



Town of Lauderdale By-The-Sea, Florida

Support Documentation

March 2011

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Town of Lauderdale-By-The-Sea, Florida

Support Document

March 2011

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 COMPREHENSIVE PLAN
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I. Introduction

General

The 2010 Comprehensive Plan Amendments incorporate revisions to comply with Broward County Planning Council's Recertification of the Future Land Use Element, revisions relative to Greenhouse Gas Emissions, adoption of a Public School Facility Element and several minor text amendments to provide consistency with State and regional policies.

This document represents the supporting documentation for the Comprehensive Plan. The purpose of this document is to provide data inventory and data analysis of existing and future conditions. While the majority of the Support Document to the Comprehensive Plan is based on the data and analysis from the 2005 Amendments, portions of the Support Document have been updated to include the EAR Based data and analysis. It provides the basis for the future land use and transportation maps, capital improvements implementation and the framework for the establishment of goals, objectives and policies.

Plan Preparation and Funding

The supporting documents of the Comprehensive Plan for the Town of Lauderdale-By-The-Sea was prepared by the consulting firm of Walter H. Keller, Inc., located in Coral Springs, Florida. The planning process and the preparation of the Comprehensive Plan were funded entirely by the Town.

Plan Content and Format

This Comprehensive Plan contains all the required Plan Elements specified by the Florida Department of Community Affairs. The layout of the Plan is such that duplication between Elements is minimized through cross-referencing to other Elements. The Plan format provides an additional section which summarizes the Planning Considerations which provide general assistance in the Plan's formulation. This Plan also provides the grouping of all the goals, objectives and implementation policies from each element in one section.

II. Planning Considerations

Location

The Town of Lauderdale-By-The-Sea is located on the east coast of Broward County, Florida, between the major cities of Fort Lauderdale and Pompano Beach. Its neighbor to the immediate north is the City of Pompano Beach. The Village of Sea Ranch Lakes divides the Town between northern and southern portions. The Town is bounded on the east by the Atlantic Ocean and on the west by the Intracoastal Waterway. Figure 2-1 illustrates the regional location of the Town relative to Broward County and the State of Florida.

Historical Growth

The Town was originally chartered in 1927, but due to a severe hurricane was abolished in 1933. A new charter, instituted in 1947 was validated by the Florida Legislature in 1949. The original town included only the area east of and including Poinciana Street. The population has grown from 234 in 1950 to 2,879 at the 1970 Census. Because of declining household size population estimates declined to a 1986 estimate of 2,612 persons. In July 1997, the Town annexed the Sea Ranch Club Condominiums, located in the northeast quadrant of the intersection of SR A1A and Pine Avenue and just south of the Village of Sea Ranch Lakes' Beach Club. The Sea Ranch Club annexation added approximately 24 acres and an estimated 477 year-round residents to the Town. In October 2001, the Intracoastal Beach Area (also known as South Beach), was annexed consistent with a 2000 referendum. This area is located north of the Village Sea Ranch Lakes and south of Pompano Beach. The Intracoastal Beach Area annexation added approximately 263 acres and 2,936 year-round estimates to the Town. The annexations increased the total area of the Town to 627 acres with an estimated 2001 resident population of 7,268.

Environmental Characteristics

Foremost among Lauderdale-By-The-Sea's physical attributes is the climate. Categorized as sub-tropical, the average yearly temperature is about 75 degrees with a winter average

of 65 degrees and a summer average of 85 degrees. This climatic condition is the result of two elements: The Gulf Stream and the Trade Winds. The Gulf Stream is an ocean current flowing from the Gulf of Mexico northward passing close to land along Broward County. This has a stabilizing effect on temperatures. The Trade Winds blow at 5 to 15 miles per hour from the southeast. These winds provide a cooling effect in the summer and a warming in the winter. These conditions make the eastern area of Broward County a highly desirable resort and tourist area.

Rainfall in Broward County averages 50-60 inches per year. Eastern areas receive close to 48 inches per year while the western areas experience heavier amounts. Almost 60% of the rainfall occurs during the rainy season between June and October. The combination of ocean breezes and high annual rainfall help disperse locally produced vehicular traffic air pollutants. The Broward County Department of Planning and Environmental Protection maintains a Pollutant Standards Index (PSI). According to the 1997 Broward County Conservation Element, 70 percent of days were in the Good range. The Moderate range was encountered on less than 30 percent of days with occasional days falling into the unhealthful category.

The Town has low, level land with elevations of 0-5 feet. The soil type is predominantly the Palm Beach-Coastal Dune Association. This type is characterized as nearly level and gently sloping, well to excessively drained, with deep shelly sands with inclusion of sandy beaches and man-made land. Figure 2-2 depicts the various soil classifications within the Town.

Physical Characteristics

The Town of Lauderdale-By-The-Sea is at the intersection of two major transportation routes. Bisecting the town from east to west is Commercial Boulevard. The Commercial Boulevard Bridge which opened in 1965, provides the only access from the west. State Road A1A transverses the eastern portion of the Town and provides the only access to the north and south. The Town covers an area of 0.98 square mile (or 627 acres) with approximately two miles of beachfront property.

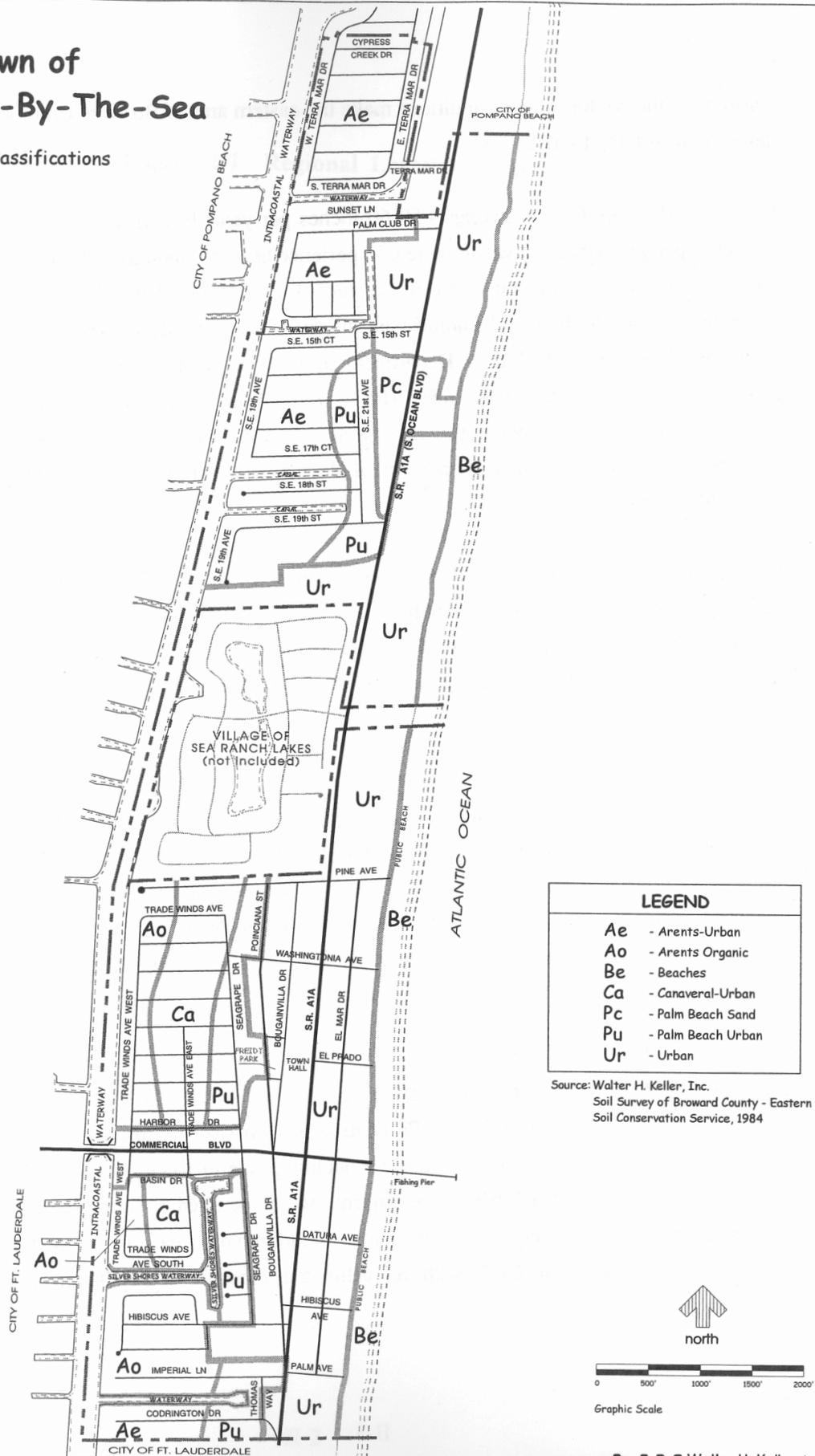
Population Growth

The 1950 U.S. Census listed the Town as having a population of 234, a figure which has grown to a 1970 population of 2,879. Population growth since 1970 has, however, been relatively slow, with population growing at a declining rate in recent years. In 1997, the Town annexed Sea Ranch Club Condominiums, which resulted in an increase in Town population by approximately 477 residents. Additionally, the Town annexed the Intracoastal Beach Area in 2001 with an estimated increase in population of 2,936.

The initial 2000 U.S. Census for Lauderdale-By-The-Sea indicated a decline in population of 427 despite the annexation of the Sea Ranch Club Condominiums. A dwelling unit and population analysis was conducted of the 1990 and 2000 U.S. Census at the census tract, block group and block level for the Town and the Intracoastal Beach Area. It was determined that significant undercounts occurred in the 2000 Census for the Town and the Intracoastal Beach Area. The Office of the Governor of the State of Florida, the Bureau of Economic and Business Research of the University of Florida and the designated census coordinator for Broward County have all independently reviewed the 2000 U.S Census count of the Town, and have each concluded that the count was in error. The Office of Governor concluded that the U.S. Census count error was of such significance that it was necessary to certify a substitute population estimate for state use in State revenue sharing programs.

Town of Lauderdale-By-The-Sea

Figure 2-2 - Soil Classifications



An analysis and comparison was also conducted of the 1990 and 2000 U.S. Census counts and the Broward County's Property Appraiser's records. The comparison found significant undercounts of dwelling units and their corresponding populations for the Town and the Intracoastal Beach Area. Table 2-1 presents the population results for the Town, Sea Ranch Club Condominiums and the Intracoastal Beach Area based on pre-1998/pre-annexation borders. Table 2-2 indicates approximately 2,056 residents from the Town and the Intracoastal Beach Area were undercounted in the 2000 U.S. Census.

A revised 2000 Census population was approved by the Census Bureau including the previously omitted Sea Ranch Club Condominiums, however other challenges by the Town did not result in further 2000 population additions. Additionally, while various Census tables indicate the corrections in population, households and dwelling units, Census tables have not been revised. The population estimates for Lauderdale-By-The-Sea, surrounding cities and Broward County between 1970 through 2004 are presented in Table 2-3.

Table 2-1 Population Estimates; 2000 US Census †

2000 Population Characteristics	Analysis Sub-Category	Lauderdale-By-The-Sea 2000 % of Total		IBA Unincorporated 2000 % of Total		LBS & IBA Total 2000 % of Total	
<i>Total Population</i>							
	Resident Population ¹	3,312	56%	2,631	44%	5,943	100%
	Peak Season Population ‡	5,489	56%	4,392	44%	9,880	100%

Source: Walter H. Keller, Inc.
U.S. Department of Census

Note: YR 2000 LBS includes the Sea Ranch Club Condominiums. IBA Unincorporated estimate is provided to identify the YR 2000 Census count for the area annexed in 2001.

† - Lauderdale-By-The-Sea is challenging the 2000 U.S. Census count of housing units and population.

‡ - Population estimate based 2000 US Census Average Household Size: 1.85 (LBTS) & 1.68 (IBA)

1 - 2000 Population Estimate Certified by BEBR and the Office of Governor on July 1, 2000.

Table 2-2 Revised Population Estimates

Population Characteristics	YR 2001							
	LBS §	% of Total	SRCC	% of Total	IBA	% of Total †	Total f	% of Total
<i>Total Population ‡</i>								
	3,855	53%	477	7%	2,936	40%	7,268	100%
	6,021	52%	1,246	11%	4,244	37%	11,510	100%

Source: Walter H. Keller, Inc.
Broward County Property Appraiser
Transamerica Intellitech, Inc.

§ - Pre 1998 boundaries.

‡ - Population estimate based 2000 US Census Average Household Size: 1.85 (LBS & SRCC) & 1.68 (IBA).

f - Reflects October 1, 2001 LBS boundaries.

Table 2-3 Resident Population By Municipality

Municipality	1970	1980	1990	2000	2001*	2002*	2003*	2004*
Lauderdale-by-the-Sea	2,879	2,639	2,990	2,563	3,284	6,220	6,243	6,278
Sea Ranch Lakes	660	584	619	643	643	643	727	727
Ft. Lauderdale	139,590	153,279	149,238	152,397	155,181	155,275	169,168	170,297
Pompano Beach	35,587	52,618	72,411	78,191	84,199	86,300	86,334	87,184
Oakland Park	16,261	23,035	26,238	30,966	31,543	31,715	31,738	31,810
Deerfield Beach	16,662	39,193	46,997	64,583	64,948	64,794	64,748	65,113
Hillsboro Beach	1,181	1,554	1,748	2,163	2,170	2,162	2,217	2,245
Lighthouse Point	9,071	11,488	10,378	10,767	10,829	10,857	10,836	10,857
Lauderdale Lakes	10,577	25,426	27,761	31,705	31,742	31,708	31,601	31,752
Broward County	620,100	1,018,257	1,255,531	1,623,018	1,649,925	1,669,153	1,698,425	1,723,131

Sources: U.S. Department of Commerce, Bureau of Census

* - 2001-2004 Estimates: University of Florida, Bureau of Economic and Business Research, April 1st of each year
Walter H. Keller, Inc.

Age Characteristics

A significant population characteristic of Lauderdale-By-The-Sea and the Intracoastal Beach Area is the age distribution. A comparative analysis of the age structure relative to surrounding cities and Broward County is provided in Table 2-4. This table illustrates the high percentage of elderly residents in the Town. Overall, nearly 40% of the combined population of the Town and the Intracoastal Beach area are over the age of 65. Additionally, the combined areas' population under the age of 19 is approximately 7%. Only Hillsboro Beach has lower percentage of residents under the age of 19 and a greater percentage of residents over the age of 65.

Table 2-4 is derived from the 2000 U.S. Census. As previously noted, the Census data for the Town of Lauderdale-By-The-Sea does not fully reflect the actual population condition.

Economic Characteristics

The Broward County economy is primarily based on three industries: tourism, retirement and construction. Of the three, the tourism and retirement sectors have the most significant on the economic structure of Lauderdale-By-The-Sea. It is estimated that the tourist trade creates more than 60,000 jobs within the County. The majority of these can be traced to hotels, motels, and other lodging places, eating and drinking establishments, personal services and amusement and recreation services.

The number of hotel/motel units in Lauderdale-By-The-Sea is an indication of the extent of its tourist industry. The 2001 dwelling unit inventory indicates that there are approximately 1,234 hotel/motel units in the Town, with the majority of the units (1,141 units or 92%) found in Planning Areas Two and Four.

Table 2-4 Resident Population by Age and Municipality (2000)

Municipality	0-4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-34 Years	35-44 Years	45-54 Years	55-59 Years	60-64 Years	65-74 Years	75-84 Years	85+ Years
Lauderdale-by-the-Sea †	49	59	66	41	55	268	382	416	181	177	417	331	121
% of Total Pop.	1.9%	2.3%	2.6%	1.6%	2.1%	10.5%	14.9%	16.2%	7.1%	6.9%	16.3%	12.9%	4.7%
IBA Unincorporated †	35	35	35	40	31	178	278	372	223	237	568	423	176
% of Total Pop.	1.3%	1.3%	1.3%	1.5%	1.2%	6.8%	10.6%	14.1%	8.5%	9.0%	21.6%	16.1%	6.7%
LBS (2001) †	84	94	101	81	86	446	660	788	404	414	985	754	297
% of Total Pop.	1.6%	1.8%	1.9%	1.6%	1.7%	8.6%	12.7%	15.2%	7.8%	8.0%	19.0%	14.5%	5.7%
Pompano Beach	4,130	3,949	3,635	3,701	4,221	10,530	12,191	9,758	4,084	3,728	7,731	7,019	3,514
% of Total Pop.	5.3%	5.1%	4.6%	4.7%	5.4%	13.5%	15.6%	12.5%	5.2%	4.8%	9.9%	9.0%	4.5%
Sea Ranch Lakes	44	52	68	51	16	71	134	200	120	133	276	173	54
% of Total Pop.	3.2%	3.7%	4.9%	3.7%	1.1%	5.1%	9.6%	14.4%	8.6%	9.6%	19.8%	12.4%	3.9%
Fort Lauderdale	8,068	8,466	8,202	8,197	8,433	23,036	26,909	22,671	8,524	6,585	11,870	8,279	3,157
% of Total Pop.	5.3%	5.6%	5.4%	5.4%	5.5%	15.1%	17.7%	14.9%	5.6%	4.3%	7.8%	5.4%	2.1%
Oakland Park	2,076	1,871	1,607	1,584	2,104	5,746	6,244	4,227	1,329	1,032	1,680	1,106	360
% of Total Pop.	6.7%	6.0%	5.2%	5.1%	6.8%	18.6%	20.2%	13.7%	4.3%	3.3%	5.4%	3.6%	1.2%
Hillsboro Beach	15	20	14	27	17	69	162	287	206	243	556	405	142
% of Total Pop.	0.7%	0.9%	0.6%	1.2%	0.8%	3.2%	7.5%	13.3%	9.5%	11.2%	25.7%	18.7%	6.6%
Deerfield Beach	3,068	2,826	2,744	2,384	3,253	9,165	9,155	7,096	3,102	2,847	6,968	7,623	4,352
% of Total Pop.	4.8%	4.4%	4.2%	3.7%	5.0%	14.2%	14.2%	11.0%	4.8%	4.4%	10.8%	11.8%	6.7%
Lighthouse Point	509	524	474	359	244	1,075	1,843	1,758	827	653	1,189	964	348
% of Total Pop.	4.7%	4.9%	4.4%	3.3%	2.3%	10.0%	17.1%	16.3%	7.7%	6.1%	11.0%	9.0%	3.2%
Broward County	103,041	110,142	109,132	95,161	82,834	230,864	278,547	215,086	76,548	60,554	116,641	101,417	43,051
% of Total Pop.	6.3%	6.8%	6.7%	5.9%	5.1%	14.2%	17.2%	13.3%	4.7%	3.7%	7.2%	6.2%	2.7%

† - Lauderdale-By-The-Sea is challenging the 2000 U.S. Census count of housing units and population.

Note: YR 2000 LBS includes the 1997 Sea Ranch Club Condominiums. IBA Unincorporated estimate is provided to identify the census count for the area that was annexed in 2001.

Sources: U.S. Department of Commerce, Bureau of the Census
Walter H. Keller, Inc.

The extent of the retirement industry can be seen from the high percentage of persons over 65 residing in the Town and Intracoastal Beach Area, identified as 39.2% by the 2000 Census. This figure is significant when compared with 16.1% of the Broward County residents being over 65 and 17.6% of the Florida population being 65 or older. As was discussed earlier, the Town of Lauderdale-By-The-Sea is challenging the 2000 U.S. Census count of housing units and population.

Planning Areas

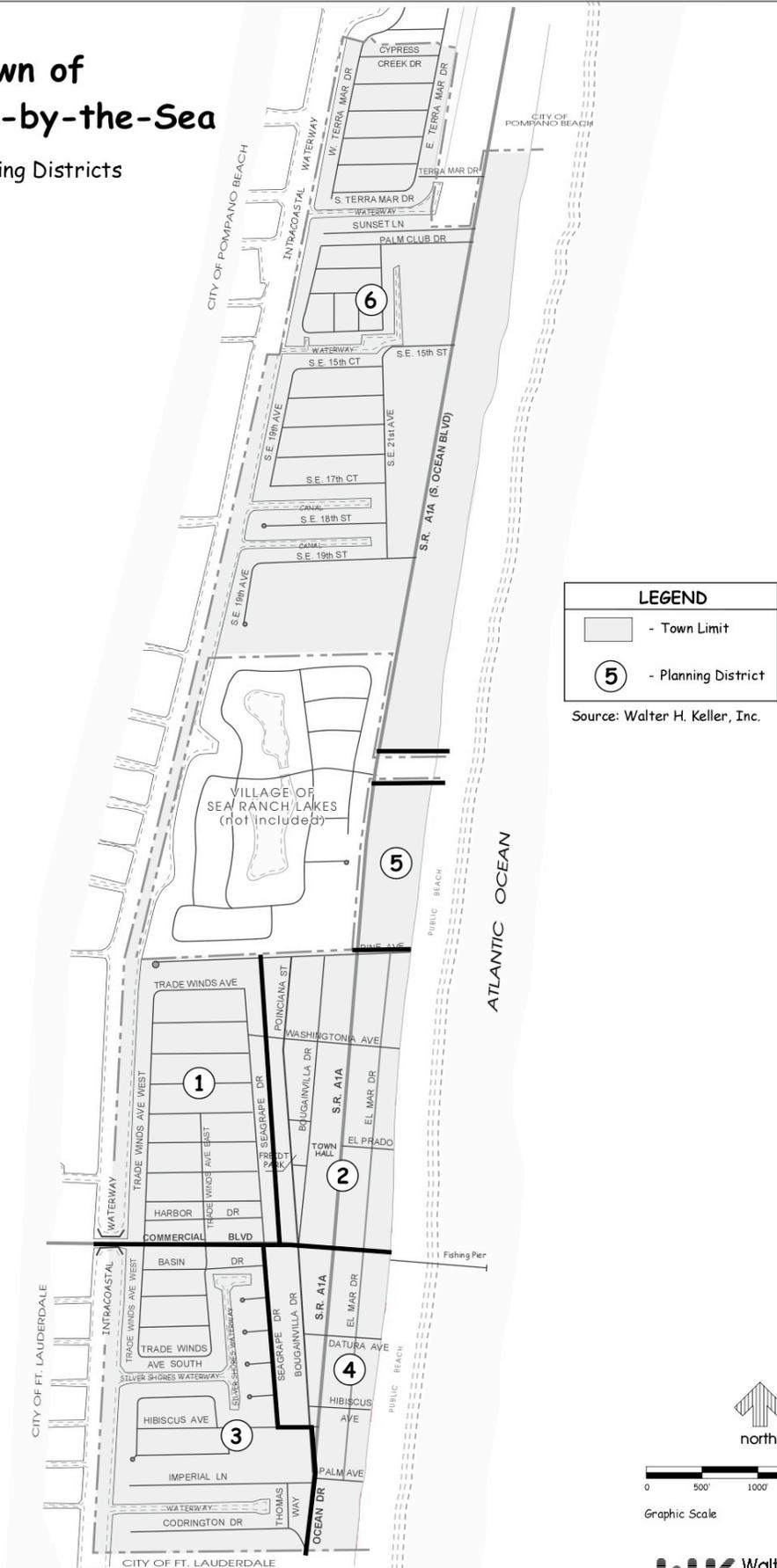
The Town has been divided into six Planning Areas. A brief description of each area is provided. Figure 2-3 identifies the location of each planning boundary.

Planning Area 1

This area represents the west-central portion of the Town. The area is primarily single family. The area is generally isolated due to its border with the Intracoastal Waterway and only one fully connected east-west street (Washingtonia Avenue) for access. This area is served by Pine Avenue which provides only an east-west connection in the northern most corner. Pine Avenue does not connect to any other roads in this Planning Area. Three north-south streets provide accessibility from Commercial Boulevard. These include Tradewinds Avenue West, Tradewinds Avenue East and Tradewinds Drive. This area totals approximately 83 acres and represents approximately 13 percent of the Town.

Town of Lauderdale-by-the-Sea

Figure 2-3 - Planning Districts



Planning Area 2

This east-central portion of the Town is primarily oriented to multi-family uses and seasonal residents. The Atlantic Ocean and public beach area borders this area on the east. State Road A1A splits this area with intersecting streets at Pine Avenue, Washingtonia Avenue and El Prado. El Mar Drive is a divided roadway with landscaped medians which runs parallel and east of SR A1A. There are 87 acres in this area. This is almost 14 percent of the total Town area.

Planning Area 3

Planning Area 3 is the second largest Planning Area in the Town with almost 106 acres. It is somewhat similar to Planning Area 1 except for two factors. First, there are a larger variety of housing unit types with increased densities to the east. Secondly, the area is crossed by two finger canals off the Intracoastal Waterway. These are the Sea Spray Bay between Codrington Drive and Imperial Lane and the Silver Shores Waterway. Hibiscus Avenue and Imperial Lane provide for major east-west accessibility into the area.

Planning Area 4

Planning Area 4 is similar to Planning Area 2. The area is almost exclusively multi-family uses that cater to both residents and seasonal tourists. The eastern boundary is the Atlantic Ocean and public beach areas. The Fishing Pier is located at the northern portion of the area. The pier is approximately 900 feet long. The area is the second smallest Planning Area in the Town with 64 acres. This represents nearly 10 percent of the Town.

Planning Area 5

Planning Area 5 is the Sea Ranch Club Condominiums that were annexed in July 1997. The area is exclusively multi-family uses that cater to both year-round and seasonal residents. Located southeast of the Village of Sea Ranch Lakes, the area is the smallest Planning Area in the Town with 24 acres. This represents over 4 percent of the Town. The area is bordered to the west SR A1A, the Atlantic Ocean to the east and the Village of Sea Ranch Lakes to the north.

Planning Area 6

Planning Area 6, also called the Intracoastal Beach Area, is the largest Planning Area in the Town with approximately 263 acres. Annexed in October 2001, the area represents approximately 42 percent of the Town. The area is almost exclusively residential. The northwest and west-central sections, and about half of the southeast section, are single family residential. Areas bordering SR A1A to the east and west are for the most part multi-family uses. Four waterways off the Intracoastal Waterway cross the area. Terra Mar Drive, Palm Club Drive, SE 15th Street and SE 19th Street provide the east-west connections to SR A1A, the only north-south artery through the Town.

Recent Comprehensive Planning Efforts

There have been several comprehensive planning efforts completed within the Town of Lauderdale-By-The-Sea. Knowledge of these studies is important in the preparation of the Comprehensive Plan Update. This portion of the Planning Considerations Section will review the previous planning efforts undertaken by the Town in response to state legislation and local concerns.

1999 Revitalization and Redevelopment Plan

A Plan was prepared to guide the Town's redevelopment efforts. The 1999 Plan suggested four (4) theme Districts: Mediterranean Village; Marina Village; Beach Village; and, a Mixed Use Residential Office area. The Plan also provided a phased improvement program of Commercial Boulevard and SRA1A in conjunction with the Florida Department of Transportation. Thirty (30) major improvements were suggested to improve the overall quality of the Town over the next 20 years.

2000 Florida Atlantic University Community Visioning Plan

This planning effort utilized community consensus building to further refine the business and residential design character of the community.

2001 Intracoastal Beach Area Study

This study effort involved an analysis of the 2001 annexation area relative to identifying needed short range improvements such as water and sewer, drainage and SRA1A Streetscape. Craven Thompson Associates and EDSA prepared the Study.

2004 Town Master Plan

A major Town-wide master planning effort was undertaken in 2003 – 2004. This Plan developed by Peter J. Smith & Company, included the expanded Town boundaries from the 2001 annexation. The 2004 Plan provides recommendations for urban design and land development regulation revisions. A Master Plan Committee was appointed by the Town Commission to provide input and guidance to the Master Plan developers.

2004 Economic Study

Several issues were identified in the 2004 Town Master Plan, which necessitated further research and investigation. The Town Commission engaged Goodkin Consulting to prepare a comprehensive economic study to investigate methods to protect and enhance the tourist focused economy, help create a balancing of retail/commercial/residential and hospitality use within the Town.

2003 and 2004 Comprehensive Plan Amendments

Major amendments to the Comprehensive Plan were completed in 2003. A fully revised Comprehensive Plan was prepared considering the total Town area incorporating the 1997 and 2001 annexations. The data and analysis portions of the Plan included new mapping and 2000 Census results. The 2003 Plan Amendments also incorporated the 1998 recommended EAR based amendments. Additional Plan Amendments were initiated in 2004 to address Broward County Planning Council's provisional Certification.

III. Goals, Objectives and Policies

Chapter 9J-5 of the Florida Administrative Code requires that local Comprehensive Plans contain a wide variety of locally relevant goals, objectives and policies. These statements must reflect local efforts to further statewide planning goals and efforts and should be based on the data gathered and analyses performed in conjunction with the preparation of the Local Plan. Pursuant to state law, the local goals, objectives and policies must be evaluated on a periodic basis in order to ascertain the effectiveness and success of implementing the Local Plan.

As a result of the information contained in this support document, a listing of local goals, objectives and future implementation policies has been developed. These statements are found in Section II of the Town's Comprehensive Plan. As stated in the Plan, these statements will form the main basis for future Plan evaluation efforts. As new information becomes available, or as unforeseen circumstances arise, changes may be necessary with respect to the data and analyses contained in this support document. These changes will, in turn, likely require modifications to the goals and, in particular, the objectives and implementation policies contained in the Town's Comprehensive Plan.

IV. Future Land Use

Existing Land Use

An inventory and analysis of existing land uses within the Town was performed. The inventory was completed by using 1"-300' aerials flown in April of 1999 and field inspections in 2002.

A variety of standard land use categories can be found within the Town of Lauderdale-By-The-Sea. However, there are no industrial, agriculture, education or conservation uses, nor are there any designated historic resources within the Town.

Figure 4-1 represents the generalized existing land use patterns within the Town. The Town is largely developed with only three acres still remaining vacant. The majority of the land area, approximately 83%, is in residential use. Approximately 37% of the Town is in single family use. The remainder of the residential is in either two family, multi-family low (less than 25 du/ac) or multi-family high (greater than 25 du/ac).

A significant portion of the multi-family area is comprised of units which cater to seasonal residents. These units include hotel/motel uses and rental apartments or condominiums. Additional information on the dwelling unit types and seasonal characteristics can be found in the Housing Element.

Non-residential land uses total about twenty-five percent. The Town's commercial land uses total over thirty acres. There are three community facilities in the Town, the Town Hall, Community Church and Assumption Catholic Church. Recreation and open space uses account for about four percent of the Town area. The remainder of the Town is either water (ten percent) or vacant (one-half a percent).

Planning Area Land Uses

The existing land uses for each of the six Planning Areas within the Town is described following Figure 4-1.

Planning Area 1

This area comprising the south-central section of the Town, is predominantly developed with single family homes. Duplexes along Seagrape and Harbor Drives buffer this area from the more intense development to the east and the commercial uses in the southern portion of the planning area. Commercial activity fronts on the Intracoastal Waterway and along the northern side of Commercial Boulevard. The majority of the Town's office uses are located on this portion of Commercial Boulevard. There is one vacant lot in the residential area. The pattern of this area is established.

Planning Area 2

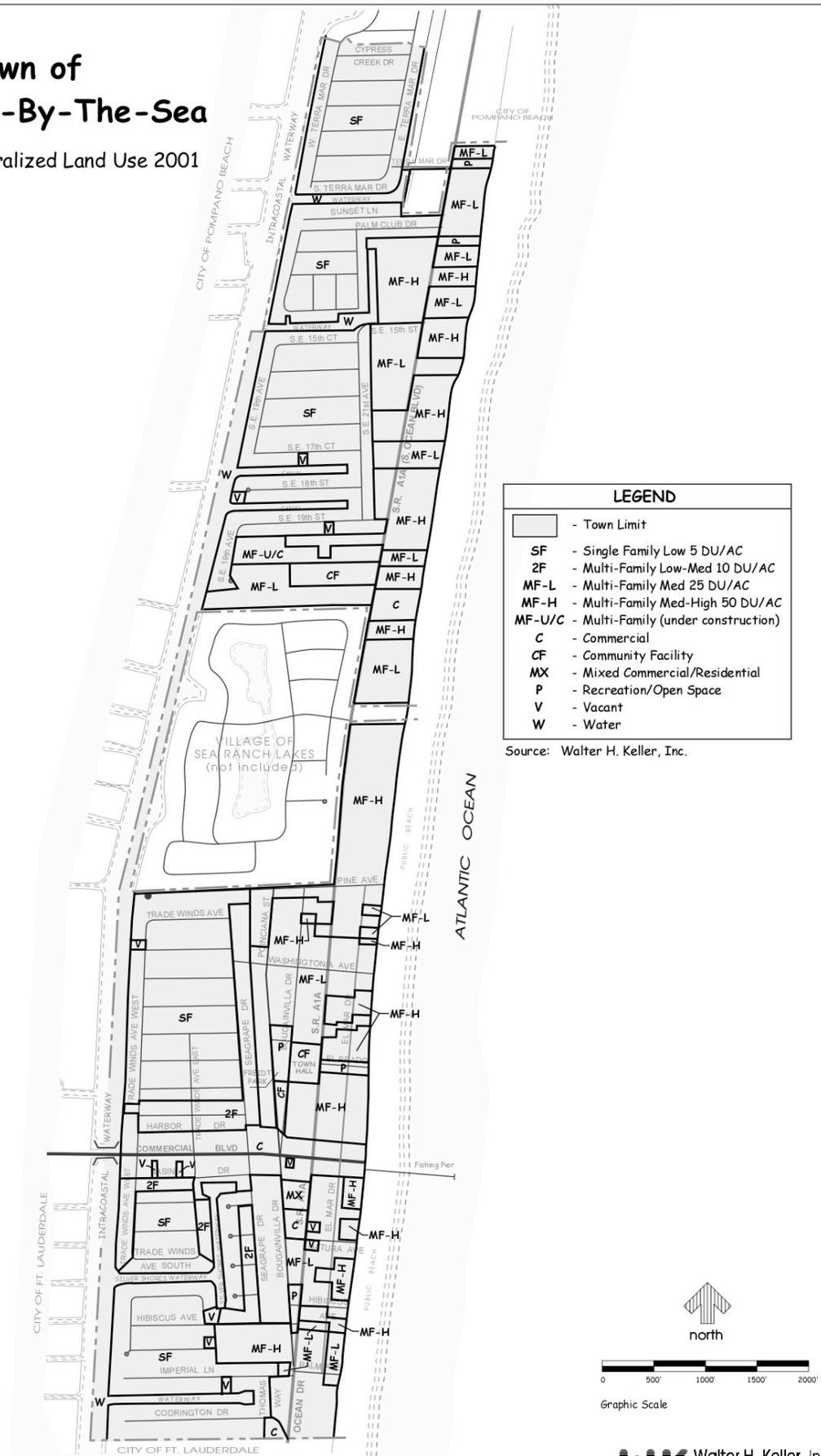
The development of Planning Area 2 reflects the Town's dependence on the tourist trade characteristic of South Florida. Development consists primarily of multi-family units and tourist accommodations. Some of the older single-family homes and duplexes located along Poinciana Street and Bougainvilla Drive are being replaced with multi-family and townhouse uses. The Town Hall and municipal complex is located in the center of this area, with a public park immediately adjacent, to the west. Two private beach areas also exist in Planning Area 2. There are no vacant lots in the area. The southern portion of this area consists of commercial development, primarily oriented to the local tourist trade and public beach area.

Planning Area 3

Planning Area 3 consists of a wide variety of land uses. A large proportion of the area is developed as single-family residences, in which there are about 5 scattered vacant lots. Duplexes are found along Tradewinds Avenue fronting the Intracoastal Waterway, along Seagrape Drive, and along Basin Drive, providing a buffer from the commercial located on the northern portion of this area along Commercial Boulevard. Some water-related uses can be found in the area south of Basin Drive where boat and yacht brokers dock vessels for sale. Condominiums are located in the southeast section of the Planning Area along State Road AIA.

Town of Lauderdale-By-The-Sea

Figure 4-1 - Generalized Land Use 2001



Planning Area 4

Planning Area 4 occupying the southeast section of Lauderdale-By-The-Sea is characterized by a large number of motels, apartments, and condominium units. The hotels are located along Ocean Drive and also fronting the Atlantic Ocean. The northern portion of this area is commercial-retail oriented uses. The fishing pier is located in this area. Some commercial and public park uses are located along Ocean Drive (A1A), Bougainvillea, and Seagrape. The Town's only mixed use exists in this area. The use provides for commercial-retail uses on the ground floor with thirty dwelling units above.

Planning Area 5

Planning Area 5 encompasses the Sea Ranch Club Condominiums located southeast of the Village of Sea Ranch Lakes. The area is exclusively made up of condominiums units for residents as well as seasonal tourists. There are no vacant parcels, community facilities or commercial uses in the area. All of the beach area in the Planning Area is private.

Planning Area 6

Planning Area 6 consists of three primary types of land use. Just over a quarter of the area is developed as single-family residents. These areas are located in the northwest, west-central and southwest portions of the area and contain the only three vacant lots in the Planning Area. Approximately forty-five percent of the area is multi-family use with twenty-one and twenty-four percent Low/Medium and High densities respectively. The multi-family areas are located along the Atlantic coast and to the west of SR A1A, providing a buffer between SR A1A and the single-family residences. There is one lot with commercial use, Sea Watch Restaurant, and one community facility, Assumption Catholic Church, both located in the southeast. Two lots along the northeast coast provide beach access to their members or respective residents. All of the beach area in the Planning Area is private. There are two ten foot beach easements in this area. They are located near the Sea Watch Restaurant and Cristelle Condominiums.

The breakdown of generalized existing land uses by Planning Area and Town-wide is provided in Table 4-1.

Table 4-1 Existing Land Use by Planning Area (acres)

Existing Land Use	DU/ ACRE	Area 1	%	Area 2	%	Area 3	%	Area 4	%	Area 5	%	Area 6	%	Total Town	%
<i>Residential Units</i>															
Single Family	0-3.75	50.1	60.2%	3.0	3.4%	60.9	57.7%	1.0	1.6%	0.0	0.0%	118.0	44.9%	233.0	37.2%
Multi Family Low Medium	3.75-10	16.6	20.0%	1.0	1.1%	8.6	8.2%	4.0	6.2%	0.0	0.0%	42.2	16.0%	72.4	11.5%
Multi-Family Medium	11-25	0.0	0.0%	34.6	39.7%	3.4	3.2%	21.4	33.3%	0.0	0.0%	43.0	16.3%	102.4	16.3%
Multi-Family High	26-50	0.0	0.0%	25.4	29.2%	7.6	7.2%	16.6	25.8%	20.8	86.7%	0.0	0.0%	70.4	11.2%
Multi-Family Under Construction		0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	6.6	2.5%	6.6	1.1%
<i>Non-Residential Uses</i>															
Commercial		7.0	8.4%	6.0	6.9%	6.9	6.5%	8.5	13.2%	0.0	0.0%	3.9	1.5%	32.3	5.2%
Mixed Use		0.0	0.0%	0.0	0.0%	0.0	0.0%	1.5	2.3%	0.0	0.0%	0.0	0.0%	1.5	0.2%
Park and Recreation		0.0	0.0%	11.4	13.1%	0.0	0.0%	9.3	14.5%	0.0	0.0%	2.0	80.0%	22.7	3.6%
Community Facility		0.0	0.0%	3.7	4.2%	0.0	0.0%	0.0	0.0%	0.0	0.0%	4.8	1.8%	8.5	1.4%
Private Beach		0.0	0.0%	2.0	2.3%	0.0	0.0%	1.5	2.3%	3.2	13.3%	14.0	5.3%	20.7	3.3%
Vacant		0.3	0.3%	0.0	0.0%	1.2	1.1%	0.5	0.8%	0.0	0.0%	0.7	30.0%	2.7	0.4%
Water		9.2	11.1%	0.0	0.0%	16.9	16.0%	0.0	0.0%	0.0	0.0%	27.8	10.6%	53.9	8.6%
Planning Area Total		83.2		87.1		105.5		64.3		24.0		263.0		627.1	
Percent of Total Land Area		13.3%		13.9%		16.8%		10.3%		3.8%		41.9%		100.0%	

Source: Walter H. Keller, Inc.

Notes: There are no Industrial, Agriculture, Education or Conservation land uses in the Town.

The only public building in the Town is the Town Hall Complex which is included as a Community Facility.

The Mixed Use is Commercial on the ground floor with 32 dwelling units above.

Existing Natural Resources

Except for the Public Beach Area, the Atlantic Ocean and the Intracoastal Waterway, there are no natural resources within the Town. The Public Beach Area is between 125 to 200 feet wide and runs the length of Planning Areas 2 and 4, a distance of one mile.

There are no remaining areas of indigenous vegetation remaining within the Town. The Intracoastal Waterway is bulkheaded and there are no mangrove or wetland areas within the Town.

Additional information on soils, climate and topography can be found in the Planning Considerations (see Section II).

Surrounding Land Uses

The Town is bordered on the south and west by the City of Fort Lauderdale. On the southern border with Fort Lauderdale, similar land uses exist. This trend continues on the western border across the Intracoastal Waterway.

The City of Pompano Beach borders the Town in the north. Similar land uses exist along the boundary with single-family uses along the western section of the border and multi-family uses on the eastern sections.

The Village of Sea Ranch Lakes divides the Town almost in half. Except for the Village of Sea Ranch Lakes Shopping Center, which is located on the western side of State Road A1A in the southeast section of the Village, similar land uses exist. Figure 4-2 illustrates the land uses surrounding the Town of Lauderdale-By-The-Sea.

Existing Zoning

Prior to recent annexations, Lauderdale-By-The-Sea had six zoning classifications which divides the Town into business and residential areas. There are four residential districts. These districts include single family (RS-5), Duplex (RS-10), Multi-Family Apartments (RM-25) and Multi-family High Rise (RM-50). There are two business retail districts

B-1A and B-1. With the annexation of the SRCC and the Intracoastal Beach Area, the Town has agreed to administer the pre-existing Broward County zoning code (7 classifications) and maintain existing land uses. Table 4-2 presents a description of the Town's various zoning classifications as well as the Broward County zoning code as it applies to the Intracoastal Beach Area

Figure 4-3 illustrates the existing zoning within the Town. Table 4-3 provides a listing by Planning Area and Town-wide the acreage of each zoning classification.

Infrastructure Availability

While SR A1A experiences high seasonal traffic loadings, the existing infrastructure generally provides a satisfactory Level of Service to the Town's residents and seasonal tourists. There is adequate potable water and sanitary sewer service available to meet anticipated growth. This finding is realistic when compared to the extent of existing development. Only one half a percent of the land within the Town is vacant (see Vacant Land Analysis). While redevelopment of existing parcels is occurring, the existing Land Use Plan and Zoning Regulations are not significantly different than existing land uses. Refer to the Transportation and Infrastructure Elements for additional information.

Analysis of Vacant and Undeveloped Land

All vacant parcels are less than one acre in size. There are two vacant parcels in multi-family areas, approximately seven in single family areas and two in the commercial area. An analysis was prepared on vacant and undeveloped parcels.

Town of Lauderdale-By-The-Sea

Figure 4-2 - Surrounding Land Use 2001

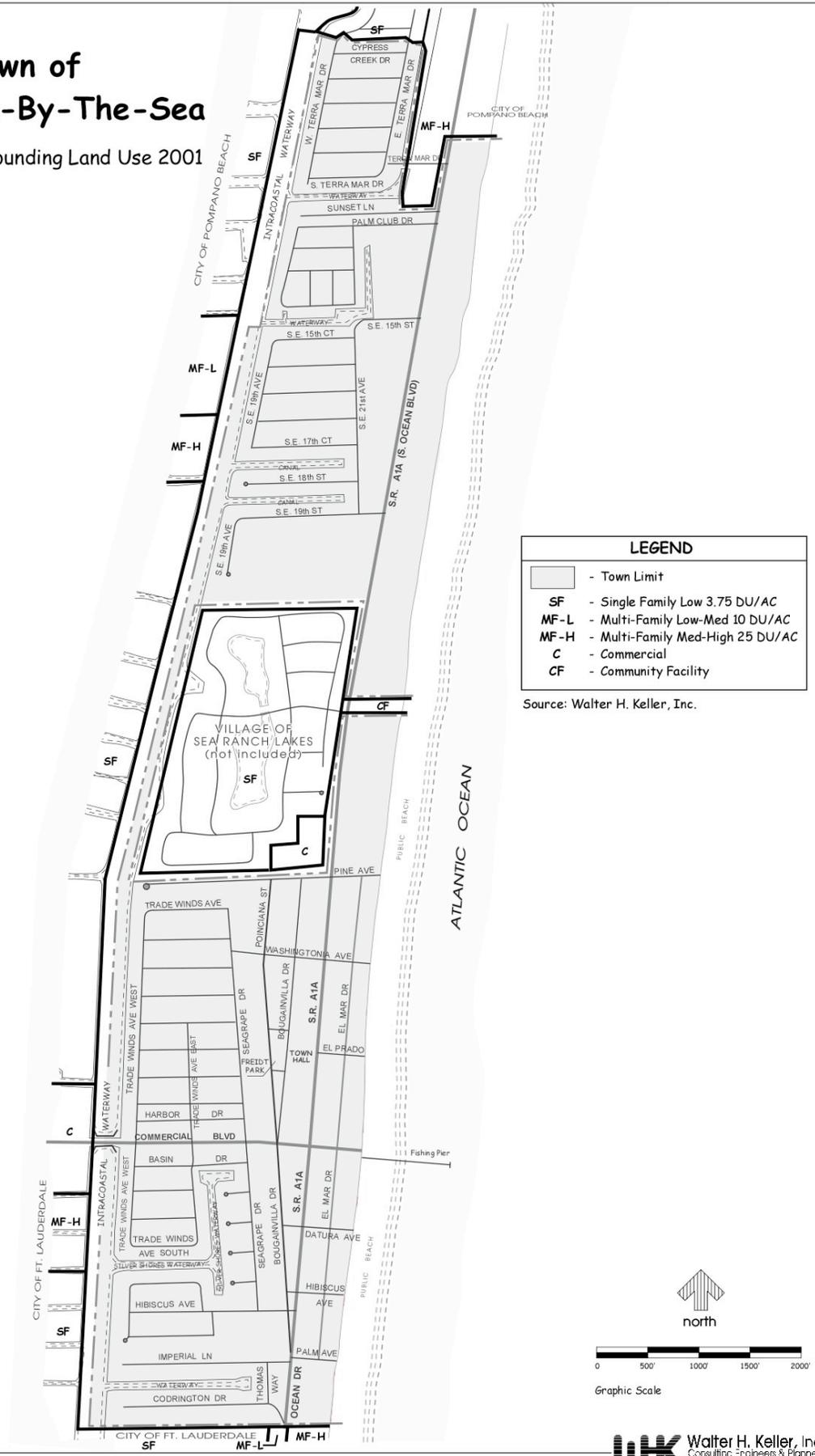


Table 4-2 Zoning Districts

LBS			County	
Classification	Primary Uses	Classification Standards	Classification	Classification Standards
RS-5	Residences, Single Family	One unit per lot on lots of 80' or less in width. Height limited to two story.	RS-4 & RS-5	Residence, Single-Family Dwelling (4/5 units per acre)
RD-10	Residences-Duplex	One building per lot of 80' or less in width. Two story height limit.	RM-15 & RM-16	Residence, Apartments, Hotels, ect. (Multiple Dwellings) (15/16 units per acre) (30/32 units per acre for hotel)
RM-25	Residence-Apartments, Hotels, multiple dwellings	Thirty feet height limitation. Maximum density 25 units per acre (50 units per acre for hotel), with a 200' maximum length.	RM-25	Residence, Apartments, Hotels, ect. (Multiple Dwellings) (25 units per acre) (50 units per acre for hotel)
RM-50	High-rise, Hotel, Motel	Height limit of 150 feet. No maximum density specified.	R-5	Motel District
B-1A	Business-Retail	Use restricted to businesses, restaurants, and offices. Two story height limit on single lots (25 feet) or three story on 50 feet lots.		
B-1	Business-Retail	Same as B-1A with different setback requirements in some areas.	PUD	Planned Unit Development District

Source: Walter H. Keller, Inc.
 Town's Zoning Code
 Broward County Zoning Code

Town of Lauderdale-By-The-Sea

Figure 4-3 - Zoning

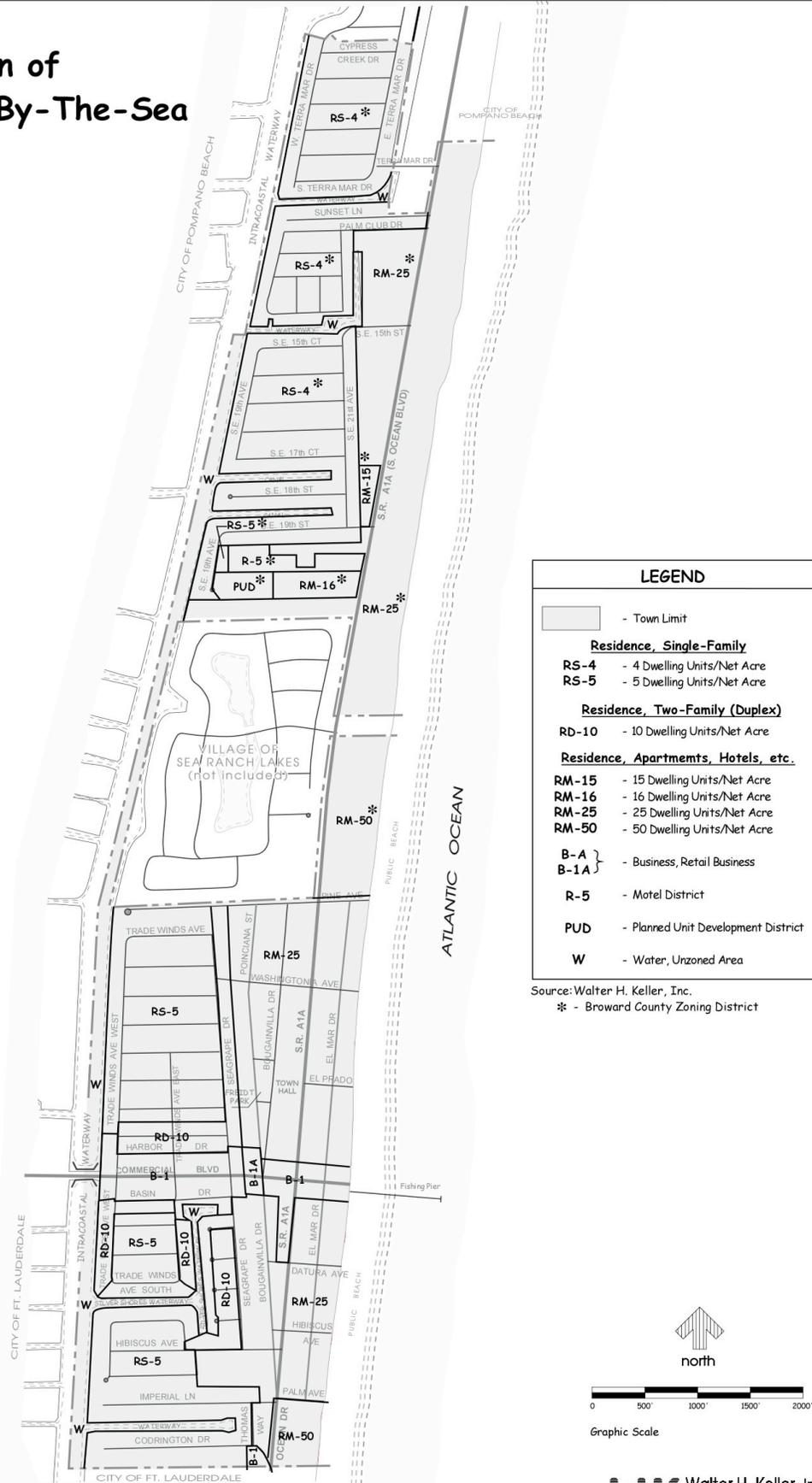


Table 4-3 Existing Zoning By Planning Areas (acres)

Existing Land Use	DU/ ACRE	Area 1	%	Area 2	%	Area 3	%	Area 4	%	Area 5	%	Area 6	%	Total Town	%
<i>Residential Uses</i>															
RS-5 Single Family	5	50.3	60.5%	0.0	0.0%	55.3	52.4%	0.0	0.0%	0.0	0.0%	0.0	0.0%	105.6	16.8%
RD-10 Duplex	10	15.4	18.5%	0.0	0.0%	13.4	12.7%	0.0	0.0%	0.0	0.0%	0.0	0.0%	28.8	4.6%
RM-25 Multi-Family	25	0.0	0.0%	64.0	73.5%	12.4	11.8%	39.5	61.4%	0.0	0.0%	0.0	0.0%	115.9	18.5%
RM-50 Multi-Family	50	0.0	0.0%	0.0	0.0%	0.0	0.0%	7.7	12.0%	0.0	0.0%	0.0	0.0%	7.7	1.2%
<i>Broward County Residential Uses</i>															
RS-4 Single Family	4	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	118.7	45.1%	118.7	18.9%
R-5 Motel District	5	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	4.6	1.7%	4.6	0.7%
RS-5 Single Family	5	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.4	0.2%	0.4	0.1%
RM-15 Multi-Family	15	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	1.8	0.7%	1.8	0.3%
RM-16 Multi-Family	16	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	4.0	1.5%	4.0	0.6%
RM-25 Multi-Family	25	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	88.7	33.7%	88.7	14.1%
RM-50 Multi-Family	50	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	20.8	86.7%	0.0	0.0%	20.8	3.3%
PUD-Planned Unit Development		0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	3.0	1.1%	3.0	0.5%
<i>Non-Residential Uses</i>															
B-1 Retail Business		7.5	9.0%	3.4	3.9%	7.5	7.1%	5.8	9.0%	0.0	0.0%	0.0	0.0%	24.2	3.9%
B-1A Retail Business		0.0	0.0%	0.8	0.9%	0.0	0.0%	0.8	1.2%	0.0	0.0%	0.0	0.0%	1.6	0.3%
Un-Zoned Water		9.2	11.1%	0.0	0.0%	16.9	16.0%	0.0	0.0%	0.0	0.0%	27.8	10.6%	53.9	8.6%
Un-Zoned Muncipal		0.8	1.0%	6.4	7.3%	0.0	0.0%	0.9	1.4%	0.0	0.0%	0.0	0.0%	8.1	1.3%
Un-Zoned Beach Area		0.0	0.0%	12.5	14.4%	0.0	0.0%	9.6	14.9%	3.2	13.3%	14.0	5.3%	39.3	6.3%
		83.2		87.1		105.5		64.3		24.0		263.0		627.1	

Source: Walter H. Keller, Inc.

There are seven single family lots that are vacant in Planning Areas One, Three and Six. In all instances, these lots are identified for single family use in the Town's current Land Use Plan. The most appropriate uses for these lots would be for them to remain consistent with the current Land Use Plan.

Two multi-family tracts located in Planning Area Four are remaining to be developed. The parcels are proposed to be multi-family with a maximum of 25 du/acre under the current Land Use Plan. The most appropriate uses for these lots would be to maintain designations consistent with the current Land Use Plan.

Two commercial lots are vacant within the Town. These sites are located on the south side of Commercial Boulevard. The site is bordered by commercial and duplex uses and is currently shown for commercial use under the Town's current Land Use Plan. The most appropriate use for this lot would be to remain consistent with the current Land Use Plan.

Redevelopment

Town redevelopment activities should be required to meet criteria established by the Federal Emergency Management Administration (FEMA). Figure 8-3 in the Coastal Management/Conservation Element identifies the various contour lines for 100 year, 100-500 year, areas of minimal flooding and beach front flood conditions. Development in these areas should follow minimal finished floor elevations and other FEMA requirements as appropriate.

The Town does not have any blighted areas or existing incompatible land uses. For this reason, redevelopment activities will be oriented to upgrading existing properties and the pooling of lots and redeveloping at the densities allowed under the Land Use Plan.

Future development and redevelopment should be allowed only with adherence to the minimum finish floor elevations specified in the Federal Flood Insurance Flood Hazard Map for the Town. Figure 8-3 in the Coastal Management Element identifies the areas of the Town subject to flood hazards. For the most part, these areas are the southwest and

northwest portions of the Town and the beachside properties. The southwest and northwest portions of the Town are in the AE Zone and are subject to a 100 year flood. The beachside properties are also subject to a 100 year flood and the velocity impacts associated with hurricane conditions. The remainder of the Town is located in areas of either minimal flooding or falls in the area of a 500 year flood event.

Greenhouse Gas Emissions

According to the “Ecological Impacts of Climate Change” by the National Academy of Sciences (NAS), the world’s climate is changing, and it will continue to change throughout the 21st century and beyond. Rising temperatures, new precipitation patterns, and other changes are already affecting many aspects of human society and the natural world. A relatively rapid increase in temperature has been documented during the past century, both at Earth’s surface and in the oceans. The average surface temperature for Earth as a whole has risen some 1.3° Fahrenheit since 1850, the starting point for a global network of thermometers. If emission rates for greenhouse gases (which trap heat inside Earth’s atmosphere) continue on their current track, models indicate that the globe will be 4.3 to 11.5°F warmer by 2100 than it was in 1990.

The greenhouse effect is a natural phenomenon essential to keeping the Earth’s surface warm. Like a greenhouse window, greenhouse gases (GHG) allow sunlight to enter and then prevent heat from leaving the atmosphere. Water vapor (H₂O) is the most important greenhouse gas, followed by carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), halocarbons and ozone (O₃). Human activities, primarily burning fossil fuels, are increasing the concentrations of these gases, amplifying the natural greenhouse effect.

The warmer temperatures not only cause glaciers and land ice to melt (adding more volume to oceans) but also cause seawater to expand in volume as it warms. The global average sea level rose by just under .07 inches per year during the 20th century, but that number has risen to .12 inches per year since the early 1990s. Under a “business-as-usual” greenhouse gas emissions scenario, models indicate that sea levels could rise 2 feet or more by 2100 compared to 1990 levels.

The State of Florida with almost 1,350 miles of shoreline and the associated coastal population concentrations is particularly susceptible to rising sea levels associated with climate change. In response to the climate change threats, Governor Charlie Crist signed three (3) Executive Orders on July 13, 2007 establishing immediate actions to reduce greenhouse gas emissions within Florida.

Total U.S. GHG emissions in 2008 were approximately 7,503 million metric tons of equivalent carbon dioxide according to the U.S. Energy Information Administration's "Emission of Greenhouse Gases in the United States 2008". The majority of the GHG emissions, approximately 81%, are attributable to energy related carbon dioxide. Of this U.S. energy GHG component, the conversion of energy to produce electricity accounts for about 41% of the end use, emissions from fuel use in transportation is approximately 33% and direct fuel use in homes and business is about 26%.

In 2005, Florida's gross GHG emissions from fossil fuel were also primarily attributable to power generation (electricity) at 42% and to transportation at 36% according to "Florida's Energy & Climate Change Action Plan" released on October 15, 2008. The report also indicates the direct use of fuel in the residential, commercial and industrial (RCI) sectors accounted for 6% of the State's gross GHG emissions. The State's GHG emissions in 2005 were approximately 4.9% of the total U.S. net GHG emissions. The State's population energy usage directly relates to the amount of GHG emissions.

The Governor's Executive Order 127 establishes GHG emission targets for 2017, 2025 and 2050. The 2050 GHG target reduces GHG emissions to 80% of the 1990 level. Improvements in the energy efficiency in new and existing buildings, using renewable resources and low-GHG energy sources to replace fossil fuels for producing electricity and heat and increasing distributed electricity generation based on combined heat and power are ways to reduce the electric GHG emissions. For the transportation sector, improvements in vehicle fuel efficiency, reducing the amount of single occupant vehicles, the use of low-GHG emission fuels and the reduction of total vehicle miles of travel can provide significant reductions in transportation GHG emissions.

While the Town's GHG emissions are primarily generated at off-site power generation locations and local transportation use, rising sea level impacts have serious implications to properties, infrastructure and quality of life. Future GHG emissions can be reduced in the Future Land Use Element by:

- Encouraging compact urban development and mixed use development;
- Requiring Smart Growth and or LEED Type certifications of new development;
- Encouraging pedestrian-friendly development and urban infill development; and,
- Encourage design standards to support and improve connectivity of travel modes.

Land Use Proposals

The future pattern of development in the Town of Lauderdale-By-The-Sea is primarily determined by the pattern of existing land uses, which make up approximately 99.5% of the total area. The single family and duplex homes in Planning Areas 1, 3 and 6 provide a stock of high quality housing. Unlike the housing units in Planning Areas 2 and 4, these units are generally the homes of permanent residents or serve as seasonal or secondary domiciles and are not occupied on a short-term basis. Planning Area 5 land use is multi-family high and is made up exclusively of condominium units. The character of the western area of the Town is defined and future land uses should generally fill in the vacant lots with types of development which are compatible to the surrounding uses.

Administrative Rule 9J-5 requires an analysis of future land use patterns to influence and support mass transit. Because of the extent of existing development (the Town is approximately 99.5% developed), the lack of adequate vacant land and the location of the Town on a barrier island restricts the potential for increasing residential densities or revising land uses from residential to commercial. The older portion of the Town is also restricted due to Charter mandates which limit building height to 3 and 4 stories. Based on these constraints, the Town can not alter land uses and intensities sufficiently to significantly increase transit trips.

A school siting analysis is also required per Administrative Rule 9J-5. The Town's Land Use Implementation of the Comprehensive Plan includes schools in the category of

community facilities. Community facilities are an allowable use in residential, commercial, and community facility land use categories. Currently, there are no schools within the Town limits. The Town is essentially built-out and there is no available land to collocate with existing public facilities for the possible siting of future public schools. Additionally, these conclusions have been reached in coordination with the Broward County School Board. Objective 1.9, Policies 1.9.1 through 1.9.6 of the Town's Comprehensive Plan detail efforts to coordinate the Town's future land uses with the Broward County School Board siting of public and elementary school facilities.

Approximately half of the housing and tourist units located in Planning Areas 2 and 4 are nearly forty years old. With the continuing aging of these units and the need to maintain a sufficient supply of quality housing units, the Town should consider making compatible redevelopment financially attractive to investors. While redevelopment may occur due to the Town's prime coastal location, alternative means to foster this activity may have been explored in greater detail.

Irrespective of future redevelopment efforts, it is recommended that the Town continue its position on the following issues:

- * Discouraging the conversion of tourist units to condominiums;
- * Encouraging quality commercial development along Commercial Boulevard; and
- * Protecting its single-family neighborhoods.

The Future Land Use Plan is provided as part of the Town's Comprehensive Plan (see Figure 1) The acreage for the various land use categories by Planning Area and Town-wide is provided in Table 4-4. The population projections resulting from various build-out scenarios of the Land Use Plan are discussed in the Housing Element (see Table 5-9).

Table 4-4 Future Land Use By Planning Areas (acres)

Existing Land Use	DU/ ACRE	Area 1	%	Area 2	%	Area 3	%	Area 4	%	Area 5	%	Area 6	%	Total Town	%
<i>Residential Units</i>															
Single Family	0-3.75	47.7	57.3%	0.0	0.0%	55.0	52.1%	0.0	0.0%	0.0	0.0%	118.7	45.1%	221.4	35.3%
Multi-Family Low Med	3.75-10	15.4	18.5%	0.0	0.0%	7.4	7.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	22.8	3.6%
Multi-Family Medium	10-25	3.4	4.1%	63.9	73.4%	19.7	18.7%	35.8	55.6%	0.0	0.0%	23.5	9.0%	146.3	23.3%
Multi-Family High	26-50	0.0	0.0%	0.0	0.0%	0.0	0.0%	8.2	12.8%	20.8	86.7%	74.3	28.2%	103.3	16.5%
<i>Non-Residential Uses</i>															
Commercial		7.5	9.0%	5.5	6.3%	6.5	6.2%	10.0	15.6%	0.0	0.0%	0.0	0.0%	29.5	4.7%
Park and Recreation		0.0	0.0%	13.8	15.8%	0.0	0.0%	9.2	14.3%	3.2	13.3%	14.0	5.3%	40.2	6.4%
Community Facility		0.0	0.0%	3.9	4.5%	0.0	0.0%	1.1	1.7%	0.0	0.0%	4.7	1.8%	9.7	1.6%
Water		9.2	11.1%	0.0	0.0%	16.9	16.0%	0.0	0.0%	0.0	0.0%	27.8	10.6%	53.9	8.6%
		83.2		87.1		105.5		64.3		24.0		263.0		627.1	

Source: Walter H. Keller, Inc.

Notes: There are no Industrial, Agriculture, Education or Conservation land uses in the Town.

The only public building in the Town is the Town Hall Complex which is included as a Community Facility.

There are no Historical Land Uses in the Town.

The date of the Future Land Use Plan is the YR 2020.

For additional information on Housing units and Population consult the Housing Element.

Relationship to Broward County Land Use Plan

Lauderdale-By-The-Sea lies within Flexibility Zones #39 and #24 of the Broward County Land Use Plan. The Town has flexibility in rearranging land uses and redistributing residential densities in each flex zone while remaining in conformance with the County Plan. A statistical comparison between Lauderdale-By-The-Sea and Broward County Land Use Plan is found in Table 4-5.

The Land Use Element also includes, by reference, Right-of-Way provisions in the Transportation Element which the Town will maintain consistent with the Broward County Trafficways Plan.

Table 4-5 Comparison of Lauderdale-By-The-Sea and Broward County Land Use Plans (2001)

Land Use	Flex Zone 39		Broward County		Flex Zone 24		Broward County	
	Acres	# of DU	Acres	# of DU	Acres	# of DU	Acres	# of DU
<i>Residential</i>								
Low (5 d.u./Acre)	109	545	110	550	119	595	115	575
Low-Medium (10 d.u./Acre)	23	230	30	300	0	0	0	0
Medium High (25 d.u./Acre)	116	2,900	119	2,975	0	0	0	0
High (50 d.u./Acre)	46	2,300	48	2,400	85	4,250	105	5,250
<i>Non-Residential</i>								
Commercial	30		30		0		0	
Park and Recreation	32		12		8		0	
Community Facilities	5		4		0		0	
Water	32		32		22		22	
Total per Future Land Use	393	5,975	385	6,225	234	4,845	242	5,825
Flexibility Units								
Broward DU - LBS DU		250				980		
Reserve Units								
Broward DU * 2%		125		125		117		117
Maximum Allowable DU		6,350		6,350		5,942		5,942

Source: Walter H. Keller, Inc.

V. Housing Element

The Town of Lauderdale-By-The-Sea is a maturely developed coastal resort community that is virtually built out. The Town is already defined by its existing mix of primarily one to three story structures which range from suburban neighborhood development to more intense small lot multi-family and tourist areas.

Additional residential development will be attributable to development of the few vacant parcels and to the potentially more intense redevelopment of the multi-family and tourist residential areas. As a result, the main purposes of the Town's Housing Element are to identify and evaluate the characteristics of existing housing, and to identify methods for maintaining and improving this resource for all Town residents and visitors.

Residential housing in the Town is oriented towards providing shelter to three distinct population groups. These are year round residents, seasonal residents and tourist residents. The Town's housing inventory reflects this arrangement, with separate linearly defined areas for year round single family and multi-family residents, seasonal multi-family units and a wide variety of tourist multi family, efficiencies and hotel/motel rooms. In general, the Town layout provides that tourist and condominium units dominate between SR A1A and the beach, seasonal and year round multi family are located in the central areas and year round single family uses are predominant in the west.

With respect to housing policies, the support documentation to the 1985 State planning legislation sets forth the requirement that local jurisdictions establish the means to accomplish the following:

- * Provision of housing and support infrastructure to serve the anticipated local population;
- * Elimination of substandard housing conditions;
- * Provision of adequate sites for low and moderate income housing;

- * Provision of adequate sites in residential areas for group homes and foster care facilities licensed or funded by the Florida Department of Children and Families;
- * Identification of conservation, rehabilitation or demolition activities, and historically significant housing or neighborhoods.

Existing Housing Characteristics

The Town's housing stock and population characteristics were compared with those of other adjacent municipalities and Broward County. Per the State requirements, this analysis was based on housing data from the 2000 Census and from other pertinent local data sources. At the time of the 2000 Census, the Intracoastal Beach Area had not been annexed to the Town of Lauderdale-By-The-Sea. As a result, 2000 Census data will be presented with estimates for the Town and the Intracoastal Beach Area. Also, the Town is currently challenging the 2000 U.S. Census count of housing units and population. Resolution of the challenge is anticipated in the fall of 2002.

The Census provides a useful reference source which is consistent across geographic boundaries. However, it should be noted that the Census provides only limited information pertaining to the area's inventory of seasonal and tourist related housing facilities. Additionally, not all 2000 Census data regarding housing characteristics is available. Specifically, data concerning housing structure, age of housing stock, tenure, term of occupancy, housing/rental value and unit characteristics are scheduled for later release.

Table 5-1 provides a comparison of 2000 census information for the Town, the Intracoastal Beach Area and Broward County. The Table provides a 2000 housing estimate of 2,366 units in Lauderdale by the Sea and 2,712 housing units in the Intracoastal Beach Area for a total of 5,078 housing units for the Town as a whole. The total housing units for the Town represent less than one percent of Broward County's housing stock. Of the total units, 1,979, or 39% of Town units were considered as 'vacant' units. Of those 'vacant' units, 1,558, or nearly 79% of the Town's vacant units were for 'seasonal, recreational or occasional use.' Overall, 61% of the Town's housing

units are occupied year round and nearly 31% of the Town’s current housing units are for seasonal, recreational or occasional use, leaving approximately 8% of housing units vacant.

Table 5-1 Selected Housing Characteristics; 2000 Census †

2000 Census Housing Characteristic	Analysis Sub-Category	Lauderdale-By-The-Sea		IBA Unincorporated		LBS & IBA Total		Broward County	
		2000	% of Total	2000	% of Total	2000	% of Total	2000	% of Total
<i>Total Housing Units</i>									
Total		2,366		2,712		5,078		741,043	
Occupied Housing Units		1,529	64.6%	1,570	57.9%	3,099	61.0%	654,445	88.3%
Vacant Housing Units		837	35.4%	1,142	42.1%	1,979	39.0%	86,598	11.7%
For Seasonal, Recreational or Occasional Use		514	21.7%	1,044	38.5%	1,558	30.7%	46,470	6.3%
<i>Year Round Occupied Units - Tenure</i>									
Total		1,529		1,570		3,099		654,445	
Owner Occupied		922	60.3%	1,205	76.8%	2,127	68.6%	454,750	69.5%
Renter Occupied		607	39.7%	365	23.2%	972	31.4%	199,695	30.5%

† - Lauderdale-By-The-Sea is challenging the 2000 U.S. Census count of housing units and population.

Note: YR 2000 LBS includes the 1997 Sea Ranch Club Condominiums. IBA Unincorporated estimate is provided to identify the census count for the area that was annexed in 2001.

Source: Walter H. Keller, Inc.

U.S. Department of Census

As described earlier, an analysis of the 1990 and 2000 US Census housing unit and population counts for the Town and the Intracoastal Beach Area was conducted as well as a comparative analysis with Broward County’s Property Appraiser’s records. The analyses revealed significant undercounts of housing units and population. Table 5-1a presents the results of the analysis for the Town, Sea Ranch Club Condominiums, and the Intracoastal Beach Area based on pre-1998/pre-annexation borders. Overall, Table 5-1a indicates a 2,897 housing unit undercount for the Town (2001/post-annexation) as compared to the 2000 Census. Additionally, occupied housing units also show a 990 unit increase over the 2000 Census count.

Figure 5-1 depicts the generalized location of housing units by type throughout the Town. As the Figure and previous discussion indicate, the Town residential areas are comprised of a mix of year round single family, multi family and tourist residential areas defined by the parallel arrangement of local arterial, collector and neighborhood streets.

Table 5-2 Revised Housing Characteristics

Housing Characteristics	YR 2001							
	LBS §	% of Total	SRCC	% of Total	IBA	% of Total †	Total f	% of Total
<i>Total Housing Units</i>								
Total ¹	4,033		924		3,018		7,975	
Occupied	2,084	51.7%	258	27.9%	1,747	57.9%	4,089	51.3%
Vacant (not occupied by permanent residents)	1,949	48.3%	666	72.1%	1,271	42.1%	3,886	48.7%
For seasonal, recreational or occasional use ²	1,747	43.3%	620	67.1%	1,162	38.5%	3,529	44.2%
Other Vacant	202	5.0%	46	5.0%	109	3.6%	357	4.5%
<i>Year Round Occupied Units - Tenure</i>								
Total Occupied by Permanent Residents	2,084		258		1,747		4,089	
Owner Occupied	1,281	61.5%	192	74.4%	1,342	76.8%	2,815	68.8%
Renter Occupied	803	38.5%	66	25.6%	311	23.2%	1,180	28.9%
<i>Estimated Peak Season Occupied Units</i> ³	3,254	80.7%	673	72.9%	2,526	96.4%	6,454	80.9%

Source: Walter H. Keller, Inc.

Broward County Property Appraiser

Transamerica Intellitech, Inc.

§ - Pre 1998 boundaries.

† - Percentages for occupied, vacant, seasonal, recreational or occasional use, and renter occupied based on 2000 US Census for IBA.

f - Reflects October 1, 2001 LBS boundaries.

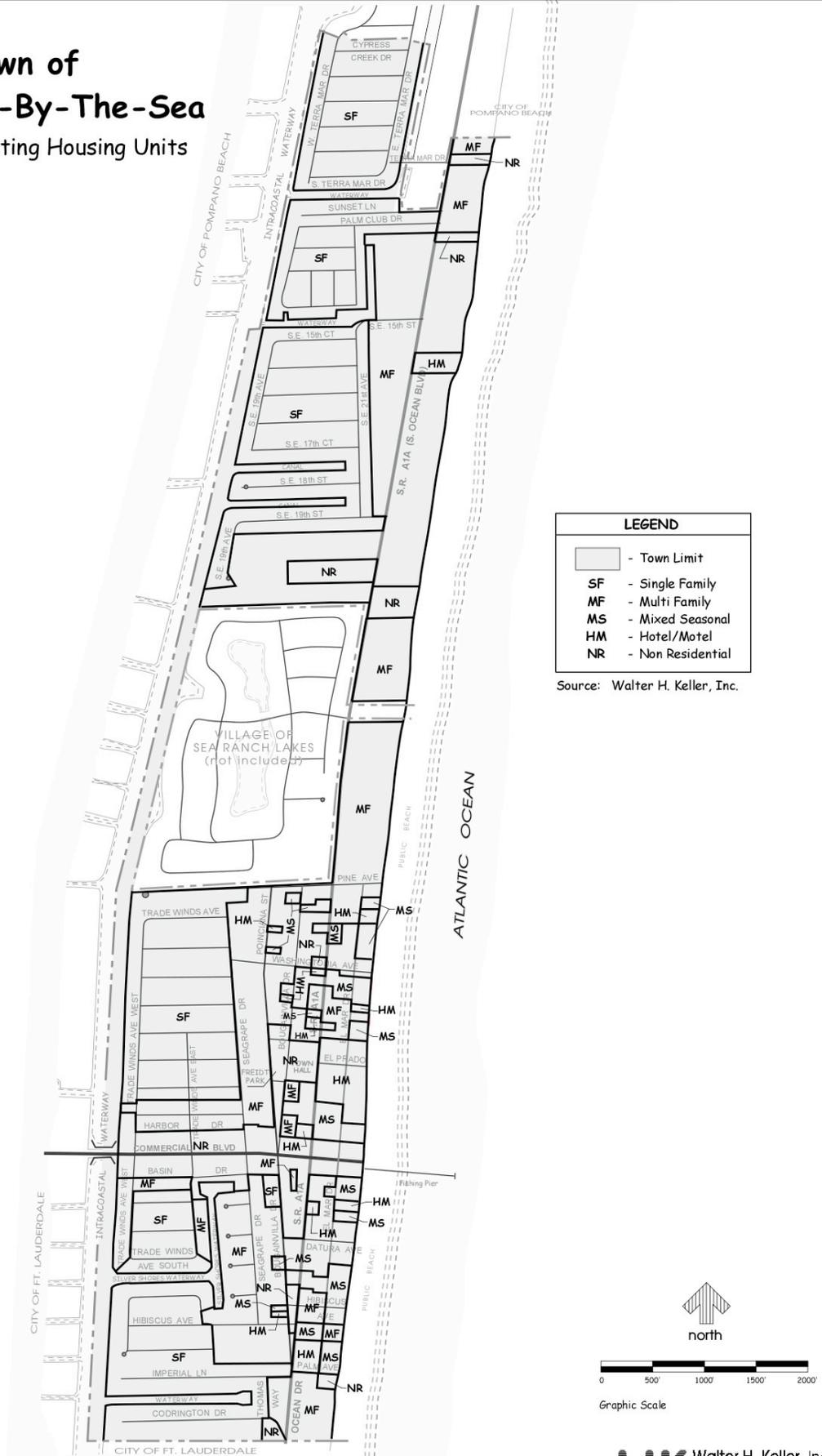
1. Includes 1,667 units documented by WHK as missed by 2000 US Census Count.

2. Includes "hotel/motel" units.

3. Assumes that 67% of units held for occasional use are occupied at any one time at peak season.

Town of Lauderdale-By-The-Sea

Figure 5-1 - Existing Housing Units



The southwestern and northwestern single family areas reflect quarter acre lot suburban development with some larger estate type residences located at scattered locations-usually along the waterways. Year round and seasonally occupied duplex units are located along neighborhood perimeters and buffer adjacent business or higher density multi-family areas. A mature variety of ornamental and some vestige oak hammock vegetation is also found throughout this portion of Town.

The Town's south-central residential area is comprised of a mix of year round and seasonal multi-family units. This area features a mix of one and two story residential structures each with less than ten units. While still low rise, the adjacent building and parking setbacks from local streets reflect more intensely developed lots as one travels east. A handful of new small-scale townhouse developments are sited intermittently, while a couple of three or four story condominiums are located along the northern and eastern perimeters of the area.

The Town's southeastern area provides primarily for seasonal and tourist resident needs and includes a mix of one and multi-story buildings. A noteworthy feature is the preponderance of small seasonal hotel/motel operations. The properties in this area serve both short and long term seasonal needs through individual site provision of apartments, efficiencies and single hotel/motel rooms. A few year round occupied units are also found; these are located in a few low rise or high rise condominiums/apartment buildings.

The area of the Town north to northwest of the Village of Sea Ranch Lakes is made up of a mix of year round and seasonal multi-family units. The area features two story residential structures with less than ten units each and off-street parking. Proceeding north, the area reflects more intense development with some lots currently under development.

The Town's north-central area, just west of SR A1A, provides multi-family units catering primarily to seasonal and tourist needs. Made up of a mix of low and high multi-family developments, the area serves as a buffer between SR A1A to the east and the single

family residences to the west. Additionally, some lots provide parking and development opportunities for property owners located east of SR A1A.

The Town's northeast and east-central areas represent the Town's most densely developed area. Located on private beaches, the area primarily consists of high rise condominiums, cooperatives and hotels that provide for year round and seasonal residents as well as tourists. Along the northeast section are low density multi-family developments with less than 10 units per building.

A distinguishing feature of the southern portion of the Town is its generally low rise profile. This local characteristic of restricting current development to thirty-three feet, tends to define the Town prior to annexation relative to adjacent communities. The recent annexations of the Sea Ranch Club Condominiums and the Intracoastal Beach Area have added a high rise profile along the coast, east of SR A1A.

Age of Housing

Currently, 2000 Census data on age of housing stock has not been released. The release of the data is anticipated at a later date.

Prior to the annexations of 1997 and 2000, Lauderdale-By-The-Sea's residential growth occurred primarily during the fifties (26%) and sixties (50%). While Broward County continued to develop throughout the seventies, the Town's growth prior to the annexations substantially declined during this period. With the annexation of the Sea Ranch Club Condominiums in 1997 and the Intracoastal Beach Area in 2001, the Town's housing stock has doubled. According to the 1990 Census, the majority of residential growth in the annexed areas occurred in during the sixties (34%) and seventies (42%). Much of the Town's housing unit growth has been in multi-family or tourist uses due to the cost of land and unavailability of single family tracts.

Occupancy and Tenure

Based on the 2000 Census information presented in Table 5-1, prior to the Intracoastal Beach Area annexation, the Town's year round occupancy rate is approximately 65% of

available year round residential units. The vast majority of the Town's year round occupied units (60%) are owner occupied units. The Intracoastal Beach Area's year round occupancy rate (58%) is slightly lower than the Town's but the percentage of the Area's owner occupied units (77%) is nearly 17% higher. Overall, the Town has a year round occupancy rate of 61% of which nearly 69% are owner occupied units.

Table 5-1 also indicates that 1,979 of the Town's housing units prior to the Intracoastal Beach Area annexation, or 35% of the total, were classified as units. However, 61% of the Town's vacant units, or nearly 22% of the total, were for 'seasonal, recreational or occasional use. The housing units categorized as vacant for the Intracoastal Beach Area were 1,142 units, or 42%. Of the vacant Intracoastal Beach housing units, 91%, or 1,044 units, were categorized as 'seasonal, recreational or occasional use'. Overall, of the total estimated vacant housing units nearly 79%, or 1,558 units, are classified as seasonal, recreational or occasional use. Based on locally recognized County peak season occupancy rates, and on the types of available local housing, it is likely that a significant amount of these units are occupied during a portion of the winter peak season. Based on Table 5-1, a peak season occupancy rate of approximately 92% can be calculated, which compares very favorably with most local most local occupancy rates during the winter period.

It should be noted the Town is challenging the 2000 U.S. Census count of housing units and population. Resolution of the challenge is expected in the fall of 2002.

Table 5-2 presents revised housing characteristics based on a comparative analysis of housing units from the 2000 U.S. Census and the Broward County's Property Assessor's records. As described earlier, the analysis indicates a 2,897 housing unit undercount for the Town (post-2001 borders) by 2000 Census. The revised housing unit total is 7,975 units. The 2000 Census also reported nearly 10 percent less occupied housing units as compared to the revised count in Table 5-2. While the 2000 Census reported a higher peak season occupancy rate of 91%, compared to 81% of the revised findings, the revised analysis reported 1,796 more peak season occupied units. Table 5-2 shows 1,907 vacant

housing units over the 2000 Census count, for a total of 3,886 units with nearly 91 percent (or 3,529 units) of those units classified for seasonal, recreational, or occasional use.

Household Size

Table 5-3 provides a summary of the 2000 Census on the number of persons residing in each occupied unit for various coastal jurisdictions. Median household size figures are also presented. The data shows that one and two person households almost equally dominate both the Intracoastal Beach Area and the pre-annexation Town's year round households; three + households account for approximately 10% of the total. The Town's overall median person per household rate of 1.65 ranks as the lowest of all Broward County coastal jurisdictions surveyed.

It should be noted the Town is challenging the 2000 U.S. Census count of housing units and population. Resolution of the challenge is expected in the fall of 2002.

As described earlier, a dwelling unit and population analysis was conducted of the 1990 and 2000 U.S. Census at the census tract, block group and block level for the Town and the Intracoastal Beach Area. It was determined that significant undercounts occurred in the 2000 Census for the Town and the Intracoastal Beach Area. The Office of the Governor of the State of Florida, the Bureau of Economic and Business Research of the University of Florida and the designated census coordinator for Broward County have all independently reviewed the 2000 U.S. Census count of the Town, and have each concluded that the count was in error. The Office of Governor concluded that the U.S. Census count error was of such significance that it was necessary to certify a substitute population estimate for state use in State revenue sharing programs. The Year 2000 certified population estimate of 3,312 Town residents (prior to the annexation of the Intracoastal Beach Area) results in an average household size of 1.85 on the basis of an estimated 1,787 occupied housing units. Table 5-4 presents the basis of the Office of the Governor's Year 2000 certified population for the Town.

Table 5-3 Number of Persons in Occupied Units/Household Size (2000)

Jurisdiction	1 Person Household	% of Total	2 Person Household	% of Total	3 Person Household	% of Total	4+Person Household	% of Total	Tot Units Occupied	Persons/H.H.
Lauderdale-By-The-Sea †	767	50%	600	39%	95	6%	67	4%	1,529	1.68
IBA Unincorporated †	700	45%	738	47%	87	6%	45	3%	1,570	1.63
LBS (2001) †	1,467	47%	1,338	43%	182	6%	112	4%	3,099	1.65
Fort Lauderdale	27,600	40%	22,736	33%	7,791	11%	10,341	15%	68,468	2.14
Pompano Beach	13,597	39%	12,969	37%	3,821	11%	4,810	14%	35,197	2.13
Deerfield Beach	12,660	40%	11,639	37%	3,443	11%	3,650	12%	31,392	2.02
Lighthouse Point	1,733	34%	2,154	42%	656	13%	622	12%	5,165	2.08
Hillsboro Beach	513	40%	700	55%	39	3%	30	2%	1,282	1.69
Oakland Park	4,737	35%	4,492	33%	1,974	15%	2,299	17%	13,502	2.26
Broward County	193,701	30%	216,869	33%	99,794	15%	144,081	22%	654,445	2.45

† - Lauderdale-By-The-Sea is challenging the 2000 U.S. Census count of housing units and population.
 Note: YR 2000 LBS includes the 1997 Sea Ranch Club Condominiums. IBA Unincorporated estimate is provided to identify the census count for the area that was annexed in 2001.
 Source: U.S. Department of Commerce, Bureau of Census
 Walter H. Keller, Inc.

Table 5-4 Office of the Governor’s YR 2000 LBS Certified Population

2000 Census Housing Characteristic	Analysis Sub-Category	Lauderdale-By-The-Sea 2000	% of Total
<i>Total Housing Units</i>			
Total ¹		3,290	
Occupied Housing Units		1,787	54.3%
<i>Total Population</i>			
Resident Population ²		3,312	
<i>Average Household Size</i>			
		1.85	

Source: Walter H. Keller, Inc.
 U.S. Department of Census
 Note: YR 2000 LBS includes the Sea Ranch Club Condominiums.
 † - Lauderdale-By-The-Sea is challenging the 2000 U.S. Census count of housing units and population.
 1. Includes the 924 Sea Ranch Club Condominium Units not counted in the 2000 US Census.
 2. 2000 Population Estimate Certified by BEBR and the Office of Governor on July 1, 2000.

Census Housing Conditions

The 2000 Census provides an indication of the condition of housing through the presence of certain basic elements. The census information supports the notion that overall housing conditions are sound. Currently, 2000 Census data on age of housing conditions has not been release. The release of the data is anticipated at a later date.

Table 5-1 indicates that only a few year round occupied units could be considered in potentially substandard condition by virtue of incomplete kitchen facilities (23), lack of heating (58) or incomplete plumbing facilities (8). Respectively, these figures account for only 1.5%, 3.9% and .5% of all surveyed households. These figures are comparable or lower than those of Broward County as a whole. It is likely that these units are in the multi-family areas of the Town.

Building Permit Issuance

A summary of annual building permit information from 1990 to 1995 was obtained for several municipalities and Broward County. This data is presented in the following Table 5-5 and reflects activity prior to the annexation of the Sea Ranch Club Condominiums and the Intracoastal Beach Area. As indicated, the Town of Lauderdale-By-The-Sea has experienced little construction activity in this decade. A total of only 27 building permits have been issued between 1990 and 1995. Of the total, 14 permits were issued for single family units and 12 for multi family units. Both Lauderdale-By-The-Sea and its neighbor, the Village of Sea Ranch Lakes, experienced the lowest building activity of the selected municipalities. While specific data is not available for the annexed areas, due to the relatively built-out condition of the areas, it can be assumed that growth in the annexation areas is roughly the same as the Town and the Village of Sea Ranch Lakes.

The Town has experienced a consistent 1 or 2 unit per year trend in single family growth; very few vacant single family lots are still available. Multi-family permits reflect sporadic activity on individual or groupings of small parcels. While demolition orders were not reviewed for the Town, multi family permits could reflect the odd lot redevelopment of older existing units in the Town's central area.

Table 5-5 Building Permit Trends by Jurisdiction 1990-95

Jurisdiction	1990	1991	1992	1993	1994	1995	Total
Lauderdale-by-the-Sea							
Single-family	1	1	4	1	6	1	14
Duplex	1	0	0	0	0	0	1
Multi-family	0	4	0	8	0	0	12
Hillsboro Beach							
Single-family	0	2	5	1	0	1	9
Duplex	0	0	0	0	0	4	4
Multi-family	0	46	54	0	0	8	108
Lighthouse Point							
Single-family	12	1	8	4	27	5	57
Duplex	0	2	0	0	0	0	2
Multi-family	0	0	0	4	0	0	4
Deerfield Beach							
Single-family	72	44	43	60	152	36	407
Duplex	4	0	0	2	0	0	6
Multi-family	290	4	0	295	168	0	757
Pompano Beach							
Single-family	36	32	19	33	55	48	223
Duplex	16	4	0	0	2	0	22
Multi-family	690	106	126	29	12	208	1,171
Fort Lauderdale							
Single-family	37	24	61	69	71	50	312
Duplex	6	2	6	2	8	12	36
Multi-family	189	4	14	11	472	4	694
Sea Ranch Lakes							
Single-family	0	0	0	1	2	1	4
Duplex	0	0	0	0	0	0	0
Multi-family	0	0	0	0	0	0	0
Oakland Park							
Single-family	25	14	42	26	27	13	147
Duplex	0	2	2	0	0	2	6
Multi-family	301	0	0	0	0	5	306
Unincorporated							
Single-family	737	497	879	1,256	2,001	1,750	7,120
Duplex	18	8	0	2	0	2	30
Multi-family	8	50	14	0	384	104	560
Broward County							
Single-family	5,501	4,806	6,647	9,763	10,519	8,154	45,390
Duplex	193	64	38	50	66	61	472
Multi-family	5,088	1,765	2,139	3,084	5,768	4,646	22,490

Source: Walter H. Keller, Inc.
Economic Forum of Broward and Palm Beach Counties
Fort Lauderdale News - Sun Sentinel

The permit information indicates that individual lot market decisions are a principal determinant of construction activity in the Town. With little vacant property available, the demand for coastal housing and the potential for more intensive residential densities will play major roles in determining the scale of housing unit growth in Lauderdale-By-The-Sea. Because of the generally high cost of already developed property, locally new housing will likely be in the upper price range of the market.

Value of Owner Occupied Houses

Value of owner occupied houses for the 2000 U.S. Census has not been released. The release of the data is anticipated at a later date.

Table 5-6 provides average values of selected owner occupied homes from the 1990 Census for the Town, the Intracoastal Beach Area and Sea Ranch Club Condominiums combined, and selected municipalities. The 1990 Census estimated the average value of selected owner occupied houses for Lauderdale-By-The-Sea at \$196,407. Approximately 46% (115 units) of the houses were valued between \$150,000 to \$199,000 and 30% (99 units) of the houses were valued at over \$200,000. The 1990 Census estimate of average value of selected owner occupied houses for the Intracoastal Beach Area and the Sea Ranch Club Condominiums were \$213,796. Approximately 34% (128 units) of the houses were valued between \$150,000 to \$199,000 and approximately 37% (139 units) of the houses were valued over \$200,000. The estimated value of the combined annexed areas and the Town rank fourth and fifth, respectively, of the selected municipalities in Table 5-6.

Table 5-6 Value of Owner Occupied Houses 1990

Jurisdiction	Average Value	\$0 - 24	\$25 - 49	\$50 - 99	\$100 - 149	\$150 - 199	\$200 - 299	Over \$299
Lauderdale-by-the-Sea	\$196,407	0	1	32	87	115	58	41
IBA Unincorporated/ Sea Ranch Club Condos	\$213,796	0	4	20	93	128	71	68
Lighthouse Point	\$247,341	3	10	190	677	549	523	787
Fort Lauderdale	\$159,918	169	1,766	9,072	3,570	2,248	1,985	3,007
Deerfield Beach	\$115,443	54	410	3,048	2,066	505	365	205
Sea Ranch Lakes	\$397,139	0	0	0	18	14	27	142
Oakland Park	\$94,668	28	149	2,171	1,057	148	25	7
Pompano Beach	\$131,798	179	791	3,337	1,603	1,182	941	490
Hillsboro Beach	\$341,604	0	0	7	8	17	29	45
Total Broward County	\$118,356	1,097	10,618	114,210	47,284	20,514	12,871	8,924

Source: Walter H. Keller, Inc.
1990 Census of Population & Housing
Broward Report - Socioeconomic Data, February 1999.

Population Analysis and Projections

The Town’s population has grown from 234 in 1950 to 2,879 as per the 1970 Census. Because of declining household size, population estimates declined to a 1986 estimate of 2,612 persons. In July 1997, the Town annexed the Sea Ranch Club Condominiums (SRCC), located in the northeast quadrant of the intersection of SR A1A and Pine Avenue and just south of the Village of Sea Ranch Lakes’ Beach Club. The Sea Ranch Club Annexation added approximately 24 acres and an estimated 477 year-round residents to the Town. In October 2001, the Intracoastal Beach Area (also known as South Beach), was annexed consistent with a 2000 referendum. This area is located north of the Village of Sea Ranch Lakes and south of Pompano Beach. The Intracoastal Beach Area (IBA) annexation added approximately 263 acres and 2,936 year-round residents to the Town. The annexations increased the total area of the Town to 627 acres, exclusive of the off-shore waters of the Atlantic Ocean.

The 2000 U.S. Census for Lauderdale-By-The-Sea indicated a decline in population of 427 despite the annexation of two areas. A dwelling unit and population analysis was conducted of the 1990 and 2000 U.S. Census at the census tract, block group and block level for the Town and the two areas annexed. It was determined that significant undercounts occurred in the 2000 Census for the Town. The Office of the Governor concluded that the U.S. Census count error was of such significance that it was necessary to certify a substitute population estimate for state use in State revenue sharing programs. A revised 2000 U.S. Census population was approved by the Census Bureau including the previously omitted Sea Ranch Club Condominiums, however other challenges by the Town did not result in further 2000 population additions. Additionally, many of the 2000 Census tables have not been adjusted to reflect the corrected totals and the American Community Survey is not available for the Town.

The estimated 2004 resident population for the Town of Lauderdale-By-The-Sea is 6,278. The major increase in population from 2001 to 2002 is due to the Intracoastal Beach Area (IBA) annexation. The Town's population continues to be relatively elderly, predominantly white and retired (about one quarter of the year round population is employed). These characteristics are reflected in the average household size of 1.72.

The Town is essentially developed and vacant parcels are generally redevelopment sites, which were recently cleared. Additionally, the Town's hospitality tourist units are being converted to residential use. Several properties are either under construction or have valid development approvals to redevelop.

Population projections have been prepared (as part of the Town's 2006 EAR) considering current development approvals and with continued redevelopment. The estimated resident population for 2005 is 6,363. Table 5-7 provides the 5 and 10 population projections. Table 5-7 forecasts a reduction of Hotel/Motel units and an increase in resident and seasonal dwelling units. Since existing properties will be redeveloped, the increase in Town-wide dwelling units is limited. The future resident population of the Town is estimated to be 6,934 and 7,534 residents for 2010 and 2015. Total population, including seasonal residents and tourists, is estimated at 12,228 and 12,990 for 2010 and 2015.

Table 5-7 – 5 & 10 Year Population Projections

	%	2002	2005	2010	2015
Resident DU's	45.6% ⁻¹	3,617	3,700	3,962	4,186
New DU's				550	450
Seasonal DU's	35.9% ⁻²	2,850	2,883	3,146	3,352
Vacant DU's	4.3% ⁻³	340	343	367	386
Hotel/Motel DU's		1,126	702	566	466
Resident + Seasonal DU's		6,807	6,926	7,108	7,924
Total DU's (w/H/M)		7,933	7,628	7,674	8,390
Resident Population		6,221	6,363	6,934	7,534
Resident Persons per DU	90% ⁻⁴	1.72	1.72	1.72	1.72
H/M Occupancy %	90% ⁻⁵				
Seasonal Population	1.6 ⁻⁶	4,104	4,152	4,530	4,827
H/M Population	1.5 ⁻⁷	1,520	948	764	629
Total Population		11,845	11,463	12,228	12,990

Sources: U.S. Census - 2000

Walter H. Keller, Inc.

- Notes: 1 - % Resident DU's of Total DU's for Year 2000; Increasing to 52% in 2015
 2 - % Seasonal DU's of Total DU's for Year 2000; Decreasing to 35% in 2015
 3 - % Vacant Single DU's of Total DU's for Year 2000
 4 - % Occupancy of Resident DU's
 5 - H/M Occupancy Peak Season
 6 - Persons Per Seasonal DU
 7 - H/M Persons Per Unit

Current Housing Inventory

Housing units in structure for the 2000 U.S. Census has not been released. However, the 2000 Census does confirm that the Town and the Intracoastal Beach Area do not have any licensed group or institutional housing.

Table 5-8 presents the 1990 Census inventory of housing units in structure for the Town, the Intracoastal Beach Area and Sea Ranch Club Condominiums combined, and selected municipalities. Single family homes made-up approximately 15% (484 units) of the Town's housing inventory. The Town's housing stock is primarily multi-family dwelling units with the single largest category found in structures with 50 or more housing units (33% or 1,098 units). Housing units in low to medium-high density housing structures (2 to 49 units per structure) made-up nearly 52% of the housing stock. Similar to the Town the Intracoastal/Sea Ranch Club areas have a low percentage of single family housing units with 17% (546 units). However, unlike the Town, only 15% (488 units) of housing units were in low to medium-high density housing structures. The vast majority of housing units, nearly 68%, was found in structures with 50 or greater housing units.

Table 5-8 Existing Housing Units Inventory (1990)

Jurisdiction	Total Units	SF Detached	% of Units	2 - 4 Units*	% of Units	5 - 19 Units	% of Units	20 - 49 Units	% of Units	50+ Units	% of Units	Mobile Home Other Units	% of Units
Lauderdale-By-The-Sea	3,345	484	14.5%	495	14.8%	896	26.8%	331	9.9%	1,098	32.8%	41	1.2%
IBA Unincorporated/ Sea Ranch Club	3,318	546	16.5%	46	1.4%	120	3.6%	322	9.7%	2,252	67.9%	32	1.0%
Deerfield Beach	28,796	7,135	24.8%	3,367	11.7%	5,662	19.7%	5,563	19.3%	6,252	21.7%	817	2.8%
Fort Lauderdale	81,268	28,519	35.1%	15,272	18.8%	12,672	15.6%	8,531	10.5%	13,422	16.5%	2,852	3.5%
Hillsboro Beach	2,024	138	6.8%	123	6.1%	164	8.1%	293	14.5%	1,279	63.2%	27	1.3%
Lighthouse Point	5,757	3,248	56.4%	538	9.3%	778	13.5%	467	8.1%	613	10.6%	113	2.0%
Oakland Park	13,875	4,304	31.0%	2,042	14.7%	2,793	20.1%	2,892	20.8%	1,357	9.8%	487	3.5%
Pompano Beach	42,719	10,659	25.0%	5,268	12.3%	6,637	15.5%	5,907	13.8%	12,919	30.2%	1,392	3.3%
Sea Ranch Lakes	334	210	62.9%	49	14.7%	32	9.6%	2	0.6%	11	3.3%	30	9.0%
Unincorporated	70,097	35,434	50.5%	8,921	12.7%	5,491	7.8%	5,473	7.8%	4,304	6.1%	10,474	14.9%
Broward County	628,657	236,317	37.6%	91,425	14.5%	84,964	13.5%	86,754	13.8%	95,522	15.2%	33,674	5.4%

* - Single family attached units included.

Source: Walter H. Keller, Inc.

U.S. Census Bureau

Overall, according to the 1990 Census, single family homes represent approximately 16% (1,030 units) and housing units in structures of 50 or more units made-up 50% (3,350 units) of Town and annexed area housing units.

Current Housing Conditions

Currently, 2000 Census data regarding housing structural conditions are not available. The release of the data is anticipated at a later date.

A determination of existing housing structural conditions was conducted based on a review of census data and a November 1987 windshield survey of all buildings. Units were rated on the basis of appearance and estimated scale of apparent physical defects.

For the purposes of this Element, a local definition of "standard" and "substandard" housing condition was developed. "Standard" housing includes housing in excellent, good and fair condition. "Substandard" housing is classified in poor condition. Homes or units in excellent condition were those which appeared to be absent of any broken windows, doors, missing roof tiles or fundamental structural flaws and were generally well maintained. Units in good condition appeared to have no basic defects or missing components, but require steam cleaning or a fresh coat of paint, or minor yard maintenance. Fair condition units appeared to be structurally sound, but require substantial cleaning or painting and minor repairs to walls, roof, windows, doors, driveways or the yard. Homes or units in poor condition were those that required substantial structural and cosmetic repair, or were candidates for demolition.

In 1997, based on the field surveys, the apparent physical condition for nearly all Town housing was good to excellent. Only 1 or 2 units were in poor condition; these were located in planning area two and four. In general, the single family and tourist multi-family areas were in the best condition; certain year round or seasonal multi-family structures required the most remedial action. An overall increase in property vegetation would also enhance the appearance of these areas.

Historically Significant Housing

Based on the local inventory effort, and additional research performed with staff of the Broward County Historical Commission, no historically significant residential sites or buildings have been officially designated in the Town.

Cost of Housing

Value of specified owner occupied houses and rent-to-income ratios for the 2000 U.S. Census has not been released. The release of the data is anticipated at a later date.

A 1990 Census summary comparison of monthly housing costs by homeowners in the Town, the Intracoastal Beach Area and Sea Ranch Club Condominiums combined, and Broward County is provided in Table 5-9. The Table indicates that approximately 82% of local homeowners in the Town and annexed areas had mortgage costs of more than \$1,000; only 36% of Broward homeowners fell into this category. Almost 48% of the Town and annexed area's homeowners with a mortgage had monthly costs in excess of \$2000. A high end discrepancy was also apparent for the Town's non-mortgage homeowners, where local median owner costs relative to the County were between 38% to 80% higher. In addition, over 65% of the unmortgaged home-owners had monthly costs in excess of \$400.

In terms of year round rental housing costs, Table 5-10 provides a summary comparison of 1990 Census rent-to-income ratios for the Town, and the Intracoastal Beach Area and Sea Ranch Club Condominiums combined, and the entire County. The Town and the annexed areas are closely aligned with the County in respect to the proportion of renters devoting less than 20% of their income to rent (25% +/-), or more than 35% of their income to rent (33% +/-). Similarly, between 25% to 30% of those Town/annexation area and County renters who devote more than 35% of their income to rent had 1989 household income of less than \$20,000.

Table 5-9 Monthly Owner Costs; 1990 Census

1990 Census		Lauderdale-by-the-Sea		IBA Unincorporated/ Sea Ranch Club		Lauderdale-by-the-Sea & Annexation Total		Broward County	
Category	Sub-category	Number	% of Tot	Number	% of Tot	Number	% of Tot	Number	% of Tot
Specified Owner-Occupied									
	With a Mortgage	171		463		634		172,096	
	< than \$200	0	0.0%	0	0.0%	0	0.0%	1,015	0.6%
	\$200 to \$299	0	0.0%	9	1.9%	9	1.4%	4,682	2.7%
	\$300 to \$399	0	0.0%	0	0.0%	0	0.0%	8,457	4.9%
	\$400 to \$499	8	4.7%	8	1.7%	16	2.5%	11,086	6.4%
	\$500 to \$599	21	12.3%	0	0.0%	21	3.3%	12,989	7.5%
	\$600 to \$699	9	5.3%	8	1.7%	17	2.7%	17,107	9.9%
	\$700 to \$799	12	7.0%	17	3.7%	29	4.6%	19,713	11.5%
	\$800 to \$899	16	9.4%	0	0.0%	16	2.5%	19,710	11.5%
	\$900 to \$999	7	4.1%	0	0.0%	7	1.1%	15,990	9.3%
	\$1,000 to \$1,249	21	12.3%	24	5.2%	45	7.1%	25,938	15.1%
	\$1,250 to \$1,499	35	20.5%	21	4.5%	56	8.8%	14,391	8.4%
	\$1,500 to \$1,999	22	12.9%	94	20.3%	116	18.3%	12,489	7.3%
	\$2,000 or more	20	11.7%	282	60.9%	302	47.6%	8,529	5.0%
	Median	\$1,149		\$2,001				\$856	
	Not Mortgaged	166		379		545		46,371	
	< than \$100	0	0.0%	0	0.0%	0	0.0%	2,232	4.8%
	\$100 to \$149	2	1.2%	0	0.0%	2	0.4%	7,400	16.0%
	\$150 to \$199	23	13.9%	0	0.0%	23	4.2%	9,983	21.5%
	\$200 to \$249	17	10.2%	21	5.5%	38	7.0%	7,837	16.9%
	\$250 to \$299	36	21.7%	0	0.0%	36	6.6%	5,653	12.2%
	\$300 to \$349	33	19.9%	31	8.2%	64	11.7%	4,058	8.8%
	\$350 to \$399	15	9.0%	11	2.9%	26	4.8%	2,469	5.3%
	\$400 or more	40	24.1%	316	83.4%	356	65.3%	6,739	14.5%
	Median	\$308		\$401				\$223	

Sources: Walter H. Keller, Inc.
U.S. Department of Commerce, Bureau of Census

Table 5-10 Rent-to-Income Ratios; 1990 Census

1990 Census Category	Census Sub-category	Lauderdale-by-the-Sea		IBA Unincorporated/ Sea Ranch Club		Lauderdale-by-the-Sea & Annexation Total		Broward County	
		Number	% of Tot	Number	% of Tot	Number	% of Tot	Number	% of Tot
Specified renter-occupied housing units by household income in 1989 by gross rent as percentage of income									
<i>Less than \$10,000</i>									
	< 20%	2	0.3%	0	0.0%	2	0.3%	529	0.3%
	20% to 24%	0	0.0%	0	0.0%	0	0.0%	648	0.4%
	25% to 29%	0	0.0%	0	0.0%	0	0.0%	686	0.4%
	30% to 34%	0	0.0%	0	0.0%	0	0.0%	875	0.5%
	35% or >	71	11.2%	0	0.0%	71	10.4%	23,247	13.8%
	Not computed	16	2.5%	0	0.0%	16	2.3%	4,970	3.0%
<i>\$10,000 to \$19,999</i>									
	< 20%	0	0.0%	0	0.0%	0	0.0%	976	0.6%
	20% to 24%	3	0.5%	0	0.0%	3	0.4%	1,341	0.8%
	25% to 29%	6	0.9%	0	0.0%	6	0.9%	3,166	1.9%
	30% to 34%	29	4.6%	0	0.0%	29	4.3%	4,729	2.8%
	35% or >	97	15.3%	0	0.0%	97	14.2%	28,076	16.7%
	Not computed	9	1.4%	5	10.4%	14	2.1%	1,180	0.7%
<i>\$20,000 to \$34,999</i>									
	< 20%	39	6.2%	0	0.0%	39	5.7%	6,556	3.9%
	20% to 24%	41	6.5%	0	0.0%	41	6.0%	12,426	7.4%
	25% to 29%	38	6.0%	0	0.0%	38	5.6%	13,226	7.9%
	30% to 34%	36	5.7%	0	0.0%	36	5.3%	8,392	5.0%
	35% or >	35	5.5%	0	0.0%	35	5.1%	8,722	5.2%
	Not computed	14	2.2%	0	0.0%	14	2.1%	1,036	0.6%
<i>\$35,000 to \$49,999</i>									
	< 20%	47	7.4%	0	0.0%	47	6.9%	14,249	8.5%
	20% to 24%	20	3.2%	0	0.0%	20	2.9%	7,963	4.7%
	25% to 29%	5	0.8%	0	0.0%	5	0.7%	2,763	1.6%
	30% to 34%	0	0.0%	0	0.0%	0	0.0%	976	0.6%
	35% or >	3	0.5%	0	0.0%	3	0.4%	700	0.4%
	Not computed	8	1.3%	6	12.5%	14	2.1%	448	0.3%
<i>\$50,000 or more</i>									
	< 20%	83	13.1%	16	33.3%	99	14.5%	16,938	10.1%
	20% to 24%	14	2.2%	0	0.0%	14	2.1%	2,268	1.3%
	25% to 29%	3	0.5%	21	43.8%	24	3.5%	593	0.4%
	30% to 34%	0	0.0%	0	0.0%	0	0.0%	289	0.2%
	35% or >	0	0.0%	0	0.0%	0	0.0%	29	0.0%
	Not computed	15	2.4%	0	0.0%	15	2.2%	391	0.2%
	Total	634	100.0%	48	100.0%	682	100.0%	168,388	100.0%

Sources: Walter H. Keller, Inc.
U.S. Department of Commerce, Bureau of Census

Overall Housing Delivery Process

Due to the age and extent of existing residential development, the current local housing delivery process is an incidental circumstance. With regard to previous discussions concerning unit occupancy and structural condition, the Town's prior housing delivery process can be considered historically satisfactory.

In light of future conditions, a main issue is whether or not individual property owners will be willing to maintain the single family areas, and maintain or redevelop the Town's low density year round and tourist multi-family locations.

Some of the Town's multi-family areas are characterized by back out parking, and minimal or non-existent landscaping. In addition, the need for rental property owners to maintain tenant occupancies has led to some degradation in the general physical appearance of the area. Neighborhood roadways are also in need of maintenance with respect to the settling of existing pavement causing some manhole structures to protrude above the road surface. With respect to future housing delivery, the Town should consider alternative means to encourage property owners to upgrade their buildings.

Population Profile

Local population characteristics provide some guide to existing and future local housing needs. Utilizing data from the 2000 U.S. Census, a variety of summary statistics pertaining to the Town were selected for analysis.

Total 2000 population by age group was presented in Table 2-2 in the Planning Considerations section of the Plan. As discussed, the population of Lauderdale-By-The-Sea and the Intracoastal Beach Area is dominated by residents age 55 and older, accounting for nearly 55% of the population. This is double the County's percentage (25%) for the same age group. Additionally, 7% of the Town and Intracoastal Beach Area's population are under the age of 19, less than one-third of the County's percentage (26%). It should be noted the Town is challenging the 2000 U.S. Census count of housing units and population. Resolution of the challenge is expected in the fall of 2002.

Household Income

According to the 2000 Census, the Town's 1999 median household income falls in the middle range of all municipal jurisdictions of the County. As shown on Table 5-11, the City was ranked 18th out of the 31 separate municipal jurisdictions and Unincorporated Broward County.

According to the 1990 Census, the Town population is also characterized by high education levels. Census information indicates that, of those people age 18 and over, 23% had completed at least one year of college education. Approximately 6% had received associate degrees, nearly 16% received bachelor degrees and nearly 8% had received graduate or professional degrees. Comparatively, approximately 26% of individuals 18 and over received a bachelor, graduate or professional degree in the Intracoastal/Sea Ranch Club area.

According to the 2000 Census, in terms of racial composition, the Town and the Intracoastal Beach Area residents are almost entirely white. Of the total 2000 year round population of 2,563 people in the Town prior to the Intracoastal Beach Area annexation, approximately 3.5% were considered to be minorities. The minority population consisted of 19 African Americans, 23 Asians and 22 persons of some other race. Individuals identifying themselves as Hispanic or Latino accounted for 5% of the Town's population, or 135 persons. Similarly, according to the 2000 Census, the Intracoastal Beach Area has a white population estimated at 98% of the population of 2,631 persons. The minority population consisted of 15 African Americans, 5 Asians and 15 persons of some other race. Individuals identifying themselves as Hispanic or Latino accounted for 5% of the Intracoastal population.

The Land Use Element identifies a handful of vacant parcels which are suitable for additional residential development. However, the Town is essentially already developed such that the any substantial residential growth would have to occur through redevelopment.

Table 5-11 Household Income (2002)

Municipality	Median Income	Rank
Coconut Creek	\$43,980	14
Cooper City	\$75,166	5
Coral Springs	\$58,459	7
Dania	\$34,125	26
Davie	\$47,014	13
Deerfield Beach	\$34,041	27
Fort Lauderdale	\$37,887	21
Hallandale	\$28,266	29
Hillsboro Beach	\$52,159	11
Hollywood	\$36,714	22
Lauderdale Lakes	\$26,932	30
Lauderdale-by-the-Sea	\$38,804	18
Lauderhill	\$32,515	28
Lazy Lake	\$142,581	1
Lighthouse Point	\$53,038	9
Margate	\$38,722	19
Miramar	\$50,289	12
North Lauderdale	\$40,050	17
Oakland Park	\$35,493	24
Parkland	\$102,624	3
Pembroke Park	\$22,605	31
Pembroke Pines	\$52,629	10
Plantation	\$53,746	8
Pompano Beach	\$36,073	23
Sea Ranch Lakes	\$62,813	6
Southwest Ranches	\$115,130	2
Sunrise	\$40,998	16
Tamarac	\$34,290	25
Unincorporated	\$41,691	15
Weston	\$80,920	4
Wilton Manors	\$38,366	20

Source: Walter H. Keller, Inc.

U.S. Department of Commerce,
Bureau of Census 2000

Table 5-7 previously presented, summarizes future housing units and population projections for 2010 and 2015. Practical buildout of the Town is anticipated to occur by the Year 2020.

The prior Table 5-8 reflects specific types of redevelopment occurring in the Town. In the 'original' Lauderdale-By-The-Sea, unit projections consist of single family land use remaining stable and multi-family and hotel/motel units developed to the maximum allowable density based on 228 Flexibility and Reserve Units available for the area. Significant redevelopment or increased density is not anticipated to occur for Sea Ranch Club Condominiums. An analysis of the Intracoastal Beach Area assumed single family land use remaining stable while redevelopment was anticipated for underutilized land use east of SR A1A, which amounted to approximately 8.1 acres.

Detailed projections of residential income were not incorporated into the analysis of future housing conditions. Because of the Town's low proportion of year round residents, and amount and anticipated cost of remaining housing units, the accuracy and usefulness of this analysis was considered to be limited.

Based on the analysis of existing and projected housing needs and conditions, the Lauderdale by the Sea housing plan emphasizes continued maintenance of the existing housing stock, and to provide that new residential development is compatible with and improves upon the construction considerations of existing units.

While "substandard" housing conditions are not a problem in the Town since only two "substandard" units were identified, the Town should consider code enforcement activities to ensure that the generally positive housing stock condition remains in the future. Additionally, the recommendations contained in the Economic/Redevelopment Element (see Section 12) on the aesthetic upgrading of the Town will further strengthen the housing aesthetic condition in the future.

Continued requirements to follow hurricane construction practices are a recognized priority. A local program to encourage the upgrading of older existing structures should be identified and implemented. Continued enforcement of the Town's coastal construction setback line and rigid code enforcement practices are also recognized.

Efforts should be undertaken to identify a specific program of redevelopment. This is needed due to the age and scale of existing structures. The maintenance of structural integrity, pedestrian amenities, increased landscaping and common signage should be considered as a minimum program.

Street resurfacing and other local circulation improvements are discussed in the Transportation and Capital Improvement Elements. The implementation of these improvements indicates commitment to the long term vitality of the Town. It is expected that this effort will encourage additional residential sector investment.

Housing Studies

The Shimberg Report "Affordable Housing Needs Assessment" website was referenced as suggested by the South Florida Regional Planning Council during the Town's EAR Scoping Meeting and in the response to the proposed Letter of Understanding. Additionally, the "Strategic Regional Policy Plan for South Florida" (Section 6:Housing) and the "Broward County 2004 Evaluation and Appraisal Report" (Section III.6 Housing) were also reviewed for consistency and to identify the need for future plan amendments.

SFRPC's Strategic Regional Policy Plan for South Florida (SRPP) Goal 6 states "Ensure the availability and equitable distribution of adequate, affordable housing for very low, low and moderate income households within the Region". Under this Goal, the Council would like to reduce the percentage of households with a cost burden in the Region to less than 30% by 2010.

Table 5-12 provides major household cost burden characteristics of the Town as obtained from the Florida Housing Data Clearinghouse (FHDC) website. It should be noted however, there are some significant differences in the number of housing units when comparing Town estimates and the FHDC website. The Town's housing unit numbers are total units and include resident, seasonal and vacant units, whereas the Shimberg Report is understood to be resident units. Nevertheless, the Shimberg Report (per FHDC website) provides relative percentages for evaluating the Town's affordable housing characteristics. The Shimberg Report indicates 60% of the Town's households own their own homes. The data also reveals that 66% of the Town's residents spend less than 30% of the household cost burden on housing; 19% spend between 30 - 49.9% of the household cost burden on housing; and, that 15% have to spend more than 50% of the household cost burden on housing. According to FHDC, 34% of the Town's residents are cost burden relative to housing costs.

The FHDC website projections will need to be evaluated in greater detail to verify the basis for the projected construction need and the corresponding households with a cost burden since the FHDC's projections are significantly higher than Town projections of growth. For example, the FHDC projected construction need for the Town for 2015 is 3,886 units with 2,353 households with cost burdens. Subtracting the 2005 needs (430 and 1,262) from the projection for 2015 results in a need of 3,456 new units and 1,091 households with cost burdens, whereas, the Town's EAR only projects a 1,271 increase in residents for the next ten years (i.e, 2005 to 2015). The Town's population increase will be accommodated in 1,000 new residential units. As noted in the vacant land analysis of the 2006 EAR, the availability of vacant land is limited within the Town.

While the Town may dispute the FHDC projections, the Town is sensitive to Broward County's and the Region's affordable housing issues. The Town's Business District and tourism industry require capable employees and with the increasing cost of housing, much of the Town's workforce may originate from outside of the community. The Town's current Housing Element does not provide a detailed analysis of affordable housing characteristics and substandard housing conditions have not been noted.

Table 5-12 – Town Affordable Housing Characteristics

	Less than 30%		30 - 49.9%		50% +		Total
	No of HH	%	No of HH	%	No of HH	%	
<u>HH Cost Burden % Income by Tenure:</u>							
Owner	1,239	73.1%	272	16.0%	184	10.9%	1,695
Renter	623	55.4%	267	23.8%	234	20.8%	1,124
Total	1,862	66.1%	539	19.1%	418	14.8%	2,819
<u>HH Cost Burden % Income by HH Income:</u>							
<30% AMI	94	25.7%	54	14.8%	218	59.6%	366
30-59.9% AMI	186	35.6%	185	35.4%	152	29.1%	523
60-79.9% AMI	200	56.3%	126	35.5%	29	8.2%	355
80% + AMI	1,382	87.7%	174	11.0%	19	1.2%	1,575
Total	1,862	66.1%	539	19.1%	418	14.8%	2,819
<u>HH Cost Burden % Income by age:</u>							
15 - 34	204	65.0%	70	22.3%	40	12.7%	314
35 - 64	913	66.0%	272	19.7%	198	14.3%	1,383
65 - 74	327	65.1%	92	18.3%	83	16.5%	502
75 +	418	67.4%	105	16.9%	97	15.6%	620
Total	1,862	66.1%	539	19.1%	418	14.8%	2,819
<u>HH Cost Burden % Income by HH size:</u>							
1 - 2	1,631	64.9%	491	19.5%	392	15.6%	2,514
3 - 4	198	74.7%	45	17.0%	22	8.3%	265
5 +	33	82.5%	3	7.5%	4	10.0%	40
Total	1,862	66.1%	539	19.1%	418	14.8%	2,819

Source: Shimberg Center for Affordable Housing
 Source: Florida Housing Data Clearinghouse

The objectives and policies of the Housing Element are oriented to maintaining quality housing, sensitive redevelopment of selective areas and supporting Broward County’s affordable housing programs. Amendments are needed to the data and analysis portions of the Housing Element relative to the Town’s affordable housing characteristics and the incorporation or revision of objectives and policies.

The SRPP provides several policies the Town should consider for incorporation into the Comprehensive Plan as part of the EAR based amendments including, but not limited to:

- Policy 6.2 Decisions regarding proposed development shall consider the ability of the proposal to provide affordable housing and shall treat affordable housing as infrastructure to the extent that the cost of affordable housing is factored into proposed developments that create the need for affordable housing. Tools such as restrictive covenants to require affordable housing could be utilized to strengthen development proposals particularly when the development's impacts on infrastructure and services, including school capacity, are of concern.

- Policy 6.5 Encourage employers to offer assistance in meeting the housing needs of employees who are cost burdened.

- Policy 6.7 Promote a region-wide program, in cooperation with local governments and the banking industry, to provide mortgages to very low-income households at reduced interest rates.

- Policy 6.9 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 6.13 Promote partnerships between the public and private sector to create opportunities to live and work in the same community.

- Policy 6.26 Encourage both ownership and rental opportunities for all types of housing.

Greenhouse Gas Emissions

The discussion of Green House Gas (GHG) Emissions in the Future Land Use Element (see pages IV-14 through IV-16) is also applicable to the Housing Element. The Housing Element can reduce future GHG emissions by including:

- Energy efficiencies in the design and construction of new housing; and,
- Using renewable energy resources in new and existing housing.

The Housing Element goals, objectives and implementation policies required to carry out this effort are contained in Section III of the Town's Comprehensive Plan.

VI. Recreation and Open Space Element

The provision of local open space and recreational opportunities are a very important factor in the physical lay-out and operation of a balanced community. In a tourist oriented, coastal resort community such as Lauderdale-By-The-Sea, the provision of such features are a major underlying component of the Town's economic base. The result is that recreational amenities are necessary not only to serve year round and seasonal resident population, but to provide a competitive resource to maintain vitality in the Town's tourism related industries. Thus, the purpose of the Recreation and Open Space Element is to assess the adequacy of existing resources, and to provide guidance for the maintenance or provision of future recreational facilities.

Based on information presented in the planning considerations and housing sections, the Town is characterized by a relatively year round senior resident population. The Town is also characterized by substantial growth in seasonal residents and tourist visitors during the winter peak season. Local observations indicate that the Town's seasonal and tourist households have similar age characteristics. While tourist families are present in the Town, they are not thought to represent the prevailing tourist group. This information is important in that it establishes the amount of leisure time available and the type of activities necessary to serve the various existing and future population groups.

Park Classification Standards

Local Parks classification and standard rating criteria have been established in previous efforts and documentation prepared by the Broward County Planning Council. In addition, requirements for Local Plan certification by the Planning Council are based on guidelines contained in the Broward County Land Use Plan, adopted by Ordinance 77-4, and by reference to the prior County Open Space Study, prepared in 1975.

Parks and recreational facilities are generally classified in a hierarchical arrangement of six categories as follows:

- Pocket or mini-parks
- Neighborhood parks
- Community parks
- Urban parks
- Subregional parks
- Regional parks

Of the six types of parks, only the first three directly pertain to Lauderdale-By-The-Sea in terms of the Town's necessity to provide for local residential needs. The remaining three are more appropriate for larger municipalities or multi-jurisdictional planning efforts. On the next page, Table 6-1 presents a brief summary of the standards and desirable features for facilities which may have some bearing to Lauderdale-By-The-Sea.

Table 6-1 Local Park Standards

Type of Park	Location	Service Area	Area Per 1000 Pop	Service Population	Acreage	Typical Facilities
Mini Park	Immediate neighborhood area	.25 mile radius	5 acres	Up to 500 people	Less than 5 acres	Can be active or passive. Active facilities in larger parks can include tennis or basketball courts, lawn bowling or shuffleboard courts or equipped play areas.
Neighborhood Park	Surrounding neighborhood area	.25 to .50 mile radius	2 acres	Up to 5000 people	5 to 10 acres	Primary emphasis on school age children; facilities can include baseball and football fields, tennis and basketball courts, recreation buildings and play and picnic areas. Evening lighting is desirable.
Community Park	Serves several neighborhoods or community; much wider age distribution. Often located on city owned property or leased from board of education.	.50 to 1.50 mile radius	1 acre	22,600 to 30,000 people	10 to 30 acres	Intensively developed park for active and passive uses for all age groups. Same type of uses as neighborhood parks along with a community center or field house; extensive spectator parking and seating areas along with lighting for nighttime use. Incorporati

Source: Walter H. Keller, Inc.
Broward County Open Space Study, 1975

The adoption of the Broward County Land Use Plan established the countywide requirement for municipal jurisdictions to provide a minimum of three (3) acres of

recreational and open space per 1000 residents. The County Plan allows the following kind of uses to be credited towards meeting this requirement:

- * All neighborhood, community and urban park facilities owned by the unit of local government and zoned for open space;
- * Recreational facilities that are part of School Board educational facilities and are leased or otherwise made available to the public by agreement;
- * Up to 100% of the total area of beach owned by the local government;
- * Up to but no more than 50% of the total area of publicly- owned golf courses zoned for recreational use, and private or semi-private golf facilities that are zoned and deed- restricted for open space. This acreage may not satisfy more than 15% of local needs.
- * Other private recreation facilities or open space areas over 1/2 acre which are both zoned and deed restricted for open space use.

Since Lauderdale-By-The-Sea does not have any School Board or golf course facilities within its boundaries, only the first and last of the various types of facilities apply to the Town.

Existing Park Facilities

A variety of both active and passive recreational opportunities are found within Lauderdale-By-The-Sea. These are shown on Figure 6-1 and are described below:

Friedt Park is the Town's largest active park facility. This park is located in planning area 2 adjacent to the Town administrative complex. The park covers approximately two and a half acres and includes two tennis courts, several shuffleboard courts, a half court for basketball, a children's playground and seating areas.

Friedt Park features night lights and is probably the most utilized recreation facility in the Town. Through recent property acquisition efforts, the park was recently expanded to the north. As part of the Town's Capital Improvement Program, the Town secured Grant Funds and programmed matching funds for the improvement of Friedt Park.

El Prado Park is a neighborhood park facility also located in planning area 2. This linear shaped park is primarily open space, but provides a vista between Town Hall to the beach, an eastern parking lot and a covered seating area overlooking the beach. This facility serves as one of the Town's principal locations for public beach parking and access.

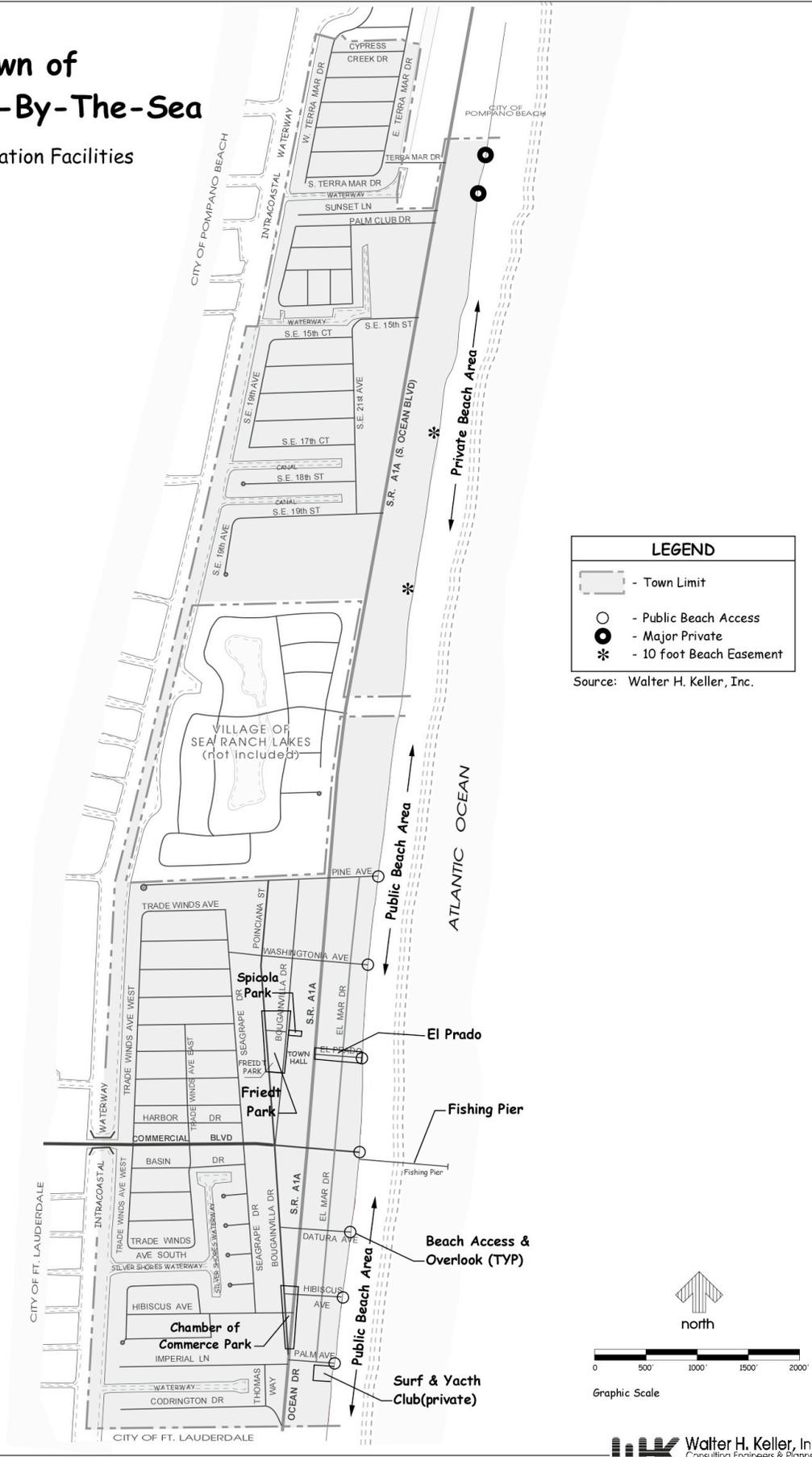
Spicola Park is a small facility located on the adjacent northern side of the Town's administrative complex. This property is one of the later additions to the town's recreational inventory. The park features a shuffleboard court, a bocci court, a horseshoe pit and related spectator seating areas.

The Chamber Of Commerce Park is located in planning area 4 at the confluence of SR A1A and Bougainvillea Drive. This park facility provides for passive uses only, and includes an open seating area and a small vehicular parking area.

According to the classification scheme previously discussed, all of these park facilities are considered to be neighborhood parks. However, due to relatively small size of the Town, and relatively small number of children, these parks effectively function as community level facilities.

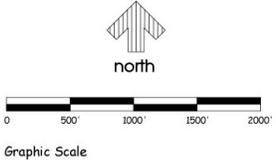
Town of Lauderdale-By-The-Sea

Figure 6-1 - Recreation Facilities



LEGEND	
	- Town Limit
	- Public Beach Access
	- Major Private
	- 10 foot Beach Easement

Source: Walter H. Keller, Inc.



WK Walter H. Keller, Inc.
Consulting Engineers & Planners
Coral Springs • Sewall's Point

Other Recreational Resources

Besides the parks facilities previously described, the Town of Lauderdale-By-The-Sea is characterized by a number of additional positive recreational attributes.

The Town's most significant recreational resource is its public beach area. With the annexation of the Sea Ranch Club Condominiums and the Intracoastal Beach Area in 1997 and 2001 respectively, approximately one mile of additional beach has been incorporated into the Town. This results in a two mile long area that is defined as that portion of the beach lying between the mean high water line and the private beach areas associated with the Town's seasonal and tourist residential properties. Public access to the beach is provided at several locations; generally at the foot of the Town's east/west local streets. Specifically, access points are provided at Pine Avenue, Washingtonia Avenue, El Prado, Commercial Boulevard, Datura Avenue, Hibiscus Avenue and Palm Avenue. Free public parking facilities are provided at or adjacent to almost all of these access locations. Bench seating is also provided. Two private beach clubs in the northeast portion of the Intracoastal Beach Area provide beach access to single family areas west of SR A1A. Additionally, there are two ten foot beach easements located near the Sea Watch Restaurant and Cristelle Condominiums.

The Town, in cooperation with the Florida Department of Environmental Protection and Broward County, established a Beach Management Area in 1997. Currently, the Beach Management Area runs from the southern town limits to Gatehouse Road in the north. The Town is extending the Beach Management Area further north in order to incorporate the Intracoastal Beach Area. The Beach Management area provides a "safe area" for bathers and for the offshore reef by prohibiting watercraft per Town Ordinance. The "safe area" extends approximately 300 feet from shore and is delineated by a series of buoys approximately 600 feet apart.

Another beach related recreational amenity in Lauderdale-By-The-Sea is the Fisherman's Wharf public fishing pier. Located at the eastern end of Commercial Boulevard, the privately owned and operated wooden structure is approximately 900 feet long and

features a small restaurant facility, tackle and bait shop and ancillary parking facilities. Besides the obvious use of this facility, the pier provides for pedestrian needs and as a prime area to overlook the Broward coastal skyline.

The Town also features a limited network of navigable canals which lead to the Intracoastal Waterway and subsequently to the Atlantic Ocean via the Hillsboro and Port Everglades Inlets. The Town has nearly two miles of frontage along the Waterway. Almost all of the frontage is developed and privately owned.

Lauderdale-By-The-Sea is also characterized by a system of sidewalks which run along several collector roadways and some of the local streets. These facilities help provide for the safe movement of pedestrians, joggers and bicyclists throughout the Town. In addition, the Town's El Mar Drive roadway is a median divided, wide lane collector facility which carries very low traffic volumes. This situation allows the roadway to serve as an excellent facility for pedestrian or biking activities.

The Town's administrative complex includes a facility for indoor recreational and civic activities. The Senior Center is located here. The facility is known as Jarvis Hall and includes a kitchen, a stage and intercom system and seating for approximately 150 people. The facility is available for resident use on a reservation basis, and is well utilized by a number of local clubs and service organizations.

Along with the public recreation facilities previously described, private recreation facilities are found throughout the Town in the form of condominium recreation areas and pool and patio areas of individual residences and tourist accommodations. A listing of private recreational facilities is presented on Table 6-2.

Table 6-2 Private Recreation Locations

Condominium Name	Planning Area	Address	On-Site Recreation
Atlantic Ranch Villas	6	5450 N Ocean	Yes
By-the-Seas Condominiums	4	4141-4145 Ocean Dr	Yes
Caribe	4	4050 Ocean Dr	Yes
Cloisters Coop	6	1420 S Ocean	Yes
Coastal Arms Coop	6	1410 S Ocean	Yes
Cornice Condo	6	1440 S Ocean	Yes
Crane Crest Apts	6	1850 S Ocean	Yes
Cristelle	6	1430 S Ocean	Yes
Cristelle Condo	6	1700 S Ocean	Yes
Edgemar	2	4517 El Mar Dr	Yes
El Dorado Coop	6	1470 S Ocean	Yes
El Mar	4	4228 El Mar Dr	Yes
Fountainhead	4	3900 Ocean Dr	Yes
French Leave Condominiums	4	4228 Ocean Dr	Yes
Gardens-By-The-Sea	6	1501-41 S Ocean	Yes
Hampton Beach	6	1800 S Ocean	Yes
International Studio Art Coop	6	1480 S Ocean	Yes
Jade Beach Villa Condo	6	1758 S Ocean	Yes
Kensington Assoc.	6	1900 S Ocean	Yes
Lauderdale by the Sea Apts.	2	4629 Poinciana St	Yes
Leisure Gardens	6	1461-81 S Ocean	Yes
Leisure Towers Condominium	6	1500 S Ocean	Yes
Leisure-by-the-Sea North	3	220 Hibiscus Ave	Yes
Leisure-by-the-Sea South	3	234 Hibiscus Ave	Yes
Malulani Coop	6	1398 S Ocean	Yes
Mana Loa Apt	2	4532 Poinciana St	Yes
Native Sun Condo	6	1950 S Ocean	Yes
Ocean Apt	2	4556 Ocean Dr	Yes
Ocean East Apts	6	1530 S Ocean	Yes
Ocean Sounds Condo	6	1770 S Ocean	Yes
Palm Beach Coop	6	1431 S Ocean	Yes
Royal Coast Condo	6	2000 S Ocean	Yes
Sea Colony Coop	6	1400 S Ocean	Yes
Sea Ranch Club Condos	5	5200 N Ocean	Yes
Sea Ranch Villas	6	5400 N Ocean	Yes
Sea Side	4	4136 Seagrape Dr	No
Squier Condominiums	2	4629 El Mar Dr	Yes
Star Light Tower	6	6000 N Ocean	Yes
Surf Rider International	6	1441 S Ocean	Yes
Top-of-the-Mile	4	4013-4025 Ocean Dr	Yes
Traders Resort	6	1600 S Ocean	Yes
Whittier Towers Coop	6	1439 S Ocean	Yes
Winter Colony	4	4300 El Mar	Yes

Source: Walter H. Keller, Inc.

Note: Recreation areas generally consist of a pool/patio and covered seating area.

Regional Park Facilities

In addition to the existing facilities or resources found within Lauderdale-By-The-Sea, Broward County owns and operates a number of large regional parks which are located within a short driving distance of the Town. The nearest facilities are Quiet Waters and Lyons/Tradewinds Parks, both of which are located within nine miles of the Town. Hugh Taylor Birch State Park is another large public recreation facility located approximately four miles south of the Town along SR A1A. All of these parks have been in operation for several years and provide numerous active and passive recreational opportunities for the entire Broward population.

Existing and Future Recreational Needs

Broward County's local park requirement is three acres of recreation and open space for each one thousand residents. The revised 2000 resident population estimate for the Town and the Intracoastal Beach Area is 7,268 with a seasonal population estimate of 11,510. This would require approximately twenty-two (22) acres and thirty-five (35) acres to meet resident and seasonal needs.

Table 6-3 provides a listing of existing recreation and open space facilities in the Town. The Table reveals that approximately 40 acres currently exist in the Town. Of this amount about three (3) acres is in individual parks and thirty-seven (37) on the public beach. It is worth noting, as indicated in Table 6-3, that the town provides the needed 22 acres even without the beach front located in the annexed areas of Sea Ranch Club Condominiums and the Intracoastal Beach Area. The Broward County requirements only apply to resident needs. It is clear from the facilities and acreages provided in Table 6-3, that existing demands are currently satisfied within the Town.

Because the Town of Lauderdale-By-The-Sea is virtually built out, recreational needs of the future population are not anticipated to greatly exceed existing levels of demand. Resident population trends over the last several years indicate minimal change in the Town population.

Table 6-3 Existing Recreation and Open Space Areas

Park Site / Name	Planning Area*	S-T-R Location	Size (acres)	Public/Private	Current Zoning	Land Use Plan Designation	Comments
Friedt Park	2	18-49-43	2.4	Public	RM-25	Parks and Recreation	Recently expanded park west of City Hall. El Prado bisects property.
Spicola Park	2	18-49-43	0.2	Public	RM-25	CF	Recent park property adjacent to the north of City Hall
Chamber of Commerce Park	4	18-49-43	0.4	Public	RM-25	CF	Pocket park north of the intersection of SR A1A and Bouganville Drive.
Public Beach	2, 4, 5 & 6	18-49-43	36.9	Public	n/a	Parks and Recreation	Area of calculation based on 120'-180' strip along 2.4 miles of ocean frontage.
Total Existing/Proposed Park Acreage			39.9				

Source: Walter H. Keller, Inc.

Notes: *Planning areas as defined in Local Comprehensive Plan.

The largest potential for Town population growth can be linked with redevelopment of portions of the multi-family and tourist residential areas. Information pertaining to the projected population and maximum buildout conditions can be found in the Plan's Housing Element. Review of this information indicates that development of the Town's remaining vacant acreage provides for respective year round and seasonal (including tourist) population estimates of 7,513 and 11,881 by 2010. Maximum development of the Town plan reflects a projected year round and seasonal population of 7,676 and 12,128, respectively. If maximum build-out was realized, a total of about twenty-three (23) acres of parks would be required for year-round residents.

As identified in Table 6-3, existing open space acreage in the Town exceeds the County's local requirement. The Town's active park facilities are concentrated in planning area two and along the beach shoreline area.

In terms of future parks and recreation planning activities, the Town's principal orientation is to maintain and enhance existing facilities.

Broward County has sponsored a bond issue that has funded a Challenge Grant program for park and recreation area improvements throughout the County. Local municipalities

are encouraged to up to submit three grants and must complete the projects within a five year time frame. Grants under \$200,000 do not require match funds from the municipality, while grants over \$200,000 would require 25% matching funds. The Town has committed \$126,000 to this grant.

The Town has submitted a grant proposal for development of a beach pavilion at Commercial Boulevard with an estimated cost of \$176,548. Tentatively scheduled to begin in May of 2003 with completion in 2004, the project would include construction of a pavilion, with landscaping, showers and furniture. A second grant submission is for improvements of five public access sites to the beach. The '5 Portals' project is tentatively scheduled to begin in November of 2002 with completion in March 2003. The \$500,000 estimated County contribution requires matching funds of \$125,000 from the Town. The project would provide improvements at public access sites at Palm, Hibiscus, Datura, Washingtonia and Pine Avenues. The projects would include walkways, showers, furniture as well as two mini passive parks at Palm and Pine Avenues and a 500 square foot gazebo at Palm Avenue. Additionally, the Town has also submitted a grant proposal for the purchase of property adjoining one of the access sites.

The development of an improved, marked pedestrian and bicycle circulation system could be considered. Sidewalk construction along Hibiscus Drive, Seagrape Drive and Tradewinds Drive West, or a striped pedestrian/bicycle lane along SR A1A or El Mar Drive has potential. The SR A1A/Commercial Boulevard safety projects completed in 2002 have provided additional bicycle facilities in the Town. An unmarked bike lane was provided between Pine Avenue to the southern Town limits. A similar bike facility is anticipated on the north section of SR A1A, from Pine Avenue to the north Town limits. A marked bike lane was provided on Commercial Boulevard, from SR A1A to the west Town limits. Continued rigid enforcement of vehicular laws with regard to pedestrian crossings of SR A1A and Commercial Boulevard are also recognized. The Town needs to stress local pedestrian needs as part of future improvements along the SR A1A facility. Pedestrian signals were added at Town Hall, Washingtonia and Datura Streets on SR A1A.

The Town has initiated a comprehensive redevelopment program and the feasibility of obtaining additional parks or open space property is being considered. Due to the Town's surplus condition with respect to existing recreational resources, this effort could focus on the reservation of odd lot pocket parks in both the Town's residential and business areas. Additional beach access strips or a waterfront site could be considered. The Town's beaches are its greatest physical asset; maintenance of this area is critical to long term tourist vitality. The Town should work with other jurisdictions and agencies to preserve this resource. If local funds are required for stabilization or periodic renourishment, then this activity should take precedent in the overall budgeting of local recreation improvements.

Parks, recreation and open space goals, objectives and policies can be found in Section II of the Town's plan.

VII. Transportation Element

Introduction

The traffic circulation system in Lauderdale-By-The-Sea totals approximately 18 miles. Except for Commercial Boulevard which is a four lane divided roadway with parking and State Road A1A, all roadways within the Town are two lanes. Principal east-west access is via Commercial Boulevard with a bascule bridge across the Intracoastal Waterway to the City of Fort Lauderdale. Primary north-south movement is along State Road A1A (SR A1A), a three lane roadway connecting with the City of Pompano Beach to the north, passing through the Village of Sea Ranch Lakes, and proceeding to the City of Fort Lauderdale at the south Town limits. In October 2001, the Town annexed the Intracoastal Beach Area thereby adding to the traffic circulation system roadways to the north of Sea Ranch Lakes and south of Pompano Beach.

Functional Classification

The Florida Department of Transportation (FDOT) has functionally classified SR A1A and Commercial Boulevard as State Minor Arterials. In addition, Bougainvillea Drive, a north-south roadway tentatively identified as the future south leg of a one-way pairing with SR A1A, is functionally classified as a local Collector.

Existing Conditions

Traffic volumes were obtained from FDOT and the Broward County Metropolitan Planning Organization (MPO) for the period 1991 to 2000, the last date of reported traffic volumes. These volumes are displayed in Table 7-1. An analysis of historical traffic count data over the last 5 years indicates that traffic volumes for the northern segment of SR A1A had an average growth of 3.2% while the southern segment has experienced average growth of 4.3%. Traffic volumes during the same period on Commercial Boulevard have increased at an average rate of 1.3%. In addition, traffic volumes vary considerably from the peak winter tourist season to the rest of the year. Peak season counts taken in 1999 and 2000 reflect an increase of over twenty (20%) percent over

average annual traffic volumes for the northern segment of SR A1A while the remaining segments average approximately seven (7%) percent increases.

In 2000, average daily traffic volumes on SR A1A ranged from a low of 24,000 vehicles per day (vpd) north of Pine Avenue to a high of 26,500 at the south Town limit. Average annual traffic in 2000 for Commercial Boulevard was 31,500.

Table 7-1 Historical Traffic

Year	SR A1A			Commerical Blvd
	N. of Pines Ave	N. of Commercial	S. of Commercial	W. of ICWW Bridge
1991	20,080	18,485	19,891	33,029
1992	17,666	18,035	19,769	33,052
1993	20,109	18,240	23,247	34,235
1994	22,556	22,545	21,721	33,018
1995	20,890	18,190	21,769	29,910
1996	24,606	22,458	20,733	33,556
1997	22,063	21,042	21,098	34,104
1998	23,000	21,000	22,000	34,500
1999	24,000	21,500	22,500	35,000
2000	24,000	22,000	26,500	31,500*
Peak - Avg Ratio 1995-2000	1.23	1.05	1.08	1.07
Annual Growth Rate 1995-2000	3.2%	4.3%	4.3%	1.3%

Sources: Broward County MPO
 Florida Department of Transportation
 Walter H. Keller, Inc.
 Notes: 1992 & 1993 Summer Season Counts
 All Other Counts Reported as AADT
 * - Commercial Boulevard under construction

In order to assess the current operation of major roadways an analysis was performed to identify the level of service. The existing level of service, formulated by Broward County, is based on information developed by the FDOT based on the number of lanes, signals per mile, roadway classification and its associated capacity as provided in Table 7-2. Roadway conditions indicate Commercial Boulevard has a LOS "D" capacity of 32,500 vpd through the Town while SR A1A has a LOS "D" capacity of 14,900 vpd.

Table 7-2 Daily Capacities and Levels of Service

Functional Classification	Number of Lanes	Signals per Mile	Generalized Annual Daily Volumes for Florida's Urbanized Areas				
			A	B	C	D	E
State Two-way Arterials (Interrupted Flow)	2	0~1.99	N/A	10,800	15,600	16,600	16,600
		2.00~4.50	N/A	N/A	9,900	14,900	16,200
		> 4.50	N/A	N/A	3,300	12,100	15,800
	4	0~1.99	N/A	23,500	33,200	35,000	35,000
		2.00~4.50	N/A	N/A	22,900	32,500	34,300
		> 4.50	N/A	N/A	7,800	27,800	33,600
	6	0~1.99	N/A	35,800	49,900	52,500	52,500
		2.00~4.50	N/A	N/A	35,500	48,900	51,700
		> 4.50	N/A	N/A	12,100	43,300	50,500
	8	0~1.99	N/A	45,300	61,400	64,400	64,400
		2.00~4.50	N/A	N/A	44,700	60,100	63,400
		> 4.50	N/A	N/A	15,300	54,200	62,100
Non-State Roadways Major City/County Rwys	2		N/A	N/A	8,600	14,600	16,000
	4		N/A	N/A	19,800	31,700	33,900
	6		N/A	N/A	30,800	47,800	51,000
Freeways	4		21,200	34,300	51,500	66,200	81,700
	6		32,600	52,700	79,000	101,000	125,400
	8		44,500	71,800	107,800	138,600	171,100
	10		55,600	89,800	134,700	173,200	213,800
	12		65,200	105,400	158,100	203,200	250,900

Sources: Walter H. Keller, Inc.
Florida Department of Transportation - 1998

Levels-of-Service is an approximation of roadway operating conditions. The LOS of a roadway is often defined as the ability of a maximum number of vehicles to traverse a roadway segment while maintaining a given operating condition. Intersection operations can also be described with LOS designations. The standard descriptions of service levels are as follows:

LOS A: Highest LOS which describes primarily free-flow traffic conditions at average traffic speeds. Vehicles are totally unimpeded in their ability to maneuver within the traffic stream. Stopped delay at intersections is minimal.

LOS B: Represents reasonably unimpeded traffic flow operations at average travel speeds. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome.

- LOS C: Represents stable traffic flow operations. However, ability to maneuver and change lanes may be more restricted than in LOS B, and longer queues and/or adverse signal coordination may contribute to lower average traffic speeds.
- LOS D: Borders on a range in which small increases in traffic flow may cause substantial increases in approach delay and, hence, decreases in speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or combinations.
- LOS E: This represents traffic flow characterized by significant delays and lower operating speeds. Such operations are caused by some combination of adverse progression, high signal density, extensive queuing at critical intersections and inappropriate signal timing.
- LOS F: This represents traffic flow characterized at extremely low speeds. Intersection congestion is likely at critical signalized locations, resulting in high approach delays.

Table 7-3 provides the general relationship between the level of service letters (A,B,C,D,E and F) and the average travel speed during the peak hour on typical arterial highways in Florida

Table 7-3 Average Travel Speed During Peak Hour

LOS	Arterial MPH	
	Class I	Class II
A	≥ 35	≥ 30
B	≥ 28	≥ 24
C	≥ 22	≥ 18
D	≥ 17	≥ 14
E	≥ 13	≥ 10
F	< 13	< 10

Sources: Walter H. Keller, Inc.
FDOT LOS Manual

The results of the roadway level of service analysis for existing conditions are included in Table 7-4. SR A1A traffic volumes are highest north of Pine Avenue. Based on 2000 traffic volumes, the roadway is operating at level of service "F" during the peak season for average annual conditions at both the north and south Town limit. Commercial

Boulevard operates at a level of service “C” during the peak season for average annual conditions in the year 2000. However, Commercial Boulevard was under construction during this period. During the four prior years (1996-1999) Commercial Boulevard operated at a level of service “F” and it is anticipated it will continue to do so in the future.

Table 7-4 2000 Daily and Peak Hour Traffic LOS Analysis

Roadway	Location	Func Class	Design Type	LOS D Capacity		2000		2000	
				AADT	Peak Hour	Peak AADT	Peak Hour	Peak AADT	Peak Hour
SR A1A	N of Pine Ave	S-MA	2LU	14,900	1,390	29,243	2,248	F	F
	N of Commercial	S-MA	2LU	14,900	1,390	22,994	1,727	F	F
	S of Commercial	S-MA	2LU	14,900	1,390	28,447	2,197	F	F
Commercial Blvd *	W of ICWW	S-MA	4LD	32,500	3,020	32,316	2,410	C	C

Sources: Walter H. Keller, Inc.
 Broward County, MPO
 Florida Department of Transportation

Note: S-MA - State Minor Arterial

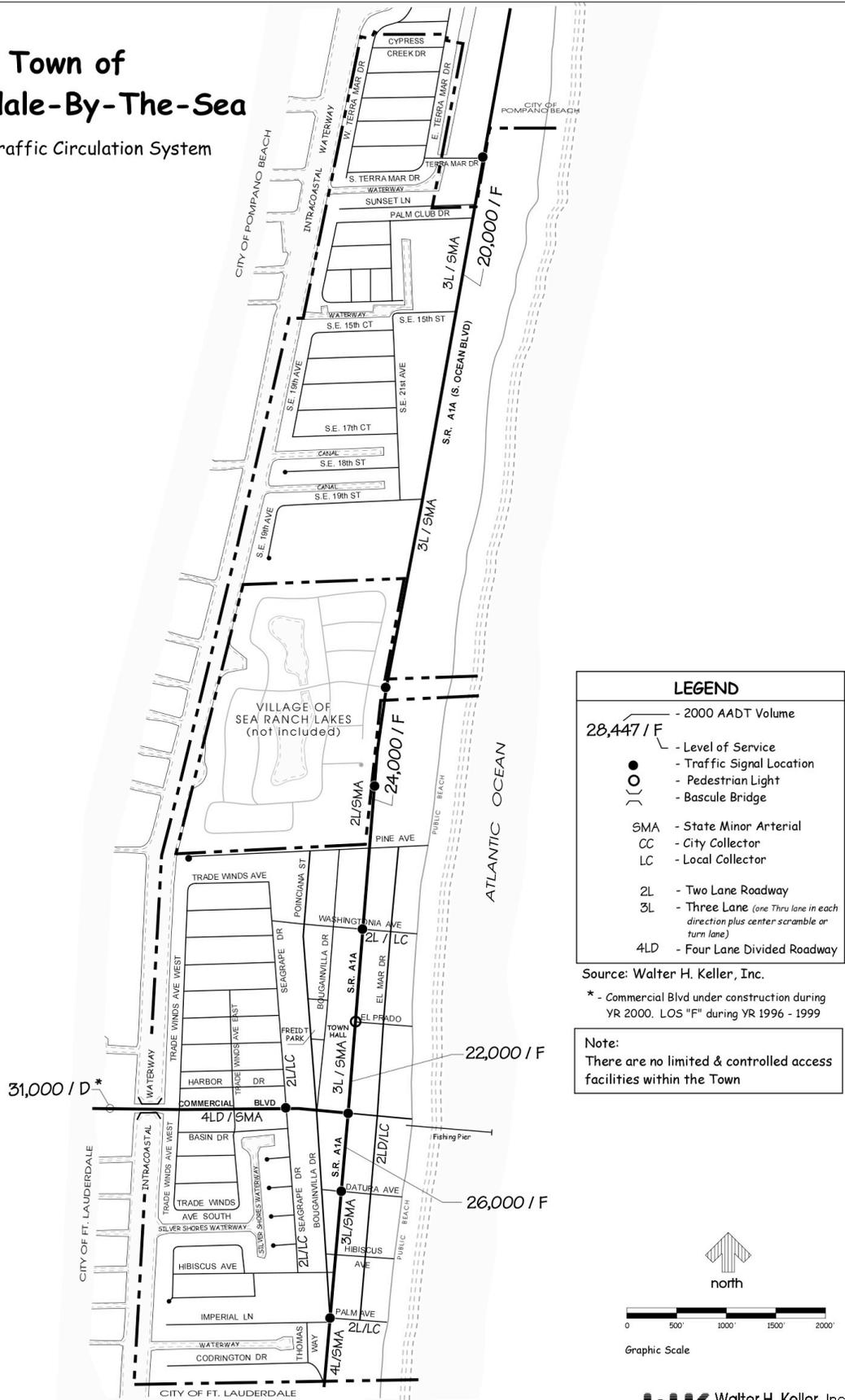
* - Commercial Blvd under construction during YR 2000. LOS "F" during the YR 1996-1999.

Figure 7-1 illustrates the local traffic circulation system and identifies functional classification, design types, signalized intersection locations, 2000 average daily traffic and roadway level of service. There are no limited or controlled access facilities within the Town boundaries nor are there any significant parking facilities or exclusive public transit corridors.

Figure 7-2 illustrates the Town’s pedestrian and bicycle facilities. The majority of pedestrian facilities are located in the southern portion of the Town. Both Commercial Boulevard and SR A1A were recently reconstructed in this area with upgraded sidewalks and pedestrian amenities. Additional traffic/pedestrian signals were installed at Washingtonia Avenue, El Prado and Datura Avenue. A bicycle lane was added to Commercial Boulevard west of SR A1A. A wider curb lane was included on SR A1A for bicycle travel. This is consistent with the northern portion of SR A1A. A painted bicycle/ pedestrian lane is also located on the east side of Seagrape Drive between Hibiscus Avenue and Commercial Boulevard.

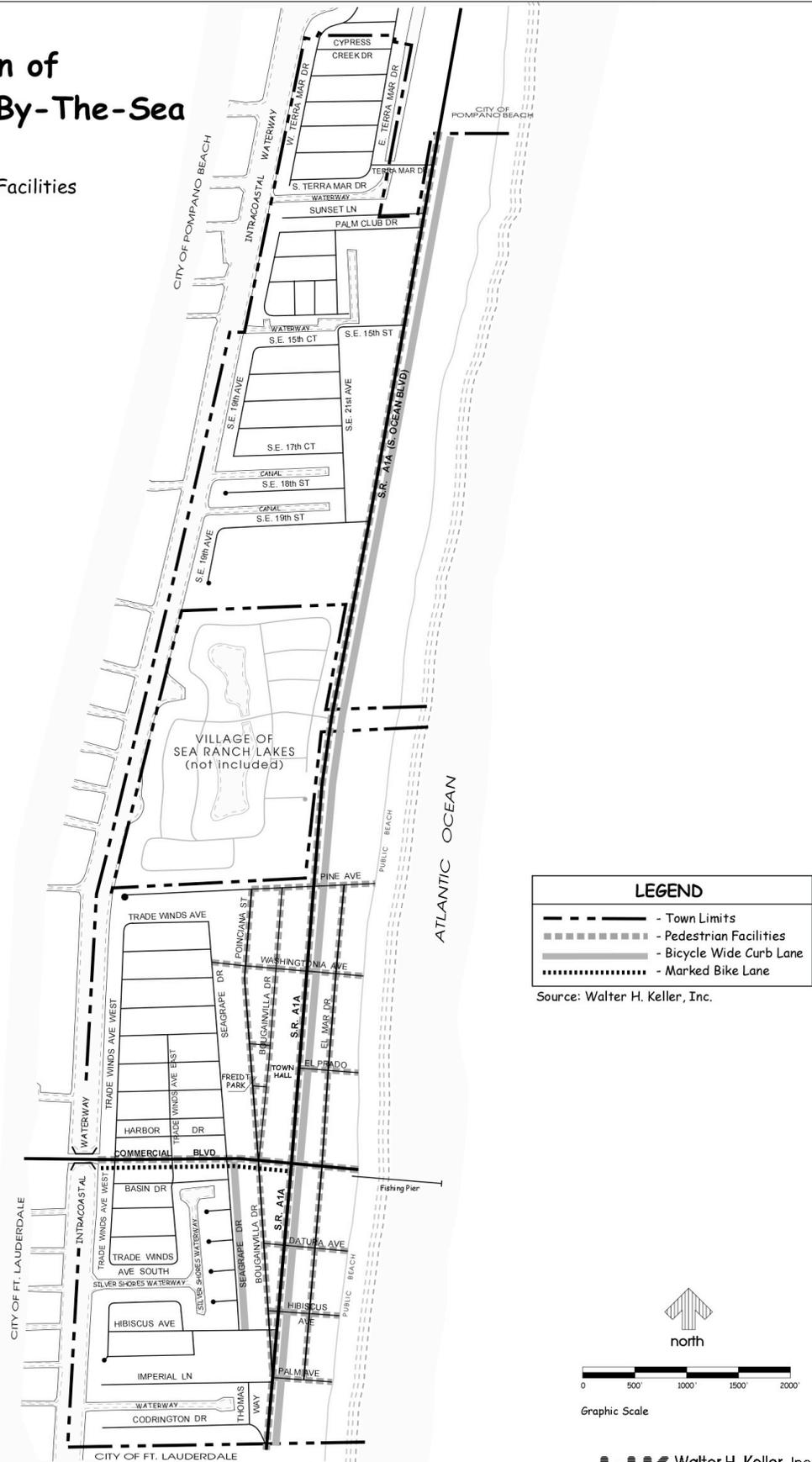
Town of Lauderdale-By-The-Sea

Figure 7-1- Traffic Circulation System



Town of Lauderdale-By-The-Sea

Figure 7-2
Pedestrian & Bicycle Facilities



Transportation Concurrency Management

Broward County revised Transportation Concurrency in December 2004. Prior to that time, Broward County utilized the platting process to implement concurrency based on a TRIPS traffic analysis and required mitigation to address over capacity roadway segments. A traffic impact fee was collected as part of the TRIPS analysis. The Town was located in Broward County's Urban Infill Exception Area which modified the concurrency process allowing applicant's to pay a transit impact fee in lieu of the traffic impact fee and the roadway mitigation requirements.

The 2004 modifications removed the urban infill exception area, implemented concurrency determinations at building permit level and stratified Broward County into ten (10) Transportation Concurrency Management Districts. The majority of the Districts are transit oriented Transportation Concurrency Management Areas (TCMA). The Town is located in 2 Districts: The Northeast District (north of SE 15th Street); and, The Central District (south of SE 15th Street). The Districts are transit oriented with individual areawide (district level) transportation LOS standards which are used for development order approvals and permitting. The Town will maintain consistency with the Broward County process.

Transportation Evacuation Facilities

The Town is entirely located in Hurricane Evacuation Zone "Plan A" in which an evacuation order may be issued for Category 1 and 2 Hurricanes. As established by Broward County in the Natural Disaster Component of their Comprehensive Plan, an evacuation order will be issued twenty-one hours prior to expected Hurricane landfall. Figure 7-3 shows the local and regional transportation facilities critical for evacuation during emergencies. The major designated transportation evacuation facilities for the Town are Commercial Boulevard and SR A1A. At the regional level, major designated transportation evacuation facilities provide connections to other major evacuation facilities in Broward County such as, Atlantic Boulevard, I-95, the Florida Turnpike and the Sawgrass Expressway.

Broward County has designated the Commercial Boulevard intersection with SR A1A as Designated Controlled Intersection. In this instance, Broward Sheriff's Office (the Town's police provider) or the Florida Highway Patrol would direct traffic to ensure optimum functioning of the intersection and evacuation route traffic lanes. The evacuation routes shown in Figure 7-2 head westbound towards I-95 and the nearest emergency shelters.

The nearest primary emergency evacuation facilities to the Town are located at Floranada Elementary School (5251 NC 14th Way, Fort Lauderdale) and Blanche Ely High School (1201 NW 6th Avenue, Pompano Beach). At a regional level, there are 12 primary shelters located throughout Broward County with approximately 37,000 spaces. Additionally, secondary and tertiary shelters are available based on anticipated storm strength and refuge need providing over 67,000 hurricane shelter spaces total. Nearest secondary shelters would include Boyd Anderson High School (3050 NW 41 Street, Fort Lauderdale) and Coral Springs High School (7201 W Sample, Coral Springs). Nearest tertiary shelters include Lauderdale Lakes Middle School (3911 NW 30 Avenue) and Pompano Beach Middle School (310 NE 6th Street, Pompano Beach).

Some of the Town's residents are transit dependent. The Broward County Transit (BCt) has prepared a Mass Transit Plan for the evacuation of population segments in evacuation areas. Transit evacuation operations begin four hours after an evacuation order, which is given 21 to 26 hours prior to the forecasted landfall of a hurricane. Under Plan "A" (Storm Category 1-2), necessitate the evacuation of all Town residents and emergency transit operations stay in effect for approximately 6.5 hours. Two emergency transit routes,



Broward County

Legend	
	- Evacuation Route
	- Designated Control Intersection
	- Traffic Signal
	- Town Limits

American Red Cross Regional Hurricane Shelters	
①	- Lyons Creek Middle School 4333 Sol Press Blvd., Coconut Creek
②	- Coral Glades High School 2700 Sportplex Dr., Coral Springs
③	- Monarch High School 5050 Wiles Rd., Coconut Creek
④	- Pompano Beach Institution of Int'l Studies High School 1400 N.E. 6th St., Pompano Beach
⑤	- Park Lakes Elementary School 3925 N. SR 7, Lauderdale Lakes
⑥	- Rock Island Elementary School/ Arthur Ashe Middle School 1701 N.W. 23rd Ave., Ft. Lauderdale
⑦	- Plantation Elementary School 651 N.W. 42nd Ave., Plantation

Source: Walter H. Keller, Inc.
Broward County - Office of Emergency Management

Town of Lauderdale-By-The-Sea

Figure 7-3 - Hurricane Evacuation Routes and Shelter Locations



originating at the intersection of Commercial Boulevard and SR A1A, would provide transit evacuation service to Blanche Ely High School and Floranada Elementary School. Under Plan “B” (Storm Category 3), additional emergency transit routes would be provided, with service continuing for 12 hours. The nearest additional routes would originate on SR A1A north and south of the intersection of Atlantic Boulevard and SR A1A and proceed to Taravella High School (10600 Riverside Drive, Coral Springs) or to Coral Springs High School.

The Broward County Comprehensive Emergency Operations Plan (BCCPEOP) draft specifies that individuals with special needs requiring special transportation will have their evacuation and reentry needs addressed by their designated Paratransit Transportation contractors. The Broward County Paratransit Services Section, through the means of contract arrangements, will be responsible for the door-to-door evacuation of the elderly and handicapped persons and will also respond to telephone requests from residents or through the Emergency Operations Center. Lead agencies designated to coordinate evacuation and reentry activities would be the Broward County Community Services Department and Mass Transit Division. Support agencies include the Broward County Fleet Services Division, the Broward County School Board, the Tri-Rail Authority, the Paratransit Services Section and the Sheriff’s Office.

Clearance time is defined as the time required to clear a roadway of all vehicles evacuating in response to a hurricane evacuation order. The *South Florida Regional Hurricane Evacuation Study* (1995) estimated clearance time for Commercial Boulevard of 5.8 hours to reach the Palm Beach County Line during a Storm Category 1-2. Additionally, clearance time for Commercial Boulevard during a Storm Category 3 is estimated at 4.96 hours and 7.63 hours during a Storm Category 4-5. The study estimated a four-lane bridge such as Commercial Boulevard Bridge over the ICWW could evacuate 17,700 cars hourly.

As Figure 7-2 shows, there is an adequate system of collectors and arterials to accommodate the evacuation of the Town's residents. The Town's resident population (7,268 residents) and land use patterns have remained stable during the past years.

Land Development and Traffic Concurrency Management

Chapter 163, Part II provides for in-fill exemptions to traffic concurrency. The criteria for an exemption related to the Town are as follows:

1. The area contains not more than ten (10%) percent developable land; and,
2. if more than 60% of the developable land is residential, then the average density shall be at least five (5) dwelling units per acre.

Broward County adopted a Traffic Concurrency Exception Area relative to roadway (traffic) Level of Service for the eastern infill area of the County. The Town is located entirely within the exception area. Development within the urban infill area is exempt from traffic concurrency requirements provided Transit Impact Fees are paid to Broward County at the time of platting approval. This exception area was adopted by Broward County to support infill and redevelopment. Broward County is working towards modifying the traffic/transit concurrency process. The Town will need to monitor these efforts and respond to changes in traffic/transit concurrency procedures.

Public Transit

Fixed route public transit service is provided in Lauderdale-By-The-Sea by the Broward County Division of Mass Transit. Two routes, Route 11 and Route 62, service the Town. Figure 7-4 depicts existing transit routes and trip generators/attractors. Major public transit trip generators and attractors are areas of intense land use or activity which produce or attract a significant number of trip ends. The Broward County Transportation Element defines a major generator as the top 40 Traffic Analysis Zones (TAZs) in population density. The Town of Lauderdale-By-The-Sea does not fit that definition. No major attractors or generators were identified by the *Broward County Transit Development Plan* (TDP) (Minor Update Fiscal Year 2001/02). From the Town's perspective, local transit generator would include the business areas adjacent to

Commercial Boulevard, the Commercial area adjacent to the Town in Sea Ranch Village, Town Hall and the public beach area. There are no public transit rights-of-way, exclusive public transit corridors or significant parking facilities within the Town boundaries.

Route 11 (Beach Buggy) begins at the Downtown Fort Lauderdale Terminal and ends at the Pompano Square Mall. Connections to a large number of bus routes is provided at both ends of the route, where two major transfer points of the Broward County transit system are located. This route provides direct access to Downtown Fort Lauderdale, Las Olas Boulevard, Oceanside Shopping Center, Birch State Park, Oakland Park Boulevard and Pompano Square Mall. The route follows SR A1A within the Town. Service is scheduled seven (7) days a week with thirty (30) minute intervals except for Sundays and Holidays.

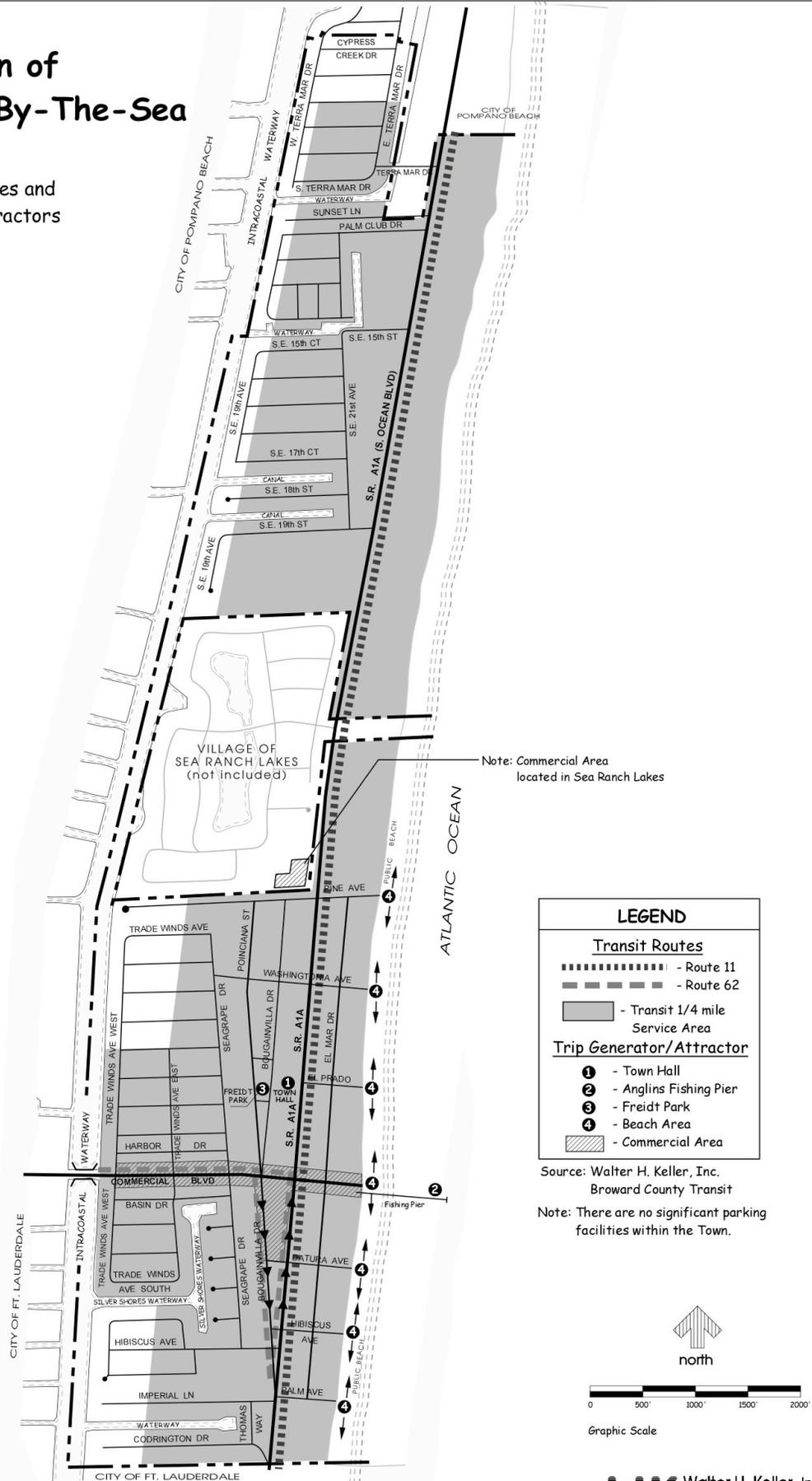
Route 62 begins at the Coral Square Mall in Coral Springs and ends just south of the Town at the Galt Ocean Mile area. The route enters the Town from Commercial Boulevard, turns south on Bougainvillea Drive and then follows SR A1A to the Galt Ocean Mile area. The route then returns to the Town and proceeds westerly on Commercial Boulevard. This route provides direct access to northwestern cities of Broward County such as Coral Springs, Tamarac, and North Lauderdale via Cypress Creek Road and Coral Ridge Drive. It also provides connections to the Fort Lauderdale Executive Airport and Tri-Rail at the Cypress Creek Road Station. Service is scheduled seven (7) days a week with forty-five (45) minute intervals on weekdays and one hour intervals on weekends and holidays.

Both routes provide indirect service to the entire County transit system, which in turn provides access to the Miami Dade and Palm Beach county systems. The regular fare for each one-way trip is one dollar. Senior citizens (65 years or older), youth (18 years or younger) and the disabled are entitled to a one-way fare of fifty cents. Additionally, unlimited all-day fare cards are available for two dollars and fifty cents at a discounted charge of one dollar and fifty cents for senior citizens, youth and the disabled. Also,

unlimited thirty-one day fare cards are available for thirty-two dollars with a discounted charge of sixteen dollars for senior citizens, youth and the disabled. Additional Social Service Transportation (SST) services are available, at no charge, to eligible elderly and handicapped citizens. In May 2002, a Community Shuttle Service known as the Pelican Hopper was initiated in the Town of Lauderdale-By-The-Sea.

Town of Lauderdale-By-The-Sea

Figure 7-4
Existing Transit Routes and
Trip Generators/Attractors



Short and long term transit improvements proposed by the Broward County MPO are aimed at improving the level of service of a transportation corridor. This is accomplished either by expanding the coverage area or reducing (i.e., more frequent) bus service headways. The *Broward County Transit Development Plan* (TDP) (Minor Update FY2001/02) identified recently incorporated improvements and proposed future improvements. Route 11 Sunday service headways and span of service were improved. Route 62 weekday headway was improved from 60 to 45 minutes and new Sunday service was incorporated. The FY 2002 TDP recommends improved weekday for both Routes 11 and 62 as well as improved Sunday headways for Route 11.

The Town is currently served by two (2) transit routes and over thirteen bus stops, but routes headways are high. Based on Broward County functional transit LOS of 70% area coverage, the City is currently well served with 88.9% area served according the TDP. The Town does not however fall in the coverage area for Tri-Rail shuttle service.

Greenhouse Gas Emissions

The discussion of Green House Gas (GHG) Emissions in the Future Land Use Element (see pages IV-14 through IV-16) is also applicable to the Transportation Element. The Transportation Element can reduce future GHG emissions by including:

- Providing modal alternatives to the single occupant vehicle such as bus and upgraded transit services, car pooling, van pooling, bicycle facilities and pedestrian facilities;
- Using travel demand management strategies to reduce vehicle miles of travel;
- Incorporating transportation system management strategies to reduce congestion and improve traffic flow; and,
- Improving traffic operations using various techniques such as traffic signal coordination, incident management systems and intersection improvements (turn lanes, roundabouts, etc.).

Programmed Improvements

Short-term improvements to the regional roadway system are programmed by the Broward County MPO. The MPO prepares a yearly update to the listing of transportation improvements countywide and publishes the list of improvements in an annual Transportation Improvement Program (TIP). Projects planned by FDOT, Broward County and several Broward County cities are included in the TIP. The TIP lists proposed improvements for a five (5) year period and also provides the projected funding sources. The current TIP is for the period 2001/02-2005/06.

The Florida Department of Transportation recently completed a major reconstruction of Commercial Boulevard and SR A1A in the southern portion of the Town. This project, developed with major input from the Town, included a widened three (3) lane section on SR A1A, new color sidewalks, pavers, drainage, street lighting, traffic and pedestrian signals and landscaping. The project also included developing an off-street parking lot at Town Hall thereby removing approximately 20 back out parking spaces on SR A1A.

The FDOT is continuing improvements on SR A1A in the newly annexed Intracoastal Beach Area. The safety project, programmed for 2002, extends from Pine Avenue to the north Town limits. Enhancements include incorporating a bike lane, modifying and adding traffic signals and adding street and pedestrian light to match those installed in the southern portion of the Town. The Town is relocating existing overhead utility lines underground in this area.

Previously, the long range transportation plan proposed one-way pairing of SR A1A and Bougainvilla Drive. This project was initially scheduled for fiscal year 1990-1991. The existing SR A1A would be one-way northbound. Pine Avenue would be the starting point for one-way southbound traffic. This traffic would be sent via Pine Avenue to Bougainvilla Drive. Bougainvilla Drive would be one-way southbound to the intersection with existing State Road A1A in the south portion of the Town. Because of the Town's opposition to the one-way pairing, which was aired at a public meeting with

FDOT in 1988, the project was postponed. The delay was used to re-evaluate the preferred design, alignment and schedule.

The one-way pairing of State Road A1A was programmed to coincide with the expansion of State Road A1A north of the Town in Pompano Beach and Sea Ranch Lakes. This improvement, proposed initially as a five (5) lane section, was reduced to a three (3) lane design.

Long-term improvements are contained in the Broward County MPO Year 2025 Long Range Transportation Plan (LRTP). Broward County is required to update the LRTP every three years since it has been designated an air quality maintenance area. The plan is updated to address transportation system planning needs for a minimum of 20 years. The LRTP guides the expenditure of federal, state and local transportation funds. Once a year, the MPO updates its TIP, which identifies projects and funding for those projects for the next five years. The LRTP is the primary source for identifying projects that should be considered for inclusion in the TIP. In addition to guiding the expenditure of transportation funds, the LRTP informs the public well in advance of transportation improvements that may affect their community. The transportation impacts of future growth are identified, allowing communities to adjust growth management and transportation strategies, if appropriate. There is no roadway or transit projects programmed for the Town in the 2025 LRTP. Unlike previous LRTPs, the 2025 LRTP no longer includes the one-pairing of SR A1A and Bougainville Drive.

Future Right-of-Way Requirements

The Broward County Planning Council Trafficways Plan is the official right-of-way (ROW) reservation and acquisition map for Broward County. The Trafficways Plan designates SR A1A as a one-way pair with Bougainville Drive. Each roadway is assigned a 54 foot ROW width. North of Pine Avenue, SR A1A is a 106 foot width, south of Bougainville Drive, SR A1A is a 100 foot width. The Trafficways Plan also designates Commercial Boulevard west of State Road A1A as a 100 foot ROW.

The Town should pursue amending the Trafficways Plan to delete the one-way pair configuration from the Trafficways Plan while retaining SR A1A as a Trafficway. With the completion of the SR A1A three-lane safety project on in the southern section of the Town and the removal of the four lane SR A1A requirement from the LRTP, the need for one-pair configuration is not substantiated.

Future Conditions and Analysis of Deficiencies

The Broward MPO has prepared projections of peak traffic conditions in the Year 2030 LRTP. This study is based on an areawide computer modeling of traffic conditions in the Year 2030. Interpolating the MPO assignment to 2020 projects traffic to increase to 29,948 vehicles per day (vpd) on SR A1A at the north Town limits, 23,665 vpd north of Commercial Boulevard and 28,349 vpd south of Commercial Boulevard. With the current two lane design in the north and three lane design proposed in the LRTP 2030 north and south of Commercial Boulevard, SR A1A would operate at a daily and peak hour level of service "F". The MPO 2020 projection of 33,172 vpd for Commercial Boulevard would result in a daily and peak hour level of service "F" and "D". If the traffic projections for SR A1A are realistic, a lower level of service is preferable in lieu of a further expansion of SR A1A.

A level of service analysis was conducted for 2020 based on the existing design types for SR A1A and Commercial Boulevard. The results of this analysis are provided in Table 7-5. A review of the results indicate SR A1A and Commercial Boulevard will continue to operate at LOS "F" due to increasing demand.

Table 7-5 2020 Daily and Peak Hour Traffic LOS Analysis

Roadway	Location	Func Class	Design Type	LOS D Capacity		2020		2020 LOS	
				AADT	Peak Hour	Peak AADT	Peak Hour	Peak AADT	Peak Hour
SR A1A	N of Pine Ave	U-MA	2LU	14,900	1,390	29,948	2,302	F	F
	N of Commercial	U-MA	3LU	15,645	1,460	23,665	1,777	F	F
	S of Commercial	U-MA	3LU	15,645	1,460	28,349	2,189	F	F
Commercial Blvd.	W of ICWW	U-MA	4LD	32,500	3,020	33,172	2,474	F	D

Sources: Walter H. Keller, Inc.
 Broward County, MPO
 Florida Department of Transportation
 Note: U-MA: Urban Minor Arterial

As noted previously in the Future Land Use Element, the Town's future land use plan is constrained to increase densities and intensities that will increase mass transit ridership.

Recommended Transportation Plan

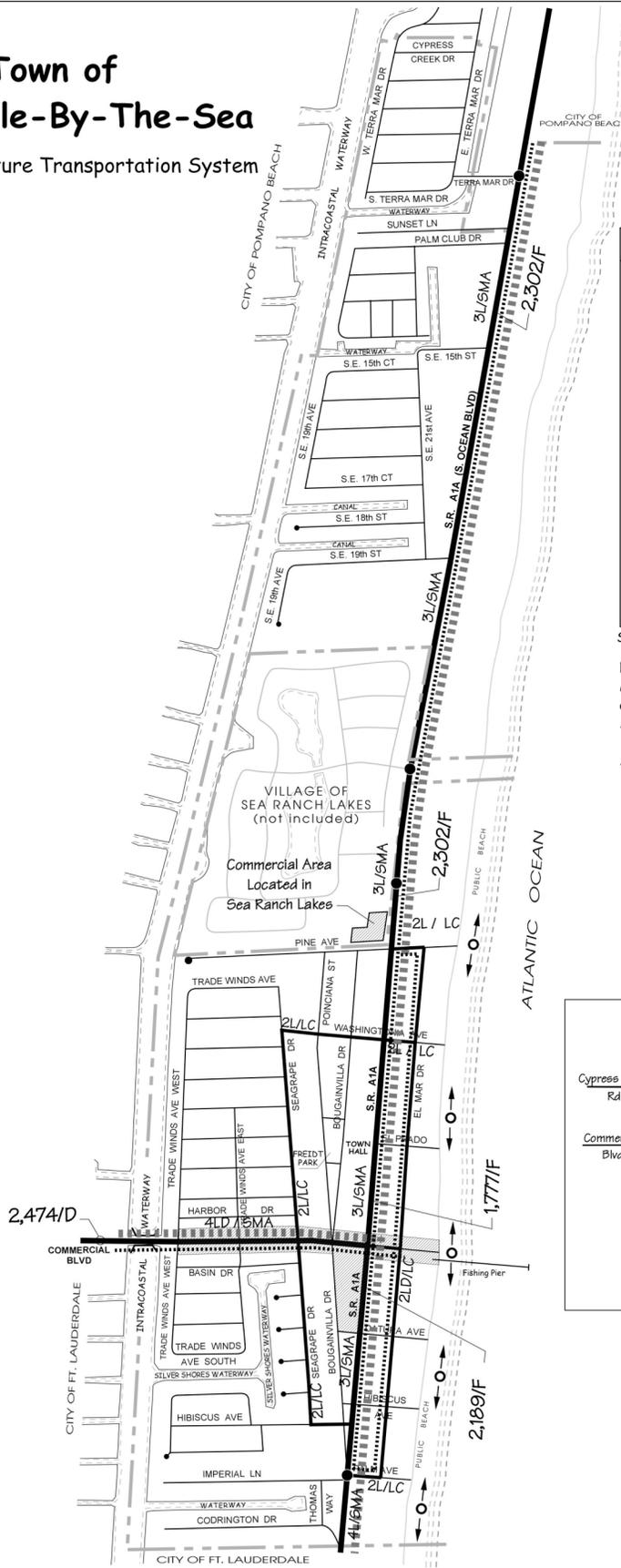
The recommended Future Transportation Plan has been developed to be consistent with the Broward County MPO Year 2035 Long Range Transportation Plan (LRTP). The Plan, see Figure 7-5, provides for multi-modal transportation needs with roadways, transit service, bike lanes/routes and pedestrian/sidewalk facilities. With the recent completion of the Florida Department of Transportation (FDOT) Commercial Boulevard and SR A1A improvements within the southern portion of the Town and the adoption of the MPO 2025 LRTP, the future one way pairing of SR A1A and Bougainvillea Drive has been eliminated.

The FDOT improvement in the southern portion of the Town totally reconstructed the roadway to a three (3) lane section consistent with the desires of the Town on the existing SR A1A alignment within the fifty foot right-of-way. FDOT is also reconstructing SR A1A in the northern portion of the Town as a three (3) lane section. The Town will initiate an amendment of the Broward Trafficways Plan to remove the SR A1A one-way pairing.

The Future Transportation Map provides for Commercial Boulevard to remain as a four (4) lane divided roadway. This section was also reconstructed by the FDOT with improved pedestrian features, new traffic signals, street lights, pavers and landscaping.

Town of Lauderdale-By-The-Sea

Figure 7-5 - Future Transportation System



LEGEND

- Minor Arterial (State)
- Collector (Local)
- Public Transit Route
- Bike Lane/Route

Major Transit Generators

- Commercial Area
- Public Beach Area

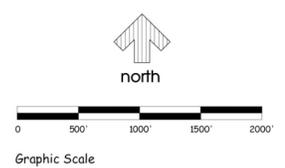
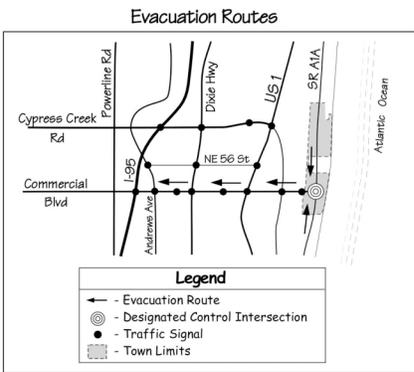
2,189/F - 2020 Peak Hour Vol/LOS
 SMA - State Minor Arterial
 CC - City Collector
 LC - Local Collector
 2L - Two Lane Roadway
 3L - Three Lane (one Thru lane in each direction plus center scramble or turn lane)
 4LD - Four Lane Divided Roadway

Source: Walter H. Keller, Inc.
 Broward County, MPO

Notes:
 Minor Arterials are maintained by the State & are Evacuation Routes.
 Sidewalks provided all Minor Arterials & Collectors.

See Figure 7-3 for additional information.

Figure Revised 1/2011



Multi-modal transportation features such as public transit routes, bike lanes/routes, roadway/pedestrian signals, pedestrian amenities and sidewalks are provided for SR A1A and Commercial Boulevard. Other transportation facilities such as community bus routes, tri-rail shuttle extensions, alternate fuel buses, the water taxi, transit greenways, multi-modal station(s) and off-street parking facilities are incorporated into the Plan.

In order to adhere to the "Maintain and Improve" LOS standard, all proposed new development and/or redevelopment generating more than 750 new vehicle trips will be required to submit engineering studies and/or traffic impact analysis detailing the development traffic impacts and mitigation of such impact in relation to roadway operating speed and LOS.

All development proposals will be required to perform trip generation analyses to determine the number of trips to be generated from the site. Projects generating 750 or more new vehicle trips will be considered to have significant impact on the Town's arterial roadway network and will be required to submit a detailed traffic study. Projects generating less than 750 new vehicle trips will be considered insignificant and be required to submit a trip generation analysis. The estimate of new vehicle trips will be based on the latest edition of the Institute of Transportation Engineers Trip Generation Handbook.

The traffic impact study will be required to provide trip generation, trip distribution and traffic assignments analyses. Average daily and peak season roadway link and peak hour intersection turning movements will be identified addressing all Town arterial roadways. Evaluation of project impact will be based on the operating speed of the roadway under existing conditions, projected conditions at build-out without the project and projected conditions at build-out with the project. Proposed projects will be denied if operating conditions fall below existing operating conditions. Proposed development will be required to indicate the methods to be employed for mitigating project impacts and the methods for monitoring concurrency.

Traffic mitigation may be achieved through signal timing/phasing improvements, progressive signal phasing, exclusive intersection turn lanes, median closure, access control, turn prohibitions, ride sharing, staggered work hours, customer/resident van service, extension or provision of additional transit facilities or any method that can be demonstrated to "Maintain and Improve" traffic operations and LOS where applicable.

The Town will, within one hundred and twenty (120) days of plan adoption determine the existing operating condition and LOS that shall be "Maintained and Improved". Once a roadway operating speed has been improved, that improved operating condition shall become the condition to be "Maintained and Improved" for subsequent projects. If the "Maintain and Improve" operating speed is adversely affected by development outside the Town, the Town will consider whether the operating condition and LOS may be lowered to that level. The Town will monitor County efforts relative to traffic/transit concurrency and consider code revisions, as appropriate.

Traffic calming measures will be evaluated to address speeding and "cut-through" traffic conditions on local roadways. With the Town's aggressive capital improvement program, improvements to pedestrian amenities, streetscape upgrades, landscaping, entry features, beach access locations, drainage and parking are programmed.

The Town's Transportation goals, objectives and implementation policies are contained in Section III of this document.

VIII. Coastal Management/Conservation

Introduction

This element combines the Coastal Management and Conservation Elements into one document. The entire Town lies within the Coastal Management Area. The goals, objectives and implementation policies of this Element are provided in Section III of the Comprehensive Plan.

Natural Resources of the Coastal Area

The Town of Lauderdale-By-The-Sea is almost entirely developed. The Land Use Element indicates that 99.5% of the Town is either developed or water areas associated with the Intracoastal waterway. For this reason, vegetative cover is that associated with an urban-coastal setting. Since the Intracoastal Waterway and its associated finger canals are bulkheaded, there are no mangrove or water vegetative areas within the Town. While some mature ornamental and oak trees are located in the older single family areas, review of existing Broward County vegetation inventories indicate no areas of natural vegetation within the Town.

The Future Land Use Element includes an existing land use map and existing land use table. The existing land use map (see Figure 4-1) and existing land use Table (see Table 4-1) indicate the extent of urbanization within the Town. The large park and recreation area located on the eastern portion of the Town is the Public Beach Area. This is a major natural resource for the Town.

The sand beach runs the entire length of the Town a distance of approximately 2.4 miles. Offshore and running parallel to the coastline are three extensive reef formations. The reef closest to the shore is approximately 200 to 1,000 feet from the beach. Water depths range from 7 to about 15 feet.

The middle reef is located between 2,000 to 3,000 feet offshore in water depths ranging from 20 to 30 feet. The outer reef is approximately 4,000 to 6,000 feet from the beach.

Water depths for the outer reef vary between 40 to 70 feet. The reef areas are developed with gorgonian and scleractinian corals and sponge species.

Within the reef areas several varieties of reef fish exist. Some of the common names of the species include: grunts, angelfish, butterfly fish, damsel fish, sea basses, wrasses, warsaw grouper, and red snapper. Species found east of the reef would include dolphin, cobia, jacks and the seasonal migrations of spanish mackerel and kingfish. Between the reef area and the surf zone, the dominant species include flatfish, snake eels, sea robins, stingrays and the seasonal migrations of mullet and bluefish.

The surf zone is relatively free of macroscopic attached vegetation and consists of a sand-shell bottom influenced by wave action. Fish species in this area include: catfish, croakers, pompanos, threadfish, jacks, ladyfish, anchovies and herrings.

In the area adjacent to Commercial Boulevard, a private fishing pier extends approximately 900 feet off the beach area. The water depths at the east end of the pier are approximately fifteen feet deep. The pilings and pier structure attract a variety of fish. These include snapper, snook, tarpon, grunts, croakers, catfish, pompano, threadfish, jacks, ladyfish, anchovies and herrings. During the winter, seasonal migrations bring bluefish, spanish mackerel and mullet.

Within the Intracoastal Waterway, adjacent waters (canals) several of the following fish species would be expected: catfish, toadfish, snook, snapper, grunts, sheephead, mullet and puffer fish.

Several species may occur in the vicinity of the Town which are currently listed on endangered or threatened lists. While no habitats exist within the Town that would provide for these species, the species may occasionally pass adjacent to the Town during migrations. Table 8-1 identifies listings of the common name of endangered or threatened species and the probable location within the Town.

Table 8-1 Endangered and Threatened Species

Common Name	Probable Location	Designated Status		
		FFWCC	USFWS	CITES
Fishes				
Common Snook	O,W	SCC		
Rivulus	W	SCC		
Reptiles				
Atlantic Loggerhead Turtle	O	T	T	I
Atlantic Green Turtle	O	E	E	I
Leatherback Turtle	O	E	E	I
Atlantic Hawksbill Turtle	O	E	E	I
Atlantic Ridley Turtle	O	E	E	I
Birds				
Artic Peregrine Falcon	A	E	T	I
Brown Pelican	A	SCC		
Least Tern	A	T		
Roseate Tern	A	T		
Mammals				
Right Whale	O	E	E	I
Sei Whale	O	E	E	I
Finback Whale	O	E	E	I
Humpback Whale	O	E	E	I
Sperm Whale	O	E	E	I
West Indian Manatee	O,W	E	E	I

Source: "Florida's Endangered Species, Threatened Species and Species of Special Concern Official List"-August 1997
Florida Fish and Wildlife Conservation Commission

Notes: FFWCC: Florida Fish and Wildlife Conservation Commission
USFWS: United States Fish and Wildlife Service
CITES: Convention on International Trade in Endangered Species of Wild Fauna and Floras.
O: Offshore Waters
W: Intracoastal Waterway or Finger Canals
A: Total Municipal Area
E: Endangered
T: Threatened
SSC: Species of Special Concern
I: Appendix I Species

Air Quality

In general, air quality in the South Florida region is good based on the prevailing tradewinds and flat topography of the area. These characteristics minimize air stagnation, which is a principal factor in high pollution levels in an urbanized, auto-dominated environment. In addition, average annual rainfall amounts of some 60 inches also contribute to the cleansing of particulates through scrubbing action.

With respect to air quality, the Town benefits from its eastern coastal location and associated coastal breezes. Due to a lack of heavy industry, there are no known major point sources of air pollution.

As noted in the Transportation Element, SR A1A has high daily traffic volume and poor levels of service. While most traffic is comprised of through trips, vehicle idling and acceleration results in heightened local levels of carbon monoxide and ozone.

The Broward County Department of Planning and Environmental Protection does not maintain any air quality monitoring stations in the Town. Data compiled at sites nearby indicate that air quality in the overall vicinity of the Town has been consistently in the “Good” or better range over the last several years.

Greenhouse Gas Emissions

The discussion of Green House Gas (GHG) Emissions in the Future Land Use Element (see pages IV-14 through IV-16) is also applicable to the Coastal Zone/Conservation Element. The Coastal Zone/Conservation Element can reduce future GHG emissions by including:

- Analysis of the factors that affect energy conservation for existing, proposed and future land use patterns; and,
- Analysis of natural resource factors that affect energy conservation for undeveloped, rural, agriculture and green infrastructure.

Land Use Inventory and Analysis

Existing Land Use

Map 4-1 located in the Future Land Use Element depicts the existing land uses within the Town. Except for the area in the immediate vicinity of Commercial Boulevard, all land uses adjacent to the Public Beach Area are either residential multi-family uses, tourist-oriented hotel/motel uses, or recreation-oriented uses. The Commercial Boulevard area and one lot just northeast of the Village of Sea Ranch Lakes is where commercial retail/restaurant uses are located. This area also includes the Fishing Pier. The entire coastal strip is developed.

Water Dependent and Water-Related Uses

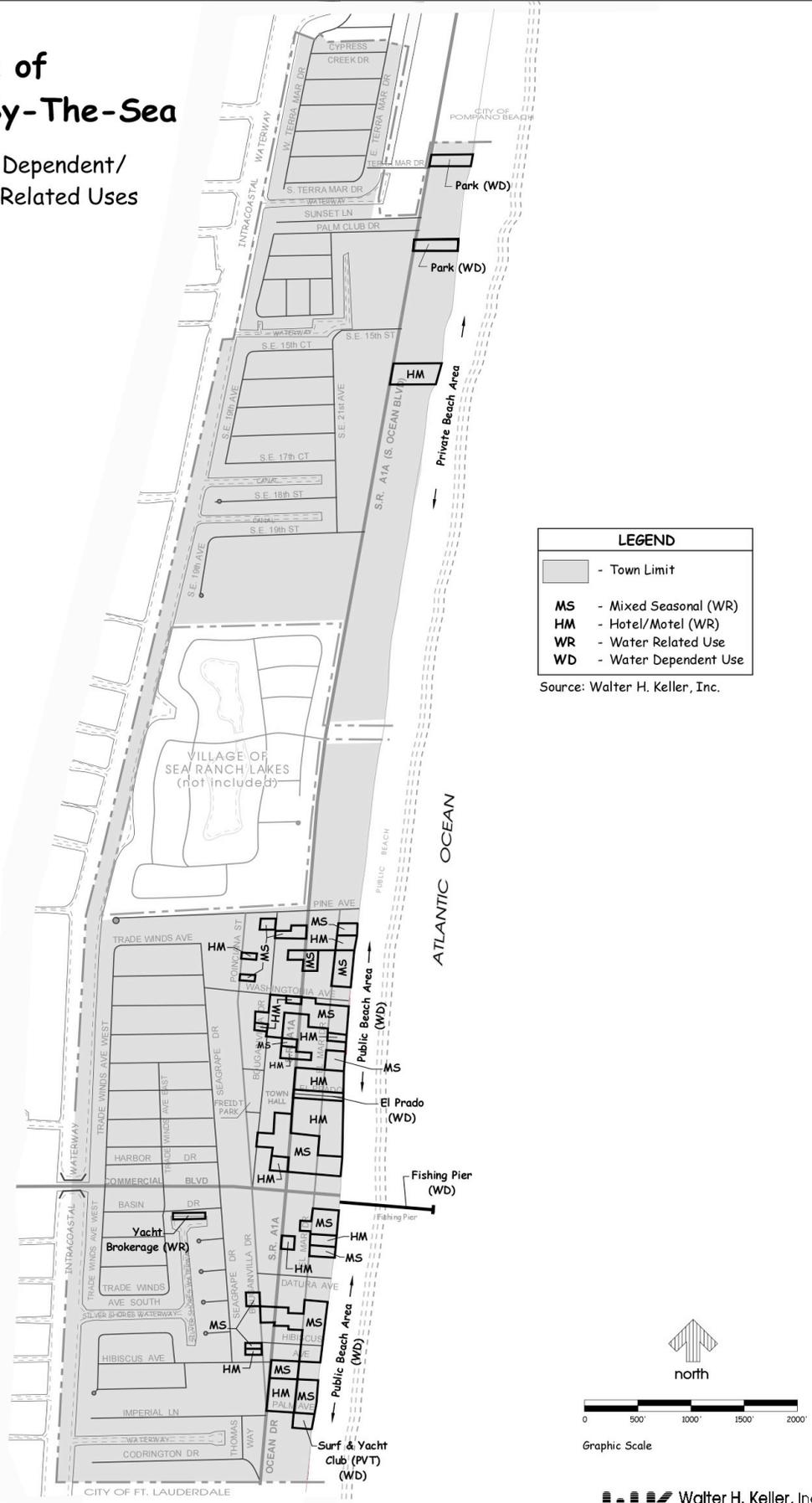
The Public Beach Area and the fishing pier are the only water dependent uses within the Town. The hotel/motel industry, seasonal apartments, recreation oriented parcels adjacent to the beach and the Basin Drive dock/marina (at the north end of the Silver Shores Waterway) are water-related land uses within the Town. The continued protection/preservation of the Public Beach Area is essential for the long term demands of Town residents and tourists. The lack of vacant land adjacent to the coastal shoreline or Intracoastal Waterway areas, limits the Town from increasing its current amount of water-dependent and water related uses. Figure 8-1 highlights water dependent and related uses.

In 1997 the Town, in cooperation with the Florida Department of Environmental Protection, U.S. Coast Guard and Broward County, established a Beach Management Area. The Beach Management Area currently runs along the eastern beach from the southern town limits to Gatehouse Road in the north. The Town is requesting an extension of the Beach Management Area to incorporate the Intracoastal Beach Area. The Beach Management Area provides a “safe area” for bathers and the offshore reef area. The “safe area” extends approximately 300 feet from the shore and is delineated by a series of can buoys approximately 600 feet apart. Powered (motored) watercraft are not

allowed in the Beach Management Area. Effective October 2002, the Town's limits will be extending east to the three mile offshore limit as approved by the Florida Legislature.

Town of Lauderdale-By-The-Sea

Figure 8-1 - Water Dependent/
Water Related Uses



Shoreline Lane Use Conflicts

The Future Land Use Map (see Future Land Use Element) promotes a continued usage of shoreline areas in a manner similar to current uses. Since these uses are compatible with the surrounding areas, no land use conflicts are expected along the coastal shoreline (beach) area. In the areas adjacent to the Intracoastal Waterway and its associated finger canals, future uses also project continuation of current uses. The Town's only dock/marina area is currently used for boat sales. This use is expected to continue at its present size since no additional vacant parcels are available for expansion.

Redevelopment

Redevelopment in the Town has been limited mainly to existing underutilized residential properties. In this case, existing structures have been demolished or totally rebuilt during the redevelopment phase. While there are several parcels of this type remaining, it is likely that these will be among the first targeted for redevelopment.

Existing high density multifamily parcels represent a greater redevelopment challenge. In some cases, redevelopment will consist of the rehabilitation and conversion of seasonal to year round occupied units. In other cases, redevelopment may likely consist of the construction of new condominium units with surface or underbuilding parking. Based on current code requirements, this type of development can occur at or near maximum permitted zoning densities and within current building height limitations.

In terms of the Town's hotel areas, most redevelopment will also be based on rehabilitation of existing structures. Construction of new motel buildings is challenging due to the complexity and cost of assembling enough land for a state-of-the-art facility. The Town should support this type of effort, however, since a single large scale project could serve as a catalyst for more widespread improvements. If new unit construction is proposed along the beachfront, the Town should also emphasize the siting of buildings landward of the coastal construction control line. All Town redevelopment however, should be constructed consistent with the minimum finished floor elevations based on FEMA criteria. Recent development proposals suggested an increase in the elevation of

the first habitable floor in order to comply with storm surge conditions. The Town will need to review current height provisions relative to a higher elevation.

Future traffic and roadway conditions may play a major role in determining the timing and magnitude of future redevelopment. Congestion along SR A1A and, due to bridge openings, along Commercial Boulevard provide a negative image to area tourism. Typically, major road improvements can also serve as a catalyst for redevelopment. The FDOT's recent improvements to Commercial Boulevard and SR A1A have significantly upgraded those facilities. The Town recently acquired property to construct a small off-street lot to serve the business area east of SR A1A. Other improvements to pedestrian linkages between the beach and western residential areas and local parking improvements are being investigated.

Economic Base

Lauderdale-By-The-Sea businesses serve two sometimes conflicting markets; the year round and long term seasonal residential and the short term seasonal or tourist residential. In the former case, market areas extend beyond the Town limits and reflect, particularly in the western areas, an extension of the retail and service occupations found on Commercial Boulevard west of the Intracoastal Waterway. In the latter case, retail uses such as souvenir and sundry shops, beachwear apparel and other establishments are mainly oriented to a Town service area.

Table 8-2 provides a listing of non-residential building or storefront tenants. The listing is organized such that area 1 is east of SR A1A; area 2 is between SR A1A and Seagrape Drive, and area 3 is west of Seagrape Drive. As evident in this Table, retail and service occupations are dominant in the Town. Miscellaneous retail and service establishments include such enterprises as hair salons, restaurants and inexpensive gift shops and variety stores.

Table 8-2 Storefront Classification

SIC Business SIC Title	Area			Total
	1	2	3	
<i>Retail Business</i>				
47 Transportation Services		1	3	4
51 Wholesale - NonDurable Goods		1		1
52 Building Materials & Gardern Supplies			1	1
53 General Merchandise Stores	2			2
54 Food Stores	1	3	1	5
55 Automotive Dealers & Service Stations		1		1
56 Apparel and Accessory Stores	2	5	6	13
58 Eating and Drinking Places	5	10	6	21
59 Miscellaneous Retail	12	8	8	28
Subtotals	22	29	25	76
<i>Services</i>				
60 Banking		3	2	5
62 Security, Commodity Brokers & Services			2	2
65 Real Estate	2	1	5	8
72 Personal Services		4	11	15
73 Business Services	1	1	7	9
75 Automotive Repair, Services, & Gara	1	1		2
76 Miscellaneous Repair Services			1	1
79 Amusement & Recreation Services		2	1	3
80 Health Services			3	3
86 Membership Organizations			1	1
Subtotals	4	12	33	49
00 Unclassified			2	2
Total	26	41	60	127

Source: Walter H. Keller, Inc., 1989

A breakdown of the orientation of storefront uses in terms of their orientation to year round and/or seasonal residents is provided in Table 8-3. While resident and mixed resident/tourist enterprises are dominant, approximately 30% of the east end businesses have a strong tourist orientation. It should be noted that assignment of a business to a specific category is somewhat judgmental; it should be noted that while many establishments are labeled as resident oriented, in reality some of these have limited applicability for intensive daily or weekly patronization.

Table 8-3 Storefront Market Orientation

Orientation	Area			Total
	1	2	3	
Tourist	8	3	1	12
Mixed	16	25	25	66
Resident	2	13	32	47
Unclassified			2	2
Total	26	41	60	127

Source: Walter H. Keller, Inc.

Regarding building occupancies, field review and discussions with business property owners indicate that retail occupancy rates are fairly high (90%). Office professional occupancy rates are lower (approximately 65% to 80%). Office space leasing difficulties are likely attributable to several factors, including local and areawide oversupply in available floor area, lease rates, parking or access problems and undesirability due to the adjacent tenant mix.

One recurring concern is the lack of ample parking in certain business areas. This situation relates to the reliance upon on-street parallel parking and the provision of common parking areas used by different businesses with individual parking demand and peak use requirements. In some cases, this maybe due to changes in tenant. This situation may also be the result of relatively low parking space requirements for certain types of uses. An increase in parking is desired by many Town businesses and the Town instituted a parking revenue fund to upgrade parking facilities.

Analysis of the Impact of Projected Development

The Future Land Use Element projects a continuation of development consistent with the current uses. Since the Town is approximately ninety-nine point six (99.5%) percent developed, this continuation of development should not impose any new impacts on natural resources such as wetlands, native habitats, the coastal shoreline area and endangered or threatened species.

Estuarine Pollution

The western limits of the Town is the centerline of the Intracoastal Waterway, a Class III water. The Intracoastal Waterway receives discharge from various fresh water canals and from the exchanges with the Atlantic Ocean at coastal inlets. The closest inlets to the Atlantic Ocean are at Port Everglades (six and three quarter miles south) and Hillsboro (four and one-half miles north). Generally, the water quality of the Intracoastal Waterway degrades the farthest distance from the coastal inlets. At several locations, Town storm drainage outfalls empty into the Intracoastal Waterway. (see Figure 9-1).

Several water quality sampling stations have been established within the County by the Broward County Department of Planning and Environmental Protection (DPEP). Initially started in 1973 with 88 stations, the current program provides quarterly sampling at forty-four locations. The samples are analyzed for physical, chemical and biological parameters in order to characterize water quality conditions.

One of the major tests is the concentration of dissolved oxygen in the water column. This concentration is important in identifying whether adequate oxygen is available for fish and aquatic organisms. High or low concentrations may indicate an imbalance in the production of oxygen as a by-product of photosynthesis or in the direct utilization of oxygen by microbial respiration. Aquatic animals are not believed to inhabit water with less than 5 milligrams per liter (mg/l) for extended periods of time. The DPEP standard is a daily average not less than 5 mg/l and no single reading less than 4 mg/l in both fresh and marine waters.

The availability of nutrients can be a limiting factor in biologic growth or aquatic organic production. The nutrients which may limit plant production in water are phosphorous and nitrogen. Phosphorous stimulates the growth of algae and rooted aquatics. High concentrations of phosphates are indications of sewage, agriculture runoff and industrial wastewater discharges. The DPEP maintains a 0.05 mg/l water quality standard for total phosphorous.

The total nitrogen content of the water column can indicate several conditions. In some instances, it can be a by-product of microbiological activity, indicating runoff from urban areas due to fertilizers, industrial pollution or fecal waste pollution. High concentrations of nitrogen acts as a fertilizer and stimulates the growth of algae and rooted aquatic plants. While this can have positive impacts, it can reduce the uses of the water. Present standards are 1.5 mg/l in marine waters.

Bacteriological levels are an indication of the origin of pollution and the ambient bacteriological quality. The DPEP monitors three groups of bacteria: total coliform, fecal coliform and the fecal streptococcal group. The amount of each group is an indication of the potential for pathogenic organisms to be present. The Fecal Coliform group is indicative of fecal pollution. Broward County DPEP standards for Class III waters is 800 colonies per 100 milliliters of a sample as a daily maximum. The standard for Total Coliform is 2,400 colonies per 100 milliliters in any sample.

In 1972, the Environmental Protection Agency conducted a reconnaissance survey which measured the oxygen concentrations in the Intracoastal Waterway. In the vicinity of Commercial Boulevard the average dissolved oxygen concentration was measured at 4.8 mg/l. One observation resulted in a reading of 3.8 mg/l which was below the Broward County Water Quality Standard of 4.0 mg/l. A major reason for the low water quality was due to urban runoff, fresh water discharges from canals and wastewater discharges from the Coral Ridge Wastewater Treatment Plant.

While the various residential and transportation drainage outfalls (see Figure 9-1) are suspected to negatively impact the water quality of the Intracoastal Waterway, there is no existing local data on the water quality impact outfalls within the Town cause. Information from the County's 208 Program suggests that "first-flush" systems contribute to water quality impacts after a long dry spell. For this reason, the Town should investigate the feasibility of retrofitting the residential drainage outfalls with pollution control devices.

Table 8-4 presents the results of DPEP monitoring of the Intracoastal Waterway from 1990 through 2000 at a point 100 feet north of the Commercial Boulevard Bridge. The table reveals dissolved oxygen to vary from a low of 2.8 to a high of 10.5. Total Nitrogen generally was measured within the County standard of 1.5 mg/l and Total Phosphorous almost always exceeded the standard of 0.05 mg/l averaging 0.58 between 1990 to 2000. Fecal Coliform levels exceeded the standard only once during the 1990-2000 timeframe. Total Coliform levels never exceed the standard of 2,400 colonies over the same period.

Table 8-4 Water Quality Trends From 1990 to 2000

Location	Month	Year	pH	Dissolved Oxygen mg/l	Fecal Coliform A	Total Coliform A	Total Phosphorus mg/l
Intracoastal Waterway: 100 feet north of the Commercial Blvd Bridge Site #36	January	1990	7.6	5.8	K10	K33	0.120
	April	1990	7.5	5.5	20	33	0.024
	July	1990	7.6	5.5	70	700	0.070
	October	1990	7.6	5.6	20	230	0.163
	January	1991	7.8	6.8	K10	67	0.063
	April	1991	7.6	4.3	30	100	U0.02
	July	1991	7.4	6.2	45	2000	0.048
	October	1991	7.4	2.5	80	600	0.114
	January	1992	7.8	6.8	120	530	0.096
	May	1992	7.7	5.5	K10	300	0.122
	July	1992	7.7	5.1	10	400	0.039
	October	1992	7.8	4.3	K10	250	0.036
	January	1993	7.9	5.4	K10	260	0.054
	April	1993	7.8	5.4	K10	K33	0.052
	July	1993	8.0	4.4	1500	1700	0.048
	October	1993	7.7	2.8	10	130	0.057
	January	1994	8.0	7.3	100	1900	0.061
	April	1994	7.5	5.9	30	400	0.035
	July	1994	7.6	5.0	90	300	0.020
	October	1994	7.6	5.9	40	K33	0.076
	January	1995	7.6	7.3	50	470	0.049
	April	1995	7.6	7.8	20	100	U0.02
	July	1995	7.7	5.7	150	170	0.026
	October	1995	7.1	6.1	6.1	30	0.064
	January	1996	7.8	8.1	40	30	0.029
	April	1996	7.6	4.2	10	330	0.139
	July	1996	7.5	5.8	30	130	0.050
	October	1996	7.8	4.9	89	170	0.067
	January	1997	7.6	6.8	30	220	0.049
	April	1997	7.7	5.7	22	120	0.027
	April	1997	7.7	5.7	22	120	0.027
	July	1997	7.8	6.0	B44	B370	M0.033
	October	1997	7.4	5.5	B7	B73	M0.046
	January	1998	7.9	8.4	B89	L410	0.054
	April	1998	8.0	7.1	B22	B150	M0.023
	July	1998	8.0	5.7	K7	B120	0.080
	October	1998	7.6	5.8	K7	K24	0.087
	January	1999	7.7	8.1	B59	B390	0.078
	April	1999	7.7	7.1	B15	B49	0.062
	July	1999	7.4	5.3	B7	B49	M0.031
October	1999	7.63	6.52	540	L1300	0.0790	
January	2000	7.65	10.5	B30	B340	0.0550	
April	2000	7.57	9.38	B<2	B49	M0.043	
July	2000	7.38	5.56	260	1100	M0.040	
October	2000	7.43	7.53	B30	B490	0.0580	
Average			7.7	5.8	71.6	356.9	0.058

Source: Broward County Dept. of Planning & Environmental Protection
- Environmental Monitoring Division

Walter H. Keller, Inc.

A: Colonies per 100 milliliters

B: Micromhos per centimeter at 25 degrees Celcius

U,K,<: Less than the number that follows

L, >: Greater than the number that follows

M: Less than the detection limit but more than zero

mg/L: Milligrams per liter

Impact of Proposed Land Uses and Facilities of Estuaries and Analysis of Needed Remedial Actions

The implementation of the Future Land Use, the Infrastructure and Transportation Elements of the Comprehensive Plan do not project any increase land uses or capital improvements which would create new point or non-point sources of pollution. There are no industrial uses or undeveloped commercial parcels within the Town which are projected to create significant increased loadings or discharges. In addition, current practices of using "best management" approaches to storm drainage will tend to improve existing conditions. For these reasons, no remedial actions are necessary.

State, Regional and Local Regulatory Programs to Reduce Estuarine Pollution

Several agencies are responsible for water quality and pollution regulation within Broward County. These include the Florida Department of Environmental Protection, the South Florida Water Management District, the Broward County Department of Planning and Environmental Protection (BCDPEP), the Broward County Health Department and the Broward County Water Resources Division. Additional information on involvement of agencies can be found in the Intergovernmental Coordination Element.

Beach and Dune Systems

The Town of Lauderdale-By-The-Sea maintains the beach the entire length of the Town. Because the shoreline beach area has been entirely developed, there are no natural dune systems.

The beach width according to April 1999 aerial photographs indicate widths ranging from 96 feet to a maximum of 207 feet. Generally, the beach widths are greatest in the central portions of the Town and narrow at the northern and southern ends of the Town limits. At the north and south Town limits the beach width is approximately 104 and 96 feet respectively. Near Commercial Boulevard and the Pier, the beach width is approximately 163 feet. Proceeding north, the beach width is approximately 185 feet in the area of the

Sea Ranch Club Condominiums and reaches its maximum width in the Intracoastal Beach area at 207 feet.

Impacts of Coastal and Shore Protection Structures on the Beach

There are no existing coastal structures or shore protection structures on the beach area, although some walls exist at the eastern development line of developed parcels. The Town's pier is approximately 876 feet in length and extends almost 730 feet into the ocean. The pier is twenty feet wide with a sixty foot wide "T" at its end.

Analysis of Beach and Dune Protection Measures

The 1983 beach nourishment project provided a beach width that would provide protection from erosion that would accompany a storm with a frequency of occurrence of one in ten years. The only accepted solution to slow erosion is periodic maintenance and beach nourishment methods.

All development occurring on the coastal shoreline is regulated by the Florida Department of Environmental Protection, Division of Beaches and Shores which administers the Coastal Construction Control Line. Broward County Department of Planning and Environmental Protection (BCDPEP) is implementing a Beach Renourishment Project. Scheduled to begin in Spring 2003, the project will begin in the City of Hollywood and ultimately proceed north to the Pompano Beach area. The beach areas in the northern and southern portions of the Town are scheduled for renourishment. It is anticipated the project will begin in the Town in the Spring of 2003. Tentatively, Federal funding for the project is expected make-up 56 percent of the project cost with the State providing approximately 24 percent of the project funding. Broward County and affected local municipalities will provide the remaining 20 percent.

Archaeological and Historic Resources of the Coastal Area

There are no known existing archaeological or historic resources within the Town of Lauderdale-By-The-Sea. For this reason, the Future Land Use Element will not have any impacts on existing or protected sites.

Dredge and Spoil Disposal Sites

There are no dredges and spoil sites located in the Town of Lauderdale-By-The-Sea. A twenty-five (25) acre site within the Port Everglades Jurisdictional Area, located at SE 36th Street and SE 18th Avenue in Hollywood. The area is industrial in nature with saltwater groundwater. According to the Broward County Comprehensive Plan, the Port Everglades Department will consult with the Department of Environmental Protection, Florida Inland Navigation District (FIND), and the US Army Corp of Engineers to locate additional suitable sites.

Hurricane Evacuation

Introduction

The 1997 Broward County Comprehensive Plan's Natural Disaster Component utilized data provided by the Broward County Emergency Management Division. This section of the Coastal Management/Conservation Element summarizes portions of that study and reviews the Town's involvement in the County Plan. Currently, the Broward County Comprehensive Emergency Operations Plan (BCCEOP) is under review and an updated version is anticipated by the end of 2001. Elements of a draft of the BCCEOP have been incorporated into this portion of the Element.

Hurricane Characteristics and Phasing of Warnings

Hurricanes (also known as tropical storms) are potentially devastating occurrences. Broward County's coastal location, storm's unpredictable paths, intensity variations and lack of recent local experience, complicate hurricane preparations. Major hurricane

characteristics are: strong winds, high-tides and flooding, excessive rain and flooding and storm surges.

The National Hurricane Center of the National Oceanic and Atmospheric Administration (NOAA) provides data on individual storms and provides official predictions and recommendations in the form of Hurricane Watches and Warnings. Based on the predicted severity of a particular hurricane, selective evacuations may be required from coastal and low-lying areas.

Lauderdale-By-The-Sea is located entirely on the barrier island. The Town is evacuated for all hurricanes when an evacuation order is issued for Broward County. The areas east of the Intracoastal Waterway are particularly vulnerable to severe wave action and the effects of tidal/storm surges. Limited bridge crossings and roadways which may become inaccessible due to high water, necessitate evacuation prior to any category storm striking within or in close to the county.

A Hurricane Watch is issued by the National Hurricane Center when hurricane conditions are a possible threat to a certain area. The Hurricane Watch is usually given 24 to 48 hours before the hurricane eye reaches landfall.

A Hurricane Warning is issued by the National Hurricane Center when winds of at least 74 miles per hour, high water and storm surge are expected to reach a specific area within a period of 24 hours.

Hurricane Evacuation Plan

The Broward County Hurricane Evacuation Plan (BCCHEP) contains three levels for addressing a storm situation. The first instance and lowest level of action is Plan "A". This response provides for a Saffir/Simpson category 1-2 hurricane intensity. This hurricane level would include a storm surge of four to seven feet above mean sea level with winds of ranges of 74 to 110 miles per hour. Plan "A" necessitates the evacuation of

all coastal residents between the coastline and the Intracoastal Waterway as well as mobile home residents in selected areas. For the Town of Lauderdale-By-The-Sea, the area of the Town east of the Intracoastal Waterway has been identified by Broward County as part of the Coastal High-Hazard Area. A Plan "A" evacuation order would be issued 21 hours prior to hurricane landfall with evacuation operations beginning within 4 hours and continuing for 6.5 hours.

The second level response is Plan "B". This response provides for a Saffir/Simpson category 3 hurricane intensity. This hurricane level would include a storm surge of seven to eleven feet above mean sea level with winds of ranges of 111 to 130 miles per hour. Plan "B" necessitates the evacuation of all coastal residents between the coastline to U.S.1 and all county mobile home residents.

The third level and most intense response is Plan "C". This is in response to Saffir/Simpson categories 4 and 5 hurricane intensity. This hurricane level would include a storm surge of nine to eleven feet above mean sea level with winds in the range of 131 to 151-plus miles per hour. Plans "B" and "C" evacuation orders would be issued 26 hours prior to hurricane landfall with operations beginning within 4 hours and continuing for 12 hours.

BCCHEP Relationship with the Town of Lauderdale-By-The-Sea

Since the Town of Lauderdale-By-The-Sea is located entirely in the Hurricane Vulnerability Zone, either Plan "A", "B" or "C" would necessitate evacuation of the Town. According to the Broward County Emergency Management Division (1996), fifteen (15) percent of Broward's population requiring evacuation would seek shelter in a public refuge. With the Town's 2000 resident population of 5,194 residents, approximately 779 residents would require shelter spaces. Countywide there are approximately 37,000 shelter spaces available at 12 primary shelters located throughout the County at public schools. Also, an additional 30,000 shelter spaces are available at secondary hurricane shelters and more public schools could be opened should more spaces be required. The 1997 Broward County Natural Disaster Planning Component

estimates that evacuation will take approximately six and one-half hours for Plan "A" and twelve hours for Plans "B" and "C". The estimated travel time includes 30 minutes for loading, 10 minutes for unloading and 15 miles per hour. It is estimated that individuals residing in coastal areas could reach public shelters within two hours. The evacuation time is dependent on the traffic conditions and the cooperation provided by the public.

The County has designated the Commercial Boulevard intersection with State Road A-1-A as a Designated Controlled Intersection. In this instance, members of the Florida Highway Patrol or Broward Sheriffs Office would direct traffic to ensure optimum functioning of the intersection and evacuation route traffic lanes. The evacuation route for the Town is Commercial Boulevard west through Fort Lauderdale with Designated Controlled Intersections at Bayview Drive and U.S.1. Figure 8-2 identifies the Town's evacuation route, transportation constraints and the location of the primary shelter.

The nearest primary emergency evacuation facilities to the Town are located at Floranada Elementary School (5251 NC 14th Way, Fort Lauderdale) and Blanche Ely High School (1201 NW 6th Avenue, Pompano Beach). Nearest secondary shelters would include Boyd Anderson High School (3050 NW 41 Street, Fort Lauderdale) and Coral Springs High School (7201 W. Sample Road, Coral Springs). Nearest tertiary shelters include Lauderdale Lakes Middle School (3911 NW 30 Avenue) and Pompano Beach Middle School (310 NE 6th Street, Pompano Beach).

Some of the County's residents are transit dependent. For this segment of the population, a Mass Transit Plan has been prepared to address Broward County population segments located with evacuation areas. Transit evacuation operations begin four hours after an evacuation order, which is given 21 to 26 hours prior to the forecasted landfall of a hurricane. Plan "A" (Storm Category 1-2), necessitate the evacuation of all Town residents and emergency transit operations stay in effect for approximately 6.5 hours. Two emergency transit routes, originating at the intersection of Commercial Boulevard and SR A1A, would provide transit evacuation service to Blanche Ely High School and Floranada Elementary School. Under Plan "B", additional emergency transit routes

would be provided, with service continuing for 12 hours. The nearest additional routes would originate on SR A1A north and south of the intersection of Atlantic Boulevard and SR A1A and proceed to Taravella High School (10600 Riverside Drive, Coral Springs) or to Coral Springs High School (7201 W. Sample Road, Coral Springs).

The BCCPEOP draft specifies that individuals with special needs requiring special transportation will have their evacuation and reentry needs addressed by their designated Paratransit Transportation contractors. The Broward County Paratransit Services Section, through the means of contract arrangements, will be responsible for the door-to-door evacuation of the elderly and handicapped persons and will also respond to telephone requests from residents or through the Emergency Operations Center. Lead agencies designated to coordinate evacuation and reentry activities would be the Broward County Community Services Department and Mass Transit Division. Support agencies include the Broward County Fleet Services Division, the Broward County School Board, the Tri-Rail Authority, the Paratransit Services Section and the Sheriff's Office. Elements of the September 2001 draft of the BCCEOP have incorporated into this portion of the Element.



Legend	
←	- Evacuation Route
⊙	- Designated Control Intersection
○	- Traffic Signal
▭	- Town Limits

American Red Cross Regional Hurricane Shelters	
①	- Lyons Creek Middle School 4333 Sol Press Blvd., Coconut Creek
②	- Coral Glades High School 2700 Sportplex Dr., Coral Springs
③	- Monarch High School 5050 Wiles Rd., Coconut Creek
④	- Pompano Beach Institution of Int'l Studies High School 1400 N.E. 6th St., Pompano Beach
⑤	- Park Lakes Elementary School 3925 N. SR 7, Lauderdale Lakes
⑥	- Rock Island Elementary School/ Arthur Ashe Middle School 1701 N.W. 23rd Ave., Ft. Lauderdale
⑦	- Plantation Elementary School 651 N.W. 42nd Ave., Plantation

Source: Walter H. Keller, Inc.
Broward County - Office of Emergency Management

Town of Lauderdale-By-The-Sea
Figure 8-2 - Hurricane Evacuation Routes and Shelter Locations

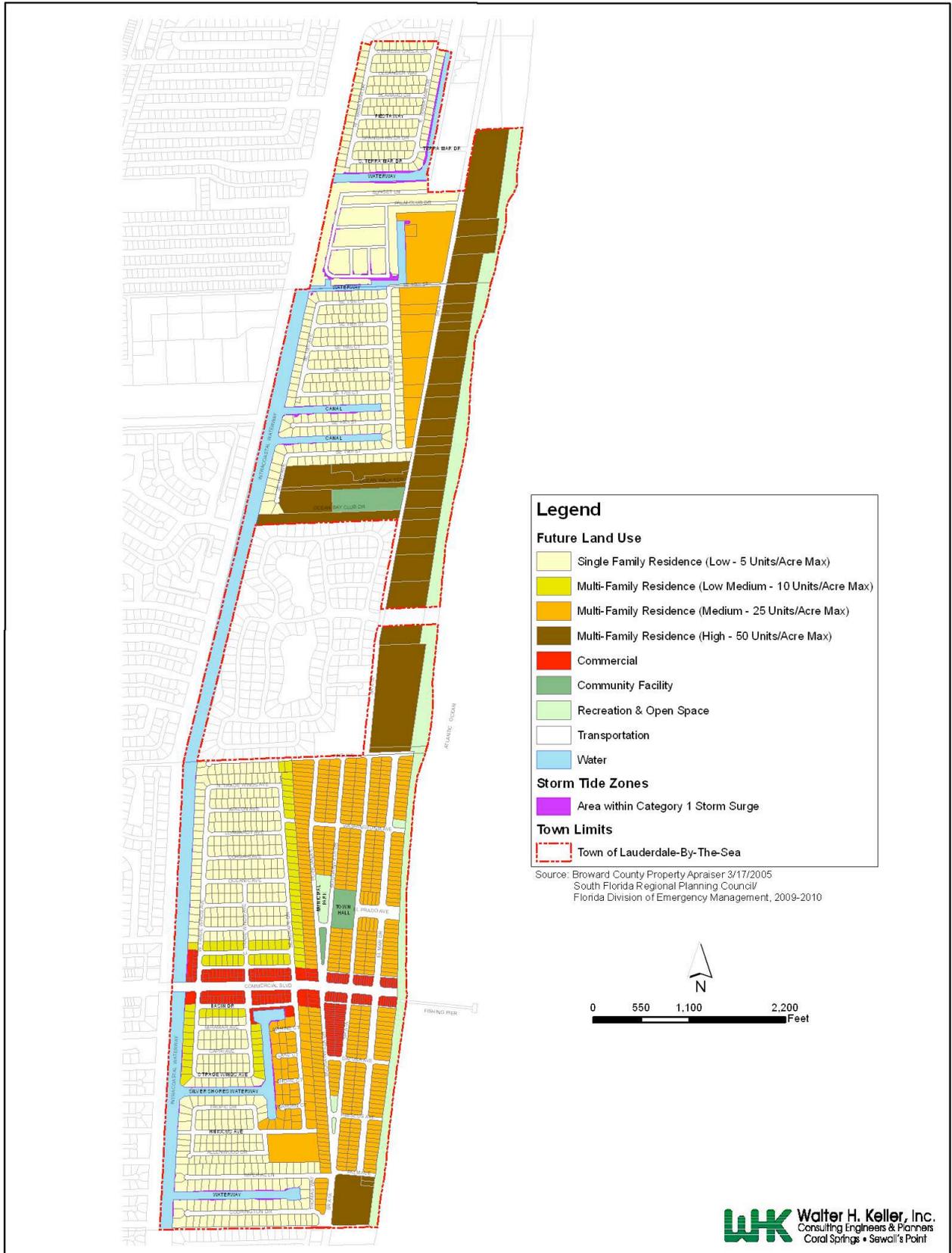


Post Disaster Planning Concerns and Coastal High-Hazard Areas

The Coastal High Hazard Area is defined as the area below the elevation of the Category 1 Storm Surge Line as established by the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model. Information on the SLOSH Model for the Town was obtained from the 2010 Storm Tide Atlas for Broward County produced by the South Florida Regional Planning Council. The Category 1 Storm Surge Line was added to the Town's Future Land Use Map (see Figure 8-3).

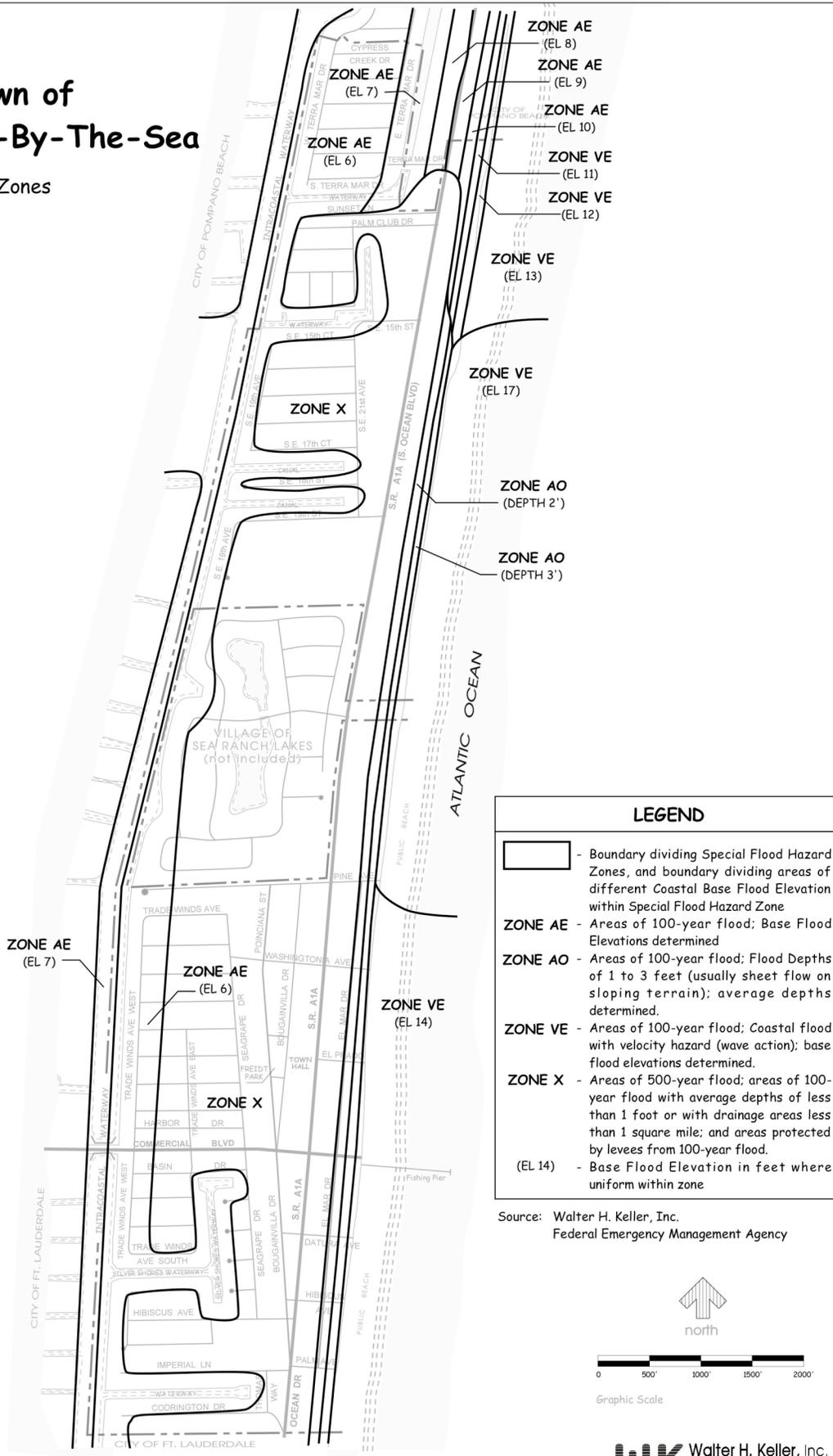
The area projected to experience the most severe damage is identified in Figure 8-4. This area is based on FEMA contours. Future land uses are expected to be a continuation of current land uses. Future development will require consistency with the regulations of the Coastal Construction Control Line (CCCL). Because of limited recent hurricane experience, a listing of structures with repeated damage from coastal storms is not available. In exception to this is the Town's private fishing pier. The proposed 2002-2003 beach renourishment project is expected to have a major beneficial impact on minimizing damages from future coastal storms.

Figure 8-3 (Future Land Use Map with Class I Storm Surge Line)



Town of Lauderdale-By-The-Sea

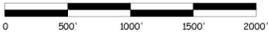
Figure 8.4 - Flood Zones



LEGEND

-  - Boundary dividing Special Flood Hazard Zones, and boundary dividing areas of different Coastal Base Flood Elevation within Special Flood Hazard Zone
- ZONE AE** - Areas of 100-year flood; Base Flood Elevations determined
- ZONE AO** - Areas of 100-year flood; Flood Depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
- ZONE VE** - Areas of 100-year flood; Coastal flood with velocity hazard (wave action); base flood elevations determined.
- ZONE X** - Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.
- (EL 14) - Base Flood Elevation in feet where uniform within zone

Source: Walter H. Keller, Inc.
Federal Emergency Management Agency



Graphic Scale

Public Access and Coastal Recreation Facilities

Inventory Of Existing Facilities

Within the Town, Public beach access is provided at six locations. These locations are the termini of public streets and in many instances also provide for a limited number of parking spaces. Table 8-5 summarizes coastal recreation facilities. Additional information of the location of major recreation facilities within the Town can be found in the Recreation and Open Space Element and Figure 6-1.

Table 8-5 Summary of Coastal Recreation Facilities

Recreation Facility Type	Location	Description
Saltwater Beach	Entire Town Limits	2.4 miles
Fishing Pier	Commercial Blvd	876 feet
El Prado Park	El Prado Drive	Beach Park
Beach Access	Pine Avenue	No Parking Spaces
Beach Access	Washingtonia Ave.	14 Parking Spaces
Beach Access	El Prado	99 Parking Spaces
Beach Access	Commercial Blvd.	67 Parking Spaces*
Beach Access	Datura Avenue	9 Parking Spaces
Beach Access	Palm Avenue	9 Parking Spaces
Friedt Park	W. of Town Hall	Town Park
Spicola Park	N. of Town Hall	Town Park
Ch. of Commerce Park	SR A1A @ Hibiscus	Open Space Area
Surf & Yacht Club	Palm Ave at Beach	Private Beach Club
Palm Club Coop	Palm Club Dr @ SR A1A	Private Beach Club
Terra Mar Beach Club	Terra Mar Dr @ SR A1A	Private Beach Club
Beach Easements	N of Sea Watch Restaurant and Cristelle Condo	2 - 10 ft Beach Easements

Source: Walter H. Keller, Inc.

Notes: *These spaces are shared with commercial uses.

Future Needs and Demand Analysis for Wetslips

While Broward County requires additional beach facilities to meet the future population and tourists needs, the Town is limited in expanding the beach area and dockage facilities due to the lack of vacant land and parking spaces. The Town however, should strive to maintain quality beach resources in the future to protect its tourist oriented economic base.

Broward County has a need for additional wetslips. The Town is limited in meeting this need due to the lack of suitable vacant tracts.

Coastal Area Infrastructure

Existing and Future Roadway Facilities

State Road A-1-A and Commercial Boulevard are the Town's arterial roadway facilities. These roadways provide access to the adjacent municipal areas along the barrier island and across the Intracoastal Waterway. The roadways are functionally classified as State Minor Arterials. Since all the Town's municipal area is within the coastal area, additional description of roadway facilities, existing conditions, future traffic projections and the recommended Traffic Circulation Plan can be in the Transportation Element (see Section VII).

Existing and Future Sanitary Sewer and Potable Water Facilities

The Town is part of the North District Regional Wastewater System. The Town functions as a collector system and has pumping stations which pump sewage through a force main along State Road A-1-A to the City of Pompano Beach. Potable water is provided to the Town by the Cities of Fort Lauderdale and Pompano Beach. The Town leases the water distribution system to the Cities of Fort Lauderdale and Pompano Beach who have maintenance and operational responsibilities. Since all the Town's municipal area is within the coastal area, additional description of sanitary sewer and potable water facilities can be in the Infrastructure Element (see Section IX).

Water Conservation

Sufficient fresh water supply is critical to any urban area, and areawide development increases pressure on the productiveness of the sole source Biscayne Aquifer. Recognizing this, it is important to minimize overall water consumption. A variety of methods to accomplish this objective are already established; local implementation of these methods is necessary.

The South Florida Water Management District has estimated that approximately 50% of the total annual water demand in urban areas is associated with supplemental irrigation of public greenspace and private landscape. In much of the Town, ornamental landscaping and/or lawngrass is found in naturally arid areas which were formerly associated with coastal hammock vegetation. In order to rectify this situation, the “Xeriscape” landscaping concept has been recognized as having applicability throughout south Florida.

The Xeriscape concept essentially provides for water conservation through the proper landscape watering techniques and through the use of appropriate drought tolerant landscape species. Eliminating large areas of grass or other water intensive vegetation, and replacing with mulch, ground covers or more suitable drought resistant vegetation is the thrust of the program. Proper site contouring, designation of a few, high profile water oriented areas, efficient irrigation systems and practices are also recommended as part of a successful program.

The Town could also promote other conservation methods such as modifying or replacing residential irrigation and plumbing fixtures with more efficient mechanisms. Consideration of local ordinances to limit irrigation during high evapotranspiration periods or periods of high residential consumption would also have beneficial impact.

Existing and Future Drainage Facilities

The Town's storm drainage network utilizes a mixture of dry wells and storm drainage outfalls into the Intracoastal Waterway or its associated finger canals. Figure 9-1 identifies existing drainage systems and outfall locations. Since all the Town's municipal area is within the coastal area, additional description of drainage facilities can be in the Infrastructure Element (see Section IX).

IX. Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge

Introduction

This section of the Comprehensive Plan describes the Sanitary Sewer, Solid Waste, Drainage, Potable Water and Natural Groundwater Aquifer Recharge Element. For simplicity, the name is shortened to the Infrastructure Element. The various sub-elements of the Infrastructure Element will be addressed in the order mentioned above. First, the service areas for each governmental entity will be identified. The existing land uses within each service area will be tabulated along with service capacity and demand. Existing facilities will be described and, as appropriate, regional service facilities. Future needs will then be assessed relative to current and programmed capacities. Finally, the Level of Service Standard will be defined. Note that the goals, objectives and implementation policies for the Infrastructure Element can be found in Section III of the Plan.

Sanitary Sewer Sub-Element

Service Area and Existing Conditions

The Town owns and operates a gravity sewer collection system in the southern portion of the Town. This system provides service throughout the municipal area. There are no septic tanks permitted within the southern portion of the Town and areas of the Town south of Pine Avenue are connected to the sanitary sewer system. The Town constructed the southern sanitary sewer collection system in 1967. The system was funded through a municipal bond issue of \$1,200,000 at a 4.65 % interest rate.

The Town annexed the Sea Ranch Condominiums in July, 1997 and the Intracoastal Beach Area (also known as South Beach) in October, 2001. Areas north of Pine Avenue are part of the Pompano Beach sanitary sewer service area. Sanitary Sewer service for the Sea Ranch Condominiums and for a majority of the multifamily, commercial, and community facilities in the Intracoastal Beach area are provided by pump station

connections with the regional trunk line on SR A1A. This trunk line is adequately sized to provide transmission to the City of Pompano Beach and the Regional Wastewater Treatment Facility. The single family areas in the Intracoastal Beach area, approximately 49.4 acres, are presently on septic tanks. The Town is committed to eliminating the septic tanks in this area by providing sanitary sewer service. A Sewer Enterprise Fund for the old Town Limits or Southern portion of Town has been established to provide for system improvements, maintenance and new services. Improvements were completed in 2001 to the Seagrape master pump station.

Table 9-1 indicates the land uses within the Town served by the gravity sewer collection system.

Table 9-1 Existing Land Uses Served by Gravity Sewer System (acres)

Existing Land Use	DU/ ACRE	Total Town	%
<i>Residential Units</i>		356.6	72.1%
Single Family *	0-3.75	115.1	23.3%
Two Family	3.75-10	30.2	6.1%
Multi-Family Moderate	11-25	97.7	19.7%
Multi-Family High	26-50	113.6	23.0%
<i>Non-Residential Uses</i>		135.2	27.3%
Commercial		31.4	6.4%
Mixed Use		1.5	0.3%
Park and Recreation		22.3	4.5%
Community Facility		7.9	1.6%
Private Beach		20.4	4.1%
Water		51.7	10.5%
<i>Vacant</i>		2.9	0.6%
Planning Area Total		494.7	100%

Source: Walter H. Keller, Inc.

* - Single family residences in Planning Area 6 (49.4 acres) are serviced by septic tanks and are not included.

The Town has an agreement with the City of Pompano Beach for treatment of the sanitary sewage collected within the southern portion of the Town. The agreement

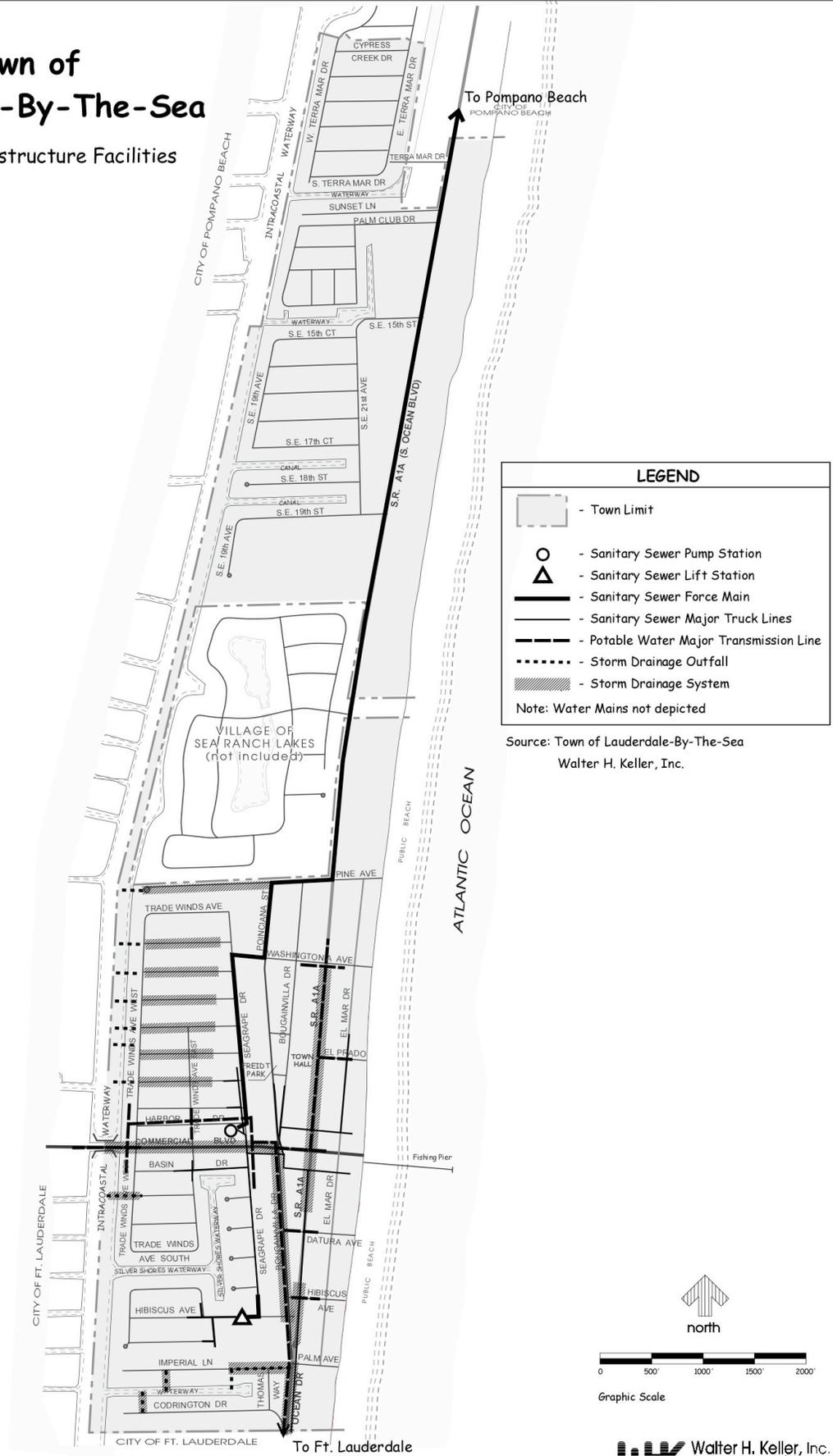
expires in the year 2002. Except for one lift station near Seagrape Drive and Hibiscus Avenue, the entire system is gravity controlled (see Figure 9-1). Sewage is pumped from a pumping station located at Harbor Avenue and Seagrape Drive via a fourteen inch force main north on SR A1A to a major pumping station located near the ocean outfall for the North Regional Treatment Facility.

The City of Pompano Beach is part of the North Regional Treatment District which provides service to the northern portion of Broward County including the cities of Coral Springs, Deerfield Beach, Tamarac, Lauderdale, North Lauderdale, Oakland Park, Parkland and Lighthouse Point. A network of major force mains connect the various pump stations to the North Regional Treatment Facility which is located in the northwest quadrant of the intersection of Copans Road and Powerline Road.

The North District Regional Treatment Plant in 1996 had a design capacity of 80 million gallons per day with discharge into the Atlantic Ocean via 54-inch ocean outfall which is located in the vicinity of the Pompano Beach Fishing Pier and four 24-inch deep wells. Available capacity in 1996 was estimated to be 9.3 mgd. Planned design capacity included an increase to 87 mgd in 1997 and 100 mgd in 2005.

Town of Lauderdale-By-The-Sea

Figure 9-1 - Infrastructure Facilities



Existing Flow Rates

The regional treatment plant accommodated 69.0 million gallons per day on a daily average in 1996. Peak average day demand was 79.0 million gallons per day in 1995. The City of Pompano Beach's flows were approximately 11.2 mgd or 21.2 percent of total regional demands. Of this amount, Lauderdale-By-The-Sea's average daily loading is estimated to be approximately 0.619 mgd prior to the annexation of the Sea Ranch Club Condominiums and the Intracoastal Beach Area. Based upon the Town's adopted Level-of-Service standard (225 gallons per capita per day), the annexation areas have an estimated flow rate between .83 mgd in the off-season to 1.18 mgd in the peak season. This amounts to about five and one-half percent of Pompano Beaches' demands and about one and two-tenths percent of regional loadings. Table 9-2 depicts the monthly sewage flows from the Town for 1985 and 1986. The current level of service is 225 gallons per resident per day. Note this level of service also includes flows from non-residents (tourists) and commercial uses.

**Table 9-2 Monthly Sewer Flows For 1985 and 1986
(in Thousands of Gallons)**

Month	1985 Flow	1986 Flow	Average
January	21,142	21,974	21,558
February	21,780	19,991	20,886
March	22,645	20,466	21,556
April	25,231	21,707	23,469
May	18,231	17,166	17,699
June	16,478	15,948	16,213
July	16,672	16,155	16,414
August	19,795	16,952	18,374
September	18,415	16,490	17,453
October	18,569	14,977	16,773
November	19,487	17,632	18,560
December	18,769	15,253	17,011

Source: Monthly Utility Records
Walter H. Keller, Inc., 1989

Future Design Flows and Capacity

Future sewage flows are projected based upon population projections on Table 5-9 in the Housing Element. Year 2010 average daily flows are estimated to be 0.650 mgd with a potential build-out in accordance to the Land Use Plan of 0.863 mgd. When accounting for peak season demands the estimates are 0.777 mgd and 0.963 mgd respectively.

The above analysis indicates that the existing system sizing is sufficient to accommodate future growth projected for the Town. Broward County studies indicate, however, that the North District Regional Facility will need to be increased to 100 mgd by the Year 2005. Flow projections for North District Regional Facility 88.8 million gallons per day in 2005, 92.75 in 2010 and 96.1 in 2015. The Lauderdale-By-The-Sea Level of Service is 225 gpd.

Future Sanitary Sewer Improvements

The Town's sanitary sewer system is adequate to meet anticipated growth. The single family areas in the Intracoastal Beach area, approximately 49.4 acres, are presently on septic tanks. The Town is committed to providing sewer service to this area. Engineering design for a vacuum based sewer system is programmed in the Capital Improvement Program for 2003. Once the system is completed it will be transferred to the City of Pompano Beach for operation and maintenance.

Solid Waste Sub-Element

Existing Conditions

The Town contracts with a private operator to remove all residential solid waste from the Town. The land uses within the service area are provided in Table 9-1. This contract provides for a minimum of two pick-ups per week.

Existing Generation Rates

In 2000, prior to the annexation of the Intracoastal Beach Area, the Town generated approximately 4,200 tons of solid waste and approximately 304 tons of recyclable

material. Off-season daily per person generations were estimated at 8.4 pounds for solid waste (21,500 lbs total) and 0.60 pounds of recyclable material (1,500 lbs total) based on a resident population of 2,563. The Town's peak season generation per day for solid waste and recyclable material was approximately 30,000 pounds and 2,200 pounds, respectively. Peak season daily per capita generation for was estimated at 8.8 pounds for solid waste and 0.63 pounds recycle material based on a peak population of 3,427.

Intracoastal Beach Area generation rates for the year 2000 were estimated based on Lauderdale-By-The-Sea's 2000 solid waste and recyclable material totals. Total Intracoastal Beach Area solid waste and recyclable material generation was estimated at 4,300 tons and 312 tons respectively. Off-season daily generation was estimated to total approximately 22,000 pounds of solid waste and 1,600 pounds of recyclable material based on a resident population of 2,631. Peak season daily generation was estimated to total approximately 38,137 pounds of solid waste per day and 2,800 pounds of recyclable material based on a peak season population of 4,354.

Combined generation rates for the Town and the Intracoastal Beach Area would total approximately 8,500 tons of solid waste and 615 tons of recyclable material a year. Daily off-season generation is estimated at approximately 43,500 pounds of solid waste and 3,150 pounds of recyclable material. Daily peak season generation is estimated at 68,000 pounds of solid waste and 4,900 pounds of recyclable material.

It is worth noting that Lauderdale-By-The-Sea is challenging the 2000 US Census count of housing units and population. The aforementioned data may be revised upon resolution, which is scheduled for the fall of 2002.

Regional Solid Waste Facilities

There are no solid waste disposal locations within the Town. Solid processable waste (burnable) collected within the Town is hauled to a Broward County resource recovery facility, the North Broward County Resource Recovery Facility (NBCRRF) waste-to-energy plant. This arrangement is based on an Inter Local Agreement with the County

that is due to expire June 30, 2013. The waste-to-energy plant is owned and operated by Wheelabrator, Inc. and is located at 2600 NW 48th Street in Pompano Beach. Non-processable solid waste (non-burnable) is disposed of at the Broward County Sanitary Landfill located at 7101 SW 48th Street, near Pompano Beach in Broward County.

In addition to NBCRRF there is also a South Broward County Resource Recovery Facility (SBCRRF) waste-to-energy plant located 4400 South SR 7 in Fort Lauderdale, which is also owned and operated by Wheelabrator, Inc. Both facilities were opened in 1991 and they have a combined capacity of 1.6 million tons a year with each facility having a daily capacity of 2,250 tons. Current demand at the Wheelabrator facilities is 1.05 million tons per year. Each facility is expandable by thirty-three (33) percent, from 2,250 tons per day to 2,990 tons per day. Additionally, a third waste-to-energy facility is in reserve at the Broward County Landfill. The Broward Interim Contingency Landfill (BIC) has a current capacity of 2.8 cubic yards and a current demand of approximately 80,000 tons per year. Additionally, the BIC has 21 million cubic yards of undeveloped capacity. It is expected the waste-to-energy plants and the County's landfill have sufficient capacity to satisfy future demands. Currently, there are no plans for expansion of the waste-to-energy facilities or landfill facilities.

The Town accounts for less than one percent of the solid waste demand at the NBCRRF. The Level of Service provided to the Town during 1999/2000 was approximately nine pounds of solid waste per person per day. It is worth noting that Lauderdale-By-The-Sea is challenging the 2000 US Census count of housing units and population. The aforementioned data may be revised upon resolution, which is scheduled for the fall of 2002.

Maximum build-out of the Town could result in 7,676 peak season to 12,128 year round residents. This population could occur prior to 2010. However because this is a maximum population condition, it is the basis for year 2010 conditions. At a generation rate of 8.0 lbs per day per capita, this would generate between 26 - 35,000 pounds of solid waste per day. At peak season conditions, maximum build-out would generate between 48 - 60,000

pounds of solid waste. Prior to the June 2013 expiration of the interlocal agreement with Broward County for solid waste services, they will need to investigate extending the agreement or find alternative arrangements. Future updates of the Town's Comprehensive Plan should incorporate the latest regional solid waste planning activities.

Drainage Sub-Element

The unique topography, soils and location of the Town relative to the Atlantic Ocean and Intracoastal Waterway can provide for superior drainage characteristics. The Town and the Florida Department of Transportation have constructed several drainage systems which outfall into the Intracoastal Waterway although portions of the Town without adequate drainage facilities experience drainage problems during seasonal rains. Figure 9-1 depicts the major drainage systems and points of outfall into the Intracoastal Waterway.

While information on the design capacity of the existing drainage systems are unavailable, the systems are of two types. The larger systems are those associated with SR A1A and Commercial Boulevard. These systems are normally designed to accommodate the rainfall within the roadway and adjacent area from a three year storm event. The other systems are those associated with the single family residential areas. These systems vary in size and coverage area and discharge through 12" to 18" outfalls into the Intracoastal Waterway or finger canals off of the Waterway. The residential drainage systems were constructed in 1967 and are in good condition.

The existing systems are expected to function with adequate maintenance satisfactorily through the Comprehensive Plan planning horizon of 2020. Because the systems discharge into the Intracoastal Waterway, some negative water quality impacts associated with "first flush" systems occur. The Town should investigate the feasibility of retrofitting the residential systems to include pollution control devices as identified in the Coastal Management Element.

Development projects in the Town have been conditioned upon drainage system design approvals of Broward County Water Management Division and/or the South Florida Water Management District. Large projects (40 acres or 2 acres of impervious area) require approvals from both of these agencies; smaller projects generally require approval of the County authorities. Very small projects are omitted from other agency approval, but are still required to meet drainage requirements as set forth by Broward County.

Drainage requirements are based on three criteria; the need to meet minimum finished floor elevations greater than anticipated water levels in a major storm event, the ability to retain a specific amount of water on-site, and the ability to detain a specific amount of water on-site prior to discharge in the regional drainage system.

Drainage problems have been evident in the multi-family areas of the southern portion of the Town west of SR A1A and in the Bel Air, Terra Mar and Palm Club developments in the Intracoastal Beach Area. In the multi-family areas, these problems have for the most part been associated with drainage conditions which because of the flat terrain, extensive swale paving and lack of an outfall system have created ponding and discharge deficiencies during rainstorms. In the IBA, the high water table and soil properties are factors. There are no stormwater discharge restrictions into the Intracoastal Waterway. Because of this, a specific level of service based on stormwater discharges cannot be provided. The Level of Service for the Town will be to continue to require the finished floor elevations to meet or exceed the FEMA requirements. The Town will also require new developments to retain either the first inch of rainfall or to accommodate the rainfall from a one hour three year storm.

The Town has established a Stormwater Utility Fund. The fund will be used to generate revenue for drainage improvements.

Potable Water Sub-Element

Service Area and Existing Conditions

The Town owns its potable water distribution system in the southern portion of the Town however, it leases the maintenance and operation to the City of Fort Lauderdale. The service area for this system is south of the Sea Ranch Beach Club, while the service area for Pompano Beach area is north of the Sea Ranch Beach Club. The existing distribution system is in aging condition. The Town is scheduled to sell the existing water distribution system to the City of Fort Lauderdale in 2002. The City of Fort Lauderdale will then be responsible for system upgrades and maintenance. With the expected improvements and maintenance the system should have a lifespan beyond the year 2020 planning horizon. Water pressures throughout the Town are adequate.

The City of Fort Lauderdale supplies potable water to the Town through connections on Commercial Boulevard at the west Town limits and SR A1A at the south Town limits. The land uses within the Town are provided in Table 9-1. The newly annexed portions of the Town, Sea Ranch Club Condominiums and the Intracoastal Beach Area, obtain potable water from the City of Pompano Beach via a 12" water main located in the SR A1A right-of-way.

A majority of the potable water supplied to the Town from the City of Fort Lauderdale is provided by the integrated system of Fiveash Water Treatment and Peele-Dixie Water Treatment Water Plants. The Fiveash facility is located at 4321 NW 9th Avenue and Peele-Dixie is located at 1500 SR 7, and both facilities are located in the City of Fort Lauderdale. The plants have a total design capacity of 90 mgd and have 15 interconnections with neighboring utilities including Pompano Beach (3 with an additional 3 in planning), Davie (1), Dania (1) and OES (10). The City of Fort Lauderdale maintains 40 wells in and around the western portion of Fort Lauderdale Executive Airport.

The City of Pompano Beach provides potable water from a water treatment plant located at 301 NE 12 Street in Pompano Beach. The plant has a capacity of 40 mgd. Pompano Beach maintains seven interconnections with neighboring utilities in the event of emergencies and as an alternative source of potable water. The interconnections include the City of Margate (2), Broward County's Office of Environmental Services (1), and the City of Fort Lauderdale (3 with an additional 3 in planning). The Pompano Beach well fields are located off Northeast 5th Avenue adjacent to the Pompano Airpark (15 wells) and east of the Turnpike at Atlantic Boulevard (operating up to three (3) wells at one time).

The Fiveash and Peele-Dixie Water Treatment Plants serve Wilton Manors and Port Everglades, portions of Oakland Park, the Village of Sea Ranch Lakes, Tamarac, Broward County and Lauderdale-By-The-Sea. The Pompano Beach Plant serves Lighthouse Point, in addition to the Village of Sea Ranch Lakes and Lauderdale-By-The-Sea.

Existing Flow Rates

In fiscal year 1996, the average daily demands for potable water in the City of Fort Lauderdale system were 46 mgd with a peak flow of 80 mgd. Based on the City's capacity of 90 mgd, the demand on the facilities ranged from an average of 51.1 percent to a peak demand need of 88.8 percent.

In 1986, the Town of Lauderdale-By-The-Sea received 276.259 mgd of water from the City of Fort Lauderdale. This amounts to about 0.756 mgd for an average day. This is about one percent of the capacity of the Fort Lauderdale system or approximately one and one-half percent of the average daily demand. The Level of Service is approximately 290 gallons per year round resident per day. This includes non-residents (tourists) and commercial uses.

In 1996, the average daily demand for potable water in the City of Pompano Beach system was 16.22 mgd with a peak flow of 19.6 mgd. Based on the City's capacity of 40 mgd, the demand on the facility ranged from an average of 40.5 percent to a peak demand need of 49 percent.

In 1996, the Intracoastal Beach Area and the Sea Ranch Club Condominiums together received an average of 0.696 mgd of potable water from Pompano Beach. This amounts to approximately 4.3 percent of the average daily demand for Pompano Beach and approximately 1.7 percent of the facility's capacity. Current estimates of flow rates for the annexed portions of the Town based on current population projections and the Town's adopted Level of Service standard (290 gallons per capita per day) are 1.08 mgd in the off-season to 1.53 mgd in the peak season. This represents between 2.7 to 3.8 percent of the Pompano system's capacity.

Future Design Flows and Capacity

Future potable water demands are projected based upon population projections on Table 5-9 in the Housing Element. Year 2010 average daily demands are estimated to be 0.91 mgd with a potential build-out in accordance to the Land Use Plan of 1.20 mgd. The previous analysis indicates that the existing system sizing is sufficient to accommodate future growth projected for the Town. The Fiveash and Peele-Dixie Water Treatment Plants flow projections for annual average daily demand are 48.8 mgd for 2005, 50.6 mgd for 2010 and 51.8 mgd for 2015, which should be met with the current capacity of the plants. The Pompano system flow projections for annual average daily demand are 26.4 mgd for 2005, 32.6 mgd for 2010 and 38.8 mgd for 2015. The Town will need to ensure that in follow-up agreements with the City of Fort Lauderdale and the City of Pompano Beach, that the Cities provide sufficient water to meet the adopted Level of Service and also properly maintain the existing distribution system.

Water Supply Facilities Work Plan

Introduction

The Town of Lauderdale by the Sea Water Supply Facilities Work Plan (WSFWP) identifies the water supply sources and facilities needed to serve existing and new development within the Town. Chapter 163, Part II, F.S., requires local governments to prepare and adopt Work Plans into their comprehensive plans within 18 months after the water management district approves a regional water supply plan or its update. The Lower East Coast Water Supply Plan Update was approved by the South Florida Water Management District on February 15, 2007. Therefore, the deadline for local governments within the Lower East Coast jurisdiction to amend their comprehensive plans to adopt a Work Plan is August 15, 2008.

Residents of the Town of Lauderdale by the Sea obtain their water directly from the Cities of Fort Lauderdale and Pompano Beach (FL & PB), which is responsible for ensuring that enough capacity is available for existing and future customers.

The Town of Lauderdale by the Sea Water Supply Facilities Work Plan (hereinafter the Work Plan) will reference the initiatives already identified in each City's 10 year Water Supply Facilities Work Plan since the Town is a retail buyer. According to state guidelines, the Work Plan and the comprehensive plan amendment must address the development of traditional and alternative water supplies, bulk sales agreements and conservation and reuse programs that are necessary to serve existing and new development for at least a 10-year planning period. The Town of Lauderdale by the Sea Work Plan will have the same planning time schedule as the Fort Lauderdale and Pompano Beach's 10 year Work Plan.

The Town's Work Plan is divided into the following sections:

- Introduction;
- Statutory Basis
- Background Information
- Data and Analysis
- Work Plan Projects/Capital Improvement Element/Schedule
- Goals, Objectives, Policies

The major portion of the Town's Work Plan is provided in the Town's Support Document of the Comprehensive Plan as a sub element in the Infrastructure Element. The Goals, Objectives and Policies, however, are incorporated in the adopted portion of the Comprehensive Plan.

Statutory Basis

History

The Florida Legislature enacted bills in the 2002, 2004, and 2005 sessions to address the state's water supply needs. These bills, especially Senate Bills 360 and 444 (2005 legislative session), significantly changed Chapter 163 and 373 Florida Statutes (F.S.) by strengthening the statutory links between the regional water supply plans prepared by the water management districts and the comprehensive plans prepared by local governments. In addition, these bills established the basis for improving coordination between the local land use planning and water supply planning.

Requirements

The following highlights the statutory requirements:

Coordinate appropriate aspects of its comprehensive plan with the appropriate water management district's regional water supply plan, [163.3177(4)(a), F.S.]

- Ensure that its future land use plan is based upon availability of adequate water supplies and public facilities and services, [s.163.3177(6)(a), F.S., effective July 1, 2005.] Data and analysis demonstrating that adequate water supplies and associated public facilities will be available to meet projected growth demands must accompany all proposed Future Land Use Map amendments submitted to the Department for review. The submitted package must also include an amendment to the Capital Improvements Element, if necessary, to demonstrate that adequate public facilities will be available to serve the proposed Future Land Use Map modification.
- Ensure that adequate water supplies and facilities area available to serve new development no later than the date on which the local government anticipates

issuing a certificate of occupancy and consult with the applicable water supplier prior to approving building permit, to determine whether adequate water supplies will be available to serve the development by the anticipated issuance date of the certificate of occupancy. [s.163.3180(2)(a), F.S., effective July 1, 2005.] This “water supply concurrency” is now in effect, and local governments should be complying with the requirement for all new development proposals. In addition, local governments should update their comprehensive plans and land development regulations as soon as possible to address these statutory requirements. The latest point at which the comprehensive plan must be revised to reflect the concurrency requirements is at the time the local government adopts plan amendments to implement the recommendations of the Evaluation and Appraisal Report (EAR).

- Revise the Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge Element (the “Infrastructure Element”), within 18 months after the water management district approves an updated regional water supply plan, to:
 - A. Identify and incorporate the alternative water supply project(s) selected by the local government from projects identified in the updated regional water supply plan, or the alternative project proposed by the local government under s. 373.0361(7), F.S. [s. 163.3177(6)(c), F.S.];
 - B. Identify the traditional and alternative water supply projects, bulk sales agreements, and the conservation and reuse programs necessary to meet current and future water use demands within the local government’s jurisdiction [s. 163.3177(6)(c), F.S.]; and
 - C. Include a water supply facilities work plan for at least a 10-year planning period for constructing the public, private, and regional water supply facilities identified in the element as necessary to serve existing and new development. [s. 163.3177(6)(c), F.S.] Amendments to incorporate the water supply facilities work plan into the comprehensive plan are exempt from the twice-a-year amendment limitation. [s. 163.3177(6)(c), F.S.]

- Revise the Five-Year Schedule of Capital Improvements to include any water supply, reuse, and conservation projects and programs to be implemented during the five-year period.
- To the extent necessary to maintain internal consistency after making changes described in Paragraph 1 through 5, revise the Conservation Element to assess projected water needs and sources for at least a 10-year planning period, considering the appropriate regional water supply plan, the applicable District Water Management Plan, as well as applicable consumptive use permit(s). [s.163.3177(6)(d), F.S.]

If the established planning period of a comprehensive plan is greater than ten years, the plan must address the water supply sources necessary to meet and achieve the existing and projected water use demand for established planning period, considering the appropriate regional water supply plan. [s.163.3167(13), F.S.]

- To the extent necessary to maintain internal consistency after making changes described in Paragraphs 1 through 5 above, revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with applicable regional water supply plans and regional water supply authorities' plans. [s.163.3177(6)(h)1., F.S.]
- Address in the EAR, the extent to which the local government has implemented the 10-year water supply facilities work plan, including the development of alternative water supplies, and determine whether the identified alternative water supply projects, traditional water supply projects, bulk sales agreements, and conservation and reuse programs are meeting local water use demands. [s.163.3191(2)(1), F.S.]

Background Information

Overview

The Town of Lauderdale by the Sea is located on Broward County's barrier island between the Cities of Pompano Beach and Fort Lauderdale. The Village of Sea Ranch Lakes is located in the northern portion of the Town primarily on the west side of SR A1A. The Town became land locked in 2002 when the Intracoastal Beach Area (IBA) was annexed into the Town. The boundaries of the Town are final and no other areas are available to be annexed.

The Town of Lauderdale by the Sea is essentially built-out as noted in the Comprehensive Plan. The 2006 Evaluation Appraisal Report (EAR) estimated the 2005 resident population to be 6,363 residents increasing to 7,534 in 2015. This relatively minor population growth (18% in 10 years) is reflective of the fact that the Town is substantially built-out, with future development potential and population growth generated by a loss of hotel/motel units and the subsequent development of year round units. Most recent population estimates however by the University of Florida Bureau of Economic and Business Research (BEBR) suggest the Town has lost significant resident population. The April 1, 2006 BEBR estimate for the Town's resident population was 5,834, a 10% decrease from the 2005 EAR.

In 2005, 476 acres or 76% of the total gross acreage in the Town was dedicated to residential (and hotel/motel) use. The remaining gross acreages are allocated to non-residential uses such as commercial (4%); park and recreation (6.4%); community facilities (1.6%); and, water (8.6%). Approximately 3.4% of the Town is currently vacant. Because the Town is land locked, it is expected the land use characteristics will remain similar in the future. In the meantime, the residential and non-residential growth is expected to occur through redevelopment at slightly higher densities than the existing development, but consistently with the Future Land Use Plan.

Relevant Regional Issues

As the state agency responsible for water supply in the Lower East Coast planning area, the South Florida Water Management District (SFWMD) plays a pivotal role in resource protection, through criteria used for Consumptive Use Permitting. As pressure increased on the Everglades ecosystem resource, the Governing Board initiated rule making to limit

increased allocations dependent on the Everglades system. As a result, the Regional Water Availability Rule was adopted by the Governing Board on February 15, 2007 as part of the SFWMD's Consumptive Use Permit Program. This reduced reliance on the regional system for future water supply needs, mandates the development of alternative water supplies, and increasing conservation and reuse.

Data and Analysis

Population Information

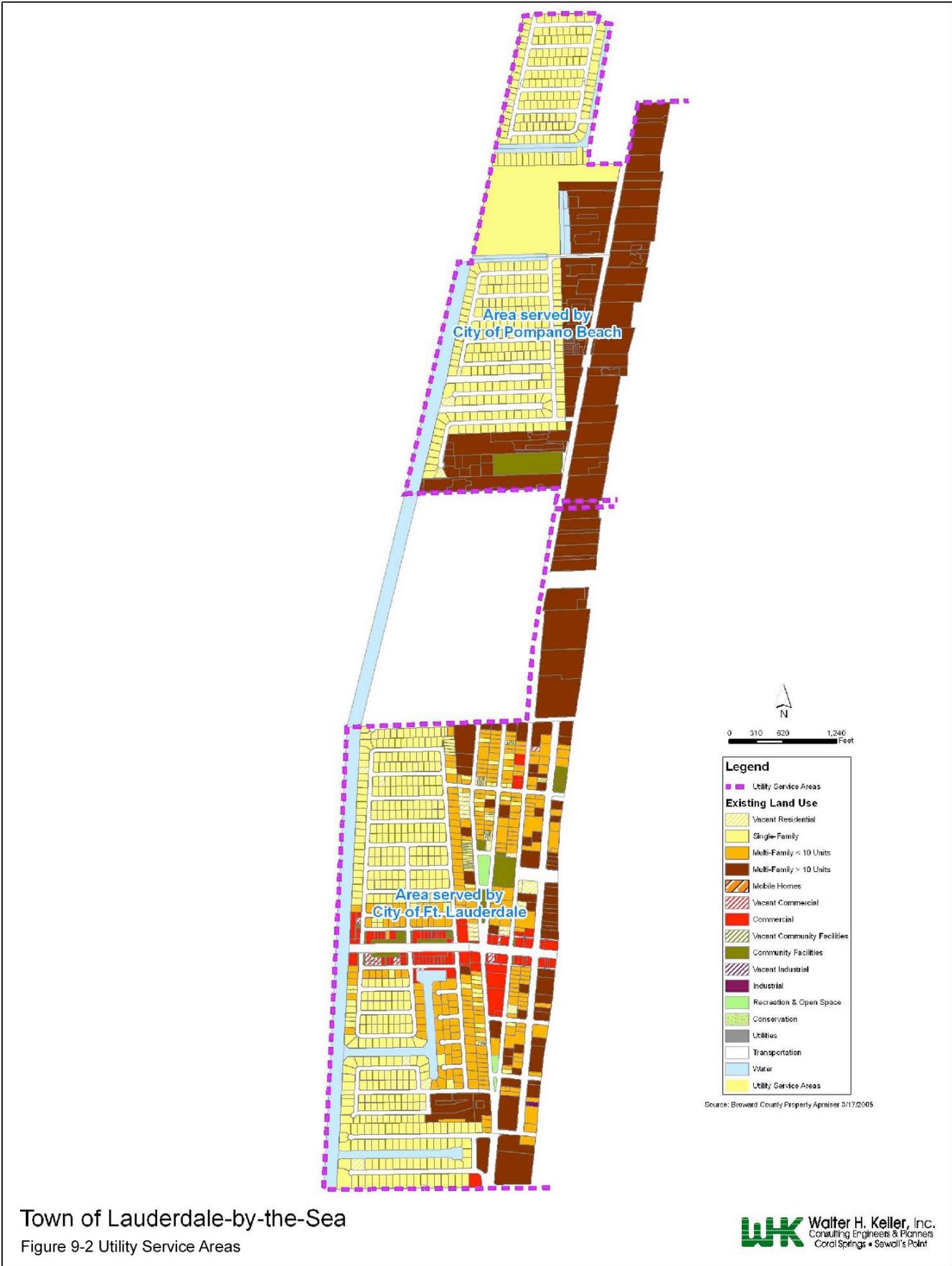
The Town's existing and future population figures are derived from the Evaluation and Appraisal Report adopted in 2006. Resident population is expected to increase to 6,934 in 2010 and 7,534 in 2015. As noted previously, the Town completed the annexation of the Intracoastal Beach Area (IBA) in 2002. This annexation essentially doubled the Town's population. Because the Town is essentially built-out, future population growth will be derived from redevelopment of multi-family parcels at slightly higher densities and the conversion of hotel/motel properties to residential use. Even with these activities population increases will be minimal.

Map of Current and Future Areas Served

The Town does not provide water but purchases water as a retail customer. The Town's water providers are the City of Fort Lauderdale and the City of Pompano Beach. A map depicting the Town boundaries and the Fort Lauderdale and Pompano Beach Service Areas is provided in Figure 9-2. The Intercoastal Beach Area was annexed into the Town in 2002. The IBA is generally located north of the Village of Sea Ranch Lakes and east of SR A1A north of the Village of Sea Ranch Lakes Beach Club. In reference to the Town's Work Plan, the IBA area will not include the properties east of SR A1A south of the Sea Watch Restaurant since this area is provided water service by Fort Lauderdale. Figure 9-2 also indicates the generalized land uses in the Town.

Potable Water Level of Service Standard

The Level of Service Standard for potable water consumption according to the adopted 2005 Comprehensive Plan is 290 gallons per day per capita (gpdpc). Information from the Water Supply Facility Work Plans of Fort Lauderdale and Pompano Beach indicate the 2005 average LOS was approximately 231 gpdpc. Information from the Fort Lauderdale and Pompano Beach WSWF Plans indicates a LOS of 230 gpdpc for Fort Lauderdale and 191 gpdpc for Pompano Beach. With the mandatory water restrictions imposed in 2007 by the SFWMD, the Level of Service for potable water has decreased. Information from the City of Pompano Beach's WSWFP indicates a significant per capita reduction during the mandatory water restrictions.



Town of Lauderdale-by-the-Sea
 Figure 9-2 Utility Service Areas

Population and Potable Water Demand Projections by Each Local Government or Utility

Table 9-3 below, provides information on population and water demand for the Town. The Fort Lauderdale Water Service Area extends from the south Town limit to approximately the north Village limit for the Village of Sea Ranch Lakes. The City of Pompano Beach extends from approximately the north Village limit of the Village of Sea Ranch Lakes northward. Generally, the City of Pompano Beach provides water service in the former Intracoastal Beach Area.

Table 9-3 – Population & Water Supply Demands

Utility Service Area	Population Projections			Water Supply Demands (MGD)		
	2005	2010	2015	2005	2010	2015
Fort Lauderdale (TSA)	237,492	237,492	285,507	51.2	51.0	54.0
Fort Lauderdale (LBS Portion)	3,767	3,870	4,291	0.9	0.9	1.0
Pompano Beach (TSA)	81,624	89,686	98,162	18.9	17.1	18.7
Pompano Beach (LBS Portion)	2,596	3,064	3,243	0.6	0.6	0.6
Total Town	6,363	6,934	7,534	1.5	1.5	1.6

Source: Walter Keller, Inc.

City of Fort Lauderdale Memorandum 1-T-08 3/19/08

City of Pompano Beach WSWP, June 2008

LEC Water Supply Plan - SFWMD 05-06 Update

TSA = Total Service Area

Water Supply Provided by the Town of Lauderdale by the Sea

As noted previously, the Town does not provide water but purchases water as a retail customer. The Town’s water providers are the City of Fort Lauderdale and the City of Pompano Beach.

Water Supply Provided by the City of Fort Lauderdale

The City of Fort Lauderdale WSWP is adopted herein. The City of Fort Lauderdale provides water service to Fort Lauderdale, the Town of Lauderdale by the Sea, Village of Sea Ranch Lakes, Oakland Park, Village of Lazy Lake, Tamarac and Wilton Manors.

The City has two water treatment plants which are in good condition: Peele/Dixie; and, Fiveash. They have been maintained and upgraded since constructed in 1926 (Peele/Dixie) and 1950 (Fiveash). Fiveash was expanded from 30.0 MGD to 50.0 MGD early in 1987 and to 70 MGD in 1991. The expected life of the facilities is indefinite. With continued proper maintenance and the improvements recommended in the Water/Sewer Master Plan update “Waterworks”, adopted by the City in 2002, both plants will operate well past the year 2011. The current level of service provided is more than adequate.

Projections for demand show that the existing water treatment facilities should be adequate to serve the existing service area including anticipated growth, at least through 2010 (at time of build-out). The facilities are in good condition and the provisions of the updated Master Plan leading to improvements of the system through 2011 ensures continued operation and service to the public at the highest standards.

Currently, the City operates twenty-four wells west of S.R. 7/U.S. 441 between S.R. 84 and Broward Boulevard that supply the Peele/Dixie Water Treatment Plant. An additional twenty-five wells surrounding and west of the Executive Airport supply the Fiveash Water Treatment Plant. Additional wells in these areas will serve future needs and no new wellfields are planned. An additional five wells are proposed to be added in the existing wellfields according to the updated Water/Sewer Master Plan. There are no other wellfields within the City and future wellfields identified by the County are outside City limits.

The City's consultant completed the evaluation of the water distribution system. Results of the studies are incorporated into the City's updated Water/Sewer Master Plan.

The City's Consumptive Water Use Permit (06-00923) limits current water withdrawals to 50.6 MGD per day on an average annual basis. The City Permit is expected to be increased to 53.6 MGD based on the Peele/Dixie nanofiltration treatment process. While the City had a small capacity deficit in 2005 (51.2 MGD demand and 50.6 MGD capacity), the projection for 2010 indicates adequate capacity (51.0 MGD demand and 53.6 MGD capacity). The City projects a small deficit in 2015 (51.0 MGD demand and 53.6 MGD capacity). The City experienced a 20 percent reduction in water demand during the SFWMD mandatory water restrictions in 2007 and believes a water conservation ordinance can provide a reduced water demand of 10 percent thereby alleviating the 2015 capacity deficit.

The City acquired the Town's water distribution system in 2008 and is now responsible for the distribution system maintenance. The Town's water users are individually billed directly by the City, the same as City residents. In 2005, the Town's water demand represented approximately 1.8 percent of the City's demand. Because the Town is essentially built-out, the 2015 Town water demand is projected to be approximately 1.9 percent of the City's demand.

Water Supply Provided by the City of Pompano Beach

The City of Pompano Beach WSWP is adopted herein. The City of Pompano Beach provides water service to Pompano Beach, the Town of Lauderdale by the Sea and Lighthouse Point. Portions of the City of Pompano Beach are also serviced by Broward County.

The City's water treatment plant has a design capacity of 50 MGD. The treatment plant has a 40 MGD lime softening and a 10 MGD nanofiltration treatment processes. The water treatment plant provides 12 MGD of finished water storage: 2 MGD in clearwells; and, 10 MGD in ground storage. An additional ground storage tank of 1 MGD is located at Indian Mound Park. The City began using a water reuse facility in 1990 with a capacity of 2.5 MGD. The reuse facility was expanded to 7.5 MGD in 2002. The current level of service provided is more than adequate.

Currently, the City operates twenty-five (25) wells at eastern and western locations in the City. The eastern well field has 15 active wells located in the vicinity of Pompano Airpark. The total design capacity is 36.1 MGD with a firm capacity of 30.4 MGD with the two largest wells out of service. The eastern wellfield withdrawal is limited by the SFWMD due to the possibility of salt water intrusion. The City utilizes a monitoring program to track the movement of the salt zone. Data monitoring indicates no significant movement of the salt zone for ten years.

The western wellfield is located in the Palm Aire area of the City near the Florida Turnpike. Total design capacity is 30.4 MGD with a firm capacity of 26.9 MGD with the largest well out of service. The western wellfield is used with the City's nanofiltration treatment process to improve water quality.

The City's wellfield and water treatment capacities are 66 MGD and 50 MGD respectively and as such, the current level of service provided is more than adequate.

The City's Consumptive Water Use Permit (06-00070-W dated 9/14/05) limits current water withdrawals to 19.36 MGD per day on an average annual basis. The City Permit is reduced to 17.75 MGD beginning on August 10, 2010 till expiration in September 14 2025. The permit also restricts the eastern wellfield to 6.2 MGD in the dry season (November 1st through May 31st) and 9.3 MGD in the wet season.

The City has adequate capacity (restricted to 17.75 MGD by permit) to provide water to the water service area through 2015 based on demands of 17.1 MGD in 2010 and 18.8 MGD in 2015. The Town's water users are individually billed directly by the City, the same as City residents. In 2005, the Town's water demand represented approximately 3.2 percent of the City's demand. Because the Town is essentially built-out, the 2015 Town water demand is also projected to be approximately 3.2 percent of the City's demand.

Conservation

Both of the Town's water service providers have implemented water conservation programs. In the case of Pompano Beach, a major effort has been oriented to establishing reuse for landscaping needs in the vicinity of the municipal golf course and airpark area. The City of Pompano Beach is continuing to expand the reuse system and its distribution network. The City of Pompano Beach will adopt a series of ordinances to promote water conservation, reuse, low volume water fixtures, xeriscape landscaping and aquifer protection. The City of Fort Lauderdale is also continuing to implement new conservation efforts, including aquifer recharge and reuse.

The Town will incorporate additional conservation provisions in the land development regulations. The Town will coordinate future water conservation efforts with the City of Fort Lauderdale, the City of Pompano Beach and SFWMD to ensure that proper techniques are applied. In addition, the Town will continue to support and expand existing goals, objectives and policies in the comprehensive plan that promotes water conservation in a cost-effective and environmentally sensitive manner. The Town will continue to actively support its water service providers and the SFWMD in the implementation of new regulations or programs that are designed to conserve water during the dry season.

Regional and County-wide Issues

The water reuse effort in the state is primarily led by utilities, local governments, the water management districts and state agencies. The intent of their efforts is to implement water reuse programs that increases the volume of reclaimed water used and promotes public acceptance of reclaimed water. In addition to the public and private efforts, there are two sections of the Florida Statutes (Secs.403.064(1) and 373.250(1) F.S.) that promote water reuse as a formal state objective. “These sections further conclude that water reuse programs designed and operated in compliance with Florida’s rules governing reuse are deemed protective of public health and environmental quality.” In addition, Section 403.064(1), F.S., concludes, “reuse is a critical component of meeting the state’s existing and future water supply needs while sustaining natural systems.”

The Town of Lauderdale by the Sea is in full support of the water reuse initiatives under consideration by the SFWMD, the City of Fort Lauderdale and the City of Pompano Beach. While the availability of reuse water is not expected in the time horizon of the Town’s Water Supply Facility Work Plan, the Town will consider reuse implementation at Town facilities when reuse water is available.

Capital Improvements

As noted previously, the Town does not provide water service but purchases water on a retail basis. Table 9-4 below, lists the capital projects proposed or identified in the WSFWP’s of the City of Fort Lauderdale and Pompano Beach.

Table 9-4 – Water Supply Capital Improvements

Utility Service Area	Finished Water (MGD)	Water Source	Date	Capital Cost	Population Served (1,000)
Fort Lauderdale (TSA)					
Dixie Floridan WSTF	6.0	Floridan Acq	2013	\$31.5M	285.5
Prospect Wellfield Recharge	n/a	5 MGD Reuse for Recharge	TBD	TBD	285.5
Repump Dew Lake	n/a	5 MGD Reuse for Recharge	TBD	TBD	285.5
Repump Palm Aire/PB Wellfield	n/a	5 MGD Reuse for Irrigation/Reuse	TBD	TBD	285.5
Repump CRCC/Salt Zn Barrier	n/a	7 MGD Reuse to Hold Salt Zone	TBD	TBD	285.5
Dixie/Peele FLCC Wellfield	n/a	5 MGD Reuse for Irrigation/Reuse	TBD	TBD	285.5
Pompano Beach (TSA)					
Reuse WTP & Dist System Exp	2.8	Exp of Reuse to 12.5M & Dist Exp	08-25	\$6.3M	98.2
Water Conserv - Irrigation Restr	0.6	Water Irrigation Use Restrictions	08-25	TBD	98.2
Reuse Water Offset	0.8	Elimination of Irrigation Wells	10-25	TBD	98.2
C-51 Reservoir-Aquifer Offset	2.7	Feasibility Sty - Future Water	05-23	TBD	98.2
Upper Floridan Aquifer Well	TBD	Alt Water Source for City	15-17	TBD	98.2
Other AWS Projects	TBD	City is Investigating Alt Projects	TBD	TBD	98.2

Source: Walter Keller, Inc.

City of Fort Lauderdale Memorandum 1-T-08 3/19/08

City of Pompano Beach WSWFP, June 2008

TSA = Total Service Area

Goals, Objectives and Policies

Goals, objectives and policies of the Town's Water Supply Facility Work Plan are included in the following Comprehensive Plan (see adoption document) Elements: Future Land Use; Conservation; Infrastructure; Intergovernmental Coordination; and, Capital Improvements.

Natural Groundwater Aquifer Recharge Sub-Element

Because of the adjacent Atlantic Ocean and Intracoastal Waterway, the entire Town is located in the salt-water intrusion zone. For this reason, there are no aquifer recharge areas within the Town. The principal aquifer recharge areas for Broward County are the Conservation Areas and the many existing fresh water canals and lakes located throughout the County that are located west of the salt water intrusion zone.

The goals, objectives and implementation policies of this element can be found in Section III of the Comprehensive Plan.

X. Capital Improvements Element

Introduction

The Capital Improvements Element summarizes the various improvements identified in the other elements of the Town's Comprehensive Plan. This element provides an inventory of improvement needs, financial resources and local policies and practices. The anticipated revenues of the Town is presented relative to the projected costs of improvements. The goals, objectives and implementation policies are provided in Section III of the Comprehensive Plan.

The Town is a developed community and as such maintaining quality redevelopment is an important goal. The Town has adopted an aggressive capital improvement program to revitalize the Town.

Inventory of Capital Improvement Needs

The Town Commission has approved a series of projects oriented at beautification, strengthening recreation and economic resources, preserving or expanding infrastructure, improve the quality of life, comply with annexation needs and/or implement the Town's long range vision. Capital improvements are larger scaled projects which generally do not reoccur, although some projects due to their size or funding source may be scheduled over a multi-year time frame.

The Town has implemented an aggressive program relative to revitalizing the Town using grants, loans, user fees, assessments and ad valorem taxes. Table 10-1 below provides projected revenues for FY 2010/2011 through FY 2014/15 from the approved 2010/2011 budget. The proposed five year Capital Improvement Program is given in Table 10-1a. In this respect, the listing of capital improvements in Table 10-2 is considered feasible in 2010 within the five year period based on current revenue projections. As indicated in the two tables, general funds, grants, interest earnings and fund transfers will be utilized. Additional information on the funding source can be found in the Town's 2010/11 Annual Budget. Due to reductions, adjustments have been made in the Capital Improvement to ensure the program is financially feasible.

Table 10-1 - Projected Revenues: FY 2010/11 – 2014/15

Year	Total Fund from Balance	Revenues			Transfers General Fund	Total Resources
		Interest Earnings	Assmnts/ Grants	Total		
FY 2011	135,325	24,000	505,400	529,400	1,150,000	1,814,725
FY 2012	417,500	6,000	300,000	306,000	1,150,000	1,873,500
FY 2013	1,403,000		300,000	300,000	1,150,000	2,853,000
FY 2014	309,600		300,000	300,000	1,150,000	1,759,600
FY 2014	600,000		300,000	300,000	1,150,000	2,050,000

Source: Town of Lauderdale-By-The-Sea

None of the Capital Improvement Projects included in Table 10-2 impact the Town's Level of Service.

Table 10-2 - 5 Year Capital Improvement Program

Capital Projects	FY 2011 Year 1	FY 2012 Year 2	FY 2013 Year 3	FY 2014 Year 4	FY 2014 Year 5
Beach - Coral Reef Project (Artificial Reef)	27,000				
Beach Renourishment - Cost Sharing			200,000		
Bridge Repair Terra Mar					155,000
Street Resurfacing				200,000	200,000
Streetscape - A1A (Pines north to Town Limits)	684,900				
Streetscape - El Mar Construction			875,000		
Streetscape - El Mar Design & Permitting	25,000				
Stormwater Master Plan Projects	720,500	1,138,500	731,000	300,000	300,000
Traffic Improvement & Calming	15,000	15,000	15,000	15,000	15,000
Traffic Improvement Program (NC)	30,000	30,000	30,000	30,000	30,000
Parking System Improvements	25,000	25,000	25,000	25,000	25,000
Project to be Determined		400,000	400,000	600,000	600,000
Total Projects	1,527,400	1,608,500	2,276,000	1,170,000	1,325,000

Source: Town of Lauderdale-By-The-Sea

Financial Resources & Expenditures

This portion of the Support Document provides additional information from the Town's 2010/11 Adopted Budget relative to Town revenues, expenses and additional information on the Capital Improvement Program. Prior out dated tables have been removed. Further information can be obtained from the full document.

**Insert The Town of Lauderdale-By-The-Sea Adopted Budget Fiscal Year 2007/2008
Report (pages X-4 to X-51)**

Level of Service Standards

The minimum criteria for Comprehensive Plans requires that Level of Service Standards be included for public facilities described in the plan. The Level of Service Standards for the Town of Lauderdale-By-The-Sea are provided in Table 10-3.

Table 10-3 Level of Service Standards

Public Facility Category	Local Standard
Sanitary Sewer	225 gpcpd
Potable Water - Consumption	230 gpcpd FL WSA 191 gpcpd PB WSA
Potable Water - Fire Flow	As Required
Solid Waste	7.1 lpcpd
Drainage - Roadway	10 Yr --3 day
Drainage - Floor Elev.	100 Yr - 3 day
Arterial Roadways	Adopt Broward County Transportation Concurrency Management System For the Northeast & Central Transportation Concurrency Districts
I-95	LOS "E"
Town Collector Roadways	LOS "C " – PSPH
Park and Recreation	3 acres/1000 Residents
Public Schools	100% Gross FISH for each CSA- 110% Permanent FISH for each CSA-

Source: Walter H. Keller, Inc.

Note: GPCPD - Gallons per capita per day
LPCPD - Lbs per capita per day
PSPH – Peak Season Peak Hour Traffic
FL WSA – Fort Lauderdale Water Service Area
PB WSA – Pompano Beach Water Service Area
FISH – Florida Inventory of School Housing
* - Until the end of the 2018/19 School Year
** - Until the end of the 2019/20 School Year

Capital Improvements Implementation

The capital improvements identified in Table 10-2 are proposed for implementation within the next five years. These improvements are being funded within the anticipated revenues available to the Town. No new funding mechanisms are required to be implemented by the Town. For this reason, the Capital Improvements Listing is fiscally sound.

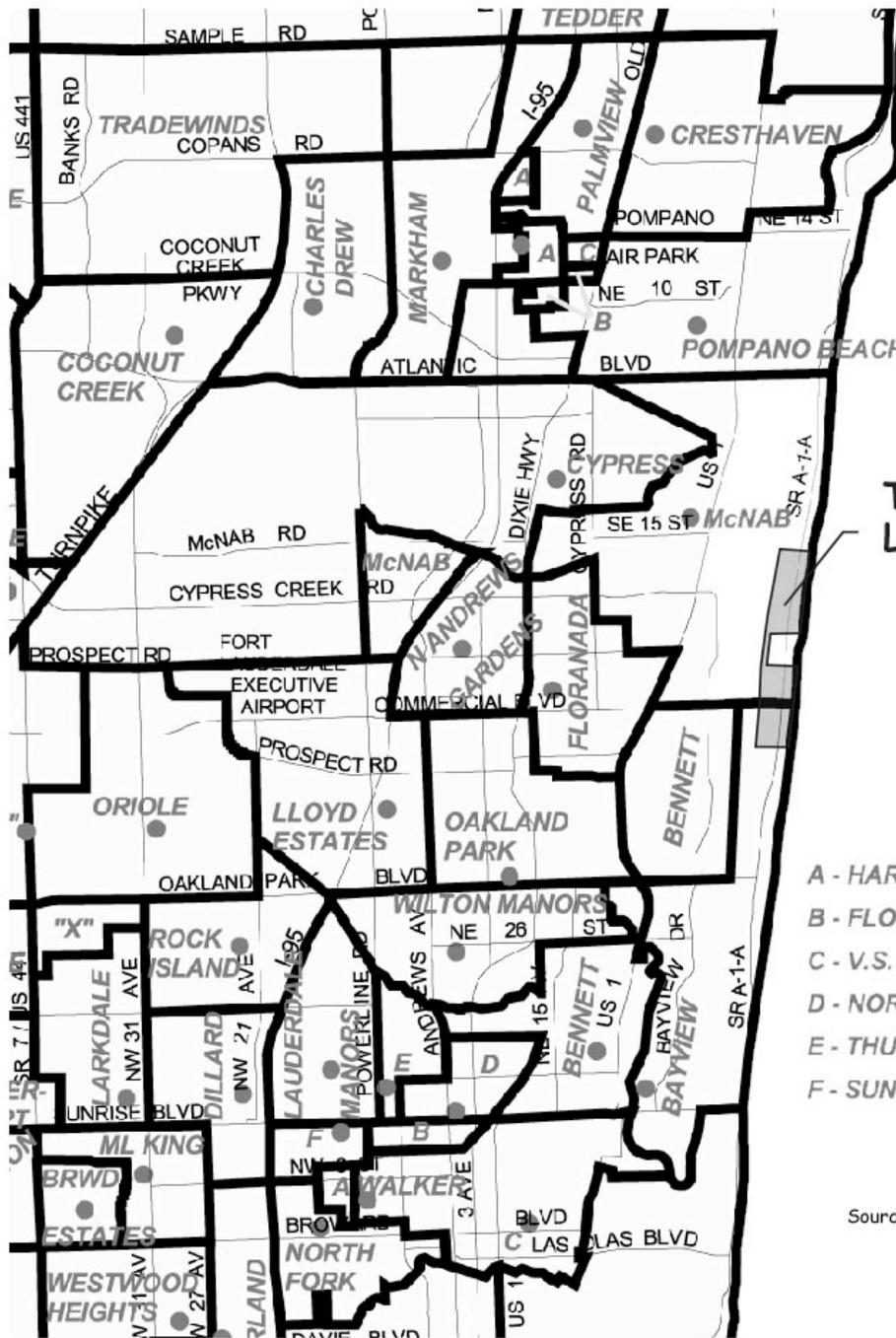
Education and Health Facilities

Public education facilities which serve the local population are the funding responsibility of the Broward County School Board. There are no public school facilities in the Town, nor do the projections of future population portray any local increase in system demand. Service areas of the various existing school sites which serve the Town are depicted on Figures 10-1a, 10-1b and 10-1c.

Public health facilities are also absent in the Town. The nearest public facility, the Imperial Point Medical Center, is the operational funding responsibility of the North Broward Hospital District. The entire Town is located within this taxing district; the hospital is located approximately two miles west of the Town. Holy Cross Hospital is located about one and one-half miles west of the Town on Commercial Boulevard.

Monitoring and Evaluation

Information on the monitoring and evaluation of the Capital Improvement Element is provided in Section VII of the Comprehensive Plan.



- A - SANDERS PARK
- B - MCNAB
- C - NORCREST

Town Location

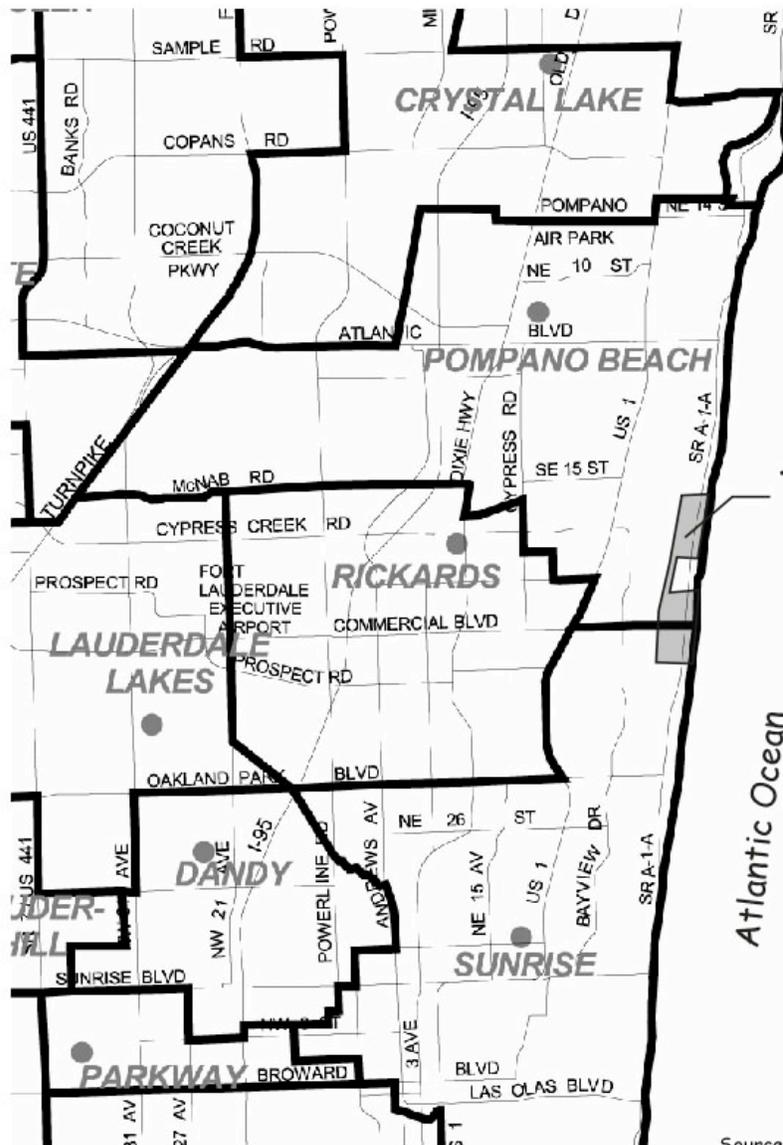
- A - HARBORDALE
- B - FLORANADA
- C - V.S. YOUNG
- D - NORTHSIDE
- E - THURGOOD MARSHALL
- F - SUNLAND PARK

Source: Walter H. Keller, Inc.
Broward County School Board



Town of Lauderdale-By-The-Sea

Figure 10.1a - Elementary School Boundaries 2001-02

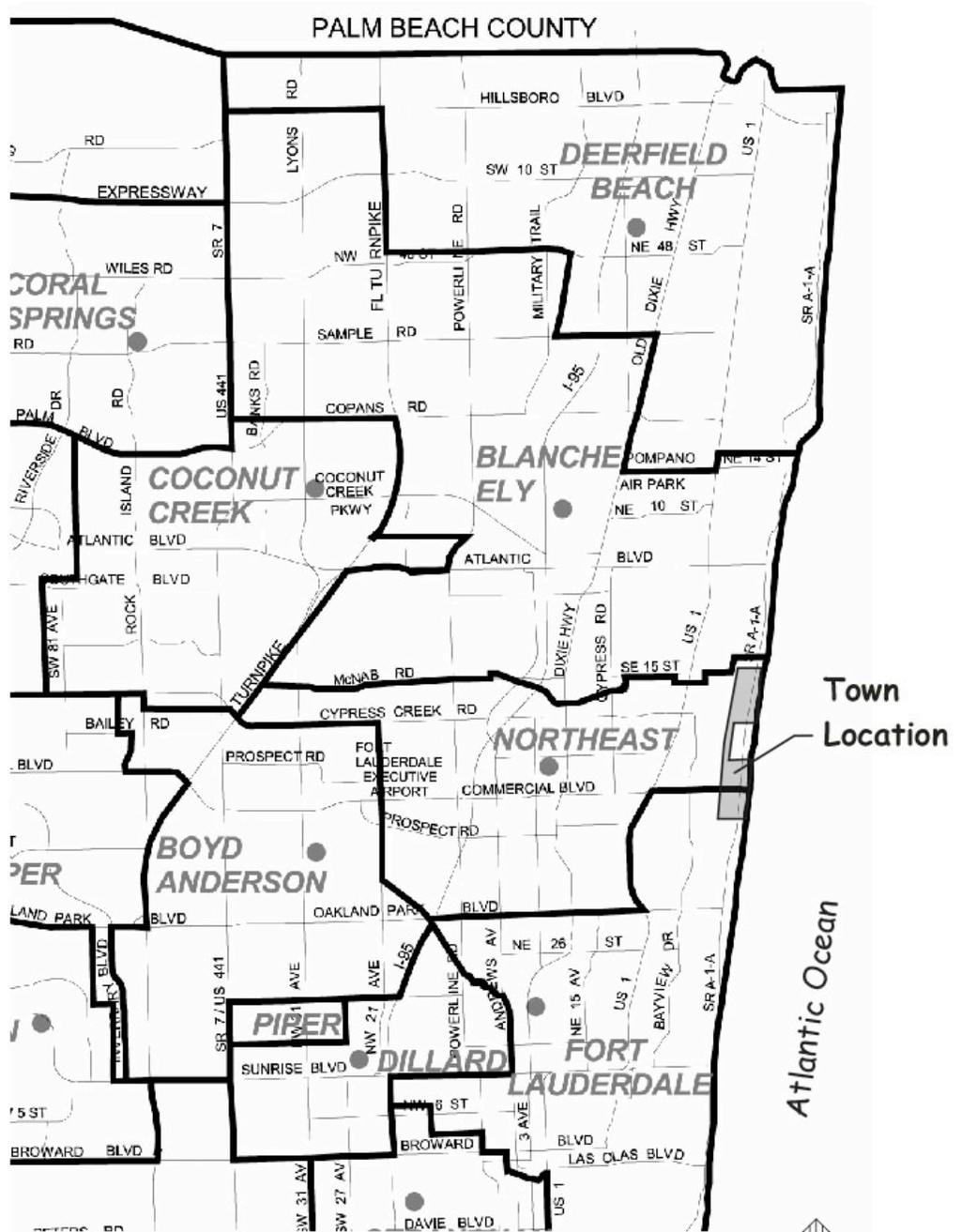


Source: Walter H. Keller, Inc.
Broward County School Board

Town of Lauderdale-BY-The-Sea

Figure 10.1b - Middle School Boundaries 2001-02





Source: Walter H. Keller, Inc.
Broward County School Board



Town of Lauderdale-BY-The-Sea

Figure 10.1c - High School Boundaries 2001-02

WK Walter H. Keller, Inc.
Consulting Engineers & Planners
Coral Springs • Sewall's Point

XI. Intergovernmental Coordination Element

According to the Chapter 9J-5 of the Florida Administrative Code, the Intergovernmental Coordination Element has two main purposes:

To identify and resolve those incompatible goals, objectives, policies and development proposed in the Town's Plan with the Comprehensive Plans of adjacent municipalities and regional and state agencies, and

To determine and respond to the needs for various coordination processes and procedures with adjacent local governments and regional and state agencies.

Based on these requirements, this Element has been developed to indicate existing and future areas of planning coordination with various groups. These groups include adjacent municipalities, Broward County, the South Florida Regional Planning Council and the State of Florida. The Town does not contain any areas of critical state concern. The Town Manager has the primary responsibility for implementing the coordination activities for the Town. Note that the goals, objectives and implementation policies are located in Section III of the Comprehensive Plan. A matrix is provided in Figure 11-1 detailing different municipal activities and the agency with which the Town coordinates these activities.

Adjacent Municipalities

Figure 2-1 in the Planning Considerations section depicts the location of the Town relative to Broward County. In July 1997, the Town annexed the Sea Ranch Lakes Club Condominiums, located in the northeast quadrant of the intersection of SR A1A and Pine Avenue and just south of the Village of Sea Ranch Lakes' Beach Club. In October 2001, the Town annexed the Intracoastal Beach Area (also known as South Beach), located north of the Village of Sea Ranch Lakes and south of the City of Pompano Beach. The Village of Sea Ranch Lakes divides the Town between the original Town and the Sea Ranch Club Condos to the south and the annexed Intracoastal Beach Area to the north.

Pompano Beach is located on the northern boundary of the Town. The City of Fort Lauderdale shares the Town's western border of the Intracoastal Waterway and the Town's southern land boundary.

	Zoning	Planning	DRI Review	Planning	Highway Construction	Right of Way	Alignments	Long Range Planning	Access Control Transit	Housing Assistance	Redevelopment	Areawide Plans	Equal Opportunity	Water Management	Water Quality	Air Quality	Noise Impact	Historical	Beaches/Lands	Schools	Health Care	Parks	Open Space Areas	Electric Power	Solid Waste	Septic Tanks	Water Facility Development	Wastewater Treatment	Water Use Permits	Wastewater Management	A95 Review	Intergency	Regional Plans	
Broward County	Department of Transportation Mass Transit Division Community Development Division Water Management Division Department of Planning & Environmental Protection Parks & Recreation Division Solid Waste Operations Division Water Resources Division Broward County Health Department	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
State	Department of Transportation Department of Community Affairs Department of Environmental Protection Division of Historical Resources Florida Inland Navigational District	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Other Agencies	Broward County Historical Commission Broward County Human Rights Division Broward County Metropolitan Planning Organization Broward County Planning Council Broward County School Board Broward County Technical Advisory Committee Hillsboro Inlet Drainage District Florida Power and Light Company Health Planning and Development Council North Broward Hospital District South Florida Regional Planning Council South Florida Water Management District City of Pompano Beach Village of Sea Ranch Lakes City of Fort Lauderdale	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Town of Lauderdale-By-The-Sea

Figure 11-1 - Intergovernmental Coordination Matrix

Both Pompano Beach and Fort Lauderdale currently provide various municipal services to Lauderdale-By-The-Sea. The Town's sewer lines are linked to those of Pompano Beach, which in turn provide for transmission to the North County Regional Treatment Plant. The City of Pompano Beach is billed for sewer flows inclusive of the Town and subsequently provides local billing. The City of Fort Lauderdale provides retail water service to the southern portion of Lauderdale-By-The-Sea and maintain the potable water distribution system. The Town is proposing to sell the water distribution system to the City of Fort Lauderdale who will then be responsible for system upgrades, operation and maintenance. The Town is proposing to construct a sanitary sewer collection system for the Intracoastal Beach Area which will be transferred upon completion to the City of Pompano Beach. Pompano Beach will then be responsible for operation and maintenance.

Since the coastal area of the County is virtually built out, ongoing coordination with respect to individual parcel land use or zoning issues is somewhat limited. Year round and tourist multi-family residential uses, with some limited support business uses, characterize the three beachfront areas. It should be noted, however, that Sea Ranch Lakes, Fort Lauderdale, Pompano Beach and the Town share common traffic impacts on SR A1A from any development approvals in the Town or adjacent to the Town's borders.

Future coordination potential between the Town and adjacent municipalities is mostly with respect to regional concerns such as traffic and road improvements, environmental quality programs, wellfield protection, regional water, sewer or solid waste programs, annexation and back-up emergency service. Coordination with the local municipal governments on these issues has usually been on an informal or ad hoc case basis. This arrangement has been satisfactory due to centralized regulatory authorities on many issues and lack of major points of disagreement

In terms of future conditions, the current practices are still largely relevant and useful. However, more unified lobbying and coordination efforts by the local jurisdictions might result in the implementation of mutually beneficial capital improvements with particular

regard to highway needs and preferred designs, and potential beach renourishment programs.

Level of Service Standards for the provision of potable water should be identified and recognized in agreements with Fort Lauderdale and Pompano Beach. Since the Town relies on coastal area wellfields which are threatened by salt water intrusion, the Town should consider the long term support of the County's regional wellfield proposal.

The Town should also incorporate the long term demand and flow information into contracts for wastewater distribution and treatment. The City of Pompano Beach should recognize the local flow demand when considering modifying or upgrading existing sewage lift stations or transmission lines.

The Town should also cooperate with adjacent jurisdictions with respect to the designation and enforcement of wake free zones along the Intracoastal Waterway.

Broward County

At the current time, the Town has a several active coordination mechanisms with Broward County on many different planning issues. In general, contractual agreements are in place with respect to the existing and future provision of local infrastructure services and local option tax revenue sharing. Other areas of coordination are oriented to the planning and development of regional capital improvements, education facility needs and the regulation of land use and individual development projects.

By virtue of the revised Charter passed in 1975, the County has areawide authority on the regulation of future land uses and individual property development where platting is required. Land use planning is governed by the Broward County Planning Council such that local plans must be substantially in conformance with that document. The reservation of future right-of-way for SR A1A and Commercial Boulevard is also based on the Planning Council's overall Trafficways Plan.

The mature stage of the Town's development tends to restrict the level of ongoing Town interaction required by the County. The Town has pledged to support the County's platting requirements for vacant property and to secure any required rights-of-way for the Trafficways corridor. The Town will also work to resolve any planning conflicts with the County regarding the Comprehensive Plan in light of Chapter 9J-5 FAC.

Other individual County agencies review individual development proposals with respect to specific engineering practices. The County's Water Resource Management Division reviews applications for the storage and treatment of storm water drainage. Their role is to guide the selection of project floor elevations relative to 100 year flood criteria, and to regulate the amount of storm water retention and volume and quality of discharge. The Town supports and will cooperate in this regulatory activity.

The Town has entered into the Broward Solid Waste Disposal District Inter-Local Agreement for the delivery of all solid waste generated by the Town to a County resource recovery facility. Currently, all solid waste generated by the Town is delivered to the North Wheelabrator waste-to-energy plant. The Inter Local Agreement with the County is due to expire on June 30, 2013. The Town should continue to support the County's resource recovery program. Additionally, the Town should monitor and evaluate alternatives should the County assume responsibility for only the unincorporated areas of the County upon expiration of the Interlocal Agreement.

The Broward County Department of Planning and Environmental Protection (BCDPEP) acts on behalf of the Florida Department of Environmental Regulation to monitor and enforce air and water quality regulations, and to review project development proposals with respect to proper sanitary sewer main collection or septic system design. The majority of the Town is on a gravity sewer collection system. The single family areas in the newly annexed Intracoastal Beach Area are proposed to have a vacuum sanitary sewer collection system. Coordination is required, however, with respect to shoreline modifications and construction of docks or bulkheads along the Intracoastal. The Town

should continue to cooperate in the local enforcement of best management construction practices on these projects.

The Erosion Prevention District is a part of the BCDPEP and is charged with the monitoring and development of beach stabilization and renourishment programs. Local coordination measures should be maintained regarding the erosion baseline and beach renourishment programs to lessen overall costs/impacts on Town residents and offshore physical resources. In addition, the Town should work with this agency on dune restoration techniques.

The County's Health Department acts on behalf of the Florida Department of Environmental Regulation to monitor and evaluate overall health concerns and to review development proposals with respect to the lay-out and design of water main transmission line extensions.

Other areas of existing coordination include Countywide wellfield protection, local option gas tax revenue and the provision of local educational facilities.

Regarding wellfield efforts, individual local users of potential groundwater contaminants are required to register with the County as to the amount and method of disposal of harmful substances. While the Town has no wellfield 'cone of influence' areas in its jurisdiction, and no monitoring or enforcement responsibilities, it is critical that the Town support all of these regulatory actions to ensure a source of uncontaminated water.

The population of the Town is almost entirely adult and has little requirement for grade school education facilities. There are no public school facilities in Lauderdale-By-The-Sea. Town zoning permits schools as an allowable use in residential and commercial land use categories as well as parcels designated community facility. However, due to the lack of vacant land and the built-out nature of the City, sufficient land to site future schools within the City limits is not available. This conclusion has been reached in consultation

with the Broward County School System. Based on historical population trends and projected growth, education facility needs are not anticipated to alter significantly.

Broward County presently levies the maximum six cent local option gas tax based on a distribution agreement with local cities. The Town presently supports this arrangement and uses their share of funds primarily for highway related maintenance activities.

In terms of future conditions, the Town should review and take positions on issues such as proposed regional wellfields, area highway needs, and sewer and solid waste disposal. Specific areas of interest include the disposition of SR A1A improvements and the regional wellfield proposal. In light of capacity limitations at the north county landfill, the Town needs to maintain support and written agreements to participate in the solid waste resource recovery program. Support of these efforts will be necessary to provide acceptable levels of urban services to the Town's year round and seasonal residents.

Taxing Districts

The Town of Lauderdale-By-The-Sea is included within several special taxing districts which levy taxes on Town property. The various districts are presented in the following Table 11-1.

Table 11-1 Lauderdale-By-The-Sea Special Taxing Districts

Tax District	District Area	2002 Millage Rate
Board of County Commissioners	Countywide	7.4005
Broward County School Board	Countywide	8.7541
South Fla Water Management District	Countywide	0.6970
North Broward Hospital District	North County	2.4803
Hillsboro Inlet Improvement District	Northeast County	0.0951
Florida Inland Navigational District	Countywide	0.0385
Child Services	Countywide	0.3055

Source: Broward County Tax Assessor

Coordination mechanisms and issues concerning Broward County and the Broward County School Board were discussed previously.

Regarding the South Florida Water Management District, the Town's existing level of interaction in some ways is comparable to that of the County Water Management Division. Since the District reviews development proposals in detail for sites with greater than two acres of impervious area, the Town generally has less interaction in this category than with the County. The Town also benefits from District areawide water management and flood control efforts in the inland areas of the County.

The North Broward Hospital District (NBHD) provides for the continued development and maintenance of major public health facilities. Imperial Point Medical Center is the nearest facility in the NBHD, located just west of US 1 and 15th Street. North Broward Hospital is located approximately two miles west of the City of Lighthouse Point on Sample Road. The continued maintenance and operation of the facility to serve local residents is clearly in the Town's best interest and the Town supports this effort.

The Hillsboro Inlet Improvement District provides a service to the Town by dredging and maintaining minimum water depths through the ocean passage. The Town's reliance on

waterfront amenities and boating opportunities is obvious. The Town supports and will continue to support the District's efforts to keep the inlet and approach channels navigable for local residents.

Regional and State Government

The Town has a variety of ongoing coordination mechanisms with different regional and state agencies. The relationship with the South Florida Water Management District was previously addressed.

The Town is within the jurisdiction of the South Florida Regional Planning Council located in Hollywood. This agency is charged with setting regional planning goals and priorities, and with the review of major developments of regional impact. With regard to developments of regional impact, the Town has not participated in the review and approval procedures for these types of projects. The built out nature of the general area is such that this trend is anticipated to continue.

The Florida Department of Transportation has jurisdiction over SR A1A and Commercial Boulevard. This arrangement provides for FDOT to review and approve connections and roadway alteration permits on these facilities. The FDOT also maintains and operates the Commercial Boulevard Bridge. In light of the peak season traffic volumes on Commercial Boulevard, the Town needs to ensure that conflicting interests are best compromised with respect to timed openings of the causeway bridge. The Town is working with the Coast Guard to regulate opening of the Commercial Boulevard Bridge to ease traffic congestion.

Other groups with which the Town has coordination activities include the Florida Inland Navigational District (F.I.N.D.) and the Florida Marine Patrol. As with the Inlet District, the Town supports the activities of F.I.N.D. to provide for safe navigation along the Intracoastal. With respect to the Marine Patrol, the Town supports efforts of this group to enforce all safe boating procedures. Additionally, the Town, in consultation with F.I.N.D., the Department of Natural Resources and the US Corps of Engineers will

participate in the location of suitable dredge and spoil sites. The Town has agreed to participate when necessary in the Coastal Resources Interagency Management dispute resolution process regarding dredge siting conflicts. Currently, there is no dredge and spoil sites located in the Town of Lauderdale-By-The-Sea.

Analysis Summary

The Town of Lauderdale-By-The-Sea has a varied relationship with different agencies in local and areawide community affairs. The nature of the existing coordination mechanisms ranges from written agreements with public and private service providers to informal communication or actions with outside agencies and individuals. The results of the inventory of existing mechanisms indicates the existing coordination mechanisms are effective. Major examples of this include the provision of infrastructure services by Fort Lauderdale (potable water and distribution system maintenance), Pompano Beach (sanitary sewer, potable water and distribution system maintenance), Beach Erosion District, the BCHES and the Broward Technical Advisory Committee.

In terms of future efforts, the Town should maintain contractual service agreements with all existing providers. The Town should also maintain a position and/or written agreements regarding the regional provision of certain services, particularly with respect to solid waste and potable water facilities.

Based on this analysis, Section III of the Comprehensive Plan presents a compilation of intergovernmental goals, objectives and policies.

XII Public School Facilities Element

A. Overview of School Facilities Planning

1. Introduction

Over the past decade the Florida Legislature has progressively strengthened the ties between school planning and general land use and comprehensive planning through amendments to Chapters 163 and 1013, Florida Statutes. The 2005 Legislature mandated that the availability of public schools be made a prerequisite for the approval of residential construction and directed a closer integration of planning for school capacity with comprehensive planning. Under the provisions adopted with Senate Bill 360:

- Existing Interlocal Agreements between school boards and local governments were updated and expanded to comply with the legislation.
- Each local government must adopt a Public School Facilities Element as part of its comprehensive plan, if they do not qualify for an exemption.
- Mandates school concurrency.
- Local governments must update their Intergovernmental Coordination Element and Capital Improvements Element to coordinate public school planning.
- Procedures for comprehensive plan amendments.
- Establish a process and uniform methodology for proportionate share mitigation.

Public School Facilities Element Requirements

The law requires that local governments adopt a public school facility element as a part of their comprehensive plans to establish a framework for the planning of public schools. (s. 163.3177(12), F.S.). Local governments were granted approximately three years to adopt a public school facilities element. As directed by the legislation, the Florida Department of Community Affairs established a phased schedule for adoption of the elements with each local government adopting no later than December 1, 2008. Broward

County required to adopt it no later than February 1, 2008. In addition, the Legislature established enforcement mechanisms should a local government and school district fail to adopt a public school concurrency program.

The legislation prescribed the following minimum content requirements for goals, objectives, and policies:

- procedure of annual update process;
- procedure for school site selection;
- procedure for school permitting;
- provision of infrastructure necessary to support proposed schools;
- provision for collocation of other public facilities in proximity to public schools;
- provision for location of schools proximate to residential areas and to complement patterns of development;
- measures to ensure compatibility of school sites and surrounding land uses; and
- coordination with adjacent local governments and the school district on emergency preparedness issues.

In addition, the element includes future conditions maps which generally depict;

- the anticipated location of educational and ancillary plants anticipated over the five-year and long-term planning period.
- depict the anticipated location of educational and ancillary plants, including the general location of improvements to existing schools or new schools anticipated over the 5-year or long-term planning period; and
- out of necessity, the maps are general for the long-term planning period and more specific for the 5-year period. Maps indicating general locations of future schools or school improvements may not prescribe a land use on a particular parcel of land.

The data and analysis portion of the Public School Facilities Element addresses:

- how level-of-service standards will be achieved and maintained;
- the interlocal agreement adopted pursuant to s. 163.31777 and the 5-year school district facilities work program adopted pursuant to s. 1013.35;
- the educational plant survey prepared pursuant to s. 1013.31 and an existing educational and ancillary plant map or map series;
- projected future population and associated demographics, including development patterns year by year for the upcoming 5-year and long-term planning periods; and
- Anticipated educational and ancillary plants with land area requirements.
- information on existing development and development anticipated for the next 5 years and the long-term planning period;
- an analysis of problems and opportunities for existing schools and schools anticipated in the future;
- an analysis of opportunities to collocate future schools with other public facilities such as parks, libraries, and community centers;
- an analysis of the need for supporting public facilities for existing and future schools;
- an analysis of opportunities to locate schools to serve as community focal points

2. Concurrency Management System (CMS)

The concurrency management system for Broward County is an intergovernmental effort that is grounded in the provisions of the Broward County Charter, which provide for county-wide planning processes implemented through the County's Land Development Code. The public school facility Concurrency Management System operates according to the state mandated requirements (Section 163.31777 F.S. and 163.3180 F.S.) for the implementation of school concurrency and the adopted School Board's Interlocal Agreement for Public School Facility Planning (Interlocal Agreement). These require Broward County, the School Board and non-exempt municipalities to ensure that the

adopted Level of Service Standard (LOS) to be achieved and maintained for each school type and Concurrency Service Area (CSA).

Unlike existing concurrency services (roads, sanitary sewer, solid waste, drainage, potable water, recreation and mass transit) which are the responsibility of local governments, the School Board, by constitutional mandate, has the responsibility of providing educational facilities to meet the needs of current and future students as represented in the School Board's adopted Five Year District Educational Facilities Plan (DEFP). The local governments, therefore, do not have control of the funding sources or the allocation of funds for new or renovated schools which would add student capacity. However, since the School Board isn't empowered to implement a Concurrency Management System on its own, it must rely upon the local governments to do so through their Land Development Regulations.

The Broward County Land Development Code contains the County's Concurrency Management System. The Code requires plat approval of all parcels of land prior to receiving a Development Order. Plat approval applies to land within the municipal boundaries as well as that in the unincorporated areas. Per State requirements, the point of review for Public School Concurrency is at plat or site plan (or functional equivalent).

When a development application is reviewed for school concurrency, it must be determined if the development is exempted or vested (as per Section 8.11 of the Interlocal Agreement) or has been issued a School Capacity Availability Determination Letter (SCAD) by the School Board indicating that adequate school capacity exists. If so, it can be accepted by the County for further processing.

If the development application is not exempted or vested, it is subject to school concurrency and the applicant must submit a Public School Impact Application (PSIA) to the applicable local government for review by the School District according to the provisions and processes outlined in Section 8.13 of the Interlocal Agreement.

3. Collaborative Planning Process & Intergovernmental Coordination

The collaborative planning process has greatly increased with the passage of the 2005 Infrastructure and Planning Act (SB 360) which mandated the adoption of a Broward County Public School Facility Element and implementation of public school concurrency by February 1, 2008.

Beginning of 2006, School Board staff has been working collaboratively with the County and municipalities through the School Board's Staff Working Group and Oversight Committee to form consensus on the amendments to the Interlocal Agreement and the preparation of a model Public School Facilities Element. Several Staff Working Group Subcommittees were also established to deal with issues including collocation of school facilities, land use changes and developing urban school standards. These committees continue to meet on a regular basis in order to implement the state mandated requirements to coordinate and collaborate on updates to the District Educational Financially Feasible Plan (DEFP), Concurrency Service Areas (CSAs) and amendments to the Comprehensive Plans of the County and non-exempt municipalities for the implementation of public school concurrency.

4. Level of Service Standard Methodology

The level of service standard is based upon the capacity of the school facility, which is the number of pupils to be served by the facility. The level of service is expressed as the percentage (ratio) of student enrollment to the student capacity of the school. The level of service is standard and is expressed in terms of Florida Inventory of School Houses (FISH) capacity. FISH capacity is determined by Florida Department of Education guidelines and represents a measure of the physical capacity of the facility itself. FISH capacity includes satisfactory student stations in classrooms. Based on the second amendment to the Interlocal Agreement for Public School Facility Planning, which became effective in September 2010, The level of service standard was uniformly set as 100% of gross capacity (with relocatable classrooms) for each CSA until the end of the

2018/19 school year; and commencing at the 2019/20 school year, the LOS for each CSA shall be 110% of the permanent FISH capacity.

The relationship of enrollment to capacity, for individual schools and for concurrency service areas, is derived directly from the five-year schedule of capital improvements that incorporates the Five-Year District Educational Facilities Work Program adopted annually by the School Board. The school capacity and level of service analysis is assigned in a capacity/enrollment and level of service table. This table provides a year-by-year projection of capacity, enrollment, levels of service and available capacity, illustrating surpluses and deficiencies, based on the financially feasible capital program adopted by the school district.

Student enrollment is projected annually based on the specific function of the educational facility and the characteristics of the school attendance area, historical trends, the current and projected pace of development and the potential of vacant lands.

Other factors such as students attending schools outside their assigned attendance areas due to reassignments, magnet programs, charter schools and other educational choices are factored into the methodology for enrollment projections and for allocating school capacity.

Student enrollment projections are geographically based using local development trend data and the District's historic student enrollment data. School-by-school enrollment projections by concurrency service areas are applied. General locations of future public schools to be constructed within the District over five years are applied to concurrency service areas relative to the location serving the anticipated capacity deficit. In addition, as stated in School Board Policy 5000, the School Board will maximize the use of existing space throughout the District, not to exceed capacity equal to or greater than 100% of gross FISH capacity, through boundary changes in order to meet school concurrency. As a temporary solution, the implementation of alternative enrollment options as identified by the Superintendent will be the sole discretion of the School Board

to ease overcrowding until permanent capacity becomes available through the building of additional facilities on site, boundary change, or new schools.

School enrollments exceeding the available capacity, resulting in a level of service greater than 100% gross FISH capacity in the first fiscal year, achieve the level of service standard by the fifth year due to planned capital improvements not yet available until the final year.

5. Problems and Opportunities for Existing and Future Schools

Land Availability The availability of land has increasingly become a major issue facing the School Board. Existing schools that have experienced rapid growth have had to utilize areas of their sites to place classroom additions and relocatables. As a result, much of the available green space, playfields, playgrounds, and parking areas have been sacrificed to locate building program. The demand for larger water retention areas and additional parking has also reduced the useable area for the educational program.

Due to limited available land, the School Board has worked with staff to develop strategies to design for, and construct on smaller sites. In February 2009, the School Board adopted the Guidelines for Urban Concepts via Resolution #09-66. The resolution encourages designing a more compact building footprint, sharing parking and playfields, as well as exploring the use of parking garages versus surface parking.

Construction Costs & Revenue Sources In the past few years, the School Board has had to address the reduction in capital revenue and the rising cost of construction. The last three years have realized lower construction costs, but coupled with loss in capital revenues, the School Board has had to face the challenge of having to maintain an estimated 39 million square feet of existing space. The School Board continues to balance the reduced capital revenues with the need to fund life cycle replacement of major infrastructure systems such as roofing, air conditioning, plumbing, and electrical distribution.

Enrollment Projections Enrollment is not uniform throughout the District as local communities go through their aging cycles at different rates. The District is still experiencing growth in certain areas of the county that has stressed the educational facility capacities in that area. This imbalance created by regionalized growth, combined with a decline in enrollment in certain areas, state plant survey restrictions, and No Child Left Behind federal legislation, has severely limited possible options to meet the School Board's level of service commitment. Planning based on sound enrollment projections has proven to be a crucial component especially in times of financial challenges.

State Plant Survey Florida Statute 1031.31 requires that every five years each county must submit a plant survey to aid in formulating plans for housing the educational program and student population as well as ancillary plants that provide services for the district. The Educational Plant Survey is a long range facility planning tool that determines the future housing and facility needs of the district to provide an appropriate educational program and services for each student based on the district's mission statement and strategic plan. The survey is developed using Department of Education five-year projections. All projects in the Adopted District Educational Facilities Plan using state authorized funds must be in the district's state plant survey. Because of declining enrollment and increased space availability this requirement will eliminate building new capacity additions as a viable option to resolve level of service compliance.

The updated five-year student enrollment projections provide a basis for determining capital needs. **Table 12-1** below, summarizes the actual enrollment, by level, for the 2010-11 and the projected enrollment for 2015-16 school years. The enrollment projections are compared to the 20th day figures for the current (2010-11) school year. As indicated in the table, an increase of 1,669 students occurred between 2009-10 and 2010-11.

Table 12-1: Summary of Enrollment Projections

School Type	2009-10 20th Day Enrollment	2010-11 20th Day Enrollment	2010-11 Increase/(Decrease) Over 2009-10 20th Day Enrollment	2015-16 Projected 20th Day Enrollment	2015-16 Increase/(Decrease) Over 2010-11 20th Day Enrollment
Pre-Kindergarten	4,244	4,465	221	4,465	0
Elementary (K-5)	102,495	101,344	(1,151)	103,338	1,994
Middle	52,952	52,369	(583)	53,108	739
High	70,234	69,516	(718)	69,276	(240)
Centers	4,676	5,904	1,228	5,904	0
Charters	20,602	23,274	2,672	23,274	0
TOTAL	255,203	256,872	1,669	259,365	2,493

Source: School Board of Broward County, 2010

The District is projected to increase by 2,493 total pre-kindergarten through twelfth grade students, including those in centers and charter schools, by the 2015-2016 school year. Enrollment in charter schools is 23,274 this year, with an undetermined number of additional charter schools anticipated in the next year. The increase in charter school enrollment has reduced the number of students housed in existing or new District facilities. If the charter school trend does not continue, then these projected students will impact the capital needs of other public schools in the District. Recent trends and current birth data indicate that elementary (pre-kindergarten through grade 5) enrollment in District owned facilities will increase over the next five years by 1,994 students. Middle school enrollment in District owned facilities is projected to show a increase of 739 students and high school enrollment will decrease by 240 students. By the end of the five-year period, Broward County School District’s projected enrollment will total 259,365 students.

Class Size Reduction Requirements; In 2002, citizens approved an amendment to the Florida Constitution that set limits on the number of students in core classes (such as

Math, English, Science, etc.) in the state's public schools. Beginning with the 2010-2011 school year, the maximum number of students in each core class would be:

- 18 students in prekindergarten through grade 3;
- 22 students in grades 4 through 8; and
- 25 students in grades 9 through 12.

In 2003, the Florida Legislature enacted [Senate Bill 30-A](#) that implemented the amendment by requiring the number of students in each classroom be reduced by at least two students per year beginning in the 2003-04 school year, until the maximum number of students per classroom did not exceed the requirements in law. The amendment would be calculated as follows:

- 2003-2004, 2004-2005 and 2005-2006 at the district level
- 2006-2007 and 2008-2009 at the school level
- The 2009 Legislature extended the calculation at the school level for an additional year to include 2009-2010.
- 2010-2011 at the classroom level

The District has achieved compliance during all years except for 2006-07. In 2007, the Superintendent established the Class Size Reduction Action Committee (CSRAC) to address compliance and prepare the District for period-by-period implementation. It is currently estimated that our cost to fully implement period-by-period class size is \$70 million dollars.

Florida's Class Size Amendment - 2010 Legislative Session

In 2010, the Florida Legislature approved a constitutional amendment to be placed on the ballot that will ask voters to change the state constitution's current maximum class sizes to "school-wide average class sizes." If the amendment is approved by voters, maximum class size would be calculated based on the school-wide average of the number of students in core classes assigned to each teacher beginning with the 2010-2011 school year and be:

- 18 students in prekindergarten through grade 3;
- 22 students in grades 4 through 8; and
- 25 students in grades 9 through 12.

In addition, the proposed change to the constitution would set the maximum number of students assigned to each teacher, while not exceeding the school-wide average, to be:

- 21 students in prekindergarten through grade 3;
- 27 students in grades 4 through 8; and
- 30 students in grades 9 through 12.

Florida State Statute 1003.03 subsections (1)-(4), will be amended effective upon approval by the electors of Senate Joint Resolution 2 in the 2010 General Election and will be retroactive to the beginning of the 2010-2011 school year.

To ensure that BCPS will continue to address accurately the period-by-period Class Size Reduction Amendment implementation in 2010-11, the Class Size Reduction Action Committee (CSRAC) continues to meet and refine timelines, processes, and tools associated with the District's classroom space utilization process. The committee is comprised of Principals and District Administrative staff from Facilities, Budget, Curriculum, Instructional Staffing, and Educational Technology Services.

- In 2007-08 the CSRAC met and prepared the groundwork for period-by-period implementation of Class Size Reduction legislation.
- In 2008-09 the CSRAC identified 42 full implementation schools, continued development of a more robust on-line data monitoring tool of period-by-period class size compliance that incorporated classroom utilization functionality, and further aligned the District's calculations to FDOE average class size calculations.
- In 2009-10 further integration of school-by-school analysis of unassigned classrooms, floating teachers, programs, scheduling, and classroom student-station utilization continued.
- In 2010-11, it is expected that further development and refinement of the tools to determine District resource utilization (Budget, Personnel Staffing, Facilities, Boundaries, and ETS system modifications) will occur.

Options for Reducing Capacity

Broward County Schools has considered options to optimize the usage of educational facilities within the District. Each year the District undergoes an extensive boundary process and considers the effectiveness of programs that are being utilized as an alternative to adding capacity.

Boundary Process: Each year the District undergoes a boundary process that considers the demographic changes in student populations, available and future facility capacity, programming components, as well as the diversity at each school. As part of the annual boundary process the District relies on input from the communities and stakeholders. Through the boundary process, every effort is made to maintain equal educational opportunities.

Multi-track Scheduling: Broward County Schools has utilized multi-track schedules for an elementary school successfully. In that school, this multi-track schedule accommodated up to 150% of the school's FISH capacity in the 2005-06 school year. The community was content with the multi-track scheduling and has shown increases in student achievement, attendance and less discipline situations. The District has continued to utilize this method to increase the utilization of schools.

Grade Level Organization: Various grade level configurations are examined to reduce or add capacity. Presently we have one primary school with grade levels of K-3 and one K-8.

Block Scheduling: Broward County Schools have been in the forefront of implementing and evaluating block scheduling. Broward County Schools utilize block schedules at several schools.

High School Options: Dual enrollment gives high school juniors and seniors the opportunity to take college level courses and receive credits towards high school graduation. If a student qualifies for this it can free up capacity while benefiting student

achievement. The early admissions and 18 credit diploma option allows for high school students to apply for early graduation, which will also relieve enrollment at our high schools.

Other Alternatives: Broward County Schools has also been using creative alternative methods to assist in distributing the student population by allowing parents and students the choice of school assignment. Some examples are:

Broward Virtual School:

Broward Virtual School offers full-time enrollment to students in grades K-12 through an online educational delivery system. Students in grades 6-12 may enroll part-time as well. BVS offers equitable access to high quality, individualized education, through the Internet and other distance learning technologies. The virtual environment provides flexibility of time and location, and promotes development of the skills, the attitudes, and the self-discipline necessary to achieve success in the 21st century. Broward Virtual School offers students the opportunity to earn a standard high school diploma entirely online. <http://www.bved.net/>

Magnet Schools: The District offers magnet programs in several locations largely in schools where space is available. These programs offer a thematic educational program; which entices students/parents to choose a school and fill available seats. They have been a popular choice alternative option.

Charter Schools: The District has led the state in the number of students attending charter schools. During the 1999-00 school year 3,873 students attended charter schools. Since that time charter school enrollment has increased an additional 19,401 students, enrolling a total of 23,274 students during the 2010-11 school years.

**Table 12-2: Charter Schools Serving Elementary,
Middle and High School Students**

Charters Serving Elementary School Students	Charters Serving Middle School Students:	Charters Serving High School Students:
Ben Gamla Charter	Ben Gamla Charter	City of Coral Springs
Ben Gamla Charter North Broward	Ben Gamla Charter North Broward	City of Pembroke Pines
Ben Gamla Charter South Broward	Ben Gamla Charter South Broward	Dolphin Park High
Broward Community Charter	Broward Community Charter	Eagle Academy
Broward Community Charter West	City of Coral Springs	International School of Broward
Central Charter School	City of Pembroke Pines - W/C	Lauderhill High
Charter Institute Training Center	Discovery Middle Charter	Life Skills
Charter School of Excellence	Eagle Academy	Mavericks High Central Broward
Charter School of Excellence @ Davie	Eagles' Nest	North University High
Charter School of Excellence @ Davie 2	Florida Intercultural Academy Middle	Parkway Academy
Charter School of Excellence, Ft Lauderdale 2	Hollywood Acad. of Arts & Science	Somerset Academy
Charter School of Excellence @ Tamarac 1	Imagine School at Broward Middle	Somerset Conservatory
Charter School of Excellence @ Tamarac 2	Imagine School at North Lauderdale	Somerset Prep Charter High @ N Lauderdale
Charter School of Excellence @ Riverland	International School of Broward	
Charter School of Excellence @ Riverland 2	North Broward Acad. of Excellence	
City of Pembroke Pines - E/W/C	Paragon Academy of Technology	
Eagles' Nest	Pompano Charter Middle	
Excelsior Charter of Broward	RISE Acad. School of Science and Tech., Tamarac	
Florida Intercultural Academy	Smart School	
Henry McNeal Turner Learning Academy	Somerset Academy	
Hollywood Acad. of Arts & Science	Somerset at Miramar	
Imagine School at Broward	Somerset Pines Academy	
Imagine School at North Lauderdale	Somerset Prep Charter School @ N Lauderdale	
Imagine School at Weston	Somerset Preparatory Charter Middle	
Kidz Choice Charter	Somerset Village Academy Middle	
North Broward Acad. of Excellence	Touchdowns4Life	

Charters Serving Elementary School Students	Charters Serving Middle School Students:	Charters Serving High School Students:
Paragon		
RISE Academy School of Science and Tech.		
RISE Acad. School of Science and Tech., Tamarac		
Somerset Academy		
Somerset Academy Davie		
Somerset Academy East		
Somerset at Miramar		
Somerset Neighborhood		
Somerset Pines Academy		
Somerset Prep Charter School @ N Lauderdale		
Somerset Village Academy		
Sunshine Elementary Charter		

Source: School Board of Broward County, 2010

6. Need to Support Public Facilities for Existing and Future Schools

Public & Private Partnerships- The District believes that community involvement is vital to student achievement. Developing partnerships with private as well as public entities helps to insure that the entire community becomes a part of and enhances the educational process for both K-12 and adult students. Community involvement is one of seven key areas within the school system's strategic plan.

The District has more than 40,000 volunteers and 2,700 school level partners that support Broward Schools. The District has a Speakers Bureau that offers businesses, community groups and organizations the opportunity to have content experts speak about education topics and public school programs. Speakers help disseminate positive information about the District and enhance relations with the community. The district also coordinates educational programs with the Museum of Discovery and Science, the Broward County Library System, as well as Broward County and local parks and recreation departments.

In many communities, public schools serve as a focal point for the delivery of social services and community programs. After school hours and during school intercessions, non-profit organizations and city agencies deliver services to children within a school

facility. Homeowners associations use city facilities for their meetings. Local theater groups stage performances and musical groups offer concerts to residents using school cafeteriums and auditoriums.

Without the use of school facilities for these purposes, many communities would be left without a common place to gather and share experiences.

Student Enrichment in the Arts (SEAS) The Student Enrichment in the Arts (SEAS) program was formed from collaboration between Broward County Public Schools and the Broward Center for the Performing Arts in March 1990. According to the partnership, the school system has a forty-year rent-free lease, which includes exclusive use of the Broward Center Amaturro Theater during the day throughout the school year. The SEAS program offers a different style of learning by integrating theatrical performances, such as music, dance and drama into the students' education. Since inception of the program, over 1.7 million students have attended. The Broward County Public School system and the Broward Center for the Performing Arts continue to be on the cutting edge of education. To complement SEAS, the Reading Residency program was designed to improve reading and verbal understanding for economically disadvantaged students.

7. Analysis of Infrastructure Needs for Existing and Proposed School Facilities (Rule 9J-5.025(2)(f), F.A.C).

Broward County currently has 302 public school facilities, including elementary, middle, high, charter and special schools. Due to the fact that Broward County is predominately built out, the major infrastructure, including; roads, drainage, sanitary sewer and potable water facilities are available to support existing and proposed school facilities.

One area which needs attention however, is pedestrian infrastructure. The County has some areas where sidewalks and unobstructed access to schools can be improved. To address this, Broward County promotes safe routes to schools through the Broward County MPO 2030 Long Range Transportation Plan. A goal to “ensure and where possible enhance safety and security” in transportation projects near schools is intended to reduce hazards by providing the necessary infrastructure for pedestrians within a 2

mile radius of schools deemed “hazardous” for school children. In furthering this goal, the 2030 Plan proposes sidewalk infrastructure improvements in areas which are deemed hazardous and/or enhance the safety and security of pedestrians.

In addition, during the development review and site selection process of any proposed school, all infrastructure needs are taken into consideration. These procedures and processes are outlined in Sections V and VI of the ILA. The School Board also requires that all major expansion, remodeling and/or replacements projects (exceeding \$1,000,000) go through a Master Planning process. This process, which involves public input, must evaluate infrastructure issues such as; site circulation, parking, retention areas and public utility locations.

B. Data and Analysis

1. Population and Housing Conditions

Population Growth in Broward County

Broward County has experienced significant population growth since 1970. As **Table12-3** below illustrates, in 1970 Broward County had a population of 620,100 and the 2010 population is estimated to be 1,772,060, a growth of 186%. Though the County is approaching “build-out”, expectations are that growth will continue. The future pace of growth will be less than in past years, both in terms of percentage and in absolute growth as Broward makes the transition from large tracts of “Greenfield” development to “redevelopment”. At the same time the demographics of the population will continue to change. A larger percentage of growth will come as result of in-migration from abroad. Generally, migrants are younger and less likely to have a family. The “Median Age” and “% 65 or over” columns, from **Table12-3** below, are indicators of this change in the short term. Broward’s median age increased as it became home to larger numbers of retirees during the 1970’s and early 1980’s. The population ages 65 or greater peaked in the early 1980’s with 22%; but, as international migration to Broward increases that percentage drops significantly to 15% in 2007, its lowest level since 1960, before the influx of retirees.

Table 12-3: Population Broward County 1970-2035

Year	Total	Preceding Years' Average Annual Change		Median Age	% 18 or Under	% 65 or over
		Percent	Population			
1970	620,100	8.6%	28,615	38.7	29%	18%
1980	1,018,257	6.4%	39,816	38.7	22%	22%
1990	1,255,531	2.3%	23,727	37.8	21%	21%
2000	1,623,018	2.9%	36,749	37.8	24%	16%
2010	1,772,060	0.9%	14,904	39.1	24%	15%
2015	1,876,261	1.2%	20,840	38.9	24%	15%
2020	2,000,888	1.3%	24,925	36.5	25%	16%
2025	2,114,586	1.1%	22,740	36.9	26%	18%
2030	2,214,420	0.9%	19,967	37.5	25%	20%
2035	2,298,006	0.8%	16,717	37.7	25%	21%

Source:

U.S. Bureau of the Census, Decennial Census for years 1970, 1980, 1990, and 2000

Broward County Population Forecasting Model, 2009 for years 2010, 2015, 2020, 2025, 2030 and 2035

School Age Population

As with population growth in general, Broward’s school age population has experienced considerable growth since 1970. In some ways it reflects the overall demographics of the population growth. The influx of retirees through the early 1980’s caused the Kindergarten through 12th Grade population to decrease by more than 5% of the total. The decline continued into 1990; but, by 2000 the K-12 population’s percentage of the total increased. Though the current economic and housing condition eroded the population increases, increases are expected to resume in 2010. As the population grows larger, the K-12 population is expected to stabilize at around 17% of the total population by 2020. By 2020, the school age population (elementary through high school) will have grown by 22%, compared to 2000. Most of the growth will occur in the elementary and middle school age groups as the younger in-migrating population begins establishing families.

The Higher Education-age group also grows in the short-term and by 2020 is 30% larger than its 2000 equivalent.

Table 12-4: School Age Population Broward County 1970-2035

Year	School Age Population			Percent of Total Population		
	K-12	Higher Ed.	Total	K-12	Higher Ed.	Total
1970	133,064	118,673	251,737	21.5%	19.1%	40.6%
1980	164,431	250,044	414,475	16.1%	24.6%	40.7%
1990	177,638	317,283	494,921	14.1%	25.3%	39.4%
2000	279,888	348,245	628,133	17.2%	21.5%	38.7%
2010	275,186	381,513	656,599	15.5%	21.4%	37.1%
2015	302,831	428,588	731,419	16.1%	22.8%	38.9%
2020	340,856	453,320	794,176	17.0%	22.7%	39.7%
2025	367,412	458,367	825,779	17.4%	21.7%	39.1%
2030	380,525	476,064	856,589	17.2%	21.5%	38.7%
2035	391,376	504,130	895,506	17.0%	21.9%	38.9%

Source: U.S. Bureau of the Census, Decennial Census for years 1970, 1980, 1990, and 2000

Broward County Population Forecasting Model, 2009 for years 2010, 2015, 2020, 2025, 2030 and 2035

Note: All populations are for April 1.

K-12 is the population ages 5 through 17, Higher Education population consists of 18 through 34

Housing Characteristics

While Broward's housing inventory once was dominated by the single-family, detached home; that no longer is the case. The housing industry responded to the influx of retirees during the 1970's and 1980's by building large numbers of multi-family condominiums and apartments. Between 1970 and 1990, single family homes grew by nearly 87,000. During that same time period, multi-family homes grew by 264,000 units (averaging 13,000 per year).

Expansion in the southwest and northwest portions of Broward changed the emphasis back to single-family homes. They increased by nearly as much during the decade of the 1990's as they did for the twenty years prior. Still, there are 38% more multi-family units than single-family.

Despite the changes in housing unit type, the percentage of owner-occupied units remains relatively stable at between 68% and 72.8%. As more multi-family homes are built, the tendency has been for the percentage of renters to increase; but, only slightly.

Reported vacancy rates are influenced primarily by the number of seasonally-occupied units and magnitude of current residential construction. Because Broward has been a destination for many seasonal residents and these units have been counted as vacant regardless of the actual status, the vacancy rate is higher in Broward than is traditionally thought of as acceptable. Also keeping the vacancy rate high is the U.S. Bureau of the Census practice of counting incomplete homes as vacant. At times of elevated building activity with significant numbers of units nearing completion, the Bureau may count them as vacant even though they are not yet ready for occupation. Both these influences on vacancy rates are expected to decrease; costs of maintaining seasonal units are beyond what many could previously afford and future residential construction will seldom reach the level of activity experienced during the previous decades.

Table 12-5: Housing Characteristics, Broward County 1970-2009

Year	Total Units	Single Family	% Single Family	Multi-Family	Other	Owner Occupied	Renter Occupied	% Vacant	% Owner Occupied
1970	253,325	149,447	59.0%	94,017	9,861	161,962	60,601	12.1%	72.8%
1980	477,468	202,898	42.5%	258,987	15,583	299,730	117,787	12.6%	71.8%
1990	628,660	236,321	37.6%	358,665	33,674	359,570	168,872	15.9%	68.0%
2000	741,043	303,357	40.9%	409,756	27,930	454,750	199,695	11.7%	69.5%
2009	807,137	330,403	40.9%	454,969	21,765	445,958	205,519	19.3%	68.5%

*Source: 2009 American Community Survey, U.S. Bureau of the Census
All other years U.S. Bureau of the Census, Decennial Census*

Development Trends

As Broward County approaches “build-out” while still feeling the pressure of population growth; new residential construction will be predominantly multi-family. Table 12-6 on the following page depicts forecasted Certificates of Occupancy, prepared by applying housing unit growth rates to municipally-provided data on unit type, shows that approximately 90% of dwelling unit growth will be multi-family. While the actual numbers will deviate from this, the general trend will apply. Most new units will be in the form of “redevelopment”; attempting to maximize the number of households accommodated and, at the same time, attempting to minimize the costs of construction.

Table 12-6: Residential Building Permits Issued by Type 2008-2019

Year, Beginning April 1st	Residential Units Issued Certificates of Occupancy			
	Single Family	Multi-Family	Total	Change from Previous Year
2008	182	1,942	2,124	
2009	283	2,452	2,735	611
2010	554	2,560	3,114	379
2011	491	2,917	3,408	294
2012	385	4,115	4,500	1,092
2013	847	4,781	6,528	2,028
2014	917	9,128	7,066	538
2015	903	6,054	6,957	-109
2016	872	5,849	6,721	-236
2017	838	5,623	6,461	-260
2018	802	5,383	6,185	-276
2019	777	5,690	5,988	-197
Total	7,851	56,494	61,787	

Source: Broward County Planning and Redevelopment Division

2. Current Profile of Broward County Public Schools

Summary Profile of Public Schools in Broward County

The numbers of school buildings, student stations and classrooms are reflected in Table 12-7. The majority of buildings and student stations are utilized for elementary students, 55% and 39% respectively as compared to the total for the School District. High Schools have the highest level of relocatable stations (11,515) and Elementary has the highest level of relocatable classrooms (529). As noted in Table 12-8, most of the school facility buildings were constructed in the last 10 years. Map 12-1A depicts the locations of all Public Schools and ancillary locations in Broward County.

Table 12-7: Summary Profile of School Capacity

School Type	Permanent Buildings	Relocatable Buildings	Permanent Stations	Relocatable Stations	Permanent Classrooms	Relocatable Classrooms	Permanent Net Sq. Ft.	Relocatable Net Sq. Ft.
Elementary	1,117	594	115,800	9,892	6,171	529	15,466,767	509,307
Middle	376	491	62,478	9,742	2,626	445	7,577,816	393,619
High	465	596	76,541	11,515	3,069	455	9,715,693	485,997
Special	158	120	10,636	2,262	560	100	1,884,069	98,356
Charter	N/A	N/A	33,915	0	1003	N/A	N/A	N/A
Total	2,116	1,801	299,370	33,411	13,429	1,529	34,644,345	1,487,279

Source: School Board of Broward County, Florida Inventory of School Houses (FISH) data 2010

Table 12-8: Age of School Facility Buildings

School Type	% of sq.ft. 1-10 years	% of sq.ft. 11-20 years	% of sq.ft. 21-30 years	% of sq.ft. 31-40 years	% of sq.ft. 41-50 years	% of sq.ft. over 50 years
Elementary Schools	27%	37%	12%	12%	9%	3%
Middle Schools	20%	35%	14%	15%	13%	3%
High Schools	35%	10%	5%	26%	18%	6%
Special Schools	22%	11%	19%	28%	12%	8%
Charter Schools	N/A	N/A	N/A	N/A	N/A	N/A

Source: School Board of Broward County Florida Inventory of School Houses (FISH) data 2010

Elementary Schools

There are 141 public elementary schools in Broward County as of 2010/2011 not including Broward Virtual Elementary. There is one K-8 Combination school which opened August 2010. . A profile of the existing schools is depicted in Table 12-9.

Table 12-9: Current Profile- Broward County Elementary Schools 2010/11

Facility Name	Site Size (Acres)	Age Range	Permanent Buildings	Relocatable Buildings	Current Enrollment (20 Day)	100% Gross FISH (Student Capacity)	LOS (100% of gross FISH)	% of Capacity
Atlantic West Elementary	8	1974-2004	6	13	747	1,009	1	74.0%
Banyan Elementary	10	1980-2009	5	13	743	983	1	75.6%
Bayview Elementary	2	1958-2000	4	0	551	500	2	110.2%
Bennett Elementary	8	1952-2007	11	0	396	542	1	73.1%
Bethune, Mary Elementary	18	1961-2008	13	17	689	1,313	1	52.5%
Boulevard Heights Elementary	10	1961-2008	15	0	827	812	2	101.8%
Broadview Elementary	10	1965-2006	7	11	970	1,130	1	85.8%
Broward Estates Elementary	10	1957-2007	18	7	623	799	1	78.0%
Castle Hill Elementary	9	1969-2007	8	22	595	901	1	66.0%
Central Park Elementary	13	1990-2004	10	10	1,146	1,123	2	102.0%
Challenger Elementary	8	2000-2004	3	0	851	1,000	1	85.1%
Chapel Trail Elementary	10	1994-2003	7	6	927	1,170	1	79.2%
Coconut Creek Elementary	10	1969-2002	6	3	845	803	2	105.2%
Coconut Palm Elementary	12	2000-2000	2	13	1,047	1,058	1	99.0%
Colbert Elementary	10	1952-2008	5	0	590	812	1	72.7%
Collins Elementary	10	1957-2005	13	2	349	399	1	87.5%
Cooper City Elementary	10	1970-2007	5	2	711	745	1	95.4%
Coral Cove Elementary	12	2004-2004	3	0	837	830	2	100.8%
Coral Park Elementary	11	1989-2007	13	6	598	825	1	72.5%
Coral Springs Elementary	10	1974-2006	7	2	677	943	1	71.8%
Country Hills Elementary	15	1990-2006	11	15	857	1,107	1	77.4%
Country Isles Elementary	9	1987-2004	13	6	938	1,096	1	85.6%
Cresthaven Elementary	10	1992-2008	8	0	546	705	1	77.4%
Croissant Park Elementary	12	1992-2003	8	2	712	846	1	84.2%
Cypress Elementary	13	1969-2010	11	2	788	909	1	86.7%
Dania Elementary	7	1958-2007	11	3	443	623	1	71.1%

Facility Name	Site Size (Acres)	Age Range	Permanent Buildings	Relocatable Buildings	Current Enrollment (20 Day)	100% Gross FISH (Student Capacity)	LOS (100% of gross FISH)	% of Capacity
Davie Elementary	14	1977-2003	7	5	692	831	1	83.3%
Deerfield Beach Elementary	14	1927-2010	11	3	757	797	1	95.0%
Deerfield Park Elementary	11	1978-2005	10	0	618	805	1	76.8%
Dillard Elementary	10	1994-1994	7	2	674	795	1	84.8%
Dolphin Bay Elementary	12	2005-2005	3	0	851	830	2	102.5%
Drew Elementary	15	1990-1990	9	0	622	579	2	107.4%
Driftwood Elementary	10	1960-2003	13	12	644	780	1	82.6%
Eagle Point Elementary	12	1994-2009	9	4	1,176	1,304	1	90.2%
Eagle Ridge Elementary	12	1994-1994	7	0	773	872	1	88.6%
Embassy Creek Elementary	14	1991-2008	8	0	955	1,087	1	87.9%
Endeavour Primary Learning Center	12	2002-2002	2	2	406	496	1	81.9%
Everglades Elementary	10	1998-2005	4	8	1,033	1,220	1	84.7%
Fairway Elementary	11	1968-2005	11	0	914	970	1	94.2%
Flamingo Elementary	14	1975-2006	5	9	743	779	1	95.4%
Floranada Elementary	11	1999-1999	2	0	700	814	1	86.0%
Forest Hills Elementary	8	1975-2004	4	2	590	831	1	71.0%
Foster, Stephen Elementary	9	1961-2007	16	8	624	895	1	69.7%
Fox Trail Elementary	26	1997-2004	4	7	1,240	1,304	1	95.1%
Gator Run Elementary	12	1998-2004	3	16	1,270	1,452	1	87.5%
Griffin Elementary	10	1979-1991	4	4	540	687	1	78.6%
Hallandale Elementary	14	2003-2003	3	5	1,106	1,212	1	91.3%
Harbordale Elementary	4	1959-2008	13	0	399	480	1	83.1%
Hawkes Bluff Elementary	12	1990-2006	11	11	873	1,062	1	82.2%
Hollywood Central Elementary	7	1992-1995	9	1	600	709	1	84.6%
Hollywood Hills	12	1959-2007	9	2	738	768	1	96.1%

Facility Name	Site Size (Acres)	Age Range	Permanent Buildings	Relocatable Buildings	Current Enrollment (20 Day)	100% Gross FISH (Student Capacity)	LOS (100% of gross FISH)	% of Capacity
Elementary								
Hollywood Park Elementary	12	1969-1991	4	0	440	593	1	74.2%
Horizon Elementary	8	1974-2001	6	9	555	699	1	79.4%
Hunt, James Elementary	13	1973-2004	6	0	881	841	2	104.8%
Indian Trace Elementary	12	1990-1990	9	10	708	843	1	84.0%
King, Martin Luther Elementary	11	1968-2007	9	4	410	881	1	46.5%
Lake Forest Elementary	11	1961-2006	11	12	877	946	1	92.7%
Lakeside Elementary	12	1997-2001	3	3	858	798	2	107.5%
Larkdale Elementary	10	1961-2008	16	5	385	713	1	54.0%
Lauderdale Manors Elementary	13	1954-2008	13	4	555	1,116	1	49.7%
Lauderhill, Paul Turner Elementary	11	1995-1995	6	0	560	872	1	64.2%
Liberty Elementary	12	2001-2004	3	1	1,042	1,282	1	81.3%
Lloyd Estates Elementary	8	1968-2008	9	10	476	727	1	65.5%
Manatee Bay Elementary	7	2001-2004	3	10	1,235	1,320	1	93.6%
Maplewood Elementary	11	1980-2004	7	8	754	961	1	78.5%
Margate Elementary	11	1962-2007	19	0	1,086	1,305	1	83.2%
Markham, Robert C Elementary	9	1967-2004	11	4	561	709	1	79.1%
Marshall, Thurgood Elementary	8	1991-2002	7	1	356	763	1	46.7%
McNab Elementary	10	1993-2002	8	1	797	695	2	114.7%
Meadowbrook Elementary	15	1958-2009	13	9	590	858	1	68.8%
Miramar Elementary	10	1991-2004	7	1	945	947	1	99.8%
Mirror Lake Elementary	13	1969-2009	9	7	574	737	1	77.9%
Morrow Elementary	10	1976-2008	7	0	553	831	1	66.5%
Nob Hill Elementary	8	1975-2004	4	7	686	857	1	80.0%
Norcrest Elementary	10	1976-2008	11	0	809	921	1	87.8%

Facility Name	Site Size (Acres)	Age Range	Permanent Buildings	Relocatable Buildings	Current Enrollment (20 Day)	100% Gross FISH (Student Capacity)	LOS (100% of gross FISH)	% of Capacity
North Andrews Gardens Elementary	10	1996-2006	8	6	840	921	1	91.2%
North Fork Elementary	10	1965-2007	10	3	406	771	1	52.7%
North Lauderdale Elementary	13	1974-2006	9	0	625	948	1	65.9%
North Side Elementary	5	1927-2001	8	0	447	608	1	73.5%
Nova, Blanche Forman Elementary	10	1965-2003	6	3	767	836	1	91.7%
Nova, Eisenhower D D Elementary	10	1969-2003	9	0	777	777	2	100.0%
Oakland Park Elementary	7	1927-2004	13	0	573	828	1	69.2%
Oakridge Elementary	8	1959-1993	13	6	718	721	1	99.6%
Orange Brook Elementary	9	2006-2006	3	0	848	830	2	102.2%
Oriole Elementary	9	1971-2005	6	2	694	758	1	91.6%
Palm Cove Elementary	12	1992-2008	10	9	926	1,049	1	88.3%
Palmview Elementary	10	1969-2009	8	3	604	711	1	85.0%
Panther Run Elementary	12	1997-1997	2	1	686	800	1	85.8%
Park Lakes Elementary	15	2000-2006	6	5	1,200	1,304	1	92.0%
Park Ridge Elementary	10	1972-2008	7	4	400	610	1	65.6%
Park Springs Elementary	12	1990-2004	10	0	981	1,201	1	81.7%
Park Trails Elementary	12	2000-2008	4	0	871	1,276	1	68.3%
Parkside Elementary	10	1999-2008	4	2	817	980	1	83.4%
Pasadena Lakes Elementary	10	1971-2008	9	7	763	884	1	86.3%
Pembroke Lakes Elementary	8	1976-2007	5	4	690	741	1	93.1%
Pembroke Pines Elementary	9	1965-2008	6	8	613	763	1	80.3%
Perry, Annabel C Elementary	10	1969-2005	10	9	725	1,073	1	67.6%
Peters Elementary	11	1958-2008	17	12	645	845	1	76.3%
Pines Lakes Elementary	10	1979-2009	8	2	795	963	1	82.6%
Pinewood	10	1979-	7	11	765	1,038	1	73.7%

Facility Name	Site Size (Acres)	Age Range	Permanent Buildings	Relocatable Buildings	Current Enrollment (20 Day)	100% Gross FISH (Student Capacity)	LOS (100% of gross FISH)	% of Capacity
Elementary		2001						
Plantation Elementary	12	1999-1999	2	0	621	814	1	76.3%
Plantation Park Elementary	10	1967-2002	5	0	514	579	1	88.8%
Pompano Beach Elementary	19	1992-1992	9	2	589	615	1	95.8%
Quiet Waters Elementary	18	1990-2008	13	17	1,414	1,388	2	101.9%
Ramblewood Elementary	10	1977-2004	5	1	908	1,003	1	90.5%
Riverglades Elementary	10	1991-1991	6	8	618	813	1	76.0%
Riverland Elementary	10	1991-2008	8	0	598	633	1	94.5%
Riverside Elementary	10	1987-2001	12	6	761	843	1	90.3%
Rock Island Elementary	14	2001-2008	4	0	672	580	2	115.9%
Royal Palm Elementary	12	1971-2004	10	8	754	1,034	1	72.9%
Sanders Park Elementary	12	1965-2004	9	7	506	791	1	64.0%
Sandpiper Elementary	14	1989-2006	12	1	774	931	1	83.1%
Sawgrass Elementary	12	1993-2007	9	0	952	1,184	1	80.4%
Sea Castle Elementary	12	1990-2004	11	1	923	1,109	1	83.2%
Sheridan Hills Elementary	7	1971-2001	6	0	584	607	1	96.2%
Sheridan Park Elementary	13	1966-2008	7	4	644	820	1	78.5%
Silver Lakes Elementary	12	1997-1997	2	5	743	850	1	87.4%
Silver Palms Elementary	14	1995-2001	3	5	816	896	1	91.1%
Silver Ridge Elementary	13	1989-2008	14	9	976	1,056	1	92.4%
Silver Shores Elementary	12	2002-2003	3	0	674	820	1	82.2%
Stirling Elementary	9	1991-2007	8	4	677	789	1	85.8%
Sunland Park Elementary	4	1992-1994	3	1	308	539	1	57.1%
Sunset Lakes Elementary	12	2002-2008	4	0	1,026	1,300	1	78.9%
Sunshine Elementary	9	1964-2002	15	5	805	893	1	90.1%
Tamarac Elementary	8	1974-2004	7	0	1,173	1,290	1	90.9%
Tedder Elementary	12	1964-2004	14	0	770	1,240	1	62.1%

Facility Name	Site Size (Acres)	Age Range	Permanent Buildings	Relocatable Buildings	Current Enrollment (20 Day)	100% Gross FISH (Student Capacity)	LOS (100% of gross FISH)	% of Capacity
Tradewinds Elementary	17	1995-2008	6	17	1,074	1,214	1	88.5%
Tropical Elementary	10	1971-2008	7	1	930	943	1	98.6%
Village Elementary	12	1968-2009	14	5	759	946	1	80.2%
Walker Elementary	10	1959-2009	9	2	599	1,017	1	58.9%
Watkins Elementary	10	1995-1995	2	3	763	868	1	87.9%
Welleby Elementary	13	1991-2004	7	6	811	915	1	88.6%
West Hollywood Elementary	11	1991-1991	5	5	612	687	1	89.1%
Westchester Elementary	10	1976-2009	12	8	1,156	1,184	1	97.6%
Westwood Heights Elementary	9	1958-2008	12	4	594	855	1	69.5%
Wilton Manors Elementary	8	1995-1998	5	0	596	615	1	96.9%
Winston Park Elementary	12	1990-2004	13	0	1,215	1,191	2	102.0%
Young, Virginia Shuman Elementary	8	1993-1993	8	0	724	687	2	105.4%
Discovery Elementary	15	2008-2009	3	0	849	942	1	90.1%
Beachside Montessori C Elementary	6	2008-2008	2	0	650	747	1	87.0%
Heron Heights Elementary	12	2007-2008	3	0	818	942	1	86.8%
Total	1533		1115	594	105,360	117,568		92.1%

Source: School Board of Broward County, 2010

Elementary school locations and attendance zones/concurrency service areas (CSAs) are illustrated in Map 12-2A. Elementary school enrollment, including prekindergarten, for 2010-11 not including Broward Virtual Elementary, centers or charters is 105,360 students. There are 16 elementary schools with enrollment greater than 100% of their gross FISH capacity, which is the adopted LOS standard (LOS). For the 2010-11 school year, this translates into 11% of elementary schools in Broward County not meeting the LOS.

Middle Schools

There are 41 public middle schools in Broward County as of 2010/11 not including Broward Virtual Middle. A profile of these schools is shown by Table 12-9A.

Table 12-9A: Current Profile - Broward County Middle Schools 2010/11

Facility Name	Site Size (Acres)	Age Range	Permanent Buildings	Relocatable Buildings	Current Enrollment (20 Day)	100% Gross FISH (Student Capacity)	LOS (100% of gross FISH)	% of Capacity
Apollo Middle	15	1969-2007	8	22	938	1,657	1	56.6%
Arthur R. Ashe, Jr Middle	24	2001-2001	2	0	652	1,052	1	62.0%
Attucks Middle	24	1960-1997	8	0	895	1,227	1	72.9%
Bair Middle	10	1975-1993	4	18	978	1,297	1	75.4%
Coral Springs Middle	19	1975-2005	4	0	1,746	1,899	1	91.9%
Crystal Lake Middle	14	1971-2002	4	16	1,427	1,640	1	87.0%
Dandy, William Middle	19	1991-1995	19	8	991	1,291	1	76.8%
Deerfield Beach Middle	32	1960-2003	10	12	1,188	1,681	1	70.7%
Driftwood Middle	22	1961-2005	17	9	1,552	1,729	1	89.8%
Falcon Cove Middle	21	1999-1999	2	48	2,463	2,239	2	110.0%
Forest Glen Middle	20	1990-2004	19	8	1,515	1,783	1	85.0%
Glades Middle	20	2006-2008	4	11	1,821	2,060	1	88.4%
Gulfstream Middle	7	1959-2010	17	15	334	692	1	48.3%
Indian Ridge Middle	26	1995-2005	5	28	2,123	2,233	1	95.1%
Lauderdale Lakes Middle	14	1969-1976	4	17	901	1,258	1	71.6%
Lauderhill Middle	22	1969-1995	7	9	586	1,202	1	48.8%
Lyons Creek Middle	22	1999-2006	3	14	2,056	2,135	1	96.3%
Margate Middle	23	1966-2001	9	2	1,047	1,354	1	77.3%
McNicol Middle	12	1997-1997	2	0	707	1,323	1	53.4%
Millennium Middle	11	2001-2006	4	8	1,725	1,776	1	97.1%

Facility Name	Site Size (Acres)	Age Range	Permanent Buildings	Relocatable Buildings	Current Enrollment (20 Day)	100% Gross FISH (Student Capacity)	LOS (100% of gross FISH)	% of Capacity
New Renaissance Middle	20	2000-2000	4	0	1,372	1,547	1	88.7%
New River Middle	18	1995-1995	3	6	1,322	1,493	1	88.5%
Nova Middle	14	1962-2008	12	7	1,281	1,344	1	95.3%
Olsen Middle	20	1954-1991	28	0	1,122	1,698	1	66.1%
Parkway Middle	15	1958-2010	28	2	1,160	1,670	1	69.5%
Perry, Henry D Middle	20	1991-1991	6	9	815	1,326	1	61.5%
Pines Middle	21	1993-2005	3	0	1,754	1,769	1	99.2%
Pioneer Middle	16	1975-1991	5	22	1,412	1,591	1	88.7%
Plantation Middle	22	1969-2004	5	6	949	1,504	1	63.1%
Pompano Beach Middle	12	1964-2008	10	10	1,109	1,235	1	89.8%
Ramblewood Middle	17	1976-2005	4	20	1,563	1,742	1	89.7%
Rickards, James Middle	13	1968-2004	5	10	880	1,267	1	69.5%
Sawgrass Springs Middle	20	1995-1998	8	13	1,305	1,473	1	88.6%
Seminole Middle	21	1958-2009	8	16	1,286	1,555	1	82.7%
Silver Lakes Middle	20	1983-2002	16	11	451	1,295	1	34.8%
Silver Trail Middle	22	1995-2009	3	35	1,666	2,059	1	80.9%
Sunrise Middle	18	1991-1999	15	8	1,124	1,403	1	80.1%
Tequesta Trace Middle	23	1990-2006	19	15	1,547	1,650	1	93.8%
Westglades Middle	24	2001-2001	4	16	1,524	1,766	1	86.3%
Westpine Middle	18	1990-2006	19	11	1,389	1,530	1	90.8%
Young, Walter C Middle	30	1987-2008	17	29	1,488	1,990	1	74.8%
Total	781		374	491	52,164	56,423		94.9%

Source: School Board of Broward County, 2010

Middle school locations and attendance zones/concurrency service areas (CSAs) are illustrated in Map 12-3A. Middle school enrollment for 2010-11 is 52,164 students not including Broward Virtual Middle, centers or charters. There is 1 middle school with

enrollment greater than 100% of its gross FISH capacity, which is the adopted LOS standard (LOS). For the 2010-11 school year, this translates into 2% of middle schools in Broward County not meeting the LOS.

High Schools

There are 32 public high schools in Broward County as of 2010/2011 not including Broward Virtual High. A profile of these schools is shown by Table 12-9B.

Table 12-9B: Current Profile - Broward County High Schools 2010/11

Facility Name	Site Size (Acres)	Age Range	Permanent Buildings	Relocatable Buildings	Current Enrollment (20 Day)	100% Gross FISH (Student Capacity)	LOS (100% of gross FISH)	% of Capacity
Anderson, Boyd High	32	1972-2010	12	5	2,093	2,924	1	71.6%
Atlantic Tech. (Bldg 24)	N/A	2004-2004	1	N/A	595	566	2	105.1%
Coconut Creek High	40	1964-2000	13	34	2,028	2,884	1	70.3%
College Academy @ BCC	N/A	N/A	N/A	N/A	349	N/A	N/A	N/A
Cooper City High	30	1971-2009	31	2	2,259	2,567	1	88.0%
Coral Glades High	45	2003-2008	5	0	2,290	2,637	1	86.8%
Coral Springs High	37	1975-2005	9	13	2,319	3,206	1	72.3%
Cypress Bay High	45	2001-2004	9	145	4,099	4,642	1	88.3%
Deerfield Beach High	41	1969-2010	15	22	2,402	2,848	1	84.3%
Dillard High	51	1959-2001	14	0	1,498	2,738	1	54.7%
Ely, Blanche High	39	1952-2010	28	7	1,947	3,639	1	53.5%
Everglades High	45	2002-2010	4	22	2,802	2,980	1	94.0%
Flanagan, Charles W High	45	1995-1995	11	31	3,241	3,034	2	106.8%
Fort Lauderdale High	27	1958-2007	16	6	1,811	2,633	1	68.8%
Hallandale High	28	1976-1976	6	10	1,507	1,829	1	82.4%
Hollywood Hills High	30	1968-2006	7	24	1,855	2,786	1	66.6%

Facility Name	Site Size (Acres)	Age Range	Permanent Buildings	Relocatable Buildings	Current Enrollment (20 Day)	100% Gross FISH (Student Capacity)	LOS (100% of gross FISH)	% of Capacity
McArthur High	40	1958-2002	30	5	2,117	2,335	1	90.7%
McFatter Technical	N/A	1997-1997	1	N/A	591	566	2	104.4%
Miramar High	38	1969-2005	13	30	2,760	3,235	1	85.3%
Monarch High	55	2002-2005	5	10	2,123	2,360	1	90.0%
Northeast High	52	1958-2010	29	3	2,196	2,389	1	91.9%
Nova High	51	1962-2009	24	41	2,233	2,474	1	90.3%
Piper High	30	1971-2007	20	46	2,667	3,550	1	75.1%
Plantation High	35	1963-2009	25	23	2,166	3,170	1	68.3%
Pompano Beach Inst. Int'l Studies	18	1952-2002	17	4	1,271	1,229	2	103.4%
South Broward High	25	1947-2008	29	0	2,085	2,289	1	91.1%
South Plantation High	32	1969-2006	15	19	2,371	2,778	1	85.3%
Stoneman Douglas High	45	1990-2008	13	44	3,176	3,571	1	88.9%
Stranahan High	38	1951-2004	27	9	1,730	2,541	1	68.1%
Taravella, J P High	31	1979-2006	10	18	3,009	3,809	1	79.0%
West Broward High	43	2007-2008	8	0	2,695	2,755	1	97.8%
Western High	40	1979-2009	19	23	3,008	3,754	1	80.1%
Total	1108		466	596	69,293	73124		102.30%

Source: School Board of Broward County, 2010

High school locations and attendance zones/concurrency service areas (CSAs) are illustrated in Map 12-4A. High school enrollment for 2010-11 was 69,293 students not including Broward Virtual High, centers or charters. There is 1 high school with enrollment greater than 100% of its gross FISH capacity, which is the adopted LOS standard (LOS). For the 2010-11 school year, this translates into 3% of high schools in Broward County not meeting the LOS.

Charter Schools

There are 68 charter schools operating in Broward County as of the 2010-11 school year. The profiles of these schools are shown in Table 12-10.

Table 12-10: Current Profile – Broward County Charter Schools 2010/11

Facility Name & Location	Contract Capacity	Current Enrollment 2009/10	Surplus or Deficit Capacity	Projected Enrollment 2014/15
Ben Gamla Charter 2620 Hollywood Blvd Hollywood, FL 33020	610	576	34	576
Ben Gamla Charter North Broward 2620 Hollywood Boulevard Hollywood, FL 33020	900	17	883	17
Ben Gamla Charter South Broward 6501 W. Sunrise Blvd. Sunrise, FL 33313	900	223	677	223
Broward Community Charter 11421 NW 56th Drive Coral Springs, FL 33076	1,000	198	802	198
Broward Community Charter West 11421 NW 56th Drive Coral Springs, FL 33076	500	358	142	358
Central Charter School 4525 N. State Road 7 Lauderdale Lakes, FL 33319	630	620	10	620
Charter Inst Training Ctr 5420 N. State Road 7 Ft. Lauderdale, FL 33319	350	114	236	114
Charter School of Excellence 1217 SE 3 Avenue Ft. Lauderdale, FL 33316	310	288	22	288
Charter School of Excellence @ Davie 2801 N. University Drive Pembroke Pines, FL 33024	350	168	182	168
Charter School of Excellence @ Davie2 1217 SE 3rd Avenue Ft. Lauderdale, FL 33316	500	156	344	156
Charter School of Excellence, Ft Lauderdale2 1217 SE 3rd Avenue Ft. Lauderdale, FL 33316	500	30	470	30
Charter School of Excellence @ Riverland 3550 Davie Boulevard Ft. Lauderdale, FL 33312	350	132	218	132

Facility Name & Location	Contract Capacity	Current Enrollment 2009/10	Surplus or Deficit Capacity	Projected Enrollment 2014/15
Charter School of Excellence @ Riverland 2 3550 Davie Boulevard Ft. Lauderdale, FL 33312	500	94	406	94
Charter School of Excellence @ Tamarac 1 7595 NW 61 Street Tamarac, FL 33321	500	221	279	221
Charter School of Excellence @ Tamarac 2 7595 NW 61 Street Tamarac, FL 33321	500	195	305	195
City of Coral Springs 3205 N. University Drive Coral Springs, FL 33065	1,600	1,640	(40)	1,640
City of Pembroke Pines High 17189 Sheridan Street Pembroke Pines, FL 33331	1,600	1,721	(121)	1,721
City of Pembroke Pines Elementary 10801 Pembroke Road (East) Pembroke Pines, FL 33025 1680 SW 184 Avenue (West) Pembroke Pines, FL 33025 12350 Sheridan Street (Central) Pembroke Pines, FL 33026	1,800	1,926	(126)	1,926
City of Pembroke Pines Middle 18500 Pembroke Road (West) Pembroke Pines, FL 33029 12350 Sheridan Street (Central) Pembroke Pines, FL 33026	1,200	1,239	(39)	1,239
Discovery Middle Charter 11421 NW 56th Drive Coral Springs, FL 33076	600	91	509	91
Dolphin Park High 3206 S. University Drive Miramar, FL 33025	500	303	197	303
Eagle Academy 3020 NW 33 Avenue Lauderdale Lakes, FL 33311	680	449	231	449
Eagles' Nest Elementary 201 N. University Drive Coral Springs, FL 33071	400	159	241	159

Facility Name & Location	Contract Capacity	Current Enrollment 2009/10	Surplus or Deficit Capacity	Projected Enrollment 2014/15
Eagles' Nest Middle 201 N. University Drive Coral Springs, FL 33071	420	55	365	55
Excelsior Charter of Broward (K-4) 10046 W. McNab Road Tamarac, FL 33321	500	160	340	160
Florida Intercultural Academy 1704 Buchanan Street Hollywood, FL 33019	130	258	(128)	258
Florida Intercultural Academy Middle 1704 Buchanan Street Hollywood, FL 33019	120	32	88	32
Henry McNeal Turner Learning Academy 404 NW 7th Terrace Ft. Lauderdale, FL 33311	250	75	175	75
Hollywood Acad of Arts & Science 1720 Harrison Street Hollywood, FL 33020	734	433	301	433
Hollywood Acad of Arts & Science Middle 1720 Harrison Street Hollywood, FL 33020	900	244	656	244
Imagine School at Broward 9001 Westview Drive Coral Springs, FL 33067	750	612	138	612
Imagine School at Broward Middle 9001 Westview Drive Coral Springs, FL 33067	330	66	264	66
Imagine School at North Lauderdale 1395 S. State Road 7 North Lauderdale, FL 33068	600	374	226	374
Imagine School at North Lauderdale Middle 1395 S. State Road 7 North Lauderdale, FL 33068	600	175	425	175
Imagine School at Weston 2500 Glades Circle Weston, FL 33327	1,050	833	217	833
International School of Broward 3100 N. 75th Avenue Hollywood, FL 33024	1,275	324	951	324
Kidz Choice Charter 9063 Taft Street Pembroke Pines, FL 33024	750	101	649	101

Facility Name & Location	Contract Capacity	Current Enrollment 2009/10	Surplus or Deficit Capacity	Projected Enrollment 2014/15
Lauderhill High 4131 NW 16th Street Lauderhill, FL 33313	500	268	232	268
Life Skills 2360 W. Oakland Park Blvd. Oakland Park, Florida 33311	400	270	130	270
Mavericks High Central Charter Broward 424 W Sunrise Blvd. Ft Lauderdale, FL 33311	550	126	424	126
North Broward Acad of Excellence 8200 SW 17 Street N. Lauderdale, FL 33068	250	625	(375)	625
North Broward Acad of Excellence Middle 8200 SW 17 Street N. Lauderdale, FL 33068	800	328	472	328
North University High 4800 N. University Drive Sunrise, FL 33351	500	290	210	290
Paragon 3311 N. Andrews Avenue Pompano Bch, FL 33064	450	162	288	162
Paragon Academy of Technology 2210 Pierce Street Hollywood, FL 33020	350	99	251	99
Parkway Academy 7451 Riviera Blvd Miramar, FL 33028	650	491	159	491
Pompano Charter Middle 3311 N. Andrews Avenue Pompano Bch, FL 33064	600	68	532	68
RISE Academy School of Science and Tech. (K-4) 3698 NW 15 Street Lauderhill, FL 33313	150	272	(122)	272
RISE Acad. School of Sci. and Tech. Tamarac (5-7) 3698 NW 15th Street Lauderhill, FL 33311	300	106	194	106
Smart School (Middle) 3020 NW 33 Avenue Lauderhill, FL 33311	500	146	354	146
Somerset Academy Elementary 20801 Johnson Street Pembroke Pines, FL 33029	500	861	(361)	861

Facility Name & Location	Contract Capacity	Current Enrollment 2009/10	Surplus or Deficit Capacity	Projected Enrollment 2014/15
Somerset Academy Middle 20803 Johnson Street Pembroke Pines, FL 33029	600	798	(198)	798
Somerset Academy Davie 3788 Davie Road Davie, FL 33314	800	141	659	141
Somerset Academy East Preparatory 2000 South State Road 7 Miramar, FL 33027	801	234	567	234
Somerset Academy High 20805 Johnson Street Pembroke Pines, FL 33029	1,200	708	492	708
Somerset Academy Miramar 12601 Somerset Blvd. Miramar, FL 33027	675	694	(19)	694
Somerset Academy Miramar Middle 12601 Somerset Blvd. Miramar, FL 33027	325	391	(66)	391
Somerset Conservatory 20807 Johnson Street Pembroke Pines, FL 33029	200	78	122	78
Somerset Neighborhood 225 NW 29 Street Wilton Manors, FL 33311	175	78	97	78
Somerset Pines Academy 901 NE 3rd Street Pompano Beach, FL 33064	900	256	644	256
Somerset Prep Charter School @ N Lauderdale 7101 Kimberly Boulevard North Lauderdale, FL 33068	900	413	487	413
Somerset Preparatory Charter Middle 2000 State Road 7 Miramar, FL 33023	750	74	676	74
Somerset Prep Charter High @ N Lauderdale 7101 Kimberly Blvd. North Lauderdale, FL 33068	1,000	54	946	54
Somerset Village Academy Middle 225 NW 29h Street Wilton Manors, FL 33311	750	100	650	100
Somerset Village Academy 225 NW 29h Street Wilton Manors, FL 33311	750	305	445	305

Facility Name & Location	Contract Capacity	Current Enrollment 2009/10	Surplus or Deficit Capacity	Projected Enrollment 2014/15
Sunshine Elementary Charter 2210 Pierce Street Hollywood, FL 33020	500	113	387	113
Touchdowns4Life 10044 W. McNab Road, #28 Tamarac, FL 33321	175	65	110	65
Total	42,190	23,274	18,916	23,274

Source: School Board of Broward County, September 21, 2010 Twentieth Day student enrollment from TERMS Contract Capacity reported by Charter Schools Support

Charter school locations are illustrated in Map 12-1A. They have a district-wide attendance zone/concurrency service area, which means their LOS is measured on a county-wide basis. Charter school enrollment for 2010-11 was 23,274 students.

Special Schools

There are 20 special schools in Broward County as of 2010/2011. Special schools are comprised of vocational and exceptional student education centers. There are no additional special schools planned in the near future. A profile of these schools is shown by Table 12-11, below.

Table 12-11: Current Profile - Broward County Special Schools 2010/11

Facility Name	Site Size (Acres)	Age Range	Permanent Buildings	Relocatable Buildings	Current Enrollment (20 Day)	100% Gross FISH (Student Capacity)	LOS (100% of FISH)	% of Capacity
Atlantic Center* Tech	30	1972-2004	24	33	595	566	2	105.1%
Bright Center Horizons	6	1977-1995	5	0	128	325	1	39.4%
Cross Creek Center	15	1990	6	4	113	228	1	49.6%

Facility Name	Site Size (Acres)	Age Range	Permanent Buildings	Relocatable Buildings	Current Enrollment (20 Day)	100% Gross FISH (Student Capacity)	LOS (100% of FISH)	% of Capacity
Cypress Run Alt Excep Center	6	2007	1	0	142	240	1	59.2%
Dave Thomas Education Center	3	1997	1	0	752	330	2	227.9%
Dave Thomas Education Center-West**	10	2003	3	0	NA	NA	NA	NA
Drew, Charles Resource Center	10	1960-1998	13	21	NA	NA	NA	NA
Hallandale Adult Center*	13	1964-2001	18	21	1,054	2,101	1	50.2%
Lanier-James Education Center	5	1960-2009	5	0	95	298	1	31.9%
McFatter, William Tech Center*	34	1985-2001	11	0	591	566	2	104.4%
Pine Ridge Center	5	2005	2	0	93	252	1	36.9%
Seagull School	3	1961-2009	4	26	335	1,025	1	32.7%
Sheridan Tech Center*	18	1967-2007	19	3	58	1,298	1	4.5%
Sunset Learning Center	13	1996	2	0	170	273	1	62.3%
The Quest Center	9	1977-1993	4	0	229	313	1	73.2%
Whiddon Rogers Ed Center	15	1959-2004	20	2	633	1,560	1	40.6%
Whispering Pines Ex Ed Center	16	1990	9	3	183	210	1	87.1%
Wingate Oaks Center	20	1974-1991	5	0	80	357	1	22.4%
Total	258		159	141	5,251	9,942	1	52.8%

*Adult enrollment is not reflected

**Includes Charles Drew Resource Center, Dave Thos-West

Source: School Board of Broward County, 2010

Special school locations are illustrated in Map 12-1A. Similar to charter schools, special schools also have a district-wide attendance zone/concurrency service area. Current enrollment for 2010-11 for the Broward County special schools is 5,251.

Ancillary Facilities

Ancillary facilities provide general support for the operation of the district, not related to individual schools. There are 27 ancillary facilities in Broward County. Locations of these facilities are list in Table 12-12 and illustrated in Map 12-1A.

Table 12-12: Ancillary Facility Inventory

Facility	Address	City
B.E.C.O.N.	6600 SW Nova Dr	Davie
Coral Springs Aquatic Ctr	12441 Royal Palm Blvd	Coral Springs
E.C.I.A / Title 1	701 NW 31 Ave	Oakland Park
HORTT Admin	1700 SW 14 Ct	Fort Lauderdale
ITV Relay	Hammondville & Turnpike	Coconut Creek
KC Wright	600 SE 3 Ave	Fort Lauderdale
KC Wright / HRD	3521 Davie Rd	Davie
Lockhart Stadium	5301 NW 12 Ave	Fort Lauderdale
M.E.T.R.I.C. - Multilingual/	1441 S Federal Hwy	Fort Lauderdale
North Area Bus Complex	2200 NW 18 St	Pompano Beach
North Area Bus Garage	2600 NW 18 Terr	Pompano Beach
North Area Maint.& Warehouse	6501 NW 15 Ave	Fort Lauderdale
North Area Superintendent-Pomp.	1400 NE 6 St	Pompano Beach
North Central Super. Office	7770 W Oakland Park Blvd	Sunrise
Rock Island Annex (Prof Dev Ctr)	2301 NW 26 St	Oakland Park
South Area Bus Garage	900 S University Dr	Pembroke Pines
South Area Maintenance	1295 N 21 Ave	Hollywood
Pioneer MS Annex	5350 SW 90 Ave	Cooper City
South Area Portable Annex	201 SW 172 Ave	Pembroke Pines
South Central Area Super. Office	1619 NE 4 Ave	Fort Lauderdale
Southwest Area Bus Complex	20251 Stirling Rd	Pembroke Pines
Tech & Support Svcs	7720 W Oakland Park Blvd	Sunrise

Facility	Address	City
Twin Lakes Admin	4200 NW 10 Ave	Oakland Park
Twin Lakes Annex	4140 NW 10 Ave	Oakland Park
Twin Lakes Warehouse & Transportation	3810 NW 10 Ave	Oakland Park
West Central Bus Compound	2500 College Ave	Davie
Edgewood Admin (Whiddon Rogers)	1300 SW 32 Ct	Fort Lauderdale

Source: School Board of Broward County, 2010

3. Projected 5 Year (S/T) School Enrollment, Capacity, LOS & Improvement Costs

The analysis of the current and five (5) year projected data of school facilities is compiled in the *Proposed Level of Service Plan*²⁻⁵. They both represent information for the years 2010/2011 through 2014/15, except the table contains detail costs associated with capacity improvements. The table shows the current & projected enrollment; gross Florida Inventory of School Houses (FISH) capacity; Level of Service (LOS) percentage; surplus/deficit capacity to attain the gross FISH; improvement strategy; the cost; cost per student station; and the school district's funding source. The current and projected enrollment is shown for each school. Schools are sorted by administrative area (North, Central, and South) and by grade level (elementary, middle, and high). The LOS was calculated for each school and for each year of the five year period. Using the School District's Policy 5000, the data confirms that the all schools will meet the LOS within the five year planning period. It should be noted that school centers are not listed that is because the enrollment at the centers is relatively constant since the enrollment can be controlled by capping to insure they do not exceed their capacities.

Concurrency Costs – Affected Parties The costs associated with achieving and maintaining the LOS during the five (5) year period are paid for and shared by public and private funding sources. Table 12-16 details the primary public and private entities which pay for the capacity improvements. These include; *Millage* - funds collected through property taxes which are the primary revenue source. *Public Education and Capital Outlay (PECO)* is another source which is a fund allocation by the State.

Impact/Mitigation Fees is another source collected from developers to address capacity improvement costs.

The cost associated with the capacity additions for those school facilities not currently meeting the LOS have been prepared⁵. The improvement costs are derived from the financially feasible DEFP. There may be additional costs to meet concurrency which are addressed through Proportionate Share Mitigation provisions. These provisions and requirements are outlined in the Interlocal Agreement, specifically, Sections 8.14 and 8.15.

Land Area Requirements There are currently no new schools planned which would require additional land to meet capacity improvements.

Table 12-13: Land Area Requirements

School Type	Improvement Type	# of Improvements	Estimated Acres Needed
Elementary	New school	0	0
Middle	New School	0	0
High	New School	0	0
Special	None	0	0
Total		0	0

Source: School Board of Broward County, September 7, 2010 Adopted District Educational Facilities Plan

As previously stated, the School Board adopted new “urban school” standards intended to reduce the acreage amounts required to build schools given the diminishing availability of land in Broward County.

Broward County Public School's (BCPS) primary projection tool is a geographically-based Cohort Survival model, which projects future students by grade. The Cohort Survival model is considered very reliable and is utilized by the Florida Department of Education in their student projections and the U.S. Census Bureau for their reports. The model uses an "aging" concept that moves a group, or cohort, of students into the future and increases or decreases their numbers according to past experience through history.

The Cohort Survival methodology relies on historical enrollment and birth data to capture the effects of in and out-migration, housing changes, and natural trends in population. In

essence, the model derives a growth factor or ratio for student survival matriculation to the next grade based upon previous survival numbers to the same grade of students in each Traffic Analysis Zone (TAZ), the basic geographic area for the model. In most cases, TAZ areas represent neighborhoods. There are over 900 TAZ areas in Broward County. TAZ areas are further divided into smaller geographic areas to account for schools that matriculate to more than one school at each grade level, (e.g. an elementary school that feeds into 2 different middle schools). The combination of elementary, middle and high school attendance zones and TAZ areas create a unique identifiable area called a Study Area IDentification or SAID. SAIDs capture the grade cohorts more accurately by including feeder patterns. For example, if elementary school A matriculates to 2 different middle schools B and C and one high school D, there would be 2 different SAIDs for elementary school A-one SAID to represent matriculation from elementary A to middle school B to high school D and another SAID to represent matriculation from elementary A to middle school C to high school D.

Once the model has been run for the small geographic units or SAIDs, the projections are then summarized by TAZ. In some instances, individual TAZ areas are corrected to reflect changes in growth which are not picked up in the projection model's histories. A few examples where corrections are required include areas where:

1. new construction is anticipated to exceed the pace of historical construction for an area,
2. an area is reaching build-out and all new construction will cease or slow down,
3. an unprecedented slow-down in the economic market, or
4. a boundary change has artificially increased/decreased the area.

Birth Data

The historical number of births is a good indicator of future kindergarten class size. Birth data is acquired from the Florida Department of Health Vital Records by U. S. Census tract. Several steps are taken to interpolate future kindergarten enrollment based on births, as not all children born will enter kindergarten. To project kindergarten

enrollment, births by census tract have to be estimated for a five year period i.e., births from 2005 will potentially enter kindergarten in 2010-11. Data is then increased or decreased based on past kindergarten populations by census tract. Once the number of births is adjusted, the percentage of students that are in each census tract is broken down to the SAID level. Since the census tract may intersect more than one SAID, a unique identifier is created between the census tracts and SAIDs. The percentage of actual attending kindergarten students for the past two years is calculated for each unique SAID/census tract. This percentage is used to extrapolate the number of kindergarten from the total number of kindergarten aged students within a given unique SAID/census tract. The SAIDs are then summarized to obtain the estimated number of kindergarten students by SAID for five years.

Residential Development Data

Each year Broward County municipal planning staff provides current and forecasted certificates of occupancy to assist county and BCPS demographic staff in estimating population changes. Residential growth is also shared and monitored through the Facility Management, Planning, and Site Acquisition Department. BCPS requests city and county planning staff to estimate future certificates of occupancy over the next five years.

Other Data

Other information is analyzed to determine if the Cohort Survival rates may need to be adjusted to align with a shorter or longer historical time horizon. These data may include:

1. Existing home sales (source: Florida Association of Realtors)
2. Population Projections (source: U.S. Census, Broward County, Bureau of Economic and Business Research, and Florida Department of Education)

Attrition Rate of Attending Students

BCPS includes four years of attending enrollment to calculate the rate of attrition or rate of students matriculating to the next level within their SAID by grade. Attending enrollment is the total number of students within the attendance zone that are attending their geographically assigned school. Determining the attrition rate by SAID, keeps the feeder patterns intact as the grades matriculate to each specific school. For example:

$$\frac{(\# \text{ of } 2007\text{-}08 \text{ attending } 2^{\text{nd}} \text{ graders) by SAID}}{(\# \text{ of } 2006\text{-}07 \text{ attending } 1^{\text{st}} \text{ graders) by SAID}} = \text{SAID } 2^{\text{nd}} \text{ grade attrition rate } 2007\text{-}08 \text{ to } 2007\text{-}08$$

$$\frac{(\# \text{ of } 2008\text{-}09 \text{ attending } 2^{\text{nd}} \text{ graders) by SAID}}{(\# \text{ of } 2007\text{-}08 \text{ attending } 1^{\text{st}} \text{ graders) by SAID}} = \text{SAID } 2^{\text{nd}} \text{ grade attrition rate } 2008\text{-}09 \text{ to } 2008\text{-}09$$

$$\frac{(\# \text{ of } 2009\text{-}10 \text{ attending } 2^{\text{nd}} \text{ graders) by SAID}}{(\# \text{ of } 2008\text{-}09 \text{ attending } 1^{\text{st}} \text{ graders) by SAID}} = \text{SAID } 2^{\text{nd}} \text{ grade attrition rate } 2009\text{-}10 \text{ to } 2009\text{-}10$$

Once the attrition rate is calculated for each grade, grades one through twelve, over the past three years, it is then averaged and used as a factor to obtain next year’s projections for that grade. For example:

$$\begin{array}{l} \text{Average SAID } 2^{\text{nd}} \text{ grade} \\ \text{attrition rate from } 2007\text{-}2010 \end{array} * \begin{array}{l} \# \text{ of } 2009\text{-}10 \text{ attending} \\ 2^{\text{nd}} \text{ graders by SAID} \end{array} = \text{projected } 2010\text{-}11 \text{ } 2^{\text{nd}} \text{ graders by SAID}$$

To calculate subsequent years of projections by grade, the model uses the projected rate of attrition based on the projected enrollment of the previous year to calculate the next projection year. For example:

$$\begin{array}{l} \text{Average SAID } 2^{\text{nd}} \text{ grade} \\ \text{projected attrition rate} \\ \text{from } 2008\text{-}2011 \end{array} * \begin{array}{l} \# \text{ of projected } 2010\text{-}11 \\ \text{attending } 2^{\text{nd}} \text{ graders} \\ \text{by SAID} \end{array} = \text{projected } 2011\text{-}12 \text{ } 2^{\text{nd}} \text{ graders by SAID}$$

Projections by SAID for each grade are then reviewed school-by-school. Attrition rates can cause projections to be exceedingly high or low in which case they will have to be

adjusted so as not to cause an exponential effect in outer projection years. The following are possible corrections to rates:

Out-of-Boundary Students (OOB)

Out-of-boundary (OOB) students are students attending a school from outside their attendance area (i.e. approved reassignments).

BCPS assumes that OOB students at each grade level at each school will be the same as the existing year and will have a survival rate of 100% as they matriculate through the grade levels. For example, Middle School A currently has the following OOB students: 35-6th grade, 38-7th grade, and 42-8th grade. For all projected years, Middle School A will have 35-6th grade, 38-7th grade, and 42-8th grade OOB students.

However, adjustments can be made to OOB students if enrollments naturally decline based on the calculated cohort survival rate yet economic or other conditions may suggest enrollment should increase or if schools are eligible to receive assignment transfers. Since assignment data is determined after the release of the projections and is subject to change, the OOB students typically remain constant in the model based on the current year's data.

The school-by-school Cohort Survival model projections, by grade, are compared and tested for reasonableness with other models such as the Florida Department of Education (FDOE) projections and the Broward County Planning and Redevelopment Division school-aged population projections. Accordingly, adjustments may be made to the Cohort Survival model based on the following factors:

1. changes in the rate or type of new housing development within Broward county
2. changes in economic conditions (e.g. the creation of jobs usually means families are moving in whereas a recession usually means families are moving out)
3. immigration
4. natural phenomena (e.g. Hurricanes)

There are also decisions made within BCPS, which may have a dramatic effect upon projections. These include:

1. future placement of English Language Learners (ELL) clusters
2. future placement of Exceptional Student Education (ESE) clusters
3. opening and closing of magnet programs (first year projections are difficult because of the lack of a "track record")
4. Adequate Yearly Progress (AYP) choice reassignments
5. other approved reassignments
6. opening and closing of charter schools throughout the year

4. Projected 10 Year (L/T) School Enrollment, Capacity, LOS & Improvement Costs

The long-term planning period for school facilities is ten years. Table 12-14, below, represents capacity needs information for the end of the ten year period through 2020-21. The data compares the School District's LOS by grade level and Planning Area to the 2020-21 projected student enrollments and the needed permanent capacity. As mentioned earlier, commencing at the 2019/20 school year, the LOS is calculated at 110% of permanent FISH capacity. The cumulative information presents a total permanent capacity plus 10% of 261,051 versus a projected enrollment of 223,053 or an excess of 37,998 seats. The cumulative total solely based on permanent capacity is 237,319 with an excess of 14,266 seats.

Table 12-14:

Projected 10 Year School Facilities by Planning Area and District-Wide

Planning Area	School Type	LOS (110% Perm. Capacity)	Projected Enrollment 2020-21	Surplus or (Deficit) Capacity	Improvement Strategy	Projected Cost	Projected Added Capacity
Area A	Elementary School	16,364	14,954	1,409	None	N/A	N/A
	Middle School	8,289	7,699	590	None	N/A	N/A
	High School	13,197	10,607	2,589	None	N/A	N/A
	Charter	N/A	N/A	N/A	N/A	N/A	N/A
	Special School	N/A	N/A	N/A	None	N/A	N/A
Area B	Elementary School	21,157	19,116	2,042	New School	\$25,000,000	830
	Middle School	8,923	7,793	1,130	None	N/A	N/A
	High School	11,048	7,955	3,093	None	N/A	N/A
	Charter	N/A	N/A	N/A	N/A	N/A	N/A
	Special School	N/A	N/A	N/A	None	N/A	N/A
Area C	Elementary School	16,775	14,379	2,396	None	N/A	N/A
	Middle School	9,125	7,806	1,319	None	N/A	N/A
	High School	8,469	7,147	1,322	None	N/A	N/A
	Charter	N/A	N/A	N/A	N/A	N/A	N/A
	Special School	N/A	N/A	N/A	None	N/A	N/A
Area D	Elementary School	18,734	17,494	1,240	New School	\$50,000,000	1660
	Middle School	7,726	8,594	(867)	None	N/A	N/A
	High School	12,643	12,310	334	New School	\$130,000,000	2,850
	Charter	N/A	N/A	N/A	N/A	N/A	N/A
	Special School	N/A	N/A	N/A	None	N/A	N/A

Plannin g Area	School Type	LOS (110% Perm. Capacity)	Projected Enrollment t 2020-21	Surplus or (Deficit) Capacity	Improvemen t Strategy	Projected Cost	Projecte d Added Capacity
Area E	Elementar y School	14,529	10,397	4,132	None	N/A	N/A
	Middle School	5,875	4,387	1,488	None	N/A	N/A
	High School	8,521	5,200	3,321	None	N/A	N/A
	Charter	N/A	N/A	N/A	N/A	N/A	N/A
	Special School	N/A	N/A	N/A	None	N/A	N/A
Area F	Elementar y School	20,137	15,909	4,228	New School	\$50,000,000	1660
	Middle School	11,398	10,176	1,222	New School	\$50,000,000	1,754
	High School	13,885	13,689	197	None	N/A	N/A
	Charter	N/A	N/A	N/A	N/A	N/A	N/A
	Special School	N/A	N/A	N/A	None	N/A	N/A
Area G	Elementar y School	16,488	14,310	2,178	None	N/A	N/A
	Middle School	8,572	5,949	2,623	None	N/A	N/A
	High School	9,196	7,183	2,013	None	N/A	N/A
	Charter	N/A	N/A	N/A	N/A	N/A	N/A
	Special School	N/A	N/A	N/A	None	N/A	N/A
District-Wide	Elementar y School	124,183	106,559	17,625	New School	\$125,000,000	4,150
	Middle School	59,908	52,404	7,504	New School & Addition	\$50,000,000	1,754
	High School	76,959	64,090	12,869	New School & Addition	\$132,400,000	2,850
	Charter	N/A	N/A	N/A	N/A	N/A	N/A
	Special School	N/A	N/A	N/A	None	N/A	N/A
Total		261,051	223,053	37,998		\$53,900,000	8,853

Source: School Board of Broward County, 2010

Based on permanent capacity plus 10% (LOS) there are seat deficiencies only in Planning Area D at the middle and high school level. The range of seat availability by grade level is depicted in Table 12-14A below.

Table 12-14A: Analysis of Planning Area / Seat Availability

School Level	Planning Area	Seat Availability Surplus or (Deficit)	Range
Elementary	A	1,409	High
	B	2,042	High
	C	2,396	High
	D	1,240	Medium
	E	4,132	High
	F	4,228	High
	G	2,178	High
Middle	A	590	Medium
	B	1,130	Medium
	C	1,319	Medium
	D	(867)	Low/Seat Deficit
	E	1,488	Medium
	F	1,222	Medium
	G	2,623	High
High	A	2,589	Medium
	B	3,093	High
	C	1,322	Medium
	D	334	Low/Seat Deficit
	E	3,321	High
	F	197	Medium
	G	2,013	Medium

Source: School Board of Broward County 2010

Table 12-14A isolates seating availability by grade level in each planning area. The planning area ranking of low, medium, and high for each grade level is determined by the relationship between seat availability total and the district grade level new school capacity standard that is defined in the State Plant Survey. The capacity standards are: Elementary – 1191, Middle – 1781, and High – 2883. The grade level ranking determinations are set by the following:

Elementary

1191 and above is high

1190 to 0 is medium
0 and below is low

Middle

1781 and above is high
1781 to 0 is medium
0 and below is low

High

2883 and above is high
2883 to 0 is medium
0 and below is low

A low ranking or seating deficit (negative number indicated by parenthesis) means a planning area's projected enrollment exceeds the planning area's total LOS. A high ranking indicates that seats are available that exceed the size of a new school.

Table 12-14A shows that the elementary grade level rankings are Medium and High with Areas A, B, C, D, and G being Medium and Areas E and F being High. The middle schools rankings show all levels. Middle school Area D is low/seat deficit, Area G is high and all other area middle schools are medium. High school areas also show all levels. High school Area D is low/Seat deficit, Area E is high, and all other high school areas are medium.

Long Term Impact on Ancillary Facilities With an increase of student enrollment comes the increase in operational costs to provide the needed support. School buses, custodial support, utility charges, and maintenance staff are all impacted as students and square footages increase. The school district owns 26 administrative sites totaling 648,960 square footage of permanent space. This space houses the district and area staffs. The total includes six bus lots that house approximately 1,546 school buses.

5. Collocation of School Facilities

The collocation of public school facilities with local government public/civic facilities, is used in the context of this analysis as public facilities collocated or located adjacent to each other, and used by both the School Board and local governments through the use of a Master Lease Agreement. Shared use facilities are facilities that are not located adjacent to each other, are owned by either the School Board or the local government, but shared by both parties through mutual agreement or understanding.

The School Board, Broward County and local governments currently have numerous collocated facilities, and the 2004 Annual Report on the implementation of the Interlocal Agreement indicated that further study might be needed to determine how the collocation of such facilities can be enhanced in Broward County. The Report further required an inventory of existing collocated facilities to determine if such a study is needed.

Existing Collocation/Shared Use of Public School Facilities with Local Government Public/Civic Facilities

The Collocation/Shared Use Report of Public School Facilities with Local Government Public/Civic facilities indicates that there are approximately two hundred and seventeen (216) existing instances where public school facilities are collocated and/or have shared use with local government public/civic facilities. Of the total 216 facilities, the School Board or local governments share use of one hundred and six (186). The majority of such facilities are School Board owned. The remaining thirty (30) facilities are collocated facilities.

The existing collocation/shared use facilities have been determined³. Map 12-8A depicts the location of collocation/shared use facilities.

Potential Sites for the Collocation/Shared Use of Public School Facilities with Local Government Public/Civic Facilities and Shared Use Facilities

Information provided by the local governments did not identify any potential sites that might enable the collocation/shared use of public school facilities with local government public/civic facilities. Further, the information provided lists nineteen (19) instances that might potentially allow for the shared use of public school facilities and local government public/civic facilities. Nine (9) of the facilities are County owned, six (6) are School Board owned and four (4) are municipal owned.

The potential collocation/shared use facilities have been developed⁴. Map 12-9A depicts the location of potential collocation/shared use facilities.

6. Opportunities to Locate Schools to Serve as Community Focal Points

Schools can act as an anchor in the community. They are a symbol of a neighborhood's stability and attract families to the community. They transmit knowledge to new generations, advance knowledge, display the achievements of society, plus bring neighbors together for Parent Teacher Association meetings, school plays, and sporting events. They offer their classrooms and media centers to residents for adult education classes, and community and club meetings. They are key determinants of the quality of life and are valued symbols of community identity and achievement. Moreover, the community is often evaluated on the basis of the quality of its schools.

Historically, the School District and the County's municipalities have successfully worked together to utilize school facilities for community purposes. Master Recreational Lease (MRL) Agreements provides local community residents and municipalities a shared use of school playgrounds and recreational fields after school hours and on non-school days. The Agreement recognized the School District's requirement to spend most of the available money on the operation of the classroom and limited funds on the development of school recreational grounds. The municipality's purpose and policy is to develop, operate and maintain parks and community recreational facilities. The municipalities were willing to expend monies to equip and maintain these recreational grounds in exchange for the use. Reciprocal Use Agreement (RUA) is the mechanism

used to accomplish shared use between the municipalities and the School District. Several municipalities have RUAs with the School District. These municipalities include: Cooper City, Coral Springs, Dania Beach, Deerfield Beach, Fort Lauderdale, Hallandale Beach, Hollywood, Lauderdale Lakes, Lauderhill, Miramar, North Lauderdale, Oakland Park, Parkland, Pembroke Pines, Plantation, Pompano Beach, Sunrise and Tamarac. The agreements enable the entities to exchange use of their facilities without entering into a lease for such use. The agreements address each party's liability, operating and maintenance costs, scheduling of use, and other issues that may arise. School facilities are often used as meeting places for community associations and house several community programs such as summer youth programs.

7. Emergency Shelters

New educational facilities located outside a category 1, 2 or 3 evacuation zone are required to have core facility areas designed as Enhanced Hurricane Protection Areas unless the facility is exempted based on a recommendation by the local emergency management agency or the Department of Community Affairs. Certain factors are considered to qualify for the exemption, such as low evacuation demand, size, location, accessibility and storm surge. For example, if the County has adequate shelter capacity, a school may be exempt. Table 12-15 is an inventory of schools within Broward County that serve as emergency shelters. They are designated either Primary (P), Secondary (S), Tertiary (T), Pet Friendly (PF), Employee (E), or Special Needs (SN) facilities. Map 12-10A depicts the location of the emergency shelters.

Table 12-15: List of Emergency Shelters

SCHOOL NAME	ADDRESS
Arthur Robert Ashe, Jr. Middle	1701 NW 23rd Avenue, Ft. Lauderdale 33311
Challenger Elementary	5703 NW 94th Avenue, Tamarac 33321
Coconut Palm Elementary	13601 Monarch Lakes Blvd., Miramar 33027
Coral Cove Elementary	5100 SW 148th Avenue, Miramar 33027
Coral Glades High	2700 Sportsplex Drive., Coral Springs 33065
Everglades Elementary	2900 Bonaventure Blvd., Weston 33331
Everglades High	17100 SW 48th Court, Miramar 33027
Falcon Cove Elementary	4251 Bonaventure Blvd., Weston 33332
Floranada Elementary	5251 NE 14th Way, Ft. Lauderdale 33334
Fox Trail Elementary	1250 Nob Hill Road, Davie 33324
Gator Run Elementary	1101 Arvida Parkway, Weston 33327
Hallandale Elementary	900 SW 8th Street, Hallandale 33009
Indian Ridge Middle	1355 Nob Hill Road, Davie 33324
Lakeside Elementary	900 NW 136th Avenue, Pembroke Pines 33028
Liberty Elementary	2450 Banks Road, Margate 33063
Lyons Creek Middle	4333 Sol Press Blvd., Coconut Creek 33073
Manatee Bay Elementary	19200 SW 36th Street, Weston 33332
McNicol Middle	1602 South 27th Avenue, Hollywood 33020
Millennium Middle	5803 NW 94 Avenue, Tamarac 33321
Monarch High	5050 Wiles Road, Coconut Creek 33073
New Renaissance Middle	10701 Miramar Blvd., Miramar 33027
New River Middle	3100 Riverland Road, Ft. Lauderdale 33312
Orangebrook Elementary	715 S. 46 Avenue, Hollywood 33021
Panther Run Elementary	801 NW 172nd Avenue, Pembroke Pines 33029
Park Lakes Elementary	3925 N. State Road 7, Lauderdale Lakes 33319
Park Trails Elementary	10700 Trails End, Parkland 33076
Parkside Elementary	10257 NW 29th Street, Coral Springs 33065
Pines Middle	200 N. Douglas Road, Pembroke Pines 33024
Plantation Elementary	651 NW 42nd Avenue, Plantation 33317
Pompano Beach High	600 NE 13th Avenue, Pompano Beach 33060
Rock Island Elementary	2350 NW 19th Street, Ft. Lauderdale 33311
Silver Lakes Elementary	2300 SW 173rd Avenue, Miramar 33029

SCHOOL NAME	ADDRESS
Silver Palms Elementary	1209 NW 155th Avenue, Pembroke Pines 33028
Silver Shores Elementary	1701 SW 160th Avenue, Miramar 33027
Silver Trail Middle	18300 Sheridan Street, Pembroke Pines 33331
Sunset Lakes Elementary	18400 SW 25th Street, Miramar 33029
Sunset School Center	3775 SW 16th Street, Ft. Lauderdale 33312
Tradewinds Elementary	5400 Johnson Road, Coconut Creek 33073
Watkins Elementary	3520 SW 52nd Avenue, Pembroke Park 33023
West Broward High	500 NW 209 Avenue, Pembroke Pines 33029

Source: School Board of Broward County 2010

8. Funding Sources for Capital Improvements

The School Board of Broward County has total projected revenue, and financing sources of \$1,343,928,000 for public school capital improvements for the 5 year period ending 2014-2015 as depicted in Table 12-16. The major source of revenue is 2010-11 millage, which is collected from local property taxes and comprises 76% of total revenue. The projected appropriations for those funds are depicted in Table 12-17. The primary appropriation is for debt service, which comprises 56% of total appropriations.

Table 12-16: Estimated Revenue and Financing Sources (stated in thousands)

	1.50 mills						
Revenue & Financing Sources	2010-11	2011-12	2012-13	2013-14	2014-15	Total	%
Millage & Interest	200,440	198,503	201,348	205,711	211,402	1,017,404	75.71%
COPs Interest	2,000	1,000	500	500	500	4,500	0.33%
Quality School Construction Bonds (Federal Stimulus)	0	0	0	0	0	0	0.00%
Capital Equipment Lease (E-Rate)	0	0	0	0	0	0	0.00%
Impact/Mitigation Fees and Interest	1,300	1,400	1,700	2,400	2,400	9,200	0.68%
Miscellaneous Local	155	155	155	155	155	775	0.06%
Sale of Land	5,000	5,000	0	0	0	10,000	0.74%
PECO Construction	0	698	2,783	7,664	5,299	16,444	1.22%
PECO - SSMA	11,688	15,393	16,498	18,531	19,584	81,694	6.08%
PECO - Charter School Capital Outlay	10,000	10,000	10,000	10,000	10,000	50,000	3.72%
CO & DS & Interest	1,211	1,210	1,211	1,210	1,211	6,053	0.45%
COBI	2,000	0	0	0	0	2,000	0.15%
Class Size Reduction	0	0	0	0	0	0	0.00%
FEMA	2,000	2,000	0	0	0	4,000	0.30%
Designated Reserve	71,997	48,502	21,359	0	0	141,858	10.56%
	\$307,791	\$283,861	\$255,554	\$246,171	\$250,551	\$1,343,928	100.00%

Source: The School Board of Broward County -2010-2011 Adopted 5-Year DEFP, 2010

Table 12-17: Estimated Appropriations (stated in thousands)

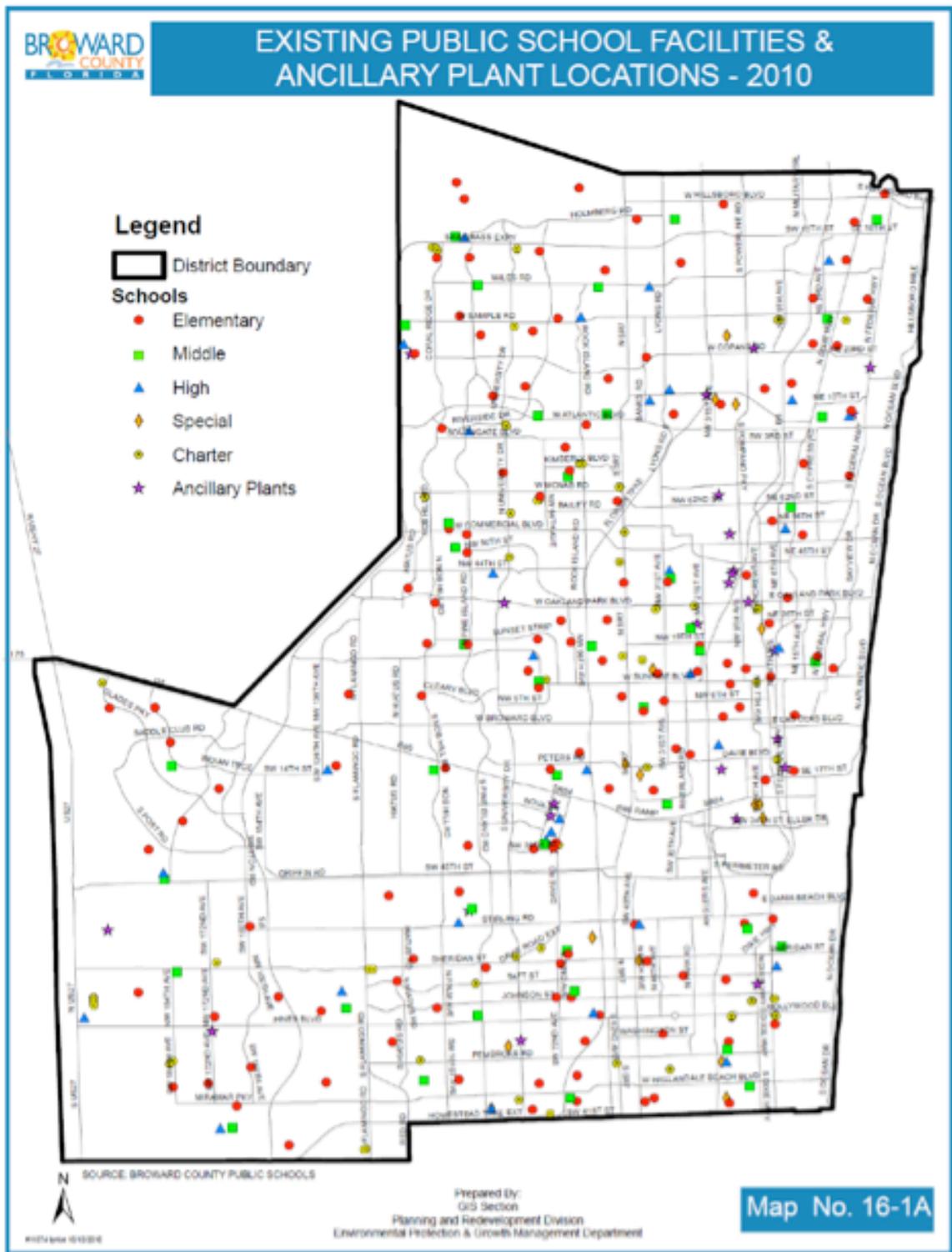
Estimated Appropriations	2010-11	2011-12	2012-13	2013-14	2014-15	Total	%
Capacity Additions	\$5,162	\$0	\$0	\$0	\$0	\$5,162	0.38%
Remodeling & Renovations	3,655	0	0	0	0	3,655	0.27%
Debt Service	149,599	146,978	146,987	152,080	152,074	747,718	55.64%
Indoor Air Quality	6,095	4,000	5,000	1,000	2,000	18,095	1.35%
Technology & Equipment	806	200	1,200	3,200	0	5,406	0.40%
Safety	2,000	4,893	7,000	4,000	10,000	27,893	2.08%
Capital Improvements	34,500	27,107	6,494	5,170	12,034	85,305	6.35%
ADA Compliance	1,450	1,000	2,000	500	1,000	5,950	0.44%
Vehicles	107	0	2,000	3,000	0	5,107	0.38%
Facility Leases & Sites	6,233	3,025	3,102	1,111	1,120	14,591	1.09%
Facilities/Capital Salaries	20,282	20,282	14,603	12,600	12,600	80,367	5.98%
Legal & Contingency	1,262	1,397	2,427	2,519	7,032	14,637	1.09%
Lease Payments (Tech/Vehicles)	9,140	6,229	4,991	4,991	4,991	30,342	2.26%
Maintenance Transfer	54,000	54,000	45,000	41,300	33,000	227,300	16.91%
PECO Charter Schools Transfer	10,000	10,000	10,000	10,000	10,000	50,000	3.72%
Property & Casualty Insurance	3,500	4,750	4,750	4,700	4,700	22,400	1.67%
	\$307,791	\$283,861	\$255,554	\$246,171	\$250,551	\$1,343,928	100.00%

Source: The School Board of Broward County -2010-2011 Adopted 5-Year DEFP, 2010

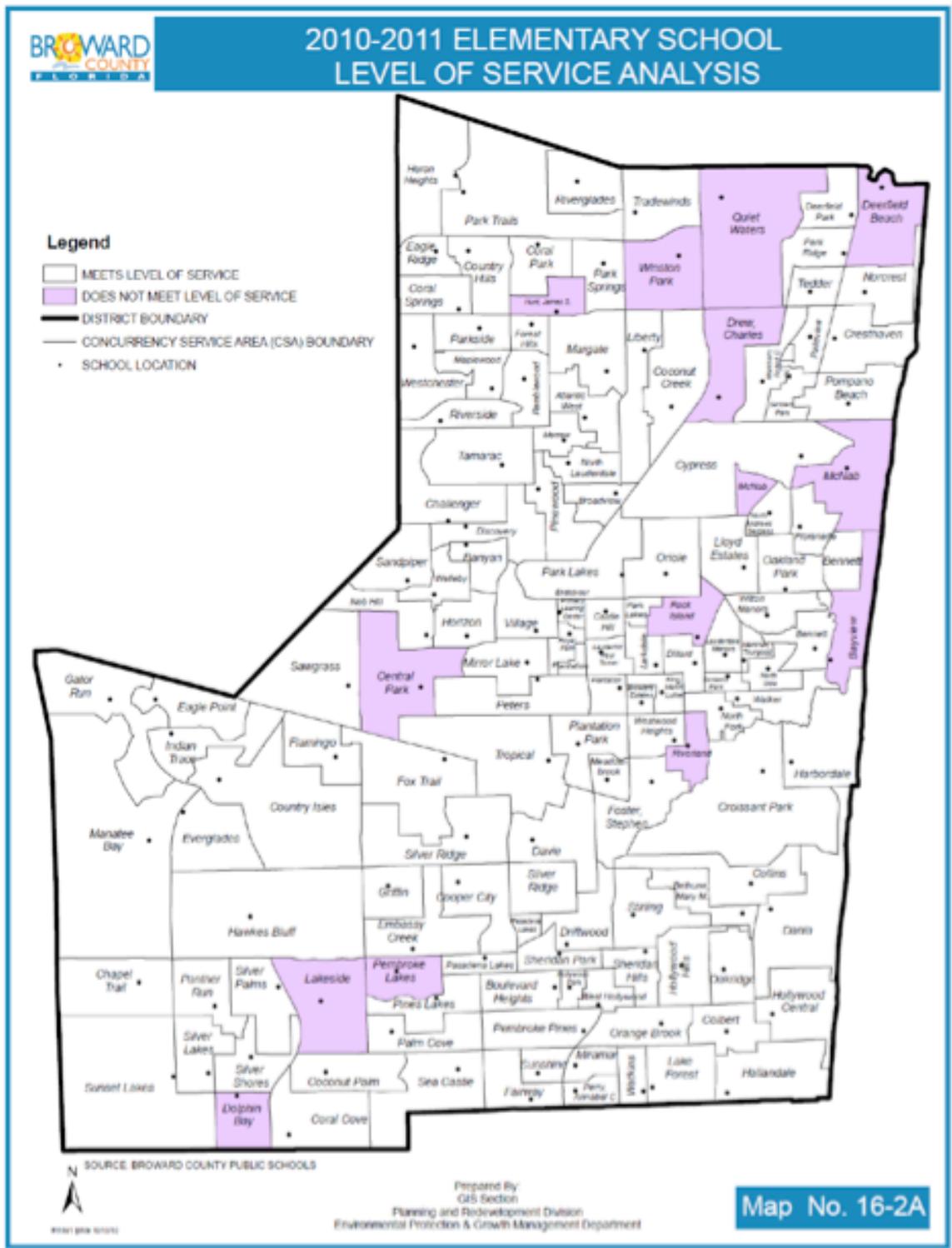
Footnotes / References:

- 1- *Broward County Public Schools - Adopted District Education Facilities Plan* (previously noted as Attachment B in Broward County Comprehensive Plan, Public School Facilities Element)
- 2- *Broward County Public Schools - 2008 to 2013 Level of Service Plan for Capital Planning* (previously noted as Attachment D in Broward County Comprehensive Plan, Public School Facilities Element)
- 3- *Existing Collocation / Shared Use Facilities for Public Schools* (previously noted as Attachment E in Broward County Comprehensive Plan, Public School Facilities Element)
- 4- *Potential Collocation / Shared Use Facilities for Public Schools* (previously noted as Attachment F in Broward County Comprehensive Plan, Public School Facilities Element)
- 5- *Current and Projected 5 year Level of Service (LOS) for Public Schools Facilities* (previously noted as Attachment G in Broward County Comprehensive Plan, Public School Facilities Element)

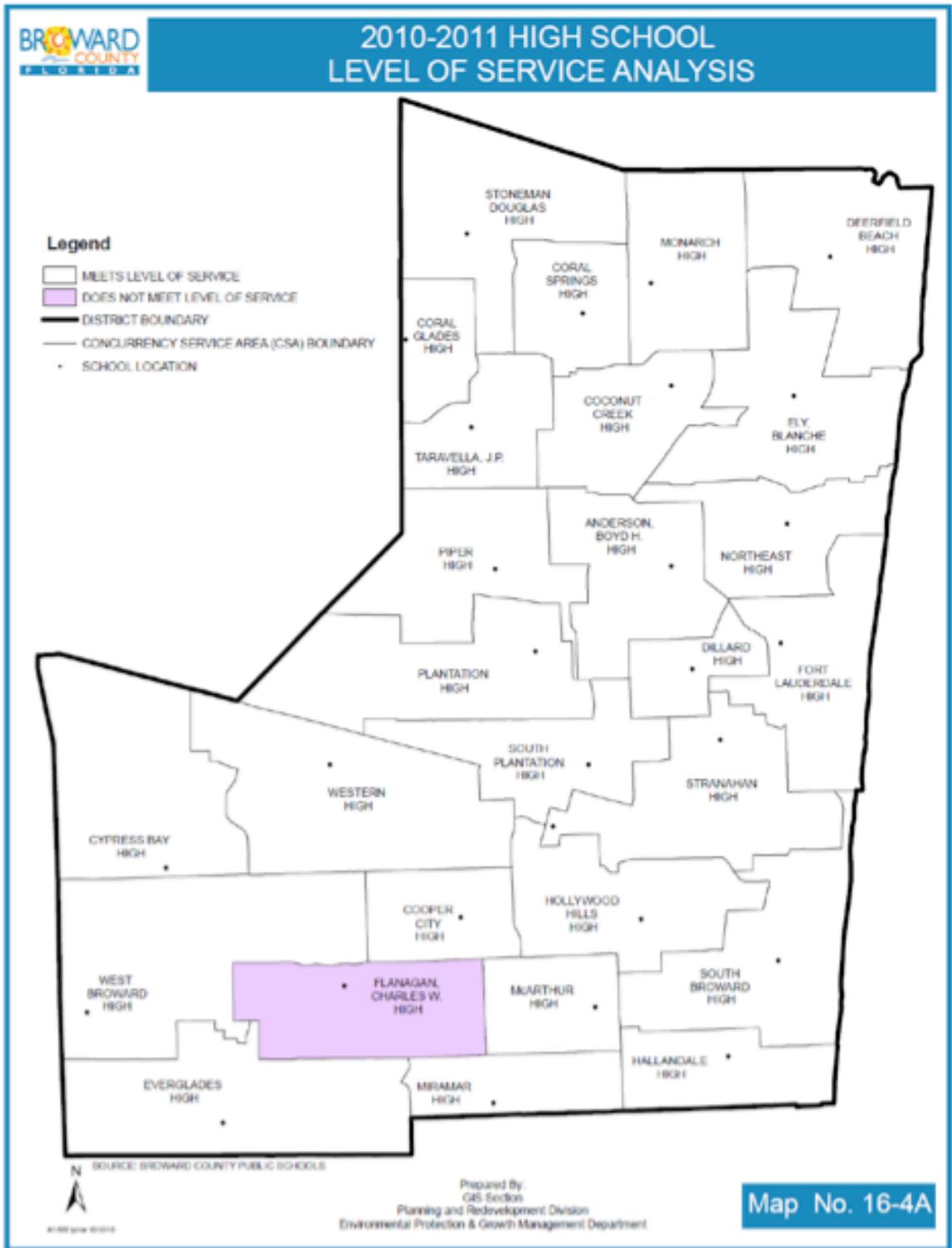
Map 12-1A



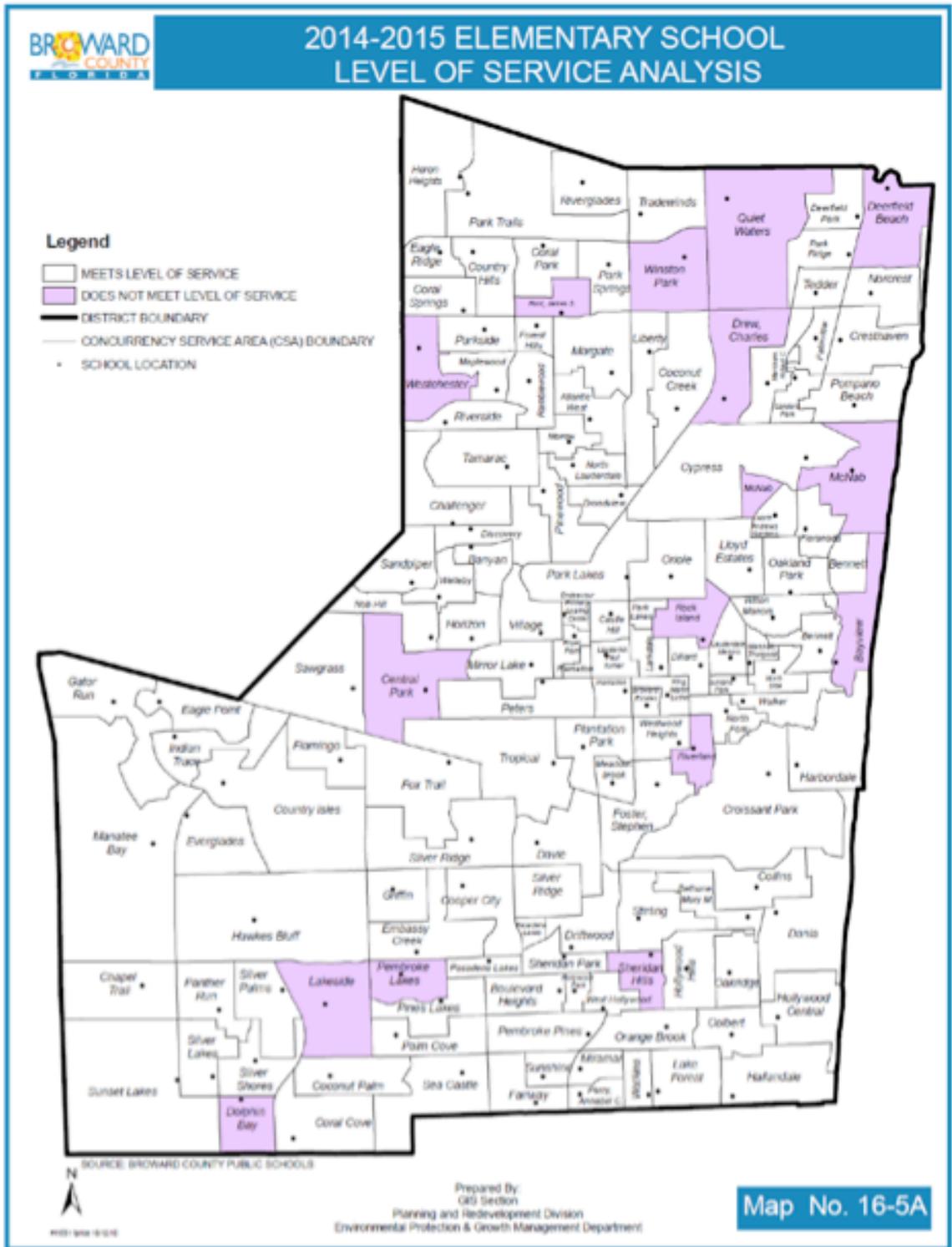
Map 12-2A



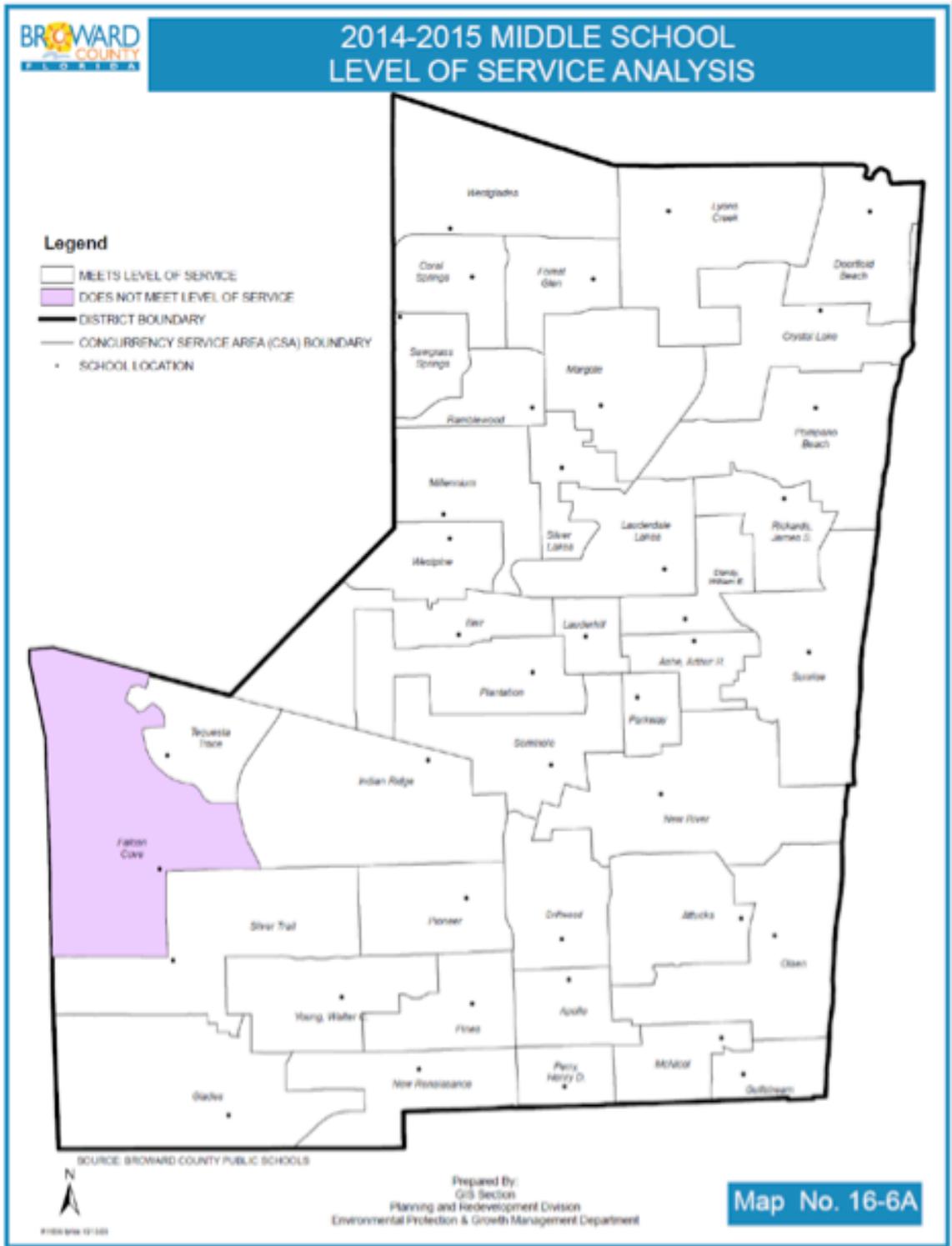
Map 12-4A



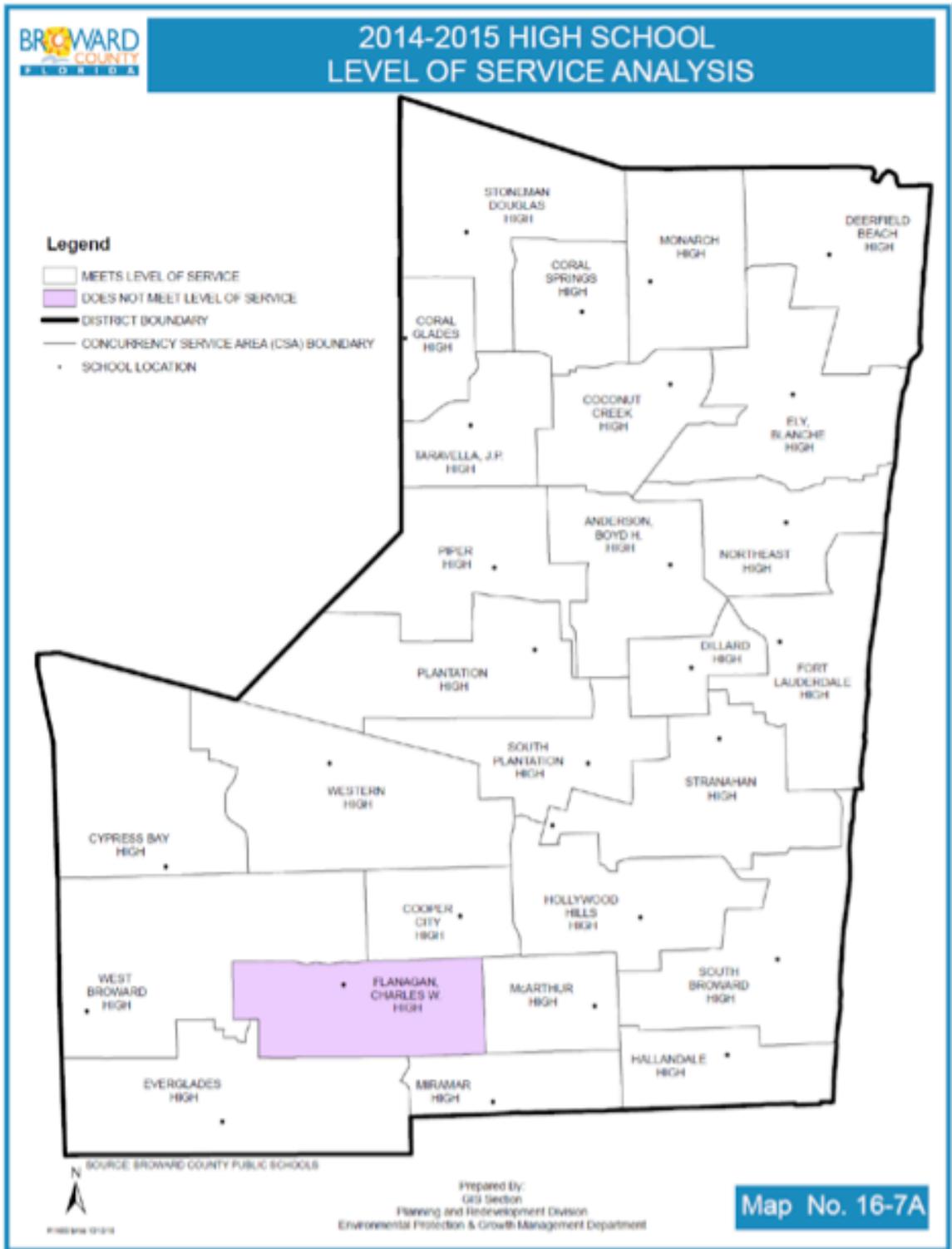
Map 12-5A



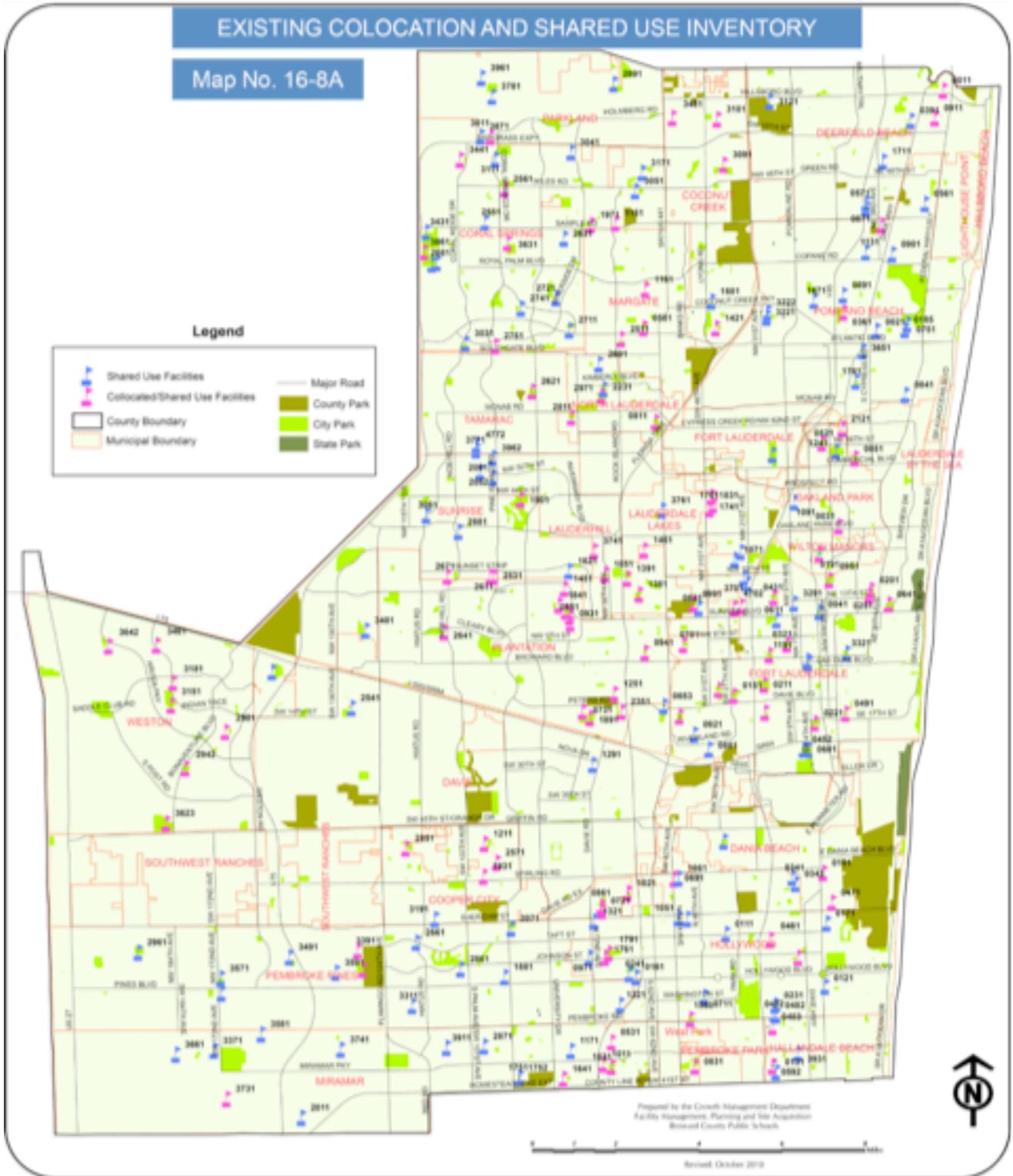
Map 12-6A



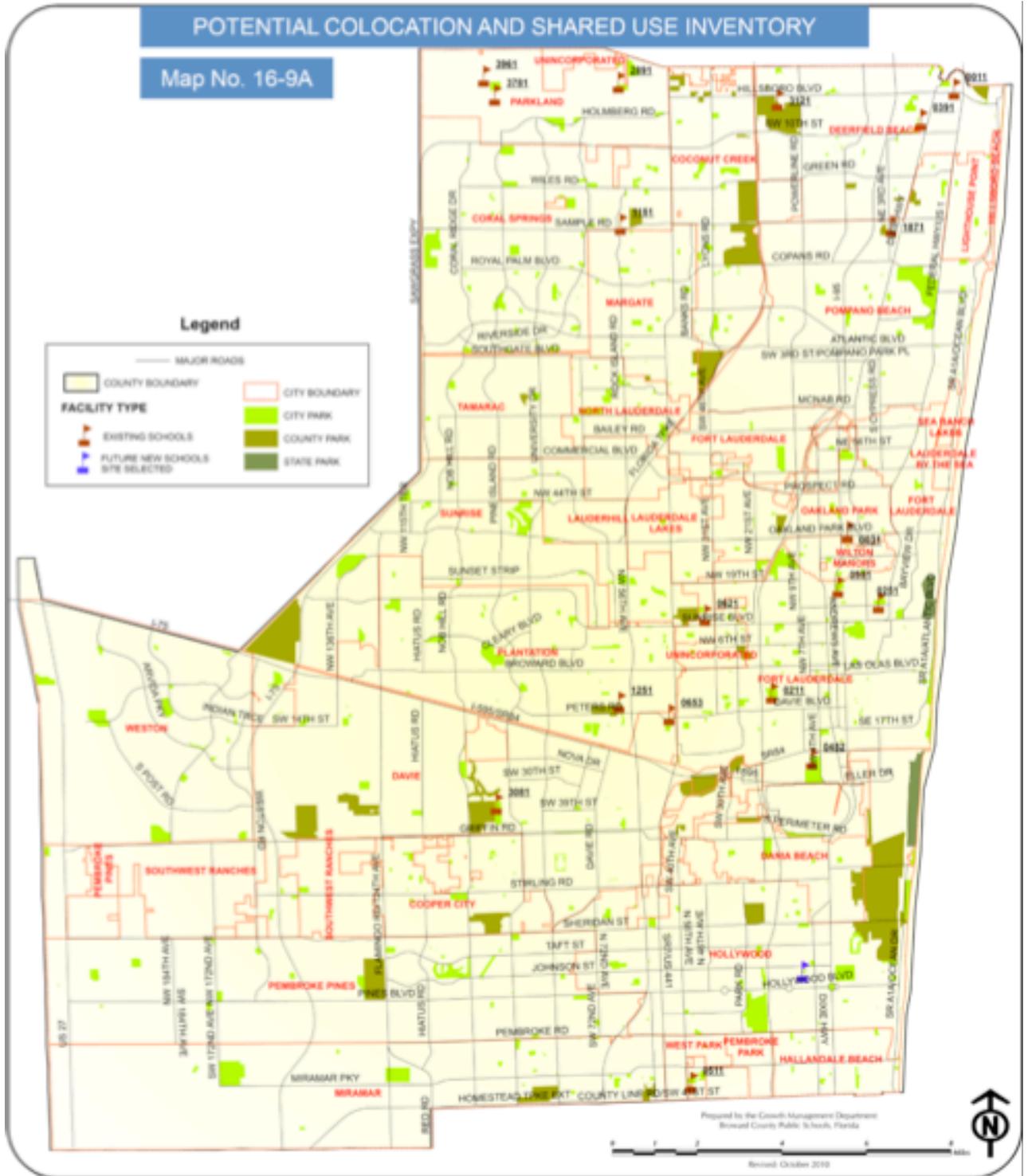
Map 12-7A



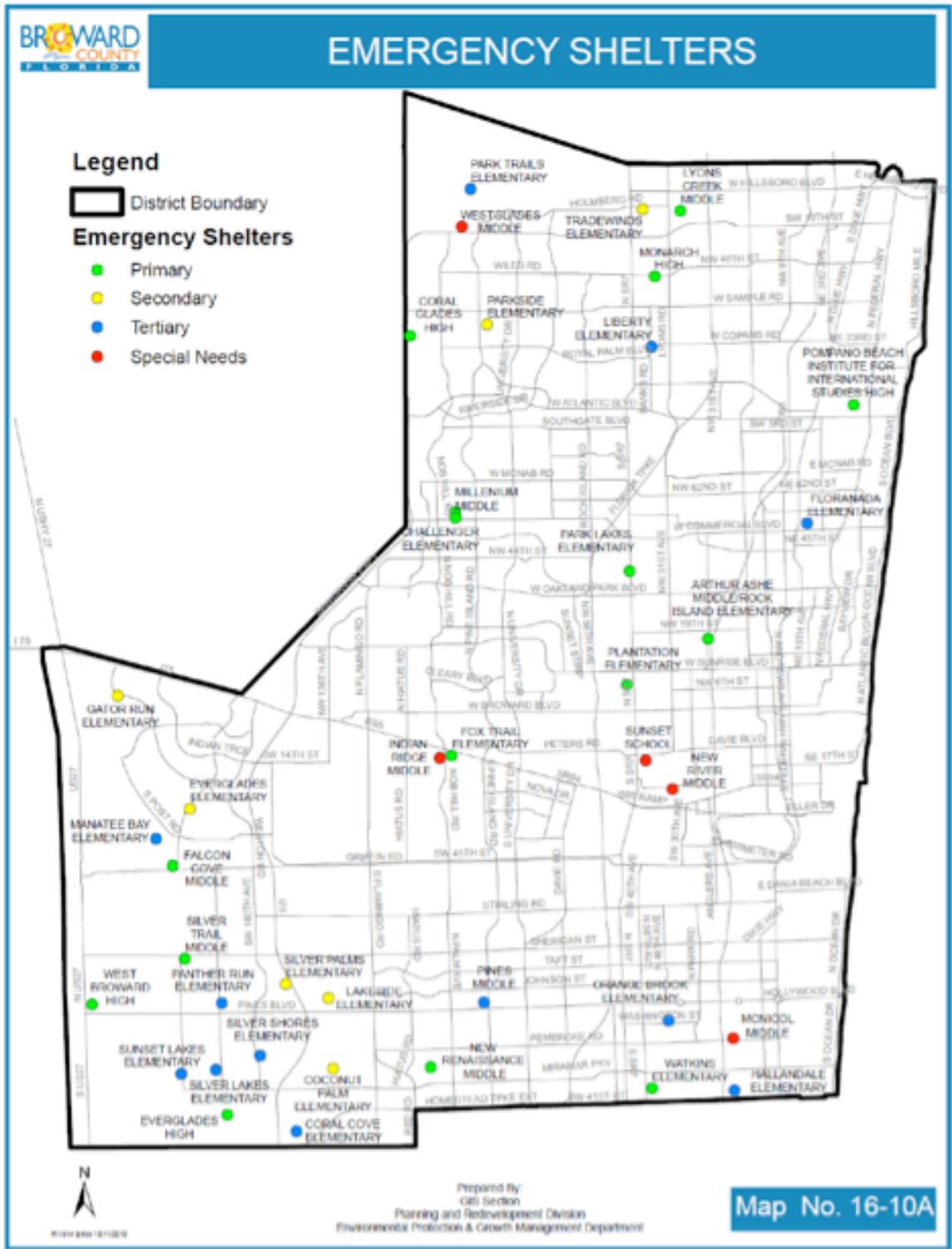
Map 12-8A



Map 12-9A



Map 12-10A



Because Success Doesn't Just Happen...



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