, to provide mortgages to very low-income households at reduced interest rates.

Policy 1.1.10: Provide incentives for employers that offer down payment assistance to employees who purchase homes within a 10-mile radius of their place of employment.

Policy 1.1.11: Promote partnerships between the public and private sector to create opportunities to live and work in the same community.

Policy 1.1.12: Encourage both ownership and rental opportunities for all types of housing, with particular emphasis upon attainable and affordable workforce housing.

Objective 1.2: Fair Housing

The City shall continue to support the opportunity for all citizens to purchase or rent, decent, safe and sanitary housing which they can afford, free from arbitrary discrimination because of race, sex, handicap, ethnic background, age, marital status, or household composition.

Policy 1.2.1: The City shall institute a fair housing ordinance to include age, handicap, and household composition in addition to race, sex, national origin, and religion.

Policy 1.2.2: The City will notify enforcement agencies whenever housing discrimination is encountered.

Policy 1.2.3: The City will participate in available federal, state, and county housing subsidy programs.

Objective 1.3: Group Homes

Sites for group homes and foster care facilities shall be available in areas of residential character to ensure that the needs of city residents requiring such housing are met, as required by Chapter 419, Florida Statutes.

Policy 1.3.1: The City shall establish non-discriminatory standards and criteria addressing the location of group homes and foster care facilities, as required by Chapter 419 F.S.

Policy 1.3.2: The City shall review, and amend if warranted, the land use regulations so that group homes (community residential homes), for persons who do not require special provisions for emergency evacuation, will be permitted in residential neighborhoods where group homes are necessary to meet the needs of residents pursuant to Chapter 419, Florida Statutes.

Objective 1.4: Housing Conservation

The existing housing stock will be conserved, rehabilitated, and its useful life extended, and the character of residential neighborhoods shall be maintained.

Policy 1.4.1: The City shall review and amend, where necessary, the housing and health codes and standards relating to care and maintenance of residential and neighborhood environments and facilities.

Policy 1.4.2: The City shall encourage individual homeowners to increase private reinvestment in housing in problem areas, as identified by the City, by providing information and technical assistance programs.

Objective 1.5: Displacement

The City shall provide uniform and equitable treatment for persons and businesses displaced by local government programs consistent with Section 421.55, Florida Statutes.

Policy 1.5.1: The City will assist any person who is requested to move from any real property as a direct result of the City's acquisition of such real property for public purposes by locating alternate sites and housing facilities available to them as replacement dwellings. When planning to acquire land for public purposes, the City shall assess the degree of displacement that may be incurred. The City shall not be responsible for relocating City residents who are displaced as the result of a County, State or Federal program or action.

Objective 1.6: Substandard Housing

The City shall eliminate substandard housing that may exist as it becomes known through programs designed to preserve neighborhoods.

Policy 1.6.1: The City shall maintain or increase code enforcement activities, through regular inspections of the housing stock.

Policy 1.6.2: The City shall encourage housing improvement projects in problem areas, as identified by the City.

Policy 1.6.3: The City shall seek federal, state, and county funding, or otherwise provide local public funds for the rehabilitation or demolition of substandard housing in problem areas, identified by the City.

Objective 1.7: Energy Efficiency in Housing Design and Construction

The City shall encourage the development of energy efficient housing, including the use of renewable energy resources.

Policy 1.7.1: The City shall coordinate with Pinellas County, State and Regional agencies to promote energy efficient building design and construction, including the use of LEED™ and Florida Green Building Coalition design standards.

Policy 1.7.2: The City shall encourage Pinellas County's Sustainable Living program through the dissemination of information to developers and residents.

INFRASTRUCTURE

Goal 1:

The City shall ensure that needed sanitary sewer, solid waste and potable water services be provided by a safe and efficient system which maintains adequate facilities and provides for orderly growth and expansion.

Objective 1.1: Concurrency Management System

The City of Indian Rocks Beach shall implement procedures, in cooperation with its sewage, solid waste and potable water system providers to insure that development permits shall be issued only when adequate facility capacity is available to serve the development based on the level-of-service standards established within this element.

Policy 1.1.1: The potable water, sanitary sewer, and solid waste level-of-service standards for the City of Indian Rocks Beach shall be those listed in Table 1 of this policy:

**Table 1
Adopted Level-of-Service Standards**

Facility	Time Period	Level-of-Service Standards
Potable Water	2006 to 2010	120 gallons per capita per day (gpcd) interim level of service
	2011 to 2025	115 gpcd
Sanitary Sewer	To extend throughout the time frame of this comprehensive plan.	84 gallons per capita per day
Solid Waste	2006 to 2010	6.9 pounds per capita per day of non-recyclable waste interim level of service
	2011 to 2025	6.8 pounds per capita

Source: Pinellas County Utilities

Policy 1.1.2: The development, expansion, replacement or modification of infrastructure facilities shall be compatible with the adopted level-of-service standards.

Policy 1.1.3: The City shall maintain interlocal agreements for Pinellas County to provide water, sewer, and solid waste services consistent with the city's adopted level-of-service standards.

Policy 1.1.4: The City shall continue to maintain its own sewer lines and continue the agreement with Pinellas County for sewage treatment.

Goal 2:

The City shall support efforts to maintain the highest water quality standards and provide for the safe collection, treatment, and disposal of wastewater while protecting the surrounding natural environment.

Objective 2.1: Water Use

The City and Pinellas County shall work together to reduce the city's potable water demand and to reduce wastewater generation levels.

Policy 2.1.1: The City shall require that plumbing standards specify the installation of water conservation devices as a means of reducing potable water consumption and wastewater generation levels.

Policy 2.1.2: The City adopts by reference Pinellas County Ordinance 73-5 establishing a water conservation program that restricts the unnecessary consumption of potable water, particularly as it relates to irrigation, lawn watering, and car washing during periods of drought, supply reduction, and other emergencies, together with applicable Southwest Florida Water Management District rules and regulations.

Policy 2.1.3: The City and Pinellas County shall examine the feasibility of reusing treated wastewater for irrigation and landscaping.

Policy 2.1.4: The City shall require through provisions in the land development regulations, the use of native and drought-tolerant landscaping as a means of conserving water for any new or redevelopment projects involving uses classified as non-residential or multi-family residential, and shall encourage same for single family residences.

Policy 2.1.5: The City will continue to implement the current inflow and infiltration maintenance program for the sanitary sewer collection system in order to reduce the amount of wastewater generation.

Policy 2.1.6: The City shall enforce the requirements of Section 373.62, Florida Statutes, with regard to requiring the installation of rain sensor devices for new irrigation systems which will override the timing cycle when adequate rainfall has occurred.

Policy 2.1.7: The City and Pinellas County shall continue to work together to reduce the City's potable water demand and wastewater generated based on use of reclaimed water and continued conservation strategies.

Policy 2.1.8: The City shall update the following a water supply facilities work plan. The work plan shall be updated, at a minimum, every 5 years within 18 months after the SWFWMD's approves it updated regional water supply plan. The work plan must identify alternative and traditional water supply projects and conservation and reuse necessary to meet existing and new development water needs.

Policy 2.1.9: The City adopts by reference the Pinellas County Utilities' Water Supply Facilities Work Plan. The City and Pinellas County shall work together to reduce the City's potable water demand consistent with Pinellas County Utilities' Water Supply Facilities Work Plan.

INDIAN ROCKS BEACH WATER SUPPLY WORK PLAN **2013-2023**

SECTION I

BACKGROUND

The City of Indian rocks Beach is a small coastal community located on a barrier island between the Gulf of Mexico and the Intracoastal Waterway in western Pinellas County, Florida. It is located north of Indian Shores and south of Belleair Shore and Belleair Beach. It is an elongated narrow City that stretches north and south along the Gulf of Mexico for approximately 2.5 miles.

PLAN IMPLEMENTATION AND THE COMPREHENSIVE PLAN

The Indian Rocks Beach 10-year Water Supply Facilities Work Plan shall be implemented consistent with goals, objectives and policies of the City's Adopted Comprehensive Plan. Specifically, the plan shall be implemented consistent with comprehensive plan Policy 2.1.8 and other enabling Infrastructure, Intergovernmental Coordination and Capital Improvements Element policies.

UTILITY SERVICE AREA

A. Service area Description

(1) Description of Service Area.

The water supply and distribution are provided to the City by Pinellas County according to the terms of an interlocal agreement. The wholesale water supply is provided to Pinellas County by Tampa Bay Water (TBW), a regional water supply authority, and the Pinellas County Utilities Department owns and maintains the distribution system. The City is a retail customer of the Pinellas county Utilities Department and has no responsibility regarding the supply of potable water to its citizens.

(2) Current Flow/Population Served/Per Capita usage

In 2005 Indian Rocks Beach’s population was estimated to be 7901 this includes the permanent population and the seasonal population. The population declined in 2010 to 6813.

Table 1. Historical Population

Year	Population
2000	6,053*
2005	7,901*
2010	6,813**

Source: *-Pinellas County Planning Department
 **- Southwest Florida Water Management District

Utilizing the overall average per capita daily consumption for the Pinellas County WDPA, an estimation of the average daily flow into the City was derived. See Table 2

Table 2 Estimated Daily Average Flow (2012)

	Indian Rocks Beach
Total Population**	6813**
Level of Service	120 gpcd
Average Daily Demand	0.82 mgd

** Population is from Southwest Florida Management District which includes permanent residents, seasonal residents, and tourists and is based on water usage.

- (3) Wholesale Agreement
- (4) The City of Indian Rocks receives water from Pinellas County and Pinellas County receives its potable water supply from Tampa Bay Water and Tampa Bay Water is under agreement with Pinellas County to supply the potable water to meet all member government water demands Tampa Bay Water is governed by two agreements with the Members, the Amended and Restated Interlocal Agreement and the Master Water Supply contract, which were established in 1998. See Infrastructure Element Appendix.

SECTION II

EXISTING AND ALTERNATIVE WATER SOURCES

To ensure that potable water will be available beyond the year 2028, opportunities to conserve and locate alternative sources are continually being sought. Conservation programs are generally handed down from Pinellas County and regional agencies, particularly the Tampa Bay Water. Under a cooperative agreement between the major water providers in Pinellas, Hillsborough, and Pasco counties, Tampa Bay Water owns and oversees the regional water system, providing a reliable supply to all member utilities while promoting resource sharing. This agency is also responsible

for locating and developing new water sources, and currently utilizes surface water and desalinated seawater use to offset the use of groundwater withdrawals from the Floridian Aquifer.

ALTERNATIVE WATER SOURCES AND OPTIONS

City of Indian Rocks Beach receives its water from Pinellas County. Pinellas County is working to address resource uncertainty through the use of reclaimed water that offsets the use of potable water consumption, conservation programs that prevent the waste of potable water and the development of alternative sources of potable water supply and storage methods.

Pinellas County has developed an extensive reclaimed water system and is also working towards alternative methods for water supply and has developed an extensive conservation program.

SECTION III

WATER AND RECLAIMED WATER SYSTEMS

The City of Indian Rocks Beach relies on Pinellas County for potable water supply. The City does not own or operate a reclaimed water system. The reclaimed water is supplied by Pinellas County and is utilized throughout the City.

SECTION IV

WATER USE AND CAPITAL NEEDS

A. Water Use Demand Projections

The following demand analysis and projections were provided Southwest Water Management District to assist communities in preparing their water supply plans.

Table 3/ population and Water Demand Estimates (2010-2030)

	2010	2015	2020	2025	2030
Population	6813	6,830	6,850	6,867	6,885
Average Daily Flow(MGD)	0.729	0.731	0.733	0.735	0.737

Source: Southwest Florida Water Management District, Community Planning pages 2012

B. Source Needs Assessment

The Pinellas County Water Supply Work Plan has yet to be approved by the State, however Tampa Bay Water plan has sufficient water to cover the 20 year planning horizon. (See Infrastructure Element Appendix)

C. Intergovernmental coordination and Concurrency

The City has adopted Comprehensive Plan Objective 1.8 (Future Land Use), Policies 1.2.2 (Intergovernmental Coordination), 1.5.2 and 1.5.3 (Capital Improvements) which requires consultation with the water provider that adequate water supplies and facilities are available for proposed development prior to approving the development.

D. Conservation and Reuse

The City follows Pinellas County's water conservation programs as well as the Southwest Florida Water Management District's water restrictions. A primary component of the County's conservation program is the availability of reclaimed water to reduce demands on the potable water system as well as a Community Education /Outreach programs that educate the citizens on how to conserve and the Pinellas County WDPA is among the lowest in per capita water consumption in the Tampa Bay area.

E. Facility Work Plan Capital needs

The City does not own or operate a potable water supply system, treatment or extraction facilities. Pinellas County has an adopted ten year Water Supply Facilities Work Plan which addresses improvements to the reuse system and reclamation facility.

F. Planning Horizon

The planning horizon for the City's Water Supply Plan is 2023.

Goal 3:

The City shall continue to reduce the solid waste generation rate through increased recycling participation while ensuring that solid waste is being collected in an efficient and environmentally sound manner.

Objective 3.1: Solid Waste

The City shall cooperate with Pinellas County to reduce its non-recyclable per capita generation of solid waste.

Policy 3.1.1: The City and Pinellas County shall continue to encourage the use of recycling programs.

Goal 4:

Stormwater shall be managed to provide flood protection for residents and businesses and to preserve, protect, and enhance the water quality of receiving water bodies.

Objective 4.1: Flood and Stormwater Runoff Control

The City shall ensure that adopted level-of-service standards for flood control are maintained and all applicable federal, state, and local regulations relating to flood control and water quality shall continue to be met in public and private design.

Policy 4.1.1: Stormwater management systems shall be designed to accommodate a 10-year, 60- minute storm event.

Policy 4.1.2: The City shall require that the discharge rate for a post-developed or redeveloped site shall not exceed, in terms of peak flow and total volume that which would occur from the redeveloped site under existing conditions for the required design storm.

Policy 4.1.3: Runoff shall not be directly discharged into open waters except in full compliance with applicable Southwest Florida Water Management District design and treatment volume standards.

Policy 4.1.4: The following management techniques shall be incorporated into the city's land development regulations or operating budget:

- No more than 70 percent of a non-residential lot shall be covered by impervious surface, except as indicated in Objective 1.1 of the *Future Land Use Element*;
- Expansion and regular maintenance of gutters and drains adjacent to city roadways;
- Use of front, rear, and side lot line swales in new development and redevelopment;
- Use of erosion and runoff control devices during construction;
- Where necessary, consider construction of drainage retention areas in the public rights-of-way and acquisition of property for drainage retention purposes;
- The replacement material for failed or damaged existing concrete seawalls shall be rip-rap concrete, aluminum or other structurally sound material, where it is demonstrated that biotechnical controls, e.g., mangroves and marsh grass, are not sufficient and are necessary for erosion control. Seawalls may have a cap of two (2) feet in width.; and
- Where possible, adopt vegetation and planting practices encouraging the strengthening of seawalled areas.

Policy 4.1.5: The land development regulations shall contain provisions which, at a minimum, protect natural drainage features found within the city as follows:

- The flood-carrying and flood-storage capacity of the 100-year flood plain shall be maintained;
- Development along the Intracoastal Waterway shall have sufficient setbacks to maintain any existing areas of natural coastal/marine habitat;

- The prevention of erosion, retardation of runoff, and protection of natural functions of the floodplain shall be enforced through land development regulations; and
- The City shall require development or redevelopment proposals to be consistent with the performance standards regulating development within the designated floodplain.

Objective 4.2: Water Quality

The City shall continue to protect and improve surface water quality within its jurisdiction to meet or exceed the standards established by the Southwest Florida Water Management District, the Florida Department of Environmental Protection, and Chapter 62-25, Florida Administrative Code.

Policy 4.2.1: The City shall require the first one inch of runoff from impervious surfaces to be retained on the site of all development.

Objective 4.3: Stormwater Management Plan

The City shall continue to maintain and implement a stormwater management plan that addresses drainage and existing flooding conditions.

Policy 4.3.1: The stormwater management plan shall continue to address the following:

- An inventory and evaluation of those areas which currently have flooding problems;
- A hydrological survey showing the natural and man-made systems;
- The analysis of stormwater outfalls for filtering suitability;
- A water quality analysis of stormwater runoff and its impact on receiving water bodies and groundwater; and
- A list of recommended corrective measures and the projected implementation cost.

Policy 4.3.2: The stormwater management plan shall continue to address the following requirements. .

- The correcting of existing drainage facility deficiencies;
- The coordination of the extension of, or increase in capacity of the drainage facility;
- The maximizing of the use of existing drainage facilities; and
- Implementation activities for establishing priorities for replacement, correcting existing drainage facility deficiencies and providing for future drainage facility needs.

Policy 4.3.3: The stormwater management plan shall maintain the standards established by the Florida Department of Environmental Protection for Outstanding Florida Waters and Aquatic Preserve designations of Boca Ciega Bay and Chapters 62-25, 40D-4, and 40D-40, Florida Administrative Code.

Policy 4.3.4: The City, through its land development regulations, shall continue to require new development to adhere to the stormwater management plan.

Policy 4.3.5: The City will not permit the establishment of any new point sources of stormwater pollution.

Policy 4.3.6: The City, through the use of sound fiscal management methods, shall continue implementing the stormwater management plan.

Policy 4.3.7: Consistent with budget allocations, the City shall implement a program for correcting the system's existing deficiencies in conformance with the stormwater management plan.

COASTAL MANAGEMENT AND CONSERVATION

Goal 1:

To ensure the highest environmental quality possible, the City of Indian Rocks Beach shall conserve, protect, and appropriately manage its natural resources (air, energy, aquatic, wetland, and terrestrial).

Objective 1.1:

The City shall protect the quality and quantity of surface and groundwater.

Policy 1.1.1: The City shall implement an educational program for residential and commercial consumers to discourage waste and conserve water.

Policy 1.1.2: The City shall continue to coordinate and implement a comprehensive water shortage plan and enforce the provisions set forth in the *Southwest Florida Water Management District Water Shortage Plan*, Chapter 40D-21, Florida Administrative Code.

Policy 1.1.3: The City shall coordinate with the Southwest Florida Water Management District (SWFWMD) to ensure implementation of the Regional Water Supply Plan 2006 and its subsequent updates.

Policy 1.1.4: The City and Pinellas County shall continue to work together to reduce the City's potable water demand and wastewater generated based on use of reclaimed water and continue conservation strategies.

Policy 1.1.5: The City adopts by reference the Pinellas County Utilities' Water Supply Facilities Work Plan. The City and Pinellas County shall work together to reduce the City's potable water demand consistent with Pinellas County Utilities' Water Supply Facilities Work Plan.

Policy 1.1.6: The City shall protect water storage and quality enhancement functions of wetland and floodplain areas through land acquisition, enforcement of laws, and application of land and water management practices which provide for compatible uses, when funding is provided.

Policy 1.1.7: The land development regulations shall ensure that tidal flushing and circulation patterns are not significantly altered by development activities.

Policy 1.1.8: The City of Indian Rocks Beach shall work with those communities and counties lying within the boundaries of the Tampa Bay to implement the Surface Water Improvement and Management (SWIM) Plan.

Objective 1.2:

Regulations for development within the 100-year floodplain shall continue to be strictly enforced.

Policy 1.2.1: New development or redevelopment approvals shall require that post-development runoff rates, volumes, and pollutant loads do not exceed predevelopment conditions.

Policy 1.2.2: Recognizing that the community is located within the 100-year floodplain, the City shall strictly enforce all applicable federal and state floodplain construction codes adopted pursuant to federal or state law.

Policy 1.2.3: The City shall protect the natural functions of the 100-year floodplain so that the flood-carrying and flood-storage capacity are maintained.

Policy 1.2.4: The City shall encourage the development of a strict floodplain management program by state and local governments, to preserve hydrologically significant wetlands and other natural floodplain features.

Policy 1.2.5: Recognizing that the entire community is located within the Hurricane Vulnerability Zone and the 100-year floodplain, the City shall continue to strictly enforce all appropriate federal, state, and local coastal construction codes, coastal setback requirements, special Coastal Construction Control Line facility siting restrictions, and floodplain management regulations.

Policy 1.2.6: The City shall review and actively participate in any efforts to modify the location of the existing Coastal Construction Control Line to assure that existing and planned public and private investment, facilities, and property rights are maintained and protected; preservation of beach and waterfront resources are enhanced; and public safety is assured consistent with the adopted comprehensive plan.

Objective 1.3:

The City shall conserve or improve wetlands, aquatic resources, and wildlife population and habitat to maintain their environmental and recreational value.

Policy 1.3.1: Mangroves and marsh areas shall be designated Preservation land on *Map LU-4: Future Land Use*.

Policy 1.3.2: All existing marine wetlands shall be designated Preservation land on *Map LU-4: Future Land Use*.

Policy 1.3.3: The City shall preserve the environmentally sensitive area east of Gulf Boulevard, as shown on *Map CM-1: Vegetative Cover and Marine Resources*.

Policy 1.3.4: Projects (e.g., marinas, causeways, and dredging) which could inhibit tidal circulation shall include measures to maintain or improve tidal circulation and flushing. Any project that may produce changes in circulation patterns or tidal flushing shall be approved only after sufficient hydrographic information is available to allow an accurate evaluation of the possible impacts of the project. No approval shall be granted for projects that will result in adverse effects in circulation patterns or tidal flushing.

Policy 1.3.5: The city's existing wetlands shall be conserved and protected from physical and hydrological alterations.

Policy 1.3.6: No structures shall be permitted in submerged lands, mangroves, marsh or wetlands except pile supported walkways, docks, piers, water observation platforms and utility pilings

Policy 1.3. 7: Marine wetlands, barrier island property containing numerous vegetative communities and/or shoreline locations with limited habitat diversity shall be considered priorities for environmental land acquisition, when funding is provided.

Policy 1.3.8: The City shall require minimum vegetated setbacks of fifty (50) feet to be maintained as an open space buffer from development (except pile supported walkways and access ways) occurring adjacent to all types of wetlands. The wetland setback required by the policy shall not apply to mangrove or wetland fringes occurring along manmade canals, channels or basins. "Development" shall include all activities as currently defined in the F.S. 380.05, hereby incorporated by reference.

Policy 1.3.9: Development which could impact water resources, wetlands, native habitats or other natural resources shall require approval from all applicable agencies prior to submittal to the City and shall require consistency with the policies in the Plan that govern:

- a. Management of surface water;
- b. Preservation of open space;
- c. Preservation of native vegetation and environmentally sensitive habitats.

Policy 1.3.10: Walkways, servicing nonresidential uses or residential uses of more than three (3) dwelling units, shall not exceed eight (8) feet in width. Walkways serving all other uses shall not exceed five (5) feet in width. All walkways and access ways extending over mangrove, wetlands, or submerged lands shall be pile supported and not exceed four (4) feet in width.

Policy 1.3.11: The dredging and filling of seagrass beds shall be prohibited.

Objective 1.4:

The City shall conserve, appropriately use, and protect native vegetation.

Policy 1.4.1: The City shall continue to enforce the local tree ordinance to better conserve and protect and appropriately use native vegetation and preserve the tree canopy.

Policy 1.4.2: Native vegetation and drought tolerant species shall receive priority in the landscaping, zoning, and building code requirements of land development regulations.

Policy 1.4.3: The City shall require shorelines lacking wetland vegetation to be planted with native vegetation in order to minimize potential flood damage, stabilize the shoreline, trap sediments and other non-point source pollutants, provide additional habitat for fish and wildlife, be aesthetically pleasing and reasonably incorporated as a landscaping asset for waterfront residences.

Policy 1.4.4: Land development regulations shall require the removal and prohibit the planting of exotic species such as punk tree (*Melaleuca sp.*), Australian pine (*Casuarina sp.*), and Brazilian pepper (*Schinus sp.*) through the development review process.

Policy 1.4.5: The City shall continue to consider soil conditions and vegetation classifications to determine suitability for development during the site plan review process and when designating land use categories.

Policy 1.4.6: Although limited natural resources remain in the City of Indian Rocks Beach, every effort shall be taken to protect these resources including: (1) recreational development be compatible with the surrounding environment (2) the clearing of trees and wetland vegetation shall be prohibited, or permitted or otherwise approved by the appropriate external agencies and: 3) consideration of methods to steer development away from environmentally sensitive habitats, such as:

- a. Identification and ranking of habitat;
- b. open space criteria;
- c. transplantation and mitigation criteria;
- d. transfer of development rights; or
- e. dedication of conservation easements or deed restrictions.

Policy 1.4.7: The City shall investigate the possibility of gaining ownership or control over all islands, sandbars, and spoil banks in or adjacent to the city limits for the purpose of conservation as a natural resource, wildlife habitat and maintenance of open space.

Policy 1.4.8: The City shall, through its land development regulations, require, to the greatest extent practical, the planting of native, drought-tolerant, and insect-resistant vegetation to create habitat for wildlife; conserve water; and decrease the use of fertilizers and pesticides which contribute to pollution in the Intracoastal Waterway.

Policy 1.4.9: The City shall coordinate with the DEP to regulate mangrove trimming pursuant to rules found in the F.A.C.

Objective 1.5:

The City shall continue to protect species with special status from adverse impacts and loss of natural habitat.

Policy 1.5.1: The City shall comply with all state and federal regulations pertaining to species of special status, which include those designated as endangered, rare, threatened, or of special concern by the federal *Endangered Species Act* and the *Florida Endangered and Threatened Species Act*.

Policy 1.5.2: The City shall cooperate with appropriate agencies to protect sea turtle nesting areas.

Policy 1.5.3: The City shall continue to administer a public information program calling for the protection of sea turtle nesting areas located within the community.

Policy 1.5.4: All spoil islands shall be designated bird sanctuaries; development activities, which may negatively impact plant or animal species with special status, shall be prohibited.

Objective 1.6: **Hazardous Waste**

The City shall support the Pinellas County hazardous waste ordinance to ensure that wastes are handled, collected, transported, stored, disposed of, and recycled in a manner adequate to protect human health, safety, and the environment.

Policy 1.6.1: The City shall comply with state, regional, and county guidelines regarding accidents involving hazardous waste.

Policy 1.6.2: The City shall support the Pinellas County Pollution Prevention (P2) Program to regulate small generators of hazardous wastes, in order to protect natural resources and public health.

Policy 1.6.3: The City shall promote the recycling of hazardous waste products such as oils, solvents, and paints.

Policy 1.6.4: The City, in conjunction with Pinellas County and the neighboring local governments, shall continue using regular bill mailings to inform residents of effective methods to safely store and dispose of household and commercial hazardous material and of procedures to follow in emergencies.

Policy 1.6.5: The City shall encourage residents to deposit household chemical waste at the Pinellas County hazardous waste center and other approved, appropriate locations.

Policy 1.6.6: The City shall direct generators and users of hazardous material to Pinellas County staff for technical assistance regarding the proper disposal methods.

Policy 1.6.7: The City discourages the improper use, generation, or disposal of hazardous waste.

Objective 1.7:

The City shall comply with all state and federal standards for air quality.

Policy 1.7.1: The City shall reduce the potential for automobile emissions pollution by promoting alternative transportation modes such as carpooling, walking, and bicycling and assuring continued operation of roadways at acceptable levels of service.

Policy 1.7.2: The City's land development regulations shall incorporate standards to prevent erosion and the degradation of ambient air quality through the generation of dust particles. These regulations shall require measures to contain and stabilize exposed or destabilized soil surfaces.

Policy 1.7.3: Indian Rocks Beach will cooperate with Pinellas County to support federal fuel volatility regulations as a means of significantly reducing mobile source pollutant emissions.

Objective 1.8:

The City shall cooperate with the State of Florida in an effort to maintain the Boca Ciega Bay and Clearwater Harbor Outstanding Florida Waters designation.

Policy 1.8.1: No new point sources shall be permitted to discharge from the City of Indian Rocks Beach into the adjacent Intracoastal Waterway, or ditches or canals that flow into it.

Policy 1.8.2: The Land Development Regulations shall prohibit development activities that adversely impact water quality or contribute to shoreline erosion and sedimentation. Future drainage outfalls associated with new development or redevelopment shall be designed so as to prevent, to the maximum extent practicable, the direct discharge of runoff into the Intracoastal Waterway or the Gulf of Mexico.

Policy 1.8.3: In order to reduce non-point source pollutant loadings and improve the functioning of the city drainage system, dumping of debris of any kind (e.g., yard clippings and trimmings), into drainage ditches, canals, and stormwater control structures shall be prohibited.

Policy 1.8.4: The City shall coordinate with neighboring municipalities, Pinellas County, and the Tampa Bay Regional Planning Council to protect regional estuaries, providing adequate sites for water-dependent uses, preventing estuarine pollution, controlling surface water runoff, protecting living marine resources, reducing exposure to natural hazards, and ensuring public access.

Objective 1.9:

The City of Indian Rocks Beach shall protect and maintain its beaches, dunes, and natural systems, and establish construction standards which minimize the impacts of man-made structures on these systems.

Policy 1.9.1: With the exception of the replacement of existing seawalls, the City shall limit erosion control methods to the use of biotechnical controls, including the use of native vegetation or beach renourishments, unless the applicant can demonstrate those methods will not suffice. “Hard” erosion control structures, e.g. seawalls, may be considered only as an alternative of last resort for the protection of upland infrastructure or to mitigate an emergency event; and their potential impact shall be evaluated independently by the City. The City shall review and monitor plans for “hard” erosion control structures affecting the City’s beach, identifying viable alternatives, and certifying that any “hard” erosion control structures that may be found necessary are the minimum necessary to correct a deficiency.

Policy 1.9.2: Land development regulations shall require the use of native vegetation to stabilize nonseawalled shorelines.

Policy 1.9.3: The City shall require that the replacement material for failed or damaged existing concrete seawalls may be concrete, aluminum or other structurally sound material, where it is demonstrated that rip-rap or biotechnical controls, e.g., mangroves and marsh grasses, are not sufficient and are necessary for erosion control.

Policy 1.9.4: The City shall support and use as a reference, its beach management plan which prohibits excavations, destruction of native vegetation, and activities which affect the natural fluctuation of the dunes.

Policy 1.9.5: The City shall maintain public beach accesses, and shall provide foot access for pedestrians and parking facilities, for motorized and non-motorized vehicles, and golf cart travel.

Policy 1.9.6: Through the use of land development regulations and public acquisitions, the City shall limit shoreline development that will adversely impact water quality, tidal flushing and circulation, beach dunes, visual access, turtle nesting or marine fisheries habitats.

Policy 1.9.7: Dune walkovers shall be required as a condition to the permitting for all "major development projects" where significant foot traffic to the beach is expected. Private residences that are not considered major development projects shall access the beach through a pathway designed to limit damage caused by foot traffic to the minimum necessary, as determined by the City.

Policy 1.9.8: Dune walkovers shall be pile supported; shall not exceed five (5) feet in width; and, shall be designed so as not to adversely impact turtle nesting or hatching.

Policy 1.9.9: The City shall maintain its low intensity beach maintenance practices to protect the natural condition of the beach.

Objective 1.10:

Redevelopment areas established in coastal areas should address the needs and opportunities unique to those locations.

Policy 1.10.1: Redevelopment proposals and plans shall be reviewed for compliance with the goals, objectives and policies of the Comprehensive Plan; other appropriate plans, including the City's regulations governing Floodplain Management.

Policy 1.10.2: The City will encourage, through its regulations and programs, the preservation of and enhancement of working waterfronts and marinas.

Objective 1.11:

The City shall comply with all county, state, and federal regulations governing the protection of coastal resources.

Policy 1.11.1: The City shall cooperate with all county, state, and federal regulations governing hurricane evacuation, public beach access, provision of infrastructure in Coastal Storm Areas, regulation of stormwater drainage into local waters, protection of wetland vegetation, and protection of species with special status.

Policy 1.11.2: The City shall review the comprehensive plans of neighboring municipalities and adjacent coastal counties to determine if coastal resources of the barrier islands are being managed in a consistent manner.

Policy 1.11.3: Pursuant to Section 163.3178, Florida Statutes, level-of-service standards for transportation, infrastructure, and recreation/open space for coastal areas shall be identical to those for the city as a whole.

Objective 1.12:

The City shall encourage development projects that are energy efficient and support action by the county, regional, state, and federal agencies to reduce greenhouse gas emissions.

Policy 1.12.1: The City shall coordinate with county, regional and state agencies in the development of regulations related to greenhouse gas emissions.

Policy 1.12.2: The City shall support efforts by the state, regional and federal agencies to set greenhouse gas emission goals; develop and implement plans to address climate change; and incorporate climate impacts, indicators, benchmarks and targets in plans and development reviews.

Policy 1.12.3: The City shall encourage development projects that use techniques which reduce heat absorption, including green roofs, solar orientation, and other similar strategies to reduce energy usage and greenhouse gas emissions.

Goal 2:

The City shall provide a set of guidelines for development that protects the lives and property of its residents from the effects of natural disasters.

Objective 2.1:

The City shall limit public expenditures that support development permitted in Coastal Storm Area, except for restoration or enhancement of natural resources, or the maintenance or repair of existing infrastructure.

Policy 2.1.1: The Coastal High Hazard Area is identified as that area defined by the area below the elevation of the Category 1 storm surge line as established by a Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model.

Policy 2.1.2: The Coastal Storm Area encompasses all of the following:

- 1) the Coastal High Hazard Area,
- 2) all land connected to the mainland of Pinellas County by bridges or causeways,
- 3) those isolated areas that are defined by the SLOSH model to be inundated by a category two hurricane or above and that are surrounded by the CHHA or by the CHHA and a body of water, and
- 4) all land located within the Velocity Zone as designated by the Federal Emergency Manage Agency.

Policy 2.1.3: The City shall not support sewer and water line extensions or expansions within the Coastal Storm Area which will encourage future growth or higher densities in those vulnerable areas, except as anticipated in this comprehensive plan.

Policy 2.1.4: Appropriate recommendations of interagency hazard mitigation reports, such as the Pinellas County Local Mitigation Strategy initiatives, shall be incorporated into this comprehensive plan.

Policy 2.1.5: The City shall prohibit the location of new, or expansion of existing hospitals, nursing homes and assisted living facilities within the coastal storm area.

Objective 2.2

The City shall not increase densities or intensities above those established in this plan within the Coastal High Hazard Area (CHHA), except that they may, at their sole and

absolute discretion, consider approving such amendment based upon a balancing of the following criteria, as are determined applicable and significant to the subject amendment:

- A. Access to Emergency Shelter Space and Evacuation Routes – The uses associated with the requested amendment will have access to adequate emergency shelter space as well as evacuation routes with adequate capacities and evacuation clearance times.
- B. Utilization of Existing and Planned Infrastructure – The requested amendment will result in the utilization of existing infrastructure, as opposed to requiring the expenditure of public funds for the construction of new, unplanned infrastructure with the potential to be damaged by coastal storms.
- C. Utilization of Existing Disturbed Areas – The requested amendment will result in the utilization of existing disturbed areas as opposed to natural areas that buffer existing development from coastal storms.
- D. Maintenance of Scenic Qualities and Improvement of Public Access to Water – The requested amendment will result in the maintenance of scenic qualities, and the improvement of public access, to the Gulf of Mexico, inland waterways (such as Boca Ciega Bay), and Tampa Bay.
- E. Water Dependent Use – The requested amendment is for uses which are water dependent.
- F. Part of Community Redevelopment Plan – The requested amendment is included in a Community Redevelopment Plan, as defined by Florida Statutes for a downtown or other designated redevelopment areas.
- G. Overall Reduction of Density or Intensity – The requested amendment would result in an increase in density or intensity on a single parcel, in concert with corollary amendments which result in the overall reduction of development density or intensity in the surrounding CHHA.
- H. Clustering of Uses – The requested amendment within the CHHA provides for the clustering of uses on a portion of the site outside the CHHA.
- I. Integral Part of Comprehensive Planning Process – The requested amendment has been initiated by the local government as an integral part of its comprehensive planning process, consistent with the local government comprehensive plan.

- J. Nothing in this comprehensive plan should be construed as superseding or otherwise modifying the local plan amendment requirements of Section 163.3178(8), Florida Statutes.

Policy 2.2.1: The City of Indian Rocks Beach shall continue to implement the growth management directives which limit densities within the Coastal Storm Area, consistent with *Map LU-4: Future Land Use*.

Policy 2.2.2: The City shall review federal and state development projects which are to be located within the Coastal Storm Area, and support those projects which are consistent with this plan.

Policy 2.2.3: Subject to the density limitations of the Plan, dwelling units may be reallocated to property within the coastal storm area from other properties within the coastal storm area through utilization of transferable development rights so long as there is no net increase in the number of dwelling units.

Policy 2.2.4: The City shall prohibit the siting of new mobile or manufactured home development within the coastal storm area. This policy does not apply to modern manufactured housing constructed after 1994.

Objective 2.3:

The City shall maintain or reduce hurricane evacuation times.

Policy 2.3.1: Coordinating with the Metropolitan Planning Organization (MPO), the City shall ensure that major evacuation routes are adequately maintained and, when necessary, improved to facilitate an efficient and safe evacuation.

Policy 2.3.2: The City, in cooperation with the Pinellas County Department of Emergency Management and the South Pinellas County Chapter of the American Red Cross, shall sponsor annual hurricane preparedness seminars to increase hurricane awareness.

Policy 2.3.3: City emergency response personnel and volunteers shall coordinate with county and state emergency response agencies in emergency planning, including communications, traffic control, and warning operations, in order to effect a safe and efficient evacuation.

Policy 2.3.4: The City, in cooperation with Pinellas County, shall work towards reducing the out of county hurricane evacuation clearance time of 55 hours in 2006, as determined in the Tampa Bay Region Hurricane Evacuation Study 2006, for a category 5 storm event as measured on the Saffir-Simpson scale.

Policy 2.3.5: The adopted level of service standard for out-of-county hurricane evacuation clearance time for a category 5 storm event as measured on the Saffir-Simpson scale shall be 16 hours

Objective 2.4:

The City shall reduce the risk of exposure of human life and public and private property to natural disasters through preparedness planning and implementation of hazard mitigation measures, and through annual update of the *Indian Rocks Beach Emergency Response Manual*.

Policy 2.4.1: The City, in coordination with the Pinellas County Department of Emergency Management, shall annually update its *Emergency Response Manual* to address the four phases of comprehensive emergency management: preparedness, response, recovery, and mitigation.

Policy 2.4.2: The City shall maintain an Emergency Management Coordinator who shall oversee the update of the *Emergency Response Manual*; act as a liaison between state, regional, county, and city emergency response and planning agencies; and ensure coordination between emergency management and development management activities.

Policy 2.4.3: The City shall continue to enforce the existing coastal construction building code and the coastal construction standards embodied in the *Coastal Zone Protection Act*, and shall strictly enforce their implementation through the building inspection process.

Policy 2.4.4: The City Commission shall review all elements of the *Pinellas County Comprehensive Emergency Management Plan* to assure that hazard mitigation considerations are effective and implemented within its area of responsibility.

Objective 2.5

Through provisions in its land development regulations, the City shall implement development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sealevel rise.

Policy 2.5.1

The City shall restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities.

Policy 2.5.2

The City shall require that uses vulnerable to floods, and any facilities serving such uses be protected against flood damage at the time of initial construction.

Policy 2.5.3

New construction or substantial improvement of any structure shall have the lowest floor and all utilities elevated to, or above, the base flood elevation plus additional freeboard as set forth in the City's Code of Ordinances.

Policy 2.5.4

The City shall require that all new buildings and structures be constructed to resist collapse and lateral movement from wind and velocity water pressures.

Policy 2.5.5

The City shall participate in the Pinellas County sea level rise vulnerability assessment, anticipated to be completed by 2020, and shall use the study's findings to refine its goals, objectives and policies as determined appropriate.

Policy 2.5.6

The City shall monitor public utility infrastructure and other property that may be impacted by sea level rise, and work to floodproof or relocate components as needed.

Policy 2.5.7

Any construction activities seaward of the coastal construction control lines established pursuant to Section 161.053, Florida Statutes shall be consistent with Chapter 161, Florida Statutes.

Policy 2.5.8

The City shall be consistent with, or more stringent than, the flood-resistant construction requirements in the Florida Building code and applicable flood plain management regulations set for in 44 C.F.R., part 60

Objective 2.6

The City shall encourage the use of best practices development and redevelopment principles, strategies, and engineering solutions that will result in the removal of coastal real property from flood zone designations established by the Federal Emergency Management Agency.

Policy 2.6.1

The City shall consider one or more of the following strategies in those areas which receive major or moderate flood damage:

- Relocation:
- Reduction of permissible density or intensity of use:
- Reconstruction in compliance with current building and construction standards: or
- Public acquisition

Objective 2.7

The City shall identify site development techniques and best practices that may reduce losses due to flooding and claims made under flood insurance policies issued in this state.

Policy 2.7.1

The City shall work with Pinellas County and the State of Florida to avoid the alteration of sand dunes or mangrove stands which would increase potential damage.

Policy 2.7.2

The City shall control the alteration of natural floodplains, stream channels and natural protective barriers that help accommodate or channel floodwaters; control filling, grading, and other development that may increase flood damage; and prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

Policy 2.7.3

The City shall encourage retrofitting of existing structures to mitigate potential damages from natural disasters.

Policy 2.7.4

The City shall continue to coordinate with Pinellas County and the Army Corps of Engineers to evaluate the feasibility of beach renourishment, erosion control structures, or other mitigation to preserve and protect the public beach front from erosion and the potential effects of sea level rise.

Objective 2.8

The City shall participate, and encourage other local governments to participate, in the National Flood Insurance Program Community Rating System administered by the Federal Emergency management Agency to achieve flood insurance premium discounts for residents.

Policy 2.8.1

The City shall continue to be a participant in the National Flood Insurance Program Community Rating System, and shall work to maintain or increase its rating.

Policy 2.8.2

The City shall assist residents by providing information about the National Flood Insurance Program and flood damage prevention on its official website.

Policy 2.8.3

The City shall post copies of available elevation certificates on its official website.

Goal 3:

The City shall expedite post-disaster recovery and reduce the future risk to human life and public and private property from natural hazards, through recovery and redevelopment strategies.

Objective 3.1:

The City shall maintain a recovery task force to assess damage and direct post-disaster recovery and redevelopment activities.

Policy 3.1.1: The recovery task force shall consist of the City Emergency Management Coordinator, the Community Development Director, and other members as appointed by the City Commission, or designated by the City Manager.

Policy 3.1.2: The recovery task force shall fulfill the following responsibilities, as well as others deemed necessary:

- Hear preliminary damage reports;
- Take necessary steps to seek financial assistance from the appropriate state and federal agencies;
- Authorize immediate clean-up and repairs necessary to protect the public health, safety, and welfare;
- Identify areas within the community where minor, moderate, and major damage has occurred;
- Recommend to the City Commission temporary building moratoria for building activities not essential to protect health, safety, and welfare;
- Recommend to the City Commission appropriate hazard mitigation policies which should be implemented in response to the disaster; and
- Prepare a report evaluating post-disaster redevelopment response and make recommendations for necessary changes to this comprehensive plan.

Objective 3.2:

In order to effectively manage the timing and sequence of reconstruction, the City shall maintain a set of reconstruction permitting procedures.

Policy 3.2.1: Following a disaster, the City Commission may adopt a temporary post-disaster building moratorium to allow sufficient time for immediate damage assessment, the identification of redevelopment opportunities, and hazard mitigation policy implementation.

Policy 3.2.2: The City shall maintain post-disaster development procedures which will expedite permitting for minor repairs, include development plan review, engineering approval, and permitting, while ensuring coordination with appropriate agencies and consistency with the objectives of this comprehensive plan.

Policy 3.2.3: The city is and will continue to be a participating community in the National Flood Insurance Program and will continue to implement the federal funding provisions and redevelopment criteria required by the program.

Objective 3.3:

The City shall implement reconstruction and redevelopment strategies which will promote hazard mitigation.

Policy 3.3.1: Where feasible, property which has received recurring hurricane damage from storm surge may be publicly acquired or designated Preservation on *Map LU-4: Future Land Use*, to prevent redevelopment of the property to its pre-disaster land use.

Policy 3.3.2: The City shall consider one or more of the following strategies in those areas which receive major or moderate damage:

- Reduction of permissible density or intensity of development;
- Reconstruction according to more stringent building and construction standards; and
- Public acquisition of damaged areas.

Policy 3.3.3: The City shall interrelate hazard and non-hazard mitigation goals during the reconstruction permitting process, including the following objectives:

- Enhancement of local recreational and open space opportunities;
- Enhancement of local public beach access;
- Enhancement and restoration of local natural ecosystems;
- Reduction of traffic congestion, noise, and other transportation related problems; and
- Enhancement of the long-term economic vitality of the local commercial base.

Policy 3.3.4

The City will work with the other jurisdictions within Pinellas County and the State of Florida to explore the establishment of level-of-service standards for the restoration of power service following power loss from individual, local or regional power loss events.

Policy 3.3.5

The City will work with other local governments within Pinellas county to explore the establishment of level-of-service standards for the acceptable time required for the removal of storm -related debris within the City of Indian Rocks Beach.

RECREATION AND OPEN SPACE

Goal:

The City shall ensure the provision, protection, and maintenance of a coordinated, efficient and accessible system of public recreational parks and facilities which shall meet the needs of current and future residents, visitors, and tourists.

Objective 1.1:

The City shall, in cooperation with other governmental agencies, continue to provide and maintain a system of open space, parks, and recreation facilities, including access to the same and to beaches and shores, meeting the needs of current and future residents, visitors, and tourists.

Policy 1.1.1: The standards shown in Tables 1 and 2 shall be the adopted level-of-service standards for park and recreation facilities in the City of Indian Rocks Beach.

**Table 1
Level-of-Service Standards For Parks and Open Space**

Park Facility	Population Served	Area per 1000 Population	Size as a Park Adjoining School	Size as a Separate park	Facilities
Equipped Play and Tot Lot ¹	2,500 maximum	.5 acre	Minimum of .25 acre	Minimum of 1 acre	Play structures, benches, picnic areas, open spaces, landscaping
Neighborhood Park	5,000 maximum	2 acres	Minimum of 2 acres	Minimum of 5 acres	Play structures, recreation buildings, court games, hard courts, tennis courts, internal trail, shuffleboard, volleyball courts, picnic area, open area, landscaping
Community Park	5,000 maximum	2 acres	Minimum of 5 acres	Minimum of 20 acres: Optimal if 20-50 acres	All of the facilities found in a neighborhood park plus informal ballfields, swimming pools, archery ranges, disc golf area, ornamental gardens, open space and facilities for cultural activities
Urban Open Space	.25- .5 mile	1 acre		Minimum of .1 acre	Resource –base recreation area

¹When feasible, tot lots, neighborhood parks and community parks should be located adjacent to elementary, middle and high schools.
Source: Florida Department of Environmental Protection, Outdoor Recreation in Florida, 2000

**Table 2
Level-of-Service Standards for Specific Activities**

Activity	Per Person LOS Standard
Baseball/Softball	1 field per 5,000
Basketball	1 court per 5,000
Bicycling	1 mile of lane or trail per 2,000
Boating	1 boat ramp/dock per 5,000
Fishing (from land)	1 site per 5,000
General Play	1 equipped play area per 10,000
Handball/Racquetball	1 court per 5,000
Shuffleboard	1 court per 3,600
Tennis	1 court per 2,000

Source: Florida Department of Environmental Protection, Outdoor Recreation in Florida, 2000

Policy 1.1.2: Parks and recreation lands will be planned for multiple uses and located in areas most suitable to satisfy the needs of the permanent and seasonal population, visitors, and tourists.

Policy 1.1.3: Land set aside by new development for recreational purposes shall be determined suitable for that purpose during the site planning process and should not be land which is remaining after development.

Policy 1.1.4: The designation and acquisition of recreation and park sites shall be in accordance with long-range comprehensive plans for city development and redevelopment.

Policy 1.1.5: In coordination with the *Pinellas County Bikeways Plan*, the City shall mark along an existing route, if feasible, areas to be used for bike paths.

Policy 1.1.6: The City shall ensure that recreation sites be held inviolate against diversion to other uses, except in instances of overriding public benefit; and shall be designated for such use on the Future Land Use Map.

Policy 1.1.7: The City shall encourage a variety of recreational activities, including the utilization of unique natural features and scenic areas.

Objective 1.2:

The City shall continue to coordinate public and private recreation resources.

Policy 1.2.1: The City shall coordinate recreational planning with the Parks and Recreation Board.

Policy 1.2.2: The City shall encourage public participation, including coordination with local businesses and community organizations, in park and recreation planning.

Objective 1.3:

Beaches, parks, and other lands designated as recreation or open space will be conserved and protected from incompatible land uses.

Policy 1.3.1: The City shall continue to enforce land development regulations which include specific open space definitions and standards, landscaping and signage, the protection of open space and natural vegetation, as well as the use of open space for buffering between land uses, where practical.

Policy 1.3.2: Land development regulations shall ensure, to the greatest extent possible, the preservation of open space areas, public beach access, and views of the Gulf of Mexico.

Policy 1.3.3: Open space in beaches and parks shall be maintained to protect and preserve native habitats and provide passive recreation opportunities.

Policy 1.3.4: Open space shall be used to buffer incompatible recreational activities or land uses.

Policy 1.3.5: The City shall encourage beach renourishment programs.

Policy 1.3.6: The City shall, within its jurisdiction, protect and maintain natural reservations.

Policy 1.3.7: The City shall work with Pinellas County and other appropriate governmental agencies to maintain public beach access.

Objective 1.4:

The City shall continue to be responsive to the recreational needs of the permanent and seasonal population.

Policy 1.4.1: Access to park and recreation facilities and services shall be provided for all age groups and the disabled, where feasible.

Policy 1.4.2: Parking facilities, including those for bicyclists and disabled drivers, shall be provided at beaches, parks, and other recreation facilities.

Policy 1.4.3: The City shall maintain existing public beach access points.

Policy 1.4.4: The City shall maintain signs identifying public beach access points.

Objective 1.5:

The City shall continue to provide park and recreation facilities in an economically efficient manner.

Policy 1.5.1: The City shall actively pursue funding for park and recreation facilities, including county, state, and federal assistance funds.

Policy 1.5.2: The land development regulations shall require all new residential developments or redevelopments to provide recreational land and facilities, or fees in lieu, according to the needs created by the development.

Policy 1.5.3: The City shall preserve, maintain, and enhance existing parks and recreation facilities through the use of adequate operating budgets, user fees, and proper management techniques.

Policy 1.5.4: Methods such as tax incentives and density transfers shall be encouraged for the acquisition and development of city recreation sites.

Policy 1.5.5: The City shall include in its Capital Improvements Program, funds for the acquisition and development of city recreation sites as needed.

Policy 1.5.6: The City shall establish a recreational trust fund to which individuals can be encouraged to donate monies, gifts, or properties, for the sole purpose of recreational development and/or maintenance.

Policy 1.5.7: The city administration shall coordinate with the Parks and Recreation Board to make recommendations to the City Commission on the acquisition, development, and maintenance of parklands within the city.

INTERGOVERNMENTAL COORDINATION

Goal 1:

Improve the existing system of interlocal coordination to successfully implement local government comprehensive plans and to resolve conflicts resulting from the plans.

Objective 1.1: Pinellas County Planning Council

The City of Indian Rocks Beach shall participate in the deliberations of the Pinellas County Planning Council (PPC) and Countywide Planning Authority (CPA) consistent with the provisions of the Pinellas County Charter and special laws enabling the countywide planning process.

Policy 1.1.1: The City shall, through its designated representative(s) on the Pinellas County Planning Council, participate in the countywide planning process and take part in opportunities to identify, discuss, and act upon matters considered by the PPC.

Policy 1.1.2: The City of Indian Rocks Beach shall coordinate its comprehensive plan and land development regulations with the Countywide Plan and Rules in order to maintain consistency between the local and countywide plans and regulations, and further, shall participate in deliberations addressing annexation and related service delivery, growth management, and such other matters as may be brought before the PPC in its role as the Countywide Land Planning Agency.

Policy 1.1.3: The City Manager or an appointed designee shall represent the city on the Planners Advisory Committee of the PPC.

Policy 1.1.4: The City of Indian Rocks Beach shall continue to coordinate with the Pinellas County Planning Council, Pinellas County School Board, Tampa Bay Regional Planning Council, Tampa Bay Water, Southwest Florida Water Management District and other state agencies that fall within their jurisdictions or are multi-jurisdictional in nature, and with public utilities that provide essential services to the city.

Objective 1.2: Level-of-Service Standards

The City shall establish a means by which level-of-service standards are coordinated and consistent with neighboring jurisdictions.

Policy 1.2.1: The City of Indian Rocks Beach shall, through the Pinellas County Metropolitan Planning Organization (MPO), work with the Florida Department of Transportation to attain and assure acceptable continued operational levels of service for the city streets.

Policy 1.2.2: The City of Indian Rocks Beach shall coordinate with Pinellas County to ensure that each jurisdiction's future needs are considered in the acquisition and design of public service facilities, such as wastewater treatment and potable water.

Policy 1.2.3: The City and Pinellas County shall continue to work together to reduce the City's potable water demand and wastewater generated based on use of reclaimed water and continue conservation strategies.

Policy 1.2.4: The City adopts by reference the Pinellas County Utilities' Water Supply Facilities Work Plan. The City and Pinellas County shall work together to reduce the City's potable water demand consistent with Pinellas County Utilities' Water Supply Facilities Work Plan.

Policy 1.2.5: The City shall participate in the Barrier Islands Governmental Council (BIG-C), an organization of beach communities, to coordinate the levels of service and preserve and protect the interests of the barrier island inhabitants as well as serve as liaison between the beach communities and the county.

Objective 1.3: Interjurisdictional Coordination

The City shall continue to improve communication, cooperation, and coordination with area local governments, districts, and agencies.

Policy 1.3.1: The City of Indian Rocks Beach will, through site plan review, strive to ensure that development and/or redevelopment in the city will not negatively impact the City of Belleair Beach, the Town of Belleair Shore, or the Town of Indian Shores.

Policy 1.3.2: Procedures shall be in place whereby the approval of development orders or permits, as appropriate, shall be reviewed for consistency with the comprehensive plans of the City of Belleair Beach and the Town of Belleair Shore, and the Town of Indian Shores, and Pinellas County.

Policy 1.3.3: The City of Indian Rocks Beach shall support Resolution 96-101, dated September 18, 1996, concerning review criteria and locational procedures and supporting applicable portions of Chapters 163 and 235, Florida Statutes, for public school siting upon a determination by the city that the proposed site is consistent with the *City of Indian Rocks Beach Comprehensive Plan*.

Policy 1.3.4: The City will review the plans and independent special district facility reports of the Pinellas Suncoast Transit Authority (PSTA), Pinellas County, the Southwest Florida Water Management District (SWFWMD), Tampa Bay Water (TBW), and the Pinellas Suncoast Fire and Rescue District (PSFRD) and identify and resolve conflicts with the comprehensive plan, including concurrency related items.

Policy 1.3.5: The City will coordinate with the PSTA, Pinellas County, PSFRD, the SWFWMD, and TBW in order to resolve issues identified in Policy 1.3.4.

Policy 1.3.6: The City will consider amending its comprehensive plan based upon the review of plans and coordination efforts identified in Policy 1.3.5.

Policy 1.3.7: The City will cooperate with Pinellas County to support federal fuel volatility regulations as a means of significantly reducing mobile source pollutant emissions.

Policy 1.3.8: The City shall coordinate with the Pinellas County Environmental Department and their efforts regarding Sustainability and Air Quality.

Objective 1.4: Collaborative Planning

Identify and describe joint processes for collaborative planning on population projections, school siting, facilities subject to concurrency, facilities with countywide significance, and problematic land uses.

Population Projections

Policy 1.4.1: The City will coordinate with the Pinellas County Planning Department and utilize their countywide population projections that include expected growth for the community.

Policy 1.4.2: The City will review the population projections referenced in Policy 1.4.1 and consider using them in the comprehensive plan.

Facilities Subject to Concurrency

Policy 1.4.3: The City will coordinate, through the Metropolitan Planning Organization, its transportation needs with other jurisdictions of the county and the Florida Department of Transportation.

Policy 1.4.4: The City will forward requests for access to county- or state-maintained roadways to the Pinellas County Public Works Department or the Florida Department of Transportation, as appropriate, for comments concerning access criteria, permitting, and level-of-service impacts.

Policy 1.4.5: The City will coordinate with service providers in the city to develop recommendations that address ways to improve coordination of the city's concurrency management methodologies and systems, and levels of service.

Policy 1.4.6: The City will coordinate and cooperate with Pinellas County for joint projects identified in the municipal stormwater management plan and the *Pinellas County Stormwater Management Plan*.

Policy 1.4.7: The City will continue to coordinate with Pinellas County for the provision of countywide facilities, including but not limited to, solid waste disposal, wastewater treatment, and the Pinellas County Emergency Operations Center.

Policy 1.4.8: The City will continue to coordinate with the Metropolitan Planning Organization for the provision and improvement of major transportation and mass transit facilities.

Policy 1.4.9: The City will continue to utilize the countywide planning process as a means of notifying the School Board and School Board staff, of proposed land use plan amendments.

Policy 1.4.10: The City will forward the population projections used in its comprehensive plan to the School Board so they may consider the city's projected growth and development as it relates to the future needs for schools in the School Board's 5, 10 and 20-year facility plans.

Facilities with Countywide Significance

Policy 1.4.11: The City will forward notice of proposed future land use plan amendments with potential hurricane shelter and evacuation route impacts to the Tampa Bay Regional Planning Council and the Pinellas County Emergency Management Department, so they may ascertain the amount of currently available shelter space.

Problematic Land Uses

Policy 1.4.12: If determined to be of mutual benefit, the City will conduct a review of its locational standards to determine whether conflicts exist between its regulations and those of neighboring jurisdictions. The City will make appropriate modifications to its land development regulations to address identified problem areas.

Policy 1.4.3: The City will coordinate with the Pinellas Planning Council, or designated ad hoc committee, in the development, review, and recommendation of countywide guidelines addressing the location of problematic land uses.

Objective 1.5: Voluntary Dispute Resolution Processes

Bring intergovernmental disputes to closure in a timely manner through the use of voluntary dispute resolution processes.

Policy 1.5.1: The City will pursue the resolution of conflicts that may arise from local comprehensive plan goals, objectives, and policies using the appropriate voluntary dispute resolution process identified in this ICE or other suitable process.

Policy 1.5.2: The City will utilize the existing countywide planning process, as appropriate, to resolve local government future land use plan disputes, as well as other planning related intergovernmental disputes.

Policy 1.5.3: The City will utilize the Tampa Bay Regional Planning Council in its role as a mediator and conciliator as outlined in Chapter 2911-13, Florida Administrative Code, to reconcile differences on planning and growth management issues.

Policy 1.5.4: In instances where the resolution of issues requiring intergovernmental concurrence has not been achieved, the City may initiate informal mediation by filing with the Tampa Bay Regional Planning Council a written request for mediation assistance, pursuant to Chapter 2911-13, Florida Administrative Code, and Chapter 186, Florida Statutes.

Goal 2:

Establish a regular means of communication among officials of adjacent jurisdictions, Pinellas County, and the Pinellas Planning Council for the purpose of addressing and resolving issues of mutual interest that arise from the City's comprehensive plan, plans and land development regulations of other entities.

Objective 2.1: Consideration of Local Plan Effects

The City shall review its comprehensive plan to:

- Identify and coordinate issues that are of mutual interest to other entities;
- Address through coordination mechanisms, the impacts of development on other entities; and
- Coordinate compatible level-of-service standards for public facilities with any state, regional, county or local entity having operational and maintenance responsibilities for such facilities.

Notification

Policy 2.1.1: The City will notify adjacent jurisdictions, along with Indian Rocks Beach property owners, when governmental actions require public notice under federal, state, or local law.

Policy 2.1.2: If requested to do so, the City will forward its standards for incompatible land uses to adjacent jurisdictions to solicit comments pertaining to proposed actions.

Policy 2.1.3: The City will use the countywide planning process as an additional means of notifying adjacent jurisdictions of future land use plan map amendments.

Regulation and Plan Review

Policy 2.1.4: The City will use the Tampa Bay Regional Planning Council *Hurricane Evacuation Study* for guidance pertaining to residential future land use densities in coastal high hazard areas.

Policy 2.1.5: The City will periodically review the plans and independent special facility district reports of Southwest Florida Water Management District (SWFWMD), Tampa Bay Water (TBW) and Pinellas County Utilities to identify and resolve conflicts with the City's comprehensive plan, including concurrency related items.

Multi-jurisdictional Participation and Coordination

Policy 2.1.6: At least 21 days prior to first ordinance reading, the City will forward to the Pinellas Planning Council for a determination of consistency future land use plan text amendments and land development regulation amendments which relate to and are governed by the criteria and standards in Article 4 of the *Countywide Plan Rules*.

Transportation Issues

Policy 2.1.7: The City will coordinate its plans for bicycle and pedestrian ways with the Metropolitan Planning Organization and its Bicycle and Pedestrian Advisory Committees in order to notify and allow for comment by other local governments.

Policy 2.1.8: The City will coordinate its levels of service, concurrency management methodologies, and land development regulations with the Florida Department of Transportation and Pinellas County to encourage compatibility with level of service and access management standards for county- and state-maintained roadways.

Policy 2.1.9: The City will forward its plans to adopt a truck routing plan to the Metropolitan Planning Organization for comments pertaining to the *Long Range Transportation Plan*.

Housing Issues

Policy 2.1.10: The City will review and comment, if necessary, on the plans of the Pinellas County Community Development Department regarding the provision of very-low, low, and moderate income housing.

Policy 2.1.11: The City will review and support the various Pinellas County housing assistance programs available to the city.

Coastal Management and Conservation Issues

Policy 2.1.12: The City will notify adjacent jurisdictions that share wetlands of its protection plans and solicit comments pertaining to any proposed action.

Policy 2.1.13: The City will share information concerning significant native vegetative communities, terrestrial, marine, estuarine and aquatic habitats, wildlife species, and upland habitat occurring in the city with adjacent local governments, appropriate agencies, or other interested groups.

Policy 2.1.14: The City will continue to administer its standards for shoreline protection and dock placement with the Pinellas County Water and Navigation Control Authority.

Policy 2.1.15: The City will consider amending its landscaping requirements in accordance with recommendations of the Pinellas County Cooperative Extension Service and the Pinellas County Department of Environmental Management concerning the use of native and drought-resistant plantings.

Policy 2.1.16: The City shall coordinate with the Southwest Florida Water Management District (SWFWMD) as follows:

City will maintain a water supply facilities work plan that is coordinated with the SWFWMD's Water Supply Plan by updating the work plan and related Comprehensive Plan policies with 18 months of an update to SWFWMD's Water Supply Plan that affected the City. The work plan shall identify alternative water supply projects and traditional water supply projects and conservation and reuse necessary to meet existing and new development water needs.

Policy 2.1.17: The City will address environmental issues associated with the maintenance of navigational channels with the U.S. Army Corps of Engineers and Pinellas County with conflicts resolved through the Coastal Resource Interagency Management Committee dispute resolution process.

Policy 2.1.18: The City will continue to monitor updates to the *Pinellas County Local Mitigation Strategy*, and, if necessary, the City will amend its comprehensive plan and land development regulations based upon the strategies.

Policy 2.1.19: The City will participate in the continuing meetings of the Local Mitigation Committee, to ensure that the strategies are implemented and updated.

Policy 2.1.20: The City and Pinellas County shall continue to work together to reduce the City's potable water demand and wastewater generated based on use of reclaimed water and continue conservation strategies.

Policy 2.1.21: The City adopts by reference the Pinellas County Utilities' Water Supply Facilities Work Plan. The City and Pinellas County shall work together to reduce the City's potable water demand consistent with Pinellas County Utilities' Water Supply Facilities Work Plan.

CAPITAL IMPROVEMENTS

Goal:

The City shall undertake fiscal actions necessary to provide and maintain public facilities for all residents, within its jurisdiction, at the adopted levels of service.

Objective 1.1:

Capital improvements will be provided to correct existing deficiencies in public facilities or services, to accommodate desired future growth, or to replace worn out or obsolete facilities as indicated in the five-year Schedule of Capital Improvements adopted in this *Capital Improvements Element*. The Schedule of Capital Improvements will serve to coordinate land use decisions with available or projected fiscal resources to maintain adopted levels of service.

Policy 1.1.1: The City shall continue to develop and update annually, by ordinance, a five- year Capital Improvement Schedule, the first year of which shall be the Capital Budget. The City shall continue to adopt a capital budget as part of its annual budget process. During the annual budget process, the City shall analyze and update, as necessary, all anticipated capital expenditures by year and their associated funding sources.

Policy 1.1.2: The Capital Improvements Program will incorporate in its projections of expenditures and funding sources any amounts relating to previous fiscal year appropriations, but which have yet to be expended.

Policy 1.1.3: The first year of the five-year Capital Improvements Program will be used as the basis for formal fiscal year appropriations during the annual budget process. Appropriations made in prior years, for which expenditures have not been increased nor projects completed, will be reevaluated and incorporated into appropriations for the new fiscal year.

Policy 1.1.4: Proposed capital improvement projects shall be evaluated for inclusion and prioritized in the CIE according to the following guidelines:

- Project is needed to eliminate a proven or obvious hazard to public health and safety;
- Project is needed to fulfill a legal commitment;
- Project is needed to preserve, maintain, refurbish, achieve full use of, or replace existing facilities;
- Project will provide or bring an existing facility up to an adopted level of service;
- Project will increase efficiency or use of existing facilities, prevent or reduce future improvement cost, or provide service to all residents equitably;
- Project is needed to accommodate facility demands resulting from new development or redevelopment;

- Project furthers policies adopted in other elements of this plan;
- Project is needed to serve development for which development orders were issued prior to adoption of this comprehensive plan;
- Project will increase the economic base or quality of life of the residents;
- Budget impact of project, both capital and operating, will be considered and the City Commission will consider financial feasibility of project; and
- Project will be reviewed for consistency with plans of the county; adjacent municipalities, if appropriate; and other agencies having responsibility for public facilities within the jurisdiction.

Policy 1.1.5: The City shall ensure the availability of public facilities at adopted levels of service needed to serve developments for which development permits were issued prior to the adoption of this comprehensive plan.

Policy 1.1.6: It is the policy of the City of Indian Rocks Beach to set a capital improvements cost threshold of \$5,000 for projects to be included in the CIE of this comprehensive plan.

Policy 1.1.7: Existing and anticipated capital projects identified in other elements of this plan shall be corrected according to the financially feasible Schedule of Capital Improvements adopted through this *Capital Improvements Element* policy.

Policy 1.1.8: Through an analysis of the capital and service program needs of the City of Indian Rocks, the City shall assure that its Comprehensive Plan is financially feasible.

Policy 1.1.9: Prioritization of funding improvements shall be coordinated with the county, adjacent municipalities, if appropriate; the State; the Tampa Bay Regional Planning Council, FDOT, the Southwest Florida Water Management District; the Pinellas County School Board, the Pinellas County MPO, and any other agencies that provide public facilities in the City.

Policy 1.1.10: The City of Indian Rocks Beach may utilize impact fee revenue to fund multi-modal improvements that are consistent with the comprehensive plan as well as the Metropolitan Planning Organization (MPO) Long Range Transportation Plan.

LOCAL OPTION SALES TAX FUND CAPITAL PROJECTS

	2015 Budget	2015 Projected	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
Carry Forward Fund Balance	313,568	537,438	2,707,226	715,115	513,615	657,615	509,615
Sewer Fund Sale Transfer	2,145,000	2,145,000					
Estimated LOST Fund Revenue Earned	400,000	400,000	408,000	416,000	424,000	432,000	440,000
Transportation Impact Fees (City & County)	-	30,000	50,000	-	-	-	
Development Impact Fees	20,000	20,000	-	-	-	-	
Gas Tax Transfer (Road Resurfacing)	-	-	100,000	-	-	-	
Grants - PC Dune Walkovers	-	-	50,000	-	-	-	
Grants - SWFWMD	-	-	137,500	137,500	-	-	137,500
Grants - Utility Undergrounding	-	-	750,000	2,250,000	1,000,000	-	
Grant - CDBG	150,000	300,000	-	-	-	-	
Grant - FDOT	100,000	-	-	#	-	-	
Grant - FDOT			150,000				
Grant - FDOT			50,497				
BP OIL LEGAL PROCEEDS		571,108					
Total Revenues	3,128,568	4,003,546	4,403,223	3,518,615	1,937,615	1,089,615	1,087,115

DESCRIPTION

ROAD MILLING, RESURF. & CURBING	300,000	300,000	771,108	300,000	250,000	200,000	200,000
STORMWATER RECONSTRUCTION	-	190,000	394,000	275,000	-	-	275,000
DUNE WALKOVERS & UPGRADES	-	-	50,000	-	-	-	-
CITY HALL UPGRADES	100,000	125,000	400,000	-	-	-	-
USF STUDY							
SIGNATURE INTERSECTION	290,000	150,000	468,000	-	-	-	-
WALSINGHAM LANDSCAPING	150,000	-	150,000	-	-	-	-
POCKET PARK	-	-	150,000	-	-	-	-
NBD SIDEWALKS	250,000	479,120	-	-	-	-	-
NBD WAYFINDING & SIGNAGE	-	-	-	50,000	-	-	-
MID / UP TOWN STREETSCAPING	-	-	100,000	-	-	-	-
RENOVATE SW FACILITY/COMMUNITY CENTER	-	-	400,000	-	-	-	-
1st BOARDWALK	-	-	-	100,000	-	-	-
WHITEHURST BEACH ACCESS	50,000	25,000	25,000	-	-	-	-
GULF BLVD UTILITY UNDERGROUNDING WHITEHURST-688	-	-	750,000	2,250,000	1,000,000	-	-
WALSINGHAM UTILITY UNDERGROUNDING						350,000	
CITY PARK UPGRADES	30,000	27,200	30,000	30,000	30,000	30,000	30,000
Total Expenditures	1,170,000	1,296,320	3,688,108	3,005,000	1,280,000	580,000	505,000
Ending Fund Balance	<u>1,958,568</u>	<u>2,707,226</u>	<u>715,115</u>	<u>513,615</u>	<u>657,615</u>	<u>509,615</u>	<u>582,115</u>

**GENERAL FUND CAPITAL
PROJECTS**

DESCRIPTION	2015 Budget	2015 Projected	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
VEHICLE - PICK-UP TRUCK	-		25,000			27,000	
VEHICLE - ELECTRIC							
VEHICLE - DUMP TRUCK	37,500	42,000	-				65,000
VEHICLE - TRACTOR FE LOADER	-		55,000				
PLAYGROUND IMPACT MATERIAL	125,000	117,100					
VEHICLE - CODE ENFORCEMENT	25,000	17,100					
VEHICLE - STREET SWEEPER			280,000	-			
VEHICLE - BEACH RAKE			51,000				
TOTAL	<u>187,500</u>	<u>176,200</u>	<u>411,000</u>	<u>-</u>	<u>-</u>	<u>27,000</u>	<u>65,000</u>

**SOLID WASTE CAPITAL
PROJECTS**

DESCRIPTION	2015 Budget	2015 Projected	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
VEHICLE-PACKER TRUCK	225,000	225,000	-	250,000	-	-	55,000
VEHICLES / TRUCKS	-		27,000	-	-	160,000	
TOTAL	<u>225,000</u>	<u>225,000</u>	<u>27,000</u>	<u>250,000</u>	<u>-</u>	<u>160,000</u>	<u>55,000</u>

Objective 1.2:

The City shall manage its debt in a manner to retain the integrity of its fiscal resources consistent with Florida law.

Policy 1.2.1: Long-term borrowing will not be used to finance current operations or normal maintenance.

Policy 1.2.2: All debt issued, including by lease-purchase methods, will be repaid within a period not to exceed the expected useful life of the improvements financed by the debt.

Policy 1.2.3: The City will maintain its bonded debt at a level not to exceed two percent of the assessed valuation of taxable property.

Policy 1.2.4: Efforts shall be made to secure grants or private funds whenever available to finance the provision of capital improvements as determined by the City Commission.

Policy 1.2.5: The City will not issue tax or revenue anticipation notes. The City will not issue bond anticipation notes with maturities in excess of two years.

Policy 1.2.6: For any enterprise fund that is supporting debt, a periodic rate review will be performed to ensure that the fees or rates are sufficient to meet the debt service requirements.

Policy 1.2.7: The City will strive to maintain a high reliance on pay-as-you-go financing for its capital improvements.

Policy 1.2.8: The City will strive not to issue bonds more frequently than once every two fiscal years.

Policy 1.2.9: The City will adopt an annual General Fund budget in which expenditures, net of pay- as-you-go capital project contributions, do not exceed net projected revenues and available revenues.

Measure: Implementation of policies and consistency with Florida law.

Objective 1.3:

The City shall utilize its fiscal resources to eliminate any identified existing deficiencies and provide needed capital improvements for future development and redevelopment, through the site plan approval process, at adopted levels of service as specified in the elements of this comprehensive plan.

Policy 1.3.1: The City shall work with other governmental jurisdictions to ensure that the entire cost of providing necessary capital facilities, at adopted levels of service, for any new development or redevelopment within the jurisdiction shall not be borne by existing residents.

Policy 1.3.2: The City shall coordinate with Pinellas County, other state agencies, water management district, and other municipalities that provide public facilities within the city's jurisdiction, to ensure projects are funded in a fiscally equitable manner apportioning the costs of growth among those who are responsible for it.

Policy 1.3.3: The City shall, when appropriate, continue to administer existing and future impact fees.

Policy 1.3.4: The City shall issue development orders and permits based upon the City's capability to maintain adequate service levels as described in the elements of the Comprehensive Plan.

Policy 1.3.5: The adopted levels-of-service for public facilities within the jurisdiction of the City of Indian Rocks Beach shall be those adopted in the other elements of this plan and Policy 1.5.4 of this *Capital Improvements Element*.

Policy 1.3.6: In order to adequately maintain adopted level of service standards, the City shall maintain an effective and appropriate schedule of user charges and shall employ other appropriate means to properly collect necessary funds including, but not limited to, developer contributions as detailed in developer agreements, proportionate share dollars, and impact fees, if applicable.

Measure: Maintenance of level of service.

Objective 1.4:

Recognizing that the entire city is located in the Coastal High Hazard Area, public expenditures that support development shall be limited to those improvements included in this comprehensive plan or deemed to be an overriding public benefit by the City Commission.

Policy 1.4.1: The City shall replace capital facilities that have been destroyed. This shall be accomplished in a manner that is in compliance with the Comprehensive Plan.

Measure: Implementation of Objective.

Objective 1.5: Concurrency Management System

The City of Indian Rocks Beach shall ensure that public facilities and services for which level-of- service standards have been adopted are available to accommodate the impacts of development projects.

Policy 1.5.1: The City of Indian Rocks Beach shall ensure that all development and redevelopment taking place within its municipal boundaries do not result in a reduction of the level-of-service requirements for those public services and facilities for which a level of service standard has been adopted in the financially feasible *Capital Improvements Element* of this comprehensive plan.

Policy 1.5.2: Development orders and permits shall be issued only if public facilities necessary to meet the level-of-service standards adopted pursuant to this comprehensive plan exist or will be available according to the following timeframes:

- Sanitary sewer, solid waste, drainage, adequate water supplies, and potable water facilities shall be in place and available to the development no later than the issuance by the City of a certificate of occupancy (CO). Prior to approval of a building permit, the City shall consult with the Pinellas County Utilities System (PCUS) to determine whether adequate water supplies, stormwater, solid waste and wastewater capacity to serve the project will be available no later than the anticipated date of issuance of the CO by the City.
- Parks and recreation facilities to serve the development shall be in place or under actual construction no later than 1 year after issuance by the City of a certificate of occupancy. However, the acreage for such facilities shall be dedicated to or be acquired by the City prior to issuance by the City of a certificate of occupancy, or funds in the amount of the developer's fair share shall be committed no later than the City's issuance of a building permit.

Policy 1.5.3: The land development regulations shall contain provisions requiring the provision of supporting community facilities that are timed and staged concurrent with development or redevelopment.

Policy 1.5.4: The City of Indian Rocks Beach shall use the following levels of service to determine the impacts of development and redevelopment.

Sanitary Sewer:

The adopted level-of-service standard to extend throughout the time frame of this comprehensive plan is 84 gallons per capita per day. Pinellas County's South Bayou Wastewater Treatment is operating under capacity and has adequate capacity to serve the expected demand within the planning period.

Solid Waste:

The adopted level of service standard to extend throughout the time frame of this comprehensive plan is 6.9 pounds per capita per day (excluding recycled materials). Pinellas County's Bridgeway Acres landfill is operating under capacity and has an estimated 30 year life expectancy.

Drainage:

- Stormwater management systems shall be designed to accommodate a 10-year, 60-minute storm event on site.
- New development or redevelopment approvals shall require that post-development runoff rates, volumes, and pollutant loads do not exceed predevelopment conditions.
- The City shall adhere to the impervious surface ratios defined in Objective 1.1 and associated policies of the *Future Land Use Element* in order to minimize runoff and stabilize water quality.
- The City shall require the first one inch of runoff from impervious surfaces to be retained on the site of all development.

Since 1991 numerous drainage improvements outlined in the Indian Rocks Beach Stormwater Master Plan have been completed and the City's adopted drainage requirements for new development have been enforced.

Potable Water:

The adopted interim 2006 to 2010 level-of-service standard is 120 gallons per person per day. The adopted year 2011 to 2025 level-of-service standard is 115 gallons per person per day. Pinellas County Utilities is operating within the present level of service and will decrease demand within the planning period.

Coastal Management:

The City shall adopt by reference the applicable standards and regulations set forth in the *Pinellas Aquatic Preserve Management Plan* to protect and enhance the water quality of waters adjacent to the city.

Parks and Recreation:

The standards shown in Tables 2 and 3 shall be the adopted parks and recreation facilities level-of-service standards. The City meets the recreational level of service for the existing population and has adequate facilities to meet the needs of the community through the planning period except for .5 miles of bicycle lanes or trails and the creation of one equipped play and tot lots.

**Table 2
Levels-of-Service for Facilities**

Park Facility	Population Served	Area per 1000 Population	Size as a Park Adjoining School	Size as a Separate Park	Facilities
Equipped Play and Tot Lot ¹	2,500 maximum	.5 acre	Minimum of .25 acre	Minimum of 1 acre	Play structures, benches picnic areas, open spaces, landscaping
Neighborhood Park	5,000 maximum	2 acres	Minimum of 2 acres	Minimum of 5 acres:	Play structures, recreation buildings, court games, hard courts, tennis courts, internal trail, shuffleboard, volleyball courts, picnic area, open area , landscaping
Community Park	5,000 maximum	2 acres	Minimum of 5 acres	Minimum of 20 acres: Optimal is 20-50 acres	All of the facilities found in a neighborhood park plus informal ball fields, swimming pools, archery ranges, disc golf areas, ornamental gardens, open space and facilities for cultural activities
Urban Open Space	.25 - .5 mile	1 acre		Minimum of .1 acre	Resource-based recreation area
Equipped Play and Tot Lot ¹	2,500 Maximum	.5 acre	Minimum of .25 acre	Minimum of 1 acre	Play structures, benches picnic areas, open spaces, landscaping

Neighborhood Park	5,000 Maximum	2 acres	Minimum of 2 acres	Minimum of 5 acres:	Play structures, recreation buildings, court games, hard courts, tennis courts, internal trail, shuffleboard, volleyball courts, picnic area, open area, landscaping
Community Park	5,000 Maximum	2 acres	Minimum of 5 acres	Minimum of 20 acres: Optimal is 20-50 acres	All of the facilities found in a neighborhood park plus informal ball fields, swimming pools, archery ranges, disc golf areas, ornamental gardens, open space and facilities for cultural activities
Urban Open Space	.25 - .5 Mile	1 acre		Minimum of .1 acre	Resource-based recreation area

**Table 3
Level-of- Service Standards for Specific
Activities**

Activity	Per Person LOS Standard
Baseball/Softball	1 field per 5,000
Basketball	1 court per 5,000
Bicycling	1 mile of lane or trail per 2,000
Boating	1 boat ramp/dock per 5,000
Fishing (from land)	1 site per 5,000
General Play	1 equipped play area per 10,000
Handball/Racquetball	1 court per 5,000
Shuffleboard	1 court per 3,600
Tennis	1 court per 2,000

Policy 1.5.5: The City of Indian Rocks Beach shall utilize its concurrency management monitoring system to ensure continued enforcement of levels of service, and provision of required public facility capacity for those public services and facilities for which level of service standards have been adopted.

Policy 1.5.6: The monitoring system shall be reviewed on an annual basis together with the review of the *Capital Improvements Element* and shall be updated the year prior to preparation of the required Evaluation and Appraisal Report.

Policy 1.5.7: Developments or redevelopments requiring the use of potable water, sanitary sewer, solid waste, or drainage facilities shall receive development orders subject to the

provision that the facilities shall be in place and available to the development no later than the issuance by the City of a certificate of occupancy (CO). Prior to approval of a building permit, the City shall consult with the Pinellas County Utilities System (PCUS) to determine whether adequate water supplies, stormwater, solid waste and wastewater capacity to serve the project will be available no later than the anticipated date of issuance of the CO by the City.

The provision of the facilities shall be guaranteed in an enforceable development agreement pursuant to Section 163.3220, Florida Statutes, or an agreement or development order issued pursuant to Chapter 380, Florida Statutes, certified by a professional engineer to be in place at the time of certificate of occupancy issuance or as specified in the agreement.

Policy 1.5.8: Developments or redevelopments requiring the use of park and recreation facilities shall receive development orders subject to the following conditions:

- The facilities and services are in place or under construction at the time of development order issuance; or
- Dedications of land and facilities are dedicated to or acquired by the City prior to certificate of occupancy issuance. Fees in lieu or funds in the amount of the developer's fair share shall be committed no later than the City's approval of the building permit; or
- The development order is issued conditioned on the necessary facilities and services scheduled to be in place or under construction not more than one year after certificate of occupancy issuance as provided in the Schedule of Capital Improvements; or
- The necessary facilities are subject to a binding agreement which requires them to be in place or under construction not more than one year after certificate of occupancy issuance; or
- When the development order is issued, the facilities and services are guaranteed in an enforceable development agreement stipulating that they will be in place or under construction not more than one year after certificate of occupancy issuance.

Policy 1.5.9: Developments or redevelopments requiring the use of roads shall receive development orders conditioned on the necessary facilities and services being in place or under construction not more than three years after approval of a building permit that result in traffic generation. The provision of the facilities shall be guaranteed in an enforceable development agreement pursuant to Section 163.3220, Florida Statutes, or an agreement or development order issued pursuant to Chapter 380, Florida Statutes, certified by a professional engineer to be in place at the time of certificate of occupancy issuance or as specified in the agreement.

Policy 1.5.10: The Schedule of Capital Improvements may include applicable transportation improvements included in the Pinellas County Metropolitan Planning Organization's transportation improvement program.

Policy 1.5.11: The Schedule of Capital Improvements shall contain the estimated commencement and completion dates of road projects.

Policy 1.5.12: The elimination, deferral, or delay of construction of any road facility or service needed to maintain adopted level-of-service standard and listed in the Schedule of Capital Improvements, shall require amendment of the comprehensive plan.

Policy 1.5.13: Developments or redevelopments shall be considered to have de minimis impact provided they comply with all of the following conditions:

- The proposed increase in density or intensity is less than or equal to twice the density or intensity of the existing development, or for the development of a vacant parcel of land, at a residential density of less than four dwelling units per acre or for nonresidential uses, at an intensity of less than 0.1 floor area ratio.
- Isolated vacant lots in predominantly developed residential areas, where single -family or duplex homes would be suitable, may be developed for single-family or duplex residential under the de minimis exemption even if smaller than one-quarter acre in size.
- The transportation impact of the development alone does not exceed 0.1 percent of the maximum service volume at the adopted level-of-service standard.

Measure: Continued implementation of the concurrency management system

Data and Analysis

Future Land Use Element

The purpose of the Future Land Use Element is the designation of future land use patterns as reflected in the goals, objectives and policies of the local government comprehensive plan elements.

I. INTRODUCTION

In its 1980 comprehensive plan, the City of Indian Rocks Beach noted the following:

With approximately 83 percent of Indian Rocks Beach developed, the traditional methodology for land use planning by forecasting spatial requirements and then distributing land uses according to projected demand and locational suitability must be modified somewhat. The remaining growth of the City will result from the infilling of scattered vacant parcels and selected redevelopment throughout the City.

The primary strategy for achieving the city's land use goal is to preserve and enhance the existing character by recognizing the desirability and appropriateness of many of the existing land uses. To effectively create a comprehensive plan that reflects the needs of the city, the social characteristics that define the community must be considered. Using information obtained from the 2000 and 2010 U.S. Census, the following items list several socio-economic facts regarding Indian Rocks Beach. A detailed comparison between the city's socio-economic characteristics and those of Pinellas County and the State of Florida are found in Appendix A.

- In 2010, the largest age group, by percentage, was the 55 to 59 with 11.4 percent of the population, while the smallest was the 85 years and over group with 1.7 percent. The Census found that children, through the age of 19, comprised 11 percent of the population; and, 21 percent of the population was aged 65 or older.
- The population in 2010 was composed of 50.1 percent female and 49.9 percent male. The median age increased from 48 in 2000 to 52.1 in 2010.
- In 2010, the city remained predominantly white (96.2%).
- The city had a higher percentage of residents with a high school diploma (94.6%) or four or more years of college (38.6%) than either the county or state.
- In 1990, 86 percent of the city's population was born out-of-state, but that percentage had declined to 72.6 percent by 2000.
- In 1990, 48 percent of households earned between \$10,000 and \$34,999 annually, but that percentage decreased to 29.2 percent in 2000. Twenty four percent of the population earns between \$75,999 and \$149,999 per year. It is important to note that in 1990, 12 percent earned less than \$10,000 annually, but that statistic was decreased to 5.2 percent by 2000.
- In 2000, Indian Rocks Beach had a per capita income of \$40,195 and the median income of \$65,724 exceeded that of both the county and state.
- In 2000, the city had a lower percentage (4.7%) of persons (238) living below the poverty level than either the county (10%) or state (12.5%).

II. EXISTING LAND USES

Table 1 shows the acreage and the corresponding density or intensity allowances for the land uses. See Map LU-1 for existing land uses.

As can be seen in the Table 1, forty-two (42%) percent of the city is developed with single-family residences which are concentrated on the finger islands projecting into the Intracoastal Waterway. Another twenty-three (23%) percent is developed with multifamily residential uses located primarily on the east side of Gulf Boulevard.

**Table 1
Existing Land Use Acreages**

Land Use	Acres	Percentage
Single-Family (0-7.5 upa)*	194.69	8.19%
Duplex-Triplex/Multifamily (0-30 upa)	107.67	26.66%
Commercial-Office (0-0.55 FAR)**	36.31	8.98%
Public/Semi-Public (0-0.70 FAR)	17.64	4.37%
Vacant (NA)	21.04	5.20%
Recreation/Open Space (0-0.25 FAR)	18.26	4.52%
Conservation/Preservation (NA)	8.4	2.08%
Total Acreage	404.0	100.00%

Source: Pinellas Planning Council and Pinellas County Property Appraiser, 2007
 * upa = Units per acre
 ** FAR = Floor Area Ratio

Commercial uses tend to focus around the areas visited by residents and tourists. In an effort to expand the range of commercial/office uses in the city, a plan for redevelopment of the Narrows aka “Business District Triangle” has been implemented. The Narrows aka “Business District Triangle” will be described in detail later in this document.

Indian Rocks Beach has adopted three mixed use land use categories: Residential/Office General (R/OG), Residential/Office/Retail (R/O/R), and Resort Facility High (RFH). An examination of the Pinellas County Property Appraiser’s records revealed the existing distribution of uses within the mixed use categories to be as follows:

- *Residential/Office General (R/OG) Category*

Total Existing R/OG 4.20 acres

- *Residential/Office/Retail (R/O/R) Category*

Total Existing R/O/R 12.02 acres.

- *Resort Facility High (RFH) Category*

Total Existing RFH 65.79 acres.

III. NATURAL RESOURCES

See *Map LU-3* and the *Future Land Use Map* in this element, and *Map CM-1* in the *Coastal Management and Conservation Element*, for depictions of natural resources.

IV. POPULATION ESTIMATES AND PROJECTIONS

The minimum criteria for the development of a comprehensive plan prepared pursuant to Chapter 163, Florida Statutes, states that the comprehensive plan shall be based on resident and seasonal population estimates and projections. The terms resident population and seasonal population are defined, as follows:

Table 2
Permanent and Seasonal Population Estimates and Projections 2005-2025

Year	Permanent Population	Seasonal Population		Total Population
		Permanent Housing*	Tourists	
2010	4113	1655	1158	6926
2015	4133	1658	1158	6949
2020	4153	1666	1163	6982
2025	4174	1674	1169	7017

Source: Pinellas County Planning Department, Population Projections, 08/04, rev. 02/07, rev. 2011

Note: Totals may be adjusted due to rounding

Formula to project population into the 5-year planning period: $(2020 \text{ \# pop} - 2010 \text{ \# pop} = x \text{ pop}) / 10 \text{ years} = Y \text{ population. } (Y \text{ pop} * 3) + 2010 \text{ pop} = 2015 \text{ population.}$

* Seasonal residents living in permanent housing

“Resident Population” mean inhabitants counted in the same manner utilized by the United States Bureau of the Census, in the category of total population. Resident population does not include seasonal population.

“Seasonal Population” means part-time inhabitants who utilize or may be expected to utilize, public facilities or services, but are not residents. Seasonal population shall include tourists, migrant farm workers and other short-term and long-term visitors.

Two planning time frames are included in the population analysis, “one for at least the first five-year period subsequent to the plan’s adoption and one for at least an overall ten-year period.” The time frames of 2015 and 2025 have been selected. The City of Indian Rocks Beach is considered a built-out community with only 21.04 acres of vacant residential land available. As such, population projections will remain fairly consistent with the size of the current permanent population. Table 2 shows the permanent and seasonal population projections for the City of Indian Rocks Beach through the year 2025.

The Pinellas County Planning Department base data for permanent population was obtained from the Bureau of the U.S. Census. According to their analysis, after review of several possible

projection methods, “it was determined that the Double Exponential Projection Model would best reflect the circumstances and conditions which apply to Pinellas County.” This model provides for a deceleration of the rate of growth toward a given population time and ultimate level of build-out, which is based on the *Countywide Future Land Use Plan*. To operate the model, a beginning point, an intermediate point, and a final maximum level or value must be known. Information from the 1990 and 2000 Census was used as the beginning and intermediate data. The maximum level was computed by adding both the number of dwelling units that could potentially be constructed on vacant land and the number of possible additional units resulting from redevelopment to the number of dwelling units identified in the 2000 Census.

Similar to permanent population projections, Pinellas County’s methodology to calculate the projected number of seasonal residents was also based on the Double Exponential Projection Model. The methodology involved calculating the number of dwelling units used seasonally and determining the average number of persons per seasonal unit for each planning horizon. First, the 2000 Census was consulted to determine the number of seasonal units located within the city then the ratio of seasonal units to permanent units was figured. As listed on the 2000 Census questionnaire, units where respondents indicated a “usual home elsewhere” were labeled as seasonal units. This ratio was then applied to the total number of expected housing units for all planning time frames as forecasted by the Double Exponential Projection Model. Second, a “persons per seasonal unit rate” was applied to convert the projected number of seasonal units into the projected number of seasonal residents. Because the Census does not include data on the average number of persons per seasonal unit, Pinellas County developed a countywide person per seasonal unit factor of 1.79 persons per seasonal unit.

Tourist data for Pinellas County was supplied by the St. Petersburg/Clearwater Area Convention and Visitors Bureau. For analysis purposes, it was assumed the number of hotel, motel, and timeshare units would remain constant throughout the planning time frame. Therefore, the number of visitors using these facilities would reflect current counts. However, the report detailed that “the number of visitors staying with friends or relatives would correspondingly increase as the number of dwelling units occupied by permanent residents increased.” Therefore the number of tourists staying with friends or relatives grew according to the Double Exponential Projection Model. Consequently, the data revealed the growth in the number of tourists and visitors would occur at a slower rate than the growth of the general population.

V. LAND USE ANALYSIS

The following land use analysis is based on the results of the collection of existing land use data, information obtained from other elements of this comprehensive plan, field observations, and information provided by local officials.

A. Public Facilities

1. Traffic

The City of Indian Rocks Beach is located on Sand Key, a Pinellas County barrier island. The city is bordered on the north by the Town of Belleair Beach and on the south by the

Town of Indian Shores. To the east can be found the “Narrows”, which connects Boca Ciega Bay and Clearwater Harbor. On the west is the Gulf of Mexico. Two major highway facilities are located within the community. Gulf Boulevard (S.R. 699) runs north/south the length of the Pinellas barrier islands. Walsingham Road (S.R. 688) connects Sand Key with the mainland. All other facilities are classified as local streets. Residents of the city must go either north to the Belleair Causeway in Belleair Beach, south to the Park Boulevard Bridge in Indian Shores, or use the Indian Rocks Bridge to reach the mainland.

In 2007, all roadway segments, with the exception of S.R. 699 from S.R. 688 to Park Road, were operating at the adopted level of service (LOS) standard “D” or better. S.R. 699 has recently been improved to an undivided two lane roadway with a 10 foot pedestrian/ bike lane on either side.

The following improvements are underway, planned or proposed by the Pinellas County Metropolitan Planning Organization (MPO) Transportation Improvement Plan (TIP) from 2007/08 to 2012:

- Repaving of local streets
- Pedestrian Shelters
- Pedestrian Crosswalks
- Replacement of catch basins

2. Sanitary Sewer

The county has expanded the South Cross Bayou Wastewater Treatment Plant’s capacity to 33mgd. Indian Rocks Beach and Pinellas County have entered into an interlocal agreement whereby the county is responsible for the city’s sewage treatment. Although the city is a wholesale customer of South Cross Bayou wastewater service area, individual customer billing is handled by the county under contract with the city. Because the facility serves several jurisdictions as well as areas of unincorporated Pinellas County, no proportional capacity agreement exists between the county and Indian Rocks Beach. All data and analyses are initially based on the plant’s service area population. Thereafter, Indian Rocks Beach’s consumption rate is factored by its percentage share of the total population.

South Cross Bayou reclamation Facility is an advanced wastewater Treatment facility utilizing a tertiary process. By the end of a four step cleaning process, the water is 99.9% pure. The treated water goes out as reclaimed water to be used for irrigation purposes. The facility is permitted for an average flow of 33 million gallons/day.

The South Cross Bayou facility’s service area includes several municipalities, including the cities of Belleair Bluffs, Belleair Beach, Indian Rocks Beach, Kenneth City, Madeira Beach, North Redington Shores, Redington Shore and Seminole, the towns of Belleair Shores and Indian Shores. In 2007, South Cross Bayou was operating at an average daily flow of 21.04 mgd, or 64 percent of capacity. Serving an estimated population of 252,695 persons, the wastewater treatment plant was operating at a level of service of 113 gallons per capita per day (gpcd) (see Table 5).

The Pinellas County Planning Department has set the adopted level-of-service standard for South Cross Bayou at the 2007 average daily flow per capita rate of 84 gpcd. When forecasting expected demand, this level-of-service standard is applied to service area population projections. As illustrated in Table 6, South Cross Bayou has adequate capacity to serve expected demand in the planning period.

With a sanitary sewer system in its fourth decade of use, older lines are becoming increasingly susceptible to breakage. In response, the city has recently replaced several major lines, particularly those along Gulf Boulevard. Other original facilities are continually monitored and maintained to prevent potential spills and groundwater infiltration. Outside city limits, Pinellas County maintains those pipes leading to the South Cross Bayou plants. Due to an ongoing preventive maintenance program, forcemains and gravity lines within these areas are continuously cleaned out and pumps are replaced. In addition, the City of Indian Rocks Beach has improved lift stations within the city limits

3. Solid Waste

Solid waste collection for the residents of the City of Indian Rocks Beach is provided by the city. The city owns three 25-cubic yard rear loading trucks, one knuckle boom/jaws/claw, one 1 ton dump and one ¼ Ton pick-up. It does not have the equipment to service large businesses requiring daily pickup or construction dumpsters. The city allows private contractors to provide this service and places a surcharge on the charges levied by the same. Increases in the tipping fees charged at the county landfill site are passed on to the residents.

Solid waste is disposed of at the Pinellas County waste-to-energy plant site pursuant to a county ordinance requiring all generated refuse to go to the plant unless Pinellas County has issued a permit for another disposal means. The 750-acre plant site located at 3001-114th Avenue North includes incinerators and the Bridgeway Acres Landfill which serves the entire county. The city does not have a specific allocation of the capacity of the plant or the adjacent landfill; and currently, no proportional capacity agreement for solid waste disposal exists between Indian Rocks Beach and Pinellas County. Each vehicle has a capacity limit and the fees are based on the tonnages delivered to the Pinellas County Solid Waste Management Facility. If there is a weather generating event that may cause limits of disposal amounts as per the Pinellas County Code of Ordinance. The county does record the total amount of refuse received, incinerated, recycled, or buried in the landfill. The Indian Rocks Beach solid waste generation rate is factored by its percentage share of the service area population.

A wide array of land use activities are serviced by the Refuse-to-Energy Plant and the Bridgeway Acres Sanitary Landfill, including residential, commercial, and industrial uses. Within Indian Rocks Beach, almost 75 percent of all land area is dedicated to residential uses. Public facilities, commercial, and industrial uses account for an additional 10 percent. The 3-boiler Waste-to-Energy Plant is considered a state-of-the-art facility that involves mass burning with waterwall incinerators. Solid waste is burned to create steam that is used to drive turbines and generate electricity. Capacity equals 3,150 Tons per day or almost 1,150,000 Tons per year. Currently, the plant is operating at

approximately 71 percent of capacity, with Indian Rocks Beach accounting for only 0.48 percent of average daily flow.

Located adjacent to the Waste-to-Energy Plant, the Bridgeway Acres Sanitary Landfill is the only Class I landfill in Pinellas County. A Class I facility can accommodate a wide variety of waste products and must be lined in order to prevent groundwater contamination. Typically, nonprocessable or non-burnable solid waste such as large tree trunks and construction debris is buried here.

The County contracts the operation of the Bridgeway Acres Sanitary landfill. It is a 5-year contract for the operation of the sanitary landfill and other general civil work within the project site. Solid waste entering the Bridgeway Sanitary Landfill has also significantly declined since the 1980s. As reported between 1990 to 1995, the annual average tonnage of refuse entering the landfill was just over 67,000 Tons per year or 166 Tons per day, representing a 69 percent reduction from the amount of waste deposited during the late 1980s. Reasons for this decline can be attributed to the following: more construction and demolition debris being diverted to the Waste-to-Energy Plant and the recent expansion of this facility; construction debris being diverted to Pasco County; and massive recycling efforts. From 2000 to 2005 the average to the landfill was 205,691 Tons per year.

Countywide, the amount of solid waste collected annually surmounted the million ton mark in the late 1980s and appeared to be on the rise. Fortunately, this trend was quickly counterbalanced by the gaining popularity of recycling, the diversion of construction and demolition debris to the Artificial Reef Program, and increased donations to charitable organizations. More recently, the amount of collected refuse has stabilized at approximately 1,100,000 Tons per year.

Total space available (2005) at Bridgeway Acres landfill is 20,793,283 cubic yards. Utilizing the average cubic yards land filled per year for the period from 2005 to 2020 yields an estimate of 10,166,051 cubic yards land filled over this 15 (fifteen) year period. This amount is 48 percent of the total landfill space currently available. Including potential increases in per capita generation and any unforeseen events such as hurricanes, an estimated 30 (thirty) year life of the landfill is conservative. It is likely that the landfill's life will extend beyond 30 years. The County has submitted a permit modification to the Florida Department of Environmental Protection requesting an increase in the permitted height of the landfill from 90 feet (50 feet at the Sod Farm) to 150 feet. This height increase will increase the available capacity of the landfill, and extend the life expectancy of the landfill for an additional 40 years.

Pinellas County has one of the most ambitious artificial reef construction programs in the state of Florida. The Department of Solid Waste Operations, through the recycling of selected construction and demolition debris, is able to create productive underwater habitats and save valuable landfill disposal space. There are 13 Department of Environmental Protection permitted artificial reef sites off the coast of Pinellas County in the Gulf of Mexico

4. Stormwater Management

In 1991, the city established a five-year drainage improvement plan. The plan was proposed to ensure that drainage management is handled in the most cost effective manner possible. The city has completed all of the drainage projects proposed in the plan. Completed in 1996, the program replaced vitrified clay stormwater sewer lines with polyvinyl chloride (PVC) pipes that are more durable and less likely to crack.

5. Potable Water

A. Overview

The City of Indian Rocks Beach is supplied potable water by the Pinellas County Utilities System (PCUS). The Pinellas County Utilities System (PCUS) system service area includes over 709,202 people. The Pinellas County Water Demand Planning Area (WPDA) for Pinellas County Utilities includes the retail and wholesale customers of Pinellas County Utilities and the Clearwater, Oldsmar and Tarpon Springs service areas. The retail customers are served directly by Pinellas County Utilities and include most of the unincorporated area as well as Belleair Beach, Belleair Bluffs, Belleair Shore, Indian Rocks Beach, Indian Shores, Kenneth City, Largo, Madeira Beach, North Redington Shores, Seminole, St. Pete Beach and Treasure Island. Additionally, the PCUS supplements other water distribution systems by supplying water on a wholesale basis to the cities of Clearwater, Pinellas Park, Safety Harbor, Tarpon Springs and the Town of Belleair. The Cities of Dunedin and St. Petersburg are interconnected for emergencies. Within the service area, the dominant land use classification remains residential. Public facilities, commercial, industrial, and recreational uses are also served.

The PCUS maintains the water distribution system up to the individual property lines. The property owners are responsible for the water lines on their property.

B. Potable Water Facility Capacity, Projected Demand, Surplus, or Deficits

No proportional capacity within the water service area has been calculated for Indian Rocks Beach. The potable water demand for Indian Rocks Beach is included in the demand data and projections prepared for Pinellas County by the Southwest Florida Water management District. Therefore, no individual projection of demand will be made. The data provided by Tampa Bay Water, *Special District Public Facilities Report*, and the Southwest Florida Water Management District, *Regional Water Supply Plan*, is the best available data. Currently serving 63.67% percent of the county's population, the PCUS estimates current potable water demand at 120 gallons per capita per day (gpcd). To calculate future demand, the city's projected population was multiplied by the expected daily consumption rate based on recent potable water information. According to the county, 120 gpcd and then lower to 115 gpcd best reflects future water demand. The drop to 115 gpcd reflects new trends in technology and alternate sources, green development trends, etc. Average daily flow is forecasted to decrease by 1.26 mgd between 2006 and 2025.

C. Conservation and Reuse

1. Reclaimed Water

The City of Indian Rocks Beach began receiving reclaimed water from Pinellas County Utilities in 2006. Pinellas County is the responsible jurisdiction for treatment and allocating the reclaimed water resource.

2. Conservation and Reuse Practices and Regulations

Pinellas County regulations are enforced for water conservation measures including low flow plumbing fixtures and water shortage emergency regulations.

D. Alternative Water Supply Projects

The Regional Water Supply Plan contains hundreds of water supply options. Because the wholesale potable water supply is provided by Tampa Bay Water, the required water supply projects are selected and implemented by that agency. The selected projects, approved by the Tampa Bay Water Board, are then incorporated into the Master Water Plan. The Tampa Bay Water Board selected the Downstream Enhancements Phases A/B for System Configuration II of the Master Water Plan for implementation. This will meet the region's water needs through 2017. (Special District Public Facilities Report, Page 4)

E. Financing

The capital costs for water supply development projects are the responsibility of Tampa Bay Water. Such costs are recaptured through the sale of water to the water service provider, and through them, by the retail customers. Funding mechanisms are identified in the Special District Public Facilities Report. The Pinellas County Water Supply Work Plan includes costs for distribution, transmission, treatment, and associated facilities. (Pinellas County Water Supply Element, pages 45-46) See Table 10 from the Pinellas County element on Page 33, if documentation of these costs is required.

Natural Groundwater Aquifer Recharge

Over 80 percent of Tampa Bay's freshwater supply is tapped from groundwater resources. Groundwater refers to the water found beneath the surface of the earth in saturated soils or geologic formations, called aquifers. The surficial aquifer lies closest to the surface and lacks a continuous impermeable top layer. Below the surficial aquifer is a fairly impermeable confining layer that separates the surficial aquifer from the confined aquifer below. Generally, aquifers are replenished by precipitation percolating down through the surficial aquifer, crossing the confining layer, and reaching the confined aquifer. This process is known as natural recharge. High recharge areas are found where the confining layer is absent or discontinuous and where permeable soils and sands exist.

In Pinellas County, recharge rates of the confined aquifer, otherwise known locally as the Floridian Aquifer, are generally very low to virtually zero. Of the 22 inches of annual rainfall entering the surficial aquifer, only two inches infiltrate downward into the Floridian. Progressing further south within the county, the Floridian Aquifer becomes more confined, receives little or no local recharge, and typically yields water that is highly mineralized. The most significant recharge areas are located within the Clearwater and

Dunedin areas. Below coastal communities, including Indian Rocks Beach, and adjacent mainland areas in southern Pinellas County, groundwater is saline and groundwater recharge rates are negligible.

In a draft document entitled “Recharge Areas of the Floridian Aquifer” (November 7, 1985), the West Coast Regional Water Supply Authority identified the area around the City of Indian Rocks Beach as having very low to no recharge. In terms of aquifer recharge, SWFWMD noted that “...In general, the most productive recharge areas are uplands with highly permeable soils and poorly developed surface drainage....” Taking this into consideration, SWFWMD identified the area around Indian Rocks Beach as being an area of no recharge to the Floridian Aquifer or any other aquifer.

B. Vacant or Undeveloped Land

1. Vacant Land

The City of Indian Rocks Beach is reaching the point of being a “built-out” community. There are currently 21.04 acres of vacant/undeveloped land representing 4.57 percent of the total land area. The majority of this land can be found in two tracts at Gulf Boulevard just south of 10th Avenue and the intersection of Miami Avenue and 2nd Street. The remaining acreage is in individually platted residential lots. Table 3 outlines the vacant land by future land use category and the corresponding acreage, density or intensity.

2. Soils

In the *Soil Survey of Pinellas County, Florida* (September, 1972) prepared by the Soil Conservation Service (SCS), it was determined that the types of soils found in the City of Indian Rocks Beach fell within the Made land-Palm Beach Association (see Map LU-3). This association is nearly level land extensively altered by man. It is formed by diking and dredging and by transporting fill material. The rest is characterized by narrow ridges and shallow valleys. This association is mostly on keys and in coastal areas. There is no surface drainage pattern; all drainage is through the soil. The vacant land remaining in the city can be classified as primarily Made-land with some Palm Beach. According to the SCS, these soils have only slight development limitations that can be easily overcome.

**Table 3
Vacant Land by Future Land Use Category**

Future Land Use Category	Acreage	Percentage
Residential Low (0-5 upa)*	4.34	21%
Residential Medium (0-15 upa)	4.16	20%
Resort Facilities High (0-30 upa)	5.31	25%
Residential/Office General (0-0.4 FAR)**	1.16	5%
Residential/Office/Retail (0-0.5 FAR)	0.00	0%
Commercial General (0-0.55 FAR)	0.68	3%
Preservation (0-0.1 FAR)	0.00	0%
Institutional (0-0.65 FAR)	0.00	0%
Transportation/ Utility	0.71	3%
Miscellaneous	4.68	23%
Total	21.04	100%

Source: Pinellas County Property Appraiser, 2007* upa = Units per acre

** FAR = Floor Area Ratio

Of the five soils that can comprise the Made land-Palm Beach Association, four can be found in the city. They are:

- Coastal beach - Very severe limitations
- Made land - Limitations vary
- St. Lucie fine sand, shell substratum - Slight limitations
- Tidal swamp - Very severe limitations

As used by the SCS, soil limitations were defined as follows:

Slight - Limitations are so minor that they can be overcome easily. The soil properties generally are favorable for the particular use, and good performance and low maintenance cost can be expected.

Severe - Limitations are difficult and costly to overcome. They require major soil reclamation, special design, or intensive maintenance because the soils have one or more properties unfavorable for the particular use.

Very Severe - Limitations indicate that very difficult and expensive reclamation is required or the soil properties are so unfavorable that use is prohibited.

That acreage associated with the vacant platted lots falls within the Made-land and St. Lucie soil types. It is important to note that the two large tracts of vacant or undeveloped land contain some Tidal swamp soil. Thus, the full development potential of these parcels is limited.

3. Topography

The city is located on the Sand Key barrier island, which runs from Clearwater Pass to John's Pass. The elevation of the city ranges from sea level to between five and 10 feet mean sea level (msl), with approximately two-thirds being at or below the elevation of five feet msl. With the Gulf of Mexico on one side and Clearwater Harbor on the other, together with the low elevation, the city is highly vulnerable to the dangers of flooding. Thus, the entire city lies within the 100-year flood zone. The Federal Insurance Administration calls a portion of the city west of Gulf Boulevard a Flood Velocity Zone. This zone would be subject to flood surge during a hurricane due to runoff from high waves breaking offshore in the shallows of the Gulf.

4. Natural Resources

Approximately 8.00 acres of wetlands can be found within the city. One-third of these wetlands are concentrated in one tidal mangrove swamp located on the Intracoastal Waterway south of 10th Avenue. Another two acres can be found on two islands located in the Intracoastal Waterway. A large marsh east of 2nd Street and south of 7th Avenue accounts for the remainder of the wetland acreage. Fringe mangrove areas can be found along nonseawalled shorelines.

The natural vegetation on the island consists of Australian pines, Brazilian pepper trees, several pockets of oaks and the two small remaining areas of mangroves. Native oak trees occur on several small vacant areas scattered throughout the community and on the lots of single-family homes. These trees provide all the values of nutrient assimilation, flood protection and erosion control, in addition to being shade and property value assets.

Due to the fact that there are several wetland areas within the city, it is possible to still find some native vegetation and wildlife. As described by Pinellas County, the types of dominant vegetation which could be found in such areas include red, black, white, and button mangroves. Other indigenous vegetation have been identified as salt marsh vegetation, saltwort, glasswort, epiphytes and fungi on prop-roots (low diversity). Common wildlife include the brown pelican, roseate spoonbill, herons, oysters, larvae of invertebrates, crabs, terns, ducks, ibis, skimmers, cormorant, frigate bird, marsh hawk, and fiddler crab.

See the *Coastal Management and Conservation Element* for a further discussion of the natural resources found within the city.

5. Historic Resources

There are currently no historic resources located within the community.

C. Land to Support Projected Population

As noted previously in this element, the City of Indian Rocks Beach is projected to have a permanent population of 4133 by the year 2015. All land that is currently vacant or undeveloped was the subject of a suitability analysis when the plan was originally adopted in 1999 and recited below. Therefore, there is no need to repeat this analysis. Land which was developed at the time of plan adoption and became vacant was already determined suitable in order to accomplish development. Land which was vacant at the time of plan adoption and which remains undeveloped is still subject to the suitability analysis previously conducted.

As will be discussed below, there is sufficient vacant/undeveloped land remaining in the city to support this population increase. Future land uses are depicted on Map LU-4.

1. Residential

About 13.81 acres of the remaining vacant land allow for residential use at a variety of densities. The permitted densities range from 7.5 units per acre in the Residential Urban land use category to 30 units per acre in the Resort Facilities High land use category. If the land were developed at the current designated densities, an additional 243 units could be built. Using the 2010 Census figure of 1.92 persons per household in the City of Indian Rocks Beach, the 243 units could support an additional 467 residents. According to Pinellas County, there is a projected increase of 61 permanent residents by the year 2025. Therefore, the current amount of vacant land can meet the projected permanent population demands through the year 2025.

2. Commercial

According to Table 3, there is currently 1.84 acres of vacant land that allow commercial or office development. Based on the standard of one acre of commercial property per 200 persons (Urban Land Institute, *The Community Builders Handbook*, 1968), 41.0 acres of commercial land would be needed to support the 7,017 residents (permanent and seasonal) projected by 2025. In 2007 there were 43.46 acres of commercial/office uses, or 106.00 percent of the necessary acreage. The excess commercial acreage can be attributed to two factors: (1) a large portion of the existing commercial acreage is focused on seasonal tourist facilities, not general retail; (2) the commercial establishments serve the needs of the city itself but also those of the smaller beach communities to the north and south.

3. Public/Semi-public

Due to the nearly built-out character of the community and the amount of land presently in public/semi-public use (17.64 acres), there is no need to designate

additional property for public facilities. Pursuant to Section 163.3177(6)(a), F.S., the city has adopted a resolution supporting the Pinellas County School Board regarding public educational facility siting. The resolution states that upon several siting conditions being met, the city will allow the placement of a public educational facility in any residential land use category. However, the lack of available vacant land will likely preclude a suitable site being found. Currently, there are no public schools located within the Indian Rocks Beach municipal boundaries.

D. Redevelopment

Because of the limited amount of vacant land, emphasis has been placed on redevelopment rather than development. Extensive redevelopment has been taking place along the west side of Gulf Boulevard, much of which has resulted in the demolition of single-family residences, duplexes, beach bungalows, and “mom and pop” motels, and the erection of condominiums and commercial tourist facilities.

The rezoning and change of land use within the “Narrows aka “Business District Triangle” is also providing redevelopment opportunities for the City of Indian Rocks Beach and its businesses. The Narrows aka “Business District Triangle” includes the Hamlin’s Landing Planned Unit Development. Some unique revitalization opportunities exist for the area with regard to the following:

- Parking
- Landscaping
- Pedestrian access
- Upgrading property values
- Rejuvenation of the entire area

Redevelopment has also occurred throughout various areas of the city, as opportunities and demands arose including:

- Pinellas County Park development; and
- Redevelopment west of Gulf Boulevard.

E. Flood Prone Areas

Because the city is located on a barrier island, it falls entirely within the 100-year flood plain. In addition, a velocity zone can be found along the coastline. The base flood elevation for the 100-year flood zone has been identified as 11 feet, while the velocity zone has been established at 14 feet. In accordance with the National Flood Insurance Program, all new construction is required to meet the minimum floor elevation. For a further discussion of floodplains and their associated issues, see the *Infrastructure Element*, and the *Coastal Management and Conservation Element*.

Transportation Element

The purpose of the Transportation Element shall be to plan for a multimodal transportation system that places emphasis on public transportation systems.

I. PURPOSE AND FORMAT

All local government comprehensive plans are required to contain a transportation element, as indicated in Chapter 163, Florida Statutes (F.S.). The purpose of the transportation element is to establish the desired future transportation system within the local government's jurisdiction and particularly to plan for future motorized and non-motorized traffic movement that places emphasis on public transportation systems. Traffic movements are a reflection of land uses, therefore, future land use designations will affect transportation. Improvements must be planned for heavy traffic volume areas in order to ensure less congestion and better circulation in the future.

To determine the status of a community's transportation system, a criterion must be established. The criterion is the determination of level of service (LOS). With this information a community can determine if improvements are necessary for its current roadway network and possible solutions based upon an acceptable standard which it establishes for comparison.

The transportation element must contain the following information: (1) an inventory of the existing transportation system, including the existing transportation map or map series; (2) an analysis of existing roadway deficiencies within the transportation system; (3) an analysis of projected needs; (4) a listing of goals, objectives, and policies; and (5) the future transportation map or map series. This information is provided in the remainder of this transportation element.

II. INTRODUCTION

This document presents the *City of Indian Rocks Beach Comprehensive Plan Transportation Element*. As indicated in the previous section, the transportation element reviews the performance of the existing transportation system, as well as the future system. Needs, issues, and opportunities are identified, along with specific goals, objectives, and policies as they relate to the transportation system.

Indian Rocks Beach is a community located in Pinellas County along the Gulf Coast of central Florida on a barrier island. The community is bordered on the north by the Town of Belleair Beach, the City of Belleair Beach, and on the south by the Town of Indian Shores. The remaining boundaries are the natural barriers of the Gulf of Mexico and Clearwater Harbor.

The major highway facilities in the city are SR 688 (Walsingham Road) and Gulf Boulevard, which is SR 699 south of SR 688 and CR 208 north of SR 688. Residents of Indian Rocks Beach utilize the Indian Rocks Road Bridge (SR 688) to reach Largo and the rest of the mainland. In addition, residents may go north on Gulf Boulevard to reach the Belleair Causeway to the mainland. All other facilities are classified as local streets. Bus transit services are provided to Indian Rocks Beach by the Pinellas Suncoast Transit Authority (PSTA) and the Suncoast Beach Trolley.

III. INVENTORY OF EXISTING SYSTEM

A. Existing Roadway Network

The 2004 functionally classified transportation network for the City of Indian Rocks Beach is illustrated in *Map T-4: Roadway Functional Classification*. With the exception of Walsingham Road, this network has essentially remained unchanged since the original adoption of the transportation circulation element of the comprehensive plan. A tabular listing of the 2020 Roadway Inventory is identified in *Table 1, 2020 Roadway Inventory and Level of Service*, while the 2040 Roadway Inventory is provided in *Table 2, 2040 Roadway Inventory and Projected Level of Service*. Included in these tables are the link identification number, on-street, from and to termini, number of lanes, road type, jurisdiction, functional classification, level-of-service standard, average annual daily traffic and peak hour traffic for 2020, and the resulting peak hour level of service.

The City of Indian Rocks Beach is served by three major roadway segments including:

- Gulf Boulevard (CR 208), from Belleair Causeway to SR 688; a two-lane divided minor arterial;
- Gulf Boulevard (SR 699), from SR 688 to Park Boulevard; a two-lane undivided minor arterial;
- Walsingham Road (SR 688), from Hamlin Boulevard to Gulf Boulevard (SR 699); a four-lane divided principal arterial.

B. Significant Parking Facilities

Significant parking facilities are defined by public parking facilities with greater than 100 spaces. According to the *Pinellas County Comprehensive Plan Transportation Element* (April, 2004), no significant parking facilities exist within the City of Indian Rocks Beach. Since none exist, this feature is not applicable to this transportation element.

Table 1
2020 Roadway Inventory and Level of Service

ID	On Street	From	To	# of Lanes	Road Type (1)	Jurisdiction (2)	Fac Type (3)	LOS Standard (4)	AADT (5)	Peak Volume (6)	Peak Hour Capacity (7)	LOS (8)
722	Gulf Blvd (CR 208)	Belleair Cswy	SR 688 Walsingham Rd	2	D	CR	SA	D	14,661	827 766	832	F
721	Gulf Blvd (SR 699)	SR 688 Walsingham Rd	Park Blvd	2	U	SR	SA	D	10,600	632 533	880	D
1057	SR 688 Walsingham Rd	Indian Rocks Rd	Gulf Blvd (SR 699)	4	D	SR	SA	D	48,202 16,400	954 856	1960	D

Source: 2020 Level of Service Report, Pinellas County Metropolitan Planning Office

Table 2
2040 Roadway Inventory and Projected Level of Service

ID	On Street	From	To	# of Lanes	Road Type (1)	Jurisdiction (2)	Fac Type (3)	LOS Standard (4)	AADT (5)	Peak Volume (6)	Peak Hour Capacity (7)	LOS (8)
716	Gulf Blvd (CR 208)	Belleair Cswy	SR 688 Walsingham Rd	2	D	CR	SA	D	14,200	742	832	C
714	Gulf Blvd (SR 699)	SR 688 Walsingham Rd	Park Blvd	2	U	SR	SA	D	12,229	639	880	C
1049	SR 688 Walsingham Rd	Indian Rocks Rd	Gulf Blvd (SR 699)	4	D	SR	SA	D	20,873	1,091	1,960	B

Source: 2040 Year 2040 Long Range Transportation Plan Traffic Forecast and Level Service Analysis, Pinellas County Metropolitan Planning Office

- NOTES: (1) Road type refers to a road that is either divided (D) or undivided (U).
(2) Jurisdiction refers to whether the link is a state road (SR) or county road (CR) including responsibility for maintenance.

- (3) Functional classification refers to whether the link is a principal arterial (PA) or a minor arterial (MA) .
- (4) The adopted level of service (LOS) standard for the city.
- (5) The average annual daily traffic (AADT) volume on the roadway as reported in by the MPO.
- (6) Peak hour volume is the estimated one hour volume as computed by multiplying the AADT by the appropriate FDOT K-Factor as described in *Florida's Level of Service Standards and Guidelines Manual for Planning*, August 1995.
- (7) Peak hour capacity as reported in the MPO's *2020 Level of Service Report*.
- (8) Level of Service (LOS) is the letter grade from A to F, with A being the best and F being the worst.

C. Mass Transit

Although no transit service is operated by the city, the Pinellas Suncoast Transit Authority (PSTA) does provide fixed route bus service. PSTA operates one fixed bus route into the City of Indian Rocks Beach; route 59 travels along Walsingham Road to 1st Street. Route 80 travels along Belleair Beach Causeway to Gulf Blvd. and turns around. The Suncoast Beach Trolley services the Beach communities along Gulf Boulevard. The transit service provides access south along the coast and east to the mainland. Since plan adoption, the city has worked cooperatively with PSTA on route realignment and the installation of bus shelters. This transit service is illustrated in the *PSTA Bus System Map*.

D. Bicycle, Golfcart and Sidewalk Facilities

The recently improved Gulf Blvd. from SR 688 north to Belleair Beach Causeway includes a three (3') foot wide bike lane. Improvements have recently been completed for a portion of Gulf Boulevard south of SR 688, which includes the installation of a five (5') foot wide bike lane and a five (5') foot wide pedestrian walkway on both sides of the road. These facilities are illustrated in *2004 Bicycle Laning Facilities Provision and Map*.

E. Port, Airport, and Freight Rail Line Facilities

There are no such facilities within the city.

F. Intermodal Facilities and Truck Routes

Intermodal facilities are transportation facilities that integrate different forms of carriers to move people and goods, e.g., airports and rail stations. As in 1989, the City of Indian Rocks Beach has no intermodal facilities. Pinellas County adopted Ordinance # 89-54 which defines truck routes and time of day restrictions. This ordinance indicates that SR 688 and Gulf Boulevard (SR 699), from SR 688 to Park Boulevard, are unrestricted truck routes in the city. Truck routes are illustrated in *2004 Pinellas County Truck Route Plan*.

G. Hurricane Evacuation Routes

The Tampa Bay Regional Planning Council prepared the *Tampa Bay Region Hurricane Evacuation Study, Technical Data Report Update* in September of 2006. This extensive study is the basis for delineation of evacuation zones and the computation of clear zone response times in Pinellas County. The study also identified the regional evacuation routes. There are two (2) evacuation routes designated for the city. The first route is east on SR 688 to Ulmerton Road; and continues east on Ulmerton Road, and then north on I-275 to the Howard Frankland Bridge across Tampa Bay. The second route continue east on Park Road, following US 62 to the Gandy Bridge across Tampa Bay. The second route continues east on Park Road, following US 62 to the Gandy Bridge across Tampa Bay. The portion of the evacuation route within the city is illustrated in *Map T5-19: 2006 Pinellas County Evacuation Routes*.

H. Review of Accidents

No areas with a high frequency of accidents were identified within the city.

IV. ANALYSIS OF EXISTING DEFICIENCIES

A. Mode Split and Vehicle Occupancy

Mode split and vehicle occupancy data were not available for the City of Indian Rocks Beach.

B. Transportation Disadvantaged Population

Data regarding the characteristics of the transportation disadvantaged population in the City of Indian Rocks Beach are not available. However, according to the *Pinellas County MPO Transportation Disadvantaged Service Plan 2013-2017*, “approximately 8 percent of Pinellas County population is estimated to be transportation disadvantaged.” The largest concentration of the transportation disadvantaged population in Pinellas County is in the greater St. Petersburg area.

The Transportation Disadvantaged (TD) Program is administered countywide in Pinellas County by the PSTA designated as the community transportation coordinator (CTC) by the county. This state-funded program provides low-cost, non-emergency transportation throughout Pinellas County to individuals who qualify as “transportation disadvantaged.” To be qualified, a person must have no means of transportation, including family and friends, and an income of less than 200 percent of the federal poverty level. Using 31-day unlimited bus passes (Go Cards), TD Program customers can receive transportation to anywhere a bus can take them for a monthly reduced fee of \$11.020. For those unable to ride the bus, non-emergency service is provided by taxi cabs or wheelchair accessible vans. Cost is \$3 each one-way trip. The TD Program also administers the non-emergency Medicaid transportation program for those who are eligible.

C. Characteristics of Major Trip Generators and Attractors

The primary trip generators and attractors relate to the hotels, restaurants, and beaches along the coast within the City of Indian Rocks Beach. As a result, the major generators and attractors involve recreation and/or tourism.

D. Adequacy of Transportation System for Coastal Population Evacuation

The hurricane evacuation route described and illustrated previously was deemed adequate as recommended in the 2006 regional hurricane evacuation study.

E. Analysis of Intermodal Deficiencies

Since the city has no intermodal facilities, this requirement is not applicable to the City of Indian Rocks Beach.

V. ANALYSIS OF PROJECTED NEEDS

Projections were prepared of the future traffic circulation levels of service and system needs based upon the future land use patterns of Pinellas County. These projections serve as a basis for determining the need for new roadway facilities and expansions to support planned development and to maintain adopted LOS standards.

The City of Indian Rocks Beach is located within an urbanized area and is, therefore, within the Metropolitan Planning Organization (MPO) jurisdiction. The MPO 2040 traffic assignment was utilized with 2018 actual traffic counts to develop smoothed daily traffic volumes on the future network for 2040. The 2040 traffic assignment volumes are a result of the countywide traffic computer modeling process which is based upon future land use patterns of Pinellas County. Since no major development is planned for this community and the population is expected to remain constant as indicated in the *Future Land Use Element* of this plan, it is assumed that many of the future automobile trips will be the result of through trips to and from other parts of Pinellas County. Through the traffic modeling process, the trips to and from other parts of the county are accounted for. Therefore, the projected future traffic volumes for Indian Rocks Beach are considered reasonable and accurate.

A. Future Roadway Network

In 2007, the Pinellas County MPO adopted the *2040 Cost Feasible Transportation Plan*. *Table 2, 2040 AADT Traffic Forecast*, presented previously, illustrates those roadways from the adopted plan that are on the city transportation network. This table includes the link identification number, the on-street, from and to termini, number of lanes, road type, jurisdiction, functional classification, adopted city level-of-service standard, projected average annual daily traffic and peak hour capacity, and resulting level of service for 2040.

B. Projected Roadway Level of Service

Table 2 indicates that Gulf Boulevard expects to operate at LOS “C” and Walsingham Road (SR 688) is expected to operate at LOS “B”. The improvement on SR 688 from a two-lane undivided roadway to a four-lane divided roadway resolved the previous level-of-service problem on this segment. The city will monitor the roadways closely.

2040 Major Road Network: 2040 Lanes Policy Plan illustrates the projected functional classification and number of lanes for the 2040 network. The 2040 projected traffic volumes were derived from the Regional Transportation Analysis Model used in the development of the MPO *2040 Cost Affordable Transportation Plan*. These volumes were adjusted by the MPO using nationally recognized and accepted transportation planning methodologies and are illustrated in Table 2.

Future volumes are projected to increase on part of Gulf Boulevard and to increase on SR 688. Because the city is essentially built out, future traffic growth may not be as significant as projected. Therefore, the city should coordinate with the Pinellas MPO concerning the review of future traffic volumes and their reasonableness. *Table 2: 2040 Level of Service* indicates the projected level of service of the roads and reflects a level-of-service problem on Gulf Boulevard, from SR 688 to Park Boulevard.

C. Future Significant Parking Facilities

The existing conditions inventory indicates no significant parking facilities exist within the City of Indian Rocks Beach and none are anticipated in the future.

D. Future Mass Transit

The city anticipates continuing to receive bus transit service from PSTA through route 59, 61, 66 and 74 will coordinate future transit needs through PSTA. *2006 PSTA Bus System Map*, illustrates future transit service and is currently identical to the existing service. It is also anticipated that the major generators and attractors will continue to relate to access to the hotels and beaches along the coast.

E. Bicycle and Sidewalk Facilities

Connecting bicycle lanes along Gulf Boulevard within the City of Indian Rocks Beach are in the *Pinellas Bikeways Plan*. Sidewalks will continue to be maintained as they currently exist on Gulf Boulevard north of SR 688, south of SR 688 has been improved with the installation of a ten (10) foot pedestrian/bike lane on either side of the road. The future inventory of facilities is illustrated in *2004 Bicycle Lining Facilities Provision*.

F. Port, Airport, and Freight Rail Line Facilities

There are no existing or planned facilities within the city. Accordingly, this requirement is not applicable.

G. Intermodal Facilities and Truck Routes

No intermodal facilities exist within the city today and none are expected by the year 2025. As indicated previously, Pinellas County adopted Ordinance # 89-54 which defines truck routes and time of day restrictions. This ordinance indicates that SR 688 and Gulf Boulevard (SR 699) from SR 688 to Park Boulevard are unrestricted truck routes. It is anticipated that these roadways will continue to be truck routes in the future, as illustrated in, *2025 Pinellas County Truck Route Plan*.

H. Hurricane Evacuation Routes

The city will continue to follow the regional hurricane evacuation routes, which are consistent with the 2006 report update prepared by the Tampa Bay Regional Planning Council. The future hurricane evacuation route for the City of Indian Rocks Beach is assumed to be the same as the current route until such time as the region adopts a different route. The portion of the future evacuation route within the city is illustrated in, *2006 Pinellas County Evacuation Routes*.

I. Integration and Coordination

The review of existing and projected conditions for each of the transportation modes available in the City of Indian Rocks Beach suggests a commitment to the integration and coordination of transportation alternatives. The city is committed to the provision of a safe and efficient transportation network that provides for quality highways, public transportation, goods movement, bicycle facilities, and sidewalks.

VI. ISSUES AND OPPORTUNITIES

Local governments are to identify the major issues and problems in the community related to development, physical deterioration, and the location of land uses. In addition, the social and economic effects of these issues and problems should be analyzed. Ultimately, this information

can be used to form the basis for determining the types of plan amendments that are to be recommended as a result of the planning process.

The City of Indian Rocks Beach is nearly built out and no serious transportation circulation or development problems have been identified. However, key planning issues were identified as part of the update of the *Transportation Element*, as summarized below.

A. Key Planning Issues and Required Actions

1. Roadway Jurisdiction and Improvements: All major roadways within the City of Indian Rocks Beach are within the jurisdictional responsibility of Pinellas County and FDOT, and therefore, are not within the jurisdictional responsibility of the city.

Required Action: The following roadway improvements are in the *MPO 2025 Long Range Transportation Plan* and should be monitored by the city:

- Gulf Boulevard (SR 699), from SR 688 to Park Boulevard, has been improved in 2010 from a two-lane undivided to a two-lane undivided roadway with a 10 foot pedestrian/lane on either side.

2.

3. Level of Service: The city has had a level-of-service problem on Gulf Boulevard (SR 699) from SR 688 to Park Boulevard.

Required Action: The city should monitor existing and future level-of-service problems, along with the implementation of proposed solutions to these problems.

- SR 688 from Hamlin Boulevard to Gulf Boulevard operated at LOS “F” in 1996. The roadway was improved from a two-lane undivided to a four-lane divided roadway; it is currently operating under a LOS of “A”, exceeding the performance standard. The city will monitor this roadway and the planned improvement.
- Gulf Boulevard from SR 688 to Park Boulevard was operating at a LOS “F”. Currently is operating at a LOS “D” due to decrease in traffic volume. The city will monitor this roadway closely and consider the implementation of appropriate Transportation System and/or Demand Management actions to assist in alleviating this level-of-service problem.

4. Non-motorized Vehicles, Bicycle, Golf Cart and Pedestrian Facilities: All major roads in the City of Indian Rocks Beach are state and county roads. As a result, policies adopted by the state and county include these facilities where road improvements are made. The recently improved Gulf Blvd. from SR 688 north to Belleair Beach Causeway includes a three (3’) foot wide bike lane. Improvements have recently been completed for a portion of Gulf Boulevard south of SR 688, which includes the installation of a five (5’) foot wide bike lane and a five (5’) foot wide pedestrian walkway on both sides of the road. The bicycle and sidewalk facilities are illustrated in *2004 Bicycle Lining Facilities Provision and Pinellas County - 6 Year Work Program FY: 2006-2011*. The City adopted an ordinance in 2011 to allow golf carts on city owned roads.

Required Action: Through land development regulations, the city will consider the implementation of non-motorized vehicles, golf-carts, bicycle and pedestrian facilities on roadways where physically possible.

Housing Element

The purpose of the Housing Element is to provide guidance to local governments to develop appropriate plans and policies to meet identified or projected deficits in the supply of housing for moderate-income and very low-income households, group homes, foster care facilities and households with special needs.

I. INTRODUCTION

The City of Indian Rocks Beach is an island community located on Sand Key along the Gulf shore of Pinellas County. It is bordered on the north by Belleair Shore and Belleair Beach, and on the south by Indian Shores. The city is a predominantly residential area, with a great deal of focus on a single-family home environment. Its location on a barrier island has attracted residential development not only for permanent, but also for seasonal residents. However, because it is almost built out, there is limited opportunity for future growth.

Since the City of Indian Rocks Beach is not directly involved in the building and maintenance of housing, the responsibility lies with the private sector for both owner-occupied and rental housing. By ordinance, the city has adopted the *Florida Building Code* and the *Pinellas County Code*, along with a health and sanitary code, but beyond these guidelines, its role is minimal. The private sector remains the main provider and preserver of the housing stock.

II. INVENTORY

A. Characteristics of the Existing Housing Stock

1. The Age of the Housing Stock

Almost one-half of the housing stock in the city has been built since 1970. According to the 2000 Census figures, only 98 or 2.4 percent of the homes were built prior to 1939. The Table 1 shows the distribution of units by year constructed.

**Table 1
Housing Units by Year Constructed**

Year Constructed	City/Town		Pinellas County	
	# of units	% of total	# of units	% of total
April 2000-2005 ¹	224	5.3%	22,407	4.4%
1970-March 2000 ²	2828	66.4%	284,422	56.4%
1940 to 1969 ²	1106	26.0%	177,398	35.2%
1939 or earlier ²	98	2.3%	19,753	3.9%
Total Housing Units	4,256	100.0%	503,980	100.0%

Source: ¹ Pinellas County Building Department- Building Permits, 2007

² U.S. Census Bureau, 2000

2. Type of Dwelling Units

Based on the 2000 Census and estimates from the Pinellas County Planning Department the number of housing units in the city reached 4,032. Table 2 is an inventory of the housing types based on the 2000 Census. Multi-family units comprise sixty (60%) percent of the housing units.

**Table 2
Housing Types, 2000**

Type	Indian Rocks Beach		Pinellas County**	
	# of Units	% of Total	# of Units	% of Total
Single-Family	1,541	38%	261,008	54%
Multifamily	2,491	62%	169,202	35%
Mobile Home	0	0%	50,264	11%
Other*	0	0%	1,099	0%
Total	4,032	100%	481,573	100%

Source: US Census Bureau

*The 2000 Census definition of "other" includes railroad cars, campers, vans, and houseboats.

** Estimates for housing units by type, tenure, and value are calculated separately, and may not equal estimates for total housing.

The majority of housing units are multifamily. This housing type has increased by more than twenty (20%) percent since the 1990 Census. No mobile homes were reported during the 2000 Census; therefore, it appears that all previously existing mobile homes have been demolished.

3. Owner-Occupied and Renter-Occupied Dwelling Units

Table 3 is based on 2010 U.S. Census data. The rate of owner-occupancy in the City of Indian Rocks Beach has increased by approximately twenty one (21%) percent since the 2000 Census.

**Table 3
Housing Tenure*, 2000**

Tenure	Indian Rocks Beach		Pinellas County	
	# of units	% of total	# of units	% of total
Owner-Occupied	2,189	62.98%	415,876	82.57%
Renter-Occupied*	1,287	37.02%	87,578	17.43%
Total Households	3,476	100.0%	503,634	100.0%

Source: U.S. Census Bureau, 2010

*Includes seasonal housing units, units for rent and units for sale. .

4. The Cost of Housing: Rent Value and Monthly Cost of Owner-Occupied Units.

a. Monthly Gross Rent

In 2000, the median gross rent for renter-occupied housing units in Indian Rocks Beach was \$799 and \$616 for Pinellas County, as reported in the 2000 US Census. It is evidenced by data presented in Table 4 that the orientation of the rental market in Indian Rocks Beach is toward higher-rent units. Table 4 illustrates monthly gross rent of renter-occupied housing units.

**Table 4
Monthly Rent: 2000**

Dollars per month	Indian Rocks Beach # Units	Pinellas County # Units
Less than \$100	0	439
\$100 to \$149	0	1,219
\$150 to \$199	0	1,681
\$200 to \$249	0	1,927
\$250 to \$299	0	1,992
\$300 to \$349	10	3,731
\$350 to \$399	18	4,640
\$400 to \$449	29	6,844
\$450 to \$499	18	9,522
\$500 to \$549	65	11,266
\$550 to \$599	49	11,281
\$600 to \$649	64	11,227
\$650 to \$699	68	10,016
\$700 to \$749	42	8,466
\$750 to \$799	45	6,652
\$800 to \$899	86	8,994
\$900 to \$999	48	6,093
\$1,000 to \$1,499	206	7,445
\$1,500 to \$1,999	34	2,092
\$2,000 or more	32	900
No Cash Rent	80	4,602

Source: U.S. Census Bureau

b. Value of Owner-Occupied Housing

The median value of owner-occupied housing units for the City was \$168,000 and \$96,500 in the County as reported in the 2000 U.S. Census. When compared to the last decennial census, the median value of an owner occupied house in the City of Indians Rocks Beach increased by approximately thirty-four (34%) percent. Table 5 illustrates the range of housing values for all housing units.

Table 5
2000 Housing Values (in dollars)

	< \$10,000	\$10,000 to \$14,999	\$15,000 to \$19,999	\$20,000 to \$24,999	\$25,000 to \$29,999	\$30,000 to \$34,999	\$35,000 to \$39,999	\$40,000 to \$49,999	\$50,000 to \$59,999	\$60,000 to \$69,999	\$70,000 to \$79,999	80,000 to \$89,999
Indian Rocks Beach	0	0	0	0	0	0	0	0	29	46	34	37
Pinellas County	9,763	4,317	4,169	4,311	4,940	6,118	7,009	16,802	22,294	26,123	26,424	26,107
	\$90,000 to \$99,999	\$100,000 to \$124,999	\$125,000 to \$149,999	\$150,000 to \$174,999	\$175,000 to \$199,999	\$200,000 to \$249,999	\$250,000 to \$299,999	\$300,000 to \$399,999	\$400,000 to \$499,999	\$500,000 to \$749,999	\$750,000 to \$999,999	\$1,000,000 or more
Indian Rocks Beach	67	136	229	240	225	245	138	133	143	74	20	10
Pinellas County	20,968	31,626	24,415	15,676	10,173	10,776	7,608	6,730	2,965	2,569	1,070	916

Source: U.S. Census Bureau

c. Monthly Cost of Owner-Occupied Housing

According to the 2000 decennial U.S. Census, the median monthly costs of owner-occupied mortgaged non-condominium housing units in the City was \$1,339 and \$438 per month if the unit was not mortgaged. Tables 6 and 7 depict the monthly costs of owner-occupied units. Tables 7 & 8 depict the cost and value of housing in median gross rent and median value of owner-occupied units.

Table 6
2000 Owner-Occupied Housing Cost with Mortgage (in dollars)

	< \$200	\$200 to \$299	\$300 to \$399	\$400 to \$499	\$500 to \$599	\$600 to \$699	\$700 to \$799	\$800 to \$899	\$900 to \$999	\$1,000 to \$1,249	\$1,250 to \$1,499	\$1,500 to \$1,999	> \$2,000
IRB	0	0	0	0	9	46	14	36	20	147	120	120	117
Pinellas Co.	105	745	2,373	5,938	10,254	15,129	17,043	16,329	13,671	24,700	15,006	14,566	12,227

Source: U.S. Census Bureau 2000

Table 7
2000 Owner-Occupied Housing without Mortgage (in dollars)

	< 100	\$100 \$149	\$150 \$199	\$200 \$249	\$250 \$299	\$300 \$349	\$350 \$399	\$400 \$499	\$500 \$599	\$600 to \$699	\$700 \$799	\$800 \$899	\$900 \$999	\$1,000 or more
Indian Rocks	0	0	0	0	27	48	58	117	0	25	38	9	0	10
Pinellas County	649	2,029	5,957	9,713	10,338	8,238	5,921	7,214	3,887	2,050	1,232	784	421	1,357

Source: U.S. Census Bureau 2000

Table 8
Cost and Value of Housing, 2000

Ownership	Indian Rocks Beach	Pinellas County
	2000	2000
Median Gross Rent	\$799	\$616
Median Value of Owner-Occupied Units	\$168,000	\$96,500

Source: U.S. Census Bureau, 2000

5. Cost-to-Income Ratio for Housing Units

The level of household income serves as a determining factor in the choice of decent affordable housing. According to the Department of Economic Opportunity, a household is considered to be paying an excessive percentage of their annual income for housing if the cost-to-income ratio exceeds 30 percent. The level of family income also serves as a determining factor in the choice of owned housing. Mortgage qualification is difficult if projected costs including mortgage, taxes, insurance and utilities exceed 30 percent of the household income. Table 9 demonstrates the cost-to-income ratio for owner-occupied units and renter occupied units. The table indicates the 31.7 percent of the homeowners and 37.0 percent of renters in Indian Rocks Beach are paying over 30 percent of their income for housing.

Table 9
Household by Housing Cost, 2000 Households

Households	Indian Rocks Beach	Pinellas County
	2000	2000
Renter-occupied households paying 30% or more of their income for rent	37.0%	39.9%
Owner-occupied households paying 30% or more of their income for mortgage cost	31.7%	24.1%

Table 10
Estimated and Projected Households* by Housing Costs as a Percentage of Income, 2005-2025

Households	2005		2010		2013 ¹		2020		2025	
	# of units	% of units	# of units	% of units	# of units	% of units	# of units	% of units	# of units	% of units
Renter-occupied households paying 50% or more of their income for rent	147	52.3%	155	49.2%	159	47.6%	167	44.5%	176	43.3%
Owner-occupied households paying 50% or more of their income for mortgage cost	134	47.7%	160	50.8%	174	52.4%	208	55.5%	230	56.7%
Total Households	281		315		333		375		406	

Source: Shimberg Center for Affordable Housing, 2007

* Includes only households with income less than 80 percent of median.

¹ Formula to project housing units into the 5-year planning period per tenure: $(2015 \# \text{ units} - 2005 \# \text{ units} = x \text{ units}) / 10 \text{ years} = Y \text{ units}$. $(Y \text{ units} * 3) + 2005 = 2013 \text{ units}$.

The Office of Housing and Urban Development programs defines households paying more than 50 percent of their income in rent or mortgage as severely cost burdened. For 2005, the ratio for severely cost burdened renters was fifty-three (53%) percent. In 2013 and 2025, severely cost burdened renters are projected to be 48 and 43 percent. The trend for renters in Indian Rocks Beach paying 50 percent or more of their income in rent will decrease as more of the relatively affordable stock is removed from available inventory. In contrast, it is projected that owner occupied households paying 50 percent or more of their income in mortgage cost will increase.

The estimated 2005 ratio of owner occupied households paying 50 percent or more of their income was 48 percent. For 2013 and 2025 the owner cost burden estimates will increase to 52 and 57 percent.

B. Conditions of Housing Stock

Substandard housing can be categorized as those lacking complete plumbing facilities, complete kitchen facilities, lack of fuel for central eating and crowdedness (1.01+persons per room). Table 11 displays the number of housing that meets the substandard criteria according to the 2002 Census.

More than one of these conditions may appear in the same housing unit. The findings of interior substandard housing conditions are summarized in Table 11. Only 1.5 percent of the housing stock for the City of Indian Rocks Beach is considered to be substandard according to the 2000 U.S. Census.

Other measures of interior housing conditions considered to be substandard are identified in the 2000 U.S. Census. These measures are: a lack of complete plumbing for exclusive use; lacking complete kitchen facilities; lacking central heating; and overcrowded conditions (1.01+ persons per room). More than one of these conditions may appear in the same housing unit. The findings of interior substandard housing conditions are summarized in Table 11.

Table 11
Substandard Housing Conditions, 2000

Substandard Units	City/Town		Pinellas County	
	# of units	% of total	# of units	% of total
Units Lacking Complete Plumbing*	8	12.9%	1,232	7.0%
Units Lacking a Complete Kitchen*	8	12.9%	2,111	12.0%
Units Lacking Heat**	24	38.7%	2,946	16.8%
Overcrowded Units†**	22	35.5%	11,276	64.2%
Total Substandard Units	62		17,565	

Source: U.S. Census Bureau, 2000

* Calculated for all housing units.

** Calculated for occupied housing units.

† As defined by the U.S. Census Bureau, a dwelling containing more than 1.01 persons per room is overcrowded.

C. Subsidized Housing Developments

In 2000, no housing units were federally subsidized within the City of Indian Rocks Beach. However, the city has entered into a multi-year cooperation agreement with Pinellas County for the Community Development Block Grant Program. Funds associated with this program are provided to the county by the United States Department of Housing and Urban Development. Pinellas County Community Development Department then distributes the money to be used on various projects involving housing and community redevelopment. Some of the programs

available to developers for remodeling and new construction are Model Home, Operation KickStart, & Remodeler Programs, Rental Housing Development and Owner Housing Development programs.

D. Group Homes

There are no Florida Department of Children and Families licensed group homes located within the corporate limits of the City of Indian Rocks Beach.

E. Mobile Home Parks

There are no mobile homes located within the corporate boundaries of the City of Indian Rocks Beach according to the 2000 Census. At one time there was a mobile home park, but in 1992 the mobile homes were removed and the site was converted into a recreational vehicle park.

F. Historically Significant Housing

The city has no properties listed in the *National Register of Historical Places* or *Florida Master Site File* and no nomination proposals are pending.

G. Housing Construction Activity

Based on information compiled from the 2000 U.S. Census and the City of Indian Rocks Beach, Table 11 inventories housing construction activity from April 2000 to April 2005. No demolition breakdown is available.

**Table 12
Housing Construction Activity**

	Single-Family	Multifamily	Mobile Home
Construction	126	98	0

H. Seasonal and Tourist Housing Units

**Table 13
Seasonal and Tourist Housing Units**

	IRB# of Units	Pinellas County # of Units
Housing Units Held for Seasonal, Recreational, or Occasional Use	990	34,111
Hotel and Motel Units*	238	
Total Seasonal and Tourist Units	1228	

Source: Determined through telephone calls to hotel and motels within municipality.

Table 13 illustrates the number of available seasonal, recreational, and occasional use units and the number of hotel and motel units in the City of Indian Rocks Beach and Pinellas County.

III. ANALYSIS

A. Introduction

The city covers approximately 515 acres and cannot further annex or expand without encountering environmental constraints. The city is in a unique geographic position being located on a barrier island between the City of Belleair Beach to the north and the Town of Indian Shores to the south. To the east is Boca Ciega Bay and Clearwater Harbor north of the Indian Rocks Bridge. The Gulf of Mexico is to the West.

B. Projected Number of Households by Size and Income

Two planning timeframes are included in the population analysis, “one for at least the first five-year period subsequent to the plan’s adoption and one for at least an overall ten-year period.” Pursuant to the Rule, the timeframes of 2015 and 2025 have been selected. The following table shows the Pinellas County population projections for the City of Indian Rocks Beach which will assist in determining the future number of households in the city and therefore, the future housing need.

Table 14
Permanent Population Estimates and Projections, 2010-2025

Year	Population
2010	4,113
2015	4,133
2020	4,153
2025	4,174

Source: Pinellas Co. Planning Dept., *Population Projection Report, 1995-2030*
¹U.S. Census, 2000

The projected numbers of households by size is found in Table 15. The trend shows that most households will have one or two persons. This may be due to retirement age population moving to Indian Rocks Beach. Table 16 shows the projected number of households in the City of Indian Rocks Beach by income.

Table 15

Estimated and Projected Households by Size, 2005-2025

Household Size	2005		2010		2013 ¹		2020		2025	
	# of units	% of total	# of units	% of total	# of units	% of total	# of units	% of total	# of units	% of total
1-2 Persons	1,966	82.9%	2,025	84.3%	2,051	85.1%	2,111	87.0%	2,137	87.9%
3-4 Persons	341	14.4%	312	13.0%	296	12.3%	260	10.7%	244	10.0%
5 or More Persons	65	2.7%	65	2.7%	62	2.6%	56	2.3%	51	2.1%
Total Households	2,372	-	2,402		2,409		2,427		2,432	

Source: Shimberg Center for Affordable Housing, 2007; Pinellas County Planning Dept., 2007

¹ Formula to project housing units into the 5-year planning period: $(2020 \text{ \# units} - 2010 \text{ \# units} = x \text{ units}) / 10 \text{ years} = Y \text{ units. } (Y \text{ units} * 3) + 2010 \text{ units} = 2013 \text{ units.}$

**Table 16
Estimated and Projected Households by Income Range, 2005-2025**

Source: Shimberg Center for Affordable Housing, 2007; Pinellas County Planning Dept., 2007

Income Ranges	2005		2010		2013 ¹		2020		2025	
	# of units	% of total	# of units	% of total	# of units	% of total	# of units	% of total	# of units	% of total
Extremely Low Income (<30% of median)	206	8.7%	209	8.7%	216	9.0%	232	9.6%	242	9.9%
Very Low Income (≥30% and <50% of median)	244	10.3%	257	10.7%	265	11.0%	283	11.7%	303	12.5%
Low Income (≥50% and <80% of median)	434	18.3%	447	18.6%	456	18.9%	476	19.6%	484	19.9%
Moderate Income (≥80% and <120% of median)	513	21.6%	523	21.8%	524	21.7%	526	21.7%	527	21.7%
Above Moderate Income (≥120% of median)	976	41.1%	966	40.2%	949	39.4%	909	37.4%	876	36.0%
Total Households	2,372		2,402		2,410		2,427		2,432	

Note: Calculations are for permanent, non-seasonal households only. Percentages of household income are based on the Shimberg Affordable Housing Needs.

¹ Formula to project housing units into the 5-year planning period: (2020 # units – 2010 # units = x units) / 10 years = Y units. (Y units * 3) + 2010 units = 2013 units

Table 16 illustrates the estimated and projected households by income range. For the year 2013, sixty-one (61%) percent of the households in the City are projected to be at or above moderate income; whereas, thirty-nine (39%) percent of the units are projected to be occupied by households with incomes below the moderate range. Source: Pinellas County Planning Dept., 2007

Note: Calculations are for permanent, non-seasonal households only.

¹ Formula to project housing units into the 5-year planning period: (2020 # units – 2010 # units = x units) / 10 years = Y units. (Y units * 3) + 2010 units = 2013 units

**Table 17
Estimated and Projected Housing Units by Type, 2005-2025**

Housing Type	2005 # of units	2010 # of units	2013¹ # of units	2020 # of units	2025 # of units
Single-family	1,230	1,245	1,249	1,258	1,260
Multifamily	1,763	1,786	1,791	1,804	1,807
Total Housing Units	2,993	3,031	3,040	3,062	3,067

Table 17 depicts the estimated and projected housing units by type. The majority of Indian Rocks Beach residents live in multifamily housing. According to the Pinellas County Planning Department, in 2005 multifamily units comprised fifty-eight (58%) percent of the total housing units. This trend is projected to continue through the 2025 planning period. Although Pinellas County population projections include mobile homes within the City, according to the 2000 U.S. Census, no mobile homes existed within Indian Rocks Beach. Due to its location within a Coastal High Hazard Area, the placement of new mobile homes is prohibited; therefore, no mobile homes are projected within the City throughout the planning period and are not included in the projected unit counts.

**Table 18
Estimated and Projected Housing Units by Tenure, 2005-2025**

Tenure	2005	2010	2013¹	2020	2025
Owner-Occupied Housing Units	1,587	1,607	1,612	1,623	1,626
Renter-Occupied Housing Units	785	795	798	804	805
Total Housing Units	2,372	2,402	2,410	2,427	2,431

Source: U.S. Census Bureau 2000; Pinellas County Planning Dept. 2007

Note: Calculations are for permanent, non-seasonal households only.

¹ Formula to project housing units into the 5-year planning period per tenure: (2020 # units – 2010 # units = x units) / 10 years = Y units. (Y units * 3) + 2010 units = 2013 units.

Table 18 illustrates the estimated and projected housing units by tenure. Home ownership is prevalent in Indian Rocks Beach. In 2005 owner-occupied units comprised sixty-seven (67%) of the housing units; this percentage is projected to continue through the 2025 planning period.

C. Projected Housing Need

1. Affordable Housing Need

Based on Pinellas County’s population projections and the Shimberg Center Affordable Housing Needs Assessment, the following discusses the housing needed to support existing and future residents. The Shimberg Center defines the number of housing units needed as “...the number of households plus the number needed to provide an adequate vacant supply for householders to choose from.” The vacant supply is based on the U.S. Census 2000 vacancy rate, which was 33 percent in the City of Indian Rocks Beach. Vacancy rates have increased by approximately eight (8%) percent when compared to

last decennial census. Additionally, only units which are in the permanent housing stock, not seasonal units are considered in this analysis.

Due to the type of sample taken from the 2000 U.S. Census information, housing needs may not have the same totals when compared. According to the Shimberg Center, the reason for this occurrence is that housing data is taken from a weighted sample of information rather than a 100 percent count of responses.

Due to the fact that the housing need increases over time reflecting projected population growth, the need numbers may overstate the projected need likely to exist in the jurisdiction.

2. Projected Total Need

As projected by the Shimberg Institute and based on Pinellas County population projections, Table 15 shows the total housing need through the year 2025.

3. Projected Number of Housing Units by Type

According to Pinellas County estimates, in 2005, there were 1,230 single-family homes and 1,763 multifamily units in the city. Table 17 shows the projected housing need by type.

4. Projected Need by Income and Cost

Chapter 420, State Housing Initiatives Partnership (SHIP), Florida Statutes, establishes income ranges that define affordability groups. These income ranges are defined below on Table 19. Table 17 shows the number of households by income and affordable house price. The affordable house price is based on the Shimberg Institute's figure of affordability at 2.11 times a household's annual income. The 2.11 factor was obtained from the Florida Housing Finance Agency and "...approximates the housing unit affordable at prevailing qualification standards for a mortgage loan." This number is specific to purchased housing though. A rental unit is considered affordable if it is less than 30 percent of a household's annual income.

Income ranges are defined in the below.

Very-low income person: One or more persons or a family, not including students, that has a total annual adjusted gross household income that does not exceed 50 percent of the median annual adjusted gross income for households within the metropolitan statistical area.... While occupying a rental unit, a very-low income household's annual income may increase to 140 percent of the 50 percent of the median income adjusted for family size.

Low-income person: One or more persons or a family, not including students, that has a total annual adjusted gross household income that does not exceed 80 percent of the median annual adjusted gross income for households within the metropolitan statistical area.... While occupying a rental unit, a low income household's annual

income may increase to 140 percent of the 80 percent of the median income adjusted for family size.

Moderate-income person: One or more persons or a family, not including students, that has a total annual adjusted gross household income that does not exceed 120 of the median annual adjusted gross income for households within the metropolitan statistical area.... While occupying a rental unit, a moderate income household's annual income may increase to 140 percent of the 120 percent of the median income adjusted for family size.

Source: Section 420.9071, State Housing Initiatives Partnership, Florida Statutes

In 2000, the median income in Pinellas County was \$37,111. Based on the above definitions, in 2000 a very-low income household would earn less than \$18,555 annually, a low-income household would earn \$29,688, with a moderate income household having a gross income of not more than \$44,533. Census data shows that in 2000, 41 percent of the residents in the City of Indian Rocks Beach earn under \$35,000 per year. This figure indicates that 41 percent of city households can be classified as being within either the very-low, low, or moderate income ranges.

During the 1990 decennial Census, 50 percent of households were classified as being in the very-low, low, or moderate income categories. It appears that more affluent households have moved into this part of the barrier island or that lower income families have out migrated. Evidently economic characteristics have improved for Indian Rocks Beach as reflected by a nine (9%) percent decrease in households paying 30 percent or less of their income in housing.

Although there appears to be a deficit in affordable housing for these income ranges, part of this can be explained by the large number of retirees who may have sold homes in other states to finance the purchase of a home in Indian Rocks Beach. Such a transaction would allow the homeowner to purchase the home outright or to have a very small mortgage. This one-time sale of the home in another state would not have been reflected in the Census definition of income and thus, the retired homeowner's income would not appear to be large enough to afford housing in a barrier island community. One other possible explanation is that many homeowners purchased homes in the community prior the 1975, before housing prices began to outpace household income and before property values in Florida coastal communities appreciated so dramatically.

5. Need for Rural and Farm worker Households

Pinellas County and its municipalities are fully urbanized. According to the *Census of Agriculture*, the number of farms in Pinellas County has steadily declined. In 2002 (the latest published census), farm acreage accounted for nine-tenths of one percent of all land in the county. There are no existing rural area or farm worker households and there is no future need for those households. Therefore, this requirement does not apply.

6. Replacement of Housing Units

Replacement of housing units due to deterioration is not a problem in the City of Indian Rocks Beach. Given the high demand for housing units in coastal areas, the redevelopment trend is expected to continue. Where housing units are removed as part of a federal housing program, such as the Community Development Block Grant, households will be relocated and the units will be replaced as per the program requirements. Where individual housing units are removed by private owners, replacement is at the discretion of the owner.

7. Maintenance of an Adequate Vacancy Rate

As previously mentioned, the vacant supply is based on the U.S. Census 2000 vacancy rate, which was 33 percent in the City of Indian Rocks Beach. The vacancy rate has increased by approximately eight (8%) percent when compared to last decennial census. Additionally, only units which are in the permanent housing stock, not seasonal units are considered in this analysis.

**Table 19
Projected Housing Need by Tenure**

2005		2010		2015	
Own	Rent	Own	Rent	Own	Rent
1,587	785	1,607	795	1,617	801

Source: Shimberg Institute Affordable Housing Needs Assessment, 2006.
U. S. Census 2010

**Table 20
Permanent and Seasonal Population Estimates and
Projections, 2005, 2010, 2015, 2020, 2025**

Year	Permanent Population	Seasonal Population		Total Population
		Permanent Housing*	Tourists	
2010	4113	1655	1158	6926
2015	4133	1658	1158	6949
2020	4153	1666	1163	6982
2025	4174	1674	1169	7017

*Seasonal Residents living in permanent housing, excluding tourists
Source: Pinellas Co. Planning Dept., 2011

D. Land Requirements for Housing Needs

Of the vacant land remaining in the city, 21.04 acres allow for residential use at a variety of densities. If the land were developed at the current densities designated on the properties, an additional 220 units could be built. As discussed in more detail in the *Future Land Use Element*, there is sufficient land available to accommodate the projected number of new housing units within the city's geographic jurisdiction.

The population forecast shows that growth will be minimal, representing only 0.8 percent of growth over the planning period. Therefore, new housing will not be required. The negligible increase in population can be accommodated in units that are calculated in the vacancy rate for the City.

The additional single family housing units needed from planning period 2013 through 2025 is minimal at 11 units. At an allowed density of 7.5 units per acre the need for land is .46 acres to build the 11 units. Likewise, the additional multifamily housing units need from the same planning period is 16 units. At an allowed density of 15 units per acre the need for land is less than one acre.

E. Private Sector Provision of Housing

It is expected that all of the future housing needs identified in this analysis can and will be met by the private sector. The high demand for homes on coastal barrier islands makes construction of such homes economically attractive to builders/developers. Changes in market conditions, such as an increase in interest rates, however, will affect the private sector housing delivery system. All housing is delivered by the private sector.

F. The Private Sector Housing Delivery Process

While the private sector finances and builds the housing units, local governments issue building permits and perform inspections of the units based on health and safety issues established in and through the Florida Building Code. Building permits are issued in compliance with local land development regulations.

1. Land

There are currently 21.04 acres of vacant land in the City of Indian Rocks Beach of which 13.81 are designated for residential use. If developed under the current designations, the acreage could support an additional 467 permanent residents based on the 2010 Census figure of 1.92 persons per household in the City of Indian Rocks Beach. Due to the limited amount of vacant land and the high price of land in a beach community, there is no great demand for new residential development.

2. Finance

Financing affects the purchaser and builder's cost as well. Although the high cost of land in the city tends to preclude any public housing and public housing programs, the City of Indian Rocks Beach does participate in the Pinellas County Consortium under the Community Development Block Grant (CDBG) and the HOME Investment Partnerships (HOME) programs to facilitate financing for private purchasers in lower income ranges.

3. Services

All services are provided by the city with the exception of potable water which is supplied by the Pinellas County Utilities System. Wastewater treatment is handled at the South Cross Bayou Treatment Plant. Solid waste is disposed of at the Pinellas County Waste-To-Energy Plant according to a county ordinance requiring all refuse to go to the plant unless the county has issued a permit for another disposal means. The services are discussed in more detail in the *Infrastructure Element*.

As a part of development, the city charges several fees for services rendered, and for impacts on the existing facilities. The city also charges various fees for site plan review, and redevelopment or building permits. The fees for development are outlined as follows:

- Development fee - \$250 per unit
- Recreational impact fee - \$250 per unit
- Sewer impact fee - \$600 per unit
- Sewer connection fee - \$250 per unit
- Multi-modal impact fee - Varies by land use

G. The Impact of Government Regulations

During the last two decades, governmental authority over residential development has greatly expanded in response to heightened concern for the quality of the urban environment. These increases in federal, state and local regulations are responsible, in part, for the rise in housing costs. The focus of this section is to examine the cost implications of these government regulations.

The following regulatory tools are governmental programs which have an effect on housing costs in the region:

- Environmental requirements
- Land development regulations
- Building codes

The relationships between these requirements which increase housing costs are discussed below.

1. Environmental Requirement

The administration of environmental regulation, which are intended to minimize the destruction of the natural physical environment, can delay residential construction and increase the cost of housing. Balancing the desirable goal of preserving the environment with the equally important need for affordable housing is not easily accomplished and should be thoroughly examined.

Coastal Construction regulations require that all new seawalls must have filter systems; repair of seawalls due to erosion or storm damage require a permit; new construction in Zones 1 and 2 require engineers certified by the state.

Dredge/fill regulations (federal and state) are designed to protect the environment but require extensive documentation and costs in order to obtain a permit. The regulations also indicate that large projects that require federal approval may take more than a year because of the possible requirement of a public hearing.

2. Land Development Regulations (LDRs)

As required by Section 163.3202, F.S., all municipalities within Florida are required to adopt and enforce land development regulations that are consistent with the comprehensive plan. Among other things, the land development regulations ensure that adequate public facilities and services are available, natural resources are protected, and incompatible land uses are separated. Specifically, land development regulations must, at a minimum,

- Regulate the subdivision of land;
- Regulate the use of land and water;
- Provide for the protection of potable water wellfields;
- Regulate areas subject to seasonal and periodic flooding and provide for drainage and stormwater management;
- Ensure the protection of environmentally sensitive lands designated in the comprehensive plan;
- Regulate signage; and
- Provide that public facilities and service meet adopted level of service standards.

3. Building Codes

The *Florida Building Code*, which is used throughout the Tampa Bay Region, was designed to provide standardization of construction requirements. New building materials and technology may offer a major way of reducing housing costs to the customer.

H. **Special Topics in Housing**

Topic 1:

The provision of housing with supporting infrastructure for all current and anticipated future residents of the jurisdiction with particular emphasis on the creation or preservation of affordable housing to minimize the need for additional local services and avoid the concentration of affordable housing units only in specific areas of the jurisdiction.

The infrastructure currently in place is adequate to meet the projected population to meet the future needs of city residents in an effective, economical manner. Where additional housing units are not anticipated, the supporting infrastructure will continue to be maintained to provide the adopted level-of-service standards throughout the community. The city does scheduled maintenance and repair of infrastructure facilities for which it is responsible. The city will maintain an appropriate millage rate to pay for services provided to residents. The city provides the same level, amount, and quality of infrastructure to all residents in all areas without regard to income levels.

The City of Indian Rocks Beach relies entirely on the private sector, supplemented by outside government programs, to ensure the provision of adequate housing. According to Table 16, there is a need for affordable housing for those households that earn less than \$44,533 per year or those households making up to 120% of the area median income. Due to the high cost of land, however, low-cost housing is difficult to provide. However, affordable housing is available in the nearby cities of Largo and Clearwater. There are a number of housing assistance programs available to the residents of the city, including Section 8 and low interest loans; and the city participates in the Community Development Block Grant program and the HOME Investment Partnerships program. The city will, additionally, take the actions available (e.g., various

residential densities, waiver of fees) to encourage the development of very-low, low, and moderate income housing, where the need for it is identified.

Topic 2:

The elimination of substandard housing conditions and for the structural and aesthetic improvement of housing.

High property values, city residents' pride in community appearance and enforcement of codes will ensure the continued good condition of housing units. Only 62 units were determined to be substandard according to the Census 2000 data. This comprises only 1.5 percent of the total housing stock.

Where existing housing units are identified and substandard, the City of Indian Rocks Beach relies on code enforcement to ensure that housing is repaired or rehabilitated to meet codes. New housing units must meet the Florida Building Code; local building inspections are performed to ensure that code provisions are met.

The maintenance of structurally sound housing as well as aesthetic improvements for housing is provided primarily through private maintenance practices.

Topic 3:

The provision of adequate sites for housing for very-low, low, and moderate income households, and for mobile homes.

A range of housing values and types is currently available in Indian Rocks Beach. However, households with very-low, low, and moderate incomes will generally find housing costs beyond their means. The demand for coastal property has resulted in such market conditions. If, however, a very-low, low, or moderate income housing project is proposed, no city codes or ordinances prohibit it and the project will be reviewed in the same manner all housing construction is reviewed. There are no mobile home facilities located within the corporate boundaries of the City of Indian Rocks Beach. Due to its location within a Coastal High Hazard Area, the placement of mobile homes are prohibited; therefore, no new sites for mobile homes can be made available.

There is a variety of lot sizes, as well as a wide range of allowable densities, in the city. Thus, the opportunity exists to build housing within different price ranges throughout the city. The city will take actions encouraging the private sector provision of low income housing as long as such housing adheres to the established density ranges. No increase in density will be allowed for any purpose as such an increase could compound traffic and emergency evacuation problems, have deleterious environmental impacts, and would contradict objectives established in the state, regional, and this comprehensive plans.

Due to the inability to identify vacant land of a size and cost suitable for the development of new construction for affordable housing, for the City of Indian Rocks Beach, the sole means of providing affordable housing is through coordination with the Pinellas County Community Development Department. Some of the programs offered by this department are Down Payment Assistance, Low Interest Loan, Hometown Heroes, HFA Down Payment Assistance among others.

Topic 4:

The provision of adequate sites in residential areas or areas of residential character for group homes and foster care facilities licensed or funded by the Florida Department of Children and Families.

Topic 5:

The identification of conservation, rehabilitation or demolition activities, and historically significant housing or neighborhoods.

Less than 1.5 percent of housing units within the municipality has been identified as substandard. No overall housing program is anticipated within the planning timeframes. The majority of housing conservation and rehabilitation is part of on-going maintenance or remodeling undertaken by individual property owners. Demolitions, however, do occur, primarily for the purpose of unit replacement.

There are no buildings in the city listed on the *National Register of Historic Places* or the *Florida Master Site File*. The city, however, is committed to the preservation of the city's historic character - a small, seaside community dominated by low-rise, single-family residential land uses.

The majority of conservation, rehabilitation, and demolition is undertaken by private property owners to maintain or improve the structural, mechanical, electrical, or plumbing conditions of the unit. For those private property owners needing assistance, the City of Indian Rocks Beach participates with Pinellas County in the Community Development Block Grant Program (CDBG).

However, use of the CDBG program may be constrained on the barrier islands where land availability is low and costs are high resulting in the inability to provide meaningful housing programs for those with limited means.

The City will cooperate with the State and County in its efforts to increase energy efficiency in building design and construction, and will promote the County's Sustainable Living efforts.

Infrastructure Element

The purpose of this element (Potable Water, Sanitary Sewer, Solid Waste, Stormwater Management, and Natural Groundwater Aquifer Recharge Sub-elements, hereafter referred to as the Infrastructure Element) is to provide for necessary public facilities and services correlated to future land use projections.

I. INTRODUCTION

The following section discusses the condition of Indian Rocks Beach public services and facilities, specifically, potable water, sanitary sewer, solid waste, and stormwater management. The analysis includes a description of the current condition and level of service for each service and facility and projected demand based on population projections presented in the *Future Land Use Element* and as listed in Table 1. These projections are based on population counts that include the permanent population, seasonal residents, and tourists.

In addition to the public services and facilities described above, statutory requirements mandate local governments examine the effect of urban development on natural groundwater aquifer recharge areas. Because Tampa Bay Water, formerly the West Coast Regional Water Supply Authority, has determined that Indian Rocks Beach and the immediate surrounding area has very low to no recharge to any groundwater aquifer, the proceeding analysis will be limited in scope.

II. POTABLE WATER SUB-ELEMENT

Synopsis: Pinellas County Utilities System (PCUS) provides potable water to Indian Rocks Beach residents and maintains the water distribution system up to individual property lines. Thereafter, property owners are responsible for those lines located on their land. Currently serving 63.67% percent of the county's population, the PCUS estimates current potable water demand at 120 gallons per capita per day (gpcd).

A. Overview

Section 163.3177(6)(c), F.S., provides that when amended, each comprehensive plan potable water sub-element will include at least a 10-year planning period. Each element must incorporate the following:

1. Alternative water supply projects that meet projected water demands, and identify:
 - a. Alternative water supply projects;
 - b. Traditional water supply projects; and
 - c. Conservation and reuse projects.
2. A work plan for building “public, private, and regional water supply facilities.”
3. The work plan is to be adopted into comprehensive plan within 18 months following the update to the Regional Water Supply Plan produced by the Southwest Florida Water Management District.

The legislation further provides that:

Local governments, public and private utilities, regional water supply authorities, special districts, and water management districts are encouraged to cooperatively plan for the development of multijurisdictional water supply facilities sufficient to meet projected demands for established planning periods, including the development of alternative water sources to supplement traditional sources of groundwater and surface water supplies.

Pinellas County and its 24 municipalities are part of the Southwest Florida Water Management District. The existing Regional Water Supply Plan that was adopted in 2001 concluded, "...that there are areas of the planning region that have limited access to alternative water supplies and that a regional approach to meeting future demands for water needs is highly desirable." (SWFWMD, *Regional Water Supply Plan*, page 74 (page 108 in the PDF document), retrieved from:

<http://www.swfwmd.state.fl.us/documents/plans/RWSP/Comprehensive%20Version/RegionalWaterSupplyPlan.pdf>, March 3, 2006.

Further underscoring the regional nature of water supplies for this area is the existence of Tampa Bay Water, a regional water supply authority that provides the wholesale water supply to Pinellas County, the City of Tampa, Pasco County, Hillsborough County, and the City of St. Petersburg. TBW has produced its own *Master Water Plan* and work program to provide water supplies to its customers through the year 2012.

The City of Indian Rocks Beach does not have any local responsibility for potable water supply or distribution facilities. Both water supply and distribution are provided to the City by Pinellas County according to the terms of an interlocal agreement. The wholesale water supply is provided to Pinellas County by Tampa Bay Water (TBW), a regional water supply authority, and the Pinellas County Utilities Department owns and maintains the distribution system. The City is a retail customer of the Pinellas County Utilities Department and has no responsibility regarding the supply of potable water to its citizens.

The City of Indian Rocks Beach, through its association with TBW and Pinellas County, has identified alternative water supply resources such as the salt water desalination plant, brackish ground water desalination, and water conservation and reuse techniques. However, on its own, the City does not have the financial or technical resources or capabilities to design, construct, or implement such far reaching water supply alternatives. Through our membership in the Tampa Bay Regional Water Supply Authority, we are part of the partnership agreement with the Southwest Florida Water Management District (SWFWMD). This agreement, "entered into by the District, Tampa Bay Water, and its member governments, provides for the development of a safe, sustainable, cost effective water supply through a cooperative approach." (RWSP, page 112)

Because this community does not own or operate any portion of the water supply, treatment, or distribution system, and are merely a retail customer of the Pinellas County Utilities Department, the requirement to "evaluate the degree to which the City has implemented the work plan for building public, private, and regional water supply facilities" is not applicable to this municipality. The City of Indian Rocks Beach will continue its cooperative agreement with the Pinellas County Utilities Department and participate in conservation and other potable water initiatives sponsored by that department, TBW, and SWFWMD and have adopted Pinellas County's *10-Year Water Supply Plan* by reference.

B. Proportional Capacity

Being a shared facility, no proportional capacity agreement exists between the county and Indian Rocks Beach. All analyses are initially based on the service area population. Thereafter, Indian Rocks Beach's consumption rate is factored by its percentage share of the total population.

C. Potable Water Facilities

1. Service Area and Predominant Land Uses

The Pinellas County Utilities System (PCUS) system service area includes over 709,202 people. The Pinellas County Water Demand Planning Area (WPDA) for Pinellas County Utilities includes the retail and wholesale customers of Pinellas County Utilities and the Clearwater, Oldsmar and Tarpon Springs services areas. The retail customers are served directly by Pinellas County Utilities and include most of the unincorporated area as well as Belleair Beach, Belleair Bluffs, Belleair Shore, Indian Rocks Beach, Indian Shores, Kenneth City, Largo, Madeira Beach, North Redington Shores, Seminole, St. Pete Beach and Treasure Island. Additionally, the PCUS supplements other water distribution systems by supplying water on a wholesale basis to the cities of Clearwater, Pinellas Park, Safety Harbor, Tarpon Springs and the Town of Belleair. The Cities of Dunedin and St. Petersburg are interconnected for emergencies. Within the service area, the dominant land use classification remains residential. Public facilities, commercial, industrial, and recreational uses are also served.

2. Design Capacity

Pinellas County Utilities is part of the Tampa Bay Water which is comprised of numerous wellfields and other water sources such as reservoirs and desalination. The potable water supply for Tampa Bay Water is approximately 587 million gallons per year.

D. Demand: Existing Level of Service (1995)

The total population, including permanent residents, seasonal residents, and tourists, amounted to 7,901 persons in 2007. Based on this estimate and a level-of-service standard of 120gpcd, Indian Rocks Beach demanded approximately 0.94 mgd of potable water daily thereby accounting for approximately one percent of the WPDA average daily flow (see Table 1).

Table 1
Potable Water Demand for Pinellas County Water Demand Planning Area (WPDA)

	Pinellas County WPDA*	Indian Rocks Beach**
Total Population*	709,202	7,901
Level of Service	120 gpcd	120 gpcd
Average Daily Demand	85.1mgd	0.94 mgd
% of Total Average Daily Demand	100%	1.10%

* Includes: Pinellas County Water Demand Planning Area (WPDA) includes the service areas of the PCUS and the cities of Clearwater and Tarpon Springs.

** Includes permanent residents, seasonal residents, and tourists.

Source: Pinellas County, Florida, 2007. *Potable Water, Wastewater, and Reuse Element of the Pinellas County Comprehensive Plan.*

E. Projected Demand;

To calculate future demand, the city’s projected population was multiplied by the expected daily consumption rate based on recent potable water information. According to the county, 120 gpcd and then lower to 115 gpcd best reflects future water demand. The drop to 115 gpcd reflects new trends in technology and alternate sources, green development trends, etc. As shown in Table 2, average daily flow is forecasted to decrease by 1.26 mgd between 2006 and 2025.

Table 2
Future Potable Water Supply needs for Pinellas County water Demand Planning Area (WDPA)*

	2006	2010	2015	2020	2025
Service Area Population	709,202	714,180	719,158	724,136	729,115
Level of Service	120 gpcd	120 gpcd	115 gpcd	115 gpcd	115 gpcd
Average Daily Flow	85.1 mgd	85.7 mgd	86.3mgd	83.28 mgd	83.84 mgd
Maximum Daily Demand	119.14 mgd	119.98 mgd	120.82 mgd	116.6 mgd	117.38 mgd

* Pinellas County Water Demand Planning Area includes the service areas of the PCUS and the cities of Clearwater and Tarpon Springs.

** Includes permanent residents, seasonal residents, and tourists.

Source: Pinellas County Utilities, 2007

F. Performance, Problems, and Opportunities

In support of the regional efforts to conserve water, reclaimed water use and find alternate sources, Pinellas County will continue working to conserve potable water by reducing system losses, protecting groundwater against degradation of water quality and yield, and encouraging county residents to install water conservation devices. In addition, the county’s commitment to promoting reclaimed water use for irrigation could significantly reduce potable water demand, decrease the chloride content in deep wells, and eliminate the need to discharge treated wastewater into surface waterbodies.

G. Conservation and Reuse

1. Reclaimed Water

The City of Indian Rocks Beach began receiving reclaimed water from Pinellas County Utilities in 2006. Pinellas County is the responsible jurisdiction for treatment and allocating the reclaimed water resource.

2. Conservation and Reuse Practices and Regulations

Indian Rocks Beach strongly enforces the water restrictions set forth by the County Commission and SWFWMD. Enacted by ordinance, these agencies regulate the conservation measures including low flow plumbing fixtures and the time and day residents can irrigate lawns and landscaped areas.

H. Alternative Water Supply Projects

The Regional Water Supply Plan contains hundreds of water supply options. Because the wholesale potable water supply is provided by Tampa Bay Water, the required water supply projects are selected and implemented by that agency. The selected projects, approved by the Tampa Bay Water Board, are then incorporated into the Master Water Plan. The Tampa Bay Water Board selected the Downstream Enhancements Phases A/B for System Configuration II of the Master Water Plan for implementation. This will meet the region's water needs through 2017. (Special District Public Facilities Report, Page 4)

I. Financing

The capital costs for water supply development projects are the responsibility of Tampa Bay Water. Such costs are recaptured through the sale of water to the water service provided, and through the, by the retail customers. Funding mechanisms are identified in the Special District Public Facilities Report (5). The Pinellas County Water Supply Work Plan includes costs for distribution, transmission, treatment, and associated facilities. (Pinellas County Water Supply Element, pages 45-46) See Table 10 from the Pinellas County element on Page 33, if documentation of these costs is required.

III. SANITARY SEWER SUB-ELEMENT

Synopsis: The City of Indian Rocks Beach owns and maintains those sanitary sewer lines located within its municipal boundaries. The county has expanded the South Cross Bayou Wastewater Treatment Plant's capacity to 33mgd.

A. Pinellas County's Role: Operational Responsibility and Proportional Capacity

Indian Rocks Beach and Pinellas County have entered into an interlocal agreement whereby the county is responsible for the city's sewage treatment. Although the city is a wholesale customer of South Cross Bayou wastewater service area, individual customer billing is handled by the county under contract with the city. Because the facility serves several jurisdictions as well as areas of unincorporated Pinellas County, no proportional capacity agreement exists between the county and Indian Rocks Beach. All data and analyses are initially based on the plant's service area population. Thereafter, Indian Rocks Beach's consumption rate is factored by its percentage share of the total population.

B. Bayou Creek Wastewater Treatment Facility

1. Background and Design Capacity

South Cross Bayou Reclamation Facility is an advanced wastewater Treatment facility utilizing a tertiary process. By the end of a four step cleaning process, the water is 99.9% pure. The treated water goes out as reclaimed water to be used for irrigation purposes. The facility is permitted for an average flow of 33 million gallons/day.

2. Service Area and Predominant Land Uses

The South Cross Bayou facility’s service area includes several municipalities, including the cities of Belleair Bluffs, Belleair Beach, Indian Rocks Beach, Kenneth City, Madeira Beach, North Redington Shores, Redington Shore and Seminole, the towns of Belleair Shores and Indian Shores.

C. Demand: Existing Level of Service (1996)

In 2007, South Cross Bayou was operating at an average daily flow of 21.04mgd, or 64 percent of capacity. Serving an estimated population of 252,695 persons, the wastewater treatment plant was operating at a level of service of 113 gallons per capita per day (gpcd) (see Table 5).

D. Projected 2005 and 2010 Level of Service

The Pinellas County Planning Department has set the adopted level-of-service standard for South Cross Bayou at the 2007 average daily flow per capita rate of 84 gpcd. When forecasting expected demand, this level-of-service standard is applied to service area population projections. As illustrated in Table 4, South Cross Bayou has adequate capacity to serve expected demand in the planning period.

**Table 3
South Cross Bayou Wastewater Treatment Plant
Projected Population Served, 2005-2025**

	2005	2010	2015	2020	2025
Capacity	33 mgd	33 mgd	33 mgd	33 mgd	33 mgd
Service Area Population*	250,647	255,198	259,040	262,271	265,000
Level of Service	84gpcd**	84gpcd**	84 gpcd**	84 gpcd**	84 gpcd**
Average Daily Flow	21.04 mgd	21.43 mgd	21.73 mgd	22.03 mgd	22.26 mgd
% of Capacity	64%	65%	66%	67%	67%
Surplus	11.96mgd	11.57 mgd	11.24 mgd	11.97 mgd	10.74 mgd

* Includes permanent residents, seasonal residents, and tourists.

** The level-of-service standard of 84 gpcpd as calculated by the Pinellas Co. Planning Dept. *Potable Water, Wastewater, and Reuse Element of the Pinellas County Comprehensive Plan.*

E. Performance, Problems, and Opportunities

With a sanitary sewer system in its fourth decade of use, older lines are becoming increasingly susceptible to breakage. In response, the city has recently replaced several major lines, particularly those along Gulf Boulevard. Other original facilities are continually monitored and maintained to prevent potential spills and groundwater infiltration. Outside city limits, Pinellas County maintains those pipes leading to the South Cross Bayou plants. Due to an ongoing preventive maintenance program, forcemains and gravity lines within these areas are continuously cleaned out and pumps are replaced. In addition, the City of Indian Rocks Beach has improved lift stations within the city limits

IV. SOLID WASTE SUB-ELEMENT

Synopsis: Solid waste collection for Indian Rocks Beach is provided by the city. All solid waste, excluding items left to be recycled, is sent to the Pinellas County Waste-to-Energy Plant or the Bridgeway Acres Sanitary Landfill located at 3001-114th Avenue North.

A. Local Role

Solid waste collection for residents is provided by the city, with the exception of large businesses requiring daily pick-up or construction dumpsters. The city allows private contractors to provide this service, and places a surcharge on the charges levied by the same.

B. The Role of Pinellas County

1. Operational Responsibility and Service Area

Along with the other 24 municipalities within Pinellas County, Indian Rocks Beach has entered into an interlocal agreement whereby the county is responsible for the disposal of the city's solid waste. Prior to this agreement, the county enforced the Solid Waste Disposal and Resource Recovery Act which legislatively charged the Board of County Commissioners with countywide disposal responsibility and also granted the Board flow control to direct all solid waste to one location. The U.S. Supreme Court found flow control mandates unconstitutional in 1994. In response, Pinellas County looked toward the interlocal agreements to maintain municipal flow control authority.

Wheelabrator Environmental Systems (formally Universal Oil Products [UOP]) was charged with the operational responsibility of the Waste to-Energy Plant. Through a 20-year management agreement originally signed in 1978, the contractor designed, constructed, and continues to manage the county-owned facility. As of January 2007 Veolia Pinellas, Inc. is the new contractor for the next 17 years. The County contracts the operation of the Bridgeway Acres Sanitary landfill. It is a 5-year contract for the operation of the sanitary landfill and other general civil work within the project site.

Pinellas County has one of the most ambitious artificial reef construction programs in the state of Florida. The Department of Solid Waste Operations, through the recycling of selected construction and demolition debris, is able to create productive underwater habitats and save valuable landfill disposal space. There are 13 Department of Environmental Protection permitted artificial reef sites off the coast of Pinellas County in the Gulf of Mexico

2. Proportional Capacity

Currently, no proportional capacity agreement for solid waste disposal exists between Indian Rocks Beach and Pinellas County. The county does record the total amount of refuse

received, incinerated, recycled, or buried in the landfill. The Indian Rocks Beach solid waste generation rate is factored by its percentage share of the service area population.

3. Predominant Land Uses

A wide array of land use activities are serviced by the Refuse-to-Energy Plant and the Bridgeway Acres Sanitary Landfill, including residential, commercial, and industrial uses. Within Indian Rocks Beach, almost 75 percent of all land area is dedicated to residential uses. Public facilities, commercial, and industrial uses account for an additional 10 percent.

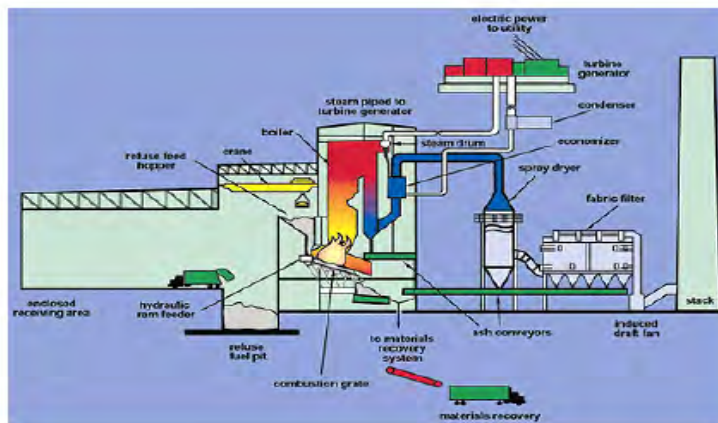
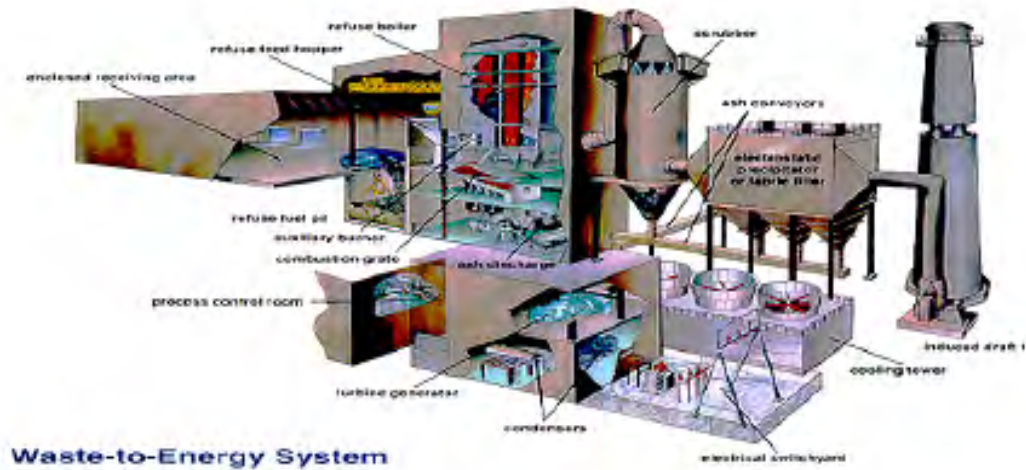
C. Background and Design Capacity

Countywide, the amount of solid waste collected annually surmounted the million ton mark in the late 1980s and appeared to be on the rise (see Table 7). Fortunately, this trend was quickly counterbalanced by the gaining popularity of recycling, the diversion of construction and demolition debris to the Artificial Reef Program, and increased donations to charitable organizations. More recently, the amount of collected refuse has stabilized at approximately 1,100,000 Tons per year.

Solid waste entering the Bridgeway Sanitary Landfill has also significantly declined since the 1980s. As reported between 1990 to 1995 the annual average tonnage of refuse entering the landfill was just over 67,000 Tons per year or 166 Tons per day, representing a 69 percent reduction from the amount of waste deposited during the late 1980s. Reasons for this decline can be attributed to the following: more construction and demolition debris being diverted to the Waste-to-Energy Plant and the recent expansion of this facility; construction debris being diverted to Pasco County; and massive recycling efforts. Listed below is a description of the various types of solid waste disposal facilities used by the city and the associated design capacities. From 2000 to 2005 the average to the landfill was 205,691 Tons per year See Table 5.

Pinellas County Waste-to-Energy Plant (Figure 1). The 3-boiler Waste-to-Energy Plant is considered a state-of-the-art facility that involves mass burning with waterwall incinerators. Solid waste is burned to create steam that is used to drive turbines and generate electricity. Capacity equals 3,150 Tons per day or almost 1,150,000 Tons per year. Currently, the plant is operating at approximately 71 percent of capacity, with Indian Rocks Beach accounting for only 0.48 percent of average daily flow.

Figure 1 - Pinellas County Waste-To-Energy Plant



Landfill. Located adjacent to the Waste-to-Energy Plant, the Bridgeway Acres Sanitary Landfill is the only Class I landfill in Pinellas County. A Class I facility can accommodate a wide variety of waste products and must be lined in order to prevent groundwater contamination. Typically, non-processible or non-burnable solid waste such as large tree trunks and construction debris is buried here.

**TABLE 4
SOLID WASTE PROJECTIONS**

YEAR	PROJECTED TOTAL POPULATION	TOTAL PROJECTED TONS PER YEAR TO BE DISPOSED
2005	1,113,907	1,145,161
2010	1,136,176	1,204,345
2015	1,153,111	1,222,297
2020	1,165,771	1,235,717
2025	1,176,116	1,246,683

Source: Pinellas County Planning Department,

**Table 5
YEAR 2010, 2015 and 2020 PROJECTED LEVELS OF
SOLID WASTE INCINERATED AND LANDFILLED***

YEAR	MAXIMUM PROJECTED WASTE	INCINERATED (CONTRACT MINIMUM)	LANDFILLED WASTE	LANDFILLED ASH	TOTAL LANDFILLED (CUBIC YARDS)
2005**	1,145,161	890,907	254,254	267,272	674,067
2010	1,197,409	950,000	247,409	285,000	665,511
2015	1,209,263	950,000	259,263	285,000	680,329
2020	1,218,320	950,000	267,832	285,000	691,040

Source: Pinellas County Planning Department

* Units are denoted in Tons, unless otherwise specified.

** Tonnage for 2005 is actual tonnage

Total space available (2005) at Bridgeway Acres landfill is 20,793,283 cubic yards. Utilizing the average cubic yards land filled per year for the period from 2005 to 2020 yields an estimate of 10,166,051 cubic yards land filled over this 15 (fifteen) year period. This amount is 48 percent of the total landfill space currently available. Including potential increases in per capita generation and any unforeseen events such as hurricanes, an estimated 30 (thirty) year life of the landfill is conservative. It is likely that the landfill's life will extend beyond 30 years. The County has submitted a permit modification to the Florida Department of Environmental Protection requesting an increase in the permitted height of the landfill from 90 feet (50 feet at the Sod Farm) to 150 feet. This height increase will increase the available capacity of the landfill, and extend the life expectancy of the landfill for an additional 40 years.

To calculate the amount of solid waste land-filled and incinerated, the maximum amount to be incinerated, per the contract guaranteed amount, is subtracted from the total solid waste projected. The amount in excess of the contract guarantee is considered to be disposed of by being land-filled without incineration. Ash generation is calculated as 30% of total waste incinerated. Historic data has shown that landfill material (a mixture of ash and solid waste) at the Bridgeway Acres landfill is compacted to approximately 1,600 pounds per cubic yard. Therefore, the projected amount of landfill space can be determined by dividing the total amount land-filled (in pounds) in each year by 1,600 to yield the cubic yards land-filled.

Recycling. Indian Rocks Beach sponsors two multi-material drop-off sites and a curbside yard waste and newspaper collection program. The city also publishes a quarterly newsletter which includes news regarding solid waste and recycling.

The resource recovery plant was presented to the public as a solution to the household refuse problem. The importance of such a facility can be seen in the fact that presently Pinellas County generates 2 million Tons of solid waste per year. Approximately 890,907 Tons of FDER Class 1 or household solid waste are incinerated at the resource recovery plant per year or 90.32 percent of the design capacity. Since the plant has additional capacity, other burnable refuse, including construction debris and yard trimmings, are also sent to the facility. Any burnable non-Class 1 refuse above capacity or nonburnable debris is disposed of in the landfill located on site. Ash produced by the plant is used on site as roadbeds and landfill cover.

D. Existing Demand

The total amount of solid waste generated by Pinellas County residents in 2005 totaled 2,051,765 Tons per year or 16.71 pounds per capita per day (ppcd) (see Table 8). Of this, 31 percent was recycled, 44 percent was incinerated, 15.6percent was buried, and 8 percent was stockpiled as part of the artificial reef program or hauled away by other providers.. Based on these figures, city residents generated almost 24,272 Tons (66.5 Tons per day) of solid waste in2005, with 9,950 Tons 27.26 Tons per day) deposited at the Waste-to Energy Plant and Bridgeway Acres Sanitary Landfill.

**Table 6
Daily Solid Waste Generation, 2005**

	Service Area Population	Indian Rocks Beach	Per Capita Rates
Total Population	1,113,907	7901	--
Total Non-Recycled (69 %) per day	3895 Tons	27.26 Tons	6.9ppcd
Incinerated Solid Waste 44.0%)	2520 Tons	17.64 Tons	4.4ppcd
Buried Solid Waste (15.6%)	877 Tons	6.14 Tons	0.15ppcd
Other *8.0	498 Tons	3.4 Tons	.86
Recycled (31.0%) per day	1726 Tons	12.08Tons	3.05ppcd
Total Solid Waste Generation (per day)	5621 Tons	66.5 Tons	16.71ppcd

Source: Pinellas County Department of Solid Waste Management

*Other includes the artificial reef program plus material hauled away by other providers

E. Projected Demand: Level of Service (2005 and 2010)

Based on the Source: Pinellas Co. Planning Dept., *Pinellas County Population Projections, 2005-2025, Rev 02/0* report, Indian Rocks Beach's total population is expected to reach 8174 persons in 2025. As shown in Table 7, at the current generation rate of 6.8ppcd (excludes materials to be recycled), the city will send approximately 10,722 Tons of solid waste per year (28.13Tons per day) to the county's facilities in the year 2025.

Table 7
Projected Solid Waste Generation, 2005-2010*

	2005	2010	2015	2020	2025
Population	7901	7970	8041	8190	8174
Non-Recycled Tons Per Day	27.2615.1 Tons	27.4716.7 Tons	27.6917.0 Tons	27.91 Tons	28.13 Tons
Total Annual Non-Recycled Tonnage	99,505,523 Tons	10,029Tons	10.109 Tons	10,190 Tons	10,722 Tons
Non-Recycled Per Capita Generation	6.9ppcd	6.9ppcd	6.8ppcd	6.8 ppcd	6.8ppcd

* Excludes recycled materials

Source: Pinellas County Department of Solid Waste Management

Total space available (2005) at Bridgeway Acres landfill is 20,793,283 cubic yards. Utilizing the average cubic yards landfilled per year for the period from 2005 to 2020 yields an estimate of 10,166,051 cubic yards landfilled over this 15 (fifteen) year period. This amount is 48 percent of the total landfill space currently available. Including potential increases in per capita generation and any unforeseen events such as hurricanes, an estimated 30 (thirty) year life of the landfill is conservative. It is likely that the landfill's life will extend beyond 30 years. The County has submitted a permit modification to the Florida Department of Environmental Protection requesting an increase in the permitted height of the landfill from 90 feet (50 feet at the Sod Farm) to 150 feet. This height increase will increase the available capacity of the landfill, and extend the life expectancy of the landfill for an additional 40 years. Lateral expansion is not possible at the existing solid waste disposal facility because the surrounding properties have all been developed.

There are no other locations in Pinellas County where a Class I landfill could be successfully sited. Therefore vertical expansion is the only method available to extend the life of the disposal facility, other than shipping waste out of the County. Engineering studies were conducted to determine the maximum height to which the landfill could be developed. Additional factors that were considered including the proximity of the Clearwater-St. Petersburg Airport and potential impacts on the dispersion characteristics of the waste to energy plant. The maximum height of 150 feet was primarily predicated on the geotechnical evaluations, as well as effectiveness of operation of the facility.

The most current (calendar year 2005) adjusted recycling rate in Pinellas County is thirty-one (31) percent. Using this figure, it is projected that, accounting for population growth, the County's landfill has a useful life of at least 30 years and the resource recovery facility will be sufficient to accommodate waste disposal for the County and meet the established level of service for solid waste disposal throughout the current planning horizon.

F. Performance, Problems, and Opportunities

The Waste-to-Energy Plant has minimal impacts on adjacent natural resources. A bentonite slurry wall connected to an impervious clay strata creates a zero zone of discharge. The runoff collected by the clay wall is used for the plant's cooling system. No migration of groundwater from the site, vertically or horizontally is occurring and the county extensively monitors nearby surface and groundwaters. Construction, design, and monitoring of the facility complies with all Environmental Protection Agency and State of Florida regulations. Air quality around the site meets acceptable federal and state levels. For a complete discussion of current and future performance, condition, life expectancy, problems, and opportunities of the Waste-to-Energy Plant and Bridgeway Acres Sanitary Landfill, see the *Solid Waste and Resource Recovery Element* of the *Pinellas County Comprehensive Plan*.

V. STORMWATER MANAGEMENT SUB-ELEMENT

Synopsis: Extensive urbanization within Indian Rocks Beach has destroyed virtually all natural drainage patterns. With most properties developed prior to the adoption of local stormwater management facility requirements, flooding during heavy rainfall occurs in many areas of the city. Current land development regulations (LDRs) state that no

development can discharge more stormwater onto adjacent rights-of-way or properties than was previously discharged from the site in its natural unimproved state. Furthermore, all new development and select redevelopment must adhere to the drainage requirements of a 10-year frequency/60-minute storm event.

A. Operational Responsibility and Predominant Land Uses

Indian Rocks Beach is part of the Florida Gulf of Mexico barrier island system that was built from sand and shell as a result of wave and tidal action. As the population grew, the natural drainage patterns were dramatically altered with the introduction of fill, asphalt, and other impervious surfaces. Consequently, flooding began to occur in areas that were not properly designed to handle substantial amounts of water.

Residentially designated property remains the most predominate land use type within the city (75%). Additionally, 20 percent of the upland area is occupied by commercial uses, public facilities, recreation/open space, or conservation uses. The remaining 5% percent is vacant and undeveloped.

B. Background

Due to the extensive amount of urbanization that has occurred within Indian Rocks Beach, the effects of stormwater runoff have led to numerous flooding problems and the degradation of surface water quality. Within the city, excess amounts of rainwater flow through man-made culverts and drains into outfalls that lead into the Intracoastal Waterway, the body of water that separates Boca Ciega Bay from Clearwater Harbor. Prior to the completion of the drainage projects proposed in the stormwater master plan, this continual discharge contributed to the poor water quality of the bay side waters.

In 1981, Pinellas County adopted the *Pinellas County Master Drainage Plan* along with 52 individual storm drainage basin studies. These studies represented a comprehensive countywide approach to identifying drainage needs. Due to the small size of the sub-basins found on the barrier islands, beach communities were not included within the plan. Local drainage problems were left to each municipality to solve. In response, Indian Rocks Beach and other beach communities located on the Sand Key barrier island proposed the creation of the *Sand Key Master Drainage Plan* in the late 1980s. Drainage issues were to be based on an island-wide study area and implemented in cooperation with the communities located on Sand Key. Unfortunately, the drainage plan was never developed and community interest in the plan diminished.

In 1991, contracted with Glace and Radcliffe, Inc. to produce a stormwater management plan. The resulting *Indian Rocks Beach Stormwater Master Plan* (January 1991) was developed which set forth recommendations to improve the city's existing stormwater management system. As suggested by the plan, the following drainage projects have been completed since 1991:

- 300 block of Harbor Drive
- 2200 block of Bay Boulevard
- 14th and 15th Avenues

- 27th and 28th Street and 1st Avenue
- 21st and 22nd Avenues and 1st Street
- 10th at Bay Pine Boulevard
- 11th thru 13th Avenues
- 23rd thru 25th Avenues and 1st Street
- 19th and 20th Avenues and 2nd Street
- 17th thru 19th Avenues and 1st Street
- 16th Avenue
- 8th Avenue
- 4th Avenue

Furthermore, Indian Rocks Beach is also currently carrying out infrastructure improvements in the form of pipe replacement and pipe lining on drainage outfalls.

C. Demand: 2005 and 2010 Level of Service

The city also relies on new development and redevelopment to improve existing drainage problems. Indian Rocks Beach has adopted land development regulations that reference the concurrency management provisions its comprehensive plan requiring all development activity to adhere to the drainage requirements of a 10-year frequency, 60 minute storm event. This standard was recommended in the Glace and Radcliffe, Inc. plan, and subsequently the city adopted it.

D. Performance, Problems, and Opportunities

The city has completed all of the drainage improvements recommended by the 1991 stormwater management plan. Through the City's drainage program, vitrified clay stormwater sewer lines were replaced with polyvinyl chloride (PVC) pipes that are more durable and less likely to crack.

VI. NATURAL GROUNDWATER AQUIFER RECHARGE SUB-ELEMENT

Over 80 percent of Tampa Bay's freshwater supply is tapped from groundwater resources. Groundwater refers to the water found beneath the surface of the earth in saturated soils or geologic formations, called aquifers. The surficial aquifer lies closest to the surface and lacks a continuous impermeable top layer. Below the surficial aquifer is a fairly impermeable confining layer that separates the surficial aquifer from the confined aquifer below. Generally, aquifers are replenished by precipitation percolating down through the surficial aquifer, crossing the confining layer, and reaching the confined aquifer. This process is known as natural recharge. High recharge areas are found where the confining layer is absent or discontinuous and where permeable soils and sands exist.

In Pinellas County, recharge rates of the confined aquifer, otherwise known locally as the Floridan Aquifer, are generally very low to virtually zero. Of the 22 inches of annual rainfall entering the surficial aquifer, only two inches infiltrate downward into the Floridan. Progressing further south within the county, the Floridan Aquifer becomes more confined, receives little or no local recharge, and typically yields water that is highly mineralized. The

most significant recharge areas are located within the Clearwater and Dunedin areas. Below coastal communities, including Indian Rocks Beach, and adjacent mainland areas in southern Pinellas County, groundwater is saline and groundwater recharge rates are negligible.

Coastal Management and Conservation Element

The purpose of the Coastal Management and Conservation Element is to plan for and where appropriate restrict development activities where such activities would damage or destroy coastal resources, to protect human life and limit public expenditures in areas that are subject to destruction by natural disaster, and to promote the conservation, use, and protection of natural resources.

Synopsis: The City of Indian Rocks Beach has been extensively altered by the effects of development. Apart from two offshore islands, the only natural areas remaining include pockets of wetlands fronting the Intracoastal Waterway shoreline. The city supports local, state, and federal programs aimed at preserving these vital resources and consistently apply regulations that protect them from further destruction. Indian Rocks Beach is entirely located within the Coastal High Hazard Area and as such, is most susceptible to the threat of strong storms and hurricanes. Hurricane preparedness, mitigation, and post-disaster recovery procedures are outlined in the Indian Rocks Beach Emergency Response Manual that works in conjunction with the Pinellas County Emergency Management Plan and Post-Disaster Recovery Guide.

I. INTRODUCTION

Located on the Sand Key barrier island, Indian Rocks Beach measures approximately 2.5 miles at its longest point and 0.75 miles in width. Today, very little remains of what was once a unique ecosystem. Undisturbed natural areas are limited to scattered marine wetlands, and two islands located in Clearwater Harbor. In an effort to preserve these vital resources, the city strictly enforces existing policies that support wetland protection, beach renourishment, and habitat restoration. However, the city realizes these regulations must be strengthened to reflect recent legislative changes and public opinion. Preparation and adoption of this element is recognized as the first step in this process.

This element of the comprehensive plan details the extensive array of factors affecting the natural resources of Indian Rocks Beach. The following also discusses the city's impact on regional resources, including air quality, water quality, and hazardous waste. Natural disaster preparedness as well as post-disaster redevelopment procedures are covered. Finally, sections on existing and future potable water demand and conservation measures are included.

II. PREPARATION OF A COASTAL MANAGEMENT AND CONSERVATION ELEMENT

The *Coastal Management and Conservation Element* is actually two individual elements, with each required to have its own data and analysis as well as goals, objectives, and policies. Only select local governments specified by the Department of Economic Opportunity, such as Indian Rocks Beach, must prepare a coastal management element. Meanwhile, all local governments must prepare a conservation element. Because Indian Rocks Beach is a barrier island community, all natural resources required to be addressed within the conservation element are greatly impacted by nearby surface waters. To reflect this close relationship, the two elements have been combined into one.

III. COASTAL PLANNING AREA, COASTAL STORM AREA AND COASTAL HIGH HAZARD AREA

Several boundaries delineating construction lines, floodplains, and hazard areas, have been applied to Indian Rocks Beach. Included within the glossary located at the end of this comprehensive plan are definitions describing each demarcation line and the agency responsible for its implementation. As part of this element, the Florida Legislature requires the city to illustrate the boundaries of the coastal planning area and coastal high hazard area, as shown on *Map LU-2. Flood Zones, Floodplains, and Coastal High Hazard Area*. The Flood Insurance Rate Maps (FIRM) were re-issued for Pinellas County in 2003. All new construction and redevelopment in flood-prone areas shall be in accordance with Federal Emergency Management Agency regulations.

Coastal Planning Area “Coastal planning area” is an area of the local government’s choosing; however, this area must encompass all of the following where they occur within the local government’s jurisdiction: water and submerged lands of oceanic water bodies or estuarine water bodies; shorelines adjacent to oceanic waters or estuaries; *coastal barriers* [emphasis added]; living marine resources; marine wetlands; water-dependent facilities or water-related facilities on oceanic or estuarine waters; or public access facilities to oceanic beaches or estuarine shorelines; and all lands adjacent to such occurrences where development activities would impact the integrity or quality of the above. When preparing and implementing the hurricane evacuation or hazard mitigation requirements of the coastal management element, the coastal planning area shall be those portions of the local government’s jurisdiction which lie in the hurricane vulnerability zone. When preparing and implementing the requirements of the coastal management element concerning water quality, water quantity, estuarine pollution, or estuarine environmental quality, the coastal planning area shall be all occurrences within the local government’s jurisdiction of oceanic waters or estuarine waters.

According to this definition and as agreed to by the Board of City Commissioners, the coastal planning area includes all 400 acres of the city. Many of these structures were built prior to stringent federal, state, and local regulations designed to protect them from hurricane hazards, and as a result, are vulnerable to damage by major storms.

A. Coastal High Hazard Area

According to Section 163.3 178, F.S., the CHHA is defined as the area below the elevation of the Category 1 storm surge line as established by a Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model. With this designation, the entire city is within the CHHA, as shown on *Map LU-2. Flood Zones, Floodplains, and Coastal High Hazard Area*.

B. Coastal Storm Area

The Coastal Storm Area encompasses all of the following:

- 1) the Coastal High Hazard Area,
- 2) all land connected to the mainland of Pinellas County by bridges or causeways,

- 3) those isolated areas that are defined by the SLOSH model to be inundated by a category two hurricane or above and that are surrounded by the CHHA or by the CHHA and a body of water, and
- 4) All land located within the Velocity Zone as designated by the Federal Emergency Management Agency.

IV. EXISTING LAND USE CONDITIONS

Typically, land use acreage within a “coastal planning area” would be significantly less than city-wide totals. However, in the case of Indian Rocks Beach and similar beach communities, the coastal planning area encompasses all land area. As a result, the existing land uses within this area reflect those depicted on *Map LU-1. Existing Land Use*.

A. Existing Land Use Inventory

Indian Rocks Beach is dominated by residential land uses that occupy 302.36 acres, or 66 percent of land area. Conservation areas amount to 64.5300 acres or 14 percent, consisting mainly of scattered coastal wetlands, two islands, which are associated with Clearwater Harbor and the area located in the beach preservation area. Commercial uses occupy 36.31 acres, or 8 percent of land area, and are primarily located along Gulf Boulevard. Finally, recreational facilities, open space, and public facilities comprise 28.90 acres, or three percent of land area. For a more detailed description of existing land uses within the city, see the *Future Land Use Element*.

B. Water-Dependent/Water-Related Land Uses

With an active population that includes seasonal visitors and tourists, the city relies heavily on water-related activities. In addition to private residential docks, many other structures and uses along the Gulf of Mexico and Clearwater Harbor attract visitors. These type of activities are depicted on *Map R/OS-1: Public Facilities, Recreation Facilities, and Water-Dependent/Water-Related Facilities*, and include the following:

- Twenty-seven public beach access points on the Gulf of Mexico and Clearwater Harbor;
- Three mini-parks, two located on Bay Boulevard and one on Gulf Boulevard;
- Keegan-Clair Park, located adjacent to the Intracoastal Waterway;
- Pinellas County beach access park, located on Gulf Blvd. between 17th and 18th Avenues;
- A 9.68-acre nature preserve, located on Gulf Boulevard;
- A public boat ramp, located on Clearwater Harbor at 15th Avenue; and
- The Holiday Inn Harborside, which contains a resort hotel, marina, and numerous shops.

C. Shoreline Uses and Redevelopment

The water-related activities described above are not in conflict with any abutting land uses and adequately serve the needs of the community and surrounding area.

Redevelopment activities may be needed in the future, but currently, none are required. However, the Solid Waste Facility on Miami Avenue is a candidate for redevelopment from its present public use to a more appropriate use of water-front land.

D. Economic Base

Due to the abundance of tourists and seasonal residents visiting Indian Rocks Beach each year, the city's economic base rests primarily on commercial activities geared to these groups, specifically retail trade and hotel/motel services. Due to the built-out nature of the community, future land uses are not expected to significantly alter the existing economic base.

V. EFFECT OF FUTURE LAND USES ON NATURAL RESOURCES

As extensively discussed in the *Future Land Use Element*, 21.04 acres of vacant land are located within Indian Rocks Beach. Coastal management provisions contained within the land development regulations ensure that natural resources such as wetlands, wildlife habitats, and other marine resources are adequately protected. The following section provides an inventory of various natural resources found within the city. Thereafter, a small discussion summarizes the effect future land uses may have upon these features.

A. Vegetative Cover

Synopsis: The original ecosystem of Indian Rocks Beach has been highly disturbed by development and the introduction of exotic plant species. Only isolated areas of wetland and other vegetative cover remain within the city.

Extremely altered by development, very few pristine natural areas remain in Indian Rocks Beach. Nearly all native vegetation has been destroyed by urbanization and the growth and expansion of exotic plant species such as the Brazilian pepper, Australian pine, bishopwood, ear tree, laurel fig, weeping fig, eucalyptus, willow, and punk tree. Currently, the land development regulations do not protect exotic species, and discourage their planting in an effort to allow native vegetation to regain dominance. Only isolated areas of slash pine, oak, palmetto, and wetland vegetative species currently exist within the city. Two small islands located in Clearwater Harbor are the only other areas within city limits that have retained their native vegetation.

B. Wetlands

Synopsis: Remaining natural wetlands include scattered marshes and tidal flats, and two marsh-covered islands in Clearwater Harbor.

Before the advent of dredge and fill development, the shoreline of Clearwater Harbor was dominated by extensive mangrove and saltmarsh communities with nearby subtidal seagrass beds. In areas absent of seawalls, isolated mangroves, tidal flats, and marshes are scattered along coastal areas. A mangrove swamp of approximately 4.4 acres is located south of 10th Avenue on the Clearwater Harbor coast, and two small marsh-covered islands are found in the Harbor. These wetland communities consist largely of red, white, black,

and button mangroves, along with salt marsh vegetation, saltwort, glasswort, epiphytes, and fungi. Finally, isolated seagrass beds are found in Clearwater Harbor and the Narrows. The seagrass beds typically consist of either turtle grass (*Thalassia testudinum*), manatee grass (*Syringodium filiforme*), shoal grass (*Halodule wrightii*), or widgeon grass (*Ruppia maritima*).

C. Groundwaters

Synopsis: As a highly urbanized barrier island community, Indian Rocks Beach receives negligible groundwater recharge.

According to the Pinellas County Evaluation and Appraisal Report, there are no prime or high recharge areas in Pinellas County. The Southwest Florida Water Management District has determined that in Pinellas County, groundwater recharge rates are very low to virtually zero. In particular, very little recharge occurs in the communities of southern and central Pinellas County. In highly urbanized barrier island communities such as Indian Rocks Beach, groundwater is saline and recharge rates are negligible.

D. Air Quality

Synopsis: According to the Department of Environmental Management, the air quality in Tampa Bay is good and conforms to all National Ambient Air Quality Standards.

Pinellas County, including Indian Rocks Beach, is located in a highly urbanized area of west central Florida. Many modern conveniences enjoyed by residents require the combustion of fossil fuel, a process which is responsible for the emission of pollutants into the air. In 1970 the federal government passed the *Clean Air Act*, which empowered the Environmental Protection Agency (EPA) to establish nationally uniform air quality standards to ensure these pollutants do not reach unhealthful levels. Currently, the EPA enforces standards for the following six types of pollutants:

- **Particulate:** Solid materials suspended in the air, including dust, soot, and pollen particles. These airborne particles are generated from transportation sources, open burning of trash and garbage, dust from construction and industrial activity, and from the combustion of diesel fuel.
- **Lead:** A common metal that is present in many areas, including, air, water, and dust. Ambient lead is a particulate but is given special attention because of its potentially toxic effects.
- **Nitrogen Dioxide:** A brownish, highly reactive gas emitted during combustion especially during high temperature processes.
- **Carbon Monoxide:** A colorless, odorless, and poisonous gas that is a by-product of the incomplete combustion of carbon fuels. Transportation sources account for over 98 percent of all carbon monoxide pollution emitted in Pinellas County.
- **Sulfur Dioxide:** A pungent gas that can destroy lung tissue and weaken the lung's cleaning and protective mechanism, especially in children and the elderly. This compound is emitted primarily from power-generating plants that use fossil fuels such as sulphur coal and oil and is also a principal component of acid rain.

- Ozone: A colorless and highly unstable form of oxygen which is the principal component of urban smog. Although the ozone layer in the upper atmosphere acts as a shield against harmful ultraviolet rays, ozone in the lower atmosphere can be harmful when inhaled. The gas is formed by a complex reaction of chemical compounds that are emitted from vehicles, combustion sources, and even trees and plants.

1. Tampa Bay Airshed

With pollutants flowing across jurisdictional lines, the responsibility of maintaining clear air commands regional support. Pinellas County, including Indian Rocks Beach, and Hillsborough County are considered part of one airshed. As such, the city has historically relied and adhered to policies and regulations developed by the county and other joint efforts with Hillsborough County and the EPA.

2. Monitoring Process

The Pinellas County Emergency Management Department has been monitoring air quality since 1975. Currently, the department maintains a system of 14 air quality sampling stations scattered throughout the county. The nearest station to Indian Rocks Beach is located in Largo, in the Sheriff's Department complex at 250 Ulmerton Road. At this location, air samples are tested for PM₁₀.

The Air Quality Index, sometimes referred to as the Pollution Standards Index, was developed by the EPA in an effort to provide daily information regarding pollutant levels. The Air Quality Division of Pinellas County's Environmental Management Department is responsible for continuously measuring air samples from monitors throughout the county, resolving citizen concerns, inspecting permitted and unpermitted sources of air pollution, conducting air quality reviews and emission inventories, program development, public outreach to the citizens and publishing the daily Air Quality Index Report.

In addition, the Department of Environmental Management has a Pollution Prevention and Resource Recovery Program that can provide information on ways to reduce air pollution through the use of less hazardous and toxic materials. An analysis of the Air Quality Index taken over the last 10 years indicates a reduction in overall pollutants released into the air. According to the 2005 Pinellas County Historical Air Quality Index, air quality is considered good for 291 days during the year and moderate for 71 days. In 2005, the last available data year, air quality was considered unhealthy or harmful three days a year.

3. Adherence to Clean Air Act

In 1978, the EPA officially designated Pinellas County as a nonattainment area for sulfur dioxide and ozone according to National Ambient Air Quality Standards.

Consequently, corrective measures were applied to lower the discharge amount of these pollutants to safe levels. Sulfur dioxide levels were brought almost into immediate compliance, however, high levels of the pollutant ozone continued to be recorded. In 1982, although Pinellas County could prove that all ozone control strategies were being executed, the EPA could not grant a redesignation because Hillsborough County, which is classified within the same airshed, had not been in full compliance. After the completion of several studies and programs targeted at reducing ozone levels and implementation of industrial and automotive pollution control technologies, the EPA reclassified the Tampa Bay airshed to "attainment/maintenance" status in February, 1996.

E. Floodplains and Areas Subject to Coastal Flooding

Synopsis: As a barrier island community with over two-thirds of its land at or below five feet mean sea level, Indian Rocks Beach is located entirely within the 100-year floodplain.

A floodplain is an area that experiences repeated flooding. Typically, floodplain boundaries are delineated according to a 100-year storm event, where the statistical chances are that land located inside this area will flood at least once every 100 years. Mapping a floodplain involves taking into account topography, drainage patterns, and rainfall amounts. The possibility of a tidal surge is also considered, as in the area west of Gulf Boulevard.

Over two-thirds of Indian Rocks Beach is at or below five feet mean sea level, and all of its land is located within the 100-year floodplain. As a result, the entire city is designated as a Coastal High Hazard Area.

F. Marine Life and Wildlife

The Gulf of Mexico, and more significantly the estuarine environment of Clearwater Harbor, attracts a large variety marine life, birds, and animals. Below is a description of the species that are commonly found in the waters surrounding Indian Rocks Beach.

1. Shellfish

Clearwater Harbor once offered a plentiful supply of shellfish, particularly oysters and clams that were concentrated in flats, banks, or reefs. Although a food source for many other aquatic wildlife and birds, shellfish also filtered significant amounts of water each day and in doing so remove suspended matter and reduced turbidity. As a result of overharvesting, habitat loss, and degradation of water quality, shellfish populations have sharply declined over the last 30 years in local estuaries, and scallops have virtually disappeared. However, with recent improvements in water quality as well as an active seagrass restoration program sponsored by the Tampa Bay National Estuary Program, scientists are hopeful that shellfish populations will recover.

2. Fish

The contiguous coastal waters of the Gulf of Mexico, Clearwater Harbor, and Boca Ciega Bay serve as a home, feeding ground, and/or nursery for more than 270 species of resident, migrant, and commercial fishes (United States Fish and Wildlife Service, 1984). Many of the estuarine-dependent and recreationally important fishes found in the area include the red drum, spotted sea trout, sheepshead, southern flounder, Florida pompano, black drum, and mullet. Offshore species include the gag grouper, red snapper, and king and Spanish mackerel. Additionally, the common snook is a species of special concern commonly found in this area. Although supplies of fish have experienced sharp declines, recent bans on purse seines and gill nets are expected to reduce commercial harvesting rates significantly, and to allow these populations to increase.

3. Manatees

Both Tampa Bay and the Gulf of Mexico provide critical habitats for manatees, which are protected by the federal *Endangered Species Act*. Recent research has revealed that seagrass meadows and manmade freshwater sources in these water bodies attract manatees by providing feeding and gathering areas. Although Clearwater Harbor is not a significant manatee habitat, small numbers of manatees are occasionally sighted among its seagrass beds.

4. Turtles

Through the U.S. *Endangered Species Act of 1973* and Chapter 370, F.S., federal, state, and local agencies have continually pushed forward to protect existing sea turtle populations and assist in their proliferation. Contracted by the Board of County Commissioners, the Clearwater Marine Aquarium (CMA) monitors the survival of endangered and threatened sea turtles along county beaches from Clearwater to Treasure Island. Virtually all species of sea turtles nesting along the Gulf coast are loggerhead sea turtles, which are classified as a threatened species. Annually, CMA staff conducts routine daily beach surveys during the nesting season which lasts between May and September.

In 2006, due to good weather conditions in conjunction with a relocation program, the nesting season was very successful in terms of both the number of nests and the number of hatchlings released. Within Indian Rocks Beach, the CMA documented 1,148 hatchlings. According to the CMA, lighting continues to be the number one threat to sea turtles and their hatchlings, most notably along northern Sand Key and in Madeira Beach. Bright lights can disorient and mislead hatchlings away from the water. Other obstacles facing sea turtle nesting patterns are renourishment projects that compact sand and affect the hatchling's incubation period, and nest disturbances caused by humans and other animals (Clearwater Marine Aquarium, 2008). Currently, Section 9-62 of the Indian Rocks Beach LDRs prohibit outdoor lighting that casts glare more than 30 feet seaward of a seawall, where it may deter adult female turtles from nesting or disorient turtle hatchlings as they return to the sea.

5. Birds

Section 4.1 of the land development regulations designates the entire city as a bird sanctuary. This designation prohibits trapping, shooting, or interfering with the nest of any bird. The beaches and urban areas of Indian Rocks Beach provide suitable habitat for both resident and migrant bird species; mangrove islands and coastal wetlands associated with Clearwater Harbor and the Narrows are highly productive nesting areas. Foraging, roosting, and breeding habitat occur within the city limits for a number of wading birds including the great egret, great blue heron, green-backed heron, yellow-crowned night heron and black-crowned night heron. In addition, five wading bird species - little blue heron, tri-colored heron, snowy egret, reddish egret, and white ibis - which are listed as Species of Special Concern by the Florida Game and Fresh Water Fish Commission (FGFWFC) are also found on the beaches, Intracoastal Waterway, mangrove island and urban areas within the city.

A large number of shore birds species including the ring-billed gull, laughing gull, Forster's tern, royal tern, willet, Wilson's plover, ruddy turnstone, and a number of species of sandpipers are common. "Species of Special Concern" observed along the beaches include the brown pelican, American oystercatcher and black skimmer. The least tern listed as threatened by the FGFWFC and the bald eagle, a federally-listed endangered species, is occasionally sighted.

Common species observed in the urban areas include the mourning dove, northern mockingbird, cardinal, blue jay, common grackle, boat-tailed grackle, American crow, and fish crow. A number of exotic species are fairly common including the European starling, Eurasian collar dove, rock dove, house sparrow, and monk parakeet.

G. Terrestrial Habitats

Urbanization has eliminated most terrestrial wildlife habitats suitable for game and nongame species. Wildlife in the city now consists of species adapted to the urban environment, such as mangrove water snakes, marsh rabbits, diamond-backed terrapins, raccoons, and domesticated animals.

H. Minerals

No known commercially valuable minerals are located within Indian Rocks Beach.

I. Soil

As shown on *Map LU-3: Soils Association*, the soils in Indian Rocks Beach fall into the following major categories: coastal beach, Made Land created by dredge and fill activities, St. Lucie fine sands, and Tidal Swamp. A description of each is provided in the *Future Land Use Element*. As explained in Section VIII. A., erosion problems commonly occur along the Gulf-fronting beaches.

VI. IMPACT OF FUTURE LAND USES ON HISTORIC SITES

As detailed in the *Future Land Use Element*, Indian Rocks Beach does not contain any prehistoric archaeological sites listed on the *Florida Master Site File*. An historic home

located near the City Hall is serving as a historical museum, but is not expected to be adversely impacted by future development.

VII. ESTUARINE AND SURFACE WATER ENVIRONMENT

With the combination of a warm climate and miles of white beaches, Indian Rocks Beach has benefited both economically and socially from its geographic location. Both the Gulf of Mexico and Clearwater Harbor have stimulated economic growth by attracting tourists and mainland neighbors in search of recreational opportunities, and by accommodating the ever-growing demand for waterfront and waterview properties. However, the transformation of this once pristine natural ecosystem into a popular urban destination has come with a price. Increased amounts of stormwater runoff and wastewater containing a variety of pollutants flow freely into the Gulf and Harbor, natural shorelines have been replaced with seawalls, and dredge and fill activities have destroyed many acres of wetlands. After understanding the effects these actions have had upon surrounding waters, residents and visitors have learned that protecting the natural environment is vital in maintaining overall quality of life. The following section analyzes the impact development has had on these water bodies, particularly the estuarine Clearwater Harbor, and details existing and proposed regulations targeted at improving water quality.

A. Surface Waters

Surface water resources include both marine and estuarine water bodies. Indian Rocks Beach is bordered to the west by the Gulf of Mexico and to the east by the Intracoastal Waterway, which separates the Sand Key barrier island from the mainland of Pinellas County. Clearwater Harbor connects with Boca Ciega Bay through the slender channel known as the “Narrows”, which partially borders the city.

Tidal flushing in Clearwater Harbor and the Narrows is relatively poor, due to extensive human alteration of the natural system. These waterbodies, which once ranged from two to four feet in depth, have been dredged to a depth of over ten feet to provide navigational channels. Waters below four feet deep are generally unaffected by daily tidal flushing, and are more likely to be stagnant and low in dissolved oxygen.

B. Estuarine Waters

An estuary is a semi-enclosed coastal body of water that has open access to the ocean and is measurably diluted with freshwater derived from rivers, streams, or creeks. Freshwater mixing with saltwater creates a unique chemical and physical environment that attracts a large variety of marine species, birds, and animals, some of which are described in Section V. F.

Abutting the entire eastern length of Indian Rocks Beach, Clearwater Harbor receives freshwater from Stevenson and McKay Creeks, which mixes with saltwater from the Gulf of Mexico. The Harbor has been extensively altered over the past 100 years. Beginning in 1920, dredging of navigational channels has provided enough fill to create a maze of finger canals that accommodate highly demanded waterfront homes. These dead-end canals, which fill approximately 15 percent of Clearwater Harbor, disrupt natural

tidal flushing and cause underwater debris to accumulate. Dredging activities have destroyed most of the native seagrass population, and seawalls erected along the canals have eliminated mangrove swamps and marshes which once flourished along the shoreline.

1. Outstanding Florida Waters

Under the auspices of the Outstanding Florida Waters (OFW) program, the Department of Environmental Protection has classified Clearwater Harbor as Class III water that is used for body contact activities, such as swimming or water skiing, and for the maintenance of a productive fish and wildlife population. With this designation, the DEP cannot issue permits for direct or indirect pollutant discharges that would lower existing water quality. Additionally, permits for dredging and filling must meet OFW requirements.

2. Pinellas County Aquatic Preserve

Pursuant to Chapter 258, F.S., Aquatic Preserves are submerged lands and associated waters with exceptional biological, aesthetic, or scientific value, owned by the state and maintained in their natural condition. Dredging, filling, construction of seawalls, discharging of effluent, and other alterations of Aquatic Preserves are limited by this statute. Clearwater Harbor is a part of the Pinellas County Aquatic Preserve, which also includes Boca Ciega Bay and the Narrows.

C. Water Quality

Unsafe levels of nutrients and contaminants continually threaten the life of marine species and vegetation. Clearwater Harbor is the receiving waterbody for many sources of pollutants, including stormwater runoff flowing from several beach communities, as well as mainland Pinellas County from Dunedin to Largo. Similarly, the Narrows receives runoff from Indian Rocks Beach, Indian Shores, Largo, and Seminole. As a result of artificial finger canals which trap sediment and inhibit tidal flushing, the nutrients and pollutants discharged into these waters are flushed out slowly. Additionally, the depths necessary to provide safe boat passage prevent subtidal seagrass growth and facilitate the accumulation of polluted sediments.

In addition to the County's intent to monitor freshwater creeks, streams, and lakes, Pinellas County has made special commitments to collaborate with local governments and public agencies for long-term water quality monitoring of Tampa Bay waters. These collaborative monitoring efforts were implemented as a Tampa Bay National Estuary Program initiative (TBNEP 1996); it was renamed the Tampa Bay Estuary Program (TBEP). The program acknowledges the responsibility of local governments - the counties of Hillsborough, Pinellas, and Manatee; and the cities of Clearwater, St. Petersburg, and Tampa - to monitor Tampa Bay water quality.

In January of 2003, the Pinellas County Department of Environmental Management (DEM) Pinellas County DEM implemented a new monitoring program. The goals of the program are, "... to provide long-term assessments of water quality, measure success of management programs, and meet the National Pollutant Discharge Elimination System (NPDES) permit requirements; support local efforts to maintain or improve water quality;

determine the status and trends of water quality; and estimate nutrient and sediment loads from selected streams and drainage ditches.” (DEM, 2008)

The DEM monitors levels of nutrients and contaminants within Clearwater Harbor and the Narrows. Excess amounts of nutrients, primarily nitrogen, can trigger algae blooms that reduce oxygen levels and shield light from reaching the sandy bottom. This process, known as eutrophication, has led to the death of virtually all of the underwater grass beds in local waters. Other polluting substances include pesticides, fertilizer, fuel, sewage, and metals such as copper, lead, and zinc.

Water quality data are collected from monitoring stations placed in each of the County’s 30 upland drainage basins, at drainage outfalls, near shore, and offshore. Additional monitoring sites include Alligator Lake and Lake Chautauqua and estuarine sites within the Cross Bayou Canal, Allen’s Creek, and Long Branch Creek. A total of 48 fixed monitoring sites were sampled in 2003, 2004, and 2006, while 50 fixed monitoring sites were monitored in 2005.

The Ambient Monitoring Report 2003-2006, produced by the Pinellas County Department of Environmental Management, noted the following:

“Water quality is better in open water strata compared to enclosed or semi-enclosed strata. Water quality is typically better during the dry season compared to the wet season. Land sites (streams, creeks, and canals) with the highest flow were typically associated with the highest nitrogen loadings including the Lake Tarpon outfall canal, Brooker Creek, Curlew Creek, Alligator Creek, Roosevelt Channel 5, and the Seminole Bypass Canal. Land sites with the lowest flow were typically associated with the lowest nitrogen loadings including Church Creek, Bishop Creek, Cow Branch Creek, and Cedar Creek. Water Quality in Long Bayou and Cross Bayou (stratum W5) was poor due to discharges from three eutrophic systems; Lake Seminole, the Seminole Bypass Canal, and the Cross Bayou Canal. Lake Tarpon and Lake Seminole did not meet state water quality standards for four different criteria: DO, Chl-a, TSI, and pH.”

D. Pollution Sources

Although detailed data are not available for Clearwater Harbor and the Narrows, statistics for Boca Ciega Bay provide a typical breakdown of pollution sources. As shown in Table 1, nitrogen chiefly enters local waters through stormwater runoff, wastewater discharges, and atmospheric deposition. Less frequently, spills and sewage overflows can also dramatically affect water quality.

**Table 1
Annual Nitrogen Loadings and Discharging Sources for Boca Ciega Bay
(Annual 1999-2003)**

	Tons	Percent
Stormwater Runoff	178	64%
Atmospheric Deposition	80	29%

Industrial and Domestic Point Sources	19	7%
Fertilizer Material Losses	0	0%
Springs and Groundwater	<1	0%
Other	0	0%
Total	277	100%

Source: Tampa Bay National Estuary Program, Estimates Of Total Nitrogen, Total Phosphorus, Total Suspended Solids, And Biochemical Oxygen Demand Loadings To Tampa Bay, Florida: 1999-2003, 2005.

Pollution sources can be classified according to point source and non-point source pollution. Point source pollution includes any identifiable source that emits pollutants through a closed conduit or container. As such, levels of nutrients and contaminants produced by these sources can be measured and tested. Conversely, non-point pollution flows from an unconfined or unidentified source, such as agricultural land, parking lots, or even the atmosphere.

1. Point Source Pollution

Over 36 billion gallons of sewage effluent are discharged into Tampa Bay and adjacent waters each year. Although most sewage is treated by tertiary/advanced methods to reduce toxicity, treatment plants are still responsible for 10 percent of the annual nitrogen loading regionally. The nearest point sources to Indian Rocks Beach is the Pinellas County South Cross Bayou and the City of Largo.

2. Non-Point Pollution

Ninety-three (93%) percent of nitrogen loadings entering Boca Ciega Bay and other waters are deposited through non-point pollution sources, primarily atmospheric deposition and stormwater runoff. Runoff from these sites can only be reduced during redevelopment, when provisions of land development regulations require stormwater facilities to be retrofitted to current standards.

a. Stormwater Runoff

Due to the amount of impermeable urban land and the severe alteration of the natural shoreline, urban runoff levels remain high within Indian Rocks Beach, particularly during and after short rain events. Stormwater runoff accounts for the majority of nitrogen and metals entering Tampa Bay, and excessive phosphorus levels recorded within some local waters are also carried through this process (EPA, 1986).

b. Atmospheric Deposition

Tampa Bay air quality is affected by the combustion of fossil fuels that lead to the emission of pollutants. Somewhat recently, scientists have discovered that pollutants found in the air play a leading role in the degradation of water quality. Significant amounts of cadmium, copper, lead, and nitrogen are deposited into local waters in this manner. Reducing airborne containment loads is difficult at best. With the possibility of emissions traveling hundreds of miles, local control strategies cannot entirely reduce all levels. In upcoming years, nitrogen loads are still expected to increase, although at a less rapid rate than occurred in the 1970s and 80s.

E. Impact of Development and Future Facilities

Indian Rocks Beach can be classified as a built-out community, and city officials anticipate that future development will have virtually no impact on the circulation pattern, water quality, or accumulation of contaminants in surrounding waters. To achieve this end, land development regulations require developments to conform to state requirements for beach and shore preservation, mangrove protection, and dredge and fill activities. The regulations also govern the construction and maintenance of seawalls, groins, jetties, docks, and boat lifts. Developments are required to use native vegetation to replace or construct new seawalls, and are encouraged to do so to strengthen existing seawalls.

F. Actions to Remedy Pollution Problems

As stated previously, the majority of nutrients and pollutants entering local waters are the result of atmospheric deposition and stormwater runoff. Local action can dramatically affect the amount of pollutants discharged through stormwater runoff. Through requirements outlined within the land development regulations, all new development must adhere to the drainage requirements of a 10-year frequency, 60-minute storm event. For a further discussion of stormwater issues, see the *Infrastructure Element*.

G. Regulatory Programs

Regulatory programs governing local waters are largely carried out on the state level by the Florida Department of Environmental Protection (DEP), and at the regional level by the Southwest Florida Water Management District (SWFWMD). The DEP *Florida Water Plan* and SWFWMD *Water Management Plan* contain directives guiding flood protection, water quality, and natural systems. Each agency has a lengthy permit review process that acts to preserve and protect estuarine integrity. Additionally, DEP provides funding for the development and implementation of projects and studies aimed at estuarine protection and management. This agency establishes standards for the state's natural resources, and implements habitat restoration programs and provisions for local aquatic preserves. The Pinellas County Aquatic Preserve, which includes Clearwater Harbor and the Narrows, falls under this jurisdiction.

VIII. BEACH AND DUNE SYSTEMS

Beaches not only provide recreational opportunities for residents and tourists, but also perform several natural functions. Along the Gulf of Mexico, beaches and dunes serve as buffers against threatening waves and storm surges while serving as a home and/or nesting area for birds and sea turtles. The preservation of the dune system is reliant upon continued protection against development and the presence of native vegetation. Salt-tolerant plants found within these dunes, including sea oats, railroad vine, and sea grapes, grip sand within their root system. By anchoring down sand, the dune retains its form and can continue to inhibit erosion and protect against tidal action.

With urbanization, mangrove stands that once lined the Clearwater Harbor shore have been uprooted and replaced with seawalls, while development has encroached upon the beach and dune system along the Gulf of Mexico. Although the shorelines abutting

Clearwater Harbor and the Narrows no longer resemble pre-development conditions, the narrow portion of beach stretching over 2.5 miles has retained much of its original form due to the efforts of an active beach renourishment program.

G. Erosion and Shoreline Migration

1. Clearwater Harbor

Clearwater Harbor has undergone both natural and artificial alteration during the past 100 years. Between 1892 and 1943, the north end of Sand Key migrated 0.7 kilometers into the Harbor. In 1957, a violent storm caused a breakthrough in the barrier island south of Clearwater Pass, but this opening re-closed shortly afterward. In the 1970s and 80s, Clearwater Pass was dredged for navigation by the Army Corps of Engineers, and 1,038,000 cubic yards of fill were used to renourish north Sand Key beaches (U.S. Department of the Interior, 1994).

2. The Narrows

In order to alleviate shoaling problems in the Narrows during the 1920s, the Army Corps of Engineers filled in Indian Pass, which was located at the boundary between Indian Shores and Redington Shores. The closure of this pass joined upper Sand Key to the lower beaches. In the late 1980s, a stone breakwater was built 300 feet offshore at the Indian Pass location, and fill dredged from John's Pass was used to extend the beach out to the breakwater (U.S. Department of the Interior, 1994).

3. Gulf of Mexico

Although it contains some seawalled property, the west-facing Gulf coast of Indian Rocks Beach remains largely beachfront, without the extensive finger fills found on the eastern coast. The Gulf coast has been the recipient of Army Corps of Engineers renourishment projects in 1969, 1973, and 1990, in which a total of 1,843,000 cubic yards of fill were added. These projects are detailed below (U.S. Department of the Interior, 1994).

B. Coastal Protection Structures

Between 1950 and 1957, along with other municipalities on Sand Key, Indian Rocks Beach hardened virtually its entire eastern shoreline with seawalls and timber bulkheads. After monitoring the effectiveness of such structures, scientists have recently discovered that shoreline hardening actually facilitates erosion, and may escalate property damage during strong storms. When large waves strike a seawall, energy is displaced both downward and upward. The downward water pressure scours out vegetation, sand, and bottom sediments in front of the seawall, while the water shunted upward commonly erodes the material landward of the seawall. Both actions create a high maintenance problem for land owners. Currently accepted development practices suggest a combination of native vegetation and gradual sloping to protect property from tidal action. Where seawalls require maintenance, the toe area of the wall should be planted with native vegetation, rip-rap material or other biotechnical controls to prevent additional scouring.

New seawalls should only be constructed when the biotechnical controls will not suffice to prevent erosion.

C. Existing and Potential Beach Renourishment Areas

The City of Indian Rocks Beach has approximately 13,800 feet of sandy beach. Erosion and migration of coastal areas are natural processes, and are incorporated into the life cycle of an undisturbed ecosystem. In the human environment, erosion can threaten coastal development, degrade valuable beaches, and endanger species confined to shrinking habitats.

To combat these problems, the Army Corps of Engineers has provided Indian Rocks Beach with five large-scale beach renourishment projects. In 1969, in the aftermath of Hurricane Gladys, 143,000 cubic yards of fill were dredged from the Intracoastal Waterway and added to the beachfront. This process was repeated in 1973, following Hurricane Agnes, when 400,000 cubic yards were dredged from the Intracoastal and Gulf. The third took place in 1990, using 1.3 million cubic yards of fill from Egmont Channel (U.S. Department of the Interior, 1994). The beach was re-nourished a fourth time in 1998 to counter shoreline recession caused by tidal and wave action and to expand the exposed sand used for recreational purposes. The beach was once again renourished in 2006.

The design and implementation of beach re-nourishment projects rests with the U.S. Army Corps of Engineers (USACE). The USACE evaluates potential sand borrow sites, specifies the method of re-nourishment and design parameters, selects the contractors and supervises the work.

D. Measures to Protect or Restore Beaches or Dunes

The beach and dune systems of Indian Rocks Beach have been extensively altered due to human intervention, and no longer resemble their original state. Remaining natural areas are protected by Section 9-61 of the land development regulations, which include provisions "to protect trees, wetland vegetation, and dune systems." All development must be consistent with Florida Statutes Chapter 161 (Beach and Shore Preservation) and Florida Administrative Code Sections 62-27 (Mangrove Protection) and 62-312 (Dredge and Fill). Developments are required to use native vegetation for shoreline stabilization, and are prohibited from planting exotic species such as Australian Pine and Brazilian Pepper. In addition, Section 2 1-158 forbids development within 35 feet of the Coastal Control Construction Line designated by the DEP.

The City has mapped its beaches under the Preservation Land Use category.

Dune walkovers will be required as a condition to the permitting for all "major development projects" where significant foot traffic to the beach is expected. Private residences that are not considered major development projects shall access the beach through a pathway designed to limit damage caused by foot traffic to the minimum necessary, as determined by the City. Design criteria for the walkovers will require the structures to be pile supported, limited to five (5') feet in width and be turtle friendly.

The City will continue to use low intensity beach maintenance practices to protect the natural condition of the beach.

IX. BEACH FACILITIES

A. Public Access Points and Parking

Twenty-seven public access points allow residents and visitors access to beaches on the Gulf and Bay, as illustrated on *Map R/OS-1: Public Facilities, Recreation Facilities, and Water Dependent/Water Related Facilities*. Located at the end of public rights-of-way, the majority of beach access areas have municipal parking areas with a total of approximately 240 spaces. An additional 78 spaces are provided at the county-owned beach-side park. Public parking also exists on every right-of-way along the shoreline.

B. Coastal Amenities

As stated previously, Indian Rocks Beach contains many structures and uses along the Gulf of Mexico and Clearwater Harbor that attract visitors. These are also depicted on *Map R/OS-1: Public Facilities, Recreation Facilities, and Water-Dependent/Water-Related Facilities* and are listed in Section IV. B. For a more detailed description of these facilities, see the *Recreation and Open Space Element*.

C. Existing Infrastructure

Table 2 lists the existing infrastructure in Indian Rocks Beach. Because the CHHA encompasses the entire city, existing infrastructure can not be relocated to a less threatened area.

D. Beach Renourishment Projects

Beach renourishment projects are detailed in Section VIII. C. of this element.

E. Future Demand on Infrastructure

As Indian Rocks Beach is a built-out community, future demand on existing infrastructure is expected to remain relatively consistent with existing demand. For a further discussion regarding capital improvement projects, see the *Capital Improvements Element*.

**Table 2
Existing Infrastructure, 2008**

Seawalls	Seawalls are located on the western ends of all beach accesses and on the eastern ends of Intracoastal Waterway accesses.
Sanitary Sewer & Potable Water Facilities	Potable water and sewer treatment services are provided by Pinellas County. The city owns and maintains sanitary sewer lines within its limits.
Drainage Facilities	A system of culverts and drains .
Bridges	The barrier island is connected to the mainland via the Indian Rocks Beach Bridge, an extension of S.R. 688.

Boat Launch Facilities	A boat ramp accessing Clearwater Harbor is located on 15th Avenue.
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X. NATURAL DISASTER PLANNING

The National Weather Service has identified the Tampa Bay Region, including Pinellas County, as one of the most hurricane-vulnerable areas in the United States with the potential for large scale loss of life. Since 1852, 94 hurricanes have passed within 100 nautical miles of the mouth of Tampa Bay. Based on these statistics, a hurricane can be expected to pass within 100 nautical miles of the city at least once every 1.6 years. The latest hurricane to hit the area was Hurricane Jeanne.

Hurricane Jeanne may have hit other areas of Florida with more force, but Pinellas County wasn't totally spared. The Federal Emergency Management Agency (FEMA) designated Pinellas as one of 20 counties declared federal disaster areas. Countywide, more than 1,000 structures suffered some sort of damage after Jeanne hit on September 26. The damage totaled more than \$59 million.

With the looming possibility of severe storms or other natural disasters striking Indian Rocks Beach, a rapid and safe evacuation is critical to protecting the life of residents. The following section summarizes the procedures guiding hurricane evacuation.

A. Emergency Response Plans

1. Indian Rocks Beach Emergency Response Manual

Compiled in 1997, the *Indian Rocks Beach Emergency Response Manual* outlines the steps to be taken by city employees in response to a hurricane. The manual provides standard operating procedures for several evacuation levels, and details personnel, equipment, communications, and warning system protocols. Emergency management activities are administered by the Public Services Department, under the direction of the City Manager, and in conjunction with the *Pinellas County Comprehensive Emergency Management Plan*.

2. Pinellas County Comprehensive Emergency Management Plan (CEMP)

The CEMP was developed by the Pinellas County Department of Emergency Management and documents "policies, procedures, and guidelines to prepare for, respond to, recover from and mitigate future impacts of the hazards/disasters that could affect our area." All emergency disasters are responded to by Pinellas County according to the CEMP. A key component in implementing the CEMP is the Disaster Advisory Committee (DAC). Consisting of representatives from all municipalities, fire districts, disaster response agencies, and other key County officials, the DAC acts as the "conduit for information on plans, exercises, training, and response and recovery activities." Furthermore, the Committee advises the Board of County

Commissioners on the type and magnitude of an evacuation (Pinellas County Department of Emergency Management, 1997).

B. Hurricane Vulnerability Zones

Based on elevation, proximity to shore, and other geographical factors, all of the land area in Pinellas County falls within one of six hurricane evacuation levels. An area is assigned an Evacuation Level of “A” through “E” based on its likelihood of being inundated by landfalling hurricanes of categories one through five. For example, an area that would be inundated by a category one hurricane is designated as Evacuation Level “A.” Areas that would not be inundated even during a category five hurricane are designated as non-evacuation areas. *The 2007 Hurricane Guide*, distributed to residents annually by Pinellas County and local municipalities, contains a color-coded map delineating evacuation levels. Table 3 defines Evacuation Levels “A” through “E” by their corresponding hurricane and storm surge vulnerability levels. All of Indian Rocks Beach is located in Evacuation Level “A” (Tampa Bay Regional Planning Council, 1997).

Table 3
Hurricane Evacuation Levels

LEVEL A	Category 1 hurricane - Storm surge of five (5) to seven (7) feet
LEVEL B	Category 2 hurricane - Storm surge of seven (7) to twelve (12) feet
LEVEL C	Category 3 hurricane - Storm surge of twelve (12) to fifteen (15) feet
LEVEL D	Category 4 hurricane - Storm surge of fifteen (15) to twenty (20) feet
LEVEL E	Category 5 hurricane - Storm surge of twenty (20) to twenty four (24)

Source: Pinellas County Emergency Management, 1997. *Pinellas County Comprehensive Emergency Management Plan*.

C. Evacuation Population

Because all residents must evacuate when the Board of County Commissioners announce an Evacuation Level “A”, the affected population would equal the total city population of 5,265 (Pinellas County Department of Planning, 2008). The population at-risk, by evacuation level for Pinellas County for 2006 and 2011, are shown on Table 4. Emergency transportation is provided for disabled and elderly residents who have no other means to evacuate. Indian Rocks Beach is assigned two large buses and one small bus equipped with a wheelchair lift, provided by the Pinellas Suncoast Transit Authority. Evacuees are taken to Bauder Elementary School. Any additional emergency transportation that may be needed is arranged by the county’s Emergency Operations Center.

Residents requiring special assistance during an evacuation are urged to pre-register with the county. In accordance with Section 252.355, F.S., this roster is maintained by both the Fire District and the Pinellas County Department of Emergency Management. Emergency personnel are charged with keeping records of all transported evacuees and where they are taken. The city, in coordination with the Pinellas County Emergency Operations Center, would confirm that all registered people with special needs have received necessary assistance before evacuating its employees.

D. Evacuation Routes

As shown on *Map T-4: Existing & Future Hurricane Evacuation Routes*, the evacuation routes for Indian Rocks Beach direct traffic east on S.R. 688 to Ulmerton Road, north on I-275, and across the Howard Frankland Bridge to I-4.

E. Evacuation Times

One of the most important results of the Tampa Bay Region Hurricane Evacuation Study 2006 was the recalculation of the evacuation clearance times. Clearance time calculations for the years 2006 and 2011 are presented on Table 5, which represents “local evacuation movements”. Seasonal factors of .80 (high occupancy) to .35 (low occupancy) were applied to determine the number of residents and visitors at different times during the hurricane season. The clearance times by evacuation level for Pinellas County for 2006 and 2011, with and without seasonal populations are shown on Table 5. As seen below, Indian Rocks Beach and other areas located in Evacuation Level “A” should be able to evacuate within 18.5 hours with light background traffic and 21.5 hours with heavy background traffic.

F. Hurricane Shelters

An essential element of any evacuation plan is the ability to shelter the relocated residents throughout the duration of the storm. Evacuees will seek several alternative forms of shelter at various distances from their origin. These alternatives may include a local public shelter, a hotel or motel, a friend or relative’s home, and destinations further inland in an adjacent county or outside of the region.

Shelter preparedness is a crucial element because of the vast numbers of evacuees and the potential number of vulnerable residents seeking shelter from an approaching hurricane. The largest regional evacuation shelter operation in the U.S. occurred in the Tampa Bay region in response to Hurricane Elena in 1985 (350,000 sheltered).

Since Hurricane Elena in 1985, pre-storm evacuation shelter demand has significantly decreased in Tampa Bay as well as other areas. Public education in Florida has stressed to evacuees that the choice to go to a public shelter should not be the first choice in destinations. Other options – especially the homes of friends and relatives and hotel/motels in non-evacuation zones – provide a more comfortable alternative for most residents. According to the behavioral survey following the 2004 and 2005 hurricane seasons, part of that message is getting across to residents. The vast majority of evacuees go to the homes of friends or relatives (50 – 65%). Approximately 20% will seek a hotel or motel for refuge. However, more than ½ of the inventory in Pinellas County is within Evacuation Level A/ Category 1 storm surge area so these would not be available for any hurricane threat.

The Pinellas County DEM is the lead agency providing emergency public shelter for Indian Rocks Beach. Currently, there are 27 primary shelters. Primary shelters are typically schools and large churches and are located in non-hurricane evacuation zones. Secondary shelters are facilities that, because of size, food preparation capability, or other factors, are

used only for overflow. These shelters are opened when the nearest primary shelter reaches capacity or when a major hurricane evacuation is called.

Currently, evacuees are not zoned to any particular shelter. The closest primary shelters available to Indian Rocks Beach residents are Bauder Elementary School and Pinellas Park High School. According to the 10 square foot per person area allocation, used by the Pinellas County DEM, these shelters have a combined capacity of 5,309 persons.

**Table 4
Pinellas County Population at Risk 2006 and 2011
By Evacuation Level**

Evacuation Level	2006	2011
A	288,015	292,847
B	371,512	378,225
C	453,659	462,748
D	541,467	552,370
E	588,434	600,128

Source: Tampa Bay Regional Hurricane Evacuation Study Update, 2006

**Table 5
Pinellas County Clearance Times (in hours)**

Evacuation Level	Light Background Traffic	Heavy Background Traffic
A Low Seasonal: High Seasonal:	16.50 18.50	19.25 21.50
B Low Seasonal: High Seasonal	18.50 20.50	21.75 24.00
C Low Seasonal: High Seasonal	19.25 21.00	21.75 24.00
D Low Seasonal: High Seasonal	20.50 20.25	23.00 25.25
E Low Seasonal: High Seasonal	23.00 25.00	25.75 28.00

Source: Tampa Bay Regional Hurricane Evacuation Study Update, 2006

G. Number of Persons Requiring Public Hurricane Shelter

A number of refuge alternatives are available to the nearly 6,000 residents of Indian Rocks Beach. As forecasted by the Tampa Bay Regional Hurricane Evacuation Study Update, 2006, an estimated 10 percent of evacuees from Pinellas County would use public shelters. Meanwhile, other options include leaving the region (20%), checking into a motel or hotel (15%), or staying with a friend or relative within

a non-evacuation zone (55%). Currently, Pinellas County is recommending the “Host Home” concept as the preferred kind of evacuation. The Host Home program solicits churches, businesses, and organizations to pre-determine the evacuation status of all members.

Furthermore, these agencies are to encourage members living in non-evacuation areas to host evacuees. In cases where the entire membership lives in an evacuation area or in mobile homes, a church or facility outside that area is encouraged to accommodate those members during an evacuation. Because of the projected deficits in hurricane shelter spaces that exist, all public education and information efforts are focused on encouraging evacuees to stay with friends, relatives, motels/hotels, or host-homes in non-evacuation zones. Furthermore, Pinellas County is looking at alternatives to traditional public shelters. These include retrofitting structures to meet shelter space criteria, using unconventional refuge locations, and evacuating guests from transient accommodations to inland “sister” accommodations.

H. Anticipated Evacuation Population

The 231 additional residents and visitors expected to join the Indian Rocks Beach population between 2008 and 2013 will have only a small impact on the amount of evacuation space needed. However, the city will continue to circulate information regarding hurricane routes, shelters, and evacuation procedures.

I. Measures to Reduce Evacuation Times

The city actively informs residents of hurricane evacuation procedures by conducting annual seminars, circulating newsletters and flyers, and actively supporting the Disaster Advisory Committee. Additionally, Indian Rocks Beach continues to support the Metropolitan Planning Organization’s effort to improve regional evacuation routes.

XI. POST-DISASTER REDEVELOPMENT

Following a major natural disaster, many actions must be performed during the recovery period. Recovery generally occurs in three stages: the immediate emergency period, a short-range restoration period, and a long-range reconstruction period. Many questions arise throughout this process, from how reconstruction expenses are to be paid to what new regulations must be followed during redevelopment. To lessen the chaos that usually follows a major disaster, clear and concise redevelopment procedures should be outlined by a local government.

In the event of such an occurrence, the city is to follow the procedures spelled out in the *Indian Rocks Beach Emergency Response Manual*, which lists municipal services that should be restored immediately following a disaster. Redevelopment provisions are outlined within the land development regulations. Furthermore, the city is to consult the Pinellas County *Post-Disaster Redevelopment Guide* and *Post-Disaster Redevelopment Plan* and tailor these documents to the situation during redevelopment. Below is a brief description of the policies and procedures the city will follow after a major disaster.

A. Indian Rocks Beach Emergency Response Manual

Compiled in July 1997, the *Indian Rocks Beach Emergency Response Manual* provides a brief overview of the procedures that should be carried out immediately following a disaster. These procedures include clearing of roads, disposal of debris, restoring sewer services, reopening of City Hall, and coordinating with county and state recovery efforts.

B. Land Development Regulations

Land development regulations (LDRs) for Indian Rocks Beach are designed to minimize property losses due to flooding, and apply to all new development and redevelopment. According to these regulations, buildings and structures must be constructed at least 35 feet landward of the Coastal Construction Control established by the Department of Environmental Protection. The lowest floor of each structure must be located above base flood elevation as designated on the Flood Insurance Rate Map (FIRM), and must be securely anchored on pilings or columns. Subdivisions must provide for adequate drainage, and must place sewer, gas, electrical, and water systems in locations where flood damage will be minimized.

The LDRs additionally state that any nonconforming structure which is made unsafe or unusable may be restored to its original state only if the cost of restoration does not meet or exceed fifty-one percent of the structure's value. The repairs must be completed within six months, or the structure must be rebuilt according to current zoning regulations.

C. Pinellas County Post-Disaster Redevelopment Guide

Pinellas County's *Post-Disaster Redevelopment Guide* adheres to the requirements of Chapter 9J-5, F.A.C., by setting forth procedures to eliminate the exposure of human life and property to natural hazards. However, the guide has a dual purpose; it also provides local governments with supplemental guidance in carrying out critical actions following a major disaster.

The *Post-Disaster Redevelopment Guide* also suggests that each local government establish a Post-Disaster Redevelopment Task Force, to advise the governing board on issues and problems faced during redevelopment and reconstruction. The task force would review damage reports, recommend rezonings and building moratoria, set a schedule for recovery, and recommend relocations and property acquisitions. For smaller local governments like Indian Rocks Beach, the task group should be broad-based and include both elected and non-elected representatives who could provide fresh perspectives on development.

D. Reconstruction

To effectively manage the timing and sequence of reconstruction, the city will follow a sequential process. According to the *Indian Rocks Beach Emergency Response Manual*, the Public Works Department will lead efforts to clear roads and restore utilities. The City Manager will determine the needs of the municipal work force, and will coordinate rebuilding efforts with county, state, and federal funding sources. The LDRs will provide

guidance and instructions for any post-disaster redevelopment. However, certain topics should be added, amended, and/or strengthened to expedite this process, including economic recovery, build back policy, redevelopment of public facilities, and criteria for acquisition of damaged land and structures.

1. Existing and Proposed Land Use in CHHA

The Coastal High Hazard Area encompasses the entire city. As such, all existing land uses are identified on *Map LU-1: Existing Land Use*. Development on the remaining vacant parcels and redevelopment will be in accordance with the *Future Land Use Map*.

2. Structures Repeatedly Damaged

Repetitive loss properties are not treated as a special category in the current land development regulations. As with other properties, structures which sustain damage greater than or equal to 51 percent of their value may be rebuilt, but are treated as redevelopment and are subject to current zoning and building codes.

3. Coastal or Shore Protective Structures

Current land development regulations require damaged or failed seawalls to be replaced with native vegetation, rip-rap, or other suitable material. All coastal and shore protective structures located within the city are detailed in Section VIII. B. of this element.

4. Infrastructure in CHHA

Post-disaster recovery efforts will prioritize the restoration of services such as water, sewer, and electricity. Infrastructure damage which presents an immediate safety hazard, such as downed power lines, will receive primary attention. Because the Coastal High Hazard Area encompasses all the land in the city, existing infrastructure within it is described in Section IX. C. of this element.

5. Beach and Dune Conditions

Indian Rocks Beach has received post-hurricane renourishment assistance from the Army Corps of Engineers (CoE). The city maintains a partnership with the CoE in its ongoing efforts to combat erosion. The current conditions of beaches and dunes are described in Section VIII. of this element.

E. Hazard Mitigation

As a relatively small city within Pinellas County, most hazard mitigation measures applied to Indian Rocks Beach trickle down from the federal, regional, state, and county level. Likely the most notable program developed by the federal government is the National Flood Insurance Program (NFIP) established in 1968. The program grants federal flood insurance to floodplain residents where building code and land use control measures have

been instituted by the local government. Other federal programs include the Community Rating System, Federal Disaster Assistance Programs, and the Coastal Barrier Resources System. Another federal program, the Interagency Hazard Mitigation Team, dispatches survey teams to tour disaster sites following a presidential declaration of a major disaster. Based on the team's observations, a report is issued that includes recommendations to the local government regarding methods to reduce damage caused by future storms.

Significant state programs include the *Coastal Zone Protection Act of 1985*; the Coastal Construction Control Line Program; permitting programs operated by the Florida Department of Environmental Protection for construction of piers, docks, breakwaters, groins, jetties, and beach renourishment; the State Conservation and Recreation Lands programs; the Florida Beach Management and Erosion Control Program; and the Coastal Barrier Infrastructure Program.

County and local initiatives include renourishment projects along beaches, and various public involvement programs. One such program, the Local Mitigation Strategies initiative, was designed to assist communities with hazard mitigation. Through this program, communities appoint work groups composed of local officials, city staff, community volunteers, and other interested parties to examine hazard mitigation issues. Each work group identifies repetitive loss properties, hazardous materials sites, and other vulnerable areas within its community, and formulates strategies to reduce known hazards. Appropriate recommendations of the work group are then integrated into the community's comprehensive plan, land development regulations, site plan reviews, and other planning procedures and guidelines. Indian Rocks Beach actively participates in this program.

XII. POTABLE WATER

Although conservation issues are discussed below, in order to eliminate redundancy between elements, please refer to the extensive needs analysis provided in the *Infrastructure Element*. Furthermore, because Pinellas County Utilities System (PCUS) provides potable water to the city, a more needs assessment-based study can be found within the *Pinellas County Comprehensive Plan*.

To ensure that potable water will be available beyond the year 2025, opportunities to conserve and locate alternative sources are continually being sought. Conservation programs are generally handed down from Pinellas County and regional agencies, particularly the former West Coast Regional Water Supply Authority, recently renamed "Tampa Bay Water." Under a new cooperative agreement between the major water providers in Pinellas, Hillsborough, and Pasco counties, Tampa Bay Water will own and oversee the regional water system, providing a reliable supply to all member utilities while promoting resource sharing. This agency is also responsible for locating and developing new water sources, and is currently studying the feasibility of building a desalination plant in the region.

In support of these regional efforts, Pinellas County will continue working to conserve potable water by reducing system losses, protecting groundwater against degradation of water quality and yield, and encouraging county residents to install water conservation

devices. In addition, the county's commitment to promoting reclaimed water use for irrigation could significantly reduce potable water demand, decrease the chloride content in deep wells, and eliminate the need to discharge treated wastewater into surface waterbodies. Currently, in areas within the north half of the county, the Northwest Wastewater Treatment Plant supplies reclaimed water to golf courses and select subdivisions. Although south county wastewater treatment plants lack reclamation capabilities, Pinellas County is "committed to reusing all treated wastewater, and is completing the upgrade of all facilities to the level of advanced wastewater treatment so that all wastewater will be available to be utilized in the reclaimed water system" (Pinellas County, 1997).

The City of Indian Rocks Beach has adopted, by reference, the Pinellas County Water Supply Plan.

XIII. HAZARDOUS WASTE

Hazardous wastes are "materials which by their nature are inherently dangerous to handle or dispose of, such as old explosives, radioactive materials, some chemicals, and some biological wastes" (International City Management Association, 1987). Many pieces of federal and state legislation have been passed in the last twenty-five years to control the amount of hazardous waste being discarded in an effort to protect public health, safety, and welfare. Hazardous waste disposal in Florida is administered by the Department of Environmental Protection, and locally hazardous waste management is handled at the county level. Although no federally recognized hazardous waste sites exist within Indian Rocks Beach, gas stations, dry cleaners, and photo shops are among local businesses that discard hazardous type materials.

Until 1993, Pinellas County, as well as Indian Rocks Beach, participated in the state's Amnesty Day program. This program encouraged residents to bring hazardous household chemicals to a mobile facility for discharge at no charge. In 1993, the program was discontinued with the opening of the

Household Chemical Collection Center (HC3) located adjacent to the Waste-to-Energy Plant. Residents are encouraged to dispose of fertilizers, fungicides, pesticides, household chemicals, cleansers, paints, solvents, automotive fluids, pool chemicals, and household batteries at no charge. Pinellas County also coordinates local collection days with municipalities where hazardous materials are dropped off locally and are then transported to appropriate disposal or recycling facilities.

In addition to these efforts, Pinellas County has developed a proactive program to reduce the volume of hazardous waste currently being produced. The Prevention Program (P2) provides counsel and technical assistance regarding pollution prevention to any individual or company conducting business within Pinellas County.

Each natural resource (rivers, bays, lakes, wetlands, air, floodplains, soil, fisheries, wildlife, marine habitats and vegetative communities) known pollution problems including hazardous waste and the potential for conservation, use, or protection shall be identified. Pollution remains a critical issue affecting Indian Rocks Beach, Clearwater Harbor, and the Gulf of Mexico. The most common types of hazardous waste stem from atmospheric

deposition of pollutants, stormwater discharges, and isolated spillage accidents involving petroleum. The most significant accident involving hazardous waste occurred on August 10, 1993 when three tankers collided near Fort DeSoto Park and spilled nearly 328,000 gallons of oil into Tampa Bay. The oil was spread north along the Pinellas County coastline and affected many of the beaches, including Indian Rocks Beach. However, more extensive damage was avoided due to favorable tide and weather conditions and quick mobilization of clean-up crews.

Recreation and Open Space Element

The purpose of the Recreation and Open Space Element is to plan for a comprehensive system of public and private recreation and open space sites which are available to the public.

Synopsis: The City of Indian Rocks Beach is well-served by its recreational opportunities, many of which are focused on the Gulf of Mexico. The city meets all level-of-service standards for parks, open spaces, and activities, with the exception of needing one (1) equipped play and tot lots and one-half (.5) miles of bicycle lanes or trails.

I. INTRODUCTION

Pinellas County has become one of the most attractive areas in the United States for those who seek warmth, sunshine, and abundant leisure and recreational opportunities. As one of Pinellas County's prime coastal municipalities, Indian Rocks Beach offers residents and visitors a unique natural setting. The shallow Gulf Waters and natural resources of the City of Indian Rocks Beach provide an attractive and readily accessible environment for recreational activities. Approximately 2.5 miles of beaches stretch along the Gulf of Mexico, providing year-round sunbathing and swimming for residents and tourists. The scenic waters of the Gulf and Clearwater Harbor are also popular for boating, fishing, picnicking, and observing wildlife. In addition to these outdoor attractions, the city offers a wide variety of restaurants, shops, hotels, and other entertainment options.

The purpose of the *Recreation and Open Space Element* is to plan for a system of parks and private and public recreational facilities that are readily accessible to all residents within the community. The City of Indian Rocks Beach, along with other governmental agencies, shares in the responsibility of providing recreational opportunities and protecting open space resources. This element of the comprehensive plan assesses current opportunities, analyzes future needs, and contains goal, objective, and policy statements which shall be used by the city to further the system of public and private recreation and open space sites available to the public.

II. INVENTORY OF RECREATIONAL FACILITIES AND OPPORTUNITIES

A. Existing Recreation Facilities

1. Resource-Based and User-Oriented Sites and Facilities

Outdoor recreation, broadly defined, is any leisure activity which takes place outdoors. Typically, the vast field of outdoor recreation is subdivided into two categories: "resource-based" and "user-oriented" (Florida Department of Environmental Protection, 1994).

Resource-based outdoor recreation is dependent on some particular element or combination of elements in the natural environment, such as a beach or a forest. Participants must travel to a suitable, naturally-occurring area; facilities cannot be

located for user convenience. This category includes both active and passive types of activities, and tends to be informal rather than rule- or team-oriented. Examples of resource-based recreation include beach activities, boating, fishing, hiking, nature study, and visiting historical/archeological sites.

User-oriented activities, by contrast, tend to be structured and rule-oriented, and are often conducted as part of a local recreation program under the supervision of trained staff. Facilities for user-oriented recreation are part of the built environment, and most can be located in neighborhoods or urban centers for the convenience of users. Some common user-oriented activities include golf, tennis, basketball, football, and swimming pool use.

2. Resource-Based Recreation

The City of Indian Rocks Beach offers residents and visitors many opportunities for resource-based recreation. The most prominent recreational resources are the Gulf of Mexico and Clearwater Harbor, which surround the city. These waters are made accessible to the public through 27 beach access points, three parks, a fishing site/boat ramp, and a nature preserve which are provided and maintained by the city.

3. User-Oriented Facilities

There are two major activity-based recreation centers within Indian Rocks Beach. Kolb Park, located on 16th Avenue, has two tennis courts, a basketball court, two shuffleboard courts, a baseball/softball field with bleachers, and an equipped play area. Passive recreation is also supported with benches, a picnic shelter, ten picnic tables, BBQ grills, one handball court, one skate park, rest rooms, 2 equipped play areas and 5 benches. Brown Park, located at Harbor Drive and 28th Avenue, offers residents and visitors two tennis courts, a basketball court, two equipped play areas, two picnic tables, two benches, one shelter and a drinking fountain.

Other recreational opportunities are provided by non-profit organizations. The Beach Art Center, located on Palm Bay Avenue, has a full schedule of shows and classes open to the public. The Indian Rocks Beach Library, located on Bay Palm Boulevard, is a city-owned facility overseen by the non-profit group Friends of the Library. The library contains 25,000 volumes, including a collection for teenagers and children and presents occasional programs of music and book reviews to the community. The Historical Museum, located at Chic-A-Si Park on 4th Avenue and maintained by the Indian Rocks Historical Society, features Native American artifacts, photos, and memorabilia from the city's history.

4. Level-of-Service Standards

In order to identify existing and future recreation needs, an inventory of recreation and open space lands within the City of Indian Rocks Beach was updated, and a population-based recreation standard was developed. Because many parks are suitable for both resource-based and user-oriented activities, the sites and facilities were first categorized by physical size, then by specific activity.

The standards adopted by the city were formulated by the Florida Department of Environmental Protection (1994) to provide guidance to local governments, and have been modified by the city to meet the specific recreation needs of the community. For example, golf courses are designed to serve large populations, and would require more vacant area than is currently available within city limits. Other facilities are supplied in abundance by the private sector, such as the swimming pools found at many hotels, motels, and condominiums.

a. Recreation Site Guidelines

Site guidelines are a set of general criteria for determining the specific types and amounts of park lands necessary to accommodate the recreational needs of local communities. The criteria define the acreage, facility type and service area requirements for various types of community recreation sites and areas. These guidelines are found in Table 1.

**Table 1
Site Guidelines for Community Outdoor Resources and Facilities**

Park Facility	Population Served	Area per 1000 Population	Size as a Park Adjoining School	Size as a Separate Park	Facilities
Equipped Play and Tot Lot ¹	2,500 maximum	.5 acre	Minimum of .25 acre	Minimum of 1 acre	Play structures, benches, picnic areas, open spaces, landscaping
Neighborhood Park	5,000 maximum	2 acres	Minimum of 2 acres	Minimum of 5 acres:	Play structures, recreation buildings, court games, hard courts, tennis courts, internal trail, shuffleboard, volleyball courts, picnic area, open area, landscaping
Community Park	5,000 maximum	2 acres	Minimum of 5 acres	Minimum of 20 acres: Optimal is 20-50 acres	All of the facilities found in a neighborhood park plus informal ballfields, swimming pools, archery ranges, disc golf areas, ornamental gardens, open space and facilities for cultural activities
Urban Open Space	.25 - .5 mile	1 acre		Minimum of .1 acre	Resource-base recreation area

When feasible, tot lots, neighborhood parks and community parks should be located adjacent to elementary, middle and high schools.
Source: Florida Department of Environmental Protection, Outdoor Recreation in Florida, 2000

Table 1 (continued)
Site Guidelines for Community Outdoor Resources and Facilities

	Population Served	Area per 1000 Population	Size	Facilities
Urban District Park	One park per 50,000	5 acres	Minimum of 1 acre	Play structures, benches, picnic areas, open spaces, landscaping
Regional Park	>100,000 Population	20 acres	Minimum of 250 acres – several thousand acres	Camping, nature and bridle paths, picnicking, and other facilities non-intensive development
Beach Access with Parking		.5 acre	Minimum of 1 acre	Walkways, parking and restrooms optional
Sports Complex			Minimum of 25 acres; Optimal is 40-80 acres	Ballfields, soccer fields, football fields, tennis courts, play structures, hard courts, volleyball, internal, picnic areas

Source: Florida Department of Environmental Protection, Outdoor Recreation in Florida, 2000

b. Facility Standards for Specific Activities

In order to adequately assess the recreational needs of a community, one should not only look at the need for different types of facilities, but also the need for particular types of activities within each facility. The adopted level-of-service standards for specific activities are presented in Table 2. Due to the lack of available land to accommodate these uses, specific activities have not been addressed such as camping (RV, trailer and tent), horseback riding, football/soccer/rugby and golf.

Table 2
Level-of-Service Standards for Specific Activities

Activity	Per Person LOS Standard
Baseball/Softball	1 field per 5,000
Basketball	1 court per 5,000
Bicycling	1 mile of lane or trail per 2,000
Boating	1 boat ramp/dock per 5,000
Fishing (from land)	1 site per 5,000
General Play	1 equipped play area per 10,000
Handball/Racquetball	1 court per 5,000
Shuffleboard	1 court per 3,600
Tennis	1 court per 2,000

Source: Florida Dept. of Environmental Protection, *Outdoor Recreation in Florida*, 2000
Medium population served

5. Existing Recreation Inventory

The inventory of existing recreation and open space sites and facilities in the city is presented in Table 3 Recreation and Open Space Sites - Existing Inventory, together with ownership, location, access, facilities provided, and condition. The sites are also geographically located on *Map R/OS-1: Public Facilities, Recreation Facilities, and Water-Dependent/Water-Related Facilities*.

Table 3
Recreation and Open Space Sites – Existing Inventory

Map No.	Site , Type, Name & Address	Mgt/Owner	Acres	Beach Areas	Equipment	Condition	Age Group
<u>PUBLIC BEACH ACCESS</u>							
1.	28th Ave. & Gulf Blvd.	M	0.13	278' x 20'	1 Foot Wash 1 Bench Pedestrian Lighting Dune Walkover	E	1
2.	27th Ave. & Gulf Blvd.	M	0.32	280' x 50'	1 Footwash 2 Benches Pedestrian lighting Vehicle Access Ramp	E	1
3.	26th Ave. & Gulf Blvd.	M	0.32	282' x 50'	1 Footwash 2 Benches Pedestrian Lighting Pedestrian Access Ramp	E	1
4	25th Ave. & Gulf Blvd.	M	0.32	279' x 50'	1 Foot Wash 2 Benches Pedestrian Lighting Dune Walkover	E	1
5	24th Ave. & Gulf Blvd.	M	0.33	284' x 50'	2 Benches Pedestrian Lighting Pedestrian Access Ramp	G	1
6	23rd Ave. & Gulf Blvd.	M	0.33	285' x 50'	1 Footwash 2 Benches Pedestrian Lighting Dune Walkover	G	1
7	22nd Ave. & Gulf Blvd.	M	0.33	285' x 50'	1 Foot Wash 2 Benches Pedestrian Lighting Pedestrian Access Ramp	E	1
8	21st Ave. & Gulf Blvd.	M	0.33	285' x 50'	1 Foot Wash 2 Benches Pedestrian Lighting Pedestrian Access Ramp	E	1

9	20th Ave. & Gulf Blvd.	M	0.32	282' x 50'	1 Foot Wash 2 Benches Pedestrian Lighting Pedestrian Access Ramp	E	1
10	19th Ave. & Gulf Blvd.	M	0.32	278' x 50'	1 Bench 1 Foot Wash Pedestrian Lighting Dune Walkover & Vehicle Access Ramp	E	1
11	18th Ave. & Gulf Blvd.	M	0.31	274' x 50'	2 Benches 1 Foot Wash Pedestrian Lighting Dune Walkover	G	1
12	17th Ave. & Gulf Blvd.	M	0.32	280' x 50'	2 Benches 1 Foot Wash Pedestrian Lighting Dune Walkover	G	1
13	16th Ave. & Gulf Blvd.	M	0.32	280' x 50'	2 Benches 1 Foot Wash Pedestrian Lighting Pedestrian Access Ramp	E	1
14	15th Ave. & Gulf Blvd.	M	0.33	285' x 50'	1 Footwash 2 Benches Pedestrian Lighting Pedestrian Access Ramp	G	1
15	12th Ave. & Gulf Blvd.	M	0.32	282' x 50'	1 Footwash 2 Benches Pedestrian Lighting Pedestrian Access Ramp	E	1
16	10th Ave. & Gulf Blvd.	M	0.13	285' x 20'	1 Footwash 2 Benches Pedestrian Lighting Dune Walkover	E	1

PUBLIC BEACH ACCESS (cont.)

17	9th Ave. & Gulf Blvd.	M	0.17	245' x 30'	1 Footwash 2 Benches Pedestrian Lighting Vehicle Access Ramp	E	1
18	8th Ave. & Gulf Blvd.	M	0.30	260' x 50'	1 Footwash 2 Benches Pedestrian Lighting Pedestrian Access Ramp	G	1
19	7th Ave. & Gulf Blvd.	M	0.16	214' x 32'	2 Benches 1 Foot Wash Pedestrian Lighting Steps	E	1
20	6th Ave. & Gulf Blvd.	M	0.20	215' x 40'	2 Benches 1 Foot Wash Pedestrian Lighting Pedestrian Access Ramp	E	1
21	5th Ave. & Gulf Blvd.	M	0.20	214' x 40'	2 Benches 1 Foot Wash Pedestrian Lighting Dune Walkover	E	1
22	4th Ave. & Gulf Blvd.	M	0.23	200' x 50'	1 Footwash 2 Benches Pedestrian Lighting Dune Walkover	E	1
23	3rd Ave. & Gulf Blvd.	M	0.30	215' x 60'	1 Foot Wash 2 Benches Pedestrian Lighting Pedestrian Access Ramp	E	1
24	2nd Ave. & Gulf Blvd.	M	0.24	208' x 50'	1 Footwash 2 Benches Pedestrian Lighting Pedestrian Access Ramp	E	1

PUBLIC BEACH ACCESS (cont.)

25	1st Ave. & Gulf Blvd.	M	0.24	175' x 60'	1 Foot Wash 2 Benches Pedestrian Lighting Pedestrian Access Ramp	E	1	
26	Central Ave. & Gulf Blvd.	M	0.24	173' x 60'	2 Benches 1 Foot Wash Pedestrian Lighting Dune Walkover and Vehicle Access Ramp	E	1	
27	Whitehurst Ave. & Gulf Blvd.	M	0.10	140' x 30'	2 Benches 1 Foot Wash Pedestrian Lighting Steps	E	1	

NEIGHBORHOOD PARK

28	Brown Park Harbor Dr. & 28th Ave.	M	0.95		2 Tables 2 Tennis Courts 2 Equipped Play Areas 1 Basketball Court 2 Benches 1 Shelter 1 Drinking Fountain	E	1	Activity-based
29	Keegan-Claire Park 3rd. Ave. & Miami on the Intracoastal Waterway			M	3 Fishing Piers 1 Equipped Play Area	E		

COMMUNITY PARK

30.	Kolb Park 16th Ave.	M	2.56	N/A	10 Tables 1 Shelter 2 Tennis Courts 1 Hand Ball Court 1 Basketball Court 1 Skate Park	E	1	Activity-based
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2 Shuffleboard Courts
 1 Baseball/Softball
 Field w/bleachers
 2 Equipped Play Area
 5 Benches

MINI PARKS

30	27th Ave. 2611 Bay Blvd.	M	0.08		2 Benches 1 Dock	E	1	Resource-based
31	24th Ave. 2315 Bay Blvd.	M	0.08		2 Benches 1 Table	E	1	
32	12th Ave. Park 1200-1204 Gulf Blvd.	M	0.33		1 Pergola 3 Benches Pedestrian Lighting	E	1	

CONSERVATION/PRESERVATION

33	IRB Nature Preserve 903 Gulf Blvd.	M	9.68		Rest Rooms Drinking Fountain Boardwalk 4 Shelters Dog Park 4 Tables 5 Benches	I	1	
34.	Chic-a-Si Park	M	1.12		Historical Museum Bus Shelter 1 Gazebo 4 Tables		1	

SPECIAL PURPOSE FACILITY

35	Indian Rocks Beach	M	0.20	N/A	1 Bench	G	1	
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15th Ave. on Clearwater Harbor

Boat Ramp #1

EQUIPPED PLAY AND TOT LOTS

36. 10TH Avenue Park

2 Equipped Play Areas E 2
1 Table
1 Shelter
1 Drinking Fountain

Footnotes:

- 1 Management/Ownership Code: F - federal, S - state, C - county, M - municipal, Y - club, C - commercial,
Z - non-profit organization, SD - special district
2 Age Group Served Code: 1 - all, 2 - children, 3 - youth, 4 - adults, 5 - seniors, 6 - children and youth
3 Condition Code: E - excellent, G - good, F - fair, NI - needs improvement, U - under construction,
ND - not developed

6. Recreation for All Age Groups

All parks and recreational facilities are not used equally by the same groups of people. Persons of different age groups tend to prefer different types of recreation, and often feel more comfortable associating with members of their own age group. Children usually prefer to play active games and team sports with other children; senior citizens tend to enjoy dancing, arts and crafts, and other seniors-only activities. The City of Indian Rocks Beach addresses these age-specific needs, offering activities which appeal to a variety of age groups. The resource-based parks, while providing separate areas for recreation activities, are designed for all age groups to enjoy. Table 3 indicates the age groups served by each park and facility.

7. Recreation and the Private Sector

While the city provides residents and tourists with many recreational opportunities, the private sector also adds an important component to recreation and leisure in Indian Rocks Beach. Examples of privately-owned recreational opportunities include popular restaurants, shopping opportunities at specialty boutiques, and club activities found at locations such as the Holiday Inn Harborside and the Beach Art Center.

8. Recreation for Visitors

The Florida tourism industry, which draws visitors from all over the United States as well as Canada and Europe, is dependent on the state's favorable climate and abundant natural resources. As a barrier island community, Indian Rocks Beach possesses many of the features which attract Florida vacationers: miles of white, sugar sand beaches; hotel, motel and condominium accommodations; dining and nightlife opportunities; shopping, sightseeing, and tourist attractions; and recreational opportunities on the Gulf of Mexico, Clearwater Harbor, and the Narrows. Tourists drawn by these resources provide an important source of revenue and economic stimulus. When planning for the use of recreational and open space facilities, therefore, the needs of tourists and visitors must be taken into account. The city encourages tourism through its membership in the Greater Gulf Beaches Chamber of Commerce, which prints informational brochures and holds promotional events for a consortium of local beach communities.

9. Recreation for Special Population Groups

Special population groups served by the City of Indian Rocks Beach include the physically disabled, the elderly, and the very young. Parking facilities for disabled drivers are provided at municipal parks, beach access points, and recreational facilities. In addition, most of the programs offered by the Recreation Department are accessible to patrons of all ages and levels of physical ability. Ramps, safety railings, modified restroom facilities, specially equipped playgrounds, and other accommodations allow safe use of facilities by all.

10. Public Participation

Because recreational facilities are designed for use by the public, it is important for communities to involve citizens in the recreational planning process. Identifying citizens' needs and preferences in the early stages of planning leads to more effective use of financial

resources, and discourages conflict over project choices. The City of Indian Rocks Beach encourages public participation through its Parks and Recreation Board, a group of citizen volunteers who advise the city on recreational issues, and through City Commission meetings which are open to the public.

11. Beautification

Because of the high densities of commercial and residential development found in the city, it is important to enhance the corridor open space along public rights-of-way and easements. Artistic landscaping, incorporated in a program of overall beautification, breaks the monotony of the urban streetscape and adds to the aesthetic quality of the community. Beautification can also help local businesses attract the attention of new customers, making such projects appropriate for public/private partnerships.

12. Bicycle Recreation

Statewide, bicycle riding is the third most popular outdoor pastime among residents and tourists, after saltwater beach activities and pool swimming. The Tampa Bay area alone was projected to need 677.85 linear miles of new bike lanes and trails by the year 2000 to keep up with user demand (Florida Department of Environmental Protection, 1994). To help meet this need, Pinellas County has adopted the *Pinellas Bikeways Plan*, which seeks to coordinate the efforts of the County and local municipalities in creating a countywide network of bicycle routes. Projects will be financed through Penny for Pinellas and other local, State, and Federal funding sources. Included in the Plan is a proposed Gulf Beaches Bike Path, which would extend from Sand Key Park to the Pinellas Bayway, passing through Indian Rocks Beach. The route could include expanded sidewalks, bike lanes along existing roads, or dedicated bike trails, and could incorporate municipal, county, or state rights-of-way (Pinellas County Department of Planning, 1996).

Indian Rocks Beach is a popular destination for the many area bicyclists who use Gulf Boulevard as a thoroughfare. Pinellas County has improved Gulf Boulevard north of Walsingham Boulevard with 1.5 miles of a 3 foot wide bicycle lane. FDOT is in the process of improving Gulf Boulevard south of Walsingham to include an additional 1.5 mile long bicycle lane. These improvements were completed in 2010 with a undivided two lane roadway with a 10 foot pedestrian/bike lane on either side.

B. Existing Open Space

For the purposes of this plan, open space will be defined as “undeveloped lands that are suitable for passive recreation or conservation” uses and which are available to the public for free or for a small fee. In addition to providing recreational opportunities, open space enhances community design by allowing trees and plants to grow, providing buffering between conflicting land uses, maintaining homeowner privacy, and preserving views of the Gulf and Clearwater Harbor. Existing open spaces in Indian Rocks Beach were inventoried and classified according to function: passive recreation, conservation, or corridor open space.

1. Recreation Open Space

The primary role of passive recreational lands is to provide resource-based recreation. This classification overlaps the park designation and includes parks that were established for the protection of historic and/or natural resources or aesthetic beauty. There are 18.26 acres of recreation open space in the city. *Map R/OS-1: Public Facilities, Recreation Facilities and Water-Dependent/Water-Related Facilities* shows the location and extent of passive recreation open space.

2. Conservation Open Space

Lands not suitable for development due to their environmental importance, such as lakes, rivers, wetlands, floodplains, and areas dedicated to future resource development, are classified as conservation open space. There are 8.00 acres of conservation open space in the city, which is wetlands. This acreage is found in a tidal mangrove swamp and on two islands, all of which are located on the Intracoastal Waterway. Wetlands are also found in a marsh located east of 2nd Street and south of 7th Avenue, and in fringe areas along nonseawalled shore areas. The remainder of the conservation open space is found on beach areas seaward of the Coastal Construction Control Line.

3. Corridor Open Space

Corridor open spaces are areas through which people travel but which are also designed for aesthetic enjoyment and leisure. These corridors can provide linkages between recreational facilities and residential or commercial areas. Examples of corridor open spaces in Indian Rocks Beach are the rights-of-way along Gulf Boulevard, and the public beach access points.

C. Natural Reservations

Natural Reservations is defined as those areas designated for conservation purposes, and operated by a federal, state, regional, or local government or non-profit agency. These areas include national and state parks, as well as lands purchased under the Save Our Coast, Conservation and Recreation Lands, Save Our Rivers, or similar programs. Also included are sanctuaries, preserves, monuments, archaeological sites, historic sites, wildlife management areas, National Seashores, and Outstanding Florida Waters.

There are no sanctuaries, wildlife management areas, or national or state parks in the City of Indian Rocks Beach. However, Clearwater Harbor and the Narrows are Outstanding Florida Waters.

1. Outstanding Florida Waters

The Outstanding Florida Waters (OFW) program is administered by the Department of Environmental Protection. With an OFW designation, the Department cannot issue permits that would allow direct or indirect pollutant discharges which would lower existing water quality. Additionally, permits for dredging and filling must meet OFW requirements. Clearwater Harbor and the Narrows are designated as Class III Outstanding Florida Waters, which can be used for body contact activities such as swimming or water skiing as well as the maintenance of a productive fish and wildlife population.

2. Historic Sites

An historic home has been transported to the City Hall Complex by the Indian Rocks Area Historical Society and then relocated to the Chic-A-Si Park by the City, and is serving as a historical museum. The museum features historical records, newspapers, pictures, furniture, and other displays which chronicle the history of the city.

3. Archaeological Sites

Several Native American middens, dating back as far as 3000 B.C., were excavated in the 1970s. These sites have since been covered over by development.

III. ANALYSIS OF EXISTING AND PROJECTED NEED

The need for recreational facilities is determined by comparing the total population (permanent plus seasonal) with the level-of-service (LOS) standard for each type of facility. For example, a city with a population of 10,000 and a standard of one mini-park per 2,500 persons would have a need for four mini-parks. Because populations change and increase over time, it is necessary to compare level-of-service standards against projected future populations at various intervals.

A. Existing and Projected Need for Parks and Open Space

For this study, the adopted level-of-service standards presented in Table 1 were compared with population estimates and projections for the City of Indian Rocks Beach through the year 2020 which are discussed in the *Future Land Use Element*. These figures show that the population is expected to increase slightly between the years 2010 and 2020, from 6926 to 6982. The 2010 population estimate was used to calculate the existing need for park facilities, and projections for the years 2010, 2015, and 2020 were used to calculate the projected need for park facilities for those years. These numbers were compared against the numbers of existing park facilities in each category, and the total number of needed new facilities was determined. Table 4 indicates that the city has adequate parks and open space to meet existing and projected level-of-service standards through the year 2020.

**Table 4
Existing and Projected Need for Parks and Open Space**

Park Type	Per Person Level-of- Service Standards	Minimum Existing Facilities Needed*	Minimum Facilities Needed by 2010**	Minimum Facilities Needed by 2015†	Minimum Facilities Needed by 2020††	Existing Facilities	Total New Facilities Required ()Above requirement
Mini	1/2,500	2	2	2	2	3	(1)
Play and Tot lot	1 / 2,500	2	2	2	2	1	1
Neighborhood	1/5,000	1	1	1	1	2	(1)
Community	1/5,000	1	1	1	1	2	(1)
Open Space	1 acre/1,000	8	8	8	8	13.2	(5.2)
Beach Access	1/.5 mile of shoreline	5	5	5	5	27	(24)

* Based on an estimated 2010 total (permanent + seasonal) population of 6926

** Based on a projected 2015 total (permanent + seasonal) population of 6949

† Based on a projected 2020total (permanent + seasonal) population of 6982

†† Based on a projected 2025total (permanent + seasonal) population of 7017

Source: Florida Department of Environmental Protection, *Outdoor Recreation in Florida*, 2000

Pinellas Co. Department of Planning, *Pinellas County Population Projections, 2005-2025*, Rev 02/07, Rev 2011

B. Existing and Projected Need for Specific Activities

As with parks and open space, the adopted LOS standards presented in Table 4 were compared with population estimates and projections for the City of Indian Rocks Beach, which are discussed in the *Future Land Use Element*. The estimated population for the year 2010 was used to calculate the existing need for facilities for specific activities. As shown in Table 5, the city has adequate recreational facilities to meet existing demand, with the exception of needing .5 miles of bicycle lanes or trails. Projections for the years 2010, 2015, and 2020 were also used to calculate the minimum number of various recreational facilities needed for the future. These numbers were compared against the numbers of existing recreational facilities in each category, and the total number of needed new facilities was determined. As shown in Table 5, the city also has adequate recreational facilities to meet LOS standards through the year 2020, with the exception of one (1) equipped play and tot lots and .5 miles of bicycle lanes or trails (which is currently under development by FDOT).

**Table 5
Existing and Projected Need for Specific Activities**

Activity	Per Person Level-of-Service Standards	Minimum Existing Facilities Needed*	Minimum Facilities Needed by 2010**	Minimum Facilities Needed by 2015†	Minimum Facilities Needed by 2020††	Existing Facilities	Total Additional Facilities Needed
Baseball/Softball	1 field/5,000	1	1	1	1	1	0
Basketball	1 court/5,000	1	1	1	1	2	(1)
Beach Activities	1 mile/25,000	1	1	1	1	2.5	0(1.5)
Bicycling (lane/ trail)	1 mile/2,000	3	3	3	3	2.5	.5
Boating	1 dock/5,000	1	1	1	1	1	0
Fishing (land)	1 site/5,000	1	1	1	1	3	(2)
General Play Area	1 area/10,000	2	2	2	2	2	0
Handball/ Racquetball	1 court/5,000	1	1	1	1	1	0
Shuffleboard	1 court/3,600	2	2	2	2	2	0
Tennis	1 court/2,000	3	3	3	3	4	(1)

* Based on an estimated 2010 total (permanent + seasonal) population of 6926

** Based on a projected 2015 total (permanent + seasonal) population of 6949

† Based on a projected 2020 total (permanent + seasonal) population of 6982

†† Based on a projected 2025 total (permanent + seasonal) population of 7017

Source: Florida Department of Environmental Protection, *Outdoor Recreation in Florida*, 2000

Pinellas Co. Department of Planning, *Pinellas County Population Projections, 2005-2025*, Rev 02/07. Rev 2011

IV. SUMMARY AND FINDINGS

Analysis of existing parks, open space sites, and recreational facilities shows that the City of Indian Rocks Beach meets recreational level-of-service standards for the existing population, and has adequate facilities to meet the needs of the community through the year 2020, with the exception of needing .5 miles of bicycle lanes or trails and the creation of one (1) equipped play and tot lots. The city's recreation centers, parks, beaches, and other open space sites offer a diverse array of leisure activities. Adequate recreational opportunities are provided for residents, seasonal visitors, and tourists of differing ages and physical ability levels.

The city should continue to maintain and upgrade its recreational facilities, utilizing public participation and public-private partnerships as often as possible. In addition, the city should seek partnerships with county, state, and federal funding sources whenever feasible.

As Indian Rocks Beach moves into the next century, population and development pressures will continue to impact on the city's remaining natural areas, as well as the human environment. It is of the utmost importance for the city to preserve its beaches, parks, and natural reservations. In addition, the city should continue its efforts to beautify public corridors, and should take a leadership role in encouraging bicycle and pedestrian transportation.

Intergovernmental Coordination Element

The purpose of the Intergovernmental Coordination Element is to identify and resolve incompatible goals, objectives, policies, and development proposed in local government comprehensive plans and to determine and respond to the needs for coordination processes and procedures with adjacent local governments, and regional and state agencies.

I. INTRODUCTION AND INVENTORY

The Intergovernmental Coordination Element (ICE) is designed to address existing and future coordination procedures, processes, or actions intended to enhance the efficiency and effectiveness of governmental operations. The ICE addresses a variety of intergovernmental relationships, including those between the municipality and School Board, utilities, or adjacent jurisdictions. The ICE requirements of the *Growth Management Act of 1985*, as amended, emphasize strong intergovernmental coordination, provide for identification of coordination needs, and for the use of appropriate existing coordination procedures, processes, and actions.

For the purposes of the ICE, “intergovernmental coordination” is defined as occurring along a continuum of activities, ranging from informal contacts to formal procedures, actions, or agreements. The term “coordinate with” is defined to include any or all of the following which may be appropriate and applicable to a given circumstance or need:

- Verbal or written communication;
- Scheduled or unscheduled meetings;
- Requests for information or comments about plans, reports, etc. of other entities;
- Special purpose groups organized to plan for or implement a specific task;
- Standing committees, organizations, or groups, for example, the Pinellas Planning Council, Tampa Bay Regional Planning Council, Southwest Florida Water Management District, and other such entities; or
- Interlocal agreements, resolutions, contracts, ordinances, grants, etc.

A. Identification of Coordinating Entities

The following organizations, utilities and governmental entities have been identified and are included in the ICE because they are involved in the planning and coordination aspect of the *City of Indian Rocks Beach Comprehensive Plan*:

1. Adjacent Municipalities
 - a. Town of Belleair Shore
 - b. Town of Indian Shores
 - c. City of Belleair Beach

2. Pinellas County
 - a. Pinellas County Government
 - b. Pinellas County School Board
 - c. Pinellas County Sheriff's Office
 - d. Pinellas County Planning Council (PPC) and Planners Advisory Committee (PAC)
 - e. Metropolitan Planning Organization (MPO)
 - f. Pinellas County Fire Protection Authority
 - g. Pinellas County Emergency Operations Center
 - h. Pinellas County Water and Navigation Control Authority
 - i. Pinellas County Housing Authority
 - j. Pinellas County Emergency Medical Services Authority

3. Regional Authorities, Multijurisdictional Entities, and Independent Special Districts
 - a. Tampa Bay Regional Planning Council (TBRPC)
 - b. Southwest Florida Water Management District (SWFWMD)
 - c. Tampa Bay Water (TBW)
 - d. Barrier Islands Governmental Council (BIG-C)
 - e. Pinellas Suncoast Transit Authority (PSTA)
 - f. Pinellas Suncoast Fire Rescue District

4. State Agencies
 - a. Department of Transportation (FDOT)
 - b. Department of Environmental Protection (DEP)
 - c. Department of Economic Opportunity
 - d. Department of State

5. Public/Private Utilities
 - a. Progress Energy
 - b. General Telephone of Florida (GTE)
 - c. Time Warner Cable Company
 - e. Pinellas County Utilities System (PCUS)
 - f. Clearwater Gas System

II. EXISTING CONTRACT AND AGREEMENT COORDINATION MECHANISMS

A brief description of existing coordination mechanisms, where applicable, and the nature of the relationship (regulatory, advisory, etc.), and the office with primary responsibility for coordination is provided in the following text. These formal agreements have proven to be effective and require no changes.

A. Existing Contracts/Agreements

1. An agreement between Indian Rocks Beach and Pinellas County where the county agrees to perform periodic maintenance of traffic signal installations within the municipal limits at six-month intervals and upon request by the City Manager. This service agreement is coordinated by the City Manager.
2. Ordinance Number 435 grants a franchise to General Telephone of Florida (GTE) and the right to construct, operate, and maintain the facilities necessary to provide a telephone system for the public and private use of residents and businesses. The city receives a franchise fee from GTE, and both parties coordinate and consult when maintenance or construction of the telephone system is necessary, or when activity will occur in easements and rights-of-way. The City Manager is the officer with primary coordination responsibility.
3. Ordinance Number 117 grants an electric franchise to Progress Energy and the right to construct, operate, and maintain the facilities necessary to provide the residents and businesses within the corporate city limits electricity. The city receives a franchise fee from Progress Energy and both parties coordinate and communicate when maintenance or construction of the electrical transmission system is necessary, and when activity will occur in easements and rights-of-way. The Public Services Director is the officer with primary coordination responsibility.
4. Ordinance Number 426 grants a franchise to Time Warner Cable Company to construct, operate, and maintain the facilities necessary to provide a cable communications system within the corporate limits. The city and the cable company coordinate and consult when maintenance or construction of the cable system is necessary or when those activities require construction or alteration of easements and rights-of-way.
5. The city has a franchise agreement with the Clearwater Gas System for the provision of natural gas service.
6. There is an agreement with the Pinellas Suncoast Fire Rescue District that allows usage of the Indian Rocks Beach fueling facility.
7. The city has a contract with the Pinellas County Sheriff's Office for the provision of police services.

B. Agreements Relating to the Comprehensive Plan

1. The city has an interlocal agreement for bulk wastewater processing with the Pinellas County Utilities System.

2. A Pinellas County ordinance requires all solid waste generated in the county to go to the Waste-to-Energy Plant or the Bridgeway Acres sanitary landfill.

3. The city has an interlocal agreement with the Pinellas County Utilities System for the provision of potable water.

C. Other Contracts or Agreements

The city has executed an interlocal agreement with the Pinellas Planning Council for the provision of professional planning services.

III. EXISTING COORDINATION MECHANISMS WITH LOCAL GOVERNMENTS/ ENTITIES

A. Pinellas County Government

1. Metropolitan Planning Organization

Indian Rocks Beach coordinates transportation planning with the Pinellas County Metropolitan Planning Organization (MPO) for the development and maintenance of mass transit plans, programs, and projects as well as roadway planning. The city reviews those sections of the transportation improvement programs that affect the community. The City Manager coordinates interaction with the MPO.

2. Pinellas County Utilities System (PCUS)

The businesses and residents of Indian Rocks Beach are served by the Pinellas County Utilities System for potable water and the City of Indian Rocks Beach for wastewater service. Pinellas County owns, operates, and maintains the water system. The city owns, operates, and maintains the wastewater collection system, and contracts with Pinellas County for wastewater transmission treatment and effluent disposal services.

3. Pinellas County Sheriff's Office

Indian Rocks Beach has an interlocal agreement for law enforcement services with the Pinellas County Sheriff's Office.

4. Pinellas County Emergency Operations Center (EOC)

Section 252.38 of the Florida Statutes delegates the authority to establish county and municipal Emergency Operation Centers. The EOC serves as a focal point for coordinated comprehensive emergency management efforts through the

utilization of personnel and resources from municipal, county, and other disaster assistance agencies in the mitigation of, preparation for, response to, and recovery from both localized and countywide disasters. The EOC also serves as a center for information, coordination, and requests for assistance from higher levels of government. The City Manager has been designated as the officer with primary coordination responsibility with the EOC.

5. Pinellas County Water and Navigation Control Authority (PCWNCA)

The Pinellas County Board of County Commissioners serves as the Authority, and their control is countywide. They are involved in permit review and receive staff support from the Pinellas County Environmental Management Department. The PCWNCA coordinates with the City Manager.

6. The Pinellas County Fire Protection Authority

Administered through the Pinellas County Emergency Management Department, the authority coordinates service-related activities for the five fire districts in the county. This service agreement is coordinated through the City Manager.

7. Infrastructure and Service Provision

Facilities related to the comprehensive plan that are of countywide significance include the Pinellas County Waste-to-Energy Plant; and services such as the St. Petersburg/Clearwater Airport and the St. Petersburg Port Authority; bridges, major transportation facilities, and mass transit; Pinellas County Emergency Operations Center; and hurricane shelters and evacuation routes.

a. Solid Waste and Sanitary Sewer Existing Coordinating Mechanisms

These services are operated by the Pinellas County Board of County Commissioners. Major decisions concerning countywide facilities are made at public meetings where residents, business owners, and local government representatives have an opportunity to express their concerns or ideas. The solid waste disposal and wastewater treatment facilities are operated as enterprise funds, are self-supporting, and require no tax dollars to operate.

b. Major Transportation Facilities and Mass Transit Existing Coordinating Mechanisms

These services are coordinated at public meetings through the Pinellas County MPO (see Section VIII., "Facilities Subject to Concurrency") and the PSTA.

c. Hurricane Shelters and Evacuation Clearance Existing Coordinating Mechanisms

The provision of hurricane shelters and evacuation of vulnerable populations are coordinated through the TBRPC, Pinellas County Department of Emergency Management, and local governments. Pinellas County coordinates the Disaster Advisory Committee functions which deal directly with these facilities. The committee includes local government representation.

Analysis of Effectiveness. The existing coordinating mechanisms have been effective in coordinating countywide facilities. However, to further improve upon planning for hurricanes, the actions described below should be undertaken.

d. Supplemental Coordination Mechanisms

Proposed comprehensive plan policies and map amendments in the Coastal High Hazard Area should be coordinated with the TBRPC *Hurricane Evacuation Plan* and the Pinellas County Department of Emergency Management should be consulted to ascertain the amount of currently available hurricane shelter space.

8. Interlocal or Other Form of Agreement

Various interlocal agreements between local governments exist for the provision of mutual aid or use of countywide facilities. See Section II.B. and C. of this element for additional information.

9. Ambient Water Quality Monitoring Program

The City of Indian Rocks Beach and Pinellas County are required by the U.S. Environmental Protection Agency (EPA), pursuant to the terms of the Federal Clean Water Act, to control through interagency agreement the contribution of pollutants to and between the municipal storm sewer systems.

10. Marine Turtle Sensitive Lighting at Selected Beach Access Sites

The City desires to provide marine turtle sensitive lighting along its beach to promote and obtain environmental benefits within the community and the County's Capital Improvement funds contain funds that can be used for the purpose of providing grant monies to allow the installation of marine turtle

sensitive lighting. Sensitive lighting should be constructed at 4th, 8th, 9th, 17th and 18th Avenue Beach Accesses.

11. Dune Walkover at Public Beach Access Sites

The County's Capital Improvement funds exist for the specific use of public beach enhancement and the City and County will coordinate and cooperate in their efforts to enhance beach access dune walkovers within the City.

12. Maintenance of Traffic Control Signals and Devices

The City and County determined that it would in their best interest to coordinate and cooperate in efforts to maintain traffic control signals and devices in a uniform and systematic manner. It would be mutually beneficial to centralize traffic signal operations on specified arterial roads and other major thoroughfares, across municipal boundaries, establishing an Advanced Traffic Management System (ATMS), for the most efficient operations of those facilities on a countywide basis. It is of mutual benefit to centralize the Intelligent Transportation System (ITS) on specified arterial roads and other major thoroughfares across municipal boundaries, for the safest and most efficient operation of those facilities on a countywide basis.

13. Post-Disaster Debris Management and Debris Site Management

The County and the City desire to implement a time efficient, cost effective, and responsive system to meet both the debris management needs of the area, and also the debris monitoring requirement for FEMA reimbursements. The County has in place contracts with debris management contractor and a debris removal within the region at a competitive price and the City and County desire to allow for the joint procurement of the debris management.

14. Green Cities Action Accord

Pinellas County was the first government in the state to receive the designation of Green Local Government. St. Petersburg was the first city designated in the state. Since then, Dunedin has become a green city and many other cities in the county are adopting sustainable practices.

The Green Government designation is administered through the Florida Green Building Coalition, the organization promoting the signing of the Mayor's Green City Action Accord throughout the state. Sustainability encourages us to make both small and large changes in our everyday lives, both personally and in business, includes recycling, reduced energy usage, alternative fuels, water-wise landscaping, job training, healthy families. Sustainability is a holistic approach to life that looks at the balances between economy, environment and society.

B. Pinellas County School Board

The *General Educational Facilities Report* (June, 1992) of the Pinellas County School Board indicates that there are no public schools planned for the city.

Pursuant to Section 235.193, F.S., the ICE has been updated to include provisions for public educational facility siting. The City of Indian Rocks Beach has adopted a resolution that supports efforts to facilitate coordination of planning for the location and development of public educational facilities. Furthermore, pursuant to Section 163.3177(a), Objective 1.11 and associated policies have been added to the *Future Land Use Element* as part of the EAR-based amendment process that identify the map categories into which the facilities may be established.

C. Pinellas County Planning Council (PPC)

An amendment to the Pinellas County home rule charter providing for countywide planning authority was approved in a countywide referendum on November 8, 1988. The powers and duties of the PPC are specified in the Laws of Florida, Chapter 88-458 and 88-464.

The PPC acts as the countywide land planning agency for Pinellas County. The PPC establishes comprehensive county wide policies for growth and development. The *Countywide Comprehensive Plan* developed by the PPC serves as the principal coordinating mechanism for all local planning within the county.

In the event of a conflict between the *Countywide Future Land Use Plan* and a local government comprehensive plan concerning land use, the countywide plan prevails unless the municipal plan provides for a less intense or a lesser density land use within the corporate boundaries than that provided by the countywide plan.

A majority plus one of the entire Board of County Commissioners, acting in their capacity as the Countywide Planning Authority (CPA), is required to take any action which is contrary to the recommendation of the PPC.

Directors or designees from individual local government planning departments automatically become members of the Planners Advisory Committee (PAC). At the direction of the PPC, the PAC reviews staff recommendations that are to be acted upon by the PPC.

D. Barrier Islands Governmental Council

First organized in 1989 the Barrier Islands Governmental Council (BIG-C) is a group of island governments in Pinellas County including: St. Petersburg Beach, Treasure Island, Madeira Beach, Redington Beach, North Redington Beach, Redington Shores, Indian Shores, Indian Rocks Beach, Belleair Shores, and Belleair Beach. Every elected official is a member of the committee but each municipality may have only one

voting member and two alternates who are selected by vote of the individual governmental bodies. The purpose of the BIG-C is to promote intergovernmental coordination, and present a collective voice on common barrier island concerns.

E. Pinellas County, Pinellas County Construction Licensing Board, and the City of Clearwater, the City of Belleaire Beach, the Town of Belleaire Shore, the Town of Redington Beach, the Town of North Redington Beach, the City of Madeira Beach, the City of Indian Rocks Beach, the Town of Indian Shores, the Town of Redington Shores, the City of Treasure Island, and the City of St. Pete Beach

The intent of the County, the Pinellas County Construction Licensing Board and the Cities to lay out the provisions to implement the Coastal Code. It is required that each county and municipality desiring to make local technical amendments to the Florida Building Code shall by interlocal agreement establish a countywide compliance review board to review any amendment to the Florida Building Code, adopted by a local government within the county.

IV. EXISTING COORDINATION MECHANISMS WITH REGIONAL /COUNTYWIDE ENTITIES AND INDEPENDENT SPECIAL DISTRICTS

The ICE addresses independent special districts (ISDs), defined as follows:

- Its boundaries cover more than one county (e.g., SWFWMD);
- Its boundaries exceed that of a single municipality;
- It was created by general law authorization or by special act;
- It operates as an independent political subdivision within defined district boundaries; and
- It constructs basic public infrastructure or provides public services such as drainage, lighting, fire protection, etc. Many have revenue raising authority such as ad valorem taxing, or non ad valorem assessments, fees, or charges on benefitted property.

The following is a summary of special district actions necessary to be coordinated with local governments:

- Provide a public facilities report to local government within the first year of special district creation (1) updated every five years or to coincide with local government evaluation and appraisal report due dates, and (2) annually provide notice of any changes;
- Describe each public facility owned and operated, its current capacity, current demands, and its location;
- Describe plans to build, improve, or expand a public facility within the next five years and include a description of how the facility will be financed and timing for construction;
- Describe plans to replace public facilities within the next ten years;

- Describe anticipated capacity of public facilities and demands on each public facility when completed; and
- File with the local government the registered office and agent as well a schedule of special district regular meetings.

There are currently fourteen ISDs in Pinellas County ranging in jurisdiction and size from the multi-county SWFWMD to the small area designated within downtown Clearwater as the Clearwater Downtown Development Board. The ISDs are addressed in the ICE because they are either countywide in nature (e.g., SWFWMD and Tampa Bay Water) or they affect the majority of local governments in Pinellas County (e.g., PSTA). Of the fourteen ISDs, the following three have public facilities that relate to the local government comprehensive plan:

- Southwest Florida Water Management District (SWFWMD)
- Tampa Bay Water (TBW)
- Pinellas Suncoast Transit Authority (PSTA)

A. Southwest Florida Water Management District (SWFWMD)

1. Brief Description

The SWFWMD is a multi-county water management district formed under the provisions of Section 373.069, F.S., created in 1976 along with four other water management districts in the state. The governing board includes eleven members that are appointed by the Governor of the State of Florida and the jurisdiction includes over 10,000 square miles. Water management districts are specifically exempted from compliance with local government comprehensive plans by Section 189.4155(3), F.S. However, they are required to coordinate with local governments.

The SWFWMD has a multi-purpose role including water supply, flood protection, water quality, and preservation of natural systems. These responsibilities are reflected in the *Florida Water Plan* and further refined in the 1995 *District Water Management Plan* (DWMP). The DWMP includes a 20-year visionary framework and helps guide their budgeting through one-year and five-year planning horizons. The DWMP is updated every five years and progress towards implementing the plan is gauged on an annual basis.

The DWMP identifies many SWFWMD responsibilities, but that specifically relating to the ICE is the stated purpose of “fostering intergovernmental coordination and a better public understanding of water management.” Extensive input from citizens and others has been reflected in the plan. The DWMP has identified three main intergovernmental issues:

- Land and water linkage planning between water management planning, the implementation of SWFWMD plans, and land use planning decisions of local governments;
- Consistent enforcement of regulations in order to benefit the maintenance and preservation of the resource; and
- Communication and enhancement partnerships between the SWFWMD and local and other governments.

2. Existing Coordinating Mechanisms

The eleven-member SWFWMD board meets twice monthly and allows public input on its decisions, plans, and actions. The SWFWMD Community Affairs Department maintains regular, consistent interaction with local governments and helps identify and resolve water management issues in a timely, coordinated fashion. The SWFWMD Planning Department is responsible for providing land and water resource planning, awareness, and technical assistance, including long-range planning which integrates water management activities with local growth management efforts. This department is responsible for a comprehensive local government planning assistance program and for providing technical assistance to those governments. The Public Communications Department of the SWFWMD is responsible for coordinating, facilitating, clarifying, and disseminating information on water issues.

Analysis of Effectiveness. The existing mechanisms have been effective in coordinating the plans of the SWFWMD with local government comprehensive plans.

3. Supplemental Coordinating Mechanisms

No changes in existing coordination mechanisms are recommended. However, the city should review the SWFWMD facility report and other major plans in order to identify issues that require coordination. The city should update its comprehensive plan based on this review consistent with the level-of-service standards of the *Pinellas County Comprehensive Plan* for stormwater management.

B. Tampa Bay Water (TBW)

1. Brief Description

Tampa Bay Water, formerly known as the West Coast Regional Water Supply Authority, is a regional water authority formed under the provisions of Section

373.1962, F.S. It is specifically exempted from compliance with local government comprehensive plans as provided in Section 189.4155(3), F.S. However, it is required to coordinate with local governments.

TBW is a wholesale supplier of potable water to its member local governments of Pinellas, Pasco, and Hillsborough counties as well as the cities of Tampa, St. Petersburg, and New Port Richey. The members directly supply citizens and businesses as well as enter into agreements to provide water to other local governments. For example, Pinellas County buys water from TBW wholesale and then sells it to municipalities within its retail water service area.

The *Master Water Plan* was adopted in December 1995, by the then West Coast Regional Water Supply Authority Board of Directors. The plan identifies required TBW actions and projects necessary to meet the water needs of member local governments and includes the primary objectives of:

- Aggressive conservation and reserve/rotational capacity;
- Diversified supply areas;
- Limited additional groundwater beyond built and exchanged capacity;
- Increased drought-proof and drought-resistant components; and
- Least cost (consistent with previous objectives).

The plan was developed by the governing board which consists of nine members, one from each city and two from each county in the service area. Demands and needs for each local government, including those not directly represented on the governing board, but provided water by the Authority, are derived from each respective comprehensive plan. The comprehensive plans of the local governments ultimately using the water produced by TBW form the basis for the *Master Water Plan*.

One additional plan created by TBW that affects local governments is the *Demand Management Plan*. This plan is concerned with conservation and lists numerous options for reducing water consumption (e.g., tiered pricing of water based on consumption).

2. Existing Coordinating Mechanisms

The nine-member governing board meets monthly and allows public input on its decisions, plans, and actions. The TBW staff maintains regular interaction with member local governments.

Local governments who have retail water agreements with Pinellas County, a member of TBW, are contacted annually by the Pinellas County Planning Department to obtain information describing new development permitted by the local government within that year. This information is used to project future demand for potable water.

Analysis of Effectiveness. The existing mechanisms have been effective in coordinating the plans of TBW with member local governments and the comprehensive plans of those governments purchasing water from Pinellas County.

3. Supplemental Coordinating Mechanisms

No changes in existing coordinating mechanisms are recommended. However, a local government should review the TBW facility report and other major plans in order to identify issues that require coordination. The city should update its comprehensive plan consistent with the level-of-service standards of the *Pinellas County Comprehensive Plan* for potable water.

C. Pinellas Suncoast Transit Authority

1. Brief Description

The PSTA was created in 1970 and provides transit facilities to residents of Pinellas County (excluding Belleair Beach, Belleair Shores, Kenneth City). Funding is obtained through fares, ad valorem taxes, as well as state and federal grants.

2. Existing Coordination Mechanisms

The management staff of the PSTA formally and informally coordinates with many public agencies and local governments (e.g., the Pinellas County Metropolitan Planning Organization). The PSTA Board holds regular monthly public meetings to discuss the budget, bus schedules, service areas, etc. The Board consists of thirteen elected local government officials and two appointed citizens. The elected officials may represent one community or multiple communities (e.g., Tarpon Springs, Oldsmar, and Safety Harbor have a rotating membership) and the two citizens are appointed by the City of St. Petersburg Council and the Pinellas County Board of County Commissioners, respectively. One member of the PSTA Board is also a member of the MPO.

Analysis of Effectiveness. The existing mechanisms have been effective in coordinating the plans of the PSTA with local government comprehensive plans.

3. Supplemental Coordinating Mechanisms

No changes in existing coordination mechanisms are recommended. However, a local government should review the PSTA facility report and other major plans in order to identify issues that require coordination. Local governments should update their comprehensive plans based on this review.

D. Tampa Bay Regional Planning Council (TBRPC)

1. Brief Description

The TBRPC is recognized in Chapter 29H-13, F.A.C., as a mediator and conciliator and for that reason has been established to reconcile differences on planning and growth management issues among local governments, regional agencies, and private interests. The TBRPC voluntary dispute resolution process is designed to handle a wide range of issues. It is more complex and structured than the process to resolve comprehensive planning issues described for the PPC/CPA countywide planning process, and there are costs associated with using the voluntary process that are the responsibility of local governments. The PPC/CPA countywide planning process may be used to resolve as many issues as possible within Pinellas County prior to utilization of the TBRPC process. Those issues that cannot be resolved using the PPC/CPA process or fall outside the purview of that process should utilize the TBRPC voluntary dispute resolution process.

2. Existing Coordinating Mechanisms

The TBRPC, in its role as mediator and conciliator, can use its voluntary dispute resolution process to reconcile differences on planning and growth management issues.

Analysis of Effectiveness. No additional coordination needs have been identified.

V. COORDINATION WITH STATE AGENCIES

State agencies have regulatory and review powers over various types of development within the municipal boundaries of the City of Indian Rocks Beach.

A. Florida Department of Transportation (FDOT)

1. Legislative Authority

The Florida Department of Transportation was created by the *Governmental Reorganization Act of 1969*, it operates under the authority of Chapters 334-339 and 341, Florida Statutes.

2. General Role

FDOT is responsible for coordinating the planning of all modes of transportation on land, sea and air, and for constructing and maintaining the state highway system. Urban transportation system plans are developed jointly by FDOT and Metropolitan Planning Organizations (MPOs). Technical and administrative dealings among these legally designated planning agencies are established to conform with federal regulations and have been formalized through inter-local transportation planning agreements.

3. Nature of the Relationship

FDOT owns and maintains Gulf Boulevard (SR 699) south of Walsingham Road (SR 688), while Pinellas County has jurisdiction north of Walsingham Road. The city notifies FDOT of maintenance hazards and problems and refers all applicants desiring access or curb cuts on Gulf Boulevard to FDOT for approval and permits.

4. Office with Primary Responsibility

The City Manager is the officer with primary coordination responsibility.

B. Florida Department of Environmental Protection (DEP)

1. Legislative Authority

The DEP was created through consolidation of the former Department of Environmental Regulation and Department of Natural Resources.

2. General Role

The DEP is the principal agency for the implementation of state environmental policies and law. The DEP established standards for the protection of natural systems through the permitting process of activities that may impact the environment, including permitting and monitoring potential sources of pollution and discharges for compliance with state standards. In the event of non-compliance or violation, the DEP can take enforcement action.

The DEP manages environmental regulatory programs administered mainly through field offices located throughout the state. The functions of the DEP and its districts are coordinated through using joint application procedures. DEP permitting programs require coordination with the Florida Department of Environmental Protection and the U.S. Army Corps of Engineers.

In administering the Water Quality Program, the DEP assists local governments in obtaining grants for sewage treatment facilities and loans for other pollution control projects. The DEP also coordinates the Coastal Zone Management Program with citizens' groups and governmental entities at all levels.

3. Nature of the Relationship

The DEP regulates the activities concerning the potable water and sanitary sewer wastewater treatment facilities owned and operated by Pinellas County.

4. Office with Primary Responsibility

The City Manager is the officer with primary responsibility for coordination.

C. Florida Department of Economic Opportunity

1. Legislative Authority

The Department of Economic Opportunity was created by the *Government Reorganization Act of 1969*, pursuant to Section 20.18, Florida Statutes.

2. General Role

The Department of Economic Opportunity serves as the State Land Planning Agency responsible for reviewing the strategic regional policy plans of the regional planning councils. It also reviews and approves local government comprehensive plans and amendments. Additionally, it is responsible for statewide emergency management and community development.

Department of Economic Opportunity reviews local comprehensive plans for consistency with regional plans and the State Plan. The Agency is also responsible for determining the consistency of local emergency management plans with regional plans.

3. Nature of the Relationship

Department of Economic Opportunity reviews amendments to the city local comprehensive plan. This is a regulatory relationship.

4. Office with Primary Responsibility

The City Manager is the officer with primary coordination responsibility.

D. Florida Department of State

1. Legislative Authority

Chapter 20 of the Florida Statutes establishes the Department of State; while Chapter 15 specifies the duties of the head of the department, the Secretary of State.

2. General Role

The Florida Department of State through the Division of Historic Resources is authorized to conduct and carry out a program of historic preservation grants-in-aid. The Division of Library and Information Services provides assistance with records management.

3. Nature of the Relationship

The City of Indian Rocks Beach has a continuing formal relationship with the Department of State with the City Clerk coordinating records management.

4. Office with Primary Responsibility

The City Clerk is the officer responsible for coordination.

VI. COORDINATION WITH UTILITY COMPANIES

The following utilities coordinate their activities with Indian Rocks Beach through franchise agreements or by city ordinance. The City Manager is the officer with primary coordination responsibility.

A. Progress Energy

Progress Energy has a franchise agreement with Indian Rocks Beach to provide electricity for residential and commercial uses.

B. General Telephone Company of Florida (GTE)

GTE has a franchise agreement with Indian Rocks Beach to provide commercial and residential phone service.

C. Time Warner Cable Company

Time Warner has a franchise agreement to provide cable television service to Indian Rocks Beach.

D. Clearwater Gas System

The city has a franchise agreement with the Clearwater Gas System for the provision of natural gas services.

VII. IDENTIFICATION AND IMPLEMENTATION OF JOINT PLANNING AREAS AND JOINT PROCESSES

A. Joint Planning Areas

A joint planning area represents an area where (1) a municipal or county government provides municipal services to another local government; (2) both a municipality and county government provide municipal services to the same area; or (3) a municipal or county government has designated a planning area with the intent of future annexation.

B. Joint Processes For Collaborative Planning And Decision Making

This section describes joint processes for collaborative planning and decision making on population projections and public school siting, the location and extension of public facilities subject to concurrency, the siting of facilities with countywide significance, and the siting of locally unwanted land uses (termed “problematic land uses” in this ICE). In order for local governments to meet the statutory requirements, an interlocal agreement or other formal mechanism establishing the joint processes must be adopted within one year of adoption of the intergovernmental coordination element. Most described processes have formal agreements in existence to meet this requirement or can be modified (e.g., school siting interlocal resolution or agreement) to meet the requirement.

Population projections and school siting have been addressed on a countywide basis. The Board of County Commissioners acting in its capacity as the Countywide Planning Authority (CPA), as well as individually in its normal capacity as the County Commission, together with the PPC, can be relied upon in the future to analyze and suggest appropriate solutions (or approaches) to the remaining issues that are identified, including supplemental coordinating mechanisms.

C. Population Projections

1. Brief Description

During 1998, the Pinellas County Planning Department produced countywide population projections by census tract and traffic analysis zone. This information is available to local governments for use with their comprehensive plans and for the Pinellas County School Board in determining school needs in its 5-year facility work program. The population projections were developed for the Pinellas County Metropolitan Planning Organization (MPO) for use within the *Long-Range Transportation Plan*. The process the Planning Department used in the development of the projections was collaborative and involved all interested parties, including local governments and School Board staff. The information was verified by each local government and compared to expected development/redevelopment as identified within their respective comprehensive plans. The basis for estimating existing conditions (residential units and persons per household) were developed utilizing the Pinellas County geographic information system and the 2000 U.S. Census. Future conditions were derived from the *Countywide Future Land Use Plan*.

Additionally, in an effort to meet the specific needs of the School Board, Pinellas County is developing a methodology to be used for the projection of student growth and the determination of student age groups for each traffic analysis zone used during the calculation of the population projections. Currently, the School Board considers the population projections in the calculation of enrollment projections. When the more detailed calculations for student growth are available, the Board will consider using them for projections of student enrollment. The School Board must demonstrate in the educational facilities report consideration of local government population projections to ensure that the 5-year work program not only reflects enrollment projections, but also considers applicable municipal and county growth and development projections.

2. Existing Coordinating Mechanisms

The Pinellas County Planning Department publishes a population report every three years and involves local government officials and School Board staff. Additionally, the Planning Department staff meets directly with the School Board staff to develop more specific population projections used to determine future student enrollment.

The MPO is responsible for approving each three-year report. The public meetings provide an additional opportunity for input by local governments. Each local government utilizing the projections can do so by amendment of their comprehensive plan. Additionally, the School Board approves the final enrollment projections at public meetings, allowing local government an additional opportunity for input on Board actions based on the projections.

Analysis of Effectiveness. The existing mechanisms have been effective in coordinating the use and development of consistent population projections. However, in order to provide more specificity in coordinating with the plans of the School Board, the additional actions described below should be undertaken.

3. Supplemental Coordinating Mechanisms

The city should review the draft population projections and consider them for use within the comprehensive plan. Additionally, the city should forward the approved projections to the School Board so that it can consider projected municipal growth and development in the 5-, 10-, and 20-year work programs.

4. Interlocal or Other Form of Agreement

No specific interlocal agreement implementing the items listed above currently exists. The city should amend its existing school siting interlocal agreement or resolution with the School Board to address the issue if the need exists.

D. Facilities Subject To Concurrency

Facilities subject to concurrency include:

- Potable water
- Sanitary sewer
- Solid waste
- Stormwater drainage
- Parks and recreation

There are numerous relationships between local governments and other agencies across the county that are designed to provide these facilities and services. Separate from facility location and construction, however, is the need for coordination of local government concurrency methodologies and systems, and levels of service with other units of local government providing services, but not having the regulatory authority over the use of land (e.g., Florida Department of Transportation for state roads).

In addition to the existing coordinating mechanisms, local government concurrency management methodologies and systems, and levels of service would be improved by better coordination. To improve this coordination, each local government which permits development should coordinate with the entity providing the service (e.g., unincorporated area development in a municipal potable water service area). It is desirable to eliminate differing standards being enforced by the local government having the control over the use of land (permitting agency, in this example, Pinellas County) on services provided by another local government or other agency that has no regulatory authority over the use of land (service entity, in this example, the municipality).

1. Potable Water

There are nine retail water service areas in the county, with Pinellas County and St. Petersburg being the largest ones supplying local governments. Dunedin and Belleair are examples of water service areas that do not purchase water from another entity, except during emergencies when they purchase it from Pinellas County. The following table lists the retail water service provider, area served, and wholesale water sources serving the City of Indian Rocks Beach.

The provision of water on a wholesale basis was revised as of August 31, 1998, with the creation of the new agency "Tampa Bay Water" (TBW) which replaced the former West Coast Regional Water Supply Authority. TBW has a nine-member board with representatives from the cities of Tampa, New Port Richey, and St. Petersburg (one member each), and from Pasco, Pinellas, and Hillsborough counties (two members each). In addition to interlocal agreements serving the areas, there are agreements between the retail and wholesale potable water providers. For more detail on Tampa Bay Water, refer to Section IV.

a. Existing Coordinating Mechanisms

In order to determine future potable water needs, and to develop a plan to have those needs fulfilled by Tampa Bay Water, the Pinellas County Planning Department annually surveys local governments served by the county water system. The purpose of the survey is to determine the amount of development permitted by the local government within the forthcoming year. For retail service areas operated by municipalities that provide potable water to unincorporated areas, private development must obtain permits from the municipality.

Analysis of Effectiveness. The existing coordination mechanisms are sufficient and adequate for potable water facilities.

b. Supplemental Coordination Mechanisms

Staff meetings. City staff should meet annually, or more often as needed, with Pinellas County staff for the purpose of determining future incorporated area needs for potable water within each city service area. This determination of need should be based upon development expected in the *Pinellas County Comprehensive Plan* and local comprehensive plans.

**Table 1
Potable Water Service Areas**

Retail/Wholesale Water Provider	Local Government Areas Served	Retail Water Source	Wholesale Water Source
St. Petersburg Pinellas County	Majority of city, South Pasadena, Gulfport, and unincorporated Pinellas County within the city service area Remaining unincorporated areas, the municipalities of Belleair Bluffs, Belleair Beach, Belleair Shore, Indian Rocks Beach, Indian Shores, Redington Shores, North Redington Beach, Redington Beach, Madeira Beach, Treasure Island, St. Pete Beach, Seminole, Kenneth City, Largo, Gulfport, and portions of Tarpon Springs, Oldsmar, Safety Harbor, Clearwater, Pinellas Park, and St. Petersburg.	Tampa Bay Water	Tampa Bay Water

2. Sanitary Sewer

There are 17 sanitary sewer service districts in Pinellas County. Below is a listing of the sewer districts, corresponding operational responsibilities, and the local governments served.

a. Existing Coordinating Mechanisms

Some Pinellas County facilities are located within the jurisdiction of other local governments. It is the responsibility of these local governments to issue permits for new developments within their limits, but for planning purposes the county records the number of permits issued each year. Conversely, some unincorporated county residents receive service from municipal sewer systems; in this case, permits are obtained from the serving municipality.

Analysis of Effectiveness. The existing coordination mechanisms are sufficient and adequate for sanitary sewer facilities.

b. Supplemental Coordination Mechanisms

Staff meetings. City staff should meet annually, or more often as needed, with Pinellas County staff for the purpose of determining future incorporated area needs for sanitary sewer within each city service area. This determination of need should be based upon development expected in the *Pinellas County Comprehensive Plan* and local comprehensive plans.

**Table 2
Pinellas County Sanitary Sewer Districts**

Sewer District	Operational Responsibility	Local Government Areas Served
McKay Creek	Pinellas County	Belleair Beach, Belleair Shore, Belleair Bluffs, Indian Rocks Beach, Indian Shores, portions of Largo, and unincorporated Pinellas County
South Cross Bayou	Pinellas County	Portions of Largo and St. Petersburg, all of Indian Rocks Beach (future), Kenneth City, Seminole, Redington Shores, North Redington Beach, Redington Beach, Madeira Beach, and the majority of Pinellas Park

3. Solid Waste

The main disposal point for solid waste is the Pinellas County Waste-to-Energy Plant. In 1975, the Florida Legislature passed the *Pinellas County Solid Waste Disposal and Resource Recovery Act* which designated the Pinellas County Board of County Commissioners as the responsible party for solid waste disposal in the county. Municipalities are responsible for solid waste collection within their jurisdictions, and contract for this service with private waste haulers or use municipal crews.

a. Existing Coordinating Mechanisms

(1) In order to ensure adequate future capacity at the Waste-to-Energy Plant the Pinellas County Planning Department solicits annual reports from local governments that describe new development permitted within that year. The reports are used to project demand for future disposal facilities.

(2) Pinellas County has a Technical Advisory Committee which meets to discuss issues related to solid waste. These meetings include local government input.

Analysis of Effectiveness. The existing coordinating mechanisms are sufficient and adequate for local solid waste collection and disposal.

4. Stormwater Drainage

Each local government applies stormwater drainage standards to development within its community. In addition, the Southwest Florida Water Management District (SWFWMD) requires development to meet specific standards for water quality and quantity. Stormwater management drainage plans have been developed by a number of communities and a plan addressing the more significant drainage needs for 52 drainage basins in the county has been developed by Pinellas County. Improvements to the public stormwater drainage system are constructed by each individual jurisdiction, and in some cases, by Pinellas County within municipal boundaries for stormwater facilities serving major drainage basins or other county facilities.

a. Existing Coordinating Mechanisms

Local governments in Pinellas County, with the exception of the City of St. Petersburg, coordinate the stormwater management permit requirements of the National Pollution Discharge Elimination System (NPDES) with Pinellas County staff. Additionally, Pinellas County coordinates stormwater management issues with local governments through the county Watershed Management Program. When a watershed includes municipal jurisdictions, they are invited to participate in the development of that area's plan to meet water quality and quantity goals.

Analysis of Effectiveness. The existing coordination mechanisms are sufficient and adequate for stormwater drainage planning.

b. Supplemental Coordination Mechanisms

The development of the stormwater management plans should be coordinated with Pinellas County and reviewed against county stormwater management plans and with the SWFWMD for initial review with their regulations (final review will occur during the permitting of each

project identified in the stormwater management plan). The city should consider revising its drainage plan based upon input received from Pinellas County and the SWFWMD. Additionally, the city should review their stormwater management levels of service and methodologies to ensure that they are consistent with those administered by the SWFWMD.

5. Transportation

The City of Indian Rocks Beach coordinates transportation planning with the Pinellas County Metropolitan Planning Organization (MPO) for the development and maintenance of mass transit plans, programs and projects. The city reviews those sections of the transportation improvement program that affect it.

Transportation facilities are coordinated on a countywide basis through the Pinellas County MPO. This group of elected officials from local government, and staff from the Florida Department of Transportation (FDOT), coordinate state, county, and local roadway improvements. Local governments also coordinate directly with the FDOT for state roadways within their jurisdiction.

a. Existing Coordinating Mechanisms

The MPO meets monthly to approve planning documents such as the *Long-Range Transportation Plan* and receives recommendations from local government staff and citizens through various subcommittees such as the Technical Coordinating Committee, the Citizens Advisory Committee, the Bicycle Advisory Committee, and the Pedestrian Advisory Committee. Additional coordination needs are currently being addressed by the MPO and include a stronger emphasis on regional impacts, and increased coordination with the beach communities, since they have no direct representation on the MPO.

Analysis of Effectiveness. There is a need to better coordinate transportation facilities.

b. Supplemental Coordination Mechanisms

(1) The city should forward requests for access to county or state maintained roadways to those respective agencies for permit issuance.

6. Parks and Recreation

Municipalities provide parks and other recreation facilities for their residents. Countywide or regional facilities are provided through larger county parks, and

multi-county facilities through state parks. The county uses both incorporated and unincorporated area populations to calculate the need for regional parks.

a. Existing Coordinating Mechanisms

For local parks and recreation services, no coordinating mechanisms have been identified since the service area does not cross jurisdictional lines.

Analysis of Effectiveness. The existing coordinating mechanisms are sufficient for parks and recreation facilities.

E. Problematic Land Uses

Problematic land uses are those that are considered undesirable by citizens or businesses due to their real or perceived negative effects. Examples include adult entertainment establishments, telecommunication facilities, power transmission lines, lower income housing, and group homes. Some of these uses further legitimate public purposes; others are protected by federal or state law. Because many citizens and business owners do not want these uses located near them, a local government's decision to allow or disallow placement is often a very difficult one.

Ongoing coordination between local governments concerning potential or actual location of problematic land uses is often beneficial. A list of potential problematic land uses in Pinellas County includes:

- Adult entertainment establishments
- Low and moderate income housing
- Telecommunication facilities
- Group living facilities
- Shelters for the homeless
- Outreach facilities (e.g., Salvation Army, "soup" kitchens)
- Power transmission facilities
- Wastewater treatment facilities
- Major pipelines (e.g., natural gas, water)
- Recycling or hazardous waste facilities

F. Existing Coordinating Mechanisms

A variety of mechanisms exist for the ad hoc coordination of individual uses (e.g., Pinellas County's coordination of the development of a model ordinance to address the location of telecommunication towers), but no formal or informal coordination specifically addressing the overall issue of problematic land uses exists.

Analysis of Effectiveness. No formal or informal coordinating mechanisms exist to address the overall subject of problematic land uses. Therefore, the actions described below should be undertaken.

1. Supplemental Coordination Mechanisms

General Coordination. Each local government is encouraged to conduct a review of their use and locational standards to determine where and under what circumstances these uses can locate in their community. This review can then be shared with each neighboring jurisdiction to determine what conflicts or inconsistencies exist between local government codes, what can be done to resolve any conflicts, and what efficiencies can be gained through a countywide approach to standards that would be more uniform in their application.

Countywide Planning Process. The review of future land use plan amendments by the PPC and the CPA through the countywide planning process can also act as a means of coordinating these problematic land uses.

2. Interlocal or Other Form of Agreement

No specific interlocal agreement pertaining to problematic land uses currently exists. However, agreements should be entered into, after the “general coordination” described above is completed.

VIII. VOLUNTARY DISPUTE RESOLUTION PROCESSES

This section will describe two voluntary dispute resolution processes available to local governments in Pinellas County. However, local governments are not limited to these two processes and can use others as they deem appropriate.

The amendment process for the *Countywide Future Land Use Plan* acts to solve many potential land use disputes which arise early in the development process and, as requested by local government, can be relied on to resolve additional comprehensive planning-related issues and disputes. The Tampa Bay Regional Planning Council voluntary dispute resolution process outlined in Chapter 29H-13, F.A.C., may be relied upon for other disputes that may arise out of development based on local government comprehensive plans or for disputes that cannot be resolved at the PPC/CPA level.

A. Countywide Planning Process

1. Brief Description

The Board of County Commissioners, acting in their capacity as the CPA, together with the PPC, are charged with the administration of the *Countywide Plan*. This existing planning process was established to guide the growth and improvement of Pinellas County as a whole, with the participation of the county’s 25-member local governments and the Pinellas County School Board. The PPC and the CPA have been tasked with formulating and administering a coherent countywide planning process that overcomes the inherent limitations of so many

separate local government plans, while respecting the prerogatives and individual character of each.

Because of the unique role of the PPC and CPA, the countywide planning process can be used to resolve disputes related to both the administration of local government plans and regulations, as well as other interjurisdictional disputes related to planning.

2. Existing Coordinating Mechanisms

The countywide planning process currently serves as a forum for various governmental jurisdictions to express their views and evaluate matters of common interest. The existing process can be utilized to resolve local government comprehensive plan disputes that arise as a function of the plan amendment process and the administration of the *Countywide Plan Rules*. Other planning-related intergovernmental issues and disputes may be addressed as agreed to by the PPC. When petitioned by the aggrieved jurisdiction and agreed to by all parties involved, the PPC and CPA can review planning-related intergovernmental disputes and their conclusions and recommendations can be offered in the form of a resolution.

Moreover, the Planning Council and countywide planning process serve to address a host of planning-related issues prior to such issues rising to the level of a “dispute.” Examples include local assistance to maintain, interpret, and implement local plans consistent with the *Countywide Plan*; the preparation of neighborhood plans that address specific matters of both local and interjurisdictional interest; modification of *Countywide Plan Rules* to address matters of interjurisdictional sensitivity; and matters of countywide importance such as annexation and service delivery.

Analysis of Effectiveness. No additional coordination needs have been identified.

IX. ANALYSES

This section will (1) discuss the effectiveness of existing coordination mechanisms which are used to further intergovernmental coordination, and (2) identify and discuss specific problems and needs within each element of the comprehensive plan which would benefit from additional coordination.

A. Intergovernmental Coordination and Plan Elements

This section discusses specific problems and needs within each element of the comprehensive plan which would benefit from improved or additional intergovernmental coordination. The Pinellas County Planning Council is the appropriate forum for addressing problems or issues identified in the individual

elements of this plan. In addition to the PPC, the Metropolitan Planning Organization will be utilized to resolve any transportation issues.

1. Future Land Use Element

The City of Indian Rocks Beach is located on a barrier island, Sand Key, located off west central Pinellas County. The community is characterized by a mixture of single and multi-family residential areas. The community is essentially built-out with most new development in the form of multi-family dwellings. The city shares common borders with the Town of Indian Shores to the south and the Town of Belleair Shore and City of Belleair Beach to the north.

- Issue Area: Prevention and elimination of incompatible land uses along common borders

Finding: The City of Indian Rocks Beach should coordinate and consult with the Town of Indian Shores and the Town of Belleair Shore and City of Belleair Beach to ensure that future changes in zoning and land use along common borders reflect the types of land uses typical of those areas.

- Issue Area: Coordination with neighboring jurisdictions for:
 - Governmental actions which, under law, require mailed notice should include adjacent jurisdictions within the notification radius.
- Issue Area: Planning for hurricanes
 - Population (density) and intensity increases; and
 - Future land use plan map residential category locations.
- Issue Area: General coordination
 - Sign regulations consistent with the countywide sign code;
 - Annexation coordination;
 - Future land use plan amendments;
 - Future land use plan text and land development regulation amendments reviewed for consistency with the *Countywide Rules*; and
 - Participation with the Planners Advisory Committee of the Pinellas Planning Council.

2. Transportation Element

The City of Indian Rocks Beach is a beach community on a barrier island which is served by one major north-south road, Gulf Boulevard (SR 699). Residents must drive east on SR 688 for access to the mainland or drive north to reach the Belleair Causeway to the mainland.

▪ Issue Area: Traffic Circulation System Improvements

Finding: The City of Indian Rocks Beach is not fiscally responsible for addressing all the transportation improvements identified in the *Transportation Element*. The FDOT has financial responsibility for SR 699. Improvements to Gulf Boulevard are necessary for safety purposes. The city should coordinate and consult with the county MPO and the FDOT and closely review transportation plans and improvements prepared by these entities to ensure that improvements are economical and meet the needs of the city. The preservation and protection of rights-of-way for future roadway construction and improvement is an area of special concern.

▪ Issue Area: Coordination with neighboring jurisdictions for:

- Transportation impacts based on development orders
- Public hearings to approve certain development orders with transportation impacts
- Traffic calming plans
- Bicycle and pedestrian ways

▪ Issue Area: Coordination of concurrency management

- Improved coordination of levels of service and concurrency management methodologies.

▪ Issue Area: Coordination with other entities providing services

- Coordination of levels of service, concurrency management methodologies, and land development regulations with service providers
- Site plans that require access to county or state roadways

3. Housing Element

The City of Indian Rocks Beach is primarily a residential community which has recently experienced an increase in multifamily residential growth. Residences are maintained to a high degree and the occurrence of substandard housing is limited. There are no public housing units within the corporate limits of the city.

▪ Issue Area: Availability of Public Housing

Due to the built-out nature of Indian Rocks Beach and the costs associated with land and rents on coastal islands, the potential for public housing is very low. There is no agricultural land uses in the corporate limits. The city should increase the opportunity for all citizens to purchase or rent decent and affordable housing free from arbitrary discrimination.

▪ Issue Area: Coordination with other entities providing services

- Reporting of discrimination
- Provision of very-low, low, and moderate income housing
- Housing assistance programs
- Affordable housing incentives programs

4. Infrastructure Element

The City of Indian Rocks Beach owns and maintains the sanitary sewer lines within the city limits. Solid waste is collected by the city and disposed of at the county Waste-to-Energy Plant. The city receives its potable water from the Pinellas County Utilities System (PCUS) as a retail customer.

▪ Issue Area: Drainage

Finding: Gulf Boulevard, which serves as the only north-south arterial route for the residents of the city, represents the major drainage problem. To adequately address the deficiencies the city must work closely with the Pinellas County MPO and the Florida Department of Transportation to ensure that future improvements to Gulf Boulevard address drainage problems in the design and engineering stages. The county is in the process of improving Gulf Boulevard, and curbs and gutters are included in the design.

Coordination of stormwater master plans in shared drainage basins.

▪ Issue Area: Solid waste

Finding: The city collects its solid waste and it is disposed of by Pinellas County at its resource recovery center.

- Solid waste recycling;
 - Hazardous material disposal; and
 - Identification of hazardous waste generators.
- Issue Area: Coordination of concurrency
 - Coordination of levels of service, concurrency management methodologies, and land development regulations with service providers
 - Issue Area: Potable water
 - Water shortage plans
 - Water conserving device installation
 - Water needs in city service area

5. Coastal Management and Conservation Element

Indian Rocks Beach is located on a barrier island, but very little remains of what was a unique ecosystem. The natural system of dunes has been replaced by seawalls, and residential growth has severely impacted vegetational growth.

- Issue Area: Beach Renourishment and Conservation

Finding: Indian Rocks Beach needs to coordinate and consult with Pinellas County, Town of Indian Shores and the Town of Belleair Shore concerning beach renourishment activities and construction of erosion control structures. Indian Rocks Beach should also work with the same parties to develop a plan for dune system establishment and conservation to augment beach renourishment activities.

- Issue Area: Water Quality and Habitat

Finding: The development of a sound management plan for the contingency of stormwater runoff spillover from neighboring jurisdictions and developments shall be addressed by coordinating and consulting with concerned parties on the development of an area wide drainage plan.

Indian Rocks Beach should consult and work with Pinellas County and other island communities to develop a coastal management program that addresses such issues as water quality and preservation of habitats.

- Issue Area: Coordination with neighboring jurisdictions for:
 - Protection of shared wetlands
 - Shoreline protection and dock placement

- Issue Area: Planning for hurricanes
 - Hurricane recovery plans
 - Facilities available for use as shelter space
 - Preparedness, response, recovery, and mitigation plans

- Issue Area: Coordination with other entities providing services
 - Landscaping requirements and native plants
 - Hazardous waste spills
 - Coastal water quality
 - Maintenance of navigational channels

6. Recreation and Open Space Element

The City of Indian Rocks Beach enjoys a natural setting that provides an abundance of outdoor recreational opportunities. The existing facilities available for recreation in the city are adequate to meet the needs of residents and visitors.

Issue Area: Maintenance and Coordination of Recreational Facilities

Finding: Most recreational facilities in the city focus on the sandy beaches of the Gulf of Mexico. They serve residents and large numbers of visitors as well. It is important to maintain public access to the recreational resources of the city.

Issue Area: Preservation and Acquisition of Open Space

Finding: The city should coordinate closely with Pinellas County and the state to protect the natural resources and open space in the city and to acquire additional property that may become available for open space.

Issue Area: Coordination with other entities providing services in the pursuit of joint funding.

X. OTHER PLANS OR ACTIONS

There are occasionally other plans or actions implementing various portions of the comprehensive plan, but not specifically included in the goals, objectives, and policies

of the plan. An example is the *Pinellas County Local Mitigation Strategy*, in which the city has direct involvement. This “other plan or action” was determined to have the potential to affect or be of interest to other entities.

A. Local Mitigation Strategy

1. Brief Description

The *Pinellas County Local Mitigation Strategy* was developed during 1998 and 1999 to reduce the loss of life and property from man-made and natural hazards. The program is administered by Department of Economic Opportunity in conjunction with its efforts to create a Statewide Mitigation Strategy, and has utilized the Hazard Mitigation Grant Program as an incentive to local governments to become involved in strategy development and to offset associated costs. The Pinellas County Emergency Management Department leads the local effort to develop the strategy. Interlocal agreements were signed in May of 1998, between Pinellas County and 23 of the 24 local governments in the county. Pinellas County, in turn, has signed an interlocal agreement with Department of Economic Opportunity for the administration of the Hazard Mitigation Strategies Grant Program.

2. Comprehensive Plan Relationship

Although not a specific requirement of the *Growth Management Act*, the strategy coordinates future land uses with agency hazard mitigation plans (*Future Land Use Element*), the protection of human life and limiting of public expenditures in areas subject to destruction by natural disasters and the coordination of post-disaster redevelopment plans (*Coastal Management and Conservation Element*), and the management of hazardous wastes (*Infrastructure Element, Coastal Management and Conservation Element*).

3. Existing Coordination Mechanisms

Local Mitigation Coordinating Committee. The committee met monthly and bimonthly for two years in the development of the *Local Mitigation Strategy*. It is scheduled to meet annually after August 1, 1999, to ensure that objectives are implemented and updated.

Analysis of Effectiveness. This coordinating mechanism has been effective in coordinating the development of the *Local Mitigation Strategy*. A means to coordinate objectives with the public and elected officials is needed in addition to the Local Mitigation Coordinating Committee, in order for complete coordination to take place.

4. Supplemental Coordinating Mechanisms

Public Hearings. If necessary, the city should hold public hearings to amend its comprehensive plan and land development regulations based upon the recommendations found in the *Local Mitigation Strategy*.

CAPITAL IMPROVEMENTS

Capital Improvements Element

The purpose of the Capital Improvements Element is to evaluate the need for public facilities as identified in the other comprehensive plan elements and as defined in the applicable definitions for each type of public facility, to estimate the cost of improvements for which the local government has fiscal responsibility, to analyze the fiscal capability of the local government to finance and construct improvements, to adopt financial policies to guide the funding of improvements and to schedule the funding and construction of improvements in a manner necessary to ensure that capital improvements are provided when required based on needs identified in the other comprehensive plan elements.

I. INTRODUCTION

In 1985 the Florida Legislature mandated that local governments plan for the availability of public facilities and services to support development concurrent with the impacts of such development. This element includes: (1) an inventory of capital improvement needs, financial resources, and local policies and practices; (2) a fiscal assessment of revenues and expenditures; (3) a discussion of issues and recommendations; (4) a listing of goals, objectives and policies; (5) a section detailing implementation, including a five year schedule of capital improvements; and (6) a section describing monitoring and evaluation strategies.

II. INVENTORY OF PUBLIC FACILITY NEEDS

A. Capital Needs Derived From Other Elements

The analyses performed in the preceding Indian Rocks Beach comprehensive plan elements have identified facility improvements needed to meet the demands of existing and future development. This inventory sets forth needed improvements which are of relatively large scale, are of generally nonrecurring high cost, and which may require multi-year financing.

Indian Rocks Beach's formal, officially recognized definition of a capital item for inventory purposes is any item of \$5,000 value or more and/or a life expectancy greater than one year. For the purposes of this *Capital Improvements Element* (CIE), a capital improvement is defined as a physical asset which has been identified as an existing or projected need in the individual comprehensive plan elements, has an expected life of one year and cost in excess of \$5,000 or more.

A consistent theme echoed in all of the other elements of this comprehensive plan is the need for a scheduled approach to maintaining the current public facilities that are within the jurisdiction of and are the responsibility of the city. Routine maintenance

and refurbishment of current capital assets should be established on a cycle corresponding to the current condition and anticipated useful life of the improvement.

Capital improvements identified from other elements are contained in the Schedule of Capital Improvements (Schedule) adopted in Policy 1.1.7 of this element to address existing and future capital improvements needed for the next five fiscal years. Capital improvements will be evaluated during the required annual review of this element.

Identified capital improvement projects are those necessary to maintain levels of service recommended in the other comprehensive plan elements. The Schedule provides a brief description of each of the capital improvement projects, indicates whether the project is needed to correct existing deficiencies or address projected needs, and provides an estimate of the total project cost.

The capital improvement projects listed in the Schedule are not inclusive of all anticipated capital expenditures by the municipality during this time period. The list of improvements derived from the preceding elements has been limited to major components identified in each element that cost \$5,000 or more and which Indian Rocks Beach is responsible for providing in order to maintain adopted levels of service. Smaller scale improvements of less than \$5,000 together with the projects identified in the CIE will both be addressed in the capital improvement program and annual capital budget as they occur over time.

B. Cost Estimates for Identified Capital Needs

Costs of identified capital improvements are listed in the Schedule of Capital Improvements in Policy 1.1.7 of this CIE.

C. Estimates for Identified Projects Impacting on Operating Cost

The impact of adopting policies that result in an increase in operating budgets must also be considered. No policies have been identified at this time in this comprehensive plan that will impact the operating budget in excess of anticipated revenues.

II. INVENTORY OF PUBLIC HEALTH AND PUBLIC EDUCATION FACILITIES

Both public health and public education in Pinellas County are a function of the County. Public education is under the jurisdiction of the elected Pinellas County School Board, while the county wide public health system is under the jurisdiction of the elected Pinellas County Board of County Commissioners. The geographic service areas and locations were identified for public education and public health system components within the municipality's jurisdiction.

A. Public Health System

The Pinellas County Public Health Department provided information concerning the public health facilities for Indian Rocks Beach residents. To receive public health services a resident may choose to go to any of the public health facilities located in Pinellas County.

B. Public Education System

The Pinellas County School Board provided information pertaining to the public education facilities located in Pinellas County and indicated that there were no public schools in Indian Rocks Beach.

Furthermore, at this time, none are planned. Currently, there are no capacity deficiencies in the public school system.

Best available data suggests that all of the children attending public elementary school who live in Indian Rocks Beach attend the following schools:

ELEMENTARY:

Anona Elementary
12301 Indian Rocks Road
Largo, FL 33774-3004

Bardmoor Elementary
8900 Greenbriar Road
Seminole, FL 33777-3540

Madeira Beach Elementary
749 Madeira Beach Causeway
Road S Madeira Beach, FL 33708-2813

Mildred Helms Elementary
561 Clearwater-Largo
Largo, FL 33770-3294

Oakhurst Elementary
10535 137th St.
Largo, FL 33774-5335

MIDDLE:

Largo Middle
155 Eighth Ave. SE
Largo, FL 33771-2147

Madeira Beach Middle
591 Madeira Beach Causeway
Madeira Beach, FL 33708-2021

Seminole Middle
8701 131st St.
Seminole, FL 33776-2715

HIGH:

Largo High
410 Missouri Ave.
Largo, FL 33770-1562

Seminole High
8401 131st St. N
Seminole, FL 33776-3120

IV. INVENTORY OF REVENUE SOURCES

A. Accounting System

The primary sources of information for the following data and analysis section are *City of Indian Rocks Beach Operating Budget (2015-2016)*, the *Indian Rocks Beach Capital Improvement Program (2016-2019)* and the *City of Indian Rocks Beach Comprehensive Annual Financial Report* for the period ending September 1, 2014. The accounts of the City of Indian Rocks Beach are organized on the basis of funds and account groups as follows:

1. Governmental Fund Types
 - a. The General Fund is the major operating fund. All revenues which by law or administrative control are not in separate funds are deposited in the General Fund. It is used to provide police and fire services; building inspection; repairs, maintenance and beautification to municipal facilities, equipment and land; recreation and leisure programs; and overall city administration including management, finance and legal advice. It is also used to account for all financial resources except those required to be accounted for in another fund. The primary source of revenue to the General Fund is the local property tax which accounts for typically 45 percent of the fund revenue. Other major sources of revenues are franchise fees (13 percent), licenses, permits, intergovernmental sources, charges for services, fines and forfeitures, and revenue from the use of money and property.
 - b. Special revenue funds are used to account for the proceeds of specific revenue sources (other than special assessments, expendable trusts, or major capital projects) that are restricted by law or administrative action to expenditures for specific purposes.
2. Proprietary/Enterprise Fund Types

Enterprise funds are used to account for operations (1) that are financed and operated in a manner similar to a private business enterprise where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges; or (2) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability or other purposes. Revenue for the Solid Waste Fund comes from charges to homes and businesses for solid waste service.
3. Fiduciary Fund

Trust funds are used to account for assets held by the city in a trustee capacity or as an agent for individuals, private organizations, other

governments and/or other funds. Pension trust funds are accounted for in essentially the same manner as proprietary funds since capital maintenance is critical.

4. Account Groups

Account groups are used to establish control and accountability over the city's general fixed assets, and the un-matured principal of its general long-term debt, which is not associated with or the obligation of, the proprietary or trust funds. Accordingly, the city maintains a general fixed asset account group (used to account for all fixed assets of the city, except fixed assets of the proprietary funds) and a general long-term debt account group (used to account for the outstanding principal balances of long-term debt).

B. Governmental – General Fund

1. Ad Valorem Taxes (Property Taxes)

An ad valorem tax is a tax levied in proportion to the assessed value of taxable property (taxable land, improvements thereon and tangible personal property). The ad valorem tax is also known as the property tax. Property taxes are based on a millage rate (one mill is the equivalent of \$1 per \$1,000 of assessed value or 0.1 percent) which is applied to the total taxable value of all real and tangible personal property. Revenue from ad valorem taxes may be used to fund both operating costs and capital projects.

Current Status: The City of Indian Rocks Beach anticipates raising a total of \$1,727,240 through property taxes for fiscal year (FY) 2015-2016 with an adopted millage rate of 2.0.

2. Franchise Taxes/Fees and Utility Taxes

a. Franchise Fee

A franchise tax or fee is a charge levied against a corporation or individual by a local government in return for granting a privilege, sanctioning a monopoly or permitting the use of public property.

Current Status: The City of Indian Rocks Beach has franchise agreements with the following:

<u>Company</u>	<u>Method of Calculating Fee</u>
Duke Power (electric)	six percent of bills
Clearwater Gas (gas)	four percent of bills

Total franchise revenues in FY 2013-2014 are \$434,540

Total franchise revenues anticipated for FY 2015-2016 are \$433,500.

b. Utility Tax

A utility tax is a tax levied by a local government on the consumers of various utilities such as electricity, telephone, gas, cable, etc.

Current Status: The City of Indian Rocks Beach does not levy utility taxes.

3. Business License Tax

A municipality may levy a business license tax for the privilege of engaging in or managing any business, profession, or occupation within its jurisdiction. Municipalities may also receive a share of business license taxes collected at the county level.

Current Status: The City of Indian Rocks Beach collects monies from professional and occupational licenses. The city also requires businesses located outside of municipal limits who do business within those limits to register with the city.

4. Permits

Permits are issued to individuals/businesses granting permission for some action. Fees for issuing permits can be assessed to generate excess revenues or set to cover cost. Permits allow a municipality to be aware of activities going on within their jurisdiction and to regulate them for the public safety and interest. For example, building permits are required to ensure that buildings within a municipality meet the building codes the municipality has adopted.

Current Status: The City of Indian Rocks Beach issues building, dock, sign, seawall, electrical and gas permits and charges building inspection fees.

Total revenue collected for occupational licenses and permit fees for FY 2013-2014 was \$352,914. Total occupational license and permit fee revenues anticipated for FY 2015-2016 are \$295,000.

5. Fines, Forfeitures, and Penalties

Fines, forfeitures, and penalties are monies collected locally (e.g., parking tickets) or collected at the county level (e.g., court fines) and distributed back to the municipality by Clerk of the Circuit Court as specified in the Florida Statutes.

Current Status: Fines, forfeitures, and penalties revenue for FY2013-2014 was \$11,172. Budgeted for FY 2015-2016 under fines, forfeitures, and penalties are revenues of \$40,000.

6. Miscellaneous

Miscellaneous revenues are revenues generated through a variety of sources, including sale of municipal services, rental of municipal property, donations, interest payments, etc.

Current Status: The City of Indian Rocks Beach includes interest earnings under miscellaneous revenue. FY2013-2014 totaled \$133,399 including interest, budgeted miscellaneous revenue for FY 2015-2016 is \$130,850.

7. Unreserved (Undesignated) Fund Balance and Investments

The unreserved or undesignated fund balance consists of revenues that are not committed or reserved for a particular expenditure or use, i.e., monies available to spend. Florida municipalities are not allowed by statute to operate at a deficit, and they must have a balanced budget. Undesignated fund balance at the beginning of a fiscal year may be used to balance the city's budget, for unplanned emergencies, or large capital purchases.

Current Status: At FY 2015-2016 fiscal year end there was an undesignated fund balance of approximately \$3,361,252.

C. Government - Special Revenue Sources - Intergovernmental Revenues

Intergovernmental revenues are monies received by the municipality from other levels of government for a service the city performs for its citizens or others that may normally be provided by a different level of government or a special funding source that may be established to pay for a particular service. Examples would include an ad valorem fire district tax for a designated geographical area or a charge levied on phone service to fund a county-wide emergency medical services.

1. Special Revenue Sources - Indian Rocks Beach and Pinellas County

Impact Fees

Impact fees are charges assessed against new development which attempt to cover the cost of providing capital facilities (infrastructure) needed to serve the development. Their use is promoted as a way for growth to "pay its own way" by charging at the beginning for infrastructure needed by new development. Impact fees provide one way to help ensure that existing residents will not bear the entire cost of new facilities necessitated by new growth and development.

The "fair share" philosophy underlying impact fee usage is its most fundamental principle. It is this principle which prohibits use of the fees for any purpose other than that of providing new facilities necessary to accommodate the new development. Therefore, impact fees cannot be used to correct existing infrastructure deficiencies.

Multi-modal Impact

The City of Indian Rocks Beach levies a multi-modal impact fee for transportation in accord with the Pinellas County Mobility Plan. Pinellas County establishes multi-modal impact fees for all of the county.

Local Impact Fees

a. Development Impact Fee

The City of Indian Rocks Beach utilizes a development impact fee paid by owners of new buildings or structures by unit, if residential, or by each 2,500 square feet of floor area or fraction thereof, if commercial. In addition, this development impact fee is paid by owners of existing buildings or structures who modify the existing building or structure in such a way as to increase the number of units. Again, this impact fee is based on the number of units if the structure is residential and on each 2,500 square feet of floor area or fraction thereof if the structure is commercial.

The funds collected from the Development Impact Fee must be specifically allocated for the payment of expenditures for construction of roads, utilities, sidewalks, curbs, drainage, seawalls, installation of street lights, and other improvements. The revenues from the development impact fee must be deposited in a special account for these purposes.

Current Status: In FY 2013-2014 the City of Indian Rocks Beach received \$1,000 in revenues from the Development Impact Fee. The city anticipates receiving \$0 in development impact fees for FY 2015-2016.

b. Recreation Impact Fee

The City of Indian Rocks Beach also utilizes recreation impact fees. These are based on the same requirements as the Development Impact Fee regarding new buildings and structures. The funds collected from the Recreation Impact Fee are used exclusively for the purchase of additional recreation space, for the reconstruction or refurbishing of existing recreation areas, or the purchase of recreation equipment. A development may receive credit (up to 37.5 percent) for private recreation areas when private open space for park and recreational purposes is provided in a proposed development and certain other conditions are met, contingent upon City Commission approval.

Current Status: The city received \$1,000 in recreation impact fees in FY 2013-2014. The city anticipates receiving \$0 in recreation impact fees for FY 2015-2016.

c. County Local Option Gas Tax

Through an interlocal agreement reapproved in 1997 between the municipalities and Pinellas County government, the permitted six cents local option gas tax authorized by Section 336.025(7), Florida Statutes, was extended through August 31, 2017. The agreement divides the proceeds (\$16.6 million was received in FY 2011 on a countywide basis) between the municipalities (25 percent) and the county (75 percent).

Current Status: The City of Indian Rocks Beach anticipates receiving \$67,300 in Local Option Gas Tax monies during FY 2015-2016.

d. Local Option Sales Tax Fund

The 1987 Florida Legislature passed the *Local Government Infrastructure Act* which expands local government revenue generating capacity by authorizing each county to levy a local government infrastructure sales surtax. The discretionary sales surtax of one-half of one percent or one percent is subject to approval by a majority of the electorate of the county. The surtax may be levied for up to 15 years after being implemented and its proceeds must be expended within the county and its municipalities to finance, plan, and construct infrastructure defined in the bill to mean: "...any fixed capital expenditure or fixed capital costs associated with the construction, reconstruction, or improvement of public facilities which have a life expectancy of 5 or more years and any land acquisition, land improvement, design and engineering costs related thereto." (Section 212.055(3), F.S.)

Current Status: The Local Sales Option Tax (Penny For Pinellas) was approved by the voters in 1990, 1997 and in 2007 was reapproved for another ten years until 2020. The City of Indian Rocks Beach anticipates receipts of approximately \$449,883 in FY 2015-2016.

2. Special Revenue Sources

a. State Revenue Sharing

State-shared revenues are initially received by the state and are then proportionately returned to or shared with municipalities and counties. The City of Indian Rocks Beach anticipates receipts of approximately \$104,090 from this source in FY 2015-2016.

b. Half-Cent Sales Tax Disbursement

The Local Government Half-Cent Sales Tax Program is administered by the Department of Revenue. Eligibility to receive half-cent sales tax revenues is limited to cities and counties which qualify to receive revenue sharing program funds. "A local government is authorized to pledge proceeds of the local government half-cent sales tax for the payment of principal and interest on any capital project." (Section 218.64, Florida Statutes) Cities are directed to expend these revenues "only for municipality-wide programs or for municipality-wide property tax or municipal utility tax relief." Additionally, "all utility tax reductions afforded by participation in the local government half-cent sales tax shall be applied uniformly across all types of taxed utility services."

Current Status: The Department of Revenue estimates that Indian Rocks Beach will receive approximately \$261,860 from the half-cent local government sales tax distributions in FY 2015-2016. In FY 2013-2014 the City of Indian Rocks Beach received \$237,599.

c. Beverage License Tax

Florida's beverage license is administered by the Department of Business Regulation, Division of Alcoholic Beverages and Tobacco. A portion of the license tax imposed and collected within an incorporated municipality is returned to that municipality.

Current Status: The City of Indian Rocks Beach received \$9,636 in FY 2013-2014. The city has budgeted expected receipts from this source of \$10,000 for FY 2015-2016.

d. Mobile Home License Tax

Mobile home license fees ranging from \$20 to \$80 (levied according to length) are collected annually by each county Tax Collector and remitted to the Department of Highway Safety. The balance remaining after a one dollar fifty cents sum per license is paid into the general revenue fund and returned to the county where the mobile homes are located. The revenue is divided; one-half to the district school board and the remainder either to the county or the city within the county where the mobile home is located.

Current Status: The City of Indian Rocks Beach anticipates receiving minimal revenues from this source as there are no mobile homes within the municipal limits.

e. Firefighters Supplemental Compensation

The firefighters supplemental compensation is an educational incentive for firefighters and this supplement reimburses the municipality from state funds. Supplemental monies are in addition to basic salary paid to firefighters employed by the municipality who meet certain education requirements if said education is not a requirement for employment. Each firefighter with an associate's degree shall receive \$50 per month and each firefighter with a bachelor's degree with a major in fire-related subjects shall receive a supplement of \$110 monthly. The municipality shall report monies paid under this statute (Section 633.382, F.S.) to the Division of State Fire Marshal of the Department of Insurance to receive reimbursement from the state.

Current Status: The City of Indian Rocks Beach does not receive monies for firefighters' supplemental compensation as fire protection services are provided through the Indian Rocks Special Fire Control District.

3. County, Regional, State, and Federal Grants - Grants are monies received for which the city must make application. Grants are tied to a specific purpose or use and cities are in competition to be awarded grant dollars. As such, grants are not a reliable source of funding.

Grantor	Purpose	Status
Action 2000	Community Improvements	Annual Donation
State Library Grant	Library Expansion	Funded 2014-2015
CDBG Grant	Streets & Paving Improvements	Funded 2014-2015

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Action 2000	0	0	0		

County Coastal Grant	\$50,000	0	0	
SWFWMD	0	\$100,00	0	137,500
FDOT	0	0	0	
CDBG	0			
Penny for Pinellas	\$000	\$2,250,000		\$1,000,000
	\$750,000			

Anticipated grant revenue:

D. Proprietary/Enterprise Funds

These funds are established by the local government to account for all revenues and expenditures for a service. An enterprise fund is a mechanism to ensure that the fees charged for the service recoup all cost associated with the service, both capital and operating.

Enterprise funds are typically used for utilities: water, sewer, gas, and sanitation. They can also be used where revenues are collected in connection with providing the service, such as toll bridge, marina, parking or pier fishing services. Enterprise funds are used to account for the provision of goods and services, primarily to the public at large, on a user charge basis.

Revenue bonds are often used to finance needed improvements in services operated as enterprise funds. The revenue bonds are backed by the revenues generated primarily through user charges, connection fees, franchise fees or utility taxes. Revenue bonds may have a requirement that revenues must equal operating expenses, renewal and replacement payments and debt service.

The benefit to the municipality is that the true cost of providing the service is isolated and allows a determination of the true value of that service.

Current Status: Indian Rocks Beach operates its solid waste services as enterprise funds.

Solid Waste

Current Status: The City of Indian Rocks Beach anticipates receipt of \$1,201,250 for solid waste services in FY 2015-2016.

E. Other Sources

The high cost of many capital improvements requires local governments to utilize borrowing, either through short-term or long-term financing. Short-term financing is

one option available to raise required revenue for short periods generally ranging from one to five years. The more customary method, however, is to authorize long-term bond issues, normally for five to 40 years. One of the rationales for borrowing in a state that is experiencing tremendous growth is that the residents who are enjoying the benefits of the capital improvements in the future are responsible for paying part of the cost. Furthermore, all cost is not borne by those residents currently residing in a municipality but cost is spread out over the life of the particular improvement. Ideally there should be a direct correlation between the term of the bond and the expected life of the capital improvement.

There are two types of bonds typically used by municipalities to raise funds. The first is the general obligation bond which is backed by the full faith and credit of the local government, and is required to be approved by voter referendum. General obligation bonds offer lower interest rates than other bonds as they are, in effect, secured by the taxing power of the government. Revenues collected from ad valorem taxes on real estate and other sources of general revenue are used to service the government debt. Capital improvements financed through general obligation bonds should benefit the municipality as a whole rather than particular areas or groups.

The second type of bond is the revenue bond which is financed by those directly benefiting from the capital improvement. Revenue obtained from the issuance of revenue bonds is generally used to finance publicly owned facilities such as sewage treatment plants, parking garages, water systems, etc.

Charges collected from the users of these facilities are used, in turn, to retire the bond obligations. In this respect, the capital project is self-supporting. Interest rates tend to be higher than for general obligation bonds, and issuance of the bonds may be approved by the governing body without voter referendum.

The City Commission may also approve issuance of a revenue bond pledging a particular source of funding to repay the bond. For example, parking meter revenues or a designated portion of them may be pledged to retire a bond issue to construct a parking garage.

V. INVENTORY OF LOCAL POLICIES AND PRACTICES

A. Background

The policies and practices of the local government can be influenced by the decisions at different levels of government. The *Intergovernmental Coordination Element* details the interrelationship of the local government with other levels of government and private enterprise. The policies and practices established by a local government are a critical variable in a municipality's plan to direct and manage development and redevelopment within its jurisdiction. The timing and location of the construction, extension or increase in capacity of each public facility is the tool that allows a municipality to control its own destiny.

The plans of other state agencies such as FDOT and Southwest Florida Water Management District have been considered in the various elements of this plan in determining their impact on public facility needs.

Local policies and practices may be used to guide the efficient location and timing of capital improvements, to support desired development and to further the goals, objectives and policies of the *Future Land Use Element*. The following represents an inventory of policies and practices that the municipality may employ to manage the timing and location of development or redevelopment as a result of managing capital improvements. All of the policies and practices identified are not currently used, but are available as tools if the municipality chooses to employ them in the future.

B. Policy and Practice Inventory

1. Level-of-Service Standards

Level of Service (LOS) is defined as: “an indicator of the extent or degree of service provided by, or proposed to be provided by, a facility based on and related to the operational characteristics of the facility. Level of Service shall indicate the capacity per unit of demand for each public facility.” Level of Service is a standard established and adopted by the municipality that summarizes the public facility conditions and can refer to either the existing or desired standards.

LOS standards are addressed by all local governments in their comprehensive planning process. LOS standards are used in evaluating a municipality’s existing and projected capital improvement needs and they can encourage growth in areas where facilities have excess capacity. Once adopted, LOS standards may prevent development until needed facilities and services are available, however, provision of facilities can be phased in conjunction with development. The challenge of the municipality is to adopt LOS standards that are attainable given their fiscal capacity and the desires of its residents balanced against the pressures for development and redevelopment.

Current Status: Indian Rocks Beach has formally adopted LOS standards within this comprehensive plan.

2. Capital Budget

Capital budgeting is a form of economic technical analysis that systematically compares costs to benefits in the hope that scarce resources can be allocated efficiently. A capital budget is an annual financial plan that specifies the capital improvements or items a municipality plans to provide during a given fiscal year, while specifying the revenues that will be used to pay for said improvements or items. “Capital budget means the portion of each local government’s budget which reflects capital improvements scheduled for a fiscal year.”

Prior to establishing a capital budget, the local government should adopt a definition of what will be included in that budget. Capital improvement is defined as physical assets constructed or purchased to provide, improve or replace a public facility which is large scale and high in cost. The cost of a capital improvement is generally nonrecurring and may require multi-year financing. Physical assets which have been identified as existing or projected needs in the individual comprehensive plan elements shall be considered capital improvements.

Most definitions concern the cost of the improvement and the expected life and method of payment. All of the elements of the definition are variables that should be tailored to the size of the municipality. An example definition of a capital improvement is an improvement costing \$10,000 or more with an expected life of five years or more and requiring multi-year financing.

Current Status: Indian Rocks Beach does adopt an annual capital budget as the first year of the 5 year CIP. The annual capital budget is updated each year during the budget process. The city does have accounts for capital expenditures in each department's budget.

3. Capital Improvement Program

A capital improvement program (CIP) is generally defined as a multi-year financial plan to meet anticipated capital needs over a fixed period of years. The CIP for Indian Rocks Beach is a five-year program with the first year being the capital budget. The CIP specifies each capital project or capital item the municipality plans over a given period of time, estimates the revenues needed to finance the project and identifies the source of those revenues. The CIP is concerned with the selection of capital projects, the timing of the expenditures, and the project impact on the operating budget. It does not spend monies or authorize expenditures. It is simply a planning tool to establish priorities for capital outlays and the scheduling of such outlays. Facilities and equipment usually included in the CIP are:

- Construction of public buildings and other facility sites.
- Renovation of existing public buildings and facilities.
- Public works projects such as street paving and resurfacing, water and sewer lines, and storm drainage.
- Purchase of major equipment such as fire trucks and automobiles.

Preparation of a CIP includes: identification and listing of proposed capital items, scheduling improvements, estimating costs and anticipating the means of financing. The result is a program outlining capital expenditures for a number of years. The CIP should be closely integrated with the local planning process, consistent with the adopted comprehensive plan, and used to implement the plan's recommendations for capital improvements.

Government capital decisions are of strategic importance to the health of a community because of their economic impact and because decisions limit options to a community by committing them to a particular course of action. Because of the importance of capital decisions, these decisions warrant special attention by elected officials, the staff and the community.

Current Status: The city currently has a multi-year capital improvements program.

4. Dedications and Infrastructure Construction

As a condition for development approval, local governments can require developers to dedicate land for roads, parks, etc., to be used for public purposes. Dedications, infrastructure construction and/or payment in lieu of such actions are generally used as a tool in concert with impact fees to ensure infrastructure is adequate to support the service standards supported by the community.

When an area for development is too small for such land dedications, or it is not feasible, the municipality may require payment of a fee of equivalent value. The fee would be used for provision of services required by the development. Construction of public facilities by the developer which are then transferred to the municipality is another method utilized by municipalities to ensure that necessary infrastructure is in place to support development.

Current Status: See the previous discussion of development impact fees.

5. Other Methods

There are other methods available to municipalities some of which include the use of Urban Service Areas, moratorium, and tax increment financing. The City of Indian Rocks Beach has not availed itself of any of these methods.

VI. ANALYSIS

A . Background

This section begins the examination of the municipality's ability to fund the capital needs derived from the Schedule of Capital Improvements. The purpose of this section is to determine if sufficient revenue will be available within the existing budgeting framework of the municipality to fund improvements as needed. This assessment includes only those capital improvements identified in the other comprehensive plan elements.

This assessment process consists of estimating future receipts of revenues which are available to the municipality to finance capital improvements and balancing receipts

against anticipated expenditures for capital improvements. Any surplus or deficit of revenues to expenditures would then be visible. A consideration of alternatives implies that a decision is made by the municipality to maintain, increase or decrease its level-of-service standards based on cost and willingness to pay.

The Department of Economic Opportunity is required to base its determination of compliance of the municipality's comprehensive plan with the requirements of the law on the specific characteristics of the community. Concerning capital improvements, "...the Department shall consider the scale of public services the local government provides or is projected to provide as it relates to the level of capital improvements planning required."

The size of a local government's fund balances can affect its ability to withstand financial emergencies. It can also affect its ability to accumulate funds for capital purchases without having to borrow. There are no set rules for determining the appropriate level of reserves. Much depends on circumstances such as the kinds of natural disasters or hardships that the jurisdiction is subject to and the adequacy of its insurance coverage, the flexibility of the jurisdiction's revenue base, the overall financial health of the local government, state regulations and national economic conditions.

B. Financial Assessment of Ability to Fund Identified Capital Needs

1. Forecasting of Revenues and Expenditures

Forecasts and projections of future revenues and expenditures can be a useful planning tool if the reader accepts them for what they are - educated guesses about the future financial environment. The danger that forecasts and projections present is that they will be viewed as absolute once they are printed in a document such as a comprehensive plan. Rather than placing total reliance on the long-term accuracy of forecasts and projections, they should be considered an approximation or estimate of what can be expected to occur. The reader should always keep in mind that with changeable local, national, and international environments, what is thought today to be valid and accurate, may tomorrow be of little value. Those that follow represent good-faith attempts to make them worthwhile estimates of future financial conditions.

There is considerable debate about whether to apply inflation factors to projections. Because future inflation percentages are among the unknowns, for the purposes of this element, present day dollars are used in the tables. During the annual review of the CIE and preparation of the operating budget and capital improvements program, the figures should be adjusted to reflect future costs as they become known.

2. Projection of Ad Valorem Data

See Section IV. of this data and analysis section for a general discussion of ad valorem taxation. Ad valorem dollars have represented an average of 51 percent of the revenues of the City of Indian Rocks Beach over the four-year property tax period of FY 2011 to FY 2014, ranging from a low of 50 percent in 2014 to a high of 55 percent in FY 2010. The millage levy has ranged from 2.5185 mills in FY 1995 to 1.4695 mills in FY 2008. Table 1 depicts the change in property value by year and the generated ad valorem revenues.

**Table 1 - Ad Valorem Taxes
Historic and Projected Rates FY 1997 to 2016**

Fiscal	Taxable Assessed Value	% Change	Millage	Revenue
1997	\$333,474,630	2.43%	2.5185	\$810,000
1998	\$340,144,123	2.00%	2.5185	\$820,000
1999	\$346,947,005	2.00%	2.5185	\$830,000
2000	\$353,885,945	2.00%	2.5185	\$845,000
2001	\$360,963,664	2.00%	2.5185	\$860,000
2002	\$368,182,937	2.00%	2.5185	\$880,000
2003	\$643,281,000	43.00%	2.5185	\$1,620,103
2004	\$748,779,000	15.00%	2.3933	\$1,792,053
2005	\$924,608,000	19.00%	1.7811	\$1,559,391
2006	\$1,200,184,000	23.00%	1.5200	\$1,590,909
2007	\$1,185,913,000	-2.00%	1.4695	\$1,758,465
2008	\$1,057,099,000	0.66%	1.4695	\$1,693,152
2009	\$1,058,306,000	-24%	2.0	\$2,054,982
2010	\$890,266,000	-15%	2.0	\$1,725,545
2011	\$807,343,000	-9%	2.0	\$1,562,977
2012	\$745,100,000	-7%	2.0	\$1,444,099
2013	\$743,032,000	-0.41%	2.0	\$1,433,488
2014	777,548,000	4.65%	2.0	1,508,443
2015	835,448,325	7.51%	2.0	1,621,670
2016	894,855,671	6.51	2.0	1,727,240

Projection of Other Major Tax Bases and Revenue Sources

**Table 2
Major Revenue Sources Estimated Revenues**

Revenue Source	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	TOTAL
Local Option Sales Tax (Penny for Pinellas)	408,000	416,160	424,480	432,970	440,000	2,120,000
Local Option Gas Tax	67,970	68,650	69,340	\$70,030	70,730	346,050
Impact Fees	\$2,000	\$2,000	\$2,000	2,000	2,000	\$10,000

Source: City of Indian Rocks Beach FY 2015-2016 Final Budget Ordinance 2015-27

Table 2 illustrates the estimated revenues for major funding sources (other than ad valorem taxes) during the life of the current Capital Improvements Program.

3. Projection of Operating Cost Considerations

Operating costs are greatly influenced by inflation and the resultant increase in the costs of equipment, materials, and labor. No absolute operating cost figure can be projected, but if historical patterns are duplicated in the future, they can be expected to increase an average of 1.00 percent per year.

**Table 3
Operating Costs Projections
2015 to 2016**

FY (Excluding Enterprise funds & Special Revenue funds)

Fiscal Year	Estimated Costs
2009	\$2,918,243
2010	\$2,894,536
2011	\$2,900,240
2012	\$2,874,209
2013	\$3,003,880
2014	\$3,053,834
2015	\$3,381,380
2016	\$3,685,990

4. Projection of Debt Capacity

Projection of debt capacity for the City of Indian Rocks Beach is not depicted as it has not incurred long-term debt pledging revenues. With a healthy fund balance and available revenue sources that are not being utilized; the city is in a strong financial position if it opts to borrow monies.

C. Summary of Findings

The following is a listing of the findings supported by the data collection and analysis of the capital needs, financial resources and policies and practices of the City of Indian Rocks Beach.

Finding: The city does have a capital budget.

- The Finance and Budget Review Committee serves as the capital improvements advisory committee which evaluates capital projects to be included in a five-year capital improvements program.

Finding: The Finance and Budget Review Committee should continue its role as the capital improvements advisory committee.

- The city relies heavily on the property tax as a revenue source; with its current 47 percent of General Fund revenues being derived through property tax.

Finding: The city should explore other revenue sources that tax use versus the property tax which is a wealth tax.

- The city does not utilize many of the potential revenue sources available and few revenue sources under its control are at the maximum allowed under Florida Statutes.

Finding: If the city decides to modify its revenue base or to raise additional revenues, a variety of revenue sources are available. Utility fees of up to 10 percent can be levied on all utility service bills within the city limits.

VII. CAPITAL IMPROVEMENTS IMPLEMENTATION

A. Background

The Schedule of Capital Improvements is the mechanism by which the city can effectively stage the timing, location, and identify projected cost and revenue sources for any capital needs derived from the other elements of this comprehensive plan.

The schedule of capital improvements has been used to document the fiscal integrity of this comprehensive plan. Capital needs are only those identified in other elements of this comprehensive plan and do not include all capital needs the city may have.

B. Schedule of Capital Improvements

CIE Policy 1.1.7 contains the Schedule of Capital Improvements for which Indian Rocks Beach has fiscal responsibility for the fiscal years 2016 through 2020. The identified projects are consistent with the individual elements of the *Indian Rocks Beach Comprehensive Plan*.

C. Costs and Revenues by Type of Public Facility

Projects listed in the Schedule of Capital Improvements will achieve and maintain the adopted level-of-service standards in the various elements of this plan. As a result, the level-of-service standards are fully funded, and the municipality will be able to issue development orders based on the concurrency management system.

D. Programs Adopted

1. Concurrency Management System Requirements

The Department of Economic Opportunity has stated that any concurrency management system by a local government should contain the following elements for it to be deemed adequate in meeting the intent of Chapter 163, F.S.

- A requirement that the local government maintain the adopted level-of-service standards.
- A system for monitoring and ensuring adherence to the adopted level-of-service standards, the schedule of capital improvements, and the availability of public facility capacity.
- Guidelines for interpreting and applying level-of-service standards to applications for development orders and development permits and determining when the test for concurrency must be met. The latest point in the application process for the determination of concurrency is prior to the approval of an application for a development order or permits which contain a specific plan for development, including the densities and intensities of development.
- A requirement that the local government adopt land development regulations which specify and implement provisions of the concurrency management system.

2. Concurrency Management System of the City of Indian Rocks Beach

To meet the requirements of a concurrency management system the City of Indian Rocks Beach has:

- a. Adopted a Capital Budget and Capital Improvement Program

The capital budget identifies in detail the costs and revenue sources for projects shown in the first year of the five year capital improvements program. As projects are completed during the current budget year, they will be removed from the CIP and a new fifth year of projects added.

The CIE contains a five-year capital improvement schedule which eliminates existing deficiencies as identified in other elements of this comprehensive plan as needed to serve new development or redevelopment proposed to be permitted by the local government. The plan is based on currently available revenue sources adequate to fund identified capital facilities.

b. Amend Land Development Regulations

The current land development regulations (LDRs) will be amended as necessary in order to maintain consistency with the adopted comprehensive plan.

c. Establish a Monitoring System to Ensure Concurrency

Programs and procedures will provide that levels of service shall not fall below those established in this comprehensive plan. The City Commission may issue a development permit when necessary facilities are in place at the time a development permit is issued, or a development permit may be issued subject to the condition that necessary facilities are in place when the impact of the development occurs.

d. Review the *Capital Improvements Element* Annually

The required annual review of the *Capital Improvements Element* is articulated in the following section of this element "Monitoring and Evaluation".

VIII. MONITORING AND EVALUATION

Chapter 163, Florida Statutes, states that the CIE shall be reviewed on an annual basis and modified as necessary. The annual update of the five-year capital improvements schedule may be adopted by ordinance and may not be deemed to be an amendment to the comprehensive plan.

Capital improvements programming is a continuous process and requires continuing involvement by the citizens, city staff and City Commission. Some of the factors that require regular monitoring and evaluation are changing capital needs, changes in revenue sources and expenditure levels, and public perceptions of these changes.

Community support is a vital element of a successful capital improvements program. Public involvement ensures that the goals of the community are reflected in the

decisions as to where limited resources are expended. To accomplish this, an annual review of the *Capital Improvements Element* should be undertaken. The final step is the adoption by the City Commission of an annual capital budget and capital improvements program and their monitoring each fiscal year.

The annual review will be the responsibility of the Finance and Budget Review Committee and will include: a review of this element, recommendations concerning the capital improvements program and an annual capital budget based on the needs established in the review of this element. The City Commission should establish the timing of the presentation of the report at a public meeting to most effectively complement the budget cycle. The review process will include, but not be limited to, an analysis of the following factors:

- Updates, corrections and revision to costs, revenues, target dates and locations;
- Consistency with the other elements of the comprehensive plan;
- Actions of other agencies;
- An assessment of the continued validity of priority assignments;
- Status of projects completed or progress toward completion;
- The level of service being achieved;
- The debt status of the city;
- Grants or private donations received or being sought;
- Account balances and reserves; and
- Identification of new, emerging facility or land needs for the latter portion of the planning period.

3. Business License Tax

A municipality may levy an occupational license tax for the privilege of engaging in or managing any business, profession or occupation within its jurisdiction. Municipalities may also receive a share of occupational license taxes collected at the county level.

Glossary

A

Accessory Dwelling Unit An ancillary or secondary living unit, which has a separate kitchen, bathroom, and sleeping area, existing either within the same structure, or on the same lot, as the primary dwelling unit.

Adjusted for Family Size means adjusted in a manner which results in an income eligibility level which is lower for households with fewer than four people, or higher for households with more than four people, than the base income eligibility, based upon a formula as established by the United States Department of Housing and Urban Development.

Adjusted Gross Income means all wages, assets, regular cash or noncash contributions or gifts from persons outside the household, and such other resources and benefits as may be determined to be income by the United States Department of Housing and Urban Development, adjusted for family size, less deductions allowable under s. 62 of the Internal Revenue Code.

Affected Persons Includes the affected local government; persons owning property, residing, or owning or operating a business within the boundaries of the local government whose plan is the subject of the review; owners of real property abutting real property that is the subject of a proposed change to a future land use map; and adjoining local governments that can demonstrate that the plan or plan amendment will produce substantial impacts on the increased need for publicly funded infrastructure or substantial impacts on areas designated for protection or special treatment within their jurisdiction. Each person, other than an adjoining local government, in order to qualify under this definition, shall also have submitted oral or written comments, recommendations, or objections to the local government during the period of time beginning with the transmittal hearing for the plan or plan amendment and ending with the adoption of the plan or plan amendment.

Affordable Housing means housing for which monthly rents or monthly mortgage payments, including taxes, insurance, and utilities, do not exceed 30 percent of that amount which represents the percentage of the median adjusted gross annual income for the households or persons indicated in Subsection 420.0004, Florida Statutes (F.S.), (1991).

Affordable Rentals Means that monthly rent and utilities do not exceed 30 percent of that amount which represents the percentage of the median adjusted gross annual income for extremely-low-income, very-low-income, low-income, or moderate-income persons.

Amendment Any action of a local government which has the effect of amending, adding to, deleting from or changing an adopted comprehensive plan element or map or map series, including an action affecting a prior plan or plan amendment adoption ordinance, but shall not mean a legislative act which only codifies local legislation or makes corrections, updates and modifications of the capital improvements element concerning costs, revenue sources, acceptance of facilities or facility construction dates consistent with the plan as provided in Subsection 163.3177(3)(b), F.S., and corrections updates, or modifications of current costs in other elements, as provided in Subsection 163.3187(2), F.S.

Archaeological or Historical Site or Property Consistent with Subsection 267.021(3), F.S., any prehistoric or historic district, site, building, object or other real or personal property of historical, architectural, or archaeological value; these properties or resources may include, but are not limited to, monuments, memorials, Indian habitation, ceremonial sites, abandoned settlements, sunken or abandoned ships, engineering works, treasure trove, artifacts, or other objects with intrinsic historical or archaeological value, or any part thereof, relating to the history, government and culture of the state.

Areas subject to coastal flooding The areas delineated by the regional or local hurricane evacuation plan as requiring evacuation.

Arterial Road A roadway providing service which is relatively continuous and or relatively high traffic volume, long trip length, and high operating speed. In addition, every United States numbered highway is an arterial road.

Attainable Housing Housing that is neither deed restricted nor serving households typically targeted for affordable housing; something less than market but above affordable. For the purposes this Plan, attainable housing is housing priced for sale at a level affordable to a household earning the median income of \$37,111, as reported in the 2000 Census. A national benchmark for evaluating affordability is whether median household incomes in a community are at the level where the family could afford a median priced home; more specifically, affordability of owner-occupied housing is normally defined as 300 percent of median household income. This would equate to a median sales price of \$111,333.00.

B

Beach The zone of unconsolidated material that extends landward from the mean low water line to the place where there is marked change in material or physiographic form, or to the line of permanent vegetation, usually the effective limit of storm waves. "Beach," as used in the coastal management and conservation element requirements, is limited to oceanic and estuarine shorelines.

Bicycle and Pedestrian Ways Any road, path, or area which is open to bicycle travel and foot traffic and from which motor vehicles are excluded.

Biotechnical Erosion Control A primarily non-structural method of shoreline stabilization which uses native vegetation to stabilize the shoreline substrate.

Brownfield Designation A resolution adopted by a local government pursuant to the Brownfields Redevelopment Act, ss. 376.77-376.85.

Buffer A land area of specified minimum width, together with required planting and landscaping consisting of native vegetation or other species included on an approved species list used to visibly separate one use from another, or to shield or block noise, lights, or other nuisances. A buffer may also contain a barrier such as a berm, wall, or fence, designed to provide screening.

C

Capital Budget The portion of each local government's budget which reflects capital improvements scheduled for a fiscal year.

Capital Improvement Physical assets constructed or purchased to provide, improve or replace a public facility and which are large scale and high in cost. The cost of a capital improvement is generally nonrecurring and may require multi-year financing. Physical assets which have been identified as existing or projected needs in the individual comprehensive plan elements are capital improvements

Central Business District A compact urban core area of a municipality or unincorporated urbanized area which serves as the primary center for economic activity in the jurisdiction.

City As used in this comprehensive plan means the City of Indian Rocks Beach.

Clearance Time Consists of three subcomponents: mobilization rate, travel time, and queuing or delay time. Mobilization rate refers to the response rate of the evacuating population. Travel times the length of time required to travel from point "A" to point "B" given roadway capacity, environmental conditions, and the number of vehicles on the roadway link. Queuing or delay time is the time spent in traffic when roadway capacities are inadequate to handle the demand.

Coastal Area The 35 coastal counties and all coastal municipalities within their boundaries designated by the state land planning agency.

Coastal Barriers Barrier islands, spits, peninsulas, or similar landforms, including the Gulf of Mexico and which separate estuaries or harbors from the open water of the Gulf of Mexico.

Coastal High Hazard Area (CHHA) means the area below the elevation of the Category 1 storm surge line as established by a Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model.

Coastal Storm Area (CSA) The area delineated in Policy XXX in the Coastal Management and Conservation Element which encompasses all of the following:

- 1) the Coastal High Hazard Area (CHHA);
- 2) all land connected to the mainland of Pinellas County by bridges or causeways;
- 3) those isolated areas that are defined by the SLOSH model to be inundated by a category two hurricane or above that area surrounded by the CHHA or by the CHHA and a body of water; and
- 4) all land located within the Velocity Zone as designated by the Federal Emergency Management Agency.

Coastal Planning Area When preparing and implementing all requirements of the coastal management element except those requirements relating to hurricane evacuation, hazard mitigation, water quality, water quantity, estuarine pollution, or estuarine environmental quality, the coastal planning area shall be an area of the local government's choosing; however, this area must encompass all of the following where they occur within the local government's jurisdiction: water and submerged lands of oceanic water bodies or estuarine water bodies; shorelines adjacent to oceanic water or estuaries; coastal barriers; living marine resources; marine wetlands; water-dependent facilities or water-related facilities on oceanic or estuarine water; or public access facilities to oceanic beaches or estuarine shorelines; and all lands adjacent to such occurrences where development activities would impact the integrity or quality of the above. When preparing and implementing the hurricane evacuation or hazard mitigation portions of the coastal management element, the coastal planning area shall be those portions of the local government's jurisdiction which lie in the hurricane vulnerability zone. When preparing and implementing the requirements of the coastal management element concerning water quality, water quantity, estuarine pollution, or estuarine environmental quality, the coastal planning area shall be all occurrences within the local government's jurisdiction of oceanic water or estuarine waters.

Collector Road A roadway providing service which is of relatively moderate traffic volume, moderate trip length, and moderate operating speed. Collector roads collect and distribute traffic between local roads or arterial roads.

Commercial Recreation Use means a private or quasi-public recreation facility designed for participant or spectator sports for a charge, including but not limited to marina, miniature golf, dog race track, horse race track, jai-alai fronton, stock car race track, sports stadium, and indoor recreation/entertainment uses such as billiard halls, bowling alleys, movie theaters, and video game parlors.

Commercial Uses Activities within land areas which are predominantly connected with the sale, rental, and distribution of products, or performance of services.

Compatibility A condition in which land uses or conditions can coexist in relative proximity to each other in a stable fashion over time such that no use or condition is unduly negatively impacted directly or indirectly by another use or condition.

Comprehensive Plan The compilation of goals, objectives, policies, and maps for the physical, social, and economic development within the community, adopted by ordinance pursuant to Chapter 163, Part II, Florida Statutes, as amended, entitled, *The Local Government Comprehensive Planning and Land Development Regulation Act.*,

Community Redevelopment Undertaking, activities, or projects of a municipality or community redevelopment agency in a community redevelopment area for the elimination and prevention of the development or spread of slums and blight or for the provision of affordable housing, whether for rent or for sale, to residents of low or moderate income, including the elderly. This may include slum clearance and redevelopment in a community redevelopment area or rehabilitation or conservation in a community redevelopment area, or any combination or part thereof, in accordance with a community redevelopment plan and may include the preparation of such a plan

Community Redevelopment Area A slum area, a blighted area, or an area in which there is a shortage of housing that is affordable to residents of low or moderate income, including the elderly, or a combination thereof which the governing body designates as appropriate for community redevelopment.

Community Residential Home A dwelling unit licensed to serve clients of the Department of Children and Families which provides a living environment for 7 to 14 unrelated residents who operate as the functional equivalent of a family, including such supervision and care by supportive staff as may be necessary to meet the physical, emotional, and social needs of the residents.

Concurrency This term means that the necessary public facilities and services to maintain the adopted level of service standards are available when the impacts of development occur.

Concurrency Management System The procedures and/or process that the local government will utilize to assure that development orders and permits are not issued unless the necessary facilities and services are available concurrent with the impacts of development.

D

Density means the measure of permitted residential development expressed as a maximum number of dwelling units per net acre of land area.

Development The carrying out of any building activity or mining operation, the making of any material change in the use or appearance of any structure or land, or the dividing of land into three or more parcels and including:

1. A reconstruction, alteration of the size, or material change in the external appearance of a structure on land.
2. A change in the intensity of use of land, such as an increase in the number of dwelling units in a structure or on land or a material increase in the number of businesses, manufacturing establishments, offices, or dwelling units in a structure or on land.
3. Alteration of a shore or bank of a seacoast, river, stream, land, pond, or canal, including any "coastal construction" as defined in Subsection 161.021, Florida Statutes.
4. Commencement of drilling, except to obtain soil samples, mining, or excavation on a parcel of land.
5. Demolition of a structure.
6. Clearing of land as an adjunct of construction.
7. Deposit of refuse, solid or liquid waste, or fill on a parcel of land.

(Refer to Subsection 163.3221, Florida Statutes, for additional definitional information.)

Development Order Any order granting, denying, or granting with conditions an application for a development permit.

Development Permit Includes any building permit, zoning permit, subdivision approval, rezoning, certification, special exception, variance, or any other official action of local government having the effect of permitting the development of land.

Drainage Basin The area defined by topographic boundaries which contributes stormwater to a drainage system, estuarine water, or oceanic water, including all areas artificially added to the basin.

Drainage Facilities A system of man-made structures designed to collect, convey, hold, divert, or discharge stormwater, and includes stormwater sewer, canals, detention structures, and retention structures.

Dune A mound or ridge of loose sediments, usually sand-sized sediments, lying landward of the beach and extending inland to the landward toe of the dune which intercepts the 100-year storm surge.

Dwelling Unit A single housing unit providing complete, independent living facilities for one housekeeping unit, including permanent provisions for living, sleeping, eating, cooking, and sanitation.

Dwelling, Single-family Detached A structure containing one dwelling unit, and not attached to any other dwelling unit by any means.

Dwelling, Multifamily Any residential structure containing two or more separate dwelling units.

E

Easement A grant of one or more of the property rights by the property owner to and/or for the use by the public, utility, a corporation, another person, or entity.

Element A major division or chapter of the comprehensive plan. The required elements are: Future Land Use, Transportation, Housing, Infrastructure (Sanitary Sewer, Solid Waste, Potable Water, and Drainage sub-elements), Coastal Management and Conservation, Recreation/Open Space, Intergovernmental Coordination, and Capital Improvements.

Estuary A semi-enclosed, naturally existing coastal body of water in which saltwater is naturally diluted by freshwater and which has an open connection with oceanic water. Estuaries include bays, embayments, lagoons, sounds, and tidal streams.

Evacuation Routes Routes designated by county civil defense authorities or the regional evacuation plan, for the movement of persons to safety, in the event of a hurricane.

Extremely Low-income Person Means one or more natural persons or a family whose total annual household income does not exceed 30 percent of the median annual adjusted gross income for households within the state. The Florida Housing Finance Corporation may adjust this amount annually by rule to provide that in lower income counties, extremely low income may exceed 30 percent of area median income and that in higher income counties, extremely low income may be less than 30 percent of area median income.

F

Facility-Based Recreation means recreational activities that typically require a built facility to accommodate them for recreational sporting events such as a playfield, paved court, horse stable, or swimming pool. Uses may include but are not limited to softball, baseball, football, tennis, basketball, soccer, playgrounds, fitness trails, and swimming pools. These activities are not natural resource dependent.

Flood, 100-year A flood which occurs, on average, once every 100 years or which has a one percent chance of occurring in any one year.

Floodplain Land which will be inundated by floods known to have occurred or reasonably characteristic of what can be expected to occur from the overflow of inland or tidal waters and the accumulation of runoff or surface waters from rainfall. Areas inundated during a 100-year flood event or identified by the National Flood Insurance Program as an “A” Zone or “V” Zone on flood insurance rate maps or flood hazard boundary maps are in the floodplain.

Floor Area, Gross (GFA) The sum of the horizontal areas of the several floors of a building measured from the exterior face of exterior walls, or from the center line of a wall separating two buildings, but not including interior parking spaces, loading space for motor vehicles, or any space where the floor-to-ceiling height is less than six feet.

Floor Area Ratio (FAR) means a measurement of the intensity of building development on a site. A floor area ratio is the relationship between the gross floor area on a site and the net land area. The FAR is calculated by adding together the gross floor areas of all buildings on the site and dividing by the net land area.

Franchise Taxes and Fees Charges levied against a corporation or individual by a local government in return for granting a privilege, sanctioning a monopoly or permitting the use of public property.

Future Land Use Map A graphic representation of the land use categories used in the municipality and their placement on the land adopted as part of the comprehensive plan and used as the regulatory map for implementation of the comprehensive plan and land development regulations.

G

Goal The long-term end toward which programs or activities are ultimately directed.

Governing Body The commission or council of an incorporated municipality, or any other chief governing body of a unit of local government, however designated.

Group Home A facility as defined in Chapter 419, Florida Statutes, which provides a living environment for unrelated residents who operate as the functional equivalent of a family, including such supervision and care as may be necessary to meet the physical, emotional, and social needs of the residents. Adult congregate living facilities (ACLFs) comparable in size to group homes are included in this definition. It shall not include rooming or boarding homes, clubs,

fraternities, sororities, monasteries or convents, hotels, residential treatment facilities, nursing homes, or emergency shelters.

H

Hazardous Waste Solid waste, or a combination of solid wastes, which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or may pose a substantial present or potential hazard to human health or the environment when improperly transported, disposed or, stored, treated, or otherwise managed.

Historic Resources All areas, districts, or sites containing properties listed on the *Florida Master Site File*, the *National Register of Historic Places*, or designated by a local government as historically, architecturally, or archaeologically significant.

Historically Significant Housing A dwelling unit that is listed in the *National Register of Historic Places* or the *Florida Master Site File*.

Household One or more persons occupying a single housing unit.

Housing Demand The number of housing units that will be needed to accommodate a projected population (equal to the number of existing housing units plus the projected housing need).

Housing Need The number of new housing units needed to accommodate a projected population (equal to the projected housing demand minus the number of existing housing units).

Housing Unit An individual house, apartment, condominium unit, or other structure available for residential use.

I

Impact Fee Charges assessed against new development or redevelopment which partially or wholly cover the cost of providing capital facilities needed to serve the development.

Impervious Surface Ratio (ISR) means a measure of the intensity of hard surfaced development on a site. An impervious surface ratio is the relationship between the total impervious surface area on a site and the net land area. The ISR is calculated by dividing the square footage of the area of all impervious surfaces on the site by the square footage of the net land area.

In Compliance Consistent with the requirements of ss 163.3177 F.S., when a local government adopts an educational facilities element, 163.3178 F.S, 163.3180

F.S., 163.3191 F.S., and 163.3245 F.S., with the state comprehensive plan and with the appropriate strategic regional policy plan

Infrastructure Those man-made structures which service the common needs of the population, such as: sewage disposal systems; potable water systems and wells; solid waste disposal sites or retention areas; stormwater systems; utilities; piers; docks; wharves; breakwaters; bulkheads; seawalls; bulwarks; revetments; causeways; marinas; navigation channels; bridges; and roadways.

Intensity means the measure of permitted development expressed as a maximum Impervious Surface Ratio and/or Floor Area Ratio per acre of net land area.

L

Land The earth, water, and air, above, below, or on the surface, and includes any improvements or structures customarily regarded as land.

Land Development Regulations Adopted ordinances, codes, and regulations that guide and control any aspect of development, including redevelopment, alteration, subdivision of land, landscaping, tree protection, or sign regulation or any other regulation concerning the development of land. This term includes a general zoning code, but does not include a zoning map, an action which results in zoning or rezoning of land, or any building construction standard adopted pursuant to and in compliance with the provisions of Chapter 553 F.S. Land development regulations are intended to protect the health, safety, and welfare of the citizens of the municipality by ensuring that neighbors together with adjacent and neighboring properties are protected from potential negative impacts of developing and using a parcel of land. The purpose of land development regulations is to implement the goals, objectives, and policies of the adopted comprehensive plan.

Level of Service An indicator or the extent or degree of service provided by, or proposed to be provided by a facility based on and related to the operational characteristics of the facility. Level of service indicates the capacity per unit of demand for each public facility.

Local Planning Agency The agency designated to prepare a comprehensive plan or plan amendment pursuant to the *Florida Local Government Comprehensive Planning and Land Development Regulation Act*.

Local Road A roadway providing service which is of relatively low traffic volume, short average trip length or minimal through traffic movements, and high volume land access for abutting property.

Low-income Person One or more natural persons or a family, the total annual adjusted gross household income of which does not exceed 80 percent of the median annual adjusted gross income for households with the state, or 80 percent

of the median annual adjusted gross income for households with the metropolitan statistical area (MSA) or, if not within an MSA, within the county in which the person or family resides, whichever is greater.

M

Marine Wetlands Areas with a water regime determined primarily by tides and the dominant vegetation is salt tolerant plant species including those species listed in subsection 62-301.200(3), F.A.C., “Submerged Marine Species.”

Manufactured Home A mobile home fabricated on or after June 15, 1976, in an offsite manufacturing facility for installation or assembly at the building site, with each section bearing a seal certifying that it is built in compliance with the federal *Manufactured Home Construction and Safety Standard Act*.

Millage The property (ad valorem) tax rate expressed as dollars per one-thousand dollars (\$1,000) of taxable value.

Mitigation Measures taken to offset or improve the negative impacts of development.

Mobile Home A structure, transportable in one or more sections, which is 8 body feet or more in width and which is built on an integral chassis and designed to be used as a dwelling when connected to the required utilities. See Subsection 320.01 F.S., for definitions regarding mobile homes and taxation.

Moderate-income Person One or more natural persons or a family, the total annual adjusted gross household income of which does not exceed 120 percent of the median annual adjusted gross income for households with the state, or 120 percent of the median annual adjusted gross income for households with the metropolitan statistical area (MSA) or, if not within an MSA, within the county in which the person or family resides, whichever is greater.

Multimodal Transportation District (MMTD) means an area where primary priority is placed on “assuring a safe, comfortable, and attractive pedestrian environment, with convenient interconnection to transit” (Chapter 163.3180(15)(d), F.S.). The MMTD includes community design features that reduce vehicular usage while supporting an integrated multimodal transportation system. Common elements include the presence of mixed-use activity centers, connectivity of streets and land uses, transit-friendly design features, and accessibility to alternative modes of transportation.

N

Natural Drainage Features The naturally occurring features of an area which accommodate the flow of stormwater, e.g., streams, rivers, lakes, and wetlands.

Net Land Area for the purpose of computing density/intensity shall be that total land area within the property boundaries of the subject parcel, and specifically exclusive of any submerged land or public road right-of-way.

Non-conforming Lot Use or Structure means a lot, use, or structure which was previously legal and at inception conformed to the then applicable regulations, that subsequently fails to conform to the requirements of the Countywide Plan Map, the Countywide Rules, and the City's Comprehensive Plan, as may be amended from time to time.

Nonpoint Source Pollution Any source of water pollution that is not a point source.

O

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

Open Space Undeveloped lands that are suitable for passive recreation, landscape, preservation, or conservation uses.

Overriding Public Benefit Actions required by local, state, or federal government, necessary for the promotion of public safety, health, and general welfare.

P

Personal Service/Office Support Use means an occupation or service attending primarily to one's personal care or apparel; examples of which include hair and beauty care, clothing repair or alteration, dry cleaning/laundry service (collection and distribution only), and like personal service uses; animal grooming; and office equipment or supplies, and like office support uses. Any assembly, sale of merchandise or conveyance of a product in support of a personal service or office support use shall be clearly secondary and incidental to the primary use characteristics of the Personal Service/Office Support Use. No "Personal Service/Office Support Use" shall include any Retail Commercial Use or Commercial Business Service Use, as specifically defined within the Countywide Rules and the City's Comprehensive Plan.

Point Source Pollution Any source of water pollution that constitutes a discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

Policy means the way in which programs and activities are conducted to achieve an identified goal.

Preservation Land means land that needs to be protected from new or further development. The preservation concept includes consideration of ecologically sensitive flora and fauna, as well as, fragile topographic features. Included are important historical and archaeological sites and any unique environmental features or systems peculiar to the region or locality.

Private Recreation Sites Sites owned by private, commercial, or non-profit entities available to the public for purposes of recreational use.

Public Access The ability of the public to physically reach, enter, or use recreation sites including beaches and shores.

Public Facilities means major capital improvements, including, but not limited to, transportation, sanitary sewer, solid waste, drainage, potable water, educational, parks and recreational, and health systems and facilities.

Public Recreation Facility means a publicly owned or leased recreation site or component thereof, used by the public for active or passive recreational pursuits such as a trail, marina, ball court, athletic field or swimming pool. This term includes both Facility-Based Recreation and Resource-Based Recreation, which terms may be distinguished between as to the use characteristics permitted within a given plan category.

Public Recreation Sites Site owned or leased on a long-term basis by a federal, state, regional, or local government agency for purposes of recreational use.

Public Transit means passenger services provided by public, private or non-profit entities such as the following surface transit modes: commuter rail, rail rapid transit, light rail transit, light guideway transit, express bus, and local fixed route bus.

R

Redevelopment The proposed removal or demolition of structures for the purpose of installing, building, or constructing on the property new structures.

Resident (Permanent) Population means inhabitants counted in the same manner utilized by the United States Bureau of the Census, in the category of total population. Resident population does not include seasonal population.

Residential Equivalent Use - A residential-like accommodation other than a dwelling unit, including bed and breakfast, group home, congregate care, nursing home and comparable assisted living facilities. No such use shall be required or

eligible to employ the residential equivalent standards for density/intensity for any household that qualifies as a dwelling unit. This use shall not include any type of use authorized by Chapter 419, F.S., Community Residential Homes, which is entitled to be treated as a dwelling unit.

Resource-Based Recreation means recreational activities that typically are dependent on natural resources and a natural outdoor environment. These activities have little, if any, adverse impact on a site and are compatible with natural and/or cultural resource protection. Depending on the site, uses may include picnicking, low-impact camping, educational nature studies, wildlife viewing, horseback riding on trails, fishing, hiking, saltwater beach activities, or freshwater swimming.

Retail Commercial Use means an occupation or service providing primarily for the sale of consumer goods, products, merchandise or services from within an enclosed building; examples of which include grocery, pharmacy, apparel, jewelry, electronics, sporting goods, specialty shops, building supplies, convenience goods, restaurant, indoor recreation/entertainment uses (such as billiard halls, bowling alleys, movie theaters, and video game parlors) and like uses. Any exterior storage or facilities in connection with such use shall be clearly secondary and incidental to the primary use characteristics of the Retail Commercial Use. No "Retail Commercial Use" shall include any Commercial/Business Service Use, as specifically defined within the Countywide Rules and the City's Comprehensive Plan.

Right-of-Way means land acquired and owned by the state, a county, a municipality, or utility and reserved, dedicated, or required for public use.

Rip-rap means a permanent erosion-resistant ground cover consisting of loosely placed pieces of natural stone or clean concrete rubble six (6) inches to three (3) feet in diameter (average dimensions), which is free of attached sediments or reinforcing rods or other similar protrusions.

S

Seasonal Population Part-time inhabitants who utilize, or may be expected to utilize, public facilities or services, but are not residents. Seasonal population includes longer-term visitors who reside during their stay in owner-occupied or leased/rented accommodations.

Shore or Shoreline The interface of land and water and, as used in the coastal management and conservation element requirements, is limited to oceanic and estuarine interfaces.

State Land Planning Agency The Florida Department of Economic Opportunity.

Stormwater The flow of water which results from a rainfall event.

Stormwater Basin The area defined by topographic boundaries which contributes stormwater to a watershed, drainage system, estuarine waters, or oceanic waters, including all areas artificially added to the basin.

Stormwater Facilities Manmade structures that are part of a stormwater management system designed to collect, convey, hold, divert, or discharge stormwater, and may include stormwater sewers, canals, detention facilities and retention facilities.

Stormwater Management System Has the meaning described in subsection 62-40.210(21), F.A.C., (1992).

Substandard Housing

1. Any unit lacking complete plumbing or sanitary facilities for the exclusive use of the occupants;
2. A unit which is in violation of one or more major sections of an applicable housing code and where such violation poses a serious threat to the health of the occupant; or
3. A unit that has been declared unfit for human habitation but that could be rehabilitated for less than 50 percent of the property value.

Subdivision means the division of a lot, tract or parcel of land into two or more lots, tracts, parcels, or other divisions of land.

Submerged Land means the area situated below the mean high water line or the ordinary high water line of a standing body of water, including ocean, estuary, lake, pond, river or stream. For the purpose of this definition, drainage detention areas created as a function of development that are recorded on an approved final site plan or other authorized development order action of the local government with jurisdiction, and wetlands landward of the mean and/or ordinary high water line, shall not be considered submerged land, and thus may be included in the computation of net land area for the purpose of determining permitted density/intensity.

Substantial Rehabilitation means the repair or restoration of a dwelling unit where the value of such repair or restoration exceeds 40 percent of the value of the dwelling.

Support Documents means any surveys, studies, inventory maps, data, inventories, listings or analyses used as bases for or in developing the local comprehensive plan.

T

Temporary Lodging Unit means an individual room, rooms or suite within a temporary lodging use designed to be occupied as a single unit for temporary occupancy.

Temporary Lodging Use means a facility containing one or more temporary lodging units, used for lodging, boarding or temporary residential occupancy by one or more individuals possessing a leasehold term of less than three months and offered to the public at large for compensation at a daily, weekly or seasonal rate. In determining whether a property is used as a temporary lodging use, such determination shall be made without regard to the form of ownership of the property or unit, or whether the occupant has a direct or indirect ownership interest in the property or unit; and without regard to whether the right of occupancy arises from a rental agreement, other agreement, or the payment of consideration.

Tourist Facility Use means those facilities and services, such as retail shops, eating and drinking establishments, meeting space and recreation facilities designed primarily to serve tourists, visitors, and seasonal residents in conjunction with the residential and temporary lodging uses where provided for in the Resort Facilities categories.

Tourist Part-time inhabitants who utilize, or may be expected to utilize, public facilities or services, but are not residents. Tourist population includes short-term visitors who reside during their stay in transient accommodations.

Transportation Concurrency Exemption Area (TCEA) An urban area delineated by the City where infill and redevelopment are encouraged, and where exceptions to the transportation concurrency requirement are made, providing that alternative modes of transportation, land use mixes, urban design, connectivity, and funding are addressed. The primary purpose of a TCEA is to allow development to occur in urbanized areas where infrastructure already exists, thereby reducing urban sprawl. The TCEA concurrency exceptions apply to all land uses, development and types of facilities within the TCEA and shall be established according to F.S. 163.3180(5)(f).

U

User-Oriented Recreation Recreational activities which take place in man-made facilities, located for the convenience of users. Examples include football, tennis, baseball, pool swimming, golf, shuffleboard, recreational classes, and community-sponsored festivals.

V

Very-low-income Person One or more natural persons or a family, the total annual adjusted gross household income of which does not exceed 50 percent of the median annual adjusted gross income for households with the state, or 50 percent of the median annual adjusted gross income for households with the metropolitan statistical area (MSA) or, if not within an MSA, within the county in which the person or family resides, whichever is greater.

W

Water Supply Infrastructure and Support Facilities means above or below ground structures, including wells, pipes, pumps, buildings, facilities, fixtures, machinery, reservoirs, and appurtenant facilities and structures, required for the provision of high quality potable water.

Wetlands Those areas that are inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils.

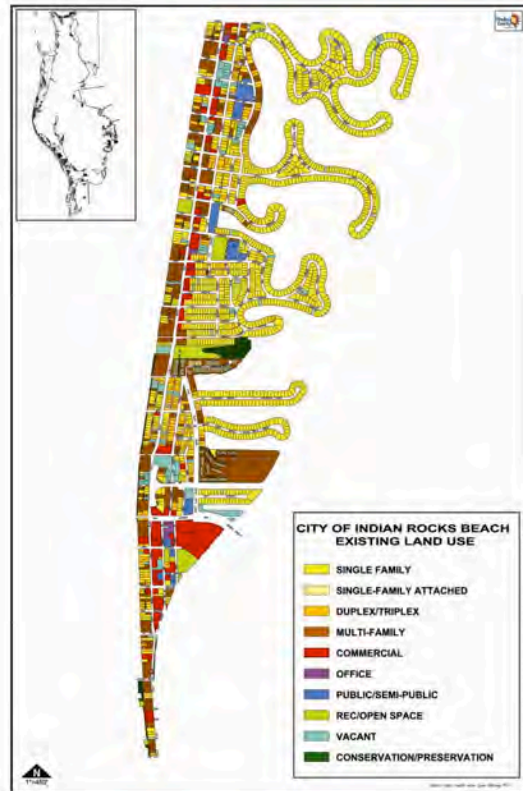
Workforce Housing means housing that is affordable to natural persons or families whose total household income does not exceed 140 percent of the area median income, adjusted for household size.

Terms and Acronyms

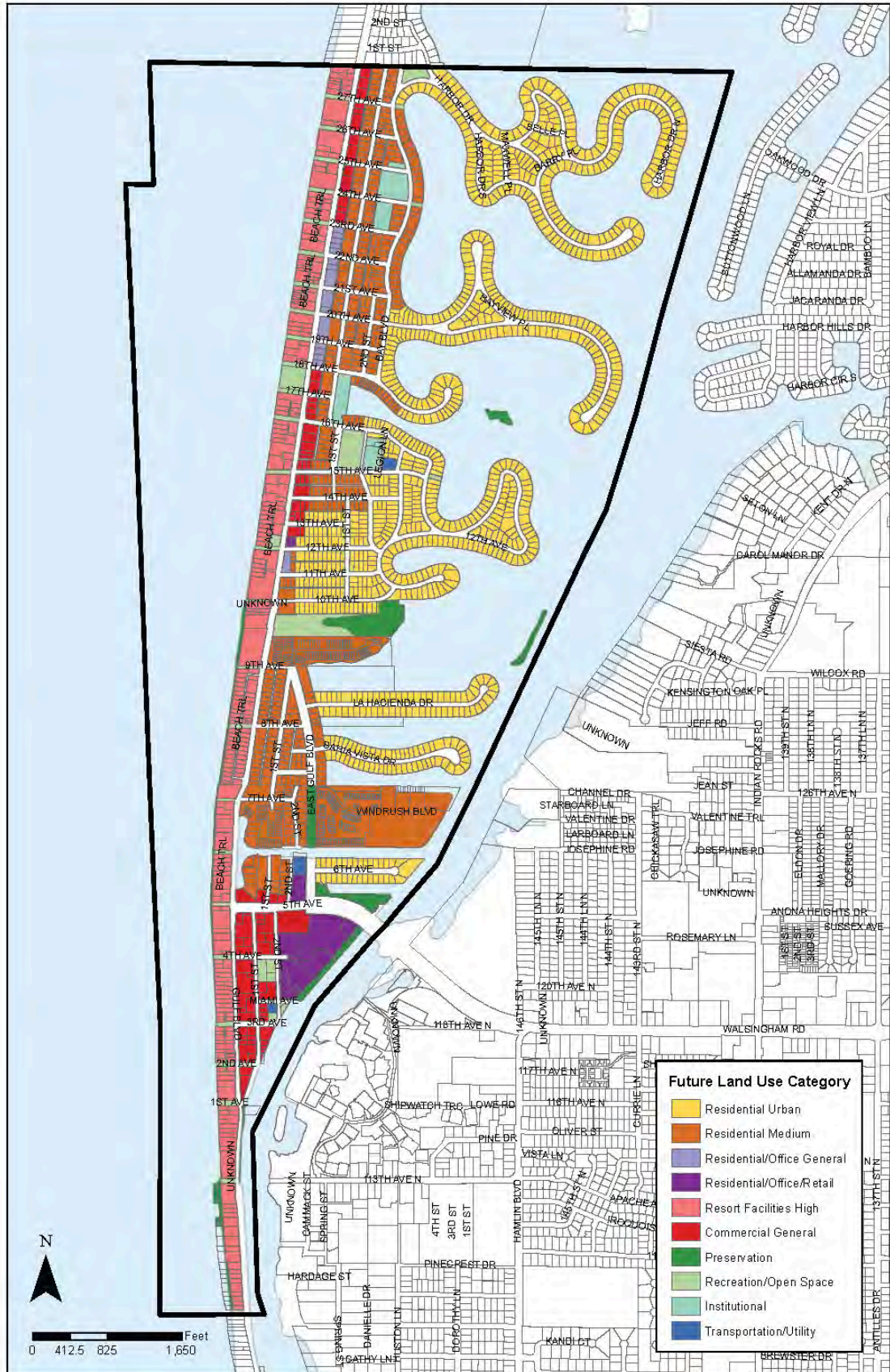
ACLF	Adult Congregate Living Facility
ADT	Average Daily Traffic
BEBR	Bureau of Economic and Business Research, University of Florida
CEMP	Comprehensive Emergency Management Plan (Pinellas County)
CCCL	Coastal Construction Control Line
CIE	Capital Improvements Element
CIP	Capital Improvements Program
DEO	Department of Economic Opportunity
DEP	Department of Environmental Protection (Florida)
DRI	Development of Regional Impact
EAR	Evaluation and Appraisal Report
EPA	Department of Environmental Protection (federal)
F.A.C.	Florida Administrative Code
F.S.	Florida Statutes
FAR	Floor Area Ratio
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
GFA	Gross Floor Area
ICE	Intergovernmental Coordination Element
ISR	Impervious Surface Ratio
LOS	Level of Service
M.S.L.	Mean Sea Level
MPO	Metropolitan Planning Organization (Pinellas County)
NFIP	National Flood Insurance Program
PCUS	Pinellas County Utility System
Rule 9J-5	Rule 9J-5, <i>Minimum Criteria for Review of Local Government Comprehensive Plans and Plan Amendments and Determinations of Compliance</i> , Florida Administrative Code
SLOSH	Sea, Land, and Overland Surges from Hurricanes
SWFWMD	Southwest Florida Water Management District (Swiftmud)
S.W.I.M	Surface Water Improvement and Maintenance Program
TBW	Tampa Bay Water
WCRWSA	West Coast Regional Water Supply Authority (Recently renamed Tampa Bay Water)

MAPS

Indian Rocks Beach
Existing Land Use Map
June 2009



Indian Rocks Beach 2035



Bicycle Lanes Map

Showing

State
On-Road Bike
Facilities

and

County On-Road
Bike Facilities





IRB Bike Lanes

Constrained Roadway Facilities



Constrained Facilities

IRB

The constrained facilities are precluded from undergoing improvements necessary to raise the LOS to an acceptable grade because of physical or policy constraints. Road segments identified for capacity improvements are backloged facilities, meaning the scheduled or planned improvements are necessary to alleviate the deficient LOS conditions. These improvements may be scheduled in a work program or planned in the Metropolitan Planning Organization (MPO) Long Range Transportation Plan.



Transportation Five-Year Work Plan

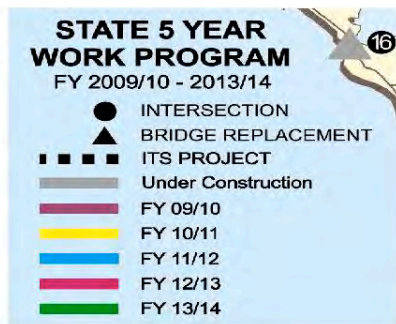
FY 09-10 to FY 13-14

- CAP - Capacity Project
- MOD - Modification
- ITS - Intelligent Trans. Sys.
- ROW - Right-of-Way Acquisition
- CST - Construction
- RSF - Resurfacing Project
- PE - Preliminary Engineering
- FPN - Financial Project Number
- PDE - Project Development & Environment
- ENV - Environmental Mitigation



Nearby Projects

- 5. Resurfacing and Construction
- 21. Capacity and Construction
- 26. Capacity/ Environmental
- 33. Intelligent Transportation System and Construction
- 37. Intelligent Transportation System and Construction





City of Indian Rocks Beach



Year 2018 Level of Service- Existing Conditions
PM Peak Direction

Source: Pinellas County Metropolitan Planning Organization December 2017



City of Indian Rocks Beach



Year 2040 Level of Service
PM Peak Direction

Source: Pinellas County Metropolitan Planning Organization December 2015

**Pinellas County MPO
2006 Level of Service
With Scheduled
Improvements 08/09**

Level of Service

- █ Level of Service A, B, or C
- █ Level of Service D
- █ Level of Service E
- █ Level of Service F



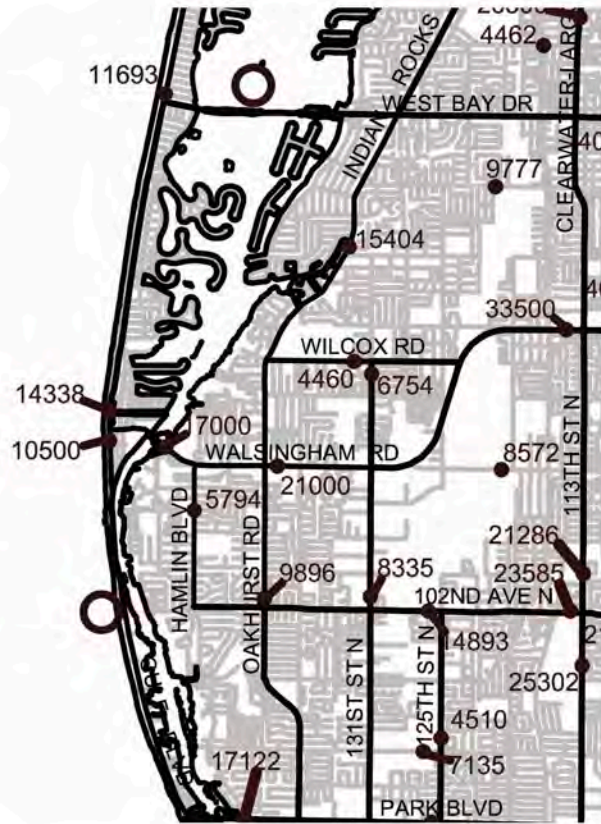
MPO 2005

Average Annual Daily Traffic Counts
(AADT)

Pinellas County



IRB Traffic Counts



Scheduled and Planned Road Improvement Projects

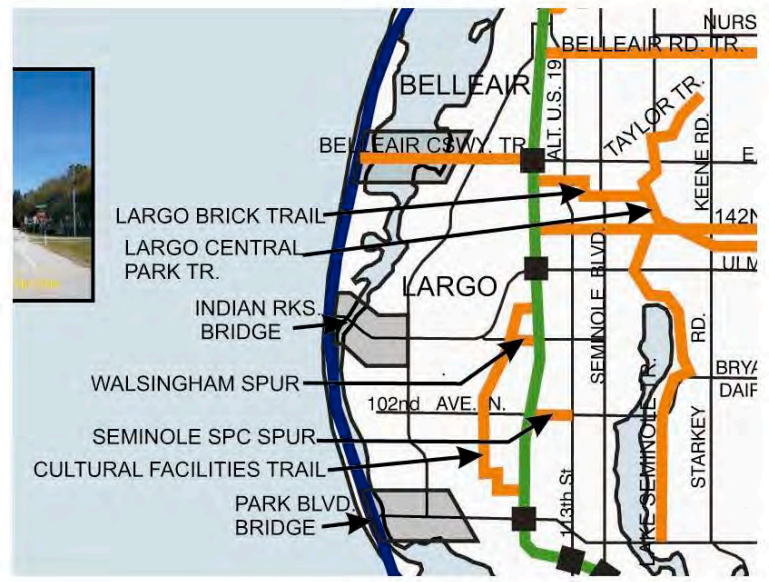


Pinellas Trailways Plan



LEGEND

- PINELLAS TRAIL
- PINELLAS TRAIL EXTENSIONS
- COMMUNITY TRAILS
- GULF BLVD. IMPROVEMENT PROGRAM
- PROGRESS ENERGY EXTENSION
- BEACH ACCESS TO PINELLAS TRAIL
- TRAIL OVERPASS
- TRAIL UNDERPASS



Trailways
Around
IRB

Pinellas County Evacuation Routes

LEVEL A

Category 1 hurricane
Storm surge of five (5) to seven (7) feet

LEVEL B

Category 2 hurricane
Storm surge of seven (7) to twelve (12) feet

LEVEL C

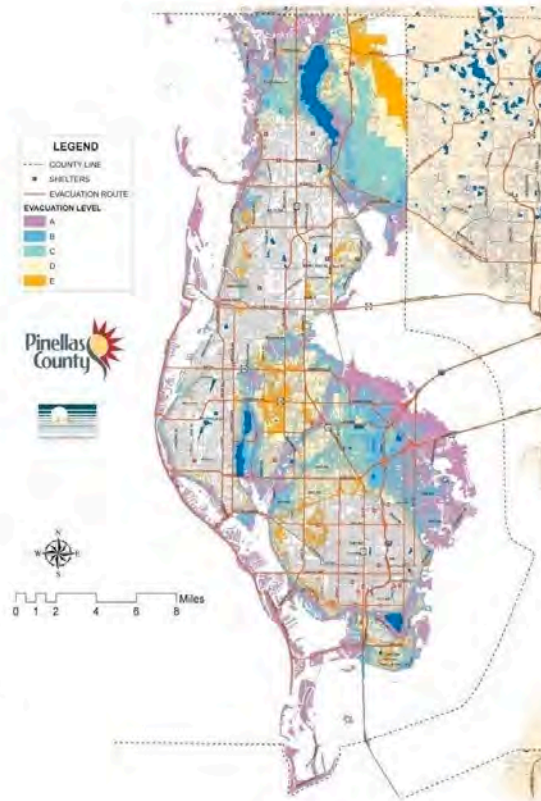
Category 3 hurricane
Storm surge of twelve (12) to fifteen (15) feet

LEVEL D

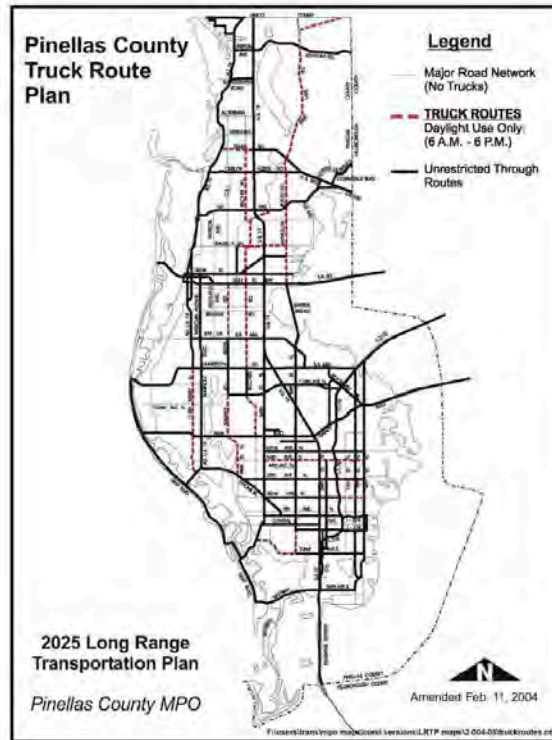
Category 4 hurricane
Storm surge of fifteen (15) to twenty (20) feet

LEVEL E

Category 5 hurricane
Storm surge of twenty (20) to twenty four (24) feet



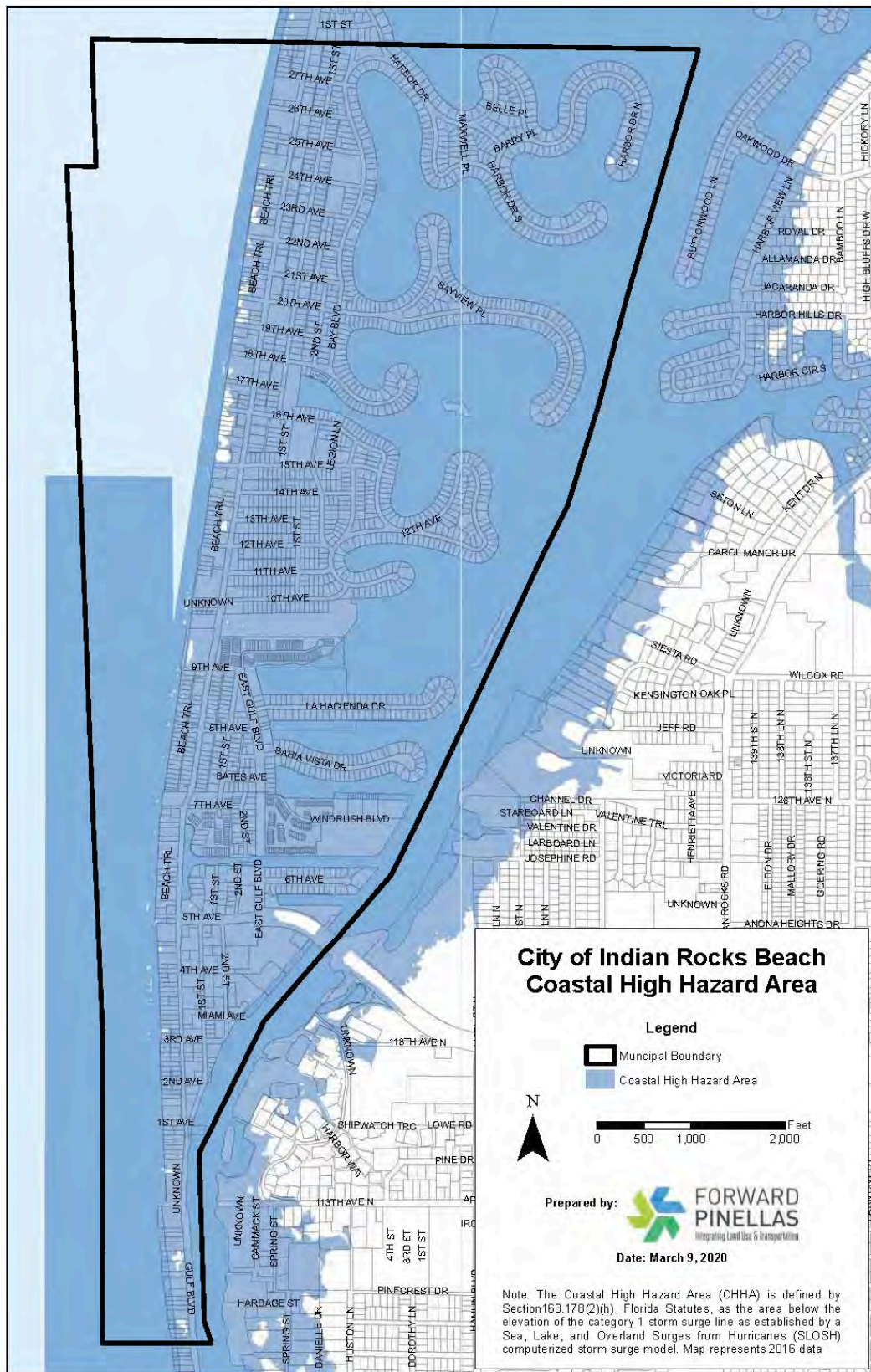
Pinellas County Truck Routes





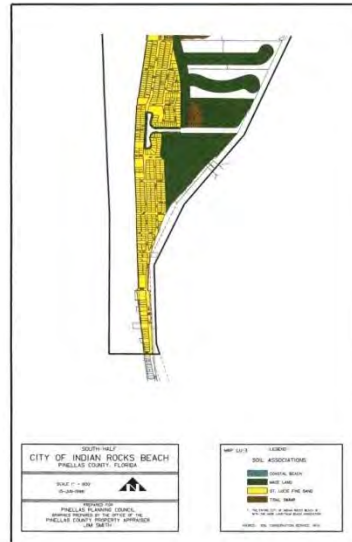
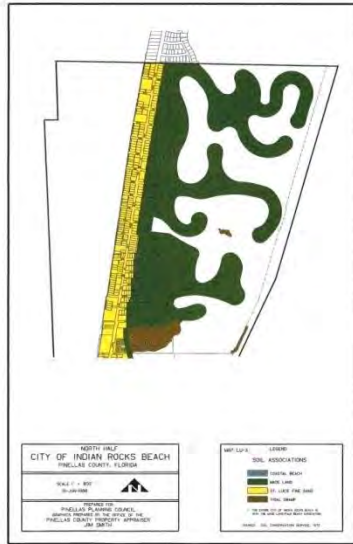
PSTA Bus System



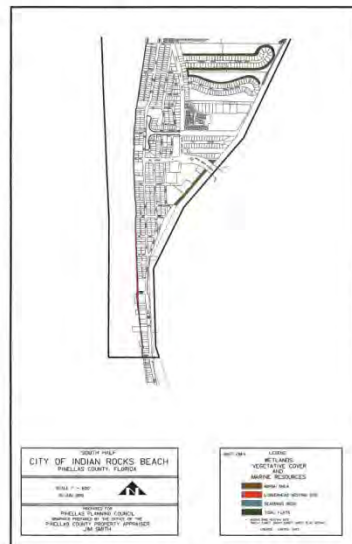
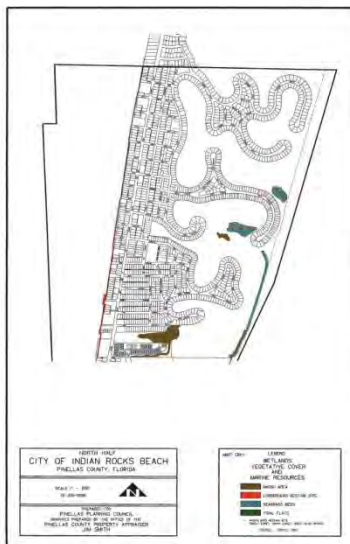


Source: National Oceanic and Atmospheric Administration, 2016; Pinellas County Property Appraiser's Office, 2018

Soils



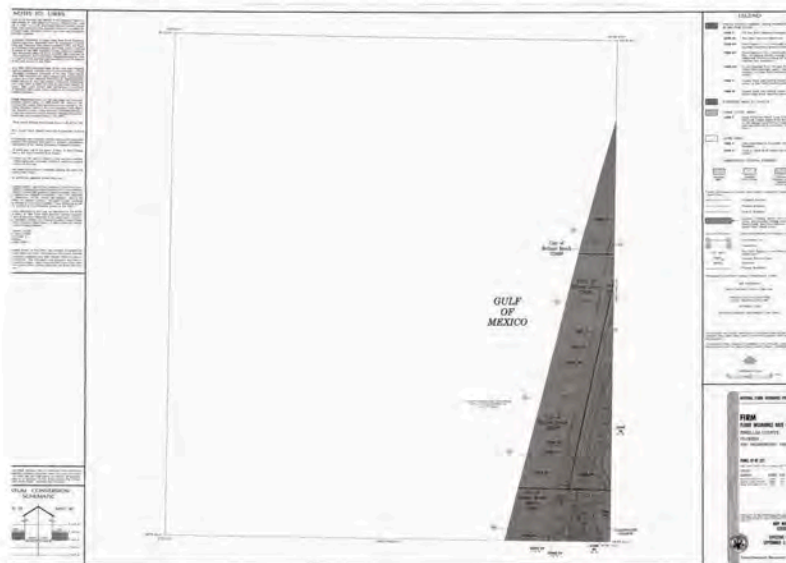
Wetlands, Vegetative Cover and Marine Resources



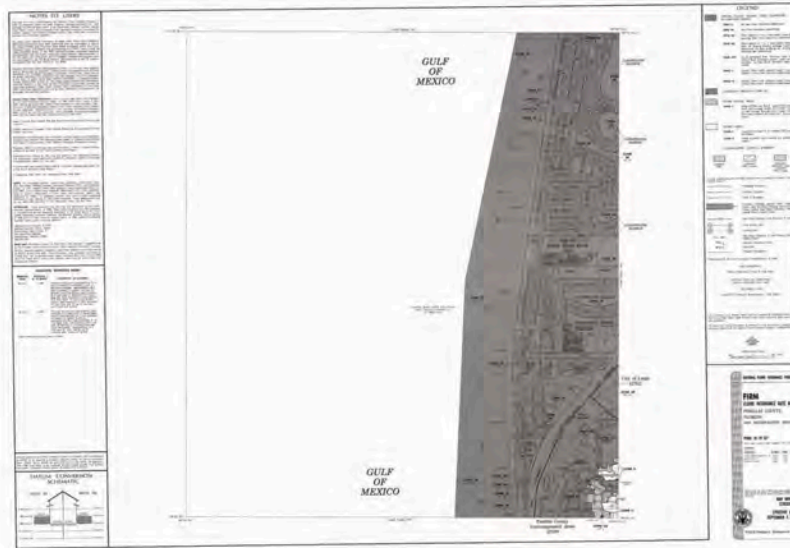
Public Facilities, Recreation Facilities and Water Dependent/Water-Related Facilities



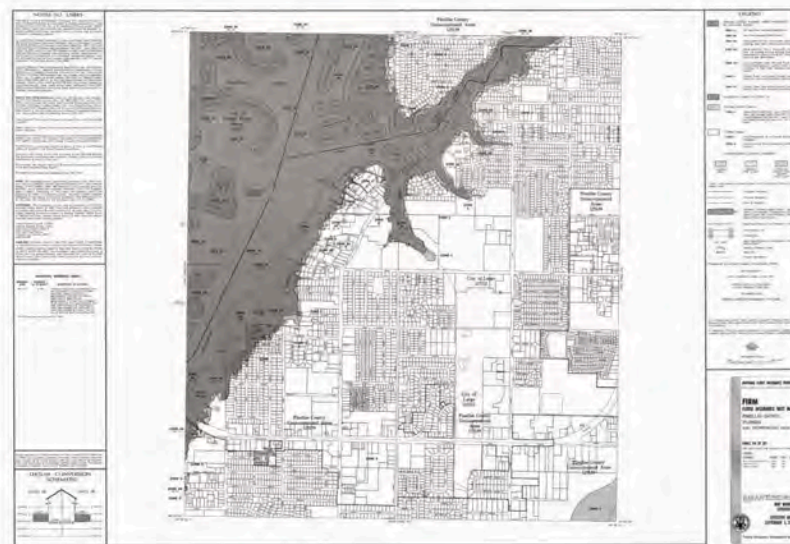
2003 Flood Insurance Rate Map 1



2003 Flood Insurance Rate Map 2



2003 Flood Insurance Rate Map 3



Flood Insurance Rate Map 4

