



CITY OF PARKLAND

Comprehensive Plan

EAR Update

Goals, Objectives, and Policies

Volume I

June 2016

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INTRODUCTION

Under State law, the municipal Comprehensive Plan is the ultimate regulatory authority governing all land development activities within the jurisdiction of Parkland– either existing or occurring in the future. Florida statutes require municipalities to adopt Comprehensive Plans within three years of incorporation.

The specific authority and requirement for municipalities to do comprehensive planning in Florida derives from Chapter 163, Florida Statutes. In 1985, the State Legislature amended Chapter 163 through the adoption of the Local Government Comprehensive Planning and Land Development Regulation Act. This Act substantially increases the requirements for local land use plans, associated infrastructure and other plan elements as well as mandates that local governments adopt land development regulations (or code) to implement the policies of the local comprehensive plan. The Comprehensive Planning and Land Development Regulation Act is implemented primarily via Rules 9J-5 and 9J- 11 of the Florida Administrative Code, as amended. This Comprehensive Plan has been prepared to be fully consistent with Chapter 163, F.S., and Rule 9J-5, as required by State law. Consistent with State requirements, the City's new Comprehensive Plan is divided into two (2) components: 1) Goals, Objectives and Policies (GOPs), and 2) Data, Inventory, and Analysis (DIA).

The Comprehensive Plan contained herein is organized into eight (8) plan elements (chapters). The Data, Inventory, and Analysis (DIA) of each element is used to provide supporting data and conclusions as the foundation for the goals, objectives, and policies. The DIA section of each element of the Comprehensive Plan is not formally adopted by the City Commission. Each element addresses an important aspect of land development and growth in Parkland including, future land use, transportation, housing, infrastructure, conservation, parks and recreation, intergovernmental coordination, and capital improvements. The Future Land Use Element contains the official Future Land Use Map (FLUM) for the City, and specific definitions for the various future land use categories referenced in the FLUM. The City's official Zoning Map and Zoning Code must be consistent with the FLUM and accompanying land use category specifications contained in the Future Land Use Element.

The Comprehensive Plan for the City of Parkland has been prepared in accordance with State requirements that encourage significant public involvement throughout the process. The intent of the goals, objectives, and policies contained within this Comprehensive Plan is to provide the overall policy framework from which zoning and other land development regulations (code) can be developed. The City's land development regulations – which contain zoning and other local development regulations – takes its purpose and direction from the goals, objectives, and policies adopted in this Comprehensive Plan. Together, the Plan and implementing tools will ensure that the development patterns for future land uses within Parkland match the community vision and quality-of-life expectations of its residents.

STATEMENT OF LEGISLATIVE INTENT

This Statement expresses the legislative intent of the City Commission of the City of Parkland with regard to the Comprehensive Plan. It is applicable to the City of Parkland Comprehensive Plan in its entirety and is declared to be incorporated by reference in each element thereof.

1. Nothing in this Comprehensive Plan shall be construed or applied to constitute a temporary or permanent taking of private property or the abrogation of vested rights as determined to exist under applicable law.
2. Nothing in this Comprehensive Plan shall be construed or implied to constitute an abrogation or removal of any private, regulatory, or governmental covenant or special condition in effect on any private or public property located within the City of Parkland.
3. This Comprehensive Plan is intended to set general guidelines and principles concerning its purposes and contents. The Plan is not a substitute for specific implementation mechanisms that are contained in the City of Parkland's Zoning Code.
4. The City Commission recognizes that any application for development approval may bring into conflict and necessitate a choice between different goals, objectives, policies, priorities, and provisions of the Plan. While it is the intent of the City Commission that the Future Land Use Element be afforded a high priority, other elements must be taken into consideration given the City Commission's responsibility to provide for the multitude of needs of the City's growing and diverse community. Recognizing that the City Commission will be required to balance competing goals, objectives, and policies of this Plan, the primary intention of the Plan is to protect the public health, safety, and welfare.
5. The terms "shall" and "will" are construed as mandatory in this Plan, subject, however, to this Statement of Legislative Intent. The term "should" is construed as directory and not mandatory. Wherever implementation responsibility is not explicitly stated within a particular objective or policy in this Plan, that responsibility lies with the City of Parkland to the extent that the objective or policy specifies implementation.
6. Wherever the term "acres" is used in this Comprehensive Plan, it shall be taken to mean "gross acres", unless otherwise specified. In addition, standard practice rounding convention may be used in determining whether parcels meet the size or acreage standards contained in this Plan.

CHAPTER ONE

FUTURE LAND USE ELEMENT GOALS, OBJECTIVES, AND POLICIES

GOAL I **GROWTH AND DEVELOPMENT IN PARKLAND SHALL BE PLANNED TO ACHIEVE A QUALITY COMMUNITY WHICH IS SENSITIVE TO THE UNIQUENESS OF THE CITY'S ENVIRONMENT, CONTINUES THE CITY'S UNIQUE CHARACTER, AND PROVIDES FOR THE FULL NEEDS OF ITS RESIDENTS.**

1.1 *Objective:*

Future growth and development shall be managed through the implementation and enforcement of land development regulations in accordance with Chapter 163 F.S.

Review development permits on an ongoing basis to determine if those permits and their effects on the City's infrastructure are consistent with policies 1.1.1 through 1.1.3.

1.1.1 *Policy:*

Land development regulations shall, at a minimum:

- a) Regulate the subdivision of land;
- b) Regulate the use of land and water consistent with this Comprehensive Plan and ensure the compatibility of adjacent land uses and provide for open space;
- c) Protect the environmentally sensitive lands designated in the Conservation Element;
- d) Regulate areas subject to seasonal and periodic flooding and provide for drainage and storm water management, except in environmentally sensitive lands;
- e) Protect potable water wellfields and aquifer recharge areas;
- f) Regulate signage;
- g) Ensure safe and convenient on-site traffic flow and vehicle parking needs; and
- h) Provide that development orders and permits shall not be issued which result in a reduction of the level of services

for the affected public facilities below the level of service standards adopted in this Comprehensive Plan.

1.1.2 Policy:

In reviewing applications for development permits, the City shall consider all relevant factors, including but not limited to, consistency and compatibility with the Future Land Use Element of the Comprehensive Plan, together with all other Comprehensive Plan elements. The City shall also consider adjacent zoning, approved plats and existing land uses, including occupied residential areas.

1.1.3 Policy:

The City shall continually update land development regulations addressing signage to ensure such regulations are consistent with case law.

1.1.4 Policy:

The City shall ensure that all new development is compatible with the character of the City and with adjacent zoning, development and uses, and shall issue no development orders or permits deemed to be incompatible with the character of the City and with adjacent zoning, development and uses.

1.1.5 Policy:

The City shall maintain a balance of land designated for future planned uses that accommodates the medium projections as published by the Office of Economic and Demographic Research for at least a 10-year planning period.

1.1.6 Policy:

Land use shall be determined by a Future Land Use Map. (Map 1-7).

1.1.7 Policy:

The City shall regulate density and intensity of land uses as noted in Table 1-9 and "City of Parkland Land Use Categories" section of this element.

1.1.8 Policy:

The City shall request courtesy review and technical assistance from the State, as appropriate, on plan amendments that may adversely impact important state resources and facilities.

1.1.9 Policy:

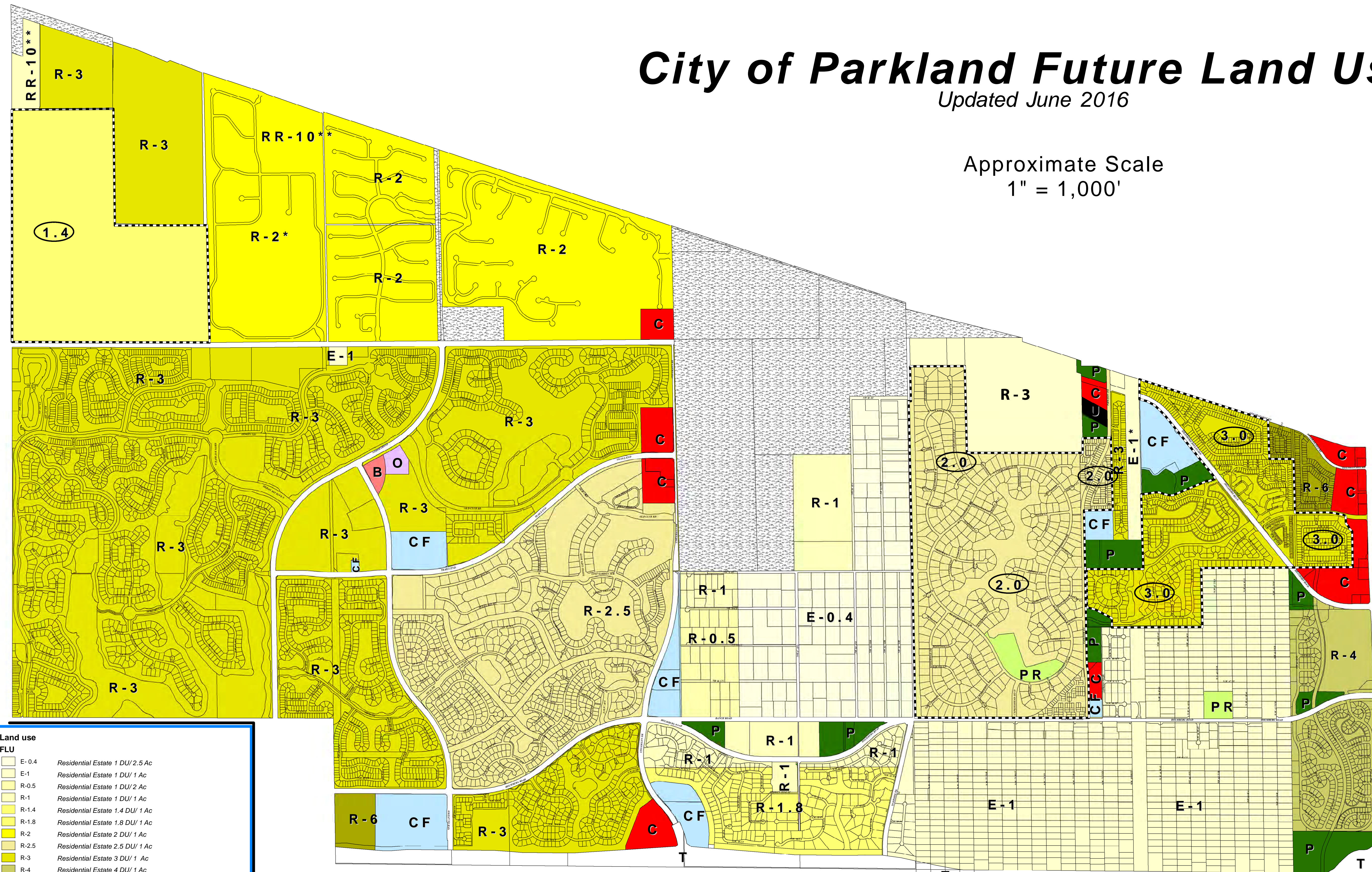
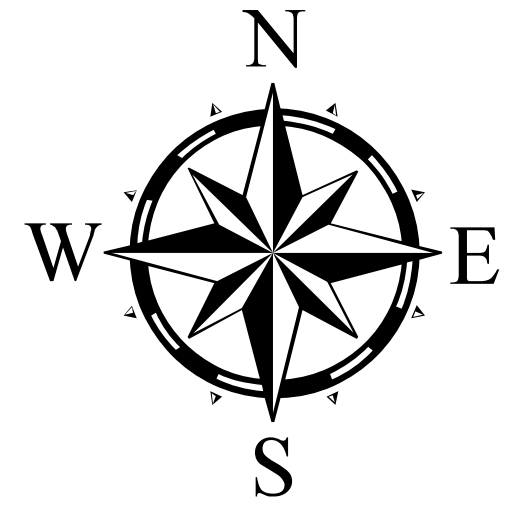
The City of Parkland shall adopt, amend, and enforce land development regulations that are consistent with and implement the comprehensive plan within one year after submission of the comprehensive plan or amended comprehensive plan pursuant to Section 163.3191, F.S.

Map 1-7 Effective Future Land Use

City of Parkland Future Land Use Map

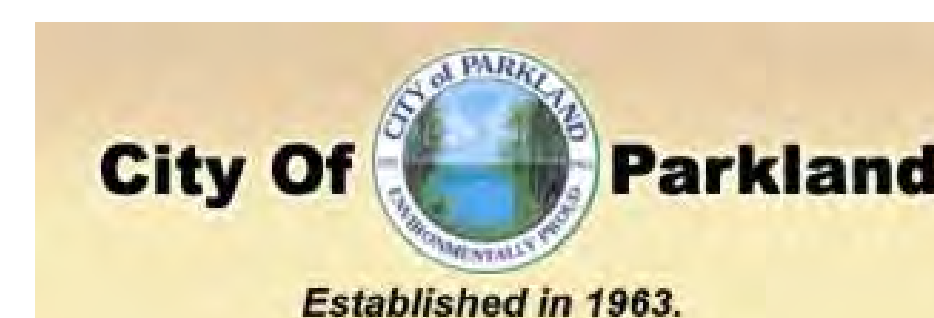
Updated June 2016

Approximate Scale
1" = 1,000'



Land use	
FLU	
E-0.4	Residential Estate 1 DU/ 2.5 Ac
E-1	Residential Estate 1 DU/ 1 Ac
R-0.5	Residential Estate 1 DU/ 2 Ac
R-1	Residential Estate 1 DU/ 1 Ac
R-1.4	Residential Estate 1.4 DU/ 1 Ac
R-1.8	Residential Estate 1.8 DU/ 1 Ac
R-2	Residential Estate 2 DU/ 1 Ac
R-2.5	Residential Estate 2.5 DU/ 1 Ac
R-3	Residential Estate 3 DU/ 1 Ac
R-4	Residential Estate 4 DU/ 1 Ac
R-6	Residential Estate 6 DU/ 1 Ac
RR-10	Rural Residential Estate 10**
C	Commercial
B	Commercial Business
O	Office
P	Park
CON	Conservation
PR	Private Recreation
CF	Community Facilities
U	Utilities
T	Transportation (Major)
Residential Irregular	
CITY BOUNDARY	
UBC	UNINCORPORATED BROWARD COUNTY
* - Land Use Designation by Broward County	
** - Land Use Designation by Palm Beach County	

FUTURE LAND USE MAP



BROWARD COUNTY, FLORIDA
6600 UNIVERSITY DRIVE
PARKLAND, FL 33067

Table 1-8 Future Land Uses

Land Use Category	Residential Density (dwelling units per gross acre)	Building Coverage	Summary of Uses See "City of Parkland Land Use Categories" Section for more detail.
RESIDENTIAL			
ESTATE (E-0.4)	1 du/2.5 ac (0.4 du/ac) Maximum	Maximum 20%	Single-family homes; no clustering of residences, limited home occupations, parks (5 acres or less), new utilities (500 square feet or less); agricultural uses.
ESTATE (E-1)	1 du/ac Maximum	Maximum 20%	Single-family homes; no clustering of residences, limited home occupations, parks (5 acres or less), new utilities (500 square feet or less); agricultural uses.
R -0.5	1 du/ac (0.5 du/ac) Maximum	Maximum 20%	Single-family homes; no clustering of residences, limited home occupations, parks (5 acres or less), new utilities (500 square feet or less); agricultural uses.
R -1	1 du/ac Maximum	Maximum 25%	Single-family homes, townhomes, multifamily residences; limited home occupations; passive parks; active parks (10 acres or less.); community facilities (5 acres or less), agricultural uses; golf courses that are intended to be retained as permanent open space.
R-1.8	1.8 du/ac Maximum	Maximum 30%	Single-family homes, townhomes, multifamily residences; limited home occupations; passive parks; active parks (10 acres or less.); community facilities (5 acres or less), agricultural uses; golf courses that are intended to be retained as permanent open space.
R -2	2 du/ac Maximum	Maximum 30%	Single-family homes, townhomes, multifamily residences; limited home occupations; passive parks; active parks (10 acres or less.); community facilities (5 acres or less), agricultural uses; golf courses that are intended to be retained as permanent open space.

Land Use Category	Residential Density (dwelling units per gross acre)	Building Coverage	Summary of Uses See “City of Parkland Land Use Categories” Section for more detail.
R -2.5	2.5 du/ac maximum	Maximum 35%	Single-family homes, townhomes, multifamily residences; limited home occupations; passive parks; active parks (10 acres or less.); community facilities (5 acres or less), agricultural uses; golf courses that are intended to be retained as permanent open space.
R -3	3 du/ac maximum	Maximum 35%	Single-family homes, townhomes, multifamily residences; limited home occupations; passive parks; active parks (10 acres or less); community facilities (5 acres or less), agricultural uses; golf courses that are intended to be retained as permanent open space.
R-4	4 du/ac maximum	Maximum 35%	Single-family homes, townhomes, multifamily residences; limited home occupations; passive parks; active parks (10 acres or less.); community facilities (5 acres or less), agricultural uses; golf courses that are intended to be retained as permanent open space.
R -6	6 du/ac maximum	Maximum 40%	Single-family homes, townhomes, multifamily residences; limited home occupations; community facilities (5 acres or less), agricultural uses; golf courses that are intended to be retained as permanent open space.
R -10	10 du/ac maximum	Maximum 40%	Single-family homes, townhomes, multifamily residences; limited home occupations; passive parks; active parks (10 acres or less.); community facilities (5 acres or less), agricultural uses; golf courses that are intended to be retained as permanent open space.

RESIDENTIAL IRREGULAR			
IRREGULAR	3 du/ac maximum	Maximum 30%	Planned Unit Development, limited home occupations, passive parks; active parks (10 acres or less.); elementary, middle, or high schools. Maximum building height: 50 feet.
NON-RESIDENTIAL			
COMMUNITY FACILITIES	-	0.5 F.A.R.	Community facilities, including public and private schools, colleges and universities, day care centers, places of worship, hospitals, government administration buildings, police and fire protection stations libraries, courts, nursing homes, civic centers, park and recreation facilities, public maintenance; Streets, lakes, and canals, and accessory uses and facilities; Group home and residential care facilities subject to the provisions of the Broward County Land Use Plan; and Non-Residential Agricultural.
COMMERCIAL	-	0.5 F.A.R.	Neighborhood retail centers; Community retail centers; Office and business uses; Commercial uses; Hotels, motels and other tourist accommodations; Commercial recreation uses; Community facilities; Utilities, transmission lines, transportation and communication facilities; Non-residential agriculture, until converted to urban use; Streets, lakes, and canals; Accessory uses and facilities

COMMERCIAL / BUSINESS	-	0.5 F.A.R.	Buildings for offices such as administrative, professional, medical and business purposes; Banking and financial institutions; Educational, scientific and industrial research facilities, research laboratories, and medical or dental laboratories; Retail and commercial establishments, restaurants, personal services, hotels, motels, indoor entertainment and other tourist accommodations; Community facilities; Utilities, including communication facilities, but excluding sanitary landfills; Publicly and/or privately owned parks and recreation facilities; Streets, lakes, and canals; Non-Residential Agriculture, until converted to urban use; Accessory uses and facilities
CONSERVATION	-	0.5 F.A.R.	Properties designated as Conservation are intended to protect natural functions of environmentally sensitive land. No construction is anticipated in these areas except for minimal structures and improvements required to provide safe access and essential support functions. The uses permitted within the Conservation category include wildlife management, wetland and upland mitigation areas and banks, natural resources based parks and aquifer recharge areas, and environmental restoration/preservation.
INDUSTRIAL	-	0.5 F.A.R.	Light industrial uses; Maintenance facilities, cargo distribution terminals, transit warehousing; Offices constituting major employment centers; Utilities, transmission lines and transportation facilities; Streets, lakes, and canals; Non - Residential Agriculture, until converted to urban use; Accessory uses and facilities;

OFFICE	-	0.5 F.A.R.	Administration, professional practice and customary business office functions; Banking and financial institutions; Educational, scientific and industrial research facilities; Research laboratories and medical or dental labs; Community facilities; Utilities, including communication facilities; but excluding sanitary landfills; Parks, recreation and uses; Streets, lakes, and canals; Non - Residential Agriculture, until converted to urban use; Accessory uses and facilities.
PARK	-	0.5 F.A.R.	Active and passive outdoor recreation facilities; Recreation, civic or cultural buildings accessory to the primary recreation facility; Golf courses integral to a residential development and intended to be retained as permanent open space; Streets, lakes, and canals; Accessory uses and facilities.
PRIVATE RECREATION	-	0.5 F.A.R.	Outdoor and indoor recreation facilities including, but not limited to golf courses, tennis clubs and sports arenas; Accessory facilities that are determined by the City to be an integral part of and supportive to the primary recreation facility (excluding residential uses); Hotels and motels ancillary to the primary recreation use; Parks and recreation facilities; Streets, lakes, and canals; Camping and outdoor recreation; Accessory uses and facilities.
TRANSPORTATION	-	0.5 F.A.R.	Limited access expressways
UTILITIES	-	0.5 F.A.R.	Water and wastewater treatment plants and related pump stations; Electric power substations and transmission lines; Streets, lakes, and canals; Accessory uses and facilities; Non-Residential Agricultural uses shall be allowed only when the location of these uses does not preclude or adversely affect future land use of the surrounding area for utility facility

Source: City of Parkland

1.2

Objective:

The City shall effectively manage and monitor growth and ensure that facilities and services meet adopted levels of service through a Concurrency Management System.

Every five (5) years, review facility levels of service standards set in the Capital Improvement Element to determine if the appropriate levels of service have been maintained and if sufficient capacities are available for future development.

1.2.1 Policy:

Facilities and services subject to concurrency requirements shall include all elements of the Comprehensive Plan.

1.2.2 Policy:

Through implementation of a Concurrency Management System, the City shall require that necessary facilities and services will be available concurrent with the impacts of development through any of the following situations:

- A. The necessary facilities are in place at the time a plat approval is issued, or a plat approval is issued subject to the condition that the necessary facilities will be in place when the impacts of the development occur.
- B. The necessary facilities are under construction at the time a City plat approval is issued.
- C. The necessary facilities are the subject of a binding contract executed for the construction of those necessary facilities at the time a City plat approval is issued.
- D. The necessary facilities have been included in the City's annual budget at the time a development permit approval is issued although the facilities are not yet the subject of a binding contract for their construction, the unit of local government shall make a determination that it will not remove the budgetary provision for the necessary facilities from their budget.

1.2.3 Policy:

All applications for plat or site plan approvals shall be reviewed for concurrency consistent with the provisions and requirements of the concurrency management system adopted by the city and compliance with the level of services standards set forth in the

Comprehensive Plan. Development orders may be issued only upon a finding by the city that the public facilities addressed under the concurrency management system and as set forth in the Comprehensive Plan will be available concurrent with the impacts of the development.

1.2.4 Policy:

The City's Development Services Department shall be primarily responsible for reviewing development permit applications to assure compliance with the concurrency management system and the levels of service standards set forth in the Comprehensive Plan.

1.2.5 Policy:

In order to ensure that all public facilities included with the concurrency management system adopted by the City, and consistent with the level of service standards set forth in the Comprehensive Plan are available concurrent with the impacts of development, concurrency will be determined during the plat stage or the final site plan approval stage, whichever occurs first. All development orders and permits shall specify any needed improvements and a schedule for implementation. Where necessary, the requirements for improvements shall be contained within developer's agreements recorded against the property or secured by a bond or letter of credit acceptable to the City.

1.3

Objective:

The City shall ensure that land uses found to be inconsistent with the Community's character shall not be permitted.

As needed, review development within the City to determine any uses or development inconsistent with the community's character.

1.3.1 Policy:

Residential neighborhoods shall be designed to include an efficient system of internal circulation, including the provision of collector streets to feed the traffic onto arterial roads and highways.

1.3.2 Policy:

Subdivisions shall be designed so that all individual lots have access to the internal street system, and lots along the periphery are buffered from major roads and incompatible land uses.

1.3.3 Policy:

Commercial development should emphasize planning of the total site as a whole in a cohesive form. All commercial development shall be consistent with the architectural standards adopted by the City and shall be designed to be compatible with neighboring uses, developments, land uses and zoning.

1.3.4 Policy:

All multipurpose trails should have adequate access to adjacent land uses, except that access to individual single family homes is not required.

1.3.5 Policy:

Access and parking should be planned with a minimum number of connections to the abutting street system and circulation assured through the provision of frontage roads, aisle ways, cross-access and cross-parking easements, where necessary and appropriate.

1.3.6 Policy:

Industrial uses shall be in park-like settings with access to arterial roadways. Individual parcels will not have access to trafficways, except those parcels over 20 acres with City Commission approval.

1.3.7 Policy:

Public facilities and utilities shall be located to:

- i) maximize the efficiency of services provided,
- j) minimize their costs, and
- k) minimize their impacts on the natural environment.

1.3.8 Policy:

Innovative land use development patterns, such as Planned Unit Development or Cluster Zoning to facilitate open space, and mixed use may be permitted.

1.3.9 Policy:

Through the strict enforcement of Parkland's current Zoning Map and the specific requirements of each zoning district, land uses and densities shall be compatible with adjacent uses and densities.

- 1.3.10 Policy:
Preserve the character of existing residential neighborhoods, and all new developments.
- 1.3.11 Policy:
Zoning designations shall conform with adopted land use categories.
- 1.3.12 Policy:
Schools, roads and canals are intended to be permitted uses in each land use category.
- 1.3.13 Policy:
Subdivision regulations shall provide for both the timely completion and regular maintenance of all required capital improvements and amenities.
- 1.3.14 Policy:
The City's Land Development Codes and Regulations shall protect existing and planned residential areas including single family neighborhoods, from disruptive land uses and nuisances.
- 1.3.15 Policy:
Future industrial land shall be located with access to major transportation facilities, such as highways.
- 1.3.16 Policy:
Development permits granted by the City shall be consistent with the Development Review Requirements subsection of the Plan Implementation Requirements section of this plan.
- 1.3.17 Policy:
The City shall require all new commercial and industrial development to be serviced by centralized wastewater systems.
- 1.3.18 Policy:
The City shall adopt land development regulations that require platting at least in those circumstances where the Plan Implementation Requirements section of this plan requires platting; and such regulations may establish additional standards, procedures, and requirements as may be necessary to regulate and control the platting of lands within the City's boundaries.

1.3.19 Policy:

Utilize Crime Prevention through Environmental Design (CPTED) criteria in the development review process, where feasible and appropriate.

1.3.20 Policy:

The City shall require the collocation of public facilities, such as parks, libraries, and community centers, with schools to the extent possible and to encourage the use of elementary schools as focal points for neighborhoods.

1.4

Objective:

The City shall ensure the availability of suitable land for necessary utility facilities by requiring appropriate dedication through the City's platting or development review process.

Annually, review sites for necessary utilities to determine if sufficient sites exist.

1.4.1 Policy:

The necessary facilities will be in place at the time a plat approval is issued, or a plat approval will be issued subject to the condition that the necessary facilities will be in place when the impacts of the development occur.

1.5

Objective:

The City shall ensure the protection of natural and historic resources.

On an annual basis, determine those historical or natural resources which have been preserved from removal or harm by development.

1.5.1 Policy:

The City shall require the preservation of unique and native tree stands and wetlands.

1.5.2 Policy:

Man-made structures shall be designed and constructed so as to minimize and in some instances prohibit disturbance to the native tree stands.

1.5.3 Policy:

The open space system and the unique tree stands shall be used to establish the City's form and substance.

1.5.4 Policy:

The City will review site development plans for historic sites and for the area surrounding the historical site before land disturbance permits are issued to ensure the protection of the site.

1.5.5 Policy:

The following are mechanisms to protect potable water wellfields and environmentally sensitive lands:

- Land development regulations shall be adopted which will ensure the protection of natural resources. Land owners shall be required, through enforcement of the adopted ordinances and through site plan requirements or incentives, to preserve existing native and wetland vegetation.
- The City shall provide information to private land owners regarding good management practices to protect endangered and rare species' most desirable habitats.
- Severe penalties shall be assessed through enforcement of the adopted ordinances to those individuals who develop property irrespective of appropriate local permits and resource mitigation plans.
- The City shall continue to maintain a comprehensive inventory of public lands to determine the extent, range and diversity of its flora and fauna habitats, especially rare, endangered and threatened species and provide for their protection.
- The City shall take into consideration Everglades restoration projects, as identified by the SFWMD, potable water wellfields, environmentally sensitive lands, Local Areas of Particular Concern and Urban Wilderness areas in future land use decisions.
- The City shall enforce the Broward County Wellfield Protection Ordinance and will prohibit, through land use regulation and site design uses, activities which potentially threaten water quality.

1.5.6 Policy:

Land and/or property identified as historically significant by the Florida Department of State, Division of Historical Resources or listed within the National Register of Historic Places, or determined to be historically significant by the City of Parkland

through a lawfully adopted preservation ordinance shall be protected by the City from significant alteration or demolition in accordance with State and Federal regulations, or applicable City regulations.

1.5.7 Policy:

Land containing archaeologically significant artifacts or historic relics shall be protected under the provisions of the adopted land development regulations, with the excavation of identified or uncovered sites to be conducted only under the supervision of a certified archeologist with permission by the Florida Department of State, Division of Historical Resources.

1.5.8 Policy:

Develop and implement land use controls and programs to preserve and enhance surface waters for their important natural functions and aesthetic and recreational values.

1.5.9 Policy:

Coordinate future land uses with topography, wellfield protection areas and soil conditions to protect Broward County's water supply and minimize flooding problems.

1.5.10 Policy:

Regulate development on flood prone soils, as defined by the U.S. Soil Conservation Service, consistent with the criteria and mapping of Federal Emergency Management Administration and the policies of the Broward County Land Use Element.

1.6

Objective:

The City shall discourage urban sprawl and encourage a separation of urban and rural land uses by directing new development into areas where necessary regional and community facilities and services exist.

1.6.1 Policy:

The City shall not adopt any regulations that discourage the use of existing agriculturally developed land.

1.6.2 Policy:

The City shall require prior to the urbanization of agriculturally used land that all impacts of such development are completely addressed and that all levels of service set forth in the Comprehensive Plan are satisfied.

1.6.3 Policy:

Prior to any change in the Land Use Plan, data and analysis shall be submitted with the proposed development that indicates the need for additional residential, commercial, or industrial uses, consistent with population projections.

1.6.4 Policy:

Except for schools, regional and community facilities shall be located close to major traffic corridors and mass transit routes adequate to carry the volume of traffic generated by such facilities.

1.6.5 Policy:

When extending new services to undeveloped areas, priority shall be given to those areas where other facilities services are available or anticipated to be provided concurrent with the extension of such new services.

1.7

Objective:

The City shall encourage quality development pursuant to innovative and otherwise desirable land development regulations by incorporating such regulations into the Parkland Land Development Code. This objective shall not be interpreted as requiring the use of innovative land development regulations for their own sake; it shall be interpreted as encouraging the use of such regulations only where they uniquely accomplish a desired development pattern that would not be possible with conventional regulations.

Continually, assess the new development within the City to ensure that the pattern of development is furthering the goals and objectives of the Comprehensive Plan.

1.7.1 Policy:

The City shall review the Land Development Code and revise as necessary to ensure the availability of those innovative zoning techniques which are appropriate to Parkland.

1.7.2 Policy:

In reviewing and revising the development code, particular attention shall be given to provisions relative to open space, stormwater management, on-site traffic flow and parking.

1.7.3 Policy:

Development permits granted by the City of Parkland shall be consistent with the Development Review Requirements

subsection of the Plan Implementation Requirements section of the Broward County Plan.

1.7.4 Policy:

The City shall review for and require development that will maintain and facilitate a park like setting when appropriately designating land use categories or reviewing for land development permits.

1.7.5 Policy:

The City shall implement Land Development Regulations that require all non-single family residential development and all nonresidential developments to be designed in a park-like setting.

1.7.6 Policy:

The City shall protect and conserve those areas identified in the Recreation and Open Space Element as preserves or conservation areas through the implementation of the adopted Resource Management Plans.

1.8

Objective:

Incorporate the relevant Objectives and Policies of the Broward County Land Use Plan into the City's Comprehensive Plan.

Annually, determine compliance with the referenced provisions of the Broward County Comprehensive Plan.

1.8.1 Policy:

The Future Land Use Element includes by reference the following other Comprehensive Plan Objectives and Policies.

Transportation Element (3.3.1, 3.1.6, 3.1.7, 3.2, 3.2.1, 3.3, 3.3.1, 3.4.1)

Infrastructure Element (3.1.6)

Conservation (5.1, 5.1.3, 5.2.1, 5.2.5, 5.2.9, 5.3.1, 5.3.2)

Parks, Recreation and Open Space (8.1.1, 8.1.2, 8.1.8, 8.1.12, 8.1.2, 8.2.1, 8.2.9)

Capital Improvement Element (6.3.6, 6.3.7)

Intergovernmental Coordination Element (7.1, 7.2, 7.3, 7.2.4)

1.9

Objective:

The City shall consider, prior to adopting any Land Use Plan Amendments or Rezoning Ordinances that increase City density, the availability of public

educational facilities and consider school siting and the future need for public educational facilities when reviewing Land Use Plan Amendments, Rezoning, and Plats, provided that where an application commits to provide affordable housing and said housing is not projected to place more than 20 students in a critically overcrowded school facility, such application will be deemed to have satisfied the following policies:

1.9.1 Policy:

The City shall not approve any Land Use Plan amendments that increase density or rezonings which increase density, unless the applicant demonstrates the effect on the public school system, and an analysis of school siting and future public educational needs demonstrates the proposed Land Use Plan amendment or rezoning is not projected to place children in a critically overcrowded school or cause a school to become critically overcrowded. Upon adoption, this shall be the policy of the City. Further, the City shall adopt Land Development Regulations to specifically implement this policy.

1.9.2 Policy:

The City shall seek, by all available legal means, to encourage all persons applying for plat approval within the City, to work with the Broward County School Board to ensure that issues relating to the availability of public school facilities, school siting, and an analysis of future public educational facility needs is taken into account as relates to the impact of the plat.

Continually determine the effect of Land Use Plan Amendment approvals, rezonings, and plat approvals, on the availability of public educational facilities and sites to meet the present and future needs of the citizens of the City of Parkland.

1.9.3 Policy:

The City shall coordinate with the School Board of Broward County to achieve an expedited development review procedure for public elementary and secondary education facilities.

1.10

Objective:

Concurrency management systems shall be established to effectively monitor and manage new growth and protect the functions of important state resources and facilities, in conformance with Florida's Community Planning Act, including Section 163.3180 Florida Statutes (1999). Facilities available shall

be consistent with concurrency requirements (Concurrency Management System).

1.10.1 Policy:

The City shall establish land development regulations/concurrency management systems to effectively manage new growth and to ascertain whether necessary facilities identified within their local Capital Improvements Elements are being constructed in accordance with the schedules in their local plans and to measure the development capacity of such facilities in a given area at a given time.

1.10.2 Policy:

Local governments within Broward County shall coordinate with the School Board of Broward County to achieve an expedited development review procedure for public elementary- and secondary education facilities.

1.11

Objective:

The City shall maintain an emergency management plan to reduce or eliminate the exposure of human life and public and private property to natural hazards.

1.11.1 Policy:

The Comprehensive Emergency Management Plan shall ensure that actions needed to protect the public health and safety shall receive first priority in emergency permitting decisions.

1.11.2 Policy:

The City shall coordinate their Comprehensive Emergency Management Plan with the County Emergency Management Office for compliance with the County Emergency Management Plan.

1.11.3 Policy:

The City shall ensure level of service standards for public facilities are returned to pre-storm levels as soon as possible after a storm event.

1.12

Objective:

Continue to implement those requirements and procedures which ensure consistency among the Parkland Comprehensive Plan and the land use plans and land development regulations of Broward County.

1.12.1 Policy:

The City's land use plan shall contain policies which further consistency and compatibility with the plan of Broward County.

1.12.2 Policy:

The City's land use plan and plan amendments shall successfully complete the Chapter 163, Florida Statutes local comprehensive plan review process prior to their certification or recertification by the Broward County Planning Council.

1.12.3 Policy:

Local government utilization of the Broward County Land Use Plan (BCLUP) "Flexibility Rules," as per Policies 1.01.03, 1.01.04, 1.02.01, 1.02.02, 2.04.04, 2.04.05, 3.01.06 and 3.02.02 (BCLUP), shall be subject to a determination by the Broward County Commission that such allocation is compatible with adjacent land uses, and that impacts on public school facilities have been adequately considered, in the following instances:

A. Allocations to sites east of the Intracoastal Waterway which impact access to public beaches.

B. Allocations to sites which are contiguous to a municipality upon request of the contiguous municipality.

C. Allocations to sites which are adjacent to an Environmentally Sensitive Land, as defined within the Broward County Comprehensive Plan, or a Broward County or regional park, including sites which are attached, located within 500 feet, or separated only by streets and highways, canals and rivers or easements, upon request of the Broward County Commission. Additional rules and procedures for the processing of County Commission compatibility reviews shall be included in the County's administrative rules.

1.13

Objective:

Annex properties in an orderly manner that promotes efficiency of public service provision and economic vitality of the City.

1.13.1 Policy:

The City shall evaluate proposed annexations based upon the

following criteria:

1. The ability of the City to provide public services at a level equal to or better than that available from the current service providers;
2. The ability of the City to provide public services at the City's adopted levels of service;
3. Whether the annexation would eliminate an unincorporated island or could be expanded to eliminate an unincorporated island; and
4. Whether the annexation would eliminate an irregularity or irregularities in the City's boundaries, thereby improving service delivery.

1.13.2 Policy:

The Capital Improvement Element shall be updated to include any annexation-related capital improvements that will be implemented to maintain level of service.

CITY OF PARKLAND LAND USE CATEGORIES

Utilize the following Land Use Category and Residential Densities to Designate Land Uses within the City:

RESIDENTIAL

ESTATE (0.4)	ESTATE UP TO 1 DU/2.5 AC
ESTATE (1)	ESTATE UP TO 1 DU/ 1AC
R (0.5)	RESIDENTIAL UP TO 1DU/2AC
R (1)	RESIDENTIAL UP TO 1 DU/ 1AC
R (1.8)	RESIDENTIAL UP TO 1.8 DU/ AC
R (2)	RESIDENTIAL UP TO 2 DU/ AC
R (2.5)	RESIDENTIAL UP TO 2.5 DU/ AC
R (3)	RESIDENTIAL UP TO 3 DU/ AC
R (4)	RESIDENTIAL UP TO 4 DU/ AC
R (6)	RESIDENTIAL UP TO 6 DU/ AC
R (10)	RESIDENTIAL UP TO 10 DU/ AC
IR	IRREGULAR RESIDENTIAL

NON-RESIDENTIAL

CF	COMMUNITY FACILITIES
----	----------------------

C	COMMERCIAL
B	COMMERCIAL/BUSINESS
CON	CONSERVATION
I	INDUSTRIAL
O	OFFICE
P	PARK
PR	PRIVATE RECREATION
T	TRANSPORTATION
U	UTILITY

RESIDENTIAL

1. Permit the following residential uses within the ESTATE (0.4), ESTATE (1), and R (0.5) Land Use Category:
 - Residential dwelling units not to exceed a density of more than one unit per two and one-half acres, and one unit per one acre, as designated, providing that there will be no clustering of residential units;
 - Home occupations only to extent provided for by the Zoning Code;
 - Parks of five (5) acres or less;
 - New utilities, limited to water, wastewater, telecommunications, transmission lines and drainage facilities and structures not occupying more than five hundred (500) square feet of area;
 - Streets, lakes and canals;
 - Non - residential agriculture; Accessory uses and facilities.

2. Permit the following uses within the R (1), R (1.8), R (2), R (2.5), R (3), R (4), R (6), R (10) Land Use categories:
 - Residential dwelling units at a density which does not exceed the maximum shown on the Land Use Map in accordance with the implementation provisions of this element;
 - Group homes and residential care facilities, subject to the provisions of the Broward County Land Use Plan;
 - Home occupations only to extent provided for by Zoning Code;
 - Active Parks of ten (10) acres or less; Passive Parks;
 - Elementary and middle schools and high schools; public, and private.
 - New community facilities of five (5) acres or less designed to serve the residential area, including schools, day care centers, places of worship,

group home and foster care facilities, and governmental sponsored residential care facilities for the elderly and handicapped, only to the extent provided for by Zoning Code;

- Governmental facilities of five (5) acres or less, limited to administration buildings, police and fire protection, and libraries;
- New utilities, limited to water, wastewater, telecommunications, transmission lines and drainage facilities, and structures not occupying more than five hundred (500) square feet of area;
- Streets, lakes, and canals;
- Non-residential agriculture;
- Golf courses integral to a residential development and
- intended to be retained as permanent open space; Accessory uses and facilities;

3. Permit the following uses within the **IRREGULAR** category:

- Selected planned unit developments are identified on the Future Land Use Plan as IRREGULAR with the maximum overall density appearing in the circle below the map designation;
- That number can be multiplied by the number of acres within the development area to ascertain the maximum number of dwelling units allowed. The IRREGULAR category includes a mixture of residential types in which portions of the development may have a higher density;
- Home occupations only to extent provided for by the Zoning Code;
- Active parks of ten (10) acres or less; Passive Parks;
- Elementary and middle schools and high schools; public, and private;

NON RESIDENTIAL

4. Permit the following uses within the **COMMERCIAL** Land Use category:

- Neighborhood retail centers; Community retail centers; Office and business uses; Commercial uses;
- Hotels, motels and other tourist accommodations; Commercial recreation uses; Community facilities;
- Utilities, transmission lines, transportation and

- communication facilities;
- Non-residential agriculture, until converted to urban use;
- Streets, lakes, and canals;
- Accessory uses and facilities;

5. Permit the following uses within the **INDUSTRIAL** category:

- Light industrial uses;
- Maintenance facilities, cargo distribution terminals,
- transit warehousing;
- Offices constituting major employment centers;
- Utilities, transmission lines and transportation facilities;
- Streets, lakes, and canals;
- Non - Residential Agriculture, until converted to urban use;
- Accessory uses and facilities;

The following additional uses may be permitted by specific approval of the City Commission in accordance with the procedures and standards set forth in the Land Development Code, provided the location of these uses does not preclude or adversely affect the future use of surrounding areas for industry, and no more than twenty percent (20%) of the industrial land designated on the County Land Use Plan within the same flexibility zone can be utilized for these uses:

- Commercial and retail business uses other than major employment centers;
- Hotel/motel and other tourist accommodations;
- Parks, community facilities and commercial recreation.

(Reference) County Policy 13.01.10: (See Policy 1.12.3 of this Element)

6. Permit the following uses within the **UTILITY** category:

- Water and wastewater treatment plants and related pump stations;
- Electric power substations and transmission lines; Streets, lakes, and canals;
- Accessory uses and facilities;

- Non-Residential Agricultural uses shall be allowed only when
 - the location of these uses does not preclude or adversely affect future land use of the surrounding area for utility facility;
7. Permit the following use within the **COMMUNITY FACILITY** category:
- Community facilities, including public and private schools, colleges and universities, day care centers, places of worship, hospitals, government administration buildings, police and fire protection stations libraries, courts, nursing homes, civic centers, park and recreation facilities, public maintenance;
 - Streets, lakes, and canals, and accessory uses and facilities;
 - Group home and residential care facilities subject to the provisions of the Broward County Land Use Plan;
 - Non-Residential Agricultural;
8. Permit the following uses within the **PARK** category:
- Active and passive outdoor recreation facilities;
 - Recreation, civic or cultural buildings accessory to the primary recreation facility.
 - Golf courses integral to a residential development and intended to be retained as permanent open space;
 - Streets, lakes, and canals;
 - Accessory uses and facilities.

Acreage must comply with the following criteria in order to count toward the City's five (5) acre per 1,000 residents neighborhood and community park level of service standard.

- The acreage must be owned by the City of Parkland and zoned and/or utilized for open space or recreation use; and
- The acreage must be open and accessible to the public (i.e. public can physically enter and use the acreage) on a regular or continuous basis for the purpose in which it is intended (see exception below for conservation land).

Acreage must comply with the following criteria for the purpose of complying with the countywide recreation and open space level of service standard of three (3) acres per 1,000 residents set forth in the Broward County Land Use Plan (BCLUP):

- As of March 21, 2013, for additional acreage to be eligible to count towards the BCLUP "community park" requirement for existing residents, conspicuous signage indicating that the acreage is accessible to the public, including identification of safe access point(s), shall be required. Otherwise, such acreage shall be prohibited from counting as a City "community park." Further, any additional waterway or water body that is counted as a City "community park" as of March 21, 2013 must have sufficient safe public access from the landward side along the shoreline of the waterway/water body within the City. A waterway/water body with safe public access bordering the City may be counted as a "community" park as long as such waterway/water body is readily accessible for use by residents of the City and the public for the recreation or environmental purpose intended.
- As of March 21, 2013, water body and/or waterway acreage added to the community parks inventory may count no more than ten (10) percent of such additional inventory, unless it is actively managed for recreational or environmental purposes and greater than 0.5 acres, in which case the entire water body can be counted.
- Golf course acreage used to satisfy the BCLUP level of service standard shall not exceed 50% of the total acreage of publicly owned golf courses that are zoned for recreational use, and semi-public golf courses that are either zoned and deed restricted for open space use or zoned and restricted by other development order, such as site plan or

subdivision approval, for open space use. However, golf course acreage may satisfy no more than 15% of the total Community Park requirement.

Acreage designated on the future land use plan map or deed-restricted as “conservation” may be counted toward the BCLUP level of service standard if the “conservation” acreage is owned by or within the jurisdictional responsibility of the City of Parkland. Such “conservation” acreage may, due to a need to protect sensitive natural features and/or habitat, restrict regular or continuous public access but must be made available to the public when appropriate, as to avoiding negatively impacting the natural features and/or habitat in conjunction with an authorized educational or recreational program.

9. Permit the following uses within the **TRANSPORTATION** category: Limited access expressways;
10. Permit the following uses within the **PRIVATE RECREATION** category: Outdoor and indoor recreation facilities including, but
 - not limited to golf courses, tennis clubs and sports arenas;
 - Accessory facilities that are determined by the City to be an integral part of and supportive to the primary recreation facility (excluding residential uses);
 - Hotels and motels ancillary to the primary recreation use;
 - Parks and recreation facilities; Streets, lakes, and canals;
 - Camping and outdoor recreation
 - Accessory uses and facilities.
11. Permit the following uses within the **COMMERCIAL BUSINESS** category: This category is designated on the City Land Use Plan to encourage the location of the planned business and office complexes and corporate headquarters in the City of Parkland.

Commercial Business Park areas should ensure a campus- like atmosphere, with substantial buildings and ample open space as specified in the Land Development Code.

The City, pursuant to its ordinances, determines those uses which will be permitted or not permitted. Those uses that may be permitted in the Commercial Business Park areas are as follows:

- Buildings for offices such as administrative, professional, medical and business purposes;
- Banking and financial institutions;
- Educational, scientific and industrial research facilities, research laboratories, and medical or dental laboratories;
- Retail and commercial establishments, restaurants, personal services, hotels, motels, indoor entertainment and other tourist accommodations;
- Community facilities;
- Utilities, including communication facilities, but excluding sanitary landfills;
- Publicly and/or privately owned parks and recreation facilities;
- Streets, lakes, and canals;
- Non-Residential Agriculture, until converted to urban use;
- Accessory uses and facilities;

12. Permit the following uses within the OFFICE category: Buildings for offices for such purposes as

- administration, professional practice and customary business office functions;
- Banking and financial institutions;
- Educational, scientific and industrial research facilities;
- Research laboratories and medical or dental labs; Community facilities;
- Utilities, including communication facilities; but
- excluding sanitary landfills; Parks, recreation and uses;
- Streets, lakes, and canals;
- Non - Residential Agriculture, until converted to urban use;
- Accessory uses and facilities.

13. Conservation – Properties designated as Conservation are intended to protect natural functions of environmentally sensitive land. No construction is anticipated in these areas except for minimal structures and improvements required to provide safe access and essential support functions. The uses

permitted within the Conservation category include wildlife management, wetland and upland mitigation areas and banks, natural resources based parks and aquifer recharge areas, and environmental restoration/preservation. Maximum building coverage 5%. Maximum FAR 5%. Maximum building height 25 feet.

IMPLEMENTATION REGULATIONS AND PROCEDURES

1) Development Review Requirements

The City may grant an application for a development permit when the City has determined that the following requirements are met:

- (a) Traffic circulation, recreational, drainage and flood protection, potable water, solid waste and sanitary sewer public facilities and services will be available to meet established level of service standards, consistent with Chapter 163.3202(g) and Chapter 163.3180 Florida Statutes, the concurrency management policies included of the Comprehensive Plan, and Goal 8 of the Broward County Land Use Plan.
- (b) Local streets and roads will provide safe, adequate access.
- (c) Fire protection service will be adequate to protect people and property in the proposed development.
- (d) Police protection service will be adequate to protect people and property in the proposed development.
- (e) School sites and school buildings will be adequate to serve the proposed development.

2) Platting Requirements

- (a) Parkland may not grant an application for a building permit for the construction of a principal building on a parcel of land unless a plat including the parcel or parcels of land has been approved by the City and the Broward County Commission and recorded in the official records of Broward County subsequent to June 4, 1953. This section will not apply to an application for a building permit which meets any of the following criteria:
 - (i) construction of one single family dwelling unit or duplex unit on a lot or parcel which lot or parcel was of record as such in

- the official records of Broward County as of March 1, 1989;
- (ii) construction on any multi-family or non-residential lot or parcel which is less than five acres in size and specifically delineated on a plat recorded on or before June 4, 1953.
 - (iii) The building permit may be issued for a parcel of land for which plat approval has been given by the City and the Board of County Commissioners although the plat has not yet been recorded, provided such authorization is granted in an agreement among the developer, Parkland and Broward County. Such agreements shall at a minimum require compliance with the applicable provisions of plat approval and shall prohibit the issuance of a certificate of occupancy until the plat is recorded. Parkland and Broward County shall be required to make a finding that facilities and services will be available at the adopted level of service standards concurrent with the issuance of the building permit.
- 3) Parkland Land Development Regulations and Procedures
- (a) The Parkland Comprehensive Plan shall be implemented through enforcement of appropriate land development regulations within one year after submission to the state land planning agency pursuant to Section 163.3202(1), F.S.
 - (b) No public or private development may be permitted except in compliance with the Parkland Comprehensive Plan.
- 4) Monitoring and Enforcement Procedures for the Parkland Comprehensive Plan
- (a) Parkland shall prepare and transmit to the Broward County Planning Council the information listed below within time periods as specified.
 - (i) A quarterly summary of all permits issued for demolition of buildings.
 - (ii) A yearly summary regarding allocation of acreage proposed for commercial or residential uses within lands designated residential, commercial, industrial and employment center utilizing the “flexibility” provisions of the Parkland Comprehensive Plan.

CHAPTER TWO

HOUSING ELEMENT

GOALS, OBJECTIVES AND POLICIES

**GOAL 2 PROVIDE A VARIETY OF HOUSING TO MEET THE NEEDS OF
THE PRESENT AND FUTURE RESIDENTS OF THE CITY.**

2.1 Objective:

Through regulatory and procedural changes in the development process, such as reduced impact fees and density bonuses, the City will encourage the private sector to maintain a vacancy rate of 4% to 6% per year, thereby providing an ample supply of housing choices for the existing and potential residents of Parkland.

2.1.1 Policy:

The City will be involved with the private and nonprofit sectors to assist coordination among participants involved in housing production.

2.1.2 Policy:

By December 2008, the City shall review the ordinances, codes, permitting processes, and regulations to ensure that the City has an efficient and effective system that works with the private sector to provide quality housing products that meet all the needs of the community.

2.1.3 Policy:

The City will evaluate and assess the availability and appropriateness of federal, state and local subsidy programs to provide affordable housing opportunities.

2.1.4 Policy:

The City shall consider any proposed zoning request from Broward County which proposes to address the affordable housing needs on a Countywide basis provided said request is consistent with the City of Parkland's Comprehensive Plan.

2.1.5 Policy:

The City shall coordinate with the South Florida Regional Planning Council and Broward County to support regional

affordable housing programs.

2.1.6 Policy:

The City shall, through its land development regulations, continue to allow the use of such low cost housing techniques such as, but not limited to, mobile homes, manufactured housing, modular housing, cluster developments, two-family dwellings, triplexes, quadruplexes, zero lot line zoning, and townhouses.

2.1.7 Policy:

The City shall continue to allow a variety of residential land use densities in order to enhance the opportunity for the private sector to provide for a variety of housing types in a wide range of costs.

2.1.8 Policy:

The City shall support provisions of affordable housing by exploring land trusts and other programs.

2.1.9 Policy:

By 2012, the City shall determine the availability of sites at higher densities for housing of low and moderate income families and determine housing needs to rural and farm worker households.

2.2 *Objective:*

The City will ensure existing housing units shall be in conformance with the City's appearance standards and the South Florida Building Code (Broward County Edition).

2.2.1 Policy:

Continue rigorous code enforcement activities throughout the City.

2.2.2 Policy:

Provide information and technical assistance to residents concerning the City's aesthetic standards.

2.2.3 Policy:

The City shall encourage the development of housing with varying design to preserve and promote the existing character of the community.

2.2.4 Policy:

Through code enforcement activities, the City shall identify housing needing to be rehabilitated or demolished in order to

preserve the housing stock.

2.2.5 Policy:

By December 2008, the City shall identify any historically significant housing to explore conservation programs.

2.3 Objective:

The City will allow the opportunity for sites on which new very low, low, and moderate income housing, group homes, mobile homes, and foster care facilities could potentially be built consistent with the character of the community through zoning and the land development code, as well as households with special housing needs including rural and farm worker households.

2.3.1 Policy:

The City shall review City ordinances, codes, regulations and the permitting process to determine whether there exists requirements which systematically and unduly inhibit the construction of quality housing needs including rural and farm worker households. This review shall be completed by 2012.

2.3.2 Policy:

Review City ordinances, codes, regulations and the permitting process to determine whether there exists requirements which systematically and unduly inhibit the construction of quality housing that is affordable to very low, low, and moderate income groups. This review shall be completed by December 2008.

2.3.3 Policy:

The City shall coordinate with Broward County to address very low, low, and moderate income housing needs.

2.3.4 Policy:

Develop principles and criteria guiding the location of quality housing of very low, low, and moderate income families, group homes and foster care facilities.

2.3.5 Policy:

Principles and criteria for guiding the location of special residential housing shall include compatibility of housing with surrounding residential or non-residential uses, proper access to the site to ensure the adequacy of existing or proposed road systems, aesthetic controls of both signage and architecture to alleviate negative inconsistency impacts upon adjacent areas, security concerns of the proposed facilities, proper buffering

through site plan review based on the traffic intensity of the activities at the facility, and proximity guidelines to ensure adequate distances between facilities.

2.3.6 Policy:

The City shall adopt land development regulations which streamline the approval process and provide incentives such as density bonuses and flexible zoning categories to the private sector to construct alternative housing to satisfy the projected needs of the community by 2012.

2.3.7 Policy:

Adopt land use and zoning categories which permit mixed use developments together with appropriate density and intensity standards.

2.3.8 Policy:

Participate in Broward County mass transit programs to enhance the ability of employees within the City to access affordable housing outside the City.

2.3.9 Policy:

Work with commercial and office developments within the City to provide facilities and linkages to mass transit opportunities.

2.3.10 Policy:

Where legally permissible, seek to permit home occupations which create minimal neighborhood impacts.

2.3.11 Policy:

Encourage use of emerging technologies to boost the City's employment base.

2.3.12 Policy:

Provide information to prospective employment generators and business about opportunities for commercial development within the City of Parkland.

2.3.13 Policy:

Provide for a streamlined permitting process for affordable housing projects by 2012.

2.3.14 Policy:

The City shall participate in the development of the South Florida Regional Planning Council's regional housing strategy, as well as being involved in the Broward County's affordable housing approach.

2.3.15 Policy:

Adopt land development regulations that permit cottage industries to the extent compatible with the residential character of the City and residential dwellings.

2.3.16 Policy:

The City shall participate in regional initiatives through the South Florida Regional Planning Council and Broward County aimed at providing affordable housing and cooperate with intergovernmental mechanisms for this purpose.

2.3.17 Policy:

By 2012, the City shall consider bonus densities for affordable housing in selected areas of the City; provided such bonus densities are coupled with strict design and buffering standards.

2.3.18 Policy:

Participate in educational programs to reverse the NIMBY effect.

2.3.19 Policy:

Encourage use of granny flats and servants quarters on lots of one-half acre or more by permitting same in zoning regulations.

2.3.20 Policy:

Provide for the use of bonus densities to encourage location of special residential facilities within the City, provided such bonuses are coupled with strict design and buffering standards.

2.3.21 Policy:

Amend the Land Development Regulations by December 2008 to give priority to applications for rezoning requests by developers of very low, low, and moderate income housing group homes and foster care facilities or facilities funded by the Florida Department of Health and Rehabilitative Services, provided said development commits to conform to strict design criteria and conforms to all City of Parkland land development regulations.

2.3.22 Policy:

The City shall eliminate substandard housing conditions

through the implementation of programs or regulations addressing the demolition of unsafe and uninhabitable housing, the rehabilitation of housing the maintenance or preservation of the housing stock; and the enforcement of the building and housing code.

2.3.23 Policy:

Provide that any housing for very low income, low income, and moderate income households, mobile homes, manufactured homes, and households with special housing needs, including rural and farm worker households, be located in close proximity to commercial development so as to provide the residents of such housing to have access to employment opportunities in close proximity to such housing.

2.3.24 Policy:

Provide for the location of group homes and foster care facilities licensed or funded by the Florida Department Children and Family Services.

2.3.25 Policy:

Give priority to applications for rezoning requests by developers of very low, low, and moderate income households, group homes, and foster care facilities or funded by the Florida Department of Health and Rehabilitative Services, provided said developments commit to conform to all City of Parkland land development regulations.

2.3.26 Policy:

The City's future annexation area and the State Road 7/US 441 corridor shall be explored for mixed-use and affordable housing opportunities.

2.4 Objective:

Assure that there are available programs for residential relocation when needed. Determine the amount and degree of residential relocation not met by the free market or other available programs.

2.4.1 Policy:

Assure that reasonably located, standard housing, at an affordable cost, is available to persons displaced through public action prior to their displacement.

2.4.2 Policy:
Establish uniform and equitable guidelines that address the provision of relocation housing.

2.4.3 Policy:
The City will establish guidelines for residential conservation, rehabilitation and demolitions programs.

2.5 *Objective:*
The City shall develop a housing implementation program for the purpose of coordinating housing construction activity with housing need.

2.5.1 Policy:
The City shall coordinate with the South Florida Regional Planning Council, Broward County and other local governments to support the private sector's housing construction activity to meet the housing need. This shall include participation in forums, workshops and discussions with public and private sectors.

2.5.2 Policy:
The City shall maintain its housing code which establishes standards addressing the quality of housing.

2.5.3 Policy:
By 2012, the City shall provide an inventory as to opportunities for development of higher density housing.

CHAPTER THREE

TRANSPORTATION ELEMENT GOALS, OBJECTIVES, AND POLICIES

GOAL 3 A SAFE, CONVENIENT, AND EFFICIENT MULTIMODAL TRANSPORTATION SYSTEM SHALL BE AVAILABLE FOR ALL RESIDENTS AND VISITORS TO THE CITY; WHICH MINIMIZES THROUGH TRAFFIC WITHOUT NEGATIVELY IMPACTING RESIDENTIAL DEVELOPMENT.

3.1 Objective :

The City's transportation system shall emphasize safety, efficiency, and aesthetics, while protecting residential areas.

As needed review the City's transportation system ensuring it provides adequate capacity and determining if the roadway system is adequately functioning. Also review the roadway system to determine if adequate screening of residential developments has been maintained from the impact of vehicular traffic.

3.1.1 Policy:

During the City's site plan review process, the Manual on Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways shall be adhered to for review.

3.1.2 Policy:

The system shall provide for smooth, logical traffic flow patterns and require the application of generally accepted geometric design principles; but shall discourage the use of Holmberg Road, Parkside Drive, Trotters Lane, and Riverside Drive as through roads.

3.1.3 Policy:

Arterials or collectors shall not be interrupted or substantially altered at development boundary lines unless there is no other design alternative.

3.1.4 Policy:

The City shall adopt and enforce criteria for landscaping along roadways. All roadways adjacent to residential development shall be heavily buffered.

3.1.5 Policy:

The City shall review all plans for connections and access points of driveways and roadways to ensure they are compatible with City, Broward County, and Florida Department of Transportation (FDOT) engineering standards, and provide a safe and aesthetically pleasing visual experience.

3.1.6 Policy:

The traffic circulation system shall minimize the impact on residential areas through appropriate location, design, landscaping, and buffering.

3.1.7 Policy:

On County and Non SIS/ facilities, the City shall maintain the Concurrency Policies instituted by Broward County. According to the Broward County Comprehensive Plan, Transportation Element, the City of Parkland is located within the Northwest Concurrency District. The following are the adopted Level of Service standards for all roadways not on the Strategic Intermodal System (SIS):

**ADOPTED LEVEL OF SERVICE
STANDARDS**

	Daily	Peak Hour	Peak Hour Peak Direction
Non-SIS Roadways	D	D	D

3.1.8 Policy:

- a) The City shall adhere to the Level of Service standards established by the Department of Transportation for all roadways on the Florida Intrastate Highway System.
- b) The City shall maintain the following LOS standard for the Strategic Intermodal System (SIS) Roadways:
 - i. Florida Turnpike - D
 - ii. Sawgrass Expressway - D

3.1.9 Policy:

The City shall ensure a multipurpose trail system is provided in the planning of future roadways. The City shall prepare and maintain a conceptual plan for the multipurpose trail system to be used as a guide in developing future multipurpose trails.

3.1.10 Policy:

On an annual basis, the City shall perform traffic crash studies at the highest three (3) crash locations on city owned streets and coordinate safety improvements with the appropriate public agency.

3.1.11 Policy:

Enforce the adopted roadway level of service standards through appropriate development review conditions, and monitoring of the City's transportation facilities through a concurrency management system consistent with Chapter 9J-5.0055.

3.1.12 Policy:

For new developments or redevelopments, the City may allow mitigation by applying proportionate fair share. The City shall follow the method established in its proportionate fair share ordinance.

3.1.13 Policy:

The City shall monitor de minimis transportation impacts through the concurrency management system consistent with 163.3180, F.S.

3.1.14 Policy:

The City shall promote safe and convenient on-site traffic flow and vehicle parking needs through the City's site plan review process.

3.1.15 Policy:

The Capital Improvement Element should be updated bi-annually to address transportation deficiencies.

3.1.16 Policy:

The City shall revise the Transportation Element Data Inventory and Analysis after completion of annexation of the "Wedge" (as noted in HB 1315). The Goals, Objectives, and Policies shall also be revised as needed to accommodate transportation needs in the Wedge and related impacts city- wide.

3.2 Objective:

Future right-of-way needs for new facilities or improvements to existing

facilities shall be formally identified and a priority schedule for acquisition or reservation shall be established in conformance with FDOT and Broward County long range plans.

As needed, determine approved developments for which proper right-of-way reservations have not been obtained.

3.2.1 Policy:

The City shall continue the current practice of preserving existing and future transportation rights-of-way by requiring necessary land dedication through platting to the extent consistent with this plan.

3.3 Objective:

Ensure the transportation system is based on a coordinated planning effort by ensuring consistency with FDOT, the Broward County Trafficways Plan, the City's Comprehensive Plan, adjacent planning efforts in Palm Beach County, Coral Springs and Coconut Creek and the policies set forth herein.

Annually review the status of the system with Broward County, FDOT, Coconut Creek, Coral Springs, and Palm Beach County.

3.3.1 Policy:

Plans for new roadways or other transportation facilities shall be reviewed in accordance with FDOT, MPO and adjacent communities' future or ongoing plans and projects, but shall be consistent with the City's insistence that Holmberg Road remain two lanes and Riverside Drive four lanes, with a termination point at Holmberg Road, for any motorized vehicles.

3.3.2 Policy:

Share the City's design objectives for SR-7 with FDOT and other agencies and continue to coordinate with the South Florida Regional Planning Council, Treasure Coast Regional Planning Council, FDOT, and neighboring municipalities in collaborative planning efforts for the SR-7/US-441 corridor.

3.3.3 Policy:

Coordinate with agencies having jurisdiction over roadways within the City for proper maintenance and facility improvements.

3.4 Objective:

The City of Parkland intends to provide a multipurpose trail system for non-motorized vehicles sufficient to meet the needs and interests of the residents of Parkland. This system shall be provided as development occurs. During site plan development permit review, developers shall be required to dedicate and construct a multipurpose trail sufficient to meet the City's requirements. The

City shall develop and maintain a plan depicting the multipurpose trail system.

Annually, review the status, deficiencies, and progress of the trail system.

3.4.1 Policy:

The City intends to work with Broward County, Palm Beach County, the City of Coconut Creek, all cities adjacent to the SFWMD levee, and the FDOT in order to construct the regional multipurpose trail system and coordinate with proposed roadway projects.

3.4.2 Policy:

All multipurpose trails should have access to the adjacent land uses, except that access to individual single family homes is not required.

3.4.3 Policy:

The multipurpose trail system shall continue to serve as a recreational transportation system which shall accommodate pedestrians, bicycles, and horses.

3.5 Objective:

The City shall utilize all possible methods to discourage and prevent external traffic flow through the City, through Holmberg Road, or Riverside Drive. Holmberg Road shall remain a local two lane road whose primary aim will be to serve the residents of the City. All attempts to widen Holmberg Road shall be discouraged and resisted. Vehicular use of Riverside Drive shall terminate at Holmberg Road and Riverside Drive shall remain a four lane road. All attempts to widen or extend Riverside Drive as a vehicular thoroughfare north of Holmberg Road shall be discouraged and resisted. Consider right-of-way north of Holmberg Road in the former Riverside Drive extension for use as non-vehicular recreational thoroughfare.

As needed, review the transportation system to determine if any actions have been approved which promote through traffic within the City.

3.5.1 Policy:

The City shall evaluate using appropriate countermeasures to discourage through traffic on Holmberg Road and Riverside Drive.

3.5.2 Policy:

1. Work with Broward County to discourage the widening of Holmberg Road to four (4) lanes from University Drive to N.W. 61st Avenue.
2. Expand existing agreement with Broward County

Department of Environmental Protection and Growth Management requiring that Holmberg Road from University Drive to N.W. 61st Avenue not be widened to four (4) lanes.

3.5.3 Policy:

Require developers of property bordering University Drive north of Holmberg Road and Hillsboro Road, Nob Hill Road, Trails End, and Pine Island Road to dedicate right-of-way in accordance with Broward County Trafficways Plan at the time of platting.

3.5.4 Policy:

The City shall continue to advocate on behalf of Parkland residents regarding extension of University Drive.

3.6 *Objective:*

Coordinate with county-wide transit system and facilities to provide an energy efficient multi-modal transportation network.

3.6.1 Policy:

Work with Broward County and the Florida Department of Transportation to minimize travel delay at intersections.

3.6.2 Policy:

Pursue coordination of inter-county mass transit to better provide for regional travel needs, according to the adopted transportation plans with the Broward County MPO, the Broward County TCC, and through direct contact with the County Urban Transit Section.

3.6.3 Policy:

Conduct periodic reviews of City road system operation to identify problem areas with potentially low cost Congestion Management System (CMS) solutions.

3.6.4 Policy:

The City shall continue to protect the safety of motorists, bicyclists, and pedestrians by controlling the connections of driveways and access points to roads, as prescribed by either FDOT, the County, or the City through the City's Development Review Process.

3.6.5 Policy:

The City shall continue to protect the safety of motorists, bicyclists, and pedestrians on local streets through its transportation system management strategy of conducting in-depth studies of local neighborhood circulation, and where

demonstrated problems exist, implementing traffic calming measures allowing circulation modifications.

3.6.6 Policy:

As part of its Transportation System Management Strategy, the City shall continue to investigate high accident locations for motorists, pedestrians, bicyclists and transit accident locations for motorists, pedestrians, bicyclists and transit riders to determine means for reducing frequency and severity.

3.6.7 Policy:

The City shall incorporate safety considerations in the annual prioritizing of local road improvement funding.

3.6.8 Policy:

The City shall continue to require unobstructed sight lines and non-obtrusive landscape plantings along medians and at development driveway/street locations, consistent with Broward County and FDOT design criteria.

3.6.9 Policy:

Continue the City's active involvement with the Broward County MPO and Broward County Transit Division to provide for area-wide coordination relative to transit safety.

3.6.10 Policy:

The City shall continue to require installation of sidewalks for development during the Development Review stage, and require they are consistent with City, Broward County, FDOT, and/or federal requirements.

3.7 Objective:

In recognition of the significant equestrian and bike traffic in the City, and the need for areas where such traffic can travel without interference from motorized vehicles, consider use of dedicated right-of-way for Riverside Drive north of Holmberg Road for use as a non-vehicular thoroughfare for horse and bike traffic and pedestrian use only.

3.8 Objective:

Coordinate the transportation system with the future land use map to ensure existing and proposed population densities, housing and employment patterns, and land uses are consistent with the transportation modes and services proposed to serve these areas.

3.8.1 Policy:

The City shall coordinate roadway and transit service improvements with the future needs of public transportation

facilities.

3.8.2 Policy:

The City shall continue to work with applicable local governments and regional and state agencies to implement the transportation, land use, parking, and other provisions of the transportation element.

3.8.3 Policy:

The City shall establish a coordinated and consistent policy with the future land use element to encourage commercial uses that promote public transportation in designated public transportation corridors.

3.9 *Objective:*

Develop parking strategies to serve the needs of present and future development.

3.9.1 Policy:

Continue to enforce land development regulations that require adequate off-street parking and a safe and efficient traffic circulation pattern in parking facilities.

3.9.2 Policy:

Require new commercial development to coordinate, wherever feasible, parking facilities with bus stops, pedestrian walkways, and bikeways.

3.9.3 Policy:

Coordinate the design of parking facilities with roadways to avoid unsafe conditions and traffic delays.

3.10 *Objective:*

To maximize existing system performance, utilize alternative Transportation Systems Management (TSM) techniques wherever feasible in lieu of more expensive Capital Improvements.

3.10.1 Policy:

Conduct periodic reviews of the City's roadway network operations to identify problem areas with potentially low cost solutions.

3.10.2 Policy:

Continue to attempt to secure funding for traffic operations improvements via local, regional, state, or federal agencies.

3.10.3 Policy:

Develop programs with future employers to institute staggered

work hours, car and van-pools, increased transit ridership, and other alternative transportation modes besides single occupant automobiles.

3.10.4 Policy:

Investigate the feasibility of maximizing capacity by restricting left turns, reversible lanes, one-way pairing of facilities, and other transportation management techniques.

3.11 Objective:

The City of Parkland shall continue to provide for an energy efficient transportation network.

3.11.1 Policy:

The City shall develop transportation demand management programs to modify peak hour travel demand and reduce the number of vehicle-miles traveled per capita within the community and region.

3.11.2 Policy:

As commercial uses develop within the City, the City shall develop transportation system management strategies as appropriate to improve system efficiency and enhance safety.

3.11.3 Policy:

Coordinate roadway and transit service improvements with planned future development consistent with the Future Land Use Element.

3.11.4 Policy:

Continue to coordinate with Broward County regarding transportation systems management techniques.

3.12 Objective:

The City shall prepare to meet short range transportation goals through Transportation Systems Management (TSM) and Transportation Demand Management (TDM) mobility strategies.

3.12.1 Policy:

Continue to implement the following short term Transportation Demand Management (TDM) and Transportation System Management (TSM) mobility strategies:

1. The City shall work with Broward County Transit to increase transit opportunities to expand its service area.
2. The City and Broward County shall continue to evaluate the need to change timing of traffic signals on links of roadways to facilitate mobility.

3.12.2 Policy:

Continue to implement the following long term mobility strategies:

1. The City shall work through the Broward County MPO to obligate funds for feasibility studies to evaluate cost-feasible improvement options for critical intersections in the City. Should feasibility studies demonstrate that the impacts upon adjacent residential neighborhoods and commercial areas can be mitigated, the improvements shall be further evaluated and scheduled in the City, Broward County, and FDOT work programs for implementation.
2. The City shall require developers to contribute to a City wide trail system to encourage recreational traffic such as walking, bicycling, exercising, and equestrian activity.
3. The City shall seek to increase the number of bicycle parking facilities.
4. The City shall work with Broward County and Broward County MPO to identify intersections where pedestrian priority signalization can be installed.

3.13 Objective:

Coordinate access points for Broward County mass transit locations based upon major trip generators and attractors and seek to accommodate the special needs of the transportation disadvantaged.

3.13.1 Policy:

Require location of bus bays at major trip generators and attractors such as shopping centers.

3.13.2 Policy:

Notify Broward County Transit when development permit applications for major trip generators (or 750 trips per day) are filed in order to assure coordination for location of bus stops.

CHAPTER FOUR

INFRASTRUCTURE ELEMENT GOALS, OBJECTIVES, AND POLICIES

GOAL 4 PUBLIC INFRASTRUCTURE SHALL BE PROVIDED AND MAINTAINED IN AN ORDERLY MANNER THAT WILL ENSURE PUBLIC HEALTH, SAFETY AND QUALITY OF LIFE.

4.1 Objective:

The City will continue procedures to ensure that at the time a development permit is issued, adequate facility capacity will be available concurrent with the impacts from that development.

As development occurs, determine any deficiencies in the sanitary sewer, solid waste, drainage, potable water and natural groundwater aquifer recharge systems serving existing development or affected by new development. Annually review the information from the North Springs Improvements District, the City of Coconut Creek Utilities Department and Parkland Utilities to evaluate potential impacts to the City.

4.1.1 Policy:

The following level of service standards are hereby adopted and shall be used as the basis for determining the availability of facility capacity.

CATEGORY	LEVEL OF SERVICE
POTABLE WATER	
Coconut Creek Utilities Department	119 GPCD*
North Springs Improvement District	136 GPCD*
Parkland Utilities	114 GPCD*
All development within the City not served by North Springs Improvement District, Parkland Utilities or Coconut Creek Utilities Department.	Private Wells
*Gallons per capita daily	

CATEGORY	LEVEL OF SERVICE
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WASTEWATER

All customers not served by North Springs Improvement District, Parkland Utilities, or Coconut Creek Utilities Department	Septic Tank
North Springs Improvement District	3.53 MGD
Parkland Utilities	0.27 MGD
Coconut Creek Utilities Department	6.54 MGD

SOLID WASTE

3.8 lbs. per
Capita per day

DRAINAGE – PINE TREE WATER CONTROL DISTRICT:

FACILITY	DESIGN STORM
Primary Drainage System	Allowable Discharge of 35 CSM (cubic ft/second/sq. mi.)
Roadways/Parking Lots	10 year, 24 Hour Storm Event
House Pads	100 year, 3 Day Storm Event

NORTH SPRINGS IMPROVEMENT DISTRICT:

FACILITY	DESIGN STORM
Primary Drainage System	Allowable Discharge of 35 CSM (cubic ft/second/sq. mi.)
Roadways/Parking Lots	10 Year, 24 Hour Storm Event
House Pads	100 Year, 3 Day Storm Event

ALL OTHER AREAS:

FACILITY	DESIGN STORM
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Primary Drainage System

Allowable Discharge of 35
CSM (cubic ft/second/sq. mi.)

Roadways/Parking Lots

10 Year, 24 Hour Storm Event

House Pads

100 Year, 3 Day Storm Event

4.1.2 Policy:

The following generation rates are hereby adopted and shall be used as the basis for determining the demand generated by a development.

CATEGORY	GENERATION RATE
POTABLE WATER	
All customers within the service areas of North Springs Improvement District and Coconut Creek Utilities Department.	350 GPD/ERC*
Parkland Utilities	300 GPD/ERC*
All development within the City not served by North Springs Improvement District, Parkland Utilities or Coconut Creek Utilities Department.	Private Wells
* Gallons per day per equivalent residential connection	
WASTEWATER	
All customers not served by North Springs Improvement District, Parkland Utilities, or Coconut Creek Utilities Department	Septic
All customers within the service areas of North Springs Improvement District, Parkland Utilities and Coconut Creek Utilities Department.	300 GPD/ERC*

4.1.3 Policy:

Where infrastructure is required concurrent with private development, it shall be the responsibility of the Developer to provide these facilities and services.

4.1.4 Policy:

All improvements for replacement, expansion or increase in capacity of facilities shall be compatible with the adopted level of service standards in this Comprehensive Plan.

4.1.5 Policy:

The Parkland Land Development Code development permit approval process will require that necessary facilities and services be available concurrent with the impacts of development through any of the following situations:

- (A) The necessary facilities are in place at the time a development permit approval is issued, or a development permit approval is issued subject to the condition that the necessary facilities will be in place when the impacts of the development occur.
- (B) The necessary facilities are under construction at the time a development permit approval is issued.
- (C) The necessary facilities are the subject of a binding contract executed for the construction of those necessary facilities at the time a development permit approval is issued.
- (D) The necessary facilities have been included in the City's annual budget at the time a development permit approval is issued although the facilities are not yet the subject of a binding contract for their construction, the unit of local government shall make a determination that it will not remove the budgetary provision for the necessary facilities from their budget.

4.1.6 Policy:

Reduce per capita water demand by implementation of a year-round public information and education program promoting residential water conservation.

- 4.1.7 Policy:
The City will continue to require best management practices for all development in order to protect water quality.
- 4.1.8 Policy:
The City shall require all future development in which the level of service of 35 CSM is exceeded to maintain appropriate drainage facilities on site.
- 4.1.9 Policy:
The City shall encourage source separation and the recycling of solid waste, in accordance with the Waste Act of 1988, as amended. The City shall also follow the Broward County Solid Waste Operation Division Strategic Plan.
- 4.1.10 Policy:
Minimum floor elevation standards for building sites promulgated and administered by the Federal Emergency Management Administration shall be applied Citywide for new construction.
- 4.1.11 Policy:
Minimum road crown elevation standards as implemented by the South Florida Water Management District shall be applied throughout the City.
- 4.1.12 Policy:
New septic tank systems shall only be permitted when the Florida Department of Health determines they are consistent with Broward County's Water and Septic Tank Ordinance and with the requirements of the Florida Statutes and the Florida Administrative Code.
- 4.1.13 Policy:
Local government entities shall when it is determined to be practical and financially feasible, require land uses currently on septic systems to be connected to central wastewater treatment facilities, with priority given to those land uses in proximity to surface waters. The City shall require customers with private septic tanks to connect to public sanitary sewer collection systems within 365 days of written notice that the service is available, as required by F.S. 381.00655.

4.1.14 Policy:

New development adjacent to or in the vicinity of surface waters shall be designed so as to minimize the direct discharge of storm water runoff into such bodies of water by complying with the Department of Environmental Regulations Storm Water Rules 17-3 and 17.25, F.A.C. as minimum criteria without exception.

4.1.15 Policy:

Lakes may be required to be constructed with vegetated shallow water habitat as required by the Environmental Quality Control Board which will promote natural lake functions and the health, safety, welfare and recreation of the City of Parkland's residents.

4.1.16 Policy:

New development shall provide water storage capacity equal to that which existed under predevelopment conditions or be consistent with the water management regulations and plans of the South Florida Water Management District, Broward County Environmental Protection and Growth Management Department, Broward County or independent drainage districts where applicable (NSID or PTWCD.)

4.2 Objective:

The City will utilize its Land Development code to ensure that development occurs in accordance with the Comprehensive Plan and the future Land Use Element. The City will maximize the use and extend the useful life of existing public facilities in order to reduce capital expenditures, conserve public financial resources and maintain the level of service of existing facilities.

4.2.1 Policy:

The City will maintain a 5-year schedule of capital improvement needs for public facilities, to be updated and adopted annually in conformance with the Capital Improvements Element of this plan.

4.2.2 Policy:

All permits for future development and redevelopment activities shall be issued only if public facilities necessary to meet Level of Service standards are available concurrent with the impacts of the development. All permits are subject to the concurrency requirement adopted in this plan.

4.2.3 Policy:

The City shall require all new single family residential development to be serviced by centralized wastewater systems where financially feasible.

4.3 Objective:

The City shall enter into a cooperative agreement between the residential interest of the Ranches and the new North Springs Improvement District to allow for adequate drainage facilities which shall meet or exceed the minimum level of service of thirty-five (35) CSM.

Keep a record of agreements and cooperative measures with NSID on drainage projects.

4.3.1 Policy:

The City shall continue to assure that adequate drainage facilities are provided through the use of special assessments and other financing techniques for those areas of the City not within an improvement district.

4.3.2 Policy:

The City shall work cooperatively with the SFWMD and independent drainage districts to implement plans for additional surface water storage such as water preserve areas, the Lower East Coast Regional Water Supply Plan and any other plans and operating procedures to increase recharge water to the Biscayne and Floridan Aquifer.

4.3.3 Policy:

The City shall review and update the Work Plan after the governing board of the water management district approves an updated regional water supply plan. Any changes affecting the Work Plan shall be included in the annual update to the Five Year Schedule of Capital Improvements to ensure consistency between the Infrastructure Element and the Capital Improvements Element.

4.3.3 Policy:

The City hereby adopts into its Comprehensive Plan, by reference, the 2016 10-Year Water Supply Facilities Work Plan, referenced in the appendix to the Infrastructure Element, adopted June 2016.

CHAPTER FIVE

CONSERVATION ELEMENT GOALS, OBJECTIVES, AND POLICIES

GOAL 5 TO PRESERVE, PROTECT AND ENHANCE THE NATURAL RESOURCES OF PARKLAND SO THAT PRESENT AND FUTURE RESIDENTS MAY ENJOY A HIGH LEVEL OF ENVIRONMENTAL QUALITY.

5.1 Objective:

Parkland shall meet or exceed the minimum air quality levels established by the Florida Department of Environmental Protection (FDEP).

Record of FDEP enforcement action and citizen complaints related to air quality.

5.1.1 Policy:

The City shall strictly enforce the adopted landscaping standards to ensure the preservation and restoration of native vegetation to promote substrate stabilization, filter air pollutants, and produce oxygen.

5.1.2 Policy:

As City vehicles and equipment need to be replaced the City will continue to explore alternative fuel vehicles and equipment and acquire as appropriate.

5.1.3 Policy:

New development shall implement measures to ensure that air pollutant levels do not exceed State ambient air quality standards.

5.1.4 Policy:

Transportation facilities should operate at acceptable levels of service to minimize air quality impacts.

5.1.5 Policy:

Open burning shall only be allowed upon approval of the Broward County Environmental Protection and Growth Management

Department; and when allowed, shall be monitored by the Fire Department.

5.2 *Objective:*

The City shall promote public education and other appropriate procedures which provide for the protection and enhancement of its critical water resources and biologically productive flora and fauna habitats.

5.2.1 Policy:

Land owners shall be required, through enforcement of the adopted ordinances to preserve existing native and wetland vegetation or to mitigate for the same.

5.2.2 Policy:

The City shall provide information to private land owners to use good management practices to protect endangered and rare species.

5.2.3 Policy:

The City shall enforce the Broward County Wellfield Protection Ordinance and prohibit, through land use regulation and site design uses, activities which potentially threaten water quality.

5.2.4 Policy:

All on-site natural ecological communities shall be identified for all new development projects. When a parcel proposed for development contains more than one (1) habitat type, the City shall require development to avoid the most sensitive natural areas to the maximum extent feasible through clustering provisions.

5.2.5 Policy:

The City shall support the state and federal laws for the protection of endangered and threatened species and significant plant and animal habitat.

5.2.6 Policy:

Through enforcement of the adopted ordinances, the City shall preserve native vegetative understory.

5.2.7 Policy:

The City shall protect and conserve those areas known to be reproduction, nesting, and feeding areas for animals listed as endangered or threatened species or species of special concern.

5.2.8 Policy:

The City shall protect and conserve those areas identified in the

Recreation and Open Space Element as natural reservations through the implementation of the adopted Resource Management Plans.

5.2.9 Policy:

The City shall coordinate with the South Florida Regional Planning Council, Broward County, the state, federal, and other public agencies concerned with managing and mapping natural resources. The City may also coordinate with private environmental organizations and individuals interested in resource conservation where appropriate. The goal of such coordinating activities shall be to protect the values and functions of natural systems.

5.2.10 Policy:

The City shall provide for open space as a part of the requirements for all development and redevelopment. Open space areas shall be designated and treated in such a manner as to maintain their integrity, whether the primary purpose is to serve as natural vegetative or wildlife habitat, or as cultivated landscaped space. No land shall be developed, used or occupied such that the amount of open space on the parcel proposed for development is less than the required open space established by City ordinance or a development order.

5.2.11 Policy:

The City shall require the owner/applicant to remove all Class I and II invasive exotic vegetation, as recognized by the Florida Exotic Pest Plant Council, from the subject site as a condition for new development.

5.2.12 Policy:

Encourage the provision and maintenance of a buffer zone of native upland (i.e. transitional) vegetation and littoral zones in and around wetland and retention areas which are constructed or preserved on new development sites.

5.2.13 Policy:

Development orders and permits for development and redevelopment activities shall be issued only if the conservation of wildlife and natural systems is ensured consistent with goals, objectives, and policies of this Comprehensive Plan.

5.2.14 Policy:

The City shall coordinate review of proposed wetlands mitigation activities with the Broward County Department of Environmental

Protection and Growth Management to insure that Broward County's Wetlands Benefit Index is utilized as one basis for determining the scope of needed mitigation. The City shall work cooperatively with the US Fish and Wildlife Service (FWS) and the Florida Fish and Wildlife Conservation Commission (FFWCC) to protect and promote the recovery of species designated by these agencies as threatened and endangered or of special concern. Related activities shall include:

1. Require notification to these agencies when development proposals are received for sites documented as having historic and/or current occurrences of listed species;
2. Technical assistance consultation with these agencies; or
3. Cooperation with these agencies in locating potential introduction sites for designated species.

5.2.15 Policy:

The City shall work cooperatively with all agencies, as appropriate, to administer land acquisition programs to acquire environmentally sensitive lands. The City shall also support the efforts of state, federal, and other public and private conservation agencies in the acquisition of environmentally sensitive lands.

5.2.16 Policy:

The City shall continuously identify environmentally sensitive priority sites, located within the City, for acquisition, preservation, or restoration. Priority sites shall also include those disturbed areas where restoration will result in the greatest habitat benefit at the least cost.

5.2.17 Policy:

The City shall continue to implement a scheduled maintenance plan for the effective removal of invasive vegetation removal on City lands. This program shall include monitoring and plans for re-vegetation.

5.3 *Objective:*

Conserve, appropriately use and protect the quality and quantity of current and projected water sources and waters that flow into estuarine waters or oceanic waters.

5.3.1 Policy:

The City shall adopt the water conservation measures of the South Florida Water Management District, to be utilized during periods of drought.

5.3.2 Policy:

Implement public information and education programs promoting residential and commercial water conservation.

5.3.3 Policy:

The City shall cooperate with local, regional, state and federal agencies for the management of water resources and to maintain adequate water supplies during dry periods and to conserve water by mandating xeriscape principles.

5.3.4 Policy:

The City shall, within ordinances, incentivize or require energy conservation through site design, building design and materials and other effective means of climatic compatibility.

5.3.5 Policy:

Activities and land uses known to adversely affect the quality and quantity of identified water sources and located within natural groundwater recharge areas shall be restricted to protect the quality and quantity of this water source.

5.3.6 Policy:

Through the site plan approval process, the City shall require that surface water management systems be designed and operated consistent with the City's adopted drainage level of service.

5.3.7 Policy:

The City shall continue to require open space for all development and redevelopment to promote shallow water aquifer recharge and stormwater filtration.

5.3.8 Policy:

The City shall continue to require existing and new development be serviced with an adequate supply of potable water at the adopted levels of service and, at a minimum, meet the state water quality standards.

5.3.9 Policy:

The City shall follow the year-round landscape irrigation standards in Broward County Code Section 36-55, which will achieve compliance with the Mandatory Year-Round Landscape Irrigation Conservation Measures detailed in 40E-24 of the Florida Administrative Code.

5.4 *Objective:*

Assure that generation, storage, transport and disposal of wastes in the City are managed with the best available technology to protect environmental quality.

5.4.1 Policy:

The City, in cooperation with the Florida Department of Environmental Protection and Broward County, shall encourage an annual Amnesty Days Program in an effort to reduce improper disposal of residential and commercial hazardous and special wastes and their containers.

5.4.2 Policy:

When new sewers are extended into an area currently using septic systems for wastewater disposal, the City shall continue to ensure that all buildings connect with the public wastewater collection system within the time frame required by Florida Statute.

5.4.3 Policy:

New subdivisions shall provide sewer and lateral connections for each lot in the development.

5.4.4 Policy:

New septic tank systems shall meet applicable state county standards for permitting and all applicable regulations adopted in the local code of ordinances.

5.4.5 Policy:

The City shall cooperate with all appropriate public agencies to ensure that solid and hazardous wastes generated within the City are properly managed to protect the environment. The City shall report any identified hazardous waste violation to the appropriate jurisdictional agency.

5.4.6 Policy:

The City shall coordinate with Broward County and the State of Florida to encourage the development of effective strategies to improve the area- wide Solid Waste Management Program to include more innovative solid and hazardous waste management technologies to conserve energy, produce renewable energy and effectively manage hazardous waste.

5.5 *Objective:*

The City shall continue to take measures to protect its native vegetated areas.

5.5.1 Policy:

As part of the site plan review process, the final landscaping design shall be based on the health and location of vegetative communities present on the site.

5.5.2 Policy:

The City may require a detailed tree survey including common and scientific names for tree species present, and the diameter at breast height for each tree surveyed on each piece of property as part of the site plan review process.

5.5.3 Policy:

The City shall ensure that turbidity control measures, such as turbidity curtains, be used during any excavations within the canal system.

5.5.4 Policy:

The City shall enforce the adopted mitigation/compensation guidelines for tree removal based on various size and health parameters.

5.5.5 Policy:

Trees to be included in the tree bank must be native species such as those which are in accordance with the xeriscape policy of the SFWMD.

5.5.6 Policy:

Selective land clearing techniques shall be required by the City in designated areas with significant native understory vegetation.

5.5.7 Policy:

The City's site plan review process shall require land clearing methods that prohibit the scraping of ground cover in healthy native areas, the disturbance of both root systems and bark, and the excessive filling and compaction of soil over tree root systems.

5.5.8 Policy:

The City shall strictly enforce all ordinances designed to protect and conserve natural resources. The City shall support the enforcement of related state and federal regulations.

5.5.9 Policy:

Parkland shall coordinate with applicable external agencies to promote restoration of the Everglades system, including its hydrological and ecological functions, as well as any degraded or substantially disrupted surface waters.

5.5.10 Policy:

Protect and conserve those areas known to contain plant species listed in the Regulated Plant Index for protection by the Florida Department of Agriculture and Consumer Service. Through site plan review, the City shall provide special protection for:

1. Champion trees as recognized by the Florida Department of Agriculture;
2. Specimen trees as recognized by the Florida Department of Agriculture;
3. Plant species listed by the FWS as threatened or endangered; and
4. Plant species listed by the Florida Department of Agriculture and Consumer Services as threatened or endangered.

5.5.11 Policy:

The City shall promote the beautification of streets, rights-of-ways, and public open spaces and facilities within the City.

5.5.12 Policy:

The City shall encourage and educate the public in the planting and maintenance of trees. The City shall coordinate with and support the efforts of Broward Beautiful, Naturescape Broward, Keep America Beautiful and other similar organizations.

5.6 *Objective:*

Wetlands and natural functions of wetlands shall be protected and conserved.

5.6.1 Policy:

Through coordination with the appropriate Broward County Agency during the review of proposed site plans for new development involving potential impacts to existing jurisdictional wetland areas, the City shall ensure that that wetlands will be preserved or appropriately mitigated when unavoidable impacts are permitted.

5.6.2 Policy:

The City of Parkland shall require Environmental Resource Permits from all applicable external agencies regarding impacts to jurisdictional wetlands.

5.6.3 Policy:

The City shall coordinate with and participate in County land acquisition/greenway programs to improve connectivity of wetland and native upland systems.

5.6.4 Policy:

Compliance with approved permits from other local, state, or federal agencies relating to wetland impacts shall be incorporated into the City planning process as feasible.

5.6.5 Policy:

The City shall take into consideration Everglades restoration projects, as identified by the SFWMD, in future land use decisions.

5.6.6 Policy:

The City shall support the development, adoption, and funding of long-term management plans for publicly owned or protected regionally significant wetlands.

5.6.7 Policy:

The City shall distribute land uses in a manner that avoids or minimizes, to the greatest degree practicable, the effect and impact on wetlands. Those future land uses identified as not being compatible with the protection and conservation of wetlands and wetland functions shall be directed away from wetlands, or when incompatible future land uses are allowed to occur, shall be mitigated or enhanced, or both, to compensate for loss of wetland functions.

CHAPTER SIX

CAPITAL IMPROVEMENTS ELEMENT

GOALS, OBJECTIVES, AND POLICIES

GOAL 6 THE CITY SHALL PROVIDE FOR THE PUBLIC FACILITY REQUIREMENTS OF THE RESIDENTS THROUGH A PROGRAM DESIGNED TO DEVELOP THESE IMPROVEMENTS IN A FINANCIALLY FEASIBLE, TIMELY AND EQUITABLE MANNER.

6.1 Objective:

The City will prepare a capital improvements program based on a five year development period that details publicly funded projects of federal, state, and local government. This program will include projects that ensure adopted level of service standards are achieved and identify projects as either funded or unfunded and given a level of priority for funding.

The City shall prepare and update a capital improvements program based upon a five year planning horizon. This program will inventory and identify the needed capital improvements and public facilities required for the City of Parkland to meet the requirements indicated by growth and provide sufficient funds for its implementation and to assure that the level of service standards identified in the Comprehensive Plan are satisfied. To supplement this capital improvements program, the City shall adopt a concurrency management system to assure that all level of service standards set forth in the Comprehensive Plan are available concurrent with the impacts of any approved development.

6.1.1 Policy:

Review of capital improvement requirements will result from level of service standards. These standards will direct the types sizes and timeliness of the facilities. The five year program will be developed based on these standards and the resultant improvement requirements.

6.1.2 Policy:

Capital items will be identified as any construction of a facility

or structure or the purchase of any equipment that is not recurring or part of the general operating budget.

6.1.3 Policy:

An annual update of the five year capital improvements program will be required to advance the planning period appropriately. Included in this analysis will be an addition of revenue source, such as federal, state and local, to accommodate the required improvements.

6.1.4 Policy:

As part of the annual budget process, a capital improvements program for the new fiscal year will be adopted. This annual program will correspond to the five year program and be designed to achieve the completion of the five year plan. This annual budget review will also be used to officially adopt the new five year plan.

6.1.5 Policy:

Funds will be allocated for the replacement and renewal of infrastructure in an amount which will minimize the operating costs and maximize the life of the infrastructure.

6.1.6 Policy:

The City shall use the following level of service standards in assessing the impacts of new development upon public facility provisions:

CATEGORY	LEVEL OF SERVICE
POTABLE WATER	
Service Area	
All customers within the service areas of North Springs Improvement District and Coconut Creek Utilities	350 GPD/ERC*
Parkland Utilities	300 GPD/ERC*
All development within the City not served by North Springs Improvement District, Parkland Utilities or Coconut Creek Utilities Department.	
Private Wells	
* Gallons per day per equivalent residential connection	

WASTEWATER

Service Area

All development within the City not served by North Springs Improvement District, Parkland Utilities or Coconut Creek Utilities Department.

Septic Tank

All customers within the service areas of North Springs Improvement District, Parkland Utilities and Coconut Creek Utilities Department.

300 GPD/ERC*

SOLID WASTE

3.8 lbs. per
Capita per day

DRAINAGE - PINE TREE WATER CONTROL DISTRICT:

FACILITY	DESIGN STORM
Primary Drainage System	Allowable Discharge of 35 CSM (cubic ft/second/sq. mi.)
Roadways/Parking Lots	10 year, 24 Hour Storm Event
House Pads	100 year, 3 Day Storm Event

NORTH SPRINGS IMPROVEMENT DISTRICT:

FACILITY	DESIGN STORM
Primary Drainage System	Allowable Discharge of 35 CSM (cubic ft/second/sq. mi.)
Roadways/Parking Lots	10 Year, 24 Hour Storm Event
House Pads	100 Year, 3 Day Storm Event

ALL OTHER AREAS:

FACILITY	DESIGN STORM
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Primary Drainage System	Allowable Discharge of 35 CSM (cubic ft/second/sq. mi.)
Roadways/Parking Lots	5 Year, 3 Hour Storm Event
House Pads	100 Year, 3 Day Storm Event

RECREATION

CITY WIDE CRITERIA total	10 AC per 1,000 persons
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TRANSPORTATION

All Roadways (except FIHS)	LOS D for Daily, Peak Hour, Peak Hour/Peak Direction
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**The City shall permit land development regulations permitting recalculation of assumed capacities to actual capacities on Holmberg Road.

ADMINISTRATIVE BUILDING

20,001 to 366,500 people	22,330 sq. ft. plus .75 sq. ft./person over 20,000 population
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PUBLIC SAFETY

20,001 to 366,500 people	.3 sq. ft. per person 9,000 sq. ft. base plus .3 sq. ft. over 20,000 population
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PUBLIC WORKS

Public Works	.20 sq. ft./person
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6.1.7 Policy:

The City shall adopt a concurrency management system to assure that the level of service standards set forth in Policy ~~64~~.1.6 are satisfied and available concurrent with the impacts of any development. Concurrency management system shall provide the necessary regulatory mechanism for evaluating

development orders to insure that the level of service standards contained in the Comprehensive Plan are satisfied. In order to assure that all public facilities included within the system are available, concurrent with the impacts of development, concurrency shall be determined at final site plan approval or plat approval, whichever occurs first. All development orders and permits shall specify any needed improvements and provide for the improvements to be completed prior to the issuance of any development order, concurrent therewith, or completed within the time frame set forth by any applicable developers agreement, letter of credit, or surety bond, provided that such instruments assure that the necessary level of service standards are met concurrent with the impacts of the development.

6.1.8 Policy:

No development permit shall be granted unless the requirements of the concurrency management system and the level of service standards as set forth in the Comprehensive Plan are met so that upon the impact of said development, the level of service standards set forth in the Comprehensive Plan are satisfied.

6.2 *Objective:*

Future development will bear a proportionate cost of facility improvements necessitated by the development in order to maintain adopted level of service standards.

Record of developer contributions to necessary capital improvements.

6.2.1 Policy:

Developers shall be required to provide basic public services for the projects they produce. Roads, drainage, park lands and other such services must be provided prior to completion of the project.

6.2.2 Policy:

Dedication of park lands shall be consistent with City recreation policies and objectives. Payment in lieu of dedication should be set at an equitable amount.

Developers will contribute required public facilities and capital improvements based on the impact created.

6.2.3 Policy:

Prior to the issuance of certificates of occupancy, the City shall require the provision of all needed public facilities.

6.3 Objective:

The City will manage its fiscal resources to ensure the provision of needed capital improvements for previously issued development orders and for future development.

6.3.1 Policy:

The City shall establish a sinking fund for capital improvements for the purpose of providing necessary capital improvements concurrently with the impacts of new development.

6.3.2 Policy:

Establishment of a fund for capital improvements and an annual contribution should be made that is sufficient to meet future capital improvement needs.

6.3.3 Policy:

Capital projects will be evaluated using the following criteria:

- Preserve the health and ensure the safety of the public by eliminating public hazards.
- Promote efficient development and prevent urban sprawl.
- Level of impact on operating budget.
- Protect prior infrastructure investments.
- Consistent with County plans and the plans of other agencies.
- Eliminate existing deficiencies.
- Maintain adopted levels of service.
- Availability of funds.

6.3.4 Policy:

In providing capital improvements, the City shall limit outstanding indebtedness to no greater than 15% of its property tax base.

6.3.5 Policy:

The Parkland Land Development Code development permit process will require that necessary facilities and services be available concurrent with the impacts of development through any of the following situations:

- A. The necessary facilities are in place at the time a development permit approval is issued, or a development permit approval is issued subject to the condition that the necessary facilities will be in place when the impacts of the development occur.
- B. The necessary facilities are under construction at the time a development permit approval is issued.
- C. The necessary facilities are the subject of a binding contract executed for the construction of those necessary facilities at the time a development permit approval is issued.
- D. The necessary facilities have been included in the City's annual budget at the time a development permit approval is issued although the facilities are not yet the subject of a binding contract for their construction. The unit of local government shall make a determination that it will not remove the budgetary provision for the necessary facilities from their budget.

6.3.6 Policy:

Proposed plan amendments and requests for new development will undergo a cumulative impact review (Concurrency Management System) according to whether the development would:

- A. create conditions of public hazard such as flooding, degradation of water quality, traffic hazards, and any other identified urban or environmental degradation;
- B. exacerbate any condition of public facility deficits, as

described by the adopted level of service standards;

- C. generate public facility demands that may be accommodated by capacity increases planned in the 5-year schedule of improvements;
- D. conform with land uses shown on the Future Land Use Map of the Future Land Use Element;
- E. accommodate public facility demands based upon adopted LOS standards if public facilities are developer provided;
- F. demonstrate financial feasibility, subject to this element, if public facilities are provided in part or whole by the City; and
- G. affect other agency facilities, plans or operating policies;
- H. impact public safety such as police and fire protection.

6.3.7 Policy:

Within the proscribed time period of Chapter 163 F.S., Parkland shall adopt and implement a concurrence monitoring system to ascertain whether necessary facilities identified within the Capital Improvements Element are being constructed in accordance with the schedules in the Plan and to measure the development capacity of such facilities in a given area at a given time.

6.4 Objective:

Decisions regarding the issuance of development orders and permits will be based upon the coordination of the development requirements included in this plan, the land development regulations and the availability of public facilities needed to support such development at the time needed.

Record of development orders and assessment of impact on public facilities.

FIVE-YEAR SCHEDULE OF CAPITAL IMPROVEMENTS

The following Five-Year Schedule of Capital Improvements (SCI), described in Objective 6.1.3 above, is the mechanism by which the City of Parkland can effectively stage the timing, location, projected cost, and revenue sources for the capital improvements derived from the comprehensive plan elements. The Five-Year Schedule of Capital Improvements together with the Annual Budget Report

is used to document the economic feasibility of the City's Comprehensive Plan.

Table 6-8: Five-Year Adopted Capital Improvement Program, City of Parkland (FY2015/16 – 2019/20)

	FY15-16	FY16-17	FY17-18	FY18-19	FY19-20	Total 5-Year Cost	Funding Source
<i>City Recreation and Open Space Improvements</i>							
Pine Trails Park	2,200,000					2,200,000	General Fund
Pine Trails Park Field Renovations	89,800	89,800	89,800	89,800	89,800	449,000	General Fund
Doris Forman Boardwalk Rail Replacement	108,000					108,000	General Fund
Quigley Park Tennis Center	2,735,000					2,735,000	General Fund/ Impact Fees
Parks Irrigation Improvements	74,000					74,000	General Fund
Liberty Park	280,000					280,000	General Fund
Public Property Beautification	20,000	20,000	20,000	20,000	20,000	100,000	General Fund
<i>General Government Improvements</i>							
Library Redesign & Reconfiguration	80,000	1,250,000				1,330,000	Impact Fees
Information Services Improvements		150,000		104,000		254,000	General Fund
<i>City Transportation Improvements</i>							
Fire Station Emergency Traffic Signals	725,000	275,000				1,000,000	General Fund
Street Lighting	85,000	594,000	67,000	512,000	340,000	1,598,000	General Fund
Roadway and Trail Improvements			580,000		1,655,000	2,235,000	General Fund
Loxahatchee Road Improvements	220,000			2,640,000		2,860,000	General Fund/ FDOT/MPO
Traffic Signal Preemption Device	45,000					45,000	General Fund
Citywide Traffic Circulation Improvements		320,000	320,000			640,000	General Fund
<i>Physical Environment Improvements</i>							
Vehicles and Equipment	230,100					230,100	General Fund
<i>Public Safety Improvements</i>							
Western Fire Station Carpet Replacement	5,200					5,200	General Fund
Total Capital Improvements FY 16 - FY 20						\$16,143,300	

CHAPTER SEVEN

INTERGOVERNMENTAL COORDINATION GOALS, OBJECTIVES, AND POLICIES

**GOAL 7 INCREASE PROCESSES AMONG THE VARIOUS -
GOVERNMENTAL PUBLIC AND PRIVATE ENTITIES TO
ACHIEVE: COORDINATION OF ALL DEVELOPMENT
ACTIVITIES; PRESERVATION OF THE QUALITY OF LIFE; AND
EFFICIENT USE OF AVAILABLE RESOURCES.**

7.1 Objective:

The City shall continue contact through formal and with the Broward County School Board, Broward County Board of Commissioners, and County officials, adjacent municipalities, and other regional and local agencies providing services or regulatory control over the use of land within Parkland.

Record of meetings with other units of local governments and the School Board and other special districts.

7.1.1. Policy:

Parkland shall distribute amendments to its Comprehensive Plan adopted by the entities described in Objective 7.1.

7.1.2. Policy:

The City shall continue informal methods to increase the effectiveness of the existing coordination mechanisms of intergovernmental coordination which shall include but not be limited to the official identification of primary responsibility for coordination.

7.1.3. Policy:

The City shall continue regular meetings between its City Manager and members of its planning staff and their counterparts in adjacent municipalities to discuss each City's plans for growth management and upcoming developments which could affect any of those Cities.

7.1.4 Policy:

The City's Comprehensive Plan will be consistent, with the State of Florida Strategic Plan, South Florida Regional Policy Plan, Broward County Comprehensive Plan, the Comprehensive Plans of adjacent local governments, and applicable regional

water supply plan(s).

7.1.5 Policy:

The City will consult with their water suppliers prior to issuing building permits to ensure adequate water supplies to serve new development is available by the date of issuance of a certificate of occupancy.

7.1.6. Policy:

The City shall participate in the Regional Planning Council's informal mediation process as mechanisms to provide an open forum for communication and coordination of programs involving the Comprehensive Plan, and to resolve conflicts with other local governments as prescribed in Section 186.509, F.S.

7.1.7. Policy:

Cooperatively pursue the resolution of development and growth management issues having impacts that transcend the City's current political jurisdiction including issues of federal, regional, and state significance with the appropriate agencies. Issues to be addressed include, but are not limited to, the following:

- a) Maintenance of rural character including appropriate roadway width;
- b) Coordination of school impacts and school level of service measurement including student generation rates;
- c) Coordination of multipurpose trails with County greenway system;
- d) Coordinated review of wetland, environmental resource, surface water management, consumptive water use, wastewater permits; and
- e) Any other state development approval within the scope of a participating agency's authority.

7.1.8. Policy:

The City shall request the state land planning agency to coordinate multi-agency assistance on plan amendments that may adversely impact important state sources of facilities.

7.2. Objective:

The City will adopt a concurrency management system to effectively manage and monitor growth and assure that facilities and services meet adopted levels of service.

Annual review of levels of service and any deficiencies caused by new development.

- 7.2.1. Policy:
Parkland will continue to be a member of Broward County League of Cities.
- 7.2.2. Policy:
Parkland shall continue to review agendas and minutes of the South Florida Regional Council, Broward County Planning Council, Broward County MPO, other regional agencies and adjacent communities.
- 7.2.3. Policy:
New electric transmission lines subject to the Florida Transmission Line Siting Act should be sited in a manner that will consolidate such lines within existing corridors and that new corridors should be planned in coordination with the land use plans of the City of Parkland.

- 7.3 *Objective:*
The City shall establish coordination mechanisms with those state, regional or local entities having operational and maintenance responsibility for public facilities that affect the level of service standards within Parkland.

Record of established coordination mechanisms.

- 7.3.1 Policy:
Parkland will use the Regional Planning Council for informal mediation when the level of service standards with adjacent cities or the County cannot be resolved.

- 7.3.2 Policy:
Parkland shall initiate a process to inform the residents of all present and future planning issues and developments.

- 7.4 *Objective:*
Maximize the City's ability to ensure compatibility of land uses, preserve amenities and protect natural resources.

Record of incompatible uses and damage to amenities and natural resources.

- 7.4.1 Policy:
The City will coordinate its annexation plans with the appropriate local governments, and will work with all parties involved to negotiate satisfactory annexations.

- 7.4.2 Policy:

Adjacent municipalities and the South Florida Regional Planning Council will be notified of any development proposal that might have an impact on adjacent governments.

7.4.3 Policy:

The City shall coordinate with other federal, state, and local agencies or nonprofit organizations in managing natural areas or openspaces.

7.4.4 Policy:

The City shall continue to utilize the following procedures to identify and implement joint planning areas (JPAs) for the purpose of addressing issues related to annexation and mutual infrastructure service areas:

- a) Coordinate planning activities mandated by the various elements of the Parkland Comprehensive Plan with local governments, the Broward County School District, other governmental units providing services but not having regulatory authority over the use of land, the region, and the state;
- b) Use of the South Florida Regional Planning Council's informal mediation process to resolve conflicts with the other local governments, when agreed to by all affected parties;
- c) Demographic and social-economic information and services shall be readily available for county, school board, and municipal planning activities; and
- d) Siting of facilities with county-wide significance, including locally unwanted land uses, such as solid waste disposal facilities.

7.5 Objective:

Ensure coordination with the Broward County School District to establish concurrency requirements for public school facilities.

7.5.1 Policy:

The City of Parkland, in cooperation with appropriate local, county, and state governments and agencies, shall continue to utilize the following collaborative planning process to reach decisions on population projections and public school siting:

- a) Employ compatibility and public school impact procedures, which consider land use compatibility and public school impacts through the use of flexibility

- provisions included in the Parkland Comprehensive Plan;
- b) Provide the Broward County School District with population projections and other demographic and socio-economic data to assist the School Board with appropriate student generation rates and public school siting;
 - c) If requested, provide professional support to the School Board Superintendent's site review committee;
 - d) Involve the Broward County School District during the review process for residential Land Use Plan Amendments, Plats, and Developments of Regional Impact;
 - e) The procedures shall be coordinated in a manner that conforms to the interlocal agreement between the City and the School District and any future amendments to this agreement; and
 - f) The City shall continue to participate in the Broward County School District Staff Working Group that addresses public school facilities concurrency.

CHAPTER EIGHT

PARKS, RECREATION, AND OPEN SPACE GOALS, OBJECTIVES, AND POLICIES

GOAL 8.1 THE CITY OF PARKLAND INTENDS TO PROVIDE SUFFICIENT PARKS, OPEN SPACES, AND RECREATION FACILITIES TO MEET THE NEEDS AND INTERESTS OF THE RESIDENTS OF PARKLAND.

8.1 Objective:

The City of Parkland intends to provide sufficient parks, recreation facilities, and open space to meet the needs and interests of the residents of Parkland. The need for parks and open space is supported by Chapter 8 of this Element. Future needs will be met as development proceeds through anticipated buildout year 2025.

On an ongoing basis the City shall assess whether there are sufficient parks, recreation facilities, and open space for the needs of the residents.

8.1.1 Policy:

Continue to request that the Board of County Commissioners obtain the natural areas, significant vegetation areas, or other environmentally sensitive land in Parkland through its platting process. These lands could be used to meet the County's regional park dedication requirement of three (3) acres per thousand population.

8.1.2 Policy:

The lands dedicated by developers to fulfill the County's three (3) acre per thousand park dedication requirement would be those natural areas, significant vegetation areas, or other environmentally sensitive lands to be derived from the City's Conservation Element or other appropriate sources.

8.1.3 Policy:

The City should consider entering into cooperative to agreements with Broward County for the use, control and ownership of the natural areas, significant vegetation areas, or other environmentally sensitive areas which are

dedicated by developers to meet the County's regional park dedication requirement.

8.1.4 Policy:
The City should accept land from developers to fulfill City park dedication requirements, which is adjacent to a natural area, significant vegetation area, or other environmentally sensitive area which has been dedicated to Broward County.

8.1.5 Policy:
In determining locations for future neighborhood parks, special consideration should be given to those areas adjacent to school sites. In preparing plats and site plans, developers are directed to work with the City's Leisure Services Department and the Broward County School Board. The City of Parkland shall participate in the site selection process for schools located in the City.

8.1.6 Policy:
School sites and park sites shall be directly served by a non- motorized multipurpose trail system. Wherever feasible, the multipurpose trail system shall connect park sites with school sites. Neighborhood and natural parks of ten acres or less are to be located on local or collector streets. When a neighborhood park is adjacent to an elementary school, then these facilities may be located on a county trafficway, not a local street.

8.1.7 Policy:
Neighborhood parks shall serve up to 5,000 residents and include up to 10 acres of land for passive and active uses. Community parks shall serve between 10,000 and 30,000 residents and include between 10 and 80 acres of land in passive and active uses.

8.1.8 Policy:
Neighborhood parks may include but are not limited to the following recreation facilities:

- recreational trails
- nature trails and raised boardwalks
- tot lots
- supervised play areas
- shaded seating areas
- benches and picnic tables

- hard and soft play areas
- facilities for horses, bicycles, and outdoor exercise
- equipment including swings, slides, and climbing toys
- lakes
- natural areas for encounters with vegetation and wildlife
- paved courts
- ballfields and facilities
- restrooms and shelters
- facilities for senior and handicapped citizens, as well as for children, including preschoolers
- parking
- other recreational facilities determined to be appropriate by the City

8.1.9

Policy:

Community parks may include but are not limited to the following recreation facilities:

- multipurpose trails
- tot lots
- supervised play areas
- shaded seating areas
- benches and picnic tables
- hard and soft play areas
- facilities for horses, bicycles, and outdoor exercise
- equipment including swings, slides, and climbing toys
- natural areas for encounters with vegetation and wildlife
- paved courts
- restrooms and shelters
- softball/baseball fields and facilities, including loudspeaker systems, bleachers, parking, and lighting
- soccer/football fields, including loudspeaker systems, bleachers, parking, and lighting
- tennis courts and racquetball courts and lighting
- nature trails and raised boardwalks
- lakes, boating, fishing, and other aquatic facilities
- lighting
- pavilions

- amphitheater
- community center or recreation buildings
- facilities for senior and handicapped citizens, as well as for children, including preschoolers
- shuffleboard courts
- golf courses
- swimming pools
- parking
- other recreational facilities determined to be appropriate by the City

8.1.10 Policy:
The lists of facilities allowed in neighborhood and community parks shown above in Policies 8.1.8 and 8.1.9 are guidelines to be used in the design of parks.

8.1.11 Policy:
The level of service standard for parks recreation, and open space shall be as follows:

The City shall provide a minimum of five (5) acres of park, recreation, and open space per one thousand population. This shall consist of city-owned *neighborhood parks* or city-owned *community parks* per one thousand population.

A separate five (5) acres of parks, recreation areas, and open space per thousand population shall be applied to all new residential development, as described in Section 22-207.

8.1.12 Policy:
Park lands, or fees in lieu thereof, may be obtained from landowners through the process contained in the City's Land Development Code. The City may also purchase, lease, accept gifts, or use any other appropriate method to obtain parks. Lease arrangements, options to purchase, bond issues, short-term borrowing, state grants, and all options must be explored for funding existing and future deficiencies.

8.1.13 Policy:
The City may levy additional property tax and dedicate it specifically for the acquisition and development of

parks. The City may establish a special taxing district or assessment district to fund the acquisition and development of parks in order to remove the existing deficiency identified at the time of adoption of this element. The City should apply as appropriate for all grants, loans or other federal, state or regional parks acquisition and development programs for which it is eligible. If the City cannot staff this service, it should be purchased.

- 8.1.14 Policy:
The City shall continue to levy user fees for its park system, as appropriate.
- 8.1.15 Policy:
Parks, recreation, and open space dedication requirements shall be implemented through the City of Parkland Land Development Regulations.
- 8.1.16 Policy:
Design standards for neighborhood, community, active, and passive parks continue to be developed for the Land Development Code or the City's Minimum Design Standards.
- 8.1.17 Policy:
The City will continue its interlocal agreement with the Broward County School Board for use of recreation facilities on public school sites within the City.
- 8.1.18 Policy:
The City may use impact fees or other City funds for the advance purchase of trees for parks, open space, and multipurpose trails, so that when the City is ready to plant them, they are more mature. The City should give preference to nurseries in the City, to encourage and promote active agriculture in the City of Parkland.
- 8.1.19 Policy:
Maintain a functioning Parks and Recreation Department and staff to service parks, recreation facilities, and open spaces.
- 8.1.20 Policy:
Due to expansion of the City through annexation, Parkland will request to use Broward County's

unincorporated area local impact fees for the promotion and development of local parks.

8.1.21 Policy:
The City should coordinate with the Broward County Parks Division and the South Florida Water Management District (SFWMD) on the use of the levee for multipurpose trail purposes. The City should also request that the SFWMD allow the use of the levee for recreational trail purposes.

8.1.22 Policy:
The City shall continue to investigate existing vacant sites for potential park land, particularly in those areas adjacent to schools and multi-use trails.

8.1.23 Policy:
Whenever feasible, the City shall continue to ensure barrier free ADA access standards to all user-oriented public recreational facilities.

8.1.24 Policy:
To enhance its rural image and flavor, the City shall consider the adoption and implementation of a uniform signage plan for all City parks, recreation facilities, and multipurpose trails.

8.1.25 Policy:
For the purpose of complying with the countywide parks LOS standard as promulgated in the Broward County Land Use Plan, as of March 21, 2013, water body and/or waterway acreage added to a community parks inventory may count no more than ten (10) percent of such additional inventory, unless it is actively managed for recreation or environmental purposes and greater than 0.5 acres, in which case the entire water body can be counted.

8.1.26 Policy:
The City of Parkland shall publish on its website, the "Community" park inventory list of Parkland.

8.2 *Objective:*
The City of Parkland intends to provide sufficient open space to meet the needs and interests of the residents of Parkland. The need for open space,

natural, or passive parks is supported by Chapter 8 of this Element.

On an ongoing basis, the City shall inventory and assess its open space to determine sufficiency for the needs of the residents.

- 8.2.1 Policy:
Administration of the open space should be a function of the Parks and Recreation Department.
- 8.2.2 Policy:
Open Space is a subset of parks, not separate from parks. Acquisition of open space will be the same procedures as those identified under Objective 8.1 of this Element.
- 8.2.3 Policy:
The City shall continue collaboration efforts with Broward County and other agencies, as appropriate, resulting in the identification and protection of natural areas, significant vegetation areas, or other environmentally sensitive areas.
- 8.2.4 Policy:
Natural areas, significant vegetation areas, or other environmentally sensitive areas obtained by the City are intended to be used for passive park purposes and not for active park purposes. The City is empowered only to preserve these areas and not to disturb them to construct active park facilities, other than multipurpose trails, nature trails, or other small open spaces for observing or sitting.
- 8.2.5 Policy:
A setback shall be provided from all natural areas, significant vegetation areas, or other environmentally sensitive areas which are acquired as parks or otherwise conserved by the developer.
- This setback shall show on the plat. The density from the setback areas may be transferred by the City to adjacent land under the same ownership.
- 8.2.6 Policy:
Natural areas, significant vegetation areas, or other environmentally sensitive areas described in the Conservation Element and not acquired for parks should be preserved as open space by the developer.

The density from these preserved areas may be transferred by the City to adjacent lands under the same ownership. Preservation shall meet the site plan requirements to be included in the Land Development Code. Preservation may be by a covenant or easement in perpetuity.

8.2.7 Policy:
Natural parks, passive parks, and open space shall be undeveloped, allowing only for rest and picnic areas, multipurpose trails, and nature trails. They may be sculpted and cleared only to the extent that public safety is enhanced or intersection site distance is improved. The City may set specific development standards in its Land Development Code and Landscape Ordinance.

8.2.8 Policy:
The open space system should be complete at the time of the City's buildout. This does not preclude the City from adding to the system after buildout.

8.2.9 Policy:
By December 2016, the City shall prepare a Vacant Land Plan.

8.2.10 Policy:
The City reserves the right to restrict the installation of utilities in the scenic corridor. It is the City's intention that the natural and other vegetation be disturbed as little as possible by utility installation.

Every effort shall be made by the City, utility districts, and utility companies to place the utilities in the road right-of-way and not in the scenic corridor.

8.2.11 Policy:
The City should continue to enforce landscaping standards for the lands left around major intersections and interchanges. These should be standards in the Landscaping and Vegetation and the Minimum Design Standards.

8.2.12 Policy:
Open space shall be defined as land which is deed restricted or zoned and restricted by a development

order for passive recreation or conservation. Open space includes, but is not limited to natural areas, significant vegetation areas, wide right-of-ways, and parks.

GOAL 8.2 THE CITY OF PARKLAND WILL STRIVE TO PROVIDE A MULTIPURPOSE TRAIL SYSTEM WHICH INCLUDES CITY WIDE AND COUNTY WIDE CONNECTIONS.

8.3 Objective:

The City of Parkland's multipurpose trail system for non-motorized vehicles shall meet the needs and interests of the residents of Parkland.

On an as need basis, the City shall assess whether the multipurpose trail system is sufficient for the needs of the residents.

8.3.1 Policy:

The multipurpose trail system shall continue to serve as a transportation system which will accommodate pedestrians, wheelchairs, bicycles, baby strollers, and horses.

8.3.2 Policy:

The multipurpose trails system, wherever feasible, shall provide adequate access to adjacent land uses, except to individual single family home parcels. A single family home development or project, where feasible, should provide adequate access to and from the trail system where such projects (plats) abut the trail system. Access to the multipurpose trail from multiple family residential uses and non-residential uses should also be provided where feasible by developers.

8.3.3 Policy:

All vehicular parking for land uses which are adjacent to the multi- purpose trail system should provide the parking on a side away from the trail.

8.3.4 Policy:

Horseback riding shall be permitted throughout multipurpose trail system.

8.3.5 Policy:

Providing the multipurpose trail is a requirement for non- residential plats and site plans, the multipurpose trail may be constructed in the required setback and buffer areas described in the City of Parkland Land

Development Code, as amended. The requirement does not constitute a park dedication requirement and is considered a requirement to enhance the transportation system.

In specific locations where multipurpose trails are required by this Element, the trails may replace any other required sidewalks at those specific locations.

8.3.6 Policy:
The City shall enforce its requirements which require adequate landscaped buffer areas for residential and non-residential uses. For non-residential uses, these buffers shall, at minimum, be of adequate size to accommodate the scenic corridor and multipurpose trail system.

8.3.7 Policy:
The City emphasizes that the scenic corridor is needed in order to create vista, to provide shade, and to create and enhance the rural image and flavor of the City.

8.3.8 Policy:
A major portion of the multipurpose trail system shall be located in a scenic corridor system of the City where feasible. The scenic corridor system is located on both sides of the trafficways. This system may be increased by the developer's addition of scenic easements or other features along local streets or collector streets. However, this minimum may be waived for already developed properties beside Broward County trafficway corridors where specific hardships can be demonstrated by the property owner so long as the continuity of the scenic corridor and the multipurpose trail system remain intact.

8.3.9 Policy:
The residential density on the land which is dedicated as the multipurpose trail may be transferred by the City to the adjacent property of the same owner except as to required road right-of-way.

8.3.10 Policy:
Whenever feasible, the multipurpose trail system shall connect to parks and school sites.

8.3.11 Policy:

Developers are encouraged to provide multipurpose trail connections along the canals, swales, lakes, or other drainage systems within their developments. The City shall cooperate with drainage districts on requirements for construction of the multipurpose trails on the side slopes and the littoral shelf along canals or lakes.

8.3.12 Policy:
Any future residential platted area (or other platted area) in the City may propose, at the request of the property owner, to be designated as a Horse District. It is not the City's intention to initiate the designation of future Horse Districts. This designation is accomplished by action of the City Commission at a public hearing. The City may consider special zoning categories in which barns, rings, or other horse facilities, or other benefits could be allowed in Horse Districts as a matter of right.

8.3.13 Policy:
The multipurpose trail system should be consistent with the City's Minimum Design Standards.

8.3.14 Policy:
The City shall ensure sufficient right-of-way is preserved to construct and maintain the multiuse trails as shown on Map 8-2.

8.1 *Objective:*
The City of Parkland will continue to work with other governments to implement its park and multipurpose trail system, by such means which will include but not be limited to entering into Agreements/leases with the Broward County School Board for the joint use of school property within Parkland obtaining dedications and implementing the impact fees program, and direct the development of a trail system along the SFWMD levee.

8.1.1 Policy:
The City intends to continue to work with Broward County and with developers to obtain the County's regional park dedication as land, not fees, on plats in Parkland. It is the City's intention that these lands would be natural areas, significant vegetation areas or other environmentally sensitive areas.

8.1.2 Policy:

It is the City's intention to work with Broward County, Palm Beach County, City of Coconut Creek, all cities adjacent to the SFWMD levee, the SFWMD, and the Florida Department of Transportation in order to construct the regional multipurpose trail system that supports walking, biking, and equestrian activities.

- 8.1.3 Policy:
The City shall request Broward County to use the Broward County unincorporated area park impact fees in the City of Parkland.
- 8.1.4 Policy:
The City shall continue its interlocal agreement with the Broward County School Board for use of recreation facilities on public school sites within the City.
- 8.1.5 Policy:
The City should consider construction of a non-vehicular thoroughfare on the dedicated portion of Riverside Drive north of Holmberg Road to service persons using non-motorized recreational means of transportation.

CHAPTER NINE

COMMUNITY FACILITIES ELEMENT GOALS, OBJECTIVES, AND POLICIES

Goal 1 **THE CITY OF PARKLAND INTENDS TO PROVIDE SUFFICIENT COMMUNITY FACILITIES TO MEET THE NEEDS AND INTERESTS OF THE RESIDENTS AND CORPORATE CITIZENS OF THE CITY.**

*1.1 Objective:
The City shall continue to provide a building to house the administrative function, especially a meeting room for City Commission and other public business.*

Maintenance of City Hall and ability to provide basic administrative functions and meeting areas.

*1.2 Objective:
The City shall maintain a Public Safety administrative facility. The provisions of these facilities is a responsibility of existing and future residents, both residential and non-residential.*

Maintenance of a Public Safety Facility.

*1.3 Objective:
The City shall continue to maintain the Parkland Public Library.*

Status of Parkland Library location and size of facility and number of volumes.

*1.3.1 Policy:
The City shall continue to provide space for a public library on municipal property and encourage support for such a facility.*

*1.3.2 Policy:
The City shall employ innovative techniques to ensure meaningful and continuous communication about the Library to build renewed enthusiasm and involvement among residents.*

1.3.3 Policy:

The City shall sustain convenient, continuous, and innovative customer focused library service.

1.3.4 Policy:

The City shall adopt a process for continuous introduction of new services and programs in the expanded facility in order to provide the community with the realization that the Library is a regular part of their lives.

1.3.5 Policy:

The City shall create a Parkland Library identity and implement this consistently in an environment that includes cohesive displays, signs, colors, electronic designs, and furnishings.

1.3.6 Policy:

The City shall develop and deploy consistent internal and external communication plan which conveys the Parkland Library experience.

1.3.7 Policy:

The City shall create a Parkland Library identity and implement this consistently in an environment that includes cohesive displays, signs, colors, electronic designs, and furnishings.

1.4 Objective:

The City shall maintain the following Level of Service standards for public buildings:

ADMINISTRATIVE BUILDING

20,001 to 366,500 people

22,330 sq. ft. plus .75 sq. ft./person
over 20,000 population

PUBLIC SAFETY

20,001 to 366,500 people

9,000 sq. ft. base plus .3 sq. ft.
over 20,000 population

PUBLIC WORKS

Public Works

.20 sq. ft./person



CITY OF PARKLAND

Comprehensive Plan

EAR Update

Data, Inventory, and Analysis

Volume II

June 2016

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- 8 Parks, Recreation and Open Space
- 9 Community Facilities

CHAPTER ONE

FUTURE LAND USE ELEMENT

PURPOSE

The purpose of the Future Land Use Element is the designation of future land use patterns as reflected in the goals, objectives, and policies contained in the Parkland Comprehensive Plan. The supporting data provides a broad survey of current land use patterns, natural land features, and availability of public facilities for existing and future development. Other data includes existing annexation plans. Future land use patterns are depicted on the Future Land Use Map (Map 1-7).

PLANNING TIMEFRAMES

The City of Parkland Comprehensive Plan provides guidance on development and redevelopment over two planning periods: a 5-Year period ending FY2020 (short term) and a 10-Year period ending FY2025 (long term).

EXISTING LAND USE CONDITIONS

The City of Parkland is located in the northwest section of developed Broward County to the east of the County's conservation areas and directly south of the Palm Beach County boundary. Parkland is largely residential in nature with some commercial development along SR 7/US 441 and near the old City Hall site (located on Parkside Drive). The City is characterized by its semi-rural, upscale single family neighborhoods and comparatively high average income and high home values.

The City is approximately 74.4% built-out with another 2,349 acres available for residential development, mostly in the newly annexed area known as "The Wedge."

LAND USE INTENSITY

Approximately 43.03% of the City is made up of residential land uses. Single family home development makes up approximately 42.52 percent of the total land use. Only .57 percent of the total land area is made up of Commercial land uses. Parks and Open spaces make up nearly 10.38 percent of the total land area in the City. Table 1-1 displays the existing land uses of the City.

Table 1-1: Existing Land Use

Land Use	Acres	% of Total Land Area
Agriculture	248.9	2.72
Commercial	80.05	.87
Community Facilities	174.11	1.90
Con-Reserve Water Supply Areas	14.03	.15
Multi-Family Residential	96.05	1.05
Recreation and Open Spaces	316.27	3.45
Residential	5,895.92	64.36
Right of Way	417.04	4.55
Transportation	124.94	1.36
Utilities	4.96	.05
Vacant Commercial	48.65	.53
Vacant Residential	1,671.04	18.24
Water	69.45	.76
Total	9,161.43	100%

Source: Broward County; and The Mellgren Planning Group, Inc., 2015.

Analysis of Land Needed to Accommodate Population Growth

Vacant, undeveloped lands make up approximately 25.65 percent of the City's total land area. The majority of these vacant lands have a residential land use designation with 22.34% of the land designated as Residential. Table 1-2 shows the distribution of vacant land by Future Land Use. Map 1-2 shows the location of vacant parcels with their Future Land Use designation.

2,349 acres of vacant land are available for residential development, and 1,524 of these acres have approved residential developments. With these new developments, the City will be able to accommodate the population growth projected through 2040 (seen in Table 1-4 in this element).

Table 1-2: Vacant Lands by Future Land Use

Land Use	Acres	% of Total Area
Commercial	29.87	0.33%
Residential	1,326.12	14.47%
Institutional	18.46	0.20%
Parks and Open Space	255.20	2.79%
Total Vacant Acres:	1,629	17.79%
Total Incorporated Acres:	9,159	100%

Source: Broward County Property Appraiser; The Mellgren Planning Group

Gross acreage of vacant lands was determined using the following methodology:

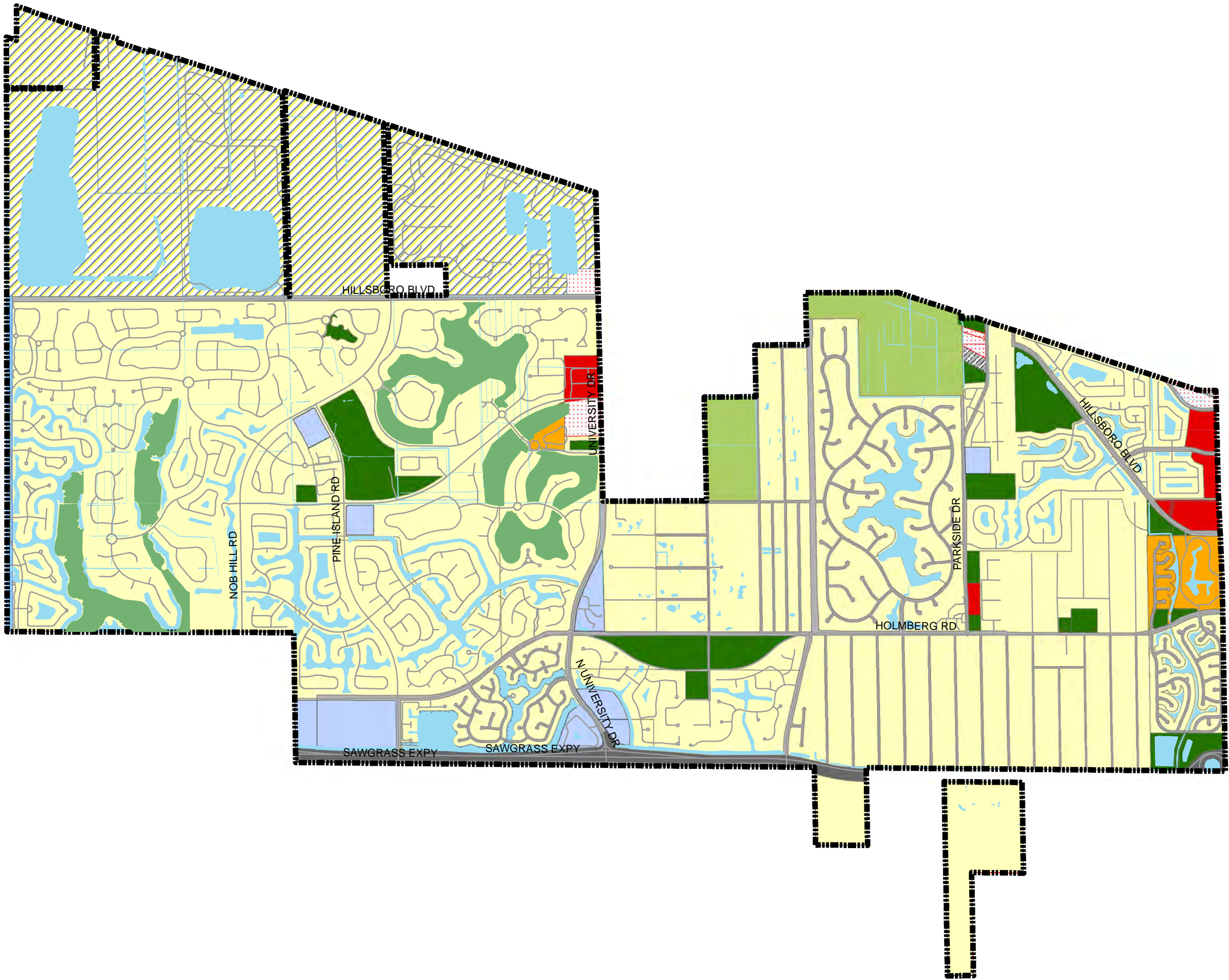
- 1) Land use information was derived from Broward County Property Appraiser data.
- 2) Vacant lands in tax roll data were confirmed with local knowledge.
- 3) Vacant lands with committed developments were not removed from the inventory of current vacant land. The impact of the committed developments is described in the discussion above.

Map 1-1 Existing Land Uses



City of Parkland

Map 1-1
Existing Land Use



- Golf Courses
- City of Parkland
- Parkland Streets
- Parkland Waterbodies
- Agricultural
- Commercial
- Vacant Commercial
- Residential
- Multi-Family Residential
- Vacant Residential
- Community Facilities
- Recreation and Open Space
- Right of Way
- Transportation
- Utilities
- Con - Reserve
- Water Supply Areas
- Water



0.5
Miles



This map was created with data from the Broward County Property Appraiser and the City of Parkland. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.

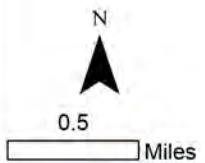
Map 1-2 Vacant Land with Future Land Use



City of Parkland

Map 1-2 Vacant Land Use By Future Land Use

-  City of Parkland
-  Parkland Streets
-  Vacant Residential
-  Vacant Commercial
-  Vacant Institutional
-  Forests, parks, recreational areas



This map was created with data from the Broward County Property Appraiser and the City of Parkland. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.



Future Land Use Designations

Map 1-7 in the Goals, Objectives, and Policies designates future land uses in the City. The Future Land Use Map guides future development according to the vision of residents and businesses in the City of Parkland. It also serves as the basis for zoning designations provided in the land development code. Table 1-3 shows the distribution of land uses.

Table 1-3: Future Land Uses

Land Use	Acres	% of Total Area
Residential		
Estate - Up To 1 DU Per 1 Acre	1,294.78	14.14
Estate - Up TO 1 DU Per 2.5 Acres	382.10	4.17
R-1.4 Irregular Residential	410.01	4.48
R-2 Irregular Residential	508.26	5.55
Residential - Up To 1.8 DU Per 1Acre	210.96	2.30
Residential - Up To 1 DU Per 1 Acre	195.23	2.13
Residential - Up To 1 DU Per 2 Acres	76.15	.83
Residential - Up To 2.5 DU Per 1 Acre	709.22	7.75
Residential - Up To 2 DU Per 1 Acre	951.98	10.40
Residential - Up To 3 DU Per 1 Acre	2964.64	32.38
Residential - Up To 4 DU Per 1 Acre	176.16	1.92
Residential - Up To 6 DU Per 1 Acre	77.43	.85
Rural Residential - Up to 10 DU Per 1 Acre	67.67	.74
Non-Residential		
Commercial	148.54	1.62
Commercial / Business	4.58	.05
Community Facilities	169.44	1.85
Conservation	14.03	.15
Office	9.03	.10
Park	123.83	1.35
Private Recreation	27.63	.30
Right of Way	503.85	503.85
Transportation	124.95	124.95
Utility	4.96	.05
Total	9155.44	100.00%

Source: Broward County and The Mellgren Planning Group

The newly annexed “Wedge” properties have a Land Use designation of 1.4 DU/ Acre (Irregular), 2 DU/ Acre, and 3 DU/ Acre.

POPULATION

Once a sleepy area of Broward County, with less than 4,000 residents in 1990, the City’s population has grown more than 800% due to a real estate boom and the popularity of living in Broward County and South Florida. The City’s population was estimated at 23,962 in 2010 and 28,128 in 2015.

Construction of developments in “The Wedge” is underway and is expected to be completed within 10 years, adding another 3,199 dwelling units to the City. The vacant Hendrix property, located east of University Drive and south of the Palm Beach County boundary, has no plans to annex into the City of Parkland. If the property annexed into the City, the maximum buildout is an additional 1,431 dwelling units. Table 1-4 shows population projections for the City through 2040, which takes into consideration these major changes. Buildout within the existing boundary and “The Wedge” is expected to occur by 2035.

Table 1-4: Population Projections

Year	Dwelling Units	Number of Households	Resident Population
1990	1,115	1,044	3,558
2000	4,522	4,349	13,835
2010	8,292	7,676	23,962
2015	9,732	9,015	28,128
2020	10,552	9,775	30,498
2025	11,674	10,814	33,741
2030	12,771	11,830	36,909
2035	13,788	12,773	39,851
2040	14,757	13,670	42,651

Source: US Census (1990, 2000, & 2010), Shimberg Center, and the Mellgren Planning Group

Notes on Population Projections:

1. Population projections are from Estimates and projections by Shimberg Center for Housing Studies, based on 2000 and 2010 U.S. Census data and population projections by the Bureau of Economic and Business Research, University of Florida.
2. Household Size: 3.12 (US Census, 2010). The number of households for 2015

onward was calculated using the projected population numbers from the Shimberg Center divided by the average household size.

3. Dwelling Units: From 2015 onward, the number of dwelling units were calculated by dividing the projected population by the number of dwelling units per person in 2010.
4. The Wedge Parcel Traffic Impact Analysis (2013) prepared for the City of Parkland calculates an increase of an additional 5,363 – 6,365 units in The Wedge. With these planned units, this predicted level of growth is deemed realistic.

Annexation

House Bill 1359 was signed by the Governor in 2006 to authorize annexation of the Parkland Agricultural Area. The bill also called for an election in March 2006 to allow residents of Country Acres (south of the Sawgrass Expressway/Godfrey Road Area) to determine incorporation into Coral Springs or Parkland. The residents chose Parkland and were incorporated into the City in September 2006. In order to maintain the City's rural character and accommodate population growth, the fully developed Country Acres property was assigned the Estate-1 Residential Future Land Use designation, and the Parkland Agricultural property was designated Estate-1 Residential.

In 2007, the state legislature authorized annexation of 1,949 acres in "The Wedge" from Palm Beach County into Broward County. These parcels lie south of the Hillsboro Canal and north of County Line Road. The annexation of the Bruschi Family; NSID Right-of Way; Misty Meadow; Salta; Palm Beach Farm; LLC; Dollyland; and Sabra/NSID properties from Broward County into the City of Parkland was effective 2013 as part of the 501.61 acre Wedge LUPA. The 426.27 acre Parkland Bay LUPA (consisting of the southern portion of the Bishop's Pit property) and the 61.82 acre Sabra LUPA (consisting of the northern portion of the Bishop's Pit property) annexations were effective September 2015. The full build-out of "The Wedge" is expected in 10 years, with an anticipated increase of 3,199 units. The expected increase has been incorporated in the population projections.

Table 1-5: Annexations

Annexation Area	Annexation Year	Future Land Use Designation	Size of Area (Acres)
Wedge LUPA (Bruschi Family; NSID Right-of-Way; Misty Meadow; Salta; Palm Beach Farm, LLC; Dollyland; Sabra/NSID)	2013	2 DU/ Acre	501.61
Parkland Bay LUPA	2015	1.4 DU / Acre	426.27
Sabra LUPA	2015	3 DU / Acre	61.82
McJunkin	Anticipated 2016		

Source: City of Parkland

Broward County has instituted a policy to annex all unincorporated areas into adjoining cities by 2010. The City has received an application for the annexation of the McJunkin property, and annexation is anticipated by September 2016. The remaining unincorporated enclave in the Parkland area, the Hendrix property, lies directly east of University Drive. There is no timeframe for, or plans to annex the Hendrix area from Broward County into the City of Parkland.

The annexation of “The Wedge” provides the City opportunities to develop additional park space and housing opportunities to accommodate future populations. These plans are considered further in this Comprehensive Plan.

FACILITIES ANALYSIS

Transportation

The Sawgrass Expressway along the southern City boundary is part of the Florida’s Strategic Intermodal System, a statewide system of high priority facilities including major interregional and intercity highways. Major Collectors are Lox Road and sections of University Drive. Minor Collector roadways include Holmberg Road, Nob Hill Road, Pine Island Road, Riverside Drive, sections of Trails End and sections of University Drive. Collectors in Parkland are two and four-lane roads that collect and distribute traffic from the arterial system. This roadway type provides both land access and traffic circulation between arterials and local roads for moderate trip length at moderate speeds. The urban collector system provides traffic circulation within residential neighborhoods and commercial and industrial areas.

The Broward County and FDOT Level of Service standards adopted by the City in Policy 3.1.7 and 3.1.8 for all roadways is D. A level of service analysis in the Transportation Element for existing conditions indicates that all the roadways in the City of Parkland, except the Sawgrass Expressway, are currently operating at LOS D or better except for Holmberg Road, which operates at LOS F between Riverside Drive and State Road 7. Sawgrass Expressway is currently operating at LOS C, and the Florida Department of Transportation is currently in the process of evaluating the widening the Sawgrass Expressway to eight or ten-lanes.

Broward County Transit (BCT) Routes 19 and 88 provide peripheral access to the City, along with connections to the Coral Springs "Green", and Coconut Creek "N" Community Bus routes.

The Broward County MPO Long Range Transportation Plan 2035 Update plans a Community Hub for Hillsboro Boulevard and SR 7. This transit stop will include Rapid Bus connection, enclosed shelters, improved pedestrian and bicycle linkages, and real-time service updates. A new route is also planned on Nob Hill Road, which will extend into the City. \$386.2 million in upgrades to enhanced bus service on SR 7 from Miami Dade County to Palm Beach County between 2031 and 2040 were identified in the Broward MPO's list of 2040 regionally-significant, cost-feasible premium transit service projects. The City was part of the SR 7 Collaborative that worked with the South Florida Regional Planning Council to coordinate in the SR 7 Corridor Master Plan.

The City of Parkland is committed to maintaining the mobility of a multimodal transportation system through a well-connected system of multi-use trails for pedestrians and bicycles in conjunction with the existing roadway system. The City plans to expand and maintain the multi-use trail system throughout the City and expects to coordinate with the Broward County Greenways System when the County's trails will be constructed near Parkland.

Infrastructure

Sanitary Sewer

The City of Parkland does not own, operate or maintain sanitary sewer facilities. Sanitary sewer service is provided to the City of Parkland by three utilities, the City of Coconut Creek Utilities Department, the North Springs Improvement District (NSID), and Parkland Utilities, Inc., which are shown on Map 4-1 in the Infrastructure Element. A majority of the Ranches and all of the Pine Tree Estates communities have sanitary sewer service available through Coconut Creek Utilities, but continue to operate on septic tanks. The City has not reported any problems in areas with septic service, and there are no plans in place to expand the sanitary sewer system use in these areas.

The sewage collected by the Coconut Creek and NSID is transmitted to the Broward

County North Regional Waste Water Treatment Plant (NRWWTP), which has a permitted capacity of 95 million gallons per day (MGD) and an annual average daily flow rate of 67.88 MGD. The Level of Service standard for sewage collection is 209 gallons per day per equivalent residential connection (GPD per ERC). Broward County Water and Wastewater Services expanded the treatment plant in 2007 to handle a capacity of 100 MGD. This plant expansion was designed to serve the needs of the large users in the area served by the NRWWTP through projected buildout in 2025.

Solid Waste Analysis

The City of Parkland has an exclusive contract for solid waste collection with Waste Management, Inc (WMIF). Solid waste was processed at the north Waste to Energy facility in Pompano Beach, but the north facility stopped receiving waste in July 2015 and now operates as a transfer station. Waste collected from Broward County municipalities that are members of an Interlocal Agreement for disposal, or who have direct contracts with Wheelabrator South Broward, Inc. (the "South Plant"), utilize the transfer station to send waste to the South Plant located in the southern part of the County. The South Plant is no longer a Waste Management subsidiary. Therefore, Parkland's waste is now disposed of at Monarch Hill Landfill. The Landfill has an approximate lifespan of 20 years at current volumes. The Landfill accepts municipal solid waste, construction and demolition debris, sludge, industrial wastes and other waste that can be disposed in a Class I landfill. Should Monarch Hill be unavailable for disposal of the City's wastes, WMIF would utilize other disposal facilities for disposal including, but not limited to, Okeechobee Landfill, Medley Landfill and others.

Recycling services are also available through Waste Management.

The City has been able to maintain its adopted LOS of 3.8 pounds per capita per day.

Drainage Analysis

The Pine Tree Water Control District (PTWCD) oversees drainage east of Parkside Drive and south of Holmberg Road in Pine Tree Estates to the eastern city limits. PTWCD is a local purpose special government; they are responsible for canal and lake maintenance.

The North Springs Improvement District (NSID), which is also an independent taxing authority, oversees drainage from University Drive to the western city limits as well as a small area in Tall Pines North. NSID is responsible for reviewing plans, overseeing design, constructing and maintaining primary drainage culverts, canals and lakes, building roadways, and processing permits.

The Ranches and Cypresshead developments fall under jurisdiction of the South Florida Water Management District (SFWMD). Maintenance of drainage facilities in these areas is the responsibility of the City of Parkland Public Works Department, Streets and Stormwater Division.

Potable Water Analysis

The City of Parkland does not maintain any potable water facilities. Residents obtain water from the City of Coconut Creek Utilities Department, the private company, Parkland Utilities, Inc., North Springs Improvement District (NSID), or from private wells.

The City of Coconut Creek Utilities Department provides potable water service to approximately 9,607 residents in the eastern portion of the City of Parkland. Coconut Creek purchases their water from the Broward County 2A/ North Regional Plant, which they have a large user agreement with. The current daily allocation permitted to this facility is 22.06 MGD; Coconut Creek uses approximately 13.27 MGD. The County is proposing a canal recharge project and increased withdrawal from the Biscayne Aquifer to meet future demands.

Parkland Utilities, which is a private utility company, serves approximately 2,500 Parkland residents. Parkland Utilities is currently permitted for a monthly withdrawal not to exceed 12.77 MG from the Biscayne Aquifer. The water is treated by a Lime Softening Plant, which has a permitted capacity of 0.35 MGD and a design capacity of 0.58 MGD. For the portion of water demand served by this private utility, the South Florida Water Management District recommended that the utility increase its purchases from existing suppliers, such as NSID or Palm Beach County Water Utilities Department (PBCWUD), to meet the projected shortfall of 0.25 MGD in 2025. Parkland Utilities now obtains .25 MGD from Balm Beach County Water Utilities.

The North Springs Improvement District (NSID) provides water service to approximately 35,000 residents of Parkland and Coral Springs. NSID is permitted to withdraw 185.7158 MGD monthly from the Biscayne Aquifer, in accordance with their SFWMD water use permit. The permitted capacity of the plant is 6.8 MGD which is sufficient to meet the future demand; the current committed capacity of the plant is 4.8 MGD. Water supply estimates appear to be short for 2025, so a 4.00 MGD reverse osmosis (RO) plant is being proposed for completion by 2020.

Domestic Self-Supply

Using ESRI ArcGIS, City of Parkland data on domestic self-supply areas, and data from the Broward County Property Appraiser, it is determined that 1,163 properties are in the self-supply area. By using a multiplier of 3.12 for household size to determine the population (which is assumed to be relatively constant in these neighborhoods), and a standard multiplier of 350 MGD, it was determined that approximately 1.27 MGD (annual) are consumed from the Biscayne Aquifer.

Wellfields

The water supply is vulnerable to the introduction of chemicals from business and residential uses. In order to provide protection to the water supply, Broward County

established zones of influence around each wellfield. The Broward County Environmental Protection Department began the Wellfield Protection Program in 1990. This program regulates activities in designated wellfield protection areas, including the storage, handling, use, and production of regulated substances at hazardous material facilities. Zones are delineated by the theoretical time it takes for contaminants to travel from the point they enter the ground water to the wellfield. Broward County has three delineated protective zones: Zone 1, Zone 2, and Zone 3. Restrictions are highest in Zone 1. These protected areas act as safety buffers against accidental contaminant releases wherein known contaminants can be reduced before they reach the public supply well. Zone 1 provides a ten day buffer around the wellfield; Zone 2 provides a thirty day buffer, and Zone 3 provides a 210 day buffer.

Several wellfield protection zones originate in Palm Beach County and extend into the City of Parkland. Palm Beach County created the Water Resources Management Advisory Board in 1985 and enacted the Wellfield Protection Ordinance to regulate businesses using, handling, storing, or producing 5 gallons / 25 pounds or more of hazardous chemicals adjacent to a well pumping 100,000 gallons or more of potable water per day. There are 4 wellfield protection zones: Zone 1, Zone 2, Zone 3, and Zone 4. In Zone 1, businesses are prohibited from the use, storage, handling, or production of hazardous and toxic materials. Zone 1 provides a 30-day travel time, Zone 2 provides 30-210 day travel time, Zone 3 provides 210-500 day travel time, and Zone 4 is 1 foot drawdown.

Map 1-3, *Wellfield Protection Zones*, designates the wellfield protection zones in the City of Parkland.

Natural Groundwater and Aquifer Recharge Analysis

The City of Parkland contains many small areas of natural fresh water marsh/wet prairie, cypress dominated fresh water swamp, and a network of man-made lakes and canals. It also shares a border with the SFWMD Water Conservation Area #2A. These areas are all vital to the recharge of the Biscayne Aquifer. SFWMD does not identify any Floridan Aquifer recharge areas within the City. The individual drainage districts have - through their permitted discharge, approval process and necessary recharge systems such as lakes, swales, french drains, and canals - met requirements set forth by the South Florida Water Management District.

Parks and Recreation

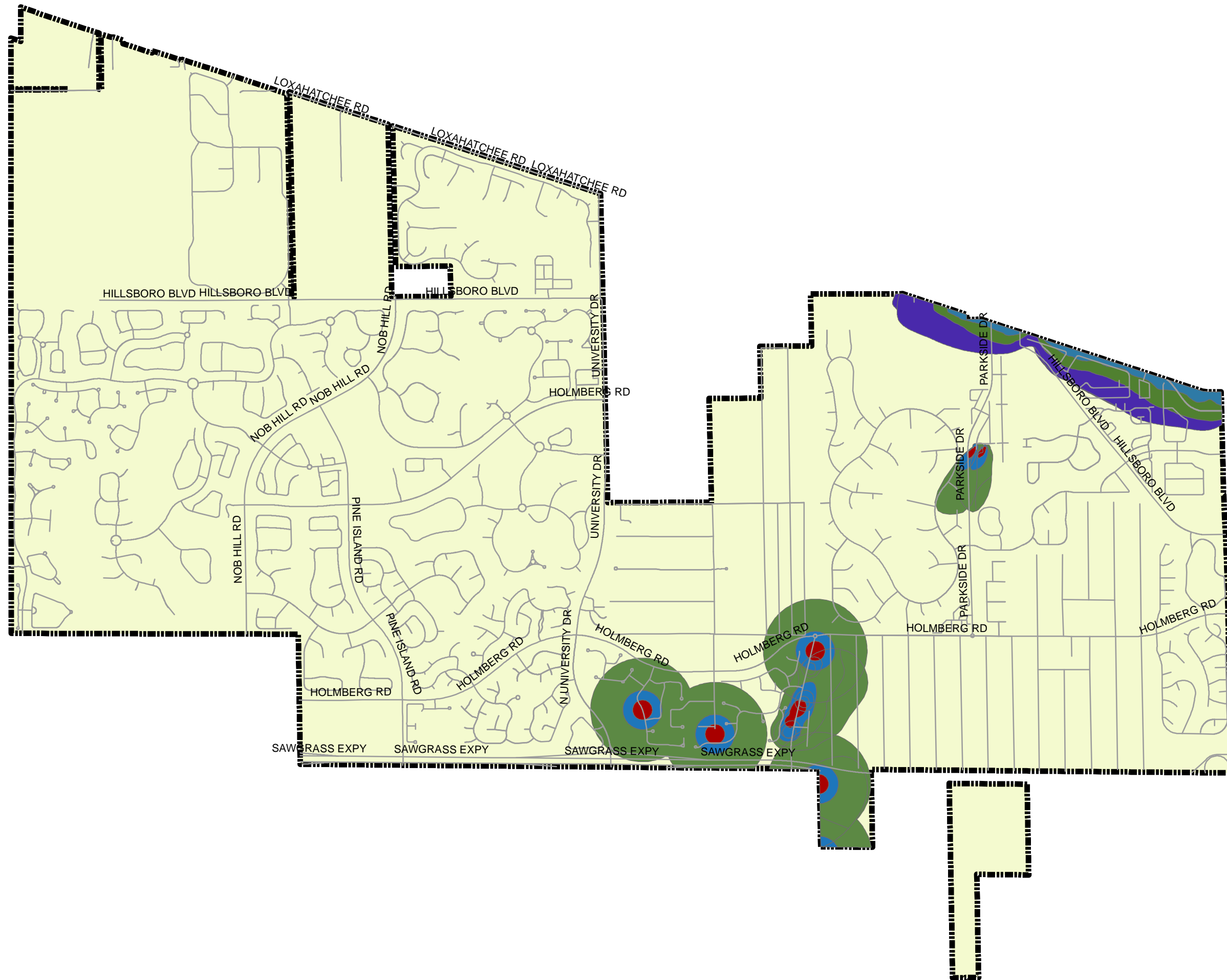
The City of Parkland presently encompasses approximately 796.99 acres of recreation and open space within the City; 257.05 of these acres may be used to meet the 5 acre per thousand population park level of service standard in the City of Parkland. With a 2015 population of 28,128 residents, the City is maintaining its 5:1,000 population LOS standard. Even with population increases through build out in 2040, a surplus of park space will be available within the City.

Map 1-3 Wellfield Protection Zones



City of Parkland

Map 1-3 Wellfield Protection Zones



— Parkland Streets

Palm Beach
County Wellfield
Protection Zones



Broward County
Wellfield
Protection Zones



N



0.4

Miles



This map was created with data from the Broward County Water Resources Division and Palm Beach County Environmental Resources Management. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.

CAPITAL IMPROVEMENTS

The City has prepared a 5-Year Schedule of Capital Improvements. The City is expected to spend \$16,143,300 on capital improvements to maintain level of service standards over the short term 5-year planning period from FY15/16 to FY19/20.

HISTORIC PRESERVATION

Parkland has no sites on the National Register of Historic Places and no historic structures.

A passive park is planned for the Margate-Blount Archaeological Site, location of the Tequesta Indian mound, including a pavilion and trails with more amenities to be planned.

WATER RESOURCES

Although numerous water bodies and ponds occur within the City, few are naturally occurring lakes or waterways. The majority of the existing water features have been manmade as a part of land development projects. Map 1-4, *Hydrography*, identifies the existing water features located within the City, including wetlands.

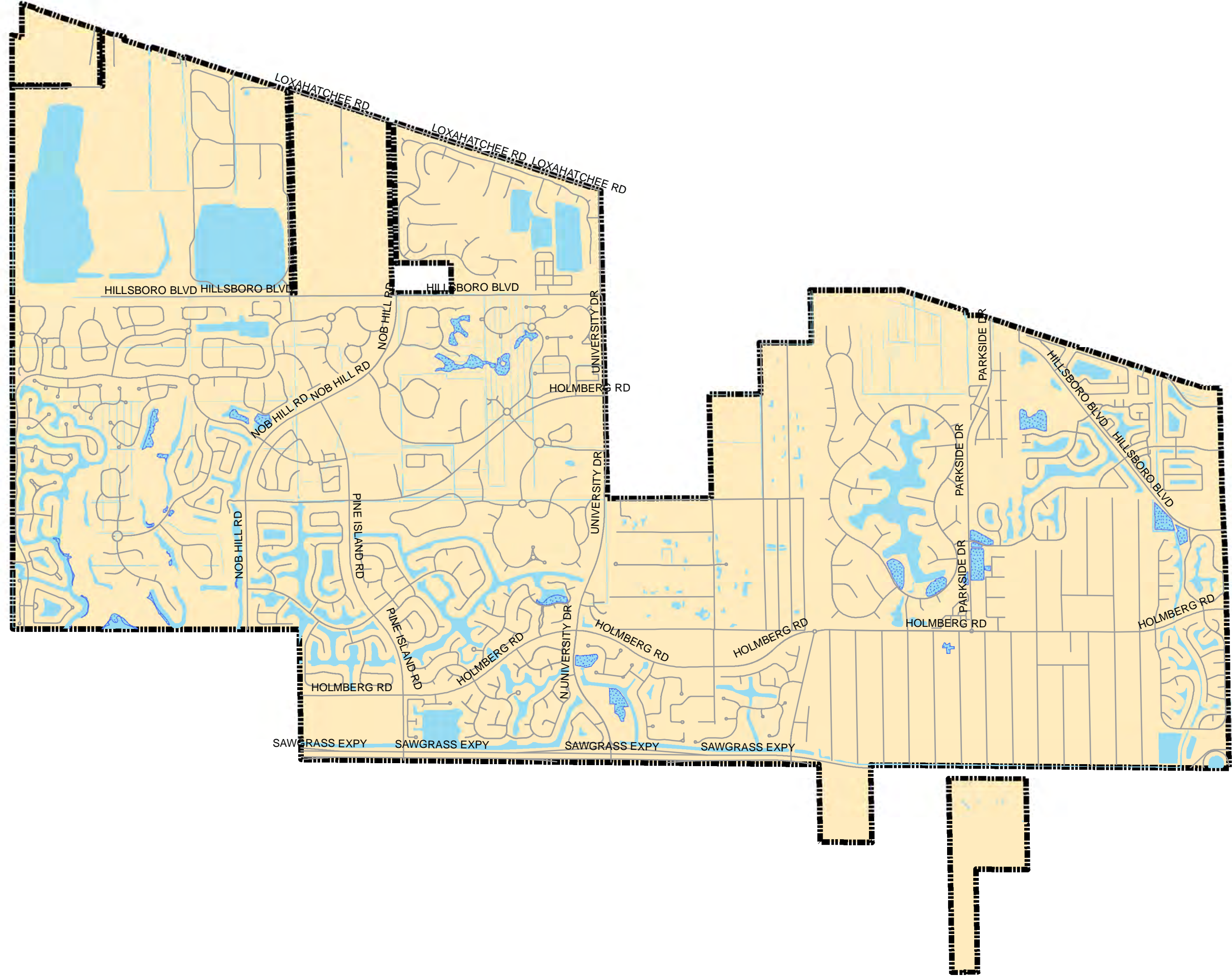
Map 1-4 USGS 1:24,000 Hydrography



City of Parkland

Map 1-4
Hydrography

- Parkland Streets
- Wetland
- Parkland Waterbodies
- City of Parkland



N



0.5

Miles



This map was created with data from The City of Parkland. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.

Soils

The general distribution of soils, shown in Map 1-5, *USDA Soils Classification Map*, is based on the soil survey of Broward County conducted by the U.S. Department of Agriculture. The survey identifies the following soil series in the City of Parkland: Boca, Chobee, Dania, Hallandale, Jupiter, Lauderhill, Margate, Okeelanta, Plantation, and Terra Ceia. The Department of Agriculture describes these as follows:

The Boca series consists of moderately deep, poorly drained and very poorly drained, moderately permeable soils in low broad flats, poorly defined drainage ways and depressions of the flatwoods and adjacent tidal flats. They are formed in sandy and loamy marine sediments deposited over limestone bedrock. Near the type location, the mean annual temperature is about 72 degrees F., and the mean annual precipitation is about 55 inches. Slopes range from 0 to 1 percent.

The Chobee series consists of very deep, very poorly drained, slowly to very slowly permeable soils on marine terraces in depressions, flats, and occasionally on river flood plains of the Southern Florida Flatwoods (MLRA 155), and to a lesser extent in the Florida Everglades and Associated Areas (MLRA 156A), Southern Florida Lowlands (MLRA 156B), South Central Florida Ridge (MLRA 154, Eastern Gulf Coast Flatwoods (MLRA 152A) and the North Central Florida Ridge (MLRA 138) Major Land Resource Areas. They formed in thick beds of loamy marine sediments. Near the type location, the mean annual temperature is about 72 degrees F., and the mean annual precipitation is about 55 inches. Slopes range from 0 to 2 percent.

The Dania series consists of shallow, very poorly drained, rapidly permeable organic soils in fresh water marshes or swamps on the fringes of areas of deeper organic soils. They formed in thin beds of well decomposed, hydrophytic, non-woody, plant remains. Near the type location, the mean annual precipitation is about 61 inches and the mean annual temperature is about 75 degrees F. Slopes are less than 2 percent.

The Hallandale series consists of shallow, poorly and very poorly drained, rapidly permeable soils formed in thin deposits of marine sandy materials over limestone. They occur on broad low flats, sloughs, shallow depressions, and adjacent tidal areas in Peninsular Florida. They are saturated during the summer rainy season and after periods of heavy rainfall in other seasons. Slopes are less than 2 percent.

The Jupiter series consists of shallow, poorly and very poorly drained, rapidly permeable soils formed in a thin bed of sandy marine sediments deposited over limestone. They are on broad low flats, low hammocks, and in poorly defined drainageways. Slopes are 2 percent or less.

The Lauderhill series consists of very poorly drained soils that are 16 to 36 inches thick over limestone. Lauderhill soils formed in organic deposits of freshwater marshes.

The Margate series consists of poorly drained, rapidly permeable soils that formed in sandy marine sediments of variable thickness over fractured limestone. The water table

is near the surface during wet periods. Slope is less than 2 percent.

The Okeelanta series consists of very deep, very poorly drained, rapidly permeable soils in large fresh water marshes and small depressional areas of the Southern Flatwoods (MLRA 155) and the Southern Florida Lowlands (MLRA 156B) Major Land Resource Areas. They formed in moderately thick deposits of decomposed hydrophytic non-woody sapric material overlying marine sand. Near the type location, the mean annual temperature is about 74 degrees F., and the mean annual precipitation is about 59 inches. Slopes range from 0 to 2 percent.

The Plantation series consists of moderately deep, very poorly drained, rapidly permeable soils on broad flats adjacent to the deeper organic soils. They formed in a thin layer of organic material and thin beds of marine sandy materials over limestone. Near the type location, the mean annual temperature is about 75 degrees F., and the mean annual precipitation is about 63 inches. Slopes range from 0 to 1 percent.

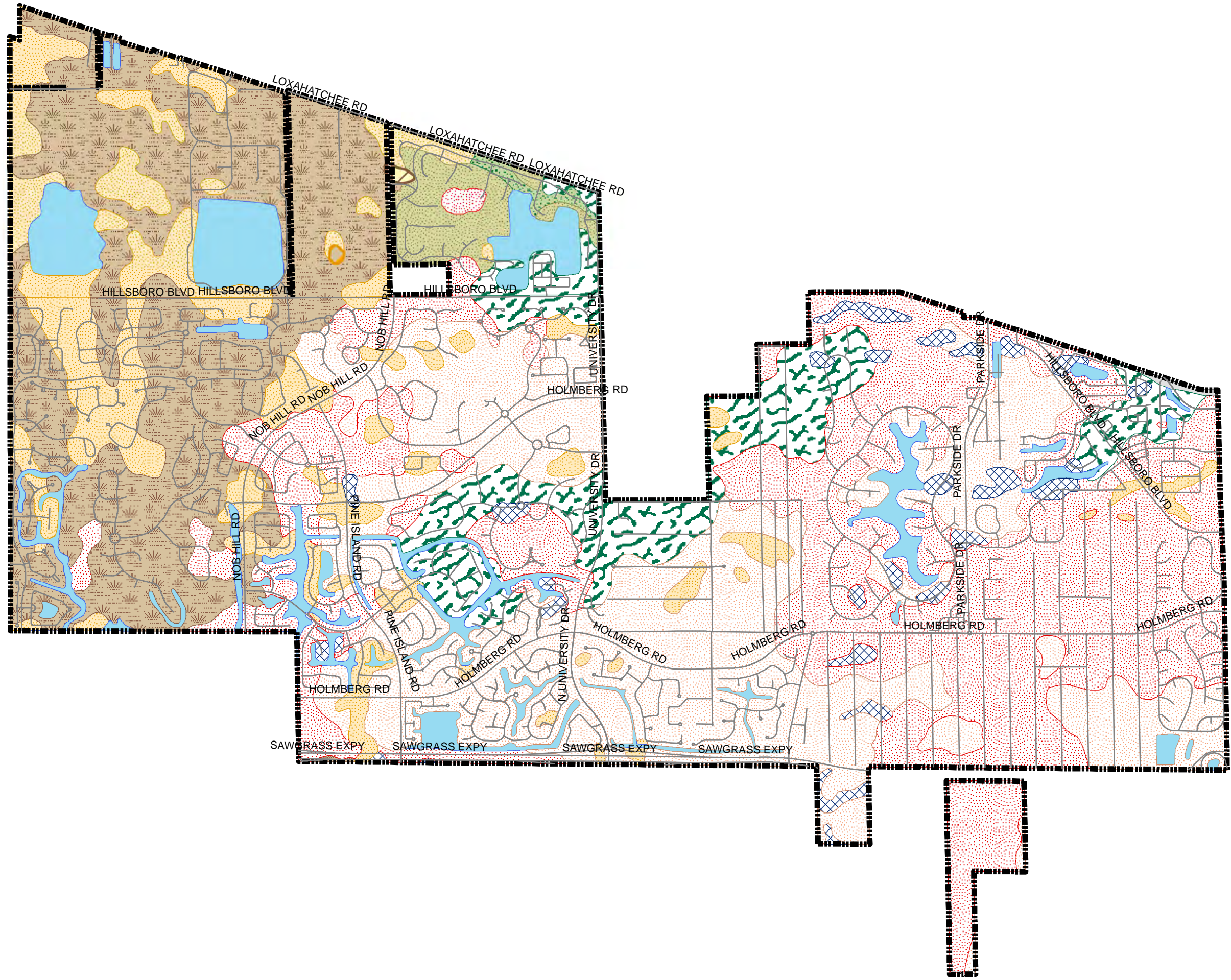
The Terra Ceia series consists of very deep, very poorly drained, rapidly permeable soils in fresh water marshes Southern Florida Flatwoods (MLRA 155), and to a lesser extent in the South Central Florida Ridge (MLRA 154), Southern Florida Lowlands (MLRA 155B, Atlantic Coast Flatwoods (MLRA 153A), Eastern Gulf Coast Flatwoods (MLRA 152A) and the Florida Everglades and Associated Areas (MLRA 156A). They formed in more than 50 inches of well decomposed, hydrophytic, herbaceous plant remains. Near the type location, the mean annual precipitation is about 61 inches and the mean annual temperature is about 75 degrees F. Slopes are 0 to 1 percent.

Map 1-5 USDA Soils Classification



City of Parkland

Map 1-5
Soil Classification



- Parkland Streets
- Parkland City Boundary
- Parkland Soils
 - BOCA FINE SAND
 - CHOBEE FINE SANDY LOAM
 - DANIA MUCK
 - HALLANDALE FINE SAND
 - JUPITER FINE SAND
 - LAUDERHILL MUCK
 - MARGATE FINE SAND
 - OKEELANTA MUCK
 - PLANTATION MUCK
 - TERRA CEIA MUCK
 - UDORTHENTS
 - WATER



0.5
Miles



This map was created with data from the USDA Natural Resources Conservation Service. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.

LAND COVER

A large portion of the City is developed or disturbed land. Map 1-6, *Habitat and Land Cover* identifies the habitat land coverage within the City as mapped by the Florida Fish and Wildlife Conservation Commission (FFWCC). The table below identifies and provides the acreage of each habitat.

NATURAL HABITATS

A variety of the historic native vegetative communities still exist throughout the City. These habitats however, have been greatly fragmented and disrupted due to development and to the encroachment of invasive exotic vegetation. The existing native vegetative communities are very limited in nature at this time. The bulk of Parkland's 9,155 acres are developed or disturbed land. Only 654 acres are identified by the FFWCC as containing remnants of native habitats.

Table 1-6: Natural / Native Habitats

Habitat / Landcover	Acres	Percentage
Agriculture	2700	29.47
Barren Land	77	.84
Rangeland	1065	11.62
Transportation / Communication	139	1.52
Upland Forrest	361	3.94
Urban, Built-Up	4082	44.55
Water	445	4.86
Wetlands	293	3.20
Total Acres	9162	100.00%

Map 1-6 Habitat and Land Cover



City of Parkland

Map 1-6 Habitat and Landcover

- City of Parkland
- Waterbodies
- Parkland Parks
- Broward Co.
- Palm Beach Co.
- Agriculture
- Barren Land
- Rangeland
- Transportation, Communication
- Upland Forest
- Urban Built Up
- Water
- Wetlands

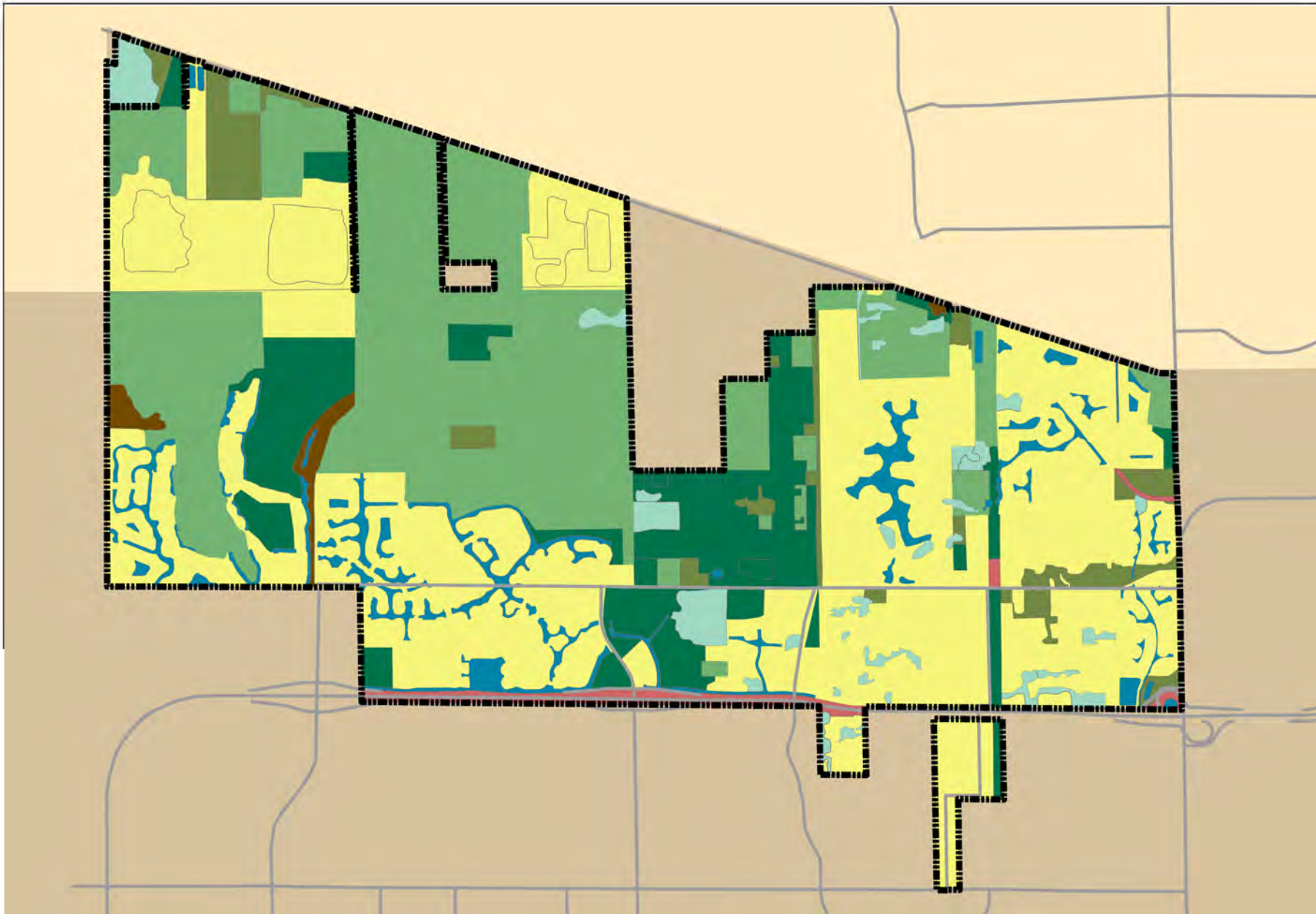
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0.5

Miles



This map was created with data from the South Florida Water Management District. Any inaccuracies in the data are not the responsibility of The Mellgren Planning Group.



Commercially Valuable Minerals

The Florida Department of Environmental Protection has identified peat and limestone as the only commercially valuable mineral or soil in the City. A rock pit, located in the southeast corner of the City along the Sawgrass Expressway, was utilized to provide fill during the construction of the Expressway but is no longer active. “The Wedge” had 3 mines on the Bishop’s Pit, Bruschi, and Debuy’s properties, but all are closed. At this time there are no active mining operations in the City.

Topography

The City, located in northwest Broward County, ranges in elevation from 10 to 20 feet national geodetic vertical datum (NGVD). Map 5-4 *Five Foot Contours* in the Conservation Element identifies the topography of the City. Land use, as it relates to the discharge of stormwater into and the use of natural drainage is regulated through the South Florida Water Management District environmental resource permitting process. The Florida Building Code regulates construction as it relates to flood zones.

Development and Redevelopment on Flood Prone Areas

The National Flood Insurance Program administered by the Federal Emergency Management Agency (FEMA) has identified the following flood zones within the City of Parkland.

Table 1-7: Federal Emergency Management Flood Zones

Zone	Description
AH	Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between one and three feet. Base Flood Elevations (BFEs) derived from detailed hydraulic analyses are shown in this zone. Mandatory flood insurance purchase requirements and floodplain management standards apply.
AE	Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.
X	Areas of 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance (base flood) sheet flow flooding with average depths of less than 1 foot, areas of base flood stream flooding with a contributing drainage area of less than 1 square mile or areas protected from the base flood by levees. No BFEs or depths are shown in this zone and insurance purchase is not required, and; Areas outside the 0.2-percent-annual-chance floodplain. No BFEs or depths are shown in this zone, and insurance purchase is not required.

5-2, *FEMA Flood Zones Map*, in the Conservation Element identifies the flood zones within the City. The majority of the eastern portion of Parkland is in an AH zone that is determined to be inundated by 100- year flooding. The majority of the southwest portion of the City is in the X area, a zone that is determined to be outside the 100- and 500-year floodplains. The majority of the newly annexed “Wedge” is in the AH zone.

Hazard Mitigation

Hurricane Wilma in 2005, and storms in 2004, highlighted the need for emergency management coordination in South Florida. In 2008, the City of Parkland adopted a *Comprehensive Emergency Management Plan (CEMP)* in response to this greater need for coordination, and revised the document in 2015. The CEMP was developed based upon the National Incident Management System (NIMS) which provides a consistent nationwide template that enables governments at all levels to work together more effectively and efficiently in all aspects of emergency management. The purpose of the plan is to ensure an effective response to the impacts of a disaster, and ensure long term community recovery. The plan is written in compliance with Federal, State, and County requirements.

CHAPTER TWO

HOUSING ELEMENT

PURPOSE

Local governments are required to prepare and adopt a Housing Element consistent with the provisions of Chapter 163, Part III of the Florida Statutes. This Element presents an overview of the existing and projected future conditions pertinent to the preparation of the housing goals, objectives and policies for the City's Comprehensive Plan. The best available data is provided by the Census, the State of the Cities Data System (SOCDS) and the Florida Housing Data Clearinghouse, maintained by the Shimberg Center for Affordable Housing, supplemented by local research.

EXISTING HOUSING DATA REQUIREMENTS

Housing and household characteristics of the City of Parkland are estimated using 2000 Census data, as aggregated in Tables 1 through 6.

Housing and Residential Development

Per Table 2-1, there were a total of 4,546 housing units in Parkland in 2000, consisting of 3,924 single-family, 722 multiple-family units, and 0 mobile home/other units. Single-family attached and detached homes constituted 86.4% of the total while multiple-family units within structures containing 3 or more units constituted an additional 13.6% of the total.

Table 2-1: Units in Structure – Year 2000

Units in Structure	Total Units	Percent
One Detached	3,717	81.8
One Attached	207	4.6
Two	0	0
Three or Four	245	5.4
Five to Nine	176	3.8
Ten to Nineteen	132	2.9
Twenty or more	69	1.5
Mobile Home + Other	0	0
Totals	4,546	100.0

Source: Shimberg Center for Affordable Housing; Calvin, Giordano & Associates 03/07

Recent historical Certificate of Occupancy data for the period of 2002 – 2006 is presented

in Table 2-2. This data can assist in substantiating an estimate of the current number of dwelling units in the City. During 2002-2006 the City issued a total of 1,691 residential Certificates of Occupancies which, when added to the 2002 Census figure results in a current (i.e. 2006) total of 7,182 units. This figure does not account for demolitions that may have occurred during this time period. As a means of comparison, if the population/dwelling unit ratio of 3.18 persons per household is applied to the City's 2005 population estimate (i.e. 21,225 residents) it is estimated that there were 6,752 dwelling units in the City in 2005. In light of building permit activity, this number is determined to be reasonable.

Table 2-2: Certificates of Occupancy

Year	Single-Family Units	Multiple-family Units
2002	558	4
2003	384	1
2004	173	15
2005	212	17
2006	364	0
Totals	1,691	37

Source: City of Parkland; Calvin, Giordano & Associates 03/07

Housing stock within Parkland constitutes approximately 0.6% of the countywide total. It should be noted that total number of units includes all year-round housing units, including occupied and vacant units, and those held for occasional use.

The City's housing stock, by age of structure, is summarized in Table 2-3. Approximately 96.4% of the housing stock was built during period between 1980 and 2000. The median age of the housing stock in the City is 15 years (i.e. built in 1992).

Table 2-3: Housing Units by Age

Year Structure Built	Number of Units	Percentage of Total
1999-3/2000	460	10.1
1995-1998	1384	30.4
1990-1994	1527	33.6
1980-1989	1012	22.3
1970-1979	110	2.4
1960-1969	37	0.8
1950-1959	10	0.2
1940-1949	6	0.1
1939 or earlier	0	0
Total Units	4,546	100.0

Median Year Built	1992
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Source: Shimberg Center for Affordable Housing; Calvin, Giordano & Associates, 03/07

Household Characteristics

Characteristics of housing within the City, including type, tenure, rent, value, monthly cost and cost-to-income ratio are examined in this section and compared to those characteristics exhibited countywide. The most current statistics available for an inventory and analysis of this type are presented in the 2000 Census.

Comparative tenure statistics are presented in Table 2-4. Of the 4,349 occupied housing units reported in 2000 by the U.S. Census, an estimated 3,813 units, or 87.7%, were owner-occupied, while 536 units, or 12.3%, were renter-occupied. 173 units, or 3.8 % of the total, were classified as vacant. Owner-occupied plus renter-occupied units represent year-round occupancy, while the remainder of the units were vacant or held for seasonal or occasional use.

Table 2-4: 2000 Housing Tenure Characteristics

	Parkland		Broward County	
	Units	Percent	Units	Percent
HOUSING OCCUPANCY				
Total housing units based on	4,522	100.0	741,043	100
Occupied housing units	4,349	96.2	654,445	88.3
Vacant housing units	173	3.8	86,598	11.7
Seasonal or occasional use	23	13.3*	49,873	6.7
HOUSING TENURE				
Total occupied housing units	4,349	100.0	654,445	100
Renter-occupied units	536	12.3	199,695	30.5
Owner-occupied units	3,813	87.7	454,750	69.5

*Percent of the vacant housing units

Source: Source: US Bureau of the Census, 2000; Calvin, Giordano & Associates, 03/07

In relation to total housing stock, the City has a year-round housing unit occupancy rate of 96.2%, which is higher than Broward County's occupancy rate of 88.3%. Further, the City's vacancy rate (3.8%) is lower than the County's rate of 11.7%, which suggests that the supply is meeting the demand.

Comparative monthly gross rent data for Broward County and Parkland are presented in Table 2-5. The median monthly gross rent for renter-occupied units in Parkland was an estimated \$1,128 per month in 2000, compared to \$757 per month for Broward

County. Approximately 50.8% of all rents within the City were within the \$1,000 to \$1,499 per month range.

Table 2-5: 2000 Monthly Gross Rent of Specified Renter-Occupied Units

Gross Monthly Rent Range	Parkland		Broward County	
	Units	Percent	Units	Percent
Less than \$200	0	0	3,892	1.9
\$200-\$299	0	0	3,515	1.8
\$300-\$499	0	0	17,640	8.8
\$500-\$749	0	0	69,173	34.7
\$750-\$999	161	29.0	62,862	31.5
\$1,000-\$1,499	282	50.8	28,298	14.2
\$1,500 or more	83	15.0	7,376	3.7
No cash rent	29	5.2	6,809	3.4
Totals	555	100.0	199,565	100.0
Median rent per month	\$1,128		\$757	

Source: U.S. Bureau of the Census, 2000; Shimberg Center for Affordable Housing; Calvin, Giordano & Associates, 03/07

Comparative housing value data for Broward County and Parkland are presented in Table 2 -6. The estimated median value of owner-occupied units reported in 2000 was \$309,700 in the City compared to \$128,600 for Broward County.

Table 2-6: 2000 Value of All Owner-Occupied Single-Family Housing Units

Value Range	Parkland		Broward County	
	Units	Percent	Units	Percent
Less than \$50,000	6	0.2	5,428	1.8
\$50,000-\$99,000	12	0.3	90,604	30.3
\$100,000-\$149,999	177	4.8	90,622	30.3
\$150,000-\$199,999	492	13.4	54,293	18.2
\$200,000-\$299,999	1,065	29.1	34,833	11.7
\$300,000-\$499,999	1,470	40.1	15,769	5.3
\$500,000-\$999,999	422	11.5	5,596	1.9
\$1,000,000 and more	18	0.5	1,580	0.5
Totals	3,662	100.0	298,725	100.0
Median value	\$309,700		\$128,600	

Source: U.S. Bureau of the Census, 2000, Calvin, Giordano & Associates, 03/07

Comparative monthly owner cost data for Broward County and Parkland are presented in Table 2-7. Census-based estimates of Parkland's median cost of owner-occupied housing in 2000 are \$2,303 per month for those units with a mortgage, and a median cost of \$810 per month for those units not mortgaged.

Table 2-7: 2000 Monthly Owner Costs of Specified Owner-Occupied Units

Mortgage Status and Selected Monthly Owner Costs	Parkland		Broward County	
	Units	Percent	Units	Percent
A. Mortgaged Units				
Less than \$500	0	0	4,494	1.8
\$500-\$699	12	0.4	14,323	5.9
\$700-\$999	77	2.4	53,572	22.0
\$1,000-\$1,249	133	4.1	50,356	20.7
\$1,250-\$1,499	295	9.2	40,909	16.8
\$1,500-\$1,999	697	21.7	45,215	18.5
\$2,000-\$2,499	648	20.2	18,405	7.5
\$2,500-\$2,999	562	17.5	7,792	3.2
\$3,000 or more	789	25.6	8,748	3.6
Totals	3,213	100.0	243,814	100.0
Median per month	\$2,303		\$1,246	
B. Units Without a Mortgage				
Less than \$200	0	0	3,636	6.6
\$200-\$349	0	0	17,897	32.6
\$350-\$499	44	9.8	15,902	29.0
\$500-\$699	91	20.3	9,764	17.8
\$700-\$799	84	18.7	2,131	3.9
\$800-\$899	53	11.8	1,563	2.8
\$900-\$999	34	7.6	942	1.7
\$1,000 and more	143	31.8	3,076	5.6
Totals	449	100.0	54,911	100.0
Median per month	\$810		\$399	

Source: U.S. Bureau of the Census, 2000; Calvin, Giordano & Associates, 03/07

Household Income Characteristics and Groups

The Florida Department of Community Affairs has concluded that affordable gross housing costs should fall below 30% of a family's income. As a result, a gross housing cost-to-income ratio of more than 30% is indicative of an excessive household expenditure (i.e. termed -cost burden¶) for housing costs, while a ratio of more than 50% is termed severe cost burden.

Table 2-8 indicates that 280 households, or 50.4% of the total renters in 2000, paid less than 30% of household income for gross housing costs. Further, 1,984 specified owner-occupied households, or 54.2% of the total with a mortgage in 2000, paid less than 30% of household income for gross housing costs.

Table 2-8: 2000 Comparative Cost Burden Characteristics (Specified Units)

A. Gross Rent as a Percentage of Household	Parkland		Broward County	
	Units	Percent	Units	Percent
Less than 20%	134	24.1	51,186	25.6
20%–24%	96	17.3	26,370	13.2
25%–29%	50	9.0	21,821	10.9
30%–34%	88	15.9	16,105	8.1
35% and more	158	28.5	70,862	35.5
Not computed	29	5.2	13,221	6.6
Totals	555	100	199,565	100
Total Cost Burden 30% or	246 (44%)		86,967 (44%)	
B. Selected Monthly Owner Costs as a Percentage of Household Income (units with a mortgage)				
Less than 20%	1,432	39.1	120,880	40.5
20%–29%	552	15.1	47,012	15.7
30%–39%	443	12.1	34,596	11.6
40%–49%	259	7.1	23,143	7.7
50% and more	968	26.4	69,818	23.4
Not computed	8	0.2	3,276	1.1
Totals	3,662	100	298,725	100
Total Cost Burden 30% or	1,227 (34%)		92,961 (31%)	

Source: U.S. Bureau of the Census, 2000; Calvin, Giordano & Associates, Inc. 03/07

Household income distribution data for 2000 is presented in Table 2-9. This table indicates the median household income in Parkland was \$102,624 per year in 2000, which is more than double the County's median household income of \$50,531. Approximately 18.4% of the households in Parkland earned less than \$50,000 per year in 2000.

Per Table 2-8, the City of Parkland has a similar percentage of residents with a housing cost burden as Broward County. However, Table 2-9 shows income to be substantially higher in Parkland with nearly 30% of the population earning \$100,000 to \$149,000 per year. This indicates housing affordability is an issue in Parkland due to 34% of homeowners facing a cost burden, however, not to the same extent as Broward County as a whole. Approximately 81.6% of Parkland's residents earn the County's median household or more. Therefore, residents choose to purchase homes at a higher value, resulting in a self-imposed cost burden, rather than the forced cost burden experienced throughout Broward County.

Table 2-9: Annual Household Income Distribution

Income Range	Parkland		Broward County	
	Households	Percent	Households	Percent
Less than \$10,000	59	1.3	59,064	9.0
\$10,000–\$14,999	28	0.6	42,974	6.6

Table 2-9: Annual Household Income Distribution

Income Range	Parkland		Broward County	
	Households	Percent	Households	Percent
\$15,000–\$24,999	64	1.5	86,088	13.1
\$25,000–\$34,999	303	6.9	85,586	13.1
\$35,000–\$49,999	356	8.1	107,102	16.4
\$50,000–\$74,999	576	13.1	123,987	18.9
\$75,000–\$99,999	716	16.3	66,201	10.1
\$100,000–\$149,999	1,185	27.0	52,085	8.0
\$150,000–\$199,999	325	7.4	15,056	2.3
\$200,000 or more	780	17.8	16,644	2.5
Totals	4,392	100	654,787	100
Median	\$102,624		\$50,531	

Source: U.S. Bureau of the Census, 2000: SF 3; Calvin, Giordano & Associates, Inc., 03/07

Housing and Living Conditions

There are several measures which can be used to evaluate housing stock and living conditions within the City, including lack of certain necessary facilities, over-crowding, structural integrity, and Florida Building Code requirements. Specific indicators of substandard housing or living conditions for each of the above measures are as follows:

- **Lacking Facilities** – A housing unit lacking complete plumbing facilities, heating and cooking facilities and/or complete kitchen facilities.
- **Over-Crowding** – 1.01 persons per room or more within a dwelling unit is a generally accepted standard that can be applied using Census data.

The City has adopted the Florida Building Code. The table below indicates the number of structures that are substandard according to the 2000 Census. The City's (2.6%) percent of unsafe structures are substantially less than the County's (9.4%).

Table 2-10: Substandard Housing 2000

Substandard Facility	Parkland		Broward County	
	Number of Units	Percent of Units	Number of Units	Percent of Units
Overcrowded	65	1.4%	48,389	7.4%
Heating	46	1.0%	19,952	3.0%
Kitchen	0	0%	3,342	0.5%
Plumbing	7	0.2%	2,617	0.4%
TOTAL	118	2.6%	69,300	9.4%

*Percent of all units in Parkland in 2000 (4,546 total dwelling units, not specifically occupied housing units), Percent of all units in Broward County in 2000 (741,043 total dwelling units, not specifically occupied housing units)

Source: Shimberg Center for Affordable Housing; Calvin, Giordano & Associates 03/07

Through code enforcement activities, unsafe structures and structures without adequate facilities are cited and are required to come up to the City's code requirements or be demolished. Overcrowded structures are also addressed through code enforcement, which results in the reduction of unsafe structures.

Assisted Housing

There are no renter or owner occupied housing developments within the City using federal, state or local subsidy programs.

Group Facilities and Homes

The Florida Department of Health and Rehabilitative Services (FDHRS) licenses group homes through three of its divisions: Aging and Adult Services (Adult Congregate Living Facilities); Division of Developmental Services (Long-Term Residential Care Facilities and Centers for Independent Living); and Children, Youth and Families (Family Group Home and Family Foster Home facilities).

According to the 2000 Census, there is one group home within the City, the Phoenix Senior Living II, Inc. with a license capacity of 6 residents and one Assisted Living Facility, The Inn at Parkland Commons, with a license capacity of 100 residents. The Inn at Parkland Commons is the assisted living entity within a larger retirement community, known as Aston Gardens. While the community has a capacity for 325 residents, 225 residents are a part of the independent living section and 100 residents are included in the assisted living portion of the facility. Therefore, only the assisted living residents are included the following table.

Table 2-11: City of Parkland Assisted Living Facility and Group Homes

Name	Address	Units	Type
Phoenix Senior Living II, Inc	5882 NW 73 rd Court	6	Elderly
The Inn at Parkland Commons	9423 Aston Gardens Court	100	Elderly

Source: Florida Health Stat; Calvin, Giordano & Associates; Inc.
03/07

Group home facilities are permitted under City codes at present. It is concluded that no further special measures are needed to accommodate additional group home uses. Population projections do not indicate that the City should incorporate special policies to encourage additional facilities to accommodate the unique needs of the elderly population within the indicated planning periods.

Mobile Home and Recreational Vehicle Parks

There are no mobile home and recreational vehicle parks in the City of Parkland.

Neighborhood Redevelopment and Urban Infill

The majority of development began in the mid 1980s and the median age of housing units is 20 years old. Once the existing development is approximately 50 years old, the City may review the structures to determine where redevelopment or infill is appropriate.

The US 441 / State Road 7 Corridor is the only opportunity at this time for redevelopment. This area is primarily commercial and is considered suitable for mixed-use redevelopment. Mixed-use development along US 441 / State Road 7 would be compatible with plans of the State Road 7 / 441 Collaborative organized by the South Florida Regional Planning Council and the Metropolitan Planning Organizations' long range plan for rapid bus service on US 441 / State Road 7.

Historic Preservation

Parkland possesses no sites listed on the National Register of Historic Places, no historic structures and, according to the Shimberg Center, has approximately sixteen (16) structures over fifty (50) years old. Without a historic structures survey, it cannot be determined if these structures have any historical significance. Once a considerable number of the structures begin to reach 50 years and over, the City should conduct a survey to determine if any of the structures have historical significance.

HOUSING ANALYSIS

Housing Projections

The U.S. Census estimated the population of Parkland at 13,835 residents in 2000, while the Shimberg Center for Affordable Housing estimated that the City's population had

increased to 20,504 residents in 2005. Population projections indicate that by 2015 there will be an increase in residents to 27,980 and in 2025, the number of residents will increase to 29,313.

Permanent housing needs projections during the 2000-2025 period, accounting for resident household growth and a reasonable vacancy rate, are summarized in Table 2-12.

Table 2-12: Housing Need Projections (2005-2025)

	2005	2010	2015	2020	2025
Population	21,225	25,862	27,980	29,313	29,313
Housing Units	6,752	8,455	9,147	9,582	9,582
Households	6,565	8,133	8,799	9,218	9,218

Source: Calvin, Giordano & Associates, Inc., 03/07

From the above table, it is projected that 2,830 units will be required during the 2005–2025 period to accommodate the City’s housing needs. Residential acreage required to accommodate projected housing needs is summarized in the Future Land Use Element.

Resident household growth projections, based upon the assumption that the historical renter versus owner split is maintained, are presented in Table 2-13. This projection assumes that rentals comprise 12.3% of all housing units as per the 2000 Census figures.

Table 2-13: Resident Household Growth

Year	Rented Units	Owned Units
2000	536	3,813
2002	596	4,491
2005	807	5,758
2010	1,000	7,133
2015	1,082	7,717
2020	1,146	8,172
Total Growth 2005–2020	610	4,359

Source: Calvin, Giordano & Associates, Inc., 03/07

Table 2-14 presents total housing stock projections, based upon the assumption that the historical single-family versus multiple-family split is maintained.

Table 2-14: Total Housing Stock Projections (2000-2025)

Residential Density	Projected Housing Units by Year			
	2010	2015	2020	2025
Single-Family	7,305	7,903	8,279	8,279
Multiple-Family	1,150	1,244	1,303	1,303
Total Units	8,455	9,147	9,582	9,582

Source: Calvin, Giordano & Associates, Inc., 03/07 with modified Shimberg data

Household Characteristics Projections.

Using Census data, it is estimated that there were 4,349 year round occupied housing units in the City in 2000 (i.e., 95.7% of the year-round housing units). Projections of household growth, based upon dwelling unit projections and the assumption of maintenance of the current household occupancy rate, are presented as follows: 2010 – 8,133 households and 2025 – 9,218 households.

Household estimates and projections, by tenure and household size, are presented in Table 2-15. Projections prepared in Table 2-15 are based upon the assumption that tenure and household size distributions, per the 2000 Census, will be maintained through the year 2020. From Table 2-15, the following observations are made:

- Of the total growth (4,869 households) during the 2000–2025 period, 88% is projected to be owner-occupied growth, while renter-occupied units are projected to increase 12%.
- Owners are projected to increase by 4,271 households, while renters are projected to increase by 598 households during the 2000–2025 period.
- Family households (i.e., 3 persons or more per household) will constitute 68% of the total growth in the City during the 2000–2025 period, while one to two person households are projected to comprise 32% of the City's growth.

Table 2-15: 2000–2020 Projections of Household Growth by Tenure and Household Size

A. Owner-Occupied Housing			
Household Size	2000	2010	2020
1 to 2	1,144	2,140	3,274
3 to 4	2,070	3,873	3,719
5 +	599	1,120	1,091
Subtotals	3,813	7,133	8,084
B. Renter-Occupied Housing			

Household Size	2000	2010	2020
1 to 2	263	491	557
3 to 4	137	256	290
5 +	136	253	287
Subtotals	536	1,000	1,134
C. Total-Occupied Housing			
Household Size	2000	2010	2020
1 to 2	1,409	2,635	2,987
3 to 4	2,209	4,132	4,682
5 +	731	1,366	1,549
Totals	4,349	8,133	9,218

Source: Calvin, Giordano & Associates, Inc., 02/07 with modified Shimberg Data

It is anticipated that the private sector will meet additional housing demand in the City. The City's role in the housing delivery process will be concentrated in the following areas: (1) provision of services, either directly or by contract, necessary to facilitate private sector construction activity; and (2) code enforcement and assurance that minimum housing standards are maintained and expedited permitting programs.

Population projections, by age group, are presented in Table 2-16. Projections prepared in Table 2-16 are based upon age-group growth assumptions used by the Shimberg Center for Affordable Housing, adjusted to account for locally-prepared projections. From Table 2-16, the following observations are significant:

- Prime school-age groups (i.e., 5–19 years of age) are projected to increase by 4,411 residents (or 28% of the total projected growth) during the 2000–2020 period.
- Of the total growth (15,478 residents) during the 2000–2020 period, 8,838 residents (57% of the total growth) are projected to be prime working age-groups (i.e., 20–59 years of age).
- Growth in the early retirement age-group (i.e., 60 - 74 years) is projected to constitute 5% of the total growth, while the frail elderly (i.e. aged 75 years and older) is projected to increase by 1%.

Table 2-16: 2005–2020 Population Projections by Age Group Distribution

Age	Year (population)			Growth
Group (years)	2000	2010	2020	2000–2020
0–4	1,156	2,173	2,462	1,306
5–9	1,593	2,974	3,371	1,778

10-14	1,440	2,690	3,049	1,609
15-19	911	1,707	1,935	1,024
20-34	1,676	3,129	3,547	1,871
35-59	6,224	11,638	13,191	6,967
60-74	642	1,190	1,348	706
75+	193	362	410	217
Totals	13,835	25,863	29,313	15,478

Source: U.S. Bureau of the Census, 2000: SF 3; Calvin, Giordano & Associates, Inc., 03/07

Housing Delivery Process

Housing stock in the City has been constructed through private sector development. It is expected that this sectors will continue to provide housing stock necessary to accommodate projected population growth throughout the long-range planning period.

An analysis of vacant residential land and the expectation of the US 441 / State Road 7 mixed-use redevelopment corridor will indicate the potential for new housing to accommodate projected population growth. Due to the expectation of transit on the corridor, a mix of housing, offices and retail is proposed for this area. Furthermore, this type of development can potentially provide affordable housing, if needed. Future residential development will consist primarily within the City's future annexation areas, with a small portion from the result of redevelopment and mixed-use development along US 441 / State Road 7. The future annexation areas can also be explored for housing options including affordable housing and additional housing choices.

Availability of Services

Parkland has sufficient infrastructure in place, either provided directly by the City or through interlocal agreement, to accommodate current development demands. Also, plans are currently being discussed through interlocal agreements to accommodate future growth needs.

At this time, Parkland has sufficient capacity for potable water service. As mentioned in the infrastructure services data inventory and analysis, Parkland receives its water from the City of Coconut Creek, the North Springs Improvement District, and Parkland Water Utility Services. The City also receives its wastewater services from the City of Coconut Creek and the North Springs Improvement District. There is sufficient capacity through these providers as well. Sufficient solid waste capacity is available at the County's solid waste facilities. The City has sufficient acres in local and community parks to serve its existing and future residents.

Alternative Housing Assessment

Other than the production of new affordable housing units, the City has been very proactive in maintaining its existing housing stock. The City has sufficient infrastructure, which contributes to a sustainable community. Therefore, smaller, older homes in the neighborhoods have the same management of infrastructure improvements. Thus, ensuring that the homes remain stable in the community and providing a range of housing opportunities.

AFFORDABLE HOUSING ASSESSMENT

Florida Statutes, Chapter 9J-5.010(2)(b) requires that an affordable housing assessment be performed using a methodology established by the Florida Department of Community Affairs.

Basic data for the Affordable Housing Assessment for Parkland was either extracted from the 2000 Census, or provided by the Shimberg Center for Affordable Housing (i.e., -Shimberg) at the University of Florida.

Affordable Housing Demand

Tables 2-17 to 2-18 present the very-low, low and moderate income housing needs estimates and projections using modified Shimberg data. Data is presented in a manner to utilize Shimberg assumptions regarding the relative growth of very-low, low and moderate income households, and do not account for the potential effects upon these assumptions of market-rate housing in developments that have existing approvals.

An affordable home, by definition, is one where a household pays less than 30% of its annual income for gross housing costs. A household which pays 30% or more of its annual income for gross housing costs is therefore experiencing cost burden (i.e. paying too high a percentage of its income for gross housing costs).

Shimberg projections do not account for the availability of developable land in municipalities. As a result, Shimberg data has not been factored to account for these eventualities. Using modified Shimberg data, household growth projections, by income group, are presented in Table 2-19.

From Table 2-20, there are currently (Census 2000) 1,038 owner-occupied households and 210 renter-occupied households in a position of cost-burden. Cost burden becomes more of an issue as the percentage of household income paid for gross housing costs increases, particularly in the lower income groups when the percentage is in excess of 50% (i.e. severe cost burden). For comparative purposes, the numbers of owner and renter households in Parkland paying 50% or more for gross housing costs are also presented in Table 2-20.

An analysis of income data from Tables 2-19 and 2-20 indicates the following conclusions:

- By 2020, there will be an increase in very low to low income residents. This translates to approximately a 10% increase in need for owner-occupied affordable housing for very low and low income residents.
- By 2020 there is also an expected increase in renter-occupied affordable housing needs. Very-low and low income renter occupied housing needs are projected to increase by 2%.

In total based on 2000 Census data, there are approximately 12% very-low income households in the City. The rental unit vacancy rate from the 2000 Census of 6.6% indicates that overall rental housing demand is generally met by the supply (note: a 5% vacancy rate is indicative of an equilibrium situation where supply meets demand, accounting for a normal turnover of tenants).

From Table 2-8, the incidence of cost burden among renters in the City (i.e., 44%) is identical to the County (i.e. 44%). Further, the above analysis indicates that renter households are likely having the most difficulty finding affordable rents in the City.

The Shimberg Center does not include the City's future development within its proposed annexation areas and the re-development potential along US 441 / State Road 7. The demand for additional very-low, low and moderate income housing is expected to be accommodated by these areas of the City.

The South Florida Regional Planning Council's Strategic Regional Policy Plan for South Florida provides guidelines for improving the affordable housing situation throughout the region. These guidelines include the following items, which are addressed by the City of Parkland.

1. *Addressing Affordable Housing as Infrastructure:*

The City has sufficient infrastructure in place, either provided directly by the City or through an interlocal agreement, to accommodate current development demands. The City's adequate infrastructure contributes to a sustainable community. Smaller, older homes in the neighborhoods have the same management of infrastructure improvements as the newer, larger and more expensive homes. Thus, ensuring that the homes remain stable in the community and providing a range of housing opportunities.

2. *Increasing Wages and Expanding Partnerships:*

The City of Parkland's median income is over fifty (50%) percent more than Broward County's median income, indicating that the City's residents are maintaining the ability to earn wages afford their housing costs.

3. *Improving Housing Affordability and Dispersal:*

The City has identified the State Road 7 corridor as a geographic location that would be appropriate for higher density housing. This housing will provide more housing choice for the City. Also, Parkland

Village Square is currently being developed. It is a mixed-use town center project located along Pine Island Road just north of Trails End in Parkland. The project will include approximately 45,000 square feet of restaurants, retail, and office space, along with 10 residential townhouses, surrounding a park with fountains, pedestrian and bike paths, and picnic grounds. This will also assist in providing a variety of housing throughout the City.

4. *Providing Housing for Special Needs Population:*

The frail elderly population in Parkland is expected to increase from 2000 to 2020 by 1.4%. It is expected that the needs of this population will be addressed through the two facilities located within the City. The Inn at Parkland Commons can accommodate 100 residents in an assisted living facility, while Phoenix Senior Living II, Inc can accommodate 6 residents in a group home. This accounts for 55% of the current frail elderly population. According to the Strategic Policy Plan, approximately 26% of this population lives alone. Therefore, Parkland's frail elderly population is well served by the existing facilities in the City. A variety of needs are provided through the two types of facilities currently present in the City.

5. *Developing a Regional Housing Plan*

The City of Parkland has, and will continue, to work with the South Florida Regional Planning Council to support regional housing policies. The City has joined the State Road 7 Collaborative, which is an effort of the Cities on State Road 7 to provide redevelopment opportunities throughout the corridor.

Table 2-17: Growth Driven Need for Affordable Owner-Occupied Units Derived from Modified Shimberg Data

Income Group	Growth Period		
	2000–2005	2005–2010	2010–2020
Very-Low	181	114	85
Low	350	219	163
Moderate	1,407	294	657

Source: Calvin, Giordano & Associates, Inc., 03/07 with modified Shimberg data.

Table 2-18: Growth Driven Need for Affordable Renter-Occupied Units Derived from Modified Shimberg Data

Income	Growth Period
--------	---------------

Group	2000-2005	2005-2010	2010-2020
Very-Low	26	16	12
Low	49	31	23
Moderate	197	41	92

Source: Calvin, Giordano & Associates, Inc., 03/07 with modified Shimberg data.

Table 2-19: Income and Tenure

A. Owner-Occupied Households				
Median Household	2000	2005	2010	2020
<20%	99	150	185	210
20-29.9%	61	92	114	129
30-39.9%	92	138	171	194
40-49.9%	107	161	200	226
50-50.9%	137	207	257	291
60-79.9%	316	479	592	671
80-119.9%	763	1151	1427	1617
> 119.9%	2,238	3379	4187	4746
Subtotal	3,813	5,757	7,133	8,084
B. Renter-Occupied Households				
Median Household	2000	2005	2010	2020
<20%	50	75	93	105
20-29.9%	25	37	46	52
30-39.9%	35	53	65	74
40-49.9%	40	61	75	85
50-50.9%	43	65	80	91
60-79.9%	77	116	144	163
80-119.9%	130	196	243	276
> 119.9%	136	205	254	288

Table 2-20 - 2000 Cost Burdened Housing (occupied units) Derived from Shimberg Data

A. Owner-Occupied Housing		
Income Group	At 30% or More Cost	At 50% or More Cost
Very-Low	69	183
Low	183	84
Moderate+	458	61
Subtotal Owner	710	328
B. Renter-Occupied Housing		
Income	At 30% or More Cost	At 50% or More Cost
Very-Low	16	92
Low	63	10
Moderate+	29	0
Subtotal Renter	108	102

* Deficit = Households paying 30% or more of gross income for gross housing costs

** Deficit = Households paying 50% or more of gross income for gross housing costs

Source: Calvin, Giordano & Associates, Inc., 03/07 with modified Shimberg data

Subtotal	536	808	1,000	1,134
Total Renter and Owner	4,349	6,565	8,133	9,218
Source: Shimberg Center for Affordable Housing; Calvin, Giordano & Associates, Inc., 03/07				

Supplemental Housing Supply Characteristics

Data regarding the City's housing and household characteristics are discussed using a variety of sources in previous sections of this element. Supplementing previous data are the following tables prepared by Shimberg.

The City's for-sale housing stock, consists primarily of single-family units. The housing prices in the City are considerably higher than that of the County, which is consistent with the high level of income in the City.

Table 2-21: Yearly Single-Family Housing Sales Activity

	2000	2001	2002	2003
Units Sold	613	772	939	870
Median Price (\$)	307,841	415,207	418,961	486,417

Source: Shimberg Center for Affordable Housing; Calvin, Giordano & Associates, Inc., 03/07

In comparison to those for the City of Parkland, the following countywide residential

sales statistics are provided by Shimberg for the year 2004:

- Single-Family sales: Average price - \$219,585

From the above data, it is concluded that average home prices in Parkland are substantially greater than the countywide figures. Again, this is consistent with the considerably higher income level of the City.

SUMMARY

The support documentation of the Housing Element presents an overview of the existing and projected future conditions pertinent to the preparation of the housing goal, objectives and policies.

Data used to describe the City's existing housing conditions are derived from the Census, State of the Cities Data System (SOCDS), the Shimberg Institute for Affordable Housing (Shimberg), and current primary research and analysis. The following are pertinent observations regarding the housing and household characteristics of Parkland:

- It is estimated there were a total of 4,546 housing units in Parkland in 2000, consisting of 3,924 single-family homes and 622 multiple-family units.
- Of the housing units reported by the U.S. Census, 87.7% were owner-occupied, while 12.3% were renter-occupied.
- The median monthly gross rent for renter-occupied units in Parkland in 2000 was \$1,128 per month. Approximately 50% of all rents were between \$1,000 and \$1,499 per month.
- The median value of all owner-occupied units reported in 2000 was \$309,700 in Parkland, substantially higher than the county-wide median of \$128,600.
- The median income in Parkland in 2000 was \$102,624, which is more than double the County's median income of \$50,531.
- Approximately 50.4% of the total renters in 2000 paid less than 30% of household income for gross housing costs. Further approximately 54.2% of the total owners with a mortgage in 2000, paid less than 30% of household income for gross housing costs. Based upon the Department of Community Affairs standard, these figures indicate that approximately half of the households within the City are residing within a home that they can afford. The City's policies indicate additional housing will be addressed through housing choices that will be provided by development in the future annexation areas, throughout the US 441 / State Road 7 Corridor, and through new mixed-use projects, such as Parkland Village Square. Parkland Village Square is a town center project located along Pine Island Road just north of Trails End in Parkland. The project will include

approximately 45,000 square feet of restaurants, retail, and office space, along with 10 residential townhouses, surrounding a center park area with fountains, pedestrian and bike paths, and picnic grounds.

- Age, code violations and overcrowding of the housing stock are not issues in the City. The City has a proactive code enforcement program to prevent any unsafe structures and encourages either demolition or rehabilitation of existing unsafe structures.
- There are no public housing facilities.
- The City has one rental community. This community has recently gone through a large scale renovation, including new roofs, exterior upgrades and overall restoration. This effort ensures the rental housing stock remains adequate.
- The Census estimated the population of Parkland at 13,835 residents in 2000. Projections accounting for expected growth indicate that the City's population will increase to 29,313 residents by 2025. Of the total growth during the 2005 - 2025 period, approximately 48% are projected to be of prime working age, while prime school-age children are projected to account for approximately 22%. Growth in the oldest retirement age-group (i.e. 75 years and older) is projected to increase by 6% during the period.
- It is projected that 10,130 new single family units and 1,289 new multi-family units will be required during the 2005-2025 period to accommodate the City's housing needs.
- Housing stock in the City has historically been constructed and managed by the private sector. It is concluded that this sector will continue to provide housing to accommodate projected population growth throughout the 2005-2025 period. The City's role in the housing delivery process will consist primarily of the following:
 - Provision of services, either directly or by contract, necessary to facilitate housing construction activity.
 - Code enforcement and assurance that minimum housing standards are maintained.
- It is further anticipated that the City's role in code enforcement and housing rehabilitation activities will increase as the housing stock ages.
- Parkland has sufficient infrastructure in place, either provided directly by the City or through interlocal agreement, to accommodate current development demands. Also, plans are in place to accommodate future growth needs through additional interlocal agreements with adjacent municipalities.
- An analysis of Census and Shimberg data indicates that the current

incidence of cost-burden is also an issue for the City. Housing goals, objectives and policies should therefore contain language promoting the maintenance and rehabilitation of the City's housing stock, while encouraging or requiring the public and private sectors to provide housing to accommodate additional needs generated by population growth.

CHAPTER THREE

TRANSPORTATION ELEMENT

INTRODUCTION

As per F.S. 163.3177, every local government which has all or part of its jurisdiction included within the urbanized area of the Metropolitan Planning Organization (MPO), must prepare and adopt a transportation element consistent with the provisions of Chapter 163 of the Florida Statutes. The City of Parkland's Transportation Element also includes all updates required as part of 2009 adopted Senate Bill 360, which pertains to growth management.

PURPOSE

The Transportation Element's purpose is to plan for a safe, convenient, and efficient motorized and non-motorized transportation system within the City of Parkland. This Element is developed in coordination with the Broward County Transportation Element, the Broward County MPO Long Range Transportation Plan, the Broward County Transit Development Plan, and the Florida Department of Transportation. The Transportation Element sets the overall guidelines for transportation planning, and consists of the Data Inventory and Analysis Report, and the Goals, Objectives, and Policies.

REGIONAL CONTEXT

Socioeconomic, Political and Cultural Factors

The City of Parkland is primarily a residential community with a population of approximately 23,962, according to the 2010 Census Data. 2009-2013 data shows the median household income in the City of Parkland was approximately \$117,758. The City had approximately 15,820 working age residents, with 70.1% (11,090) of them in the labor force. The majority of workers (51.8%) in Parkland reported their occupation type as management, business, science, or arts occupations. The next largest category is sales and office occupations (34.8%).

Since the City of Parkland is predominantly residential, most workers are commuting outside of the City of Parkland for employment. Approximately 10.2% of the reported workers worked from home, while 86.7% commuted. In addition, approximately 81.2% commuters drove to work alone, 5.5% carpooled, 0.5% used public transportation, and 2.6% either walked or used other means of transportation. 75.5% of workers commute

to a location in Broward County, and 22.4% work in another county.

Growth and Development Activity

The City of Parkland is generally located north of the Sawgrass Expressway, west of SR-7/US-441, east of the South Florida Water Management District's Water Conservation Area, and south of the Palm Beach County line. It is an upscale residential community with small scale commercial villages, located in the northwest corner of Broward County. The City is comprised of approximately 9,155 acres, which is primarily residential with a few small areas of institutional, commercial and agricultural land uses scattered throughout. Some commercial land uses exist along the west side of SR-7/US-441 between Loxahatchee Road and the Sawgrass Expressway.

The City's population is estimated at 26,998 in 2015, and due to the build-out of the annexed "Wedge" parcels the population is projected to increase to 42,651 in 2040. This means that the City's annual population growth rate between 2005 and 2020 is approximately 2.5%. Although Parkland's population is estimated to grow to 29,313 by 2020, it will still be one of the ten smallest municipalities within Broward County.

Based on this information, basic considerations for the Transportation Element are as follows:

- There is a significant commuting population from the City of Parkland.
- Due to the overwhelming low-density residential character of the City, not all modes of transportation are suitable for the City.
- Due to the semi-isolated location of the City in proximity to the surrounding roadway network, through traffic has been and will continue to be discouraged while the mobility of City residents is promoted.

DATA, INVENTORY, AND ANALYSIS

The following data and analysis provides a comprehensive look at the City of Parkland's existing and future transportation needs. The planning horizon year 2030 has been used for the future analysis. The Transportation Element, Data, Inventory and Analysis section includes the following:

- An analysis of the existing roadway and transit levels of service,
- An assessment of existing transportation needs,
- An analysis of the capital improvements planned by the City of Parkland, Broward County and the Florida Department of Transportation,
- An analysis of the future roadway and transit levels of service, and
- An assessment of future transportation needs

The Data, Inventory and Analysis includes three subsections:

- Existing Transportation System and Transportation Needs Analysis, and the
- Future Transportation System (2030) and Future Transportation Needs Analysis.

Mobility Needs Assessment for Parkland, FL. In July 2015, Keith and Schnars published this report, which addresses current conditions and forecasted conditions at build-out of the “Wedge”. Refer to Appendix A for the full report, including additional maps and data tables.

EXISTING TRANSPORTATION SYSTEM AND TRANSPORTATION NEEDS ANALYSIS

For the Transportation Element, F.S. 163 requires an analysis of the existing transportation facilities and an evaluation of the current system’s needs based on existing conditions, land uses, and committed developments in the area. For this purpose, transportation facilities were analyzed based on data obtained from Broward County and the Broward County MPO. This Element is consistent with the Future Land Use Element, the Capital Improvement Element, and the Broward County MPO Long Range Transportation Plan (LRTP).

The existing transportation system consists of the existing roadway system, existing multi- purpose trail system, and transit system. The City of Parkland does not have an airport, port, or rail lines within City limits.

Existing Roadways

The City of Parkland has a network of local, county, and state roadways within and around the City. The roads within the City of Parkland connect almost exclusively to roadways located east and south of the City within Broward County. Undeveloped land in Palm Beach County borders the city to the north, and a conservation area borders the City to the west. The City’s interior exclusively consists of county and local roads. The Sawgrass Expressway runs along the southern border of the City and has three interchanges that provide access to the City. US-441/SR-7 runs along the eastern border providing access into Palm Beach County to the north and Broward County to the south. The existing roadway network is shown on Map 3- 1.

Lane Configurations

The number of lanes on a roadway is an important factor when determining the roadway’s operating conditions. Most roads within the City of Parkland currently consist of two lanes. The existing lane configurations of the roadways within and

bordering the City of Parkland are shown on Map 3-1 and listed in Table 3-1.

Functional Classification

All roadways are classified based upon the purpose they serve, travel speed, access needs, and mobility needs. Since the City of Parkland is a designated Urban Area, the roadways within the City of Parkland fall into four urban functional classification groups according to information obtained from the Broward County MPO. A description of all four functional classification categories is provided below:

Local Streets

“Locally classified roads account for the largest percentage of all roadways in terms of mileage. They are not intended for use in long distance travel, except at the origin or destination end of the trip, due to their provision of direct access to abutting land. Bus routes generally do not run on Local Roads. They are often designed to discourage through traffic. As public roads, they should be accessible for public use throughout the year. Local Roads are often classified by default. In other words, once all Arterial and Collector roadways have been identified, all remaining roadways are classified as Local Roads” (Broward County MPO Reference Publication: *Highway Functional Classification Concepts, Criteria and Procedures*. U.S. Dept. of Transportation, Federal Highway Administration. 2013).

Collectors: Major and Minor

“Collectors serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network. Within the context of functional classification, Collectors are broken down into two categories: Major Collectors and Minor Collectors.

Generally, Major Collector routes are longer in length; have lower connecting driveway densities; have higher speed limits; are spaced at greater intervals; have higher annual average traffic volumes; and may have more travel lanes than their Minor Collector counterparts” (Broward County MPO Reference Publication: *Highway Functional Classification Concepts, Criteria and Procedures*. U.S. Dept. of Transportation, Federal Highway Administration. 2013).

Principal Arterial

“Principal Arterial roadways serve a large percentage of travel between cities and other activity centers, especially when minimizing travel time and distance is important. For this reason, Arterials typically are roadways with high traffic volumes and are frequently the route of choice for intercity buses and trucks” (Broward County MPO Reference Publication: *Highway Functional Classification Concepts, Criteria and Procedures*. U.S. Dept. of Transportation, Federal Highway Administration. 2013).

Map 3-1 Existing Roadway System & Lane Configuration



City of Parkland

Map 3-1 Existing Roadways and Lane Configurations

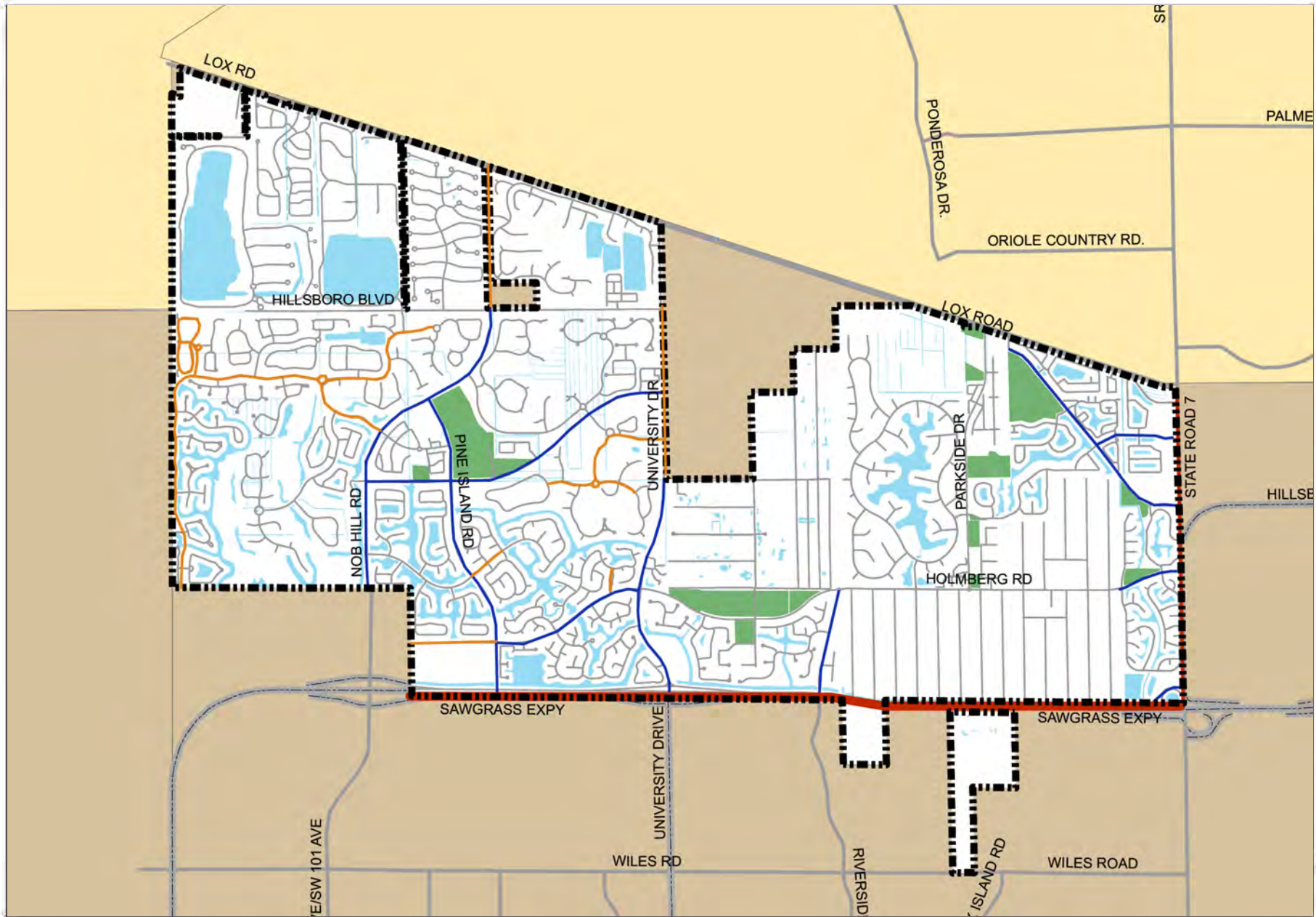
- City of Parkland
- Broward Co.
- Palm Beach Co.
- Waterbodies
- Parkland Parks
- 2-Lane
- 2-Lane Divided
- 4-Lane Divided
- 6-Lane Divided

0.5

Miles



This map was created with data from the Broward County MPO, FDOT, and Broward County GIS Department. Any inaccuracies in the data are not the responsibility of The Meilgren Planning Group.



Map 3-2 Existing Roadway Jurisdiction & Functional Classification



City of Parkland

Map 3-2 Existing Roadway Jurisdiction and Classification

City of Parkland

Waterbodies

Parkland Parks

Broward Co.

Palm Beach Co.

City Jurisdiction

Local Streets

Minor Collector

Major Collector

County Jurisdiction

Minor Collector

Major Collector

State Jurisdiction

Principal Arterial

N



0.5

Miles



This map was created with data from the Broward County Highway Construction and Engineering Division GIS Section, updated January 2015. Any inaccuracies in the data are not the responsibility of The Mellgren Planning Group.

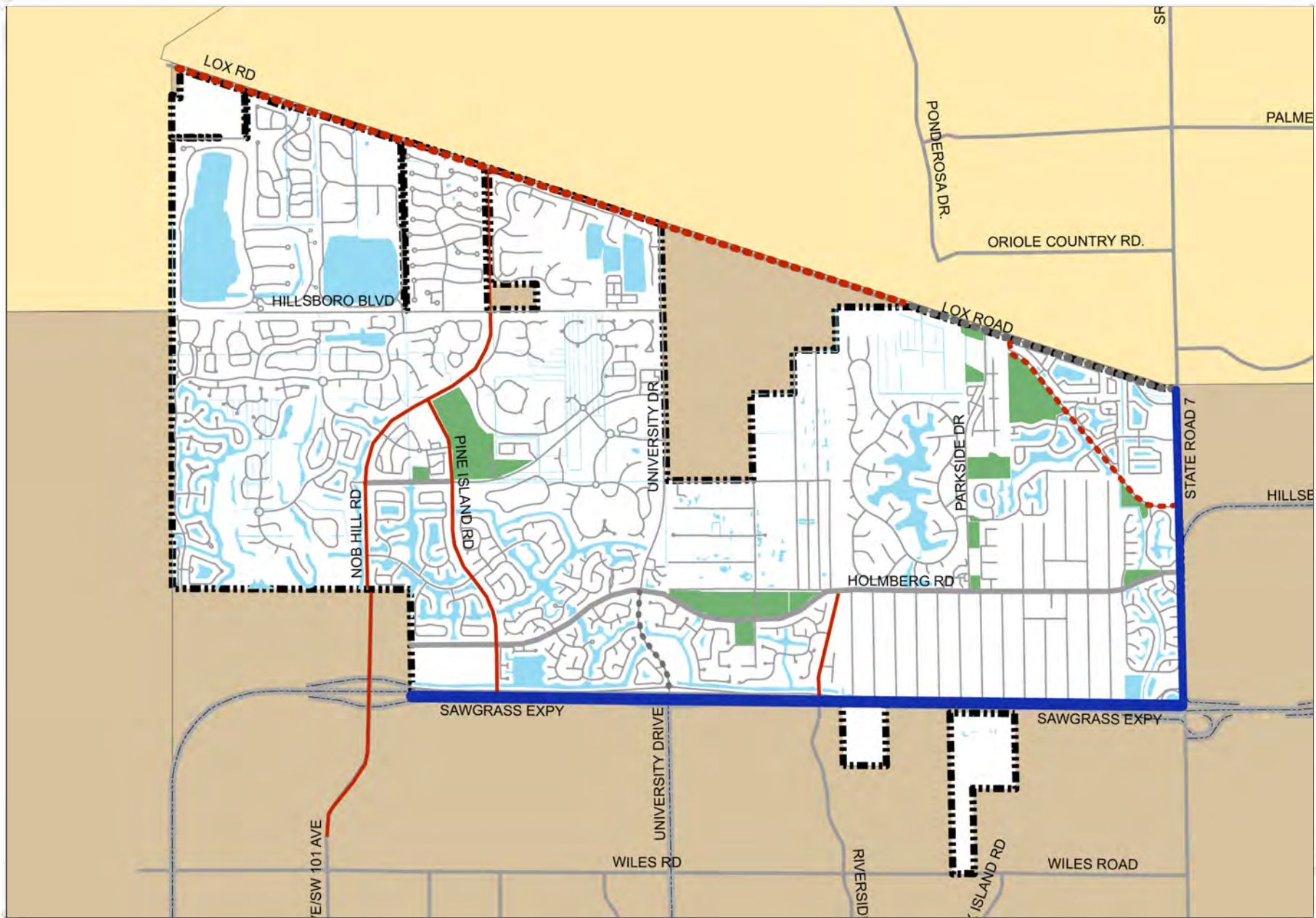


TABLE 3-1: EXISTING LANES, JURISDICTION AND FUNCTIONAL CLASSIFICATION

Roadway Name	From	To	Lanes	Jurisdiction	Functional Classification
Hillsboro Boulevard	Conservation Levee	Nob Hill Rd	2LU	City	Local Street
	Nob Hill Rd	University Dr.	4LD	City	Local Street
	Loxahatchee Rd	SR-7	4LD	County	Major Collector
Holmberg Road	Nob Hill Rd	Pine Island Rd	2LD	City	Minor Collector
	Pine Island Rd	University Drive	4LD	City	Minor Collector
	University Drive	Riverside Drive	2LU	City	Minor Collector
	Riverside Drive	Parkside Drive	2LU	City	Minor Collector
	Parkside Drive	NW 61st Avenue	2LU	City	Minor Collector
	NW 61st Avenue	SR-7	4LD	City	Minor Collector
Loxahatchee Road	Conservation Levee	Hillsboro Future Exten.	2LU	City	Major Collector
	Hillsboro Future Exten.	SR-7	4LD	County	Major Collector
Nob Hill Road	Sawgrass Expwy	Hillsboro Blvd	4LD	County	Minor Collector
	Hillsboro Blvd	Loxahatchee Rd	2LD	County	Minor Collector
Pine Island Road / Coral Springs Drive	Sawgrass Expwy	Holmberg Road	4LD	County	Minor Collector
	Holmberg Road	Trails End Road	4LD	County	Minor Collector
Riverside Drive	Holmberg Road	Sawgrass Expwy	4LD	County	Minor Collector
SR-869/Sawgrass Expwy	Nob Hill Rd	University Drive	6LD	State	Principal Arterial
	University Dr	SR-7	6LD	State	Principal Arterial
Trails End Road	Nob Hill Rd	Pine Island Rd	4LD	City	Minor Collector
	Pine Island Rd	University Drive	4LD	City	Local Street
University Drive	Sawgrass Expwy	Holmberg Rd	4LD	City	Major Collector
	Holmberg Rd	NW 72 nd St	4LD	City	Local Street
	NW 72 nd St	Loxahatchee Rd	2LD	City	Local Street

Note: Lanes, Jurisdiction, and Functional Class obtained from Broward County MPO, FDOT, and Broward County GIS Department.

Existing Jurisdiction

Each of the road segments in the existing roadway network is under the jurisdiction of the City, County, or State. Local roads which are public roads are also the responsibility of the City of Parkland, while private local roads are the responsibility of the private owner. The existing roadway jurisdiction, as determined from information obtained from the Broward County MPO, is depicted on Map 3-2 and listed in Table 3-1.

Regional Multimodal Systems











Florida's *Strategic Intermodal System* (SIS) was developed in 2003 to create a statewide system of high-priority facilities including major interregional and intercity highways, airports, deep water sea ports, freight rail terminals, passenger rail and bus terminals, rail corridors, and waterways. These facilities help to expedite the international, interstate, and interregional travel to maintain the economic growth. SIS corridors receive the highest funding priority for transportation capacity improvements. The entire length of the Sawgrass Expressway along the southern City border is considered a Highway Corridor on Florida's SIS. The existing designated and emerging SIS facilities within and surrounding the City of Parkland are shown on Map 3-3.

The entire length of the Sawgrass Expressway along the southern City border is also considered a Principal Arterial on the National Highway System (NHS) and a State Road on Florida's State Highway System (SHS).

Map 3-3 Existing Designated & Emerging SIS Corridors

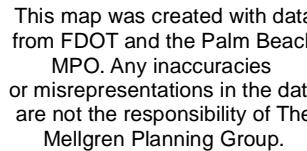


Map 3-3
Existing Designated
&
Emerging SIS
Corridors

-  First 5 Year Plan Highway Point
-  First 5 Year Plan Rail Line
-  Existing SIS Corridor
-  Existing SIS Connector
-  Parkland Streets
-  Parkland Waterbodies
-  City of Parkland
-  Major Roads
-  Palm Beach County
-  Broward County



Miles



Map 3-4 Hurricane Shelters & Evacuation Routes



City of Parkland

Map 3-4
Hurricane Shelters
&
Evacuation Routes

- Boca Raton High School
- West Boca Raton High School
- Coral Glades High
- Liberty Elementary
- Lyons Creek Middle
- Monarch High
- Park Trails Elementary
- Parkside Elementary
- Pompano Beach High
- Tradewinds Elementary

- Evacuation Routes
- Parkland Streets
- Parkland Waterbodies
- City of Parkland
- Major Roads
- Palm Beach County
- Broward County

N

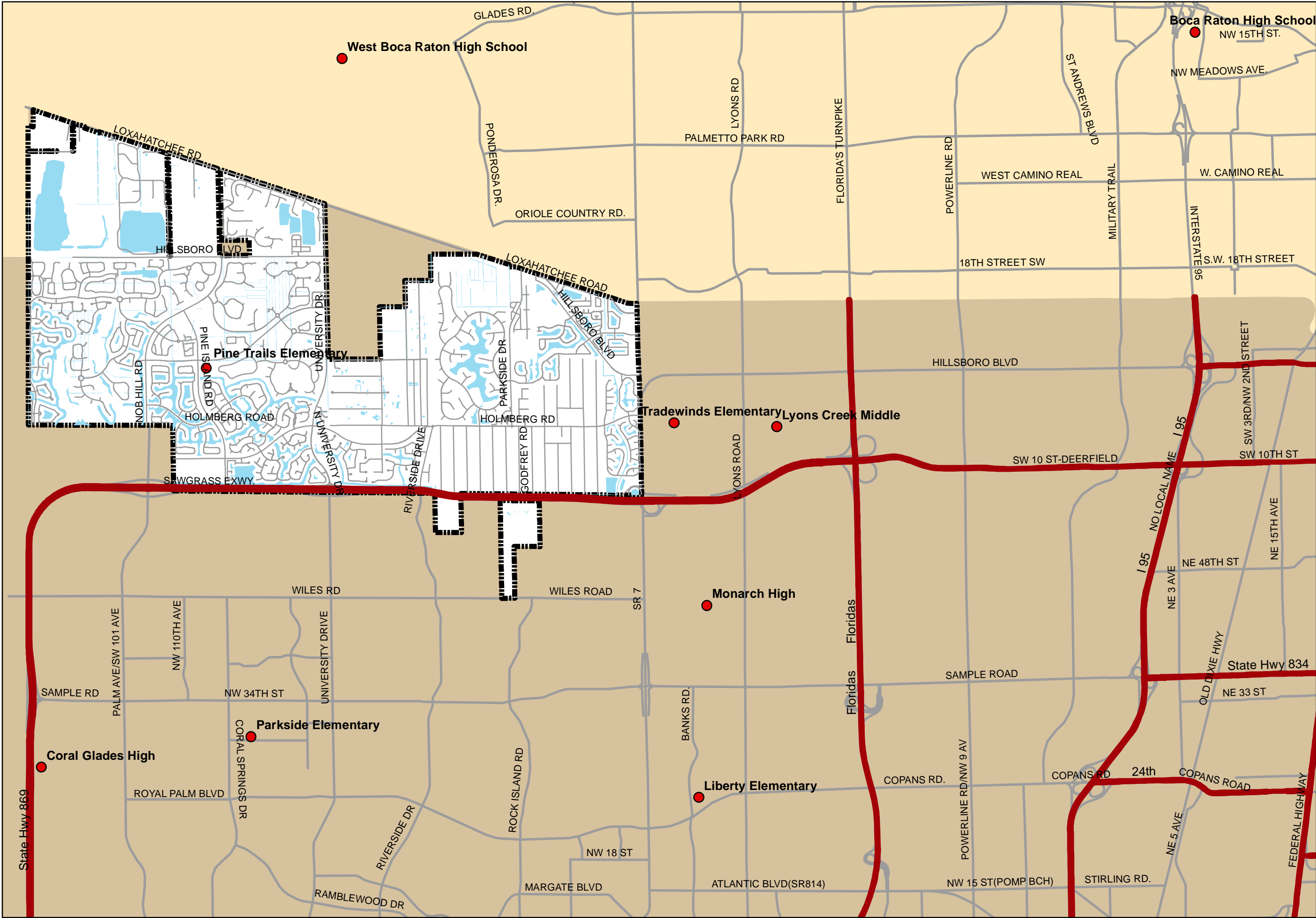


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Miles



This map was created with data from Palm Beach County and Broward County. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.



Hurricane Evacuation

Hurricane evacuation routes and a list of shelters near the City of Parkland were obtained from the Broward County Emergency Management Division and the Palm Beach County Information Systems Services Division. The Broward County Emergency Management Agency is responsible for the management of all emergency preparedness program areas within the County. The primary role of the Agency is to develop and implement comprehensive disaster planning, mitigation and response activities within Broward County under the provisions of Florida statutes.

Since the City of Parkland is located inland roughly eight miles west of the Atlantic Ocean, storm surge is not the primary danger from a hurricane. However, residents should be aware of the shelters and the designated evacuation routes nearest them. The existing shelters and designated hurricane evacuation routes are shown on Map 3-4. The shelters and designated hurricane evacuation routes are subject to change and the Broward County Emergency Management Agency should always be contacted to find the most current shelter locations and hurricane evacuation routes.

Rail Lines, Sea Ports, Waterways, Airports, Truck Routes, and Parking Facilities

The City of Parkland does not have any existing rail lines, sea ports, waterways, airports, or truck routes within the City. In addition, the City of Parkland does not currently own or operate any parking facilities.

Existing Public Transit Facilities

The City of Parkland is accessible by Broward County Transit (BCT) routes 19 and 88. There are multiple stops on route 19 along Highway 441. Northbound service from the Turtle Creek and Walmart stop runs Monday – Friday from 5:30 AM to 8:39 PM and southbound service from Turtle Creek Dr. & US 441 runs from 4:35 AM to 11:20 PM. Saturday northbound service runs from 6:10 AM to 7:29 PM, and Southbound Saturday service is from 5:10 AM to 11:15 PM. Northbound Sunday service runs from 7:30 AM to 11:37 PM, and southbound Sunday service runs from 6:15 AM to 10:15 PM. Headways are 20 minutes on weekdays and 30 minutes on weekends. The northbound service on route 88 from the Heron Bay Plaza stop runs from Monday – Friday from 6:56 AM to 8:41 PM and the southbound service to this stop runs from 5:55AM to 8:00 PM. There is no Saturday and Sunday service. Headways vary on these routes, with less than 60 minutes between busses. Standard one-way fare is \$1.75.

Map 3-5 Existing Transit Routes



City of Parkland

Map 3-5
Existing Transit
Routes

● Route 19 and
Route 18 Bus
Stops

Community Bus
Routes

— Coconut Creek N
— Coral Springs
Green

Broward County
Transit Routes

— 19
— 88
— Parkland Streets
— Waterbodies
— City of Parkland
— Major Roads
— Palm Beach
County
— Broward County

N

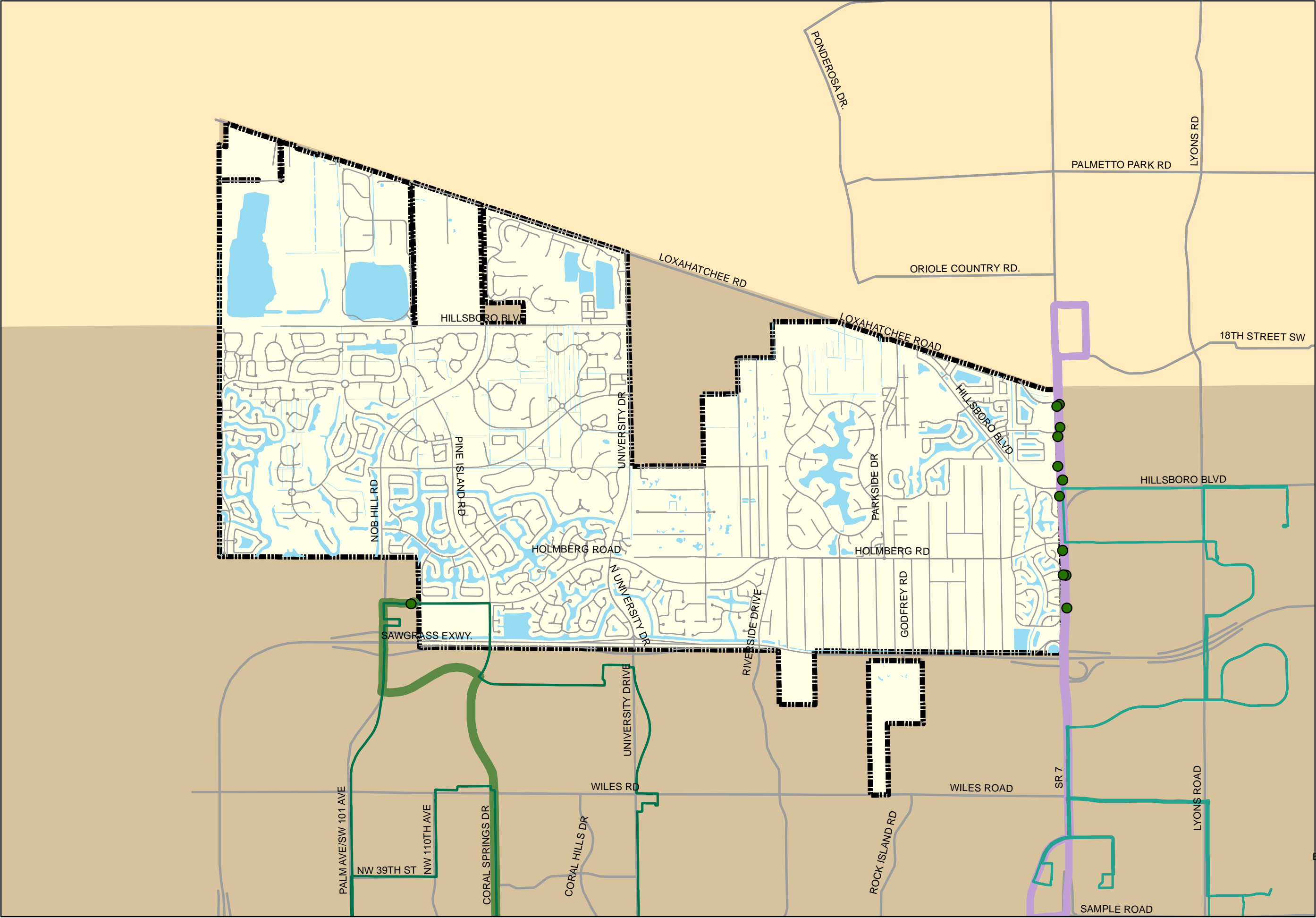


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This map was created with data from the Palm Beach MPO and Broward County Transit. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.



The BCT route 88 also connects with the Coral Springs "Green" Community Bus. The Coral Springs "Green" Community Bus is 50 cents, the headways in between the buses are one hour, and the service hours (as of July 2015) are from 8:34 AM-5:34 PM on weekdays, from 8:00 AM-5:00 PM on Saturdays and Sundays. BCT route 19 also connects with the Coconut Creek "N" Community Bus. The service runs Monday – Friday, 7:00 AM – 7:00 PM and Saturdays from 7:00 AM to 6:00 PM. It connects to route 19 at the Turtle Creek Drive and Turtle Run Plaza Walmart Stop. The existing Broward County Transit, Coral Springs, and Coconut Creek bus routes are shown on Map 3-5.

Existing Pedestrian, Bicycle and Horse Facilities

Schools, libraries, parks, shopping places, employment centers, and bus stops often generate pedestrian and bicyclist traffic. To maintain the mobility of a multimodal transportation system, it is important the City of Parkland have a well-connected system for pedestrians, bicycles, and horses along with the existing roadway system. The City of Parkland is working to expand and maintain a thorough network of multi-use trails that serve pedestrians, bicyclists and horses. The multi-use trails are 6-foot wide, paved, meandering trails, set back a substantial distance from vehicular roadways. The existing multi-use trail system is shown on Map 3-6.

Existing Major Trip Generators and Attractors









The existing major trip generators and attractors within the City of Parkland are primarily commercial and educational sites. There are five schools, four of which are clustered in the southwest corner of the City, and five shopping centers, three of which are located along SR-7. The existing attractors and generators in the City of Parkland are shown on Map 3-7.

Map 3-6 Existing Multi-Use Trails



City of Parkland

Map 3-6
Existing Multi-Use
Trails

-  Parkland Trails
-  County and Municipal Trails
-  Major Roads
-  Parkland Streets
-  Waterbodies
-  City of Parkland
-  Palm Beach County
-  Broward County

N

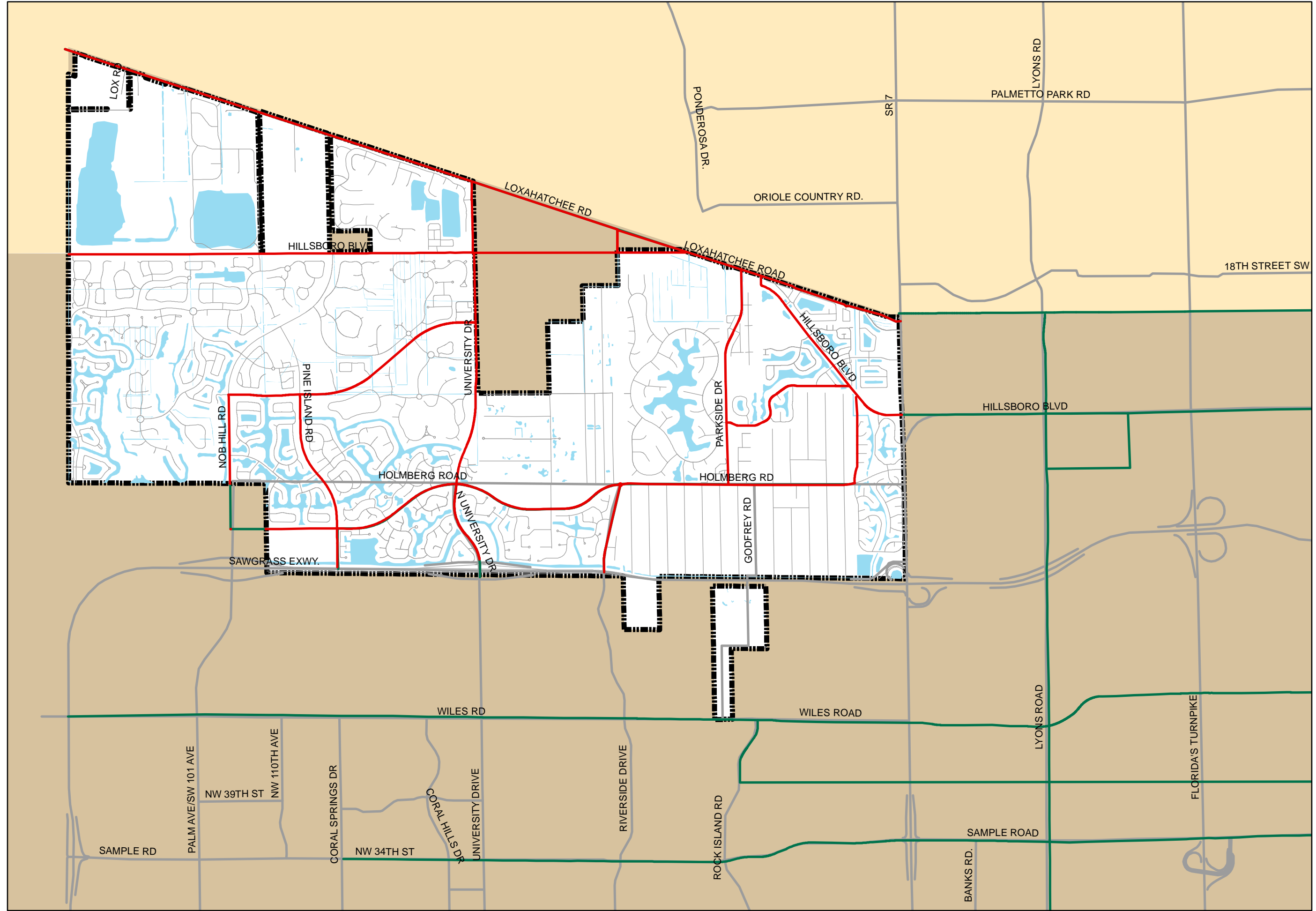


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Miles



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Map 3-7 Existing Trip Generators & Attractors



City of Parkland

**Map 3-7
Existing Trip
Generations
&
Attractors**

-  Parkland Schools
-  Parkland Streets
-  Commercial
-  Waterbodies
-  City of Parkland
-  Major Roads
-  Palm Beach County
-  Broward County

N

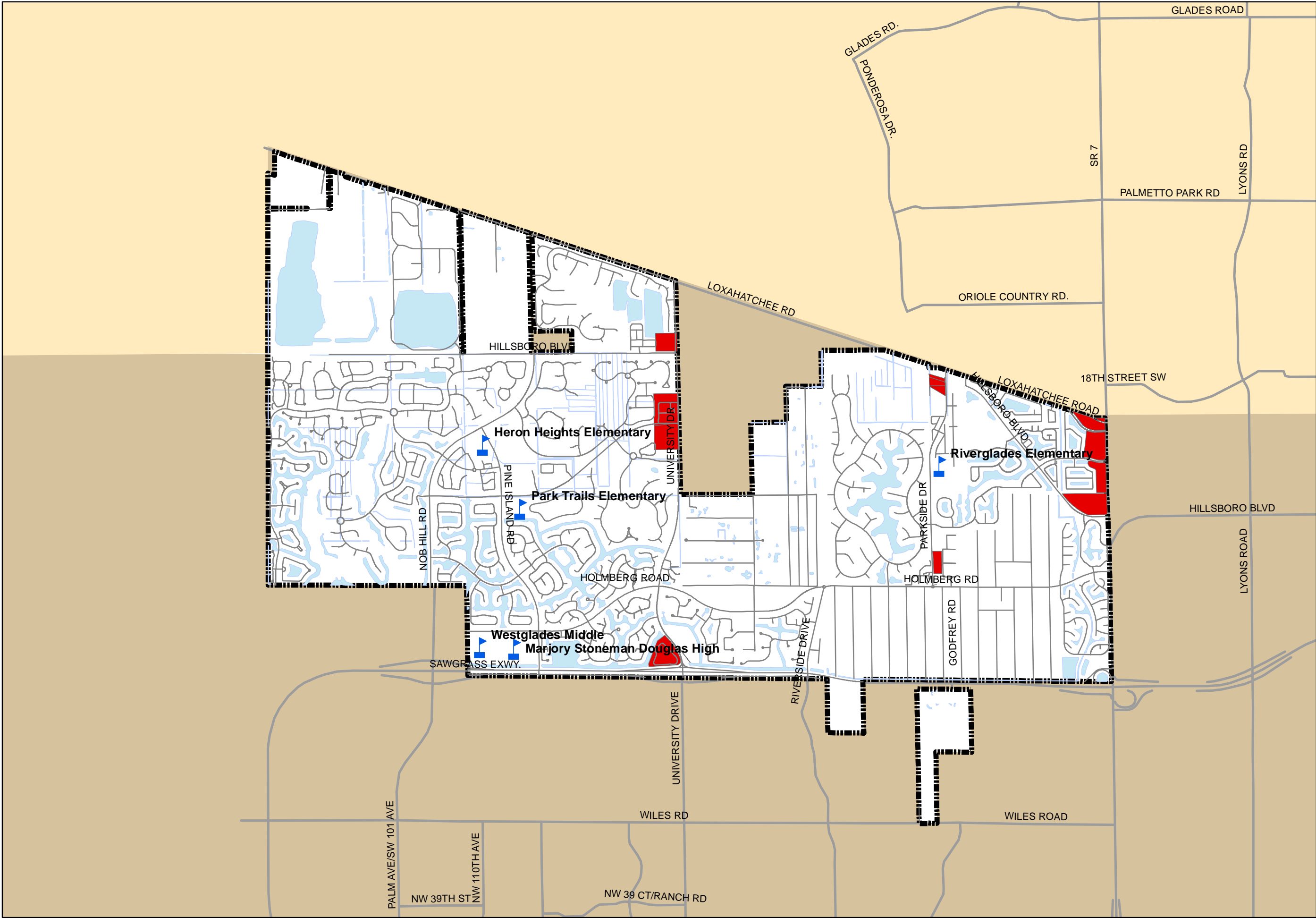


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EXISTING TRANSPORTATION ANALYSIS

Local Roadway LOS Standards

Roadway level of service standards have long been used in systems planning and traffic operations. The roadway level of service (LOS) standard is a qualitative assessment of the road user's perception of the quality of flow of traffic. The LOS standard is represented by letters "A" through "F," with "A" representing the most favorable conditions and "F" representing the least favorable. The LOS is measured by dividing the number of vehicle trips (i.e., volume) on the facility by the capacity of that facility.

Adopted Level of Service

The City of Parkland will follow the Broward County Standard Concurrency standards for state and county funded facilities and the Concurrency Management System (CMS) implemented by the Broward County Development Management Division for City maintained roadways. Broward County has ten concurrency Districts. The City of Parkland falls within Northwest Concurrency District. According to the County a Standard Concurrency District shall be an area where roadway improvements are anticipated to be dominant form of transportation enhancement. A roadway level of service standard shall be established for each district, based on peak hour standard volumes contained in the Florida Department of Transportation Level of Service Manual. The Northwest District shall adopt generalized two-way peak hour LOS D standard volumes for Florida's urbanized areas from Level of Service Manual, Florida Department of Transportation.

The City of Parkland shall adopt the following standards for generalized two-way peak-hour roadway level of service (LOS). The following subsection will also explain LOS standards identified in Chapter 14-94 F.A.C. for SIS and TRIP funded facilities. See Rule 14-94.003 for Statewide Minimum Level of Service Standards for guidance along SIS and TRIP funded roadways, as follows:

- a. *Strategic Intermodal System (SIS) and Trip Funded Facilities.* Rule 9J-5.0055(2)(c), FAC, requires local governments to adopt the LOS standards established by the Florida Department of Transportation by rule 14.94003 for facilities on the Florida Intrastate Highway System (FIHS).

Florida Intrastate Highway System (FIHS)/Strategic Intermodal System (SIS)
Roadways:

1. Florida Turnpike and Homestead Extension - D
2. Sawgrass Expressway - D

- b. Trip Funded Facilities Standards:

Florida Statutes also set standards regarding level of service for Regionally Significant TRIP funded facilities impacted by TCMAs, MMTDs or TCEAs. There are two Trip facilities in and around the City of Parkland 1) SR-7, 2)

University Drive. Pursuant to Section 163.3180(5), (7), or (15), the Department must be consulted regarding the level of service standards on TRIP funded facilities inside TCMAs or MMTDs.

The Florida Department of Transportation was consulted regarding the LOS standard for SR-7. Since, SR 7 is a regional transportation corridor, which passes through several municipalities and counties; the Department is currently in the discussion process regarding the adopted LOS for SR-7. It is premature to conclude what will be the adopted LOS for SR-7/US 441. The City will adopt a LOS “D” for SR-7/US 441 and University Drive. The adopted LOS standard for SR-7 is subject to revision based upon the conclusions from consultation between the neighboring municipalities and the FDOT through a comprehensive plan amendment.

1. SR-7/US-441 -LOS D
2. University Drive LOS D

- b. *Other local roadways.* Rule 9J-5.0055(2)(c), FAC, requires local governments to adopt adequate LOS standards for local roads. The City of Parkland utilizes the generalized two-way peak hour volumes for Florida’s urbanized areas at the LOS “D” standard consistent with Broward County’s Northwest Concurrency District standards.

The Level of Service standards for all other roadways within the City of Parkland are shown below in Table 3-2:

TABLE 3-2: ADOPTED LEVEL OF SERVICE STANDARDS

	Daily	Peak Hour	Peak Hour Peak Direction
Non-SIS Roadways	D	D	D
SIS Roadways	Level of Service standards established by the Florida Department of Transportation		

NOTE: Florida Intrastate Highway System (FIHS) roadways are a series of interconnected limited and controlled access roadways including the Interstate Highways, the Florida Turnpike, selected urban expressways, and major arterial highways. The Sawgrass Expressway is part of the FIHS.

The level of service standard is used as a guide for planning purposes to identify the needs and plan for the improvements necessary to maintain a desired level of service. Factors that influence the roadway level of service include number of lanes, volume, speed, control type, number of access connections, maneuverability, safety, and convenience. General descriptions of each roadway level of service are provided below:

LOS A-Represents ideal condition of primarily free-flow traffic conditions at average travel speed with minimal delay.

LOS B-Represents unimpeded traffic flow at average travel speed, the maneuverability is slightly restricted within the flow.

LOS C-Represents stable traffic operations, however, ability to maneuver and change lanes may be more restricted, with lower average travel speeds as compared to LOS B.

LOS D-Represents traffic flow is unstable; speeds are tolerable for short periods of time but subject to sudden variance.

LOS E-Represents traffic flow is unstable and flow rates variable. This flow is characterized by significant delays and lower operating speeds.

LOS F-Represents traffic flow at extremely low speeds, congested roadways, high approach delays, and driving comfort is very low.

Existing Roadway Levels of Service

A level of service analysis was performed to assess the existing operations of the roadways which serve the City of Parkland's existing land uses.

Existing Roadway Needs

The existing roadway level of service analysis indicates that all roadways within and bordering the City of Parkland are currently operating at LOS D or better, except for Holmberg Road between Riverside Drive and SR-7/US-441, which is operating at LOS F.

Generalized Planning Analysis

A generalized planning analysis, which is intended for broad applications and makes use of statewide default values, was used to analyze the majority of the City's existing roadway network. Florida's Generalized Tables, published in FDOT's Quality/Level of Service Handbook, are the primary tools for conducting this type of planning analysis. In order to conduct the generalized planning analysis, the most recent (2013) peak hour traffic volumes were obtained from the Broward County MPO Roadway Capacity and Level of Service Analysis for 2013 & 2035. This spreadsheet also provided information regarding level of service, average annual daily trips, daily volume and capacity, and peak hour volume and capacity. Existing directional distribution factors (D) and design hour volumes (K), are available from the Broward County GIS Department. The jurisdiction, number of lanes, roadway classification, peak hour volume, peak hour capacity, and existing LOS for the existing roadways are reported in Table 3-3. The existing roadway levels of service for all of the roadways serving the City of Parkland are depicted on Map 3-8.

TABLE 3-3: GENERALIZED PLANNING ANALYSIS EXISTING PEAK HOUR PEAK DIRECTION LEVEL OF SERVICE

Roadway Name	From	To	Lanes	Jurisdiction	Functional Classification	Existing Pk Hr LOS	Adopted LOS	AADT	Pk Hr Volume	Pk Hr Capacity	K Factor
Hillsboro Boulevard	Conservation Levee	Nob Hill Rd	2LU	City	Local Street	N/A	D	*	*	*	9%
	Nob Hill Rd	University Dr.	4LD	City	Local Street	N/A	D	*	*	*	9%
	Loxahatchee Rd	SR-7	4LD	County	Major Collector	C	D	25,700	865	2,628	9%
Holmberg Road	Nob Hill Rd	Pine Island Rd	2LD	City	Minor Collector	D	D	7,000	665	1,197	9%
	Pine Island Rd	University Drive	4LD	City	Minor Collector	C	D	9,400	893	2,628	9%
	University Drive	Riverside Drive	2LU	City	Minor Collector	D	D	10,900	1,036	1,197	9%
	Riverside Drive	Parkside Drive	2LU	City	Minor Collector	F	D	16,500	1,568	1,197	9%
	Parkside Drive	NW 61st Avenue	2LU	City	Minor Collector	F	D	16,500	1,568	1,197	9%
	NW 61st Avenue	SR-7	4LD	City	Minor Collector	F	D	16,500	1,568	1,197	9%
Loxahatchee Road	Conservation Levee	Hillsboro Future Exten.	2LU	City	Major Collector	B	D	3,700	352	1,958	9%
	Hillsboro Future Exten.	SR-7	4LD	County	Major Collector	B	D	3,700	352	1,958	9%
Nob Hill Road	Sawgrass Expwy	Trails End Rd	4LD	County	Minor Collector	C	D	30,000	1,188	3,222	9%
	Trails End Rd	Pine Island Rd	4LD	County	Minor Collector	D	D	12,500	1,188	2,628	9%
	Pine Island Rd	Hillsboro Blvd	4LD	County	Minor Collector	*	*	*	*	*	*
	Hillsboro Blvd	Loxahatchee	2LD	*	*	*	*	*	*	*	*
Pine Island Road / Coral Springs Drive	Sawgrass Expwy	Holmberg Road	4LD	County	Minor Collector	C	D	8,400	798	3,222	9%
	Holmberg Road	Trails End Road	4LD	County	Minor Collector	C	D	6,500	618	3,222	9%
SR - 7	Sawgrass Expway	Holmberg Rd	6LD	State	Principal Arterial	C	D	56,500	5,368	5,390	9%
	Holmberg Rd	Hillsboro Blvd	6LD	State	Principal Arterial	C	D	56,500	5,368	5,390	9%
	Hillsboro Blvd	Loxahatchee Rd	6LD	State	Principal Arterial	C	D	54,000	5,130	5,390	9%
SR-869/Sawgrass Expwy	Nob Hill Rd	University Drive	6LD	State	Principal Arterial	C	D	58,000	5,510	8,840	9%
	University Dr	SR-7	6LD	State	Principal Arterial	C	D	71,000	6,745	8,840	9%
Trails End Road	Nob Hill Rd	Pine Island Rd	4LD	City	Minor Collector	C	D	2,100	200	2,628	9%
	Pine Island Rd	University Drive	4LD	City	Local Street	C	D	2,100	200	2,628	9%
University Drive	Sawgrass Expwy	Holmberg Rd	4LD	City	Major Collector	C	D	15,500	1,473	3,222	9%
	Holmberg Rd	NW 72 nd St	4LD	City	Local Street	D	D	6,300	599	1,197	9%
	NW 72nd St	Loxahatchee Rd	2LD	City	Local Street	D	D	6,300	*	*	9%

Notes:
2013 LOS, AADT, Peak Hour Volumes, and Peak Hour Capacities obtained from Broward County MPO "Roadway Capacity and Level of Service Analysis" Spreadsheet for 2013 & 2035"

2013 K Factors obtained from the FDOT 20013 Quality/Level of Service Handbook

* Data not available

Map 3-8 Existing Level of Service



City of Parkland

Map 3-8 Existing Roadway Level of Service

- City of Parkland
- Waterbodies
- Parkland Parks
- Broward Co.
- Palm Beach Co.

Level of Service

- LOS B
- LOS C
- LOS D
- LOS E
- LOS F

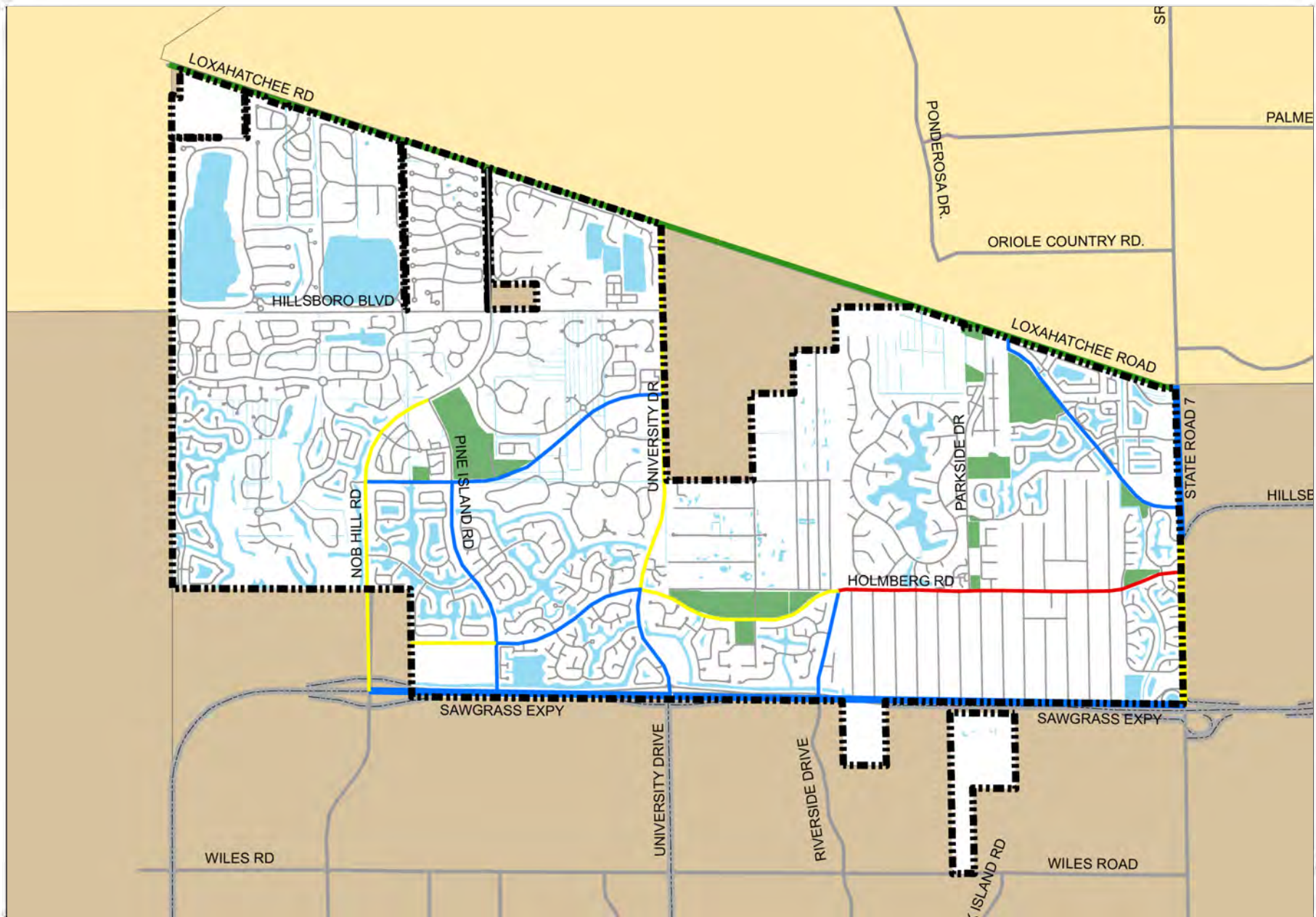


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This map was created with data from the Broward County MPO, FDOT, and Broward County GIS Department. Any inaccuracies in the data are not the responsibility of The Mellgren Planning Group.



Existing Transit Levels of Service

The existing level of service provided by Broward County Transit (BCT) was analyzed according to Highway Capacity Manual (HCM) 2010 methodologies. Methodologies for evaluating transit levels of service are still being developed and are fairly new. The HCM 2010 transit level of service methodology is based on simple bus service parameters. Hours of service and service frequency are the two transit service availability measures that were used to evaluate the existing transit level of service.

Level of Service based on Service Frequency

Transit levels of service are different than roadway levels of service. Below Table 3-4 gives the level of service ranges for scheduled bus service based only on service frequency and what they mean:

TABLE 3-4: SERVICE FREQUENCY LOS

LOS	Headway (min)	Vehicles/hour	Definition of LOS
A	< 10	> 6	Passengers Don't Need Schedules
B	≥ 10-14	5-6	Frequent Service; Passengers Consult Schedules
C	> 14-20	3-4	Maximum Desirable Time to Wait if Bus Missed
D	> 20-30	2	Service Unattractive to Choice Riders
E	> 30-60	1	Service Available During Hour
F	> 60	< 1	Service Unattractive to All Riders

Source: Highway Capacity Manual 2000

The level of service of Parkland's existing transit service was evaluated based on service frequency. An existing level of service was determined for each day of bus service and the results are shown in Table 3-5.

TABLE 3-5: BROWARD COUNTY TRANSIT (BCT) - SERVICE FREQUENCY LOS

Day of Week	Headway (min)	Service Frequency Level of Service	Definition of LOS
Tuesday - Friday	60	E	Service Available During Hour
Saturday	60	E	Service Available During Hour
Sunday	60	E	Service Available During Hour

Source: Highway Capacity Manual 2000

A Level of Service based solely on service frequency rates the bus service only according to the time between buses. Table 3-5 shows that since the community bus

arrives at each stop once an hour, it may be unattractive to choice riders who have other means of transportation. However, depending upon the limited number of transportation disadvantaged riders expected in this area who rely solely on the bus service, this existing bus service frequency may be adequate for Parkland residents.

Level of Service based on Hours of Service

Again, transit levels of service are different from roadway levels of service and may also be evaluated based solely upon the hours of service. The level of service ranges and their definitions shown below in Table 3-6, are for rating transit based upon the hours of service.

TABLE 3-6: HOURS-OF-SERVICE LOS

LOS	Hours per Day	Definition of LOS
A	> 18-24	Night or Owl Service Provided
B	> 16-18	Late Evening Service Provided
C	> 13-16	Early Evening Service Provided
D	> 11-13	Daytime Service Provided
E	> 3-11	Peak-hour Service/Limited Midday Service
F	> 0-3	Very Limited or No Service

Source: Highway Capacity Manual 2000

The existing level of service for the Broward County Transit route 88 was also determined based solely on hours of service. The existing level of service was determined for each day of bus service and the results are shown in Table 3-7.

TABLE 3-7: BROWARD COUNTY TRANSIT (BCT) - HOURS-OF-SERVICE LOS

Day of Week	Hours Per Day	Hours of Service Level of Service	Definition of LOS
Tuesday - Friday	6	E	Peak-hour Service/Limited Midday
Saturday	11	E	Peak-hour Service/Limited Midday
Sunday	6	E	Peak-hour Service/Limited Midday

Source: Highway Capacity Manual 2000

A Level of Service based solely on hours of service rates the bus service only according to the amount of time in a day that the bus service is operational. Since the bus operates during daytime and early evening hours Monday - Friday, the Level of Service is C on weekdays and Level of Service F on Weekends. However, the existing hours of

service may be adequate for Parkland residents depending upon the limited demand for off- peak and nighttime service within the City of Parkland.

Existing Transit Needs

The existing transit level of service for the City of Parkland Broward County Transit (BCT) service was evaluated using two transit service availability measures. The hours of service and service frequency measures show that the bus service is currently operating at Level of Service E on weekdays and Level of Service F on Weekends.

Existing Pedestrian, Bicycle and Horse Needs

The City of Parkland is working to develop and maintain a thorough network of 8-foot wide, paved, meandering multi-use trails that serve pedestrians, bicyclists and horses. Multi-use trails are already provided along most of the significant roadways within the City of Parkland. Multi-use trails are currently provided along Holmberg Road from Nob Hill Road to SR-7, Riverside Drive from the southern City border to Holmberg Road, University Drive from the southern City border to Trails End Road, and Nob Hill Road to north of Trails End Road. The existing multi-use trail system covers a large portion of the City, and provides access to most City parks, places of worship, City Hall, the Library, and schools.

FUTURE TRANSPORTATION SYSTEM (2030) AND FUTURE TRANSPORTATION NEEDS ANALYSIS

The City of Parkland Will update the Transportation Element with 2040 data within thirty-six (36) months of the date of adoption by the City Commission to reflect the most recent LOS standards.

Traffic patterns on a roadway and the roadway's function can change over time. The functional classification and level of service of the roadways within the City should be reviewed and updated on a regular basis so that roadways continue to be designed using appropriate design standards.

Future Roadways

The City of Parkland has a network of local, county, and state roadways within and around the City. Many changes are anticipated in the future. Annexation of the undeveloped land known as "The Wedge," bordered by Hillsboro Road, University Drive, and Loxahatchee Road into the City of Parkland was completed in September 2015. The future roadway network is shown on Map 3-9.

Lane Configurations

Most of the roads within the City of Parkland are expected to retain their current lane configurations. Only a few capital improvements, which are listed below in Table 3-

8, are expected to affect the existing roadway network. The future lane configurations of the roadways within and bordering the City of Parkland are shown on Map 3-9 and listed in Table 3-9.

TABLE 3-8: TRANSPORTATION CAPITAL IMPROVEMENTS

Road Name	Type of Work	Cost (millions)	Estimated Buildout Year	Project No
Current and/or Funded Projects				
Loxahatchee Road	Road Improvements	—	2019	—
University Drive	Road Widening. Add 2 between Holmberg Rd and County Line Rd.	\$34.1	2040	LRTP ID :27
Unfunded Needs/High Priority 2019-2040				
Hillsboro Blvd	Construct new 4 lane roadway. From University Dr. to current Hillsboro Blvd.	\$54.0	—	LRTP ID: C
Trails End Rd.	Construct new 4 lane roadway. From University Dr. to County Line Rd.	\$10.0	—	LRTP ID: L
Loxahatchee Rd.	Reconstruct roadway from 2 lanes undivided to 2 lanes divided. From Pines Blvd. to Pembroke Rd.	\$3.0	—	LRTP ID: P

Data from Capital Improvement Element and the Long Range Transportation Plan 2040.

— = Data not provided

Map 3-9 Future Roadway Network & Lane Configuration



City of Parkland

Map 3-9 Future Roadways and Lane Configurations

- City of Parkland
- Waterbodies
- Parkland Parks
- Broward Co.
- Palm Beach Co.
- 2-Lane
- 2-Lane Divided
- 4-Lane Divided
- 6-Lane Divided
- Proposed**
 - New 2-Lane Divided
 - New 4-Lane Divided

N



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Miles



This map was created with data from the Broward County MPO, FDOT, and Broward County GIS Department. Any inaccuracies in the data are not the responsibility of The Mellgren Planning Group.

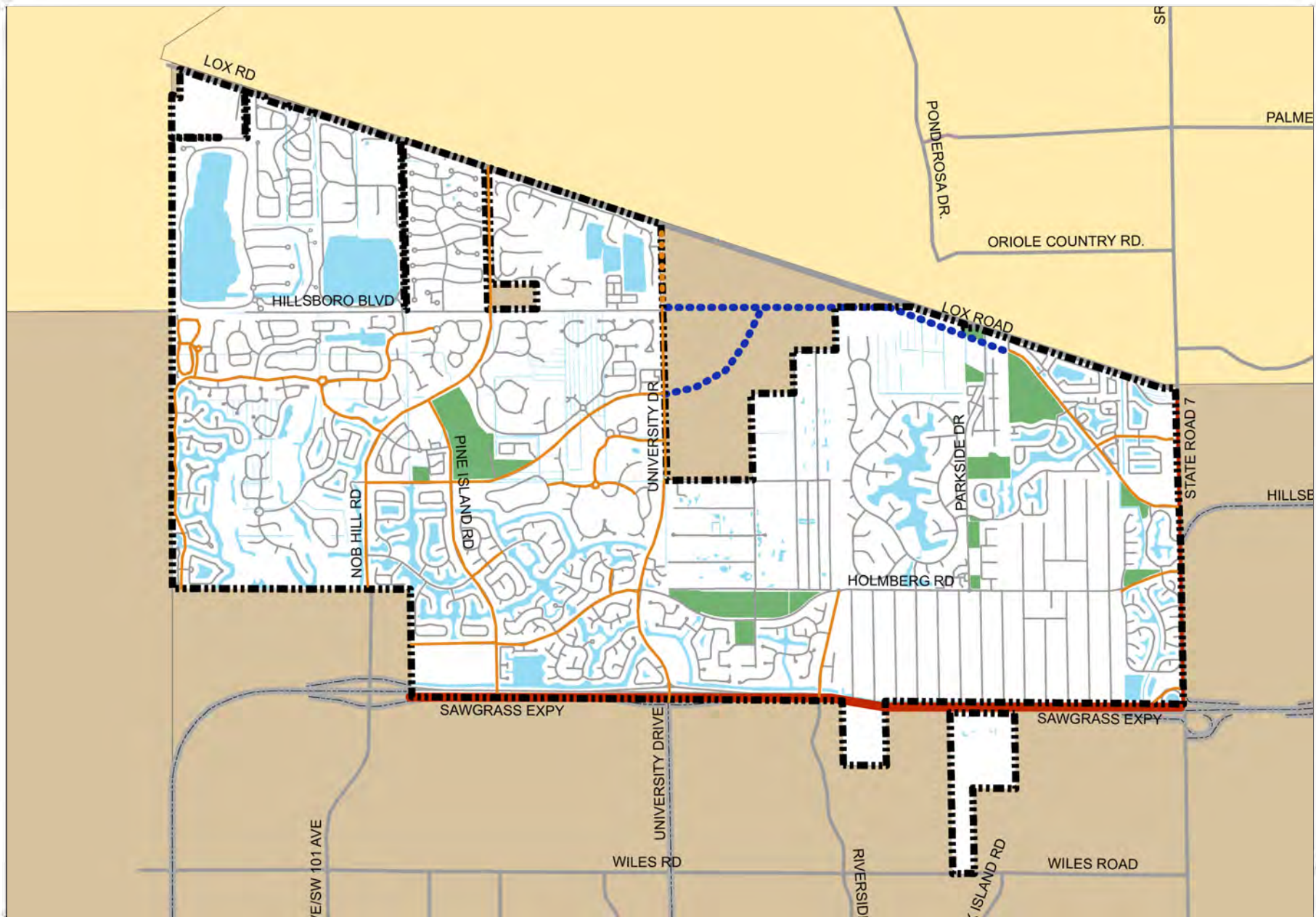


TABLE 3-9: FUTURE LANES, JURISDICTION AND FUNCTIONAL CLASSIFICATION

Roadway Name	From	To	Lanes	Jurisdiction	Functional Class
Hillsboro Boulevard	Conservation Levee	Nob Hill Rd	2LU	City	Local Street
	Nob Hill Rd	University Dr.	4LD	City	Local Street
	Loxahatchee Rd	SR-7	4LD	County	Major Collector
Holmberg Road	Nob Hill Rd	Pine Island Rd	2LD	City	Minor Collector
	Pine Island Rd	University Drive	4LD	City	Minor Collector
	University Drive	Riverside Drive	2LU	City	Minor Collector
	Riverside Drive	Parkside Drive	2LU	City	Minor Collector
	Parkside Drive	NW 61st Avenue	2LU	City	Minor Collector
	NW 61st Avenue	SR-7	4LD	City	Minor Collector
Loxahatchee Road	Conservation Levee	Hillsboro Future Exten.	2LU	City	Major Collector
	Hillsboro Future Exten.	SR-7	4LD	County	Major Collector
Nob Hill Road	Sawgrass Expwy	Hillsboro Blvd	4LD	County	Minor Collector
	Hillsboro Blvd	Loxahatchee Rd	2LD	County	Minor Collector
Pine Island Road / Coral Springs Drive	Sawgrass Expwy	Holmberg Road	4LD	County	Minor Collector
	Holmberg Road	Trails End Road	4LD	County	Minor Collector
Riverside Drive	Holmberg Road	Sawgrass Expwy	4LD	County	Minor Collector
SR-869/Sawgrass Expwy	Nob Hill Rd	University Drive	6LD	State	Principal Arterial
	University Dr	SR-7	6LD	State	Principal Arterial
Trails End Road	Nob Hill Rd	Pine Island Rd	4LD	City	Minor Collector
	Pine Island Rd	University Drive	4LD	City	Local Street
University Drive	Sawgrass Expwy	Holmberg Rd	4LD	City	Major Collector
	Holmberg Rd	NW 72 nd St	4LD	City	Local Street
	NW 72 nd St	Loxahatchee Rd	2LD	City	Local Street

Notes: 1) Refer to Future Roadways Maps for details regarding proposed, unbuilt roads. (2) Data obtained from Broward County MPO, Broward County GIS Department, and FDOT

Functional Classification

All roadways are classified based upon the purpose they serve, travel speed, access needs, and mobility needs. Since the City of Parkland is designated as an Urban Area by the Broward County MPO, the roadways within the City of Parkland fall into four urban functional classification groups: Local Street, Minor Collector, Major Collector and Principal Arterial. The future *functional classifications* are anticipated to remain unchanged from the existing functional classifications, as determined from information obtained from the Broward County MPO. The future *functional classifications* are provided in Table 3-9 and depicted on Map 3-10.

Future Roadway Jurisdiction

The future roadway jurisdiction is anticipated to remain unchanged from the existing roadway jurisdiction, as determined from information obtained from the Broward County MPO. The future roadway jurisdiction is depicted on Map 3-10 and listed in Table 3-9.

Future Public Transit Facilities

It is also important to note improvements from the Broward County MPO Long Range Transportation Plan 2035 Update, dated December 2009 and depicted on Map 3-11, that will affect the City of Parkland. A Community Hub is planned for Hillsboro Boulevard and SR-7. This transit stop will include Rapid Bus connection, enclosed shelters, improved pedestrian and bicycle linkages, and real-time service updates. A new route is planned on Nob Hill Road, which will extend into the City. \$386.2 million in upgrades to enhanced bus service on SR-7 from Miami Dade County to Palm Beach County between 2031 and 2040 were identified in the Broward MPO's list of 2040 regionally-significant, cost-feasible premium transit service projects. The City was part of the SR-7 Collaborative that worked with the South Florida Regional Planning Council to coordinate in the SR-7 Corridor Master Plan.

Map 3-10 Future Roadway Jurisdiction & Functional Classification



City of Parkland

Map 3-10 Future Roadway Jurisdiction and Classification

- City of Parkland
- Waterbodies
- Parkland Parks
- Broward Co.
- Palm Beach Co.
- City Jurisdiction**
 - Local Streets
 - Minor Collector
 - Major Collector
- County Jurisdiction**
 - Minor Collector
 - Major Collector
- State Jurisdiction**
 - Principal Arterial

N

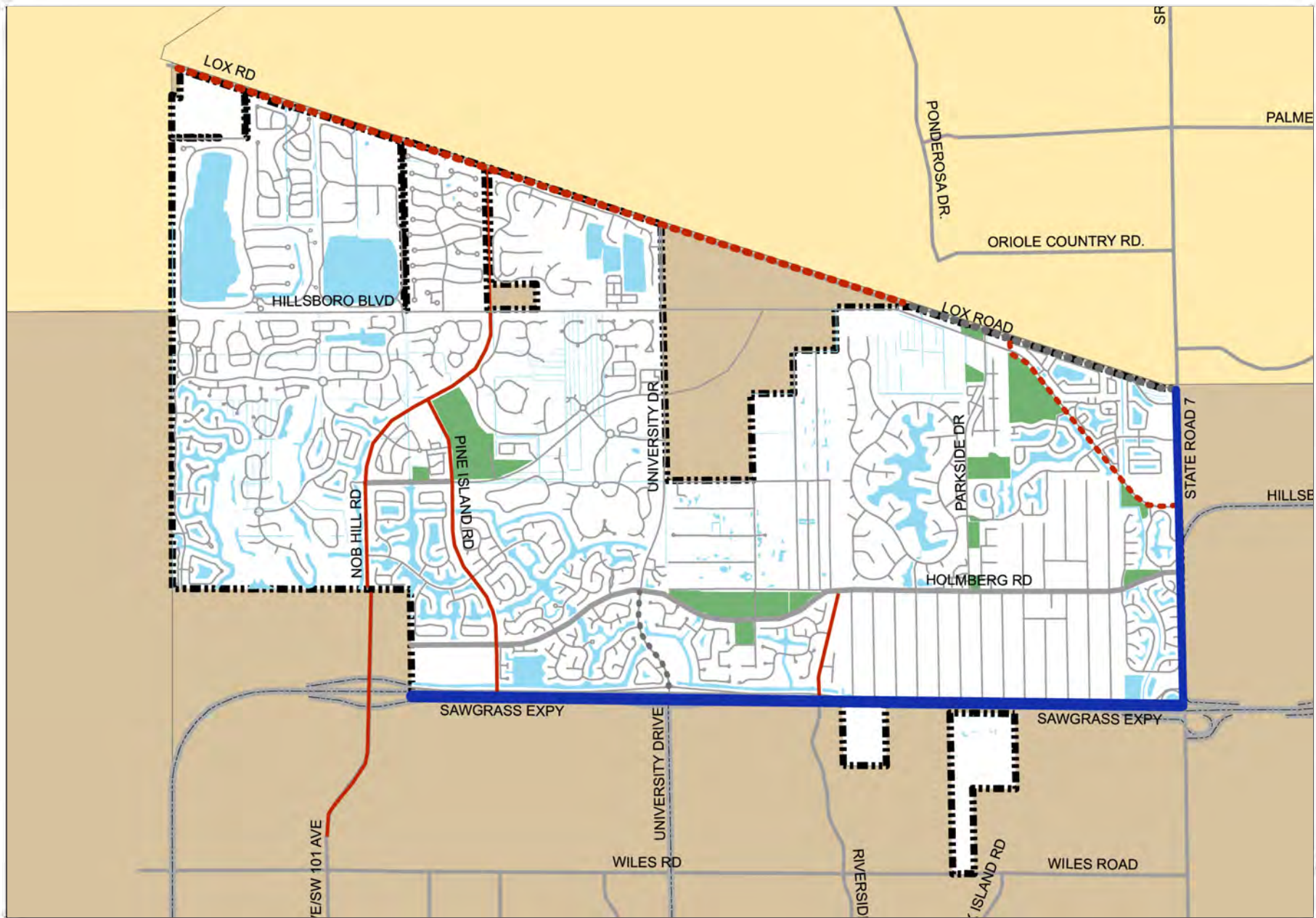


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Miles



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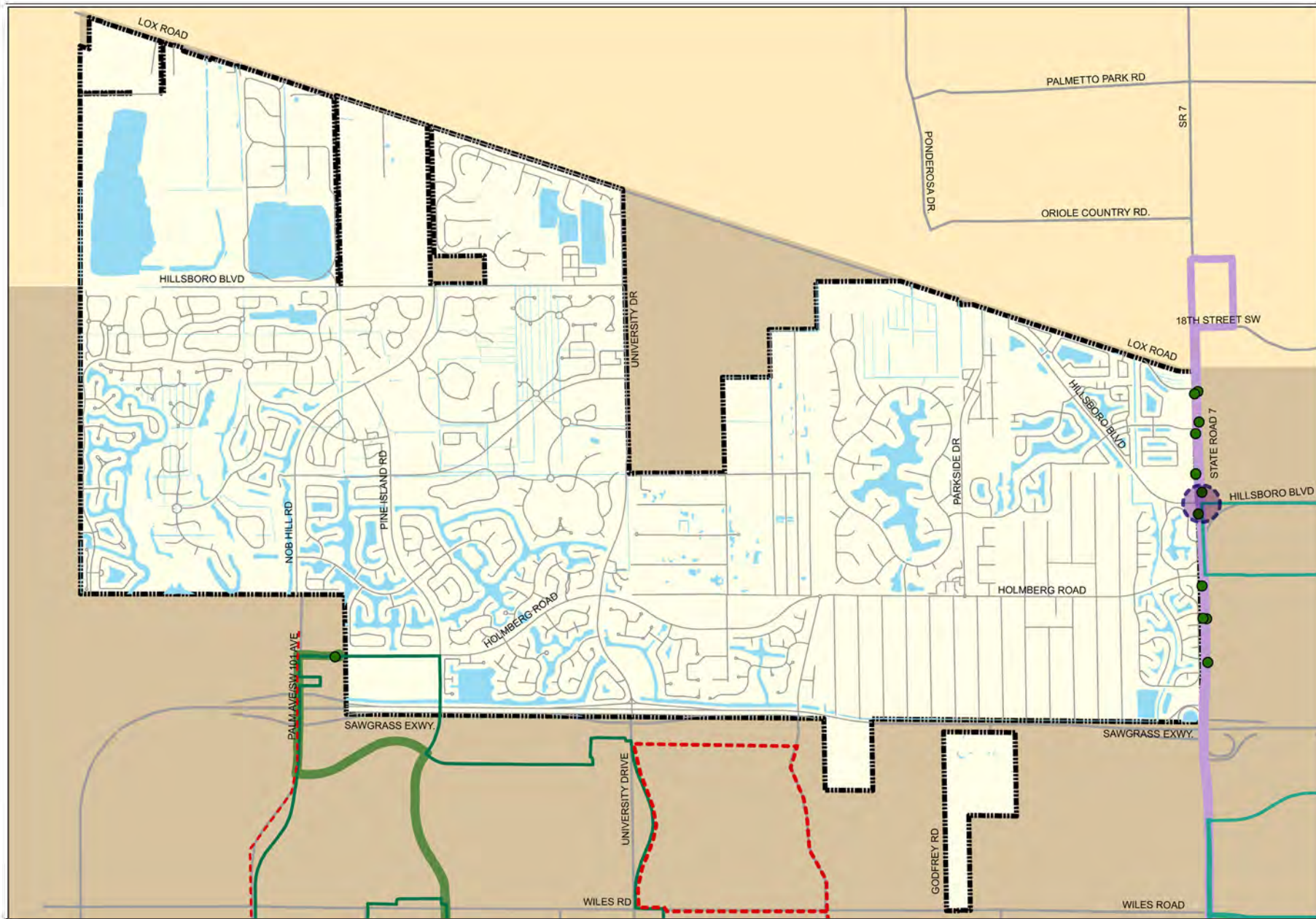


Map 3-11 Future Transit Routes



City of Parkland

Map 3-11 Future Transit Systems



City of Parkland

Waterbodies

Broward Co.

Palm Beach Co.

Municipal Transit Lines

Coconut Creek "N Line"

Coral Springs "Green Line"

Broward Co. Lines

#88

#19

Broward Co. Transit Bus Stops

Proposed Line

Broward Co. Line

Proposed Mobility Hub

Community Hub

N

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Miles

The Mellgren
Planning Group

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Future Pedestrian, Bicycle, and Horse Facilities

The City of Parkland is committed to maintaining the mobility of a multimodal transportation system through a well-connected system for pedestrians, bicycles and horses in conjunction with the existing roadway system. The City of Parkland has developed a network of multi-use trails that serve pedestrians, bicyclists and horses. The multi-use trails are 8-foot wide, paved, meandering trails, which are set back a substantial distance from roadways. The City plans to expand and maintain the multi-use trail system throughout the City. The proposed future multi-use trails are shown along with the existing multi-use trails on Map 3-12.

Future Major Trip Generators and Attractors

The location of the existing major trip attractors and generators in the City of Parkland are not expected to change in the future.. There is no anticipated development on the sites designated commercial on the future land use map. The future major trip generators and attractors within the City of Parkland are shown on Map 3-13.

Map 3-12 Future Multi-use Trails



City of Parkland

Map 3-12 Future Multi-Use Trails

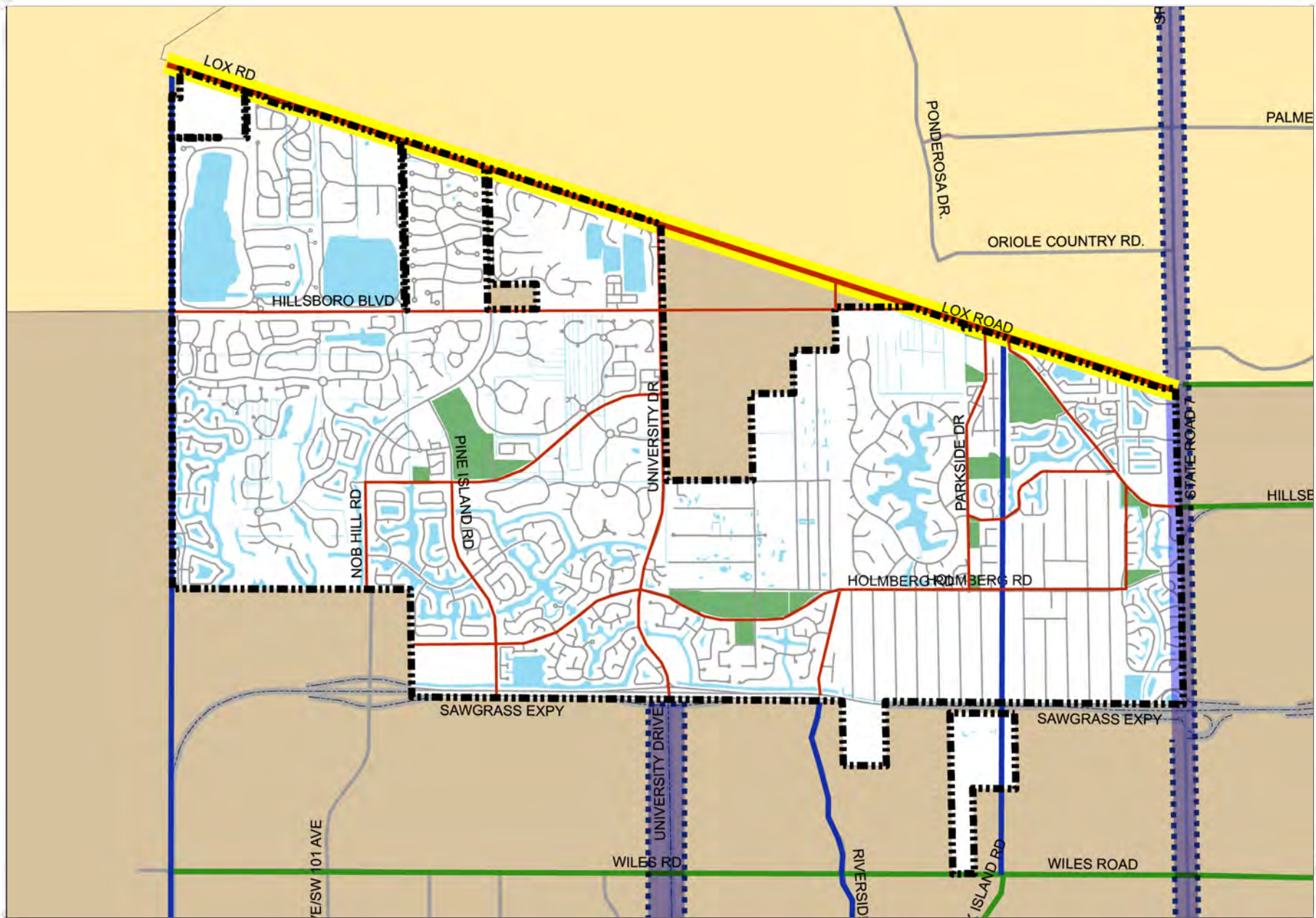
- City of Parkland
- Broward Co.
- Palm Beach Co.
- Waterbodies
- Parkland Parks
- Existing Trails
- Other Municipal Trails
- Future Broward Co. Priority Trails
- L RTP Projects Underway
- Future L RTP Projects

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Miles



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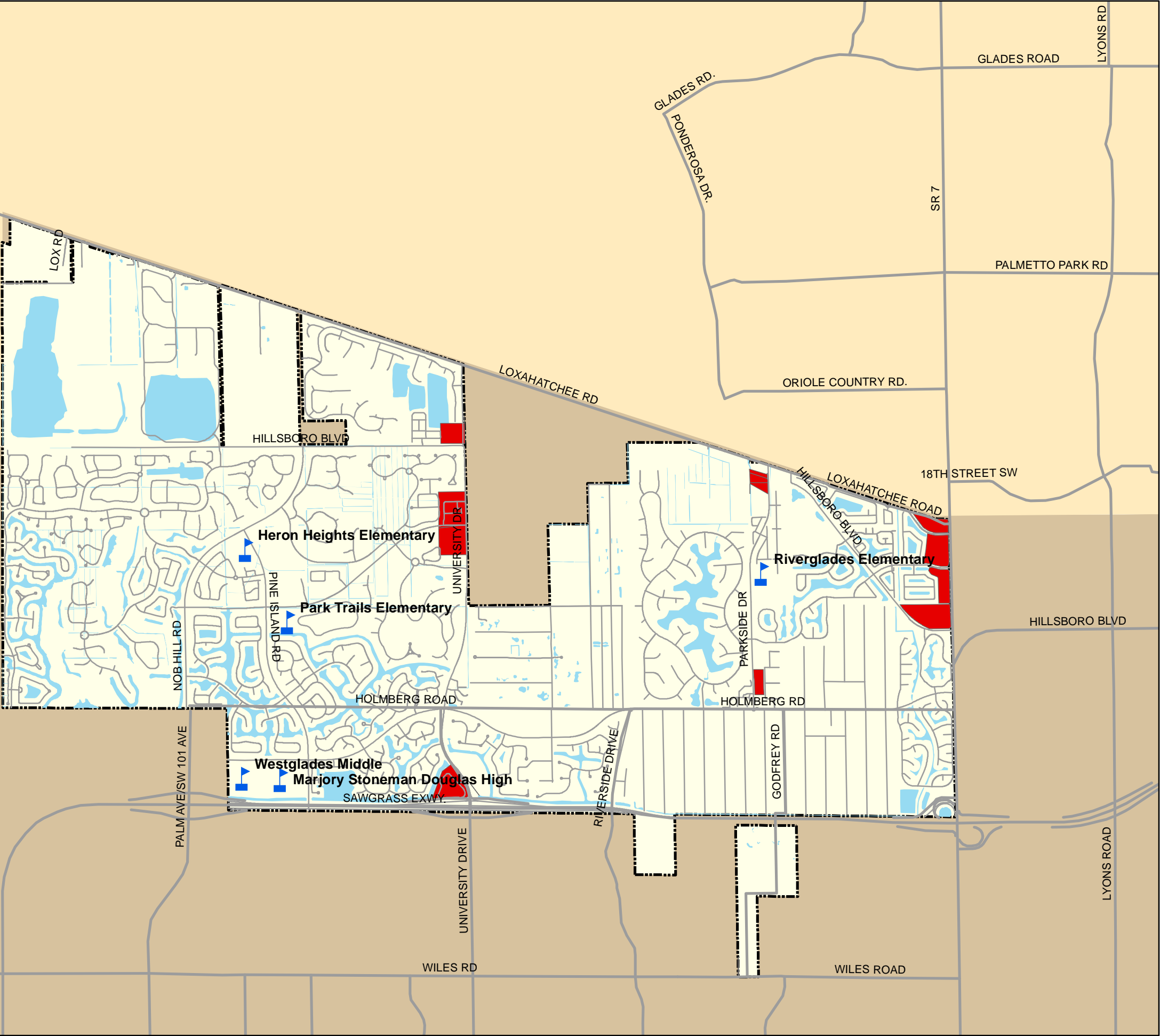


Map 3-13 Future Trip Generators and Attractors



City of Parkland

**Map 3-13
Future Trip
Generators
&
Attractors**



N



0.7

Miles



This map was created with data from _____. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.

FUTURE TRANSPORTATION ANALYSIS

Future Roadway Levels of Service and Roadway Needs

Future LOS, traffic volumes, and roadway capacity were determined by the Broward County MPO 2013/2035 Roadway Capacity and LOS Spreadsheet. The following roadway segments are expected to be failing by 2035 (below LOS D): eastern portions of Holmberg Rd, Nob Hill road between Pine Island Rd and Hillsboro Blvd, and the Sawgrass Expressway between University Dr. and St Rd 7. The City is responsible for mitigating the future deficient roadway segments which are in the City's jurisdiction.

Generalized Planning Analysis

As with existing conditions, a generalized planning analysis was used to analyze the majority of the City's future roadway network. Florida's Generalized Tables are the primary tools for conducting this type of planning analysis. Data was obtained from the Broward County MPO Roadway Capacity and LOS Spreadsheet for 2013 and 2035. This spreadsheet indicated the future peak hour LOS, daily volume, peak hour volume, and peak hour capacity. The default peak hour K100 factor (0.90) was noted in the FDOT 2013 *Quality/Level of Service Handbook (Generalized Peak Hour Directional Volumes for Florida's Urbanized Areas)*. The future jurisdiction, number of lanes, roadway classification, peak hour peak direction volume, peak hour peak direction capacity, and LOS for the future roadways are reported in Table 3- 10. The future roadway levels of service for all of the roadways serving the City of Parkland are depicted on Map 3-14.

TABLE 3-10: GENERALIZED PLANNING ANALYSIS FUTURE PEAK HOUR PEAK DIRECTION LEVEL OF SERVICE (2035)

Roadway Name	From	To	Lanes	Jurisdiction	Functional Classification	Adopted LOS	Future Peak Hr LOS	2035 Daily Volume	Pk Hr Volume	Pk Hr Capacity	K Factor
Hillsboro Boulevard	Conservation Levee	Nob Hill Rd	2LU	City	Local Street	D	*	*	*	*	9%
	Nob Hill Rd	University Dr.	4LD	City	Local Street	D	C	*	*	*	9%
	Loxahatchee Rd	SR-7	4LD	County	Major Collector	D	C	25,762	2,447	2,628	9%
Holmberg Road	Nob Hill Rd	Pine Island Rd	2LD	City	Minor Collector	D	D	8,165	776	1,197	9%
	Pine Island Rd	University Drive	4LD	City	Minor Collector	D	D	15,041	1,429	2,628	9%
	University Drive	Riverside Drive	2LU	City	Minor Collector	D	C	6,212	590	1,197	9%
	Riverside Drive	Parkside Drive	2LU	City	Minor Collector	D	F	15,376	1,461	1,197	9%
	Parkside Drive	NW 61st Avenue	2LU	City	Minor Collector	D	F	15,376	1,461	1,197	9%
	NW 61st Avenue	SR-7	4LD	City	Minor Collector	D	F	15,376	1,461	1,197	9%
Loxahatchee Road	Conservation Levee	Hillsboro Future Exten.	2LU	City	Major Collector	D	D	21,780	1,588	1,953	9%
	Hillsboro Future Exten.	SR-7	4LD	County	Major Collector	D	D	21,780	1,588	1,953	9%
Nob Hill Road	Sawgrass Expwy	Trails End Rd	4LD	County	Minor Collector	D	C	25,183	2,392	3,222	9%
	Trails End Rd	Pine Island Rd	4LD	County	Minor Collector	D	D	23,672	2,249	2,628	9%
	Pine Island Rd	Hillsboro Blvd	4LD	County	Minor Collector	D	E	28,284	2,687	2,628	9%
	Hillsboro Blvd	Loxahatchee	2LD			D					
Pine Island Road / Coral Springs Drive	Sawgrass Expwy	Holmberg Road	4LD	County	Minor Collector	D	C	14,230	1,352	3,222	9%
	Holmberg Road	Trails End Road	4LD	County	Minor Collector	D	C	15,498	1,472	3,222	9%
SR - 7	Sawgrass Expway	Holmberg Rd	6LD	State	Principal Arterial	D	D	55,825	5,303	5,390	9%
	Holmberg Rd	Hillsboro Blvd	6LD	State	Principal Arterial	D	C	49,732	4,725	5,390	9%
	Hillsboro Blvd	Loxahatchee Rd	6LD	State	Principal Arterial	D	C	47,314	4,495	5,390	9%
SR-869/Sawgrass Expwy	Nob Hill Rd	University Drive	6LD	State	Principal Arterial	D	E	94,034	8,933	8,840	9%
	University Dr	SR-7	6LD	State	Principal Arterial	D	F	119,272	11,331	8,840	9%
Trails End Road	Nob Hill Rd	Pine Island Rd	4LD	City	Minor Collector	D	C	11,623	1,104	2,628	9%
	Pine Island Rd	University Drive	4LD	City	Local Street	D	D	13,713	1,303	2,628	9%
University Drive	Sawgrass Expwy	Holmberg Rd	4LD	City	Major Collector	D	C	26,271	2,496	3,222	9%
	Holmberg Rd	NW 72 nd St	4LD	City	Local Street	D	C	8,300	789	3,222	9%
	NW 72nd St	Loxahatchee Rd	2LD	City	Local Street	D	C	8,300	789	3,222	9%

Notes:

1) 2035 LOS, Daily Volume, Peak Hour Capacity, and Peak Hour Volumes obtained from the Broward County MPO “Roadway Capacity and Level of Service Analysis” Spreadsheet for 2013 & 2035

2) Peak Direction D and K factors obtained from FDOT 2013 Quality/ LOS handbook

* Data not available.

Map 3-14 Future Roadway Level of Service (2030)



City of Parkland

Map 3-14 Future Roadway Level of Service

- City of Parkland
- Waterbodies
- Parkland Parks
- Broward Co.
- Palm Beach Co.

Level of Service

- LOS C
- LOS D
- LOS E
- LOS F

N

0.5

Miles



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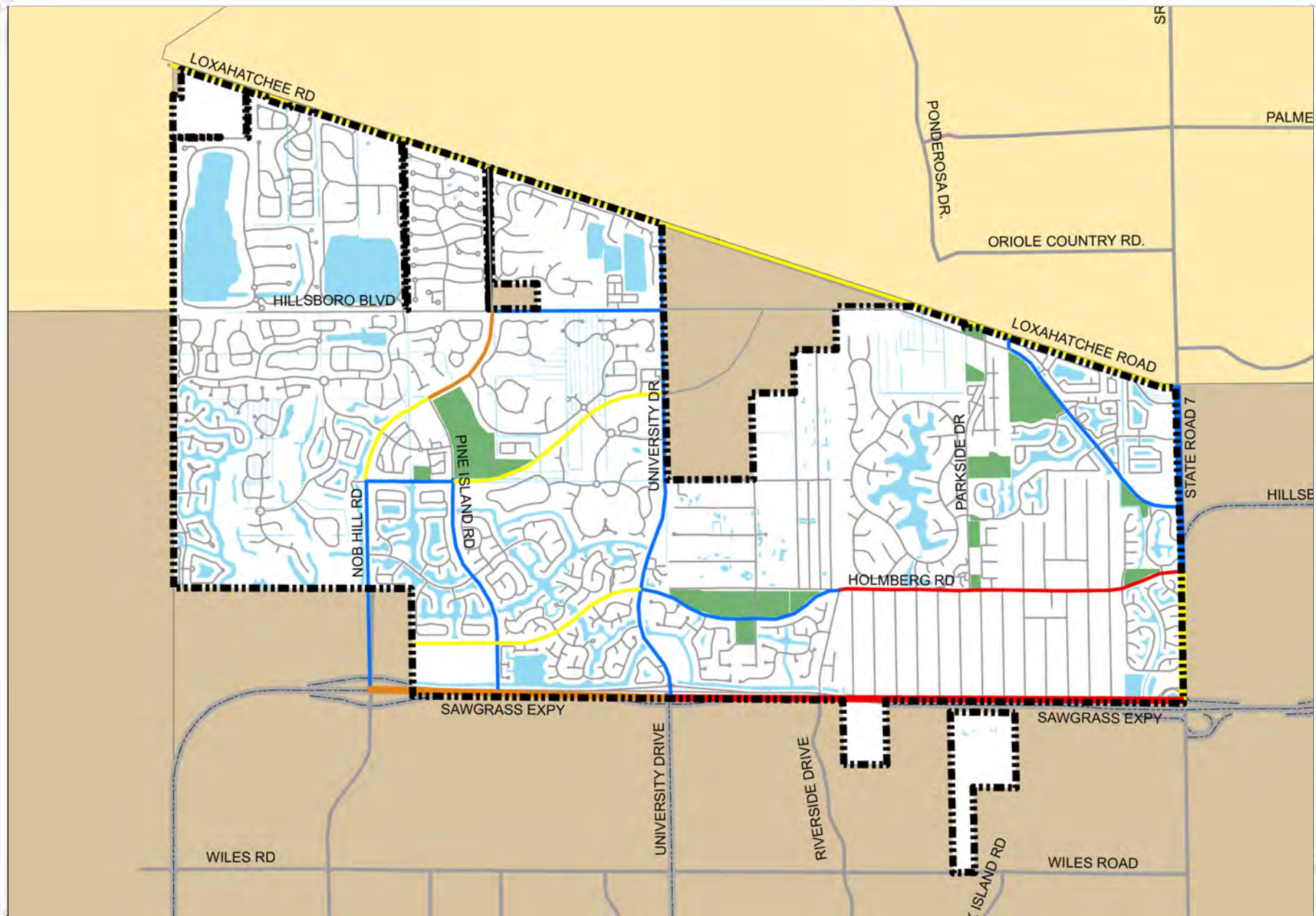


TABLE 3-11: FUTURE (2030) ROADWAY NEEDS

Jurisdiction	Roadway Name	From	To	Lanes	2035 LOS	Mitigation Needs
City/Local	Holmberg Rd	Riverside Dr	SR-7	2LU/ 4LD	F	TDM, TSM, CMS, Reconsider LOS Standard, and/or Reclassify Roadway
County Road	Nob Hill Rd	Pine Island Rd	County Line Rd	4LD	E	TDM, TSM, CMS, Reconsider LOS Standard, and/or Reclassify Roadway & Widen to 6LD
State Road	Sawgrass Expressway	Coral Ridge Dr	SR-7	6LD	E/F	

Deficient City Road Mitigation Strategies

Roadway needs are noted in the “Mitigation Needs” column of Table 3-11. Since it may not be feasible to add lanes or reclassify or reconstruct roadways due to right-of-way, policy, environmental, or other constraints, the City may use various strategies to resolve future roadway problems, including Transportation Systems Management (TSM), and/or Transportation Demand Management (TDM) techniques. In addition, new developments may be required to provide or contribute to off-site road improvements in accordance with the City of Parkland Concurrency Management System.

As a strategy for alleviating congestion, the City may create its own Congestion Management System for roadways within City jurisdiction. A Congestion Management System (CMS) is a systematic process that provides information on transportation system performance and identifies alternative strategies to alleviate congestion and enhance mobility. No roadways within the City of Parkland are currently designated as Congestion Management System (CMS) corridors by the Broward County MPO. However, designating corridors as CMS Corridors represents an alternative to addressing traffic congestion within the City of Parkland without widening the roadway.

A Congestion Management System makes use of alternative strategies including Transportation Systems Management (TSM) and Transportation Demand Management (TDM) techniques. Some examples of TSM strategies include, but are not limited to, alternate facilities, intersection improvements, signalization improvements, access management, and transit improvements. Examples of TDM strategies include, but are not limited to, flexible work hours, telecommuting, van pool programs, ridesharing programs, and parking management. The use of CMS in non-Transportation Management Areas involves state and local officials. The Broward County MPO typically oversees the CMS in urbanized areas. For County roads, the City should contact the Broward County MPO to determine other improvements that can be included in existing CMS and/or LRTP programs.

The City may also consider lowering the adopted Level of Service (LOS) standard as

another approach to the problem. However, it is important to note that the adopted LOS represents the lowest level of service at which City residents find acceptable on their roads. City residents may not be amenable to more congested roadways if the LOS is lowered.

The reclassification of roadways, when and where it is appropriate, according to the purpose they serve, their connectivity, and accessibility, may also help address the problem of deficient roadway segments. In the future it is reasonable to expect that roadway conditions will change and roads that provide access to major roads outside of the City may operate more as Collectors than Local roads. If and when it is decided that a roadway's *functional classification* should be changed from Local Road to Collector, the *roadway classification* should also be changed from Non-State Other Signalized Roadway to Non-State Major City/County Roadway. If a roadways functional classification and roadway classification are upgraded, then the designated capacity of that roadway will also increase.

As a strategy to accommodate future traffic needs of City residents, the City of Parkland will continue to participate in the State Road 7/U.S. 441 Collaborative, a partnership with 16 local government jurisdictions in Broward and Miami-Dade Counties. The State Road 7/US 441 Collaborative is designed to promote economic and aesthetic improvement of the corridor through multi-agency collaborations, such as a road widening project by the Florida Department of Transportation, the Bus Rapid Transit pilot project, road resurfacing projects, landscaping improvements, and other projects.

The City of Parkland will also continue to participate in Florida Department of Transportation (FDOT) evaluation of the expansion of the Sawgrass Expressway (State Road 869) from six (6) lanes to eight (8) or ten (10). The City of Parkland issued a statement of no objection for the Sawgrass Expressway Widening between Sunrise Boulevard to US 441 (ETDM Project Identification Number: 14235).

All mitigation measures discussed in the paragraphs above may be used alone or in combination with each other and/or roadway widening to address the future deficient roadway segments.

Future Transit Levels of Service

Ridership must be monitored along with the hours of service and service frequency to ensure the needs of the community are met by Broward County Transit (BCT).

The two transit service availability measures used to evaluate the existing transit level of service are:

- 1) hours of service
- 2) service frequency

Given these service availability measures, the future transit level of service is expected to remain at weekday Level of Service C.

Although the future transit level of service is expected to remain at Level of Service C, the hours of service may be appropriate, based upon the current and future demand within the City of Parkland. In addition, the existing service frequency may be adequate, if the number of transportation disadvantaged riders in this area who rely solely on bus service remains relatively constant.

Future Transit Needs

Several factors govern transit ridership, including population density, age of residents, housing density, household income, employment centers, and the distance of transit stops/amenities to residences/work/school. The City should continue to monitor the need for transit based on the governing factors.

Future Pedestrian, Bicycle, and Horse Needs

The City of Parkland is maintaining and proposing to expand the network of 8-foot wide, paved, meandering multi-use trails that serve pedestrians, bicyclists and horses. Multi-use trails are already provided along most of the significant roadways within the City of Parkland including Holmberg Road, Riverside Drive, University Drive, Parkside Drive, Hillsboro Boulevard, and Nob Hill Road. The existing multi-use trail system covers a large portion of the City, and provides access to most existing City parks, places of worship, City Hall, the Library, and existing schools.

Parkland plans to expand their multi-use trail system, while connecting existing paths. A major Long Range Transportation Plan (LRTP) project is underway along Loxahatchee Road which includes Complete Street elements. Additional LRTP projects are planned for State Road 7 and University Drive, south of the Sawgrass Expressway. The Broward County Greenways Master Plan further identifies a future trail within the Rock Island Road FPL R.O.W., between Wiles Road and Loxahatchee Road. The Conservation Levee Trail is also noted within the Greenways Plan, which would provide a connection to the National Wildlife Refuge. The proposed expansion of the multi-use trail system should provide adequate coverage to most of the City. The City may also coordinate the multi-use trails with the Broward County Greenways System.

CITY OF PARKLAND
Comprehensive Plan
EAR Update
Appendix A:
Mobility Needs Assessment

Authored by:



FINAL REPORT

MOBILITY NEEDS ASSESSMENT Parkland, Florida



Prepared for:

City of Parkland
6600 University Drive
Parkland, FL 33067

July 10, 2015

Prepared by:



KEITH and SCHNARS, P.A.
FLORIDA'S *Big* LOCAL FIRM

Final Report MOBILITY NEEDS ASSESMENT

Parkland, Florida

Prepared for:

City of Parkland
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Parkland, FL 33067

July 10, 2015

 7/10/2015

Veronica Altuve, P.E.

State of Florida License No. 68194

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FLORIDA'S *Big* LOCAL FIRM

Certificate of Authorization #1337

Project #18088.02

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1.0 INTRODUCTION

The City of Parkland (City) is a community of over 26,000 located in Northwest Broward County, Florida. The City is predominantly residential with small portions zoned for commercial and industrial development, mostly along its eastern boundary along SR-7/US-441.

During the last decade, the City experienced substantial growth in area with the transfer of a 1,949 acre wedge shaped property located between Hillsboro Boulevard Extension and Loxahatchee Road from Palm Beach County to Broward County. Subsequently, a number of the parcels within The Wedge have been annexed in the City. The Wedge area includes development with over 3,000 new homes, over 100,000 square feet of retail, and new schools either completed, approved and/or under construction, or in process of approval.

The Wedge development projects include:

1. Miralago (aka DeBuys);
2. Town Parc (Miralago);
3. The Triple H Ranch (also Miralago);
4. Watercrest at Parkland (formerly Bruschi);
5. Parkland Bay; and
6. Parkland Royale, Phases 1 and 2.

In addition, the City has other developable land in the eastern sector, e.g. McJunkin, as well as, an undeveloped property within unincorporated Broward County, the Hendrix Farms, which is envisioned as a 1000+ housing community with over 600,000 square feet of retail, a high school, and a park.

With the new and projected development, the City's multi-modal transportation network needs to be reviewed to ensure that there is adequate service to provide internal mobility within the City and external connectivity to the County.

The objective of this study are to (1) assess, in light of the aforementioned current and potential developments, the existing and projected roadways and intersections from Loxahatchee Road to Homberg Road and from SR-7/US-441 to the western city boundary, (2) an inventory of the existing pedestrian facilities, bicycle lanes, facilities location signage, and transit stops, and (3) recommend viable actions to address capacity and connectivity issues.

Figure 1 shows the City of Parkland and the jurisdiction and number of lanes for the roadways within the City.

2.0 DATA COLLECTION

The assessment will be conducted for the following roadways and intersections within the City limits:

East-west Roadways:

- R1. Loxahatchee Road
- R2. Hillsboro Boulevard (west of US-441)
- R3. Hillsboro Boulevard (west of University Drive)
- R4. Trails End Boulevard
- R5. Mecca Boulevard
- R6. Holmberg Road

North-south Roadways:

- R7. Nob Hill Road
- R8. Pine Island Road
- R9. University Drive
- R10. Riverside Drive
- R11. Parkside Drive
- R12. US-441/SR-7

Study Intersections (See Figure 2):

- I1. Loxahatchee Road and Nob Hill Road;
- I2. Loxahatchee Road and University Drive (under construction);
- I3. Loxahatchee Road and Parkside Drive;
- I4. Loxahatchee Road and US-441/SR-7;
- I5. Hillsboro Boulevard and Nob Hill Road;
- I6. Hillsboro Boulevard and Bruschi Driveway;
- I7. Hillsboro Boulevard and University Drive;
- I8. Trails End and Nob Hill Road;
- I9. Trails End and Pine Island Road (signalized);
- I10. Trails End and University Drive;
- I11. Holmberg Road and Pine Island Road (signalized);
- I12. Holmberg Road and University Drive (signalized);
- I13. Holmberg Road and Heron Bay Boulevard (roundabout);
- I14. Holmberg Road and NW 87th Avenue;
- I15. Holmberg Road and Riverside Drive;
- I16. Holmberg Road and Parkside Drive (roundabout);
- I17. Holmberg Road and US-441/SR-7;
- I18. Nob Hill Road and NW 66th Drive;
- I19. Nob Hill Road and Heron Bay Boulevard/Parkland Reserve Boulevard;
- I20. Nob Hill Road and Pine Island Road;
- I21. Pine Island Boulevard and NW 66th Drive;
- I22. University Drive and Old Club Road;
- I23. Hillsboro Boulevard and Loxahatchee Road;
- I24. Hillsboro Boulevard and Mecca Boulevard;
- I25. Hillsboro Boulevard and US-441/SR-7; and
- I26. Mecca Boulevard and US-441/SR-7.

Data such as traffic counts, land use, trip generation, and trip distribution from the following reports have been used:

- *Citywide Infrastructure Management Plan, March 6, 2014* prepared by Hardesty / Hanover and Genesis;
- *The Master Plan for “The Wedge”* prepared by Keith & Associates / Land Design South;
- *Bruschi Traffic Study, June 2011* prepared by McMahon Associates, Inc.;
- *DeBuys Traffic Analysis, June 2011* prepared by McMahon Associates, Inc.;
- *Triple H Traffic Analysis, February 2011* prepared by McMahon Associates, Inc.;
- *Parkland Bay Traffic Analysis, April 2015* prepared by McMahon Associates, Inc.;
- *Heron Heights Elementary School Area Traffic Assessment, May 2014* prepared by Keith and Schnars, P.A.; and
- *City of Parkland Multiuse Trail Master Plan, 2004.*

2.1 Traffic Counts

Traffic volume data from the 2014 Florida Traffic Information (FTI) CD prepared by the Florida Department of Transportation (FDOT) for the following FDOT and Broward County (County) count stations (See **Figure 3**) was used:

- FDOT 86-0005: US-441/SR-7, south of Hillsboro Boulevard;
- FDOT 86-0118: US-441/SR-7, Broward/Palm Beach County Line;
- FDOT 86-7115: Holmberg Road, west of US-441/SR-7;
- FDOT 86-7819: Holmberg Road, west of Pine Island Road;
- FDOT 86-9101: Holmberg Road, east of University Drive;
- FDOT 86-9106: University Drive, north of Sawgrass Expressway;
- FDOT 86-9138: Holmberg Road, east of Riverside Drive;
- FDOT 86-9265: Riverside Drive, south of Holmberg Road;
- FDOT 86-9419: Holmberg Road, west of University Drive;
- FDOT 86-9526: Loxahatchee Road, west of SR-7;
- FDOT 86-9712: Nob Hill Road, north of Heron Bay Boulevard;
- FDOT 86-9713: Pine Island Road, north of Holmberg Road;
- FDOT 86-9763: Trails End, east of Nob Hill Road;
- FDOT 86-9772: Hillsboro Boulevard, west of US-441/SR-7; and
- County ID 383: University Drive, north of Holmberg Road.

The traffic data (6:00 AM – 6:00 PM) collected from the *Heron Heights Elementary School Area Traffic Assessment* at the following locations (See **Figure 3**) was used:

- Nob Hill Road and Heron Bay Boulevard; and
- Nob Hill Road and Pine Island Road.

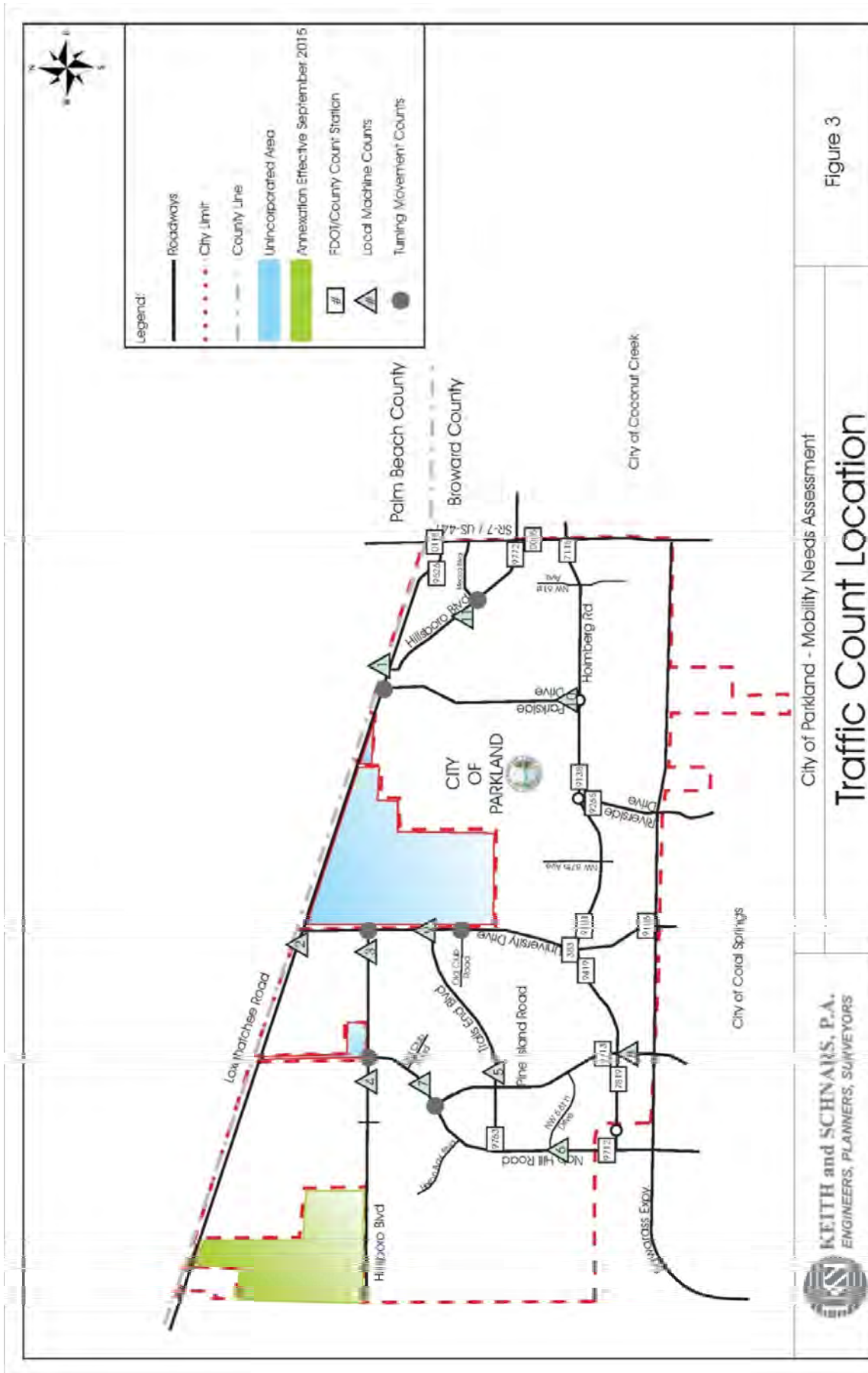


Figure 3

City of Parkland - Mobility Needs Assessment

Traffic Count Location

KEITH and SCHNARS, P.A.
ENGINEERS, PLANNERS, SURVEYORS

Traffic volume counts (24-hours machine counts) collected on April 21, 2015 (Tuesday) were collected at the following 11 locations (See **Figure 3**):

- Loxahatchee Road, west of Parkside Drive;
- Loxahatchee Road, west of the theoretical extension of University Drive;
- Hillsboro Boulevard, west of University Drive;
- Hillsboro Boulevard, west of Nob Hill Road;
- Trails End Boulevard, east of Pine Island Road;
- Nob Hill Road, south of NW 66th Drive;
- Nob Hill Road, north of Pine Island Drive;
- Pine Island Road; south of Holmberg Road;
- University Drive, north of Trails End Boulevard;
- Parkside Drive; north of Holmberg Road; and
- Hillsboro Boulevard, north of Mecca Boulevard.

AM (7:00 – 9:00) and PM (4:00 – 6:00) peak hour intersection turning movement volume counts were collected on April 22, 2015 (Wednesday) at the following five locations (See **Figure 3**):

- Hillsboro Boulevard and Nob Hill Road;
- Hillsboro Boulevard and University Drive;
- Nob Hill Road and Pine Island Road;
- Hillsboro Boulevard and Mecca Boulevard; and
- University Drive and Old Club Road.

AM (7:00 – 9:00) and PM (4:00 – 6:00) peak hour intersection turning movement volume counts for Loxahatchee Road and Parkside Drive were obtained from the *Loxahatchee Road at Parkside Drive Traffic Technical Memorandum* provided by the City (See **Figure 3**):

The traffic counts are included in **Appendix A**.

2.2 Field Observations

The two main east-west roads which extend westward from the City's eastern boundary at SR-7/US-441 to its western boundary are Holmberg Road and Loxahatchee Road.

Holmberg Road serves the residential communities in the City, and is currently a two-lane roadway, except between University Drive and Pine Island Road, where it is a four-lane roadway. The road is classified as a city collector. The City has an objective in its approved Comprehensive Plan restricting expansion of Holmberg Road due to the potential negatively affect to the semi-rural nature of Parkland. Loxahatchee Road is a two-lane roadway which extends along the City's northern boundary. The road is classified as a city/county collector.

Up until June 2015, the east and west sectors of the City, as divided by the undeveloped and unincorporated Hendrix Farms Properties, were connected only by Holmberg Road. The recent opening of the University Drive between Hillsboro Boulevard and Loxahatchee Road will help the east and west areas circulation.

Other main east-west roads include:

1. Trails End Road, four-lane divided city collector between University Drive and Nob Hill Road;
2. Hillsboro Boulevard, a six-lane county collector between SR-7/U.S. 411 and Loxahatchee Road; and
3. Hillsboro Boulevard, four-lane divided county collector between University Drive and Nob Hill Road. It is a two-lane, undivided road west of Nob Hill Road to the western City boundary.

The main north-south roadways include:

1. Parkside Drive, a two-lane city collector that connects Holmberg and Loxahatchee Roads;
2. University Drive, a four-lane divided road between the Sawgrass Expressway to about NW 72nd Street and a two-lane undivided road from NW 72nd Street to Loxahatchee Road;
3. Nob Hill Road, a four-lane divided county minor collector, extending from Sawgrass Expressway to north of Hillsboro Boulevard;
4. Pine Island Road, a four-lane divided county minor collector between the Sawgrass Expressway and Nob Hill Road, and
5. Riverside Drive, a four-lane divided county collector south of Holmberg Road.

As of June 2015, there are only three signalized intersections within the City:

1. University Drive and Holmberg Road;
2. Pine Island Road and Holmberg Road; and
3. Pine Island Drive and Trails End.

Other signalized intersections found along the periphery of the City limits are:

1. SR-7/US-441 and Loxahatchee Road;
2. SR-7/US-441 and Hillsboro Boulevard;
3. SR-7/US-441 and Holmberg Road; and
4. University Drive and Sawgrass Expressway.

Broward County is responsible for the installation and maintenance of traffic signals throughout the County. Traffic signal locations are identified by the County and are eligible for installation once the appropriate traffic warrants have been satisfied. In June 2014, Broward County

provided authorization to the City to design and install the traffic signal at the intersection of Nob Hill Road and Heron Bay Boulevard/Parkland Reserve Boulevard. The design is complete, the permit for construction has been issued by Broward County, and the contract bid out and awarded. Construction is expected to commence in the summer of 2015 and be completed within six months.

All-way stop control intersections in the City include:

1. Nob Hill Road and Hillsboro Boulevard;
2. University Drive and Hillsboro Boulevard;
3. University Drive and Trails End; and
4. University Drive and Old Club Road.

Roundabouts are located at:

1. Holmberg Road and Parkside Drive; and
2. Holmberg Road and Riverside Drive.

There is a third roundabout on Holmberg Road at Heron Bay Boulevard, but it is within the City of Coral Springs.

School speed zones are found at the following locations:

- Parkside Drive at Riverglades Elementary School;
- Holmberg Road and Parkside Drive roundabout (7:00-8:00 AM and 2:00-2:30 PM);
- Holmberg Road between Pine Island Road and Heron Bay Boulevard roundabout in Coral Springs, Stoneman Douglas High School and West Glades Middle School (6:40-9:15 AM, 2:15-3:10 PM, and 3:45-4:15 PM);
- Pine Island Road and Trails End, Park Trails Elementary School (Flashing overhead yellow);
- Pine Island Road and Nob Hill Road, Heron Heights Elementary School (Flashing yellow overhead); and
- University Drive north of Sawgrass Expressway, Mary Help of Christians School (Flashing yellow overhead).

Table 1 summarizes the intersections field observations.

Table 1: AM and PM Peak Hours Intersection Field Observations

Intersection		Traffic Control	Current Status	AM Operations	PM Operations	Other Observations
11.	Loxahatchee Road and Nob Hill Road	N/A	Under Construction - Expected completion end of 2015. Three-legged. Loxahatchee, east & west legs; Nob Hill, south leg	Free-flow traffic on Loxahatchee Road.	Free-flow traffic on Loxahatchee Road.	N/A
12.	Loxahatchee Road and University Drive (under construction);	NB Stop	Opened June 2015. Three-legged. Loxahatchee, east & west legs; University, south leg.	Light right-turn movement off northbound University Drive and left-turn off westbound Lox. Minimal queues observed on northbound approach.	Light right-turn movement off northbound University Drive and left-turn off westbound Lox. Minimal queues observed on northbound approach.	Northbound University Drive approach pavement marking not conducive for left-turns off University.
13.	Loxahatchee Road and Parkside Drive	NB Stop	Three-legged. Loxahatchee, east & west legs; Parkside, south leg.	Very high right-turn movement off northbound Parkside Drive and left-turn off westbound Lox. Coincides with Riverglades School operations to south. Queues of up to ten vehicles observed on northbound approach. No queues on Lox aided by left-turn lane off westbound approach.	Very high right-turn movement off northbound Parkside Drive and left-turn off westbound Lox. Coincides with Riverglades School operations to south. Some queuing observed on northbound approach. No queues on Lox aided by left-turn lane off westbound approach.	-
14.	Loxahatchee Road and U.S. 441/SR-7	Signal	Four-legged. Loxahatchee, east & west legs; SR-7/US - 441, north & south legs.	Majority traffic off Loxahatchee turning left. Approaches cleared on each phase.	Majority traffic off Loxahatchee turning left. Approaches cleared on each phase.	East leg is NW 76th street in Coconut Creek. Low traffic observed
15.	Hillsboro Boulevard and Nob Hill Road	All-Way Stop	Four-legged. Hillsboro, east & west legs; Nob Hill, north & south legs.	Low volumes on all approaches. Prominent eastbound to southbound traffic.	Low volumes on all approaches. Prominent northbound to westbound traffic.	Intersection crucial in development of Wedge projects. Will be signalized when warranted or upon development conditions.
16.	Hillsboro Boulevard and Town Parc (Driveway)	SB Stop	Three-legged. Hillsboro, east & west legs; Town Parc driveway - north leg.	Low volumes on all approaches.	Low volumes on all approaches.	Town Parc in final stages of completion.
17.	Hillsboro Boulevard and University Drive	All-Way Stop	Three-legged. Hillsboro, west leg; University, north & south legs.	Low volumes on all approaches. After opening of north leg (University), increased traffic in north-south direction.	Low volumes on all approaches. After opening of north leg (University), increased traffic in north-south direction.	Intersection crucial in development of Wedge projects. Will be signalized when warranted or upon development conditions.
18.	Trails End and Nob Hill Road	EB/WB Stop	Four-legged. Trails End, east & west legs; Nob Hill, north & south legs.	Primary traffic flow, north-south. Low volumes on east leg. No observable problems.	Primary traffic flow, north-south. Low volumes on east leg. No observable problems.	West leg is connection to Heron Bay golf course maintenance facilities, no through local traffic.
19.	Trails End and Pine Island Road	Signal	Four-legged. Trails End, east & west legs; Pine Island, north & south legs.	Morning traffic due to school on SE corner. School zone extends along all approaches. Non-school traffic moderate-low.	PM traffic moderate-low. No observed adverse delays.	-
110.	Trails End and University Drive	EB Stop	Three-legged. Trails End, west leg; University, north & south legs.			Commercial center on NW corner includes Publix.
111.	Holmberg Road and Pine Island Road	Signal	Four-legged. Holmberg, east & west legs; Pine Island, north & south legs.	Substantial traffic to and from high and middle schools on west leg Holmberg. Situation aggravated due to multiple period (over 2.5 hour) speed zone (15 MPH) on Holmberg.	PM traffic northbound traffic prominent. No noticeable delays observed.	-
112.	Holmberg Road and University Drive	Signal	Four-legged. Holmberg, east & west legs; University, north & south legs.	Southbound traffic substantial south of Holmberg. School zone south of Holmberg. Holmberg east leg heavy. No major delays observed.	Northbound traffic substantial south of Holmberg. Holmberg east leg heavy. No major delays observed.	University Drive provides primary connection to Sawgrass Expressway and south to Coral Springs and other cities along SR-817 (University Drive south of Sawgrass)

Table 1: AM and PM Peak Hours Intersection Field Observations (Continued)

Intersection	Traffic Control	Current Status	AM Operations	PM Operations	Other Observations
113. Holmberg Road and Heron Bay Boulevard	Roundabout	Holmberg, east & west legs; Heron Bay, north leg.	Traffic on all approaches heavy due to schools immediately to east of roundabout. Speed zone impacts noticeable. Queues on southbound approach more prominent than others.	Moderate traffic flow but continuous in roundabout without observable queues.	Roundabout actually within City of Coral Springs. BCT Route 88 makes turnaround here.
114. Holmberg Road and NW 87th Avenue	NB/SB Stop	Four-legged. Holmberg, east & west legs; NW 87th, north & south legs.	Holmberg flows freely. Some delays from north and south approaches due to continuous flow on Holmberg.	Holmberg flows freely. Low traffic from north leg. No observable delays.	NW 87th Avenue leads to Equestrian Center, Liberty Park, and Barkland.
115. Holmberg Road and Riverside Drive	Roundabout	Holmberg, east & west legs; Riverside, north & south legs.	High volumes on northbound Riverside approach as well as eastbound Holmberg. Some delays, queuing observed on Riverside. Slow backof queue observed on eastbound departure (Holmberg).	Substantial volumes on northbound Riverside approach as well as westbound Holmberg. Continuous flows with little delays observed.	-
116. Holmberg Road and Parkside Drive	Roundabout	Holmberg, east & west legs; Parkside, north leg.	Continuous, high concentration of eastbound traffic on Holmberg. Impacted by school zone at roundabout approaches. Moving eastbound queue observed on Holmberg extending almost to Riverside. Low southbound volumes but higher departure volumes to northbound Parkside Drive.	Substantial and continuous volumes on westbound Holmberg approach. Slow but continuous westbound Holmberg movement.	-
117. Holmberg Road and U.S. 441/SR-7	Signal	Four-legged. Holmberg, east & west legs; SR-7/US-441, north & south legs.	Heavy traffic in both directions along SR-7/US-441. Substantial eastbound traffic (Holmberg) but clears in phase.	Heavy traffic in both directions along SR-7/US-441. Eastbound traffic (Holmberg) not as substantial as in morning but clears in phase.	The east leg is Johnson Street in Coconut Creek.
118. Nob Hill Road and NW 66th Drive	EB/WB Stop	NW 66th, east leg; Nob Hill, north & south legs.	Substantial traffic along southbound Nob Hill augmented by considerable traffic from NW 66th Drive. Difficulty vehicles exiting NW 66th to south.	Substantial northbound Nob Hill traffic with considerable right-turns at NW 66th Drive. Difficulty vehicles exiting NW 66th to south.	NW 66th Drive serves as west access for Parkland Isles gated community.
119. Nob Hill Road and Heron Bay Boulevard/Parkland Reserve Boulevard	EB/WB Stop	Heron Bay, east & west legs; Nob Hill, north & south legs.	Substantial morning traffic exiting (with long queues) Heron Bay, primarily right-turns to south. Has school crossing guards on west side. Difficulty for left-turning vehicles off northbound approach.	Substantial traffic turning left off northbound Nob Hill Road. Queue fill left-turn lane on occasions.	-
120. Nob Hill Road and Pine Island Road	WB Stop	Pine Island, east & west legs; SR-7/US-441, north & south legs.	Substantial morning traffic entering and exiting the Heron Heights school on the SW corner of intersection. School queues extend out of school site along west side of Pine Island and extending to south side of Nob Hill. All other traffic slowed off speed zone.	Light traffic conditions, primarily northbound on Nob Hill.	-
121. Pine Island Boulevard and NW 66th Drive	EB/WB Stop	Four-legged. NW 66th, east & west legs; Pine Island, north & south legs.	Substantial traffic from Parkland Isles and Fox Ridge communities. Difficulties for left-turns out of Fox Ridge.	Substantial northbound traffic but smooth flow through intersection. Some difficulty for left-turns off northbound Pine Island to Parkland Isles.	-
122. University Drive and Old Club Road	EB Stop	Four-legged. Old Club Road, east & west legs; University, north & south legs.	Significant traffic congestion formed primarily on northbound University. Long queues (over 50 vehicles) formed on northbound approach due to stop sign and heavy traffic. Some queues also form on southbound approach.	Some significant traffic congestion formed primarily on northbound University, but much less than AM period.	-

Table 1: AM and PM Peak Hours Intersection Field Observations (Continued)

Intersection	Traffic Control	Current Status	AM Operations	PM Operations	Other Observations
123. Hillsboro Boulevard and Loxahatchee Road	NB Stop	Four-legged. Loxahatchee, east & west legs; Hillsboro, north & south legs.	Difficulty for vehicles on the northbound approach due to limited lanes and sharp left-turn.	Difficulty for vehicles on the northbound approach due to limited lanes and sharp left-turn	This is temporary condition pending the completion of Hillsboro Boulevard through McJunkin and Hendrix properties.evrdr
124. Hillsboro Boulevard and Mecca Boulevard	NB/SB Stop	Four-legged. Hillsboro, east & west legs; Mecca, north & south legs.	Primary traffic is east-west along Hillsboro. Comparatively low traffic off north and south legs. South leg has primarily right-turn movement.	Primary traffic is east-west along Hillsboro. Comparatively low traffic off north and south legs. South leg has primarily right-turn movement.	South leg is NW 76th Drive, access to Ternbridge community (gated).
125. Hillsboro Boulevard and U.S. 441/SR-7	Signal	Four-legged. Hillsboro - East & west legs; SR-7/US -441, north & south legs.	Heavy traffic on west, north and south approaches. Substantial left-turn traffic off eastbound and westbound Hillsboro. Traffic clears in phase.	Heavy traffic on east, north and south approaches. Substantial left-turn traffic off eastbound and westbound Hillsboro. Traffic clears in phase.	East of SR-7/US-441 Hillsboro is 6-lane divided arterial.
126. Mecca Boulevard and U.S. 441/SR-7	EB Stop	Four-legged. Mecca, east leg; SR-7/US -441, north & south legs.	Operations good in part due to right-turn only configuration of eastbound approach.	Operations good in part due to right-turn only configuration of eastbound approach. Some difficulty off left-turning vehicles off northbound SR-7	-

2.3 Bicycle and Pedestrian Amenities

An inventory of the bicycle and pedestrian amenities was done and summarized in **Table 2**.

2.4 Committed Improvements

2.4.1 Nob Hill Road Extension

The construction of the Nob Hill Road Extension is a plat requirement for the Debuy's parcel (Miralago) and is currently being performed by Lennar Homes. This project involves the construction of a new two-lane roadway to extend Nob Hill Road from Hillsboro Boulevard to Loxahatchee Road. The road is located in unincorporated Broward County and as such, falls under County jurisdiction. The roadway currently has been constructed to the main entrance to the Lennar/Miralago Development. Developer has requested to elevate a portion of the roadway in order to accommodate a con-span pedestrian tunnel to connect the Miralago subdivision to the adjacent Triple H parcel. The Triple H parcel along the west side of the road is currently being cleared for development. The road is expected to be completed by the end of 2015.

2.4.2 University Drive Extension

The project involved the construction of a new two-lane roadway as part of the DeBuys (Miralago) development to extend University Drive from Hillsboro Boulevard to Loxahatchee Road. The roadway was constructed by Lennar homes and was opened to the public on June 3rd, 2015. The roadway will eventually be transferred to the City for perpetual ownership and maintenance.

Table 2: Bicycle and Pedestrian Amenities Inventory

Roadway	From	To	Speed Limit (mph)	Dir.	BICYCLE				SIDEWALK/TRAIL				COMMENTS
					East/North		West/South		East/North		West/South		
					Yes/ No	Width (ft.)	Yes/ No	Width (ft.)	Yes/ No	Width (ft.)	Yes/ No	Width (ft.)	
1 Loxahatchee Road	SR-7	Parkside Drive	45	EB/WB	No (1)	--	No (1)	--	No	--	Yes / Partial (2)	5	(1) Road has 0-4 foot striped paved shoulder areas that are not viable as bike lanes. (2) Sidewalk provided along south side from SR-7/US-441 to westernmost Waterway Shoppes driveway access approximately 600+ feet from SR-7/US-441. Partial sidewalk at SE corner at Parkside Drive.
2 Loxahatchee Road (3)	Parkside Drive	University Drive	45	EB/WB	No	--	No	--	No	--	No	--	(3) Road has no little or no paved shoulders.
3 Loxahatchee Road (3)	University Drive	Nob Hill Road	45	EB/WB	No	--	No	--	No	--	No	--	(3) Road has no little or no paved shoulders.
4 Loxahatchee Road (3)	Nob Hill Road	West of Nob Hill Road	45	EB/WB	No	--	No	--	No	--	No	--	(3) Road has no little or no paved shoulders.
5 Hillsboro Boulevard	SR-7/US 441	Mecca Drive	40	EB/WB	No	--	No	--	Yes	5	Yes	5	
6 Hillsboro Boulevard	Mecca Drive	Loxahatchee Road	35	EB/WB	No	--	No	--	Yes	5	Yes	5	
7 Hillsboro Boulevard	University Drive	Nob Hill Road	45	EB/WB	Yes	4	Yes	4	Yes	8	Yes	8	No sidewalk on north side west of Town Parc.
8 Hillsboro Boulevard	Nob Hill Road	West of Nob Hill Road	45	EB/WB	Yes	4	Yes	4	Yes	8	Yes	8	No sidewalk on north side west of fire house.
9 Trails End Boulevard	University Drive	Pine Island Road	40	EB/WB	Yes	4	Yes	4	Yes	8	Yes	8	
10 Trails End Boulevard	Pine Island Road	Nob Hill Road	35	EB/WB	No	--	No	--	Yes	6	Yes	8	No shoulder, raised curb
11 Holmberg Road	SR-7/US 441	NW 61st Avenue	30	EB/WB	Yes	4	Yes	4	Yes	6	Yes	5	Designated (Signed) bike lanes
12 Holmberg Road	NW 61st Avenue	Parkside Drive	30	EB/WB	Yes	4	Yes	4	Yes	6	Yes	6	Designated (Signed) bike lanes
13 Holmberg Road	Parkside Drive	Riverside Drive	30	EB/WB	Yes	4	Yes	4	Yes	6	Yes	6	Designated (Signed) bike lanes

Table 2: Bicycle and Pedestrian Amenities Inventory (Continued)

Roadway	From	To	Speed Limit (mph)	Dir.	BICYCLE				SIDEWALK/TRAIL				COMMENTS	
					East/North		West/South		East/North		West/South			
					Yes/ No	Width (ft.)	Yes/ No	Width (ft.)	Yes/ No	Width (ft.)	Yes/ No	Width (ft.)		
14	Holmberg Road	Riverside Drive	University Drive	35	EBWB	Yes	4	Yes	4	Yes/ No (4)	--	Yes	6	Designated (Signed) bike lanes. (4) No sidewalk on north side between west of Riverside and east of University Drive. 8 foot sidewalk/trail extends approx. 725 feet from University to Liberty Park connection. Sidewalk/Trail veers to north to connect with Ranch Road sidewalk/Trail.
15	Holmberg Road	University Drive	Pine Island Road	35	EBWB	Yes	4	Yes	4	Yes	6	Yes	5	
16	Holmberg Road	Pine Island Road	West of Pine Island Road	35	EBWB	No	--	No	--	Yes	6	Yes	6	
17	Nob Hill Road	Loxahatchee Road	Hillsboro Boulevard	45	NB/SB	Yes	4-5	Yes	4-5	Yes	6	Yes	6	
18	Nob Hill Road	Hillsboro Boulevard	Old Club Road	45	NB/SB	Yes	4-5	Yes	4-5	Yes	7	Yes	7	
19	Nob Hill Road	Old Club Road	Pine Island Drive	45	NB/SB	Yes	4-5	Yes	4-5	Yes	7	Yes	7	
20	Nob Hill Road	Pine Island Drive	Heron Bay Boulevard (North)	45	NB/SB	Yes	4	Yes	4	Yes	8	Yes	8	
21	Nob Hill Road	Heron Bay Boulevard (North)	Trails End Boulevard	45	NB/SB	Yes	4	Yes	4	Yes	8	Yes	8	
22	Nob Hill Road	Trails End Boulevard	City Limit N of Heron Bay Blvd	45	NB/SB	Yes	4	Yes	4	Yes	6	Yes	6	
23	Pine Island Road	Nob Hill Road	Trails End Boulevard	35	NB/SB	Yes	4	Yes	4	Yes	8	Yes	8	
24	Pine Island Road	Trails End Boulevard	NW 66th Drive	40	NB/SB	Yes	4	Yes	4	Yes	8	Yes	6	
25	Pine Island Road	NW 66th Drive	Holmberg Road	40	NB/SB	No	--	No	--	Yes	6	Yes	8	
26	Pine Island Road	Holmberg Road	Sawgrass Exp.	40	NB/SB	No	--	No	--	Yes	5	Yes	5	
27	University Drive	Loxahatchee Road	Hillsboro Boulevard	40	NB/SB	Yes	4	Yes	4	No	--	Yes	6	
28	University Drive	Hillsboro Boulevard	Trails End Boulevard	40	NB/SB	Yes	4	Yes	4	No	--	Yes	8	

Table 2: Bicycle and Pedestrian Amenities Inventory (Continued)

Roadway	From	To	Speed Limit (mph)	Dir.	BICYCLE				SIDEWALK/TRAIL				COMMENTS
					East/North		West/South		East/North		West/South		
					Yes/ No	Width (ft.)	Yes/ No	Width (ft.)	Yes/ No	Width (ft.)	Yes/ No	Width (ft.)	
29 University Drive	Trails End Boulevard	Old Club Road	40	NB/SB	Yes	4	Yes	4	No	--	Yes	8	
30 University Drive	Old Club Road	NW 72nd Street	40	NB/SB	Yes	4	Yes	4	No	--	Yes	8	
31 University Drive	NW 72nd Street	Holmberg Road	40	NB/SB	Yes	4	Yes	4	Yes	8	Yes	6	
32 University Drive	Holmberg Road	Sawgrass Expressway	40	NB/SB	No	--	No	--	Yes	6	Yes	8	
33 Parkside Drive	Holmberg Road	Loxahatchee Road	30	NB/SB	No	--	No	--	Yes	8	Yes	5	
34 Riverside Drive	Sawgrass Exp.	Holmberg Road	40	NB/SB	No	--	No	--	No	-	Yes	6	
35 Mecca Boulevard	SR- 7/US 441	Hillsboro Boulevard	35	NB/SB	No	--	No	--	Yes	5	Yes	5	

2.5 Planned Transportation Improvements

There are no County or City sponsored roadway improvements listed in the currently approved Broward County TRANSPORTATION IMPROVEMENT PROGRAM (TIP), FY 2014/15 – FY 2018/19, JULY 2014 (Amended December 11, 2014).

The following projects are listed in the County's FY14-15 Unfunded Multimodal Surface Transportation Priorities:

1. University Drive from Holmberg Road to Hillsboro Boulevard (County Line Road) – expand from two lanes to four lanes divided. This road is considered a SIS Regionally Significant Arterial. The road is expected to be developed as part of the development of the Hendrix properties;
2. Hillsboro Boulevard from University Drive to Hillsboro Boulevard Extension – new four-lane divided roadway to be built within future Hendrix and McJunkin properties; and
3. Trails End Road from University Drive to Hillsboro Boulevard (future) – new four-lane divided roadway to be built within future Hendrix properties.

The adopted Broward County 2035 Long Range Transportation Plan also includes the aforementioned roadways within its plan for FY 2018/2019 – FY 2034/2035.

The City recognized the need for Loxahatchee Road improvements and the designed to be uniform from SR-7/US-441 to the Conservation Area on the west side of the City. The approved design during the City Commission meeting on September 18, 2013 consists of two twelve (12) foot lanes separated by an eleven (11) foot median, a five (5) foot bike lane on the north side, a four (4) foot bike lane on the south side, and a six (6) foot sidewalk on the south side. The City is diligently working with the multiple agencies (County, FDOT, and Metropolitan Planning Organization) to ensure that this project moves forward and stays on track for funding which is expected in the fiscal year 2020/2021.

2.6 Facilities Location Signage

The City has a number of city parks, services, and schools which are often identified for motorist guidance. The signage is usually located near the nearest intersection to the facility and typical road signs are used. A field inventory and review of the existing facility location signage was performed and summarized in **Table 3**. The facilities were divided into the following categories:

Parks and Recreation:

1. 6 Acre Wood Park (6060 Hillsboro Boulevard) consists of an approximately quarter mile loop multi-use trail that winds through a natural environment. The trail is accessible from Hillsboro Boulevard and the Winners Circle Trail;

Table 3: Facilities Location Sign Inventory

Site	Main Road	Entrance/ Monument Sign (Yes / No)	Road Guide Sign? (Yes / No)	Comments	Potential Additional Signs
6 Acre Wood Park	Hillsboro Boulevard (west of SR-7/US-441)	Yes	No	No vehicular access or parking provided. Pedestrian access only.	No roadway sign required since facility is pedestrian/ bicyclist oriented.
Barkland Dog Park	Holmberg Road (access via NW 87th Avenue and Ranch Road)	Yes	Yes	Signs on both eastbound and westbound approaches of Holmberg Road at NW 87th Avenue. Sign on northbound approach of NW 87th Avenue at Ranch Road.	No additional roadway sign required.
Covered Bridge Park	Holmberg Road (North side between Winners Circle and NW 61st Avenue)	Yes	No	No vehicular access or parking provided. Pedestrian access only.	No roadway sign required since facility is pedestrian/ bicyclist oriented.
Doris Davis Forman Wildemess Preserve	Parkside Drive (East side south of Riverglades Elementary School)	Yes	No	No vehicular access or parking provided. Pedestrian access only. One handicap parking space on Parkside Drive.	No roadway sign required since facility is pedestrian/ bicyclist oriented.
Equestrian Center at Temple Park	Holmberg Road (access via NW 87th Avenue and Ranch Road)	Yes	Yes (see Comments)	Signs on both eastbound and westbound approaches of Holmberg Road. No sign on northbound approach of NW 87th Avenue at Ranch Road.	Add sign at NW 87th Avenue and Ranch Road intersection.
John H. Quigley Park	Parkside Drive	Yes	No	No signs on northbound and southbound approaches	Add signs on Parkside Drive north and south of park.
Liberty Park	Holmberg Road (access via NW 87th Avenue and Ranch Road)	Yes	Yes (see Comments)	Signs on both eastbound and westbound approaches of Holmberg Road. No sign on northbound approach of NW 87th Avenue at Ranch Road.	Add sign at NW 87th Avenue and Ranch Road intersection.
Pine Trails Park	Trails End	Yes	No	No signs on eastbound and westbound approaches	Add signs on Trails End at east and west of park entrance.
Terramar Park	Hillsboro Boulevard	Yes	No	No signs on eastbound and westbound approaches	Add signs on Hillsboro Boulevard at east and west of park entrance.
Margate Blount Archeological Site	Trails End (Between Pine Island Road and Nob Hill Road)	Yes	No	No signs on eastbound and westbound approaches. Unsigned / unmarked off-street parking provided (formerly access road for fire station-recently relocated).	Add signs on Trails End at east and west of site entrance. Incorporate in site improvement design.
City Hall	University Drive north of Holmberg Road	Yes	Yes (See Comments)	Signs on westbound approach on Holmberg Road. No signs on eastbound Holmberg, and northbound and southbound University Drive.	Add signs on northbound University Drive south of Holmberg Road, add sign on eastbound Holmberg Road west of University Drive, and add sign on southbound University Drive north of City Hall entrance.
City Library	University Drive north of Holmberg Road	Yes	Yes (See Comments)	Signs on westbound approach on Holmberg Road. No signs on eastbound Holmberg, and northbound and southbound found University Drive.	Add signs on northbound University Drive south of Holmberg Road, add sign on eastbound Holmberg Road west of University Drive, and add sign on southbound University Drive north of City Hall entrance.

Table 3: Facilities Location Sign Inventory (Continued)

Site	Main Road	Entrance/ Monument Sign (Yes / No)	Road Guide Sign? (Yes / No)	Comments	Recommendation
Public Safety	University Drive north of Holmberg Road	Yes	No	No signs on Holmberg Road or University Drive	Add signs on northbound University Drive south of Holmberg Road, add sign on eastbound and westbound Holmberg Road west and east of University Drive, respectively, and add sign on southbound University Drive north of City Hall entrance.
Public Works (including fire station)	NE Parkside Drive and Holmberg Road	Yes	No	No signs on Holmberg or Parkside Drive	Add signs on eastbound and westbound Holmberg Road at Parkside Drive roundabout and southbound Parkside Drive north of site access.
Parkside Trailshead Preserve	Parkside Drive				Unless site improvement includes vehicular access and parking, no roadway sign required since facility is pedestrian/ bicyclist oriented.
Parkland Schools	Areawide -- Holmberg Road, Pine Island Road, Trails End, Nob Hill Road and Parkside Drive	Yes	No	No school guide signs provided at any of the sites.	These are Broward County Facilities. Not required unless specifically requested and justified.

1. Barkland Dog Park (9245 Ranch Road). This dog park is just over 2 acres in size and lies adjacent to Liberty Park;
2. Liberty Park (9200 Ranch Road) consists of 7 acres and includes two playgrounds, a water play area, and one large pavilion;
3. Equestrian Center at Temple Park (8350 Ranch Road) is used by neighboring horsemen and the Parkland Horseman's Association who make use of the open space and two equestrian rings for horseback riding;
4. Covered Bridge Park (6031 Holmberg Road) is a passive park with an adjacent trail that allows for visitors to enjoy a tranquil setting alongside a beautiful covered bridge;
5. Doris Davis Forman Wildlife Preserve (7300 Parkside Drive). This uniquely diverse 20-acre site features a 5' wide, 900' long pedestrian trail traveling through pine woods and a 1,550' boardwalk meandering through cypress wetlands and past a breathtaking hammock. Two seating and observation areas along with a pavilion area are located along the trail;
6. Pine Trails Park (10555 Trails End) is the largest and most active park within the City of Parkland. The park has an amphitheater, a fishing pier and walking trails including Life Trails fitness equipment. There are five multi-purpose fields for sports activities, a state-of-the-art playground and other facilities such as T-ball fields, basketball courts, pavilions and open space. The City of Parkland Parks and Recreation Department is located at his park;
7. Terramar Park (6575 NW 75th Drive at Hillsboro Boulevard) is a 50.1 acre park with four (4) multi-purpose sports fields, five (5) basketball courts, four (4) baseball field, two (2) softball fields, two (2) pickleball courts, over 1.17 miles of paved biking, walking, and

jogging paths, an open space area for multi-sports, three playgrounds for children, and a pavilion; and

8. John H. Quigley Park (7901 Parkside Drive). This 5 acre park has 4 lighted T-ball/Coach Pitch Fields, and a multi-purpose field for soccer and football. It also has a pavilion and a playground.

Government Services:

1. City Hall, 6600 University Drive;
2. City Library, 6600 University Drive;
3. Parks and Recreation, 10555 Trails End; and
4. Public Works, 6500 Parkside Drive.

Schools:

1. Heron Heights Elementary, 11010 Nob Hill Road;
2. Park Trails Elementary, 10700 Trails End;
3. Riverglades Elementary, 7400 Parkside Drive;
4. Westglades Middle School, 11000 Holmberg Road; and
5. Marjory Stoneman Douglas High School, 5901 Pine Island Road.

3.0 TRAFFIC FACTORS

3.1 K-factor

The roadway analysis consisted of comparing 2014/2015, 2020, and 2025 two-way volumes to the adopted Level of Service (LOS). At locations where only Annual Average Daily Traffic (AADT) are available from the FDOT and County station, the two-way PM peak hour volumes were developed by applying a representative K-factor from a nearby location developed for both AM and PM peak hours. The AM and PM peak hour K-factors are included in **Appendix B**.

3.2 Peak Season Conversion and Axle Factors

The Peak Season Conversion Factor (PSFC) and Axle Factor were obtained from the 2014 FTI CD. The corresponding pages are included in **Appendix B**.

3.3 Peak Hour Factor

The Peak Hour Factor (PHF) was calculated for each of the six (6) intersections to input in the operations analysis. The PHF for the AM and PM peak hours are summarized in **Table 4**.

Table 4: AM and PM Peak Hours Intersection Peak Hour Factor

Intersection	AM PHF	PM PHF
Hillsboro Blvd and Nob Hill Blvd	0.79	0.76
Hillsboro Blvd and University Dr	0.75	0.88
Nob Hill Blvd and Pine Island Rd	0.79	0.82
Mecca Blvd and Hillsboro Blvd	0.86	0.82
Old Club Rd and University Dr	0.81	0.92
Loxahatchee Rd and Parkside Dr	0.81	0.95

4.0 FORECAST

The 2020 and 2025 two-way volumes were developed in a two-step process. First, 0.5 percent compound annual growth rate was applied to the 2014/2015 traffic volumes; and second the traffic from the Master Planned and committed developments located in the City were layered on top.

4.1 Growth Rate

The compound annual growth rate, from the past five (5) years (2010 – 2014) of historical data (from the available FDOT and County count stations), was calculated. The average historic calculated compound growth rate is 1.77 percent. This growth rate may be attributable to the partially completed committed developments in the City. Also, the City is located at the northwest corner of the County with minimal roadways conducive to cut through traffic. Therefore, applying 1.77 percent to the existing traffic and then layering the committed developments may over estimate traffic in the City. Based on the above, a 0.5 percent compound growth rate to forecast 2020 and 2025 traffic volumes (without the committed developments) is reasonable. The historic growth rate calculation is included in **Appendix C**.

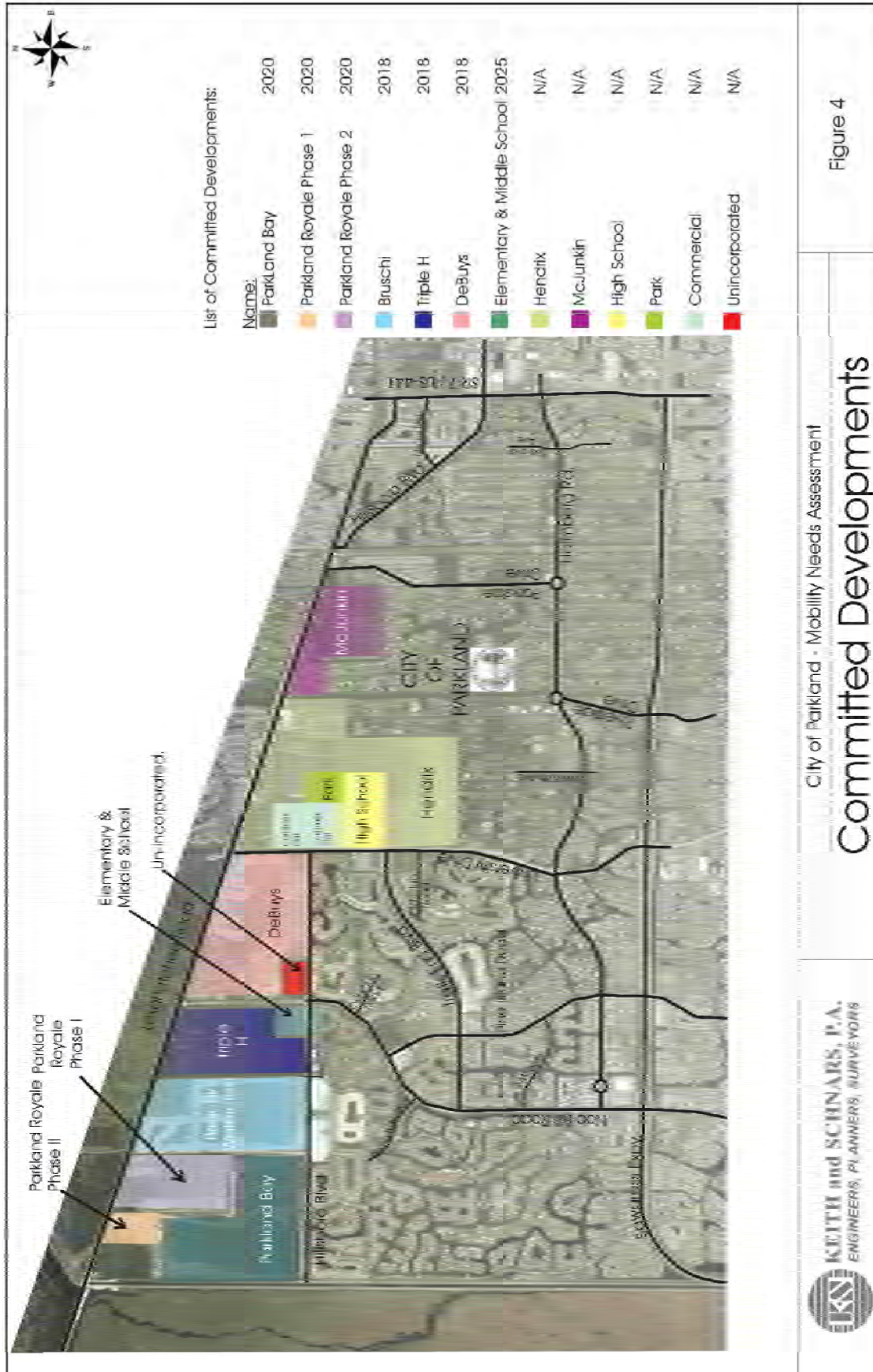
4.2 Committed Developments

4.2.1 2020 Development Projects

The traffic analysis incorporated various approved and on-going developments, as well as other currently proposed and/or projected residential, commercial and educational facilities (See **Figure 4**). At the present time, the following developments are included in the analysis. Some are under construction with a number of sections partially completed and occupied and others are starting construction or are in the City's development review and approval process.

The following developments are included in the Year 2020 analysis:

1. DeBuys (currently known as Miralago at Parkland): This project consists of 526 single-family dwelling units, 250 multi-family dwelling units, and 110,00 square feet of general retail on a parcel located between Hillsboro Boulevard and Loxahatchee Road and between the extension of University Drive and the Nob Hill Road extension. Construction of this development has been on-going for a while with a number of the single-family units completed and occupied as well as a large number of the multi-family units (Town Parc). The commercial section is currently vacant. University Drive Extension has been completed and recently opened to traffic. A segment of Nob Hill Road has been constructed north of Hillsboro Boulevard (the final section connecting to Loxahatchee Road is programmed for late 2015). Built-out is expected by 2018.



2. Triple H Ranch (Miralago at Parkland): This project is located at the northwest corner of Hillsboro Boulevard and Nob Hill Road. It will have a total of 570 single-family dwelling units, as well as, an elementary school (estimated 996 students) and middle school (estimated 1,200 students). The elementary and middle school trips are not included in the 2020 analysis. These school trips are included in the 2025 Analysis. Construction of this project has recently begun. Expected built-out is 2018.
3. Bruschi (currently known as Watercrest at Parkland, also as Standard Pacific of Florida): This project is located on the north side of Hillsboro Boulevard, west of the Miralago at the Parkland project. The project consists of 458 single-family dwelling units, recreation amenities and a two (2) acre fire station parcel (completed and operational). Expected built-out is 2018.
4. Parkland Royale (also known as Four Season at Parkland): This project is located off of Loxahatchee Road, just west of Watercrest and Nob Hill Road. The project is a 55+ active adult community, to be built in two phases: Phase 1 consists of 538 units and Phase 2 consists of 185 units. Expected built-out is 2020.
5. Parkland Way: This planned development is located on the north side of Hillsboro Boulevard approximately one mile west of Nob Hill Road. The proposed development will consist of 553 single-family units with an anticipated built-out around 2020.

The following reports (See **Appendix D**) were used as the basis for trip generation and distribution:

1. *Bruschi Traffic Study, June 2011*, prepared by McMahon Associates, Inc.;
2. *DeBuys Traffic Analysis, June 2011*, prepared by McMahon Associates, Inc.;
3. *Triple H Traffic Analysis, February 2011*, prepared by McMahon Associates, Inc.; and
4. *Parkway Bay Traffic Analysis, April 2015*, prepared by McMahon Associates, Inc.

Table 5 summarizes the AM and PM peak hour trips for the committed developments. These estimated are based on the trip rates and equations found in the Institute of Transportation Engineers' *Trip Generation Manual, 9th Edition*.

4.2.2 2025 Development Projects

The Year 2025 traffic analysis includes the incorporation of the remaining Wedge parcels within the City – McJunkins and West McJunkins (plus some smaller parcels) and the Hendrix Farm which is located in the unincorporated sector between the McJunkin parcels and University Drive. The development programs for these parcels were obtained from the *The Master Plan for "The Wedge"* prepared by Keith & Associates / Land Design South, 2011 (See **Appendix D**).

Table 5: AM and PM Peak Hours Committed Developments Trips

Committed Development	Intensity & Unit		ITE Code	Trip Generation					
				AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Year 2020									
DeBuys (Miralago)									
Residential-Single Family	526	DU	210	378	95	283	468	295	173
Residential-Multi Family	250	DU	230	107	18	89	127	85	42
Retail	110,000	SF	820	165	102	63	678	332	346
Triple H									
Residential-Single Family	570	DU	210	409	102	307	503	317	186
Bruschi (Watercrest)									
Residential-Single Family	458	DU	210	330	83	247	413	260	153
Parkland Bay									
Residential-Single Family	589	DU	210	422	106	316	518	326	192
Parkland Royale									
Phase 1 Sr. Adult Home -Detached	538	DU	251	121	42	79	158	97	61
Phase 2 Sr. Adult Home -Detached	185	DU	251	61	21	40	72	44	28
Subtotal Residential	3,116	DU		1,828	467	1,361	2,259	1,424	835
Subtotal Retail	110,000	SF		165	102	63	678	332	346
Total 2020 Trips				1,828	467	1,361	2,259	1,424	835
Year 2025									
Triple H				Total	In	Out	Total	In	Out
Elementary School	996	Students	520	408	224	184	149	73	76
Middle School	1,200	Students	522	648	356	292	192	94	98
Subtotal Students	2,196	Students		1,056	580	476	341	167	174
Total 2025 Committed Development (+ Triple H Schools Trips)				2,884	1,047	1,837	2,600	1,591	1,009
Year 2025 Hendrix & McJunkin									
McJunkin				Total	In	Out	Total	In	Out
Residential-Single Family	350	DU	210	255	64	191	324	204	120
Hendrix									
Residential-Single Family	1,431	DU	210	1,012	253	759	1,139	718	421
Retail	609,840	SF	820	470	291	179	2,012	966	1,046
High School	3,000	Students	530	1,290	877	423	390	183	207
Subtotal Residential	729,013	DU		1,267	317	950	1,463	922	541
Subtotal Retail	609,840	SF		470	291	179	2,012	966	1,046
Subtotal Students	5,196	SF		1,290	877	423	390	183	207
Total Hendrix & McJunkin Development Trips				3,027	1,485	1,552	3,865	2,071	1,794
				AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Total 2025 Committed Development + Hendrix & McJunkin Development Trips				5,911	2,532	3,389	6,465	3,662	2,803

1. Hendrix Farm projected development program:
 - a. 1,431 single-family units;
 - b. 609,840 square feet of retail;
 - c. High school (estimated 3,000 students); and
 - d. Park.
2. McJunkins and West McJunkins (plus smaller parcels) projected development program is 350 single-family units.

Table 5 summarizes the AM and PM peak hour trips for the committed developments. These estimated are based on the trip rates and equations found in the Institute of Transportation Engineers' *Trip Generation Manual, 9th Edition*.

4.2.3 2020 and 2025 without Hendrix Roadway System

The 2020 and 2025 without Hendrix analysis scenarios assumed the existing 2015 roadway facilities as of June 2015 plus the completion of Nob Hill Road to Loxahatchee Road. University Drive north of Holmberg is maintained as a two-lane road through to Loxahatchee Road.

4.2.4 2025 with Hendrix Roadway System

In this scenario the roadway system is assumed to consist of the following changes:

1. The completion of Hillsboro Extension between Parkside Drive and University Drive as a four-lane divided roadway;
2. The widening of University Drive from two lanes to a four-lane divided road through to Hillsboro Boulevard. The road is maintained as a two-lane road between Hillsboro Boulevard and Loxahatchee Road; and
3. Trails End is extended as a four-lane divided road from University Drive northeastward through Hillsboro Boulevard Extension and connect with Loxahatchee Road. This configuration is consistent with "The Wedge" Study recommendations.

4.2.5 Project Trip Distribution

The trip distributions for the 2020 and 2025 without Hendrix scenarios for each project were made as consistent as possible to those provided in the aforementioned traffic reports. The 2025 with Hendrix scenario required not only the distribution of the Hendrix and McJunkin project trips, but also the redistribution of the other project trips to adhere to the expanded roadway system, specifically the extensions of Hillsboro Boulevard and Trails End (see **Appendix E**).

5.0 ROADWAY LINK ANALYSIS

The City utilizes the generalized two-way peak hour service volume thresholds for Florida's urbanized areas at the LOS "D" standard consistent with the Broward County's Northwest Concurrency District standards. The analysis summarizes the roadways which are failing and roadways which are nearing the adopted LOS (volume to capacity (v/c) ratio greater or equal to 0.9 and less than 1.0). The detailed roadway link analysis tables are included in **Appendix F**.

5.1 2015 Existing Conditions

Figures 5A and 5B show the roadways that are either nearing the LOS D standard or Failing during the AM and PM peak hours, respectively, for the 2015 existing conditions:

AM Peak Hour

- Holmberg Road, west of Pine Island Road (LOS D, v/c=0.90); and
- Holmberg Road NW 61st Avenue and between Riverside Drive (LOS F, v/c=1.21).

PM Peak Hour

- Holmberg Road between NW 61st Avenue and Parkside Road (LOS F, v/c=1.75);
- Holmberg Road between Parkside Road and Riverside Drive (LOS F, v/c=1.66); and
- Holmberg Road between Riverside Drive and University Drive (LOS F, v/c=1.07).

5.2 2020 Future Conditions

Figures 6A and 6B show the roadways that are either nearing the LOS D standard or Failing during the AM and PM peak hours, respectively, for the 2020 future conditions:

AM Peak Hour

- Holmberg Road, west of Pine Island Road (LOS D, v/c=0.97); and
- Holmberg Road NW 61st Avenue and between Riverside Drive (LOS F, v/c=1.28); and
- University Drive between Old Club Road and NW 72nd Street (LOS F, v/c=1.01).

PM Peak Hour

- Holmberg Road between NW 61st Avenue and Parkside Road (LOS F, v/c=1.86);
- Holmberg Road between Parkside Road and Riverside Drive (LOS F, v/c=1.76);
- Holmberg Road between Riverside Drive and University Drive (LOS F, v/c=1.19);
- University Drive between Old Club Road and NW 72nd Street (LOS D, v/c=0.96); and
- Hillsboro Boulevard, west of Nob Hill Road (LOS D, v/c=0.90).

5.3 2025 Future Conditions without Hendrix and McJunkins Properties

Figures 7A and 7B show the roadways that are either nearing the LOS D standard or Failing during the AM and PM peak hours, respectively, for the 2025 future conditions without Hendrix and McJunkins Properties:

AM Peak Hour

- Holmberg Road, west of Pine Island Road (LOS D, $v/c=0.99$); and
- Holmberg Road NW 61st Avenue and between Riverside Drive (LOS F, $v/c=1.32$);
- University Drive between Old Club Road and NW 72nd Street (LOS F, $v/c=1.03$); and
- Hillsboro Boulevard, west of Nob Hill Road (LOS F, $v/c=1.30$).

PM Peak Hour

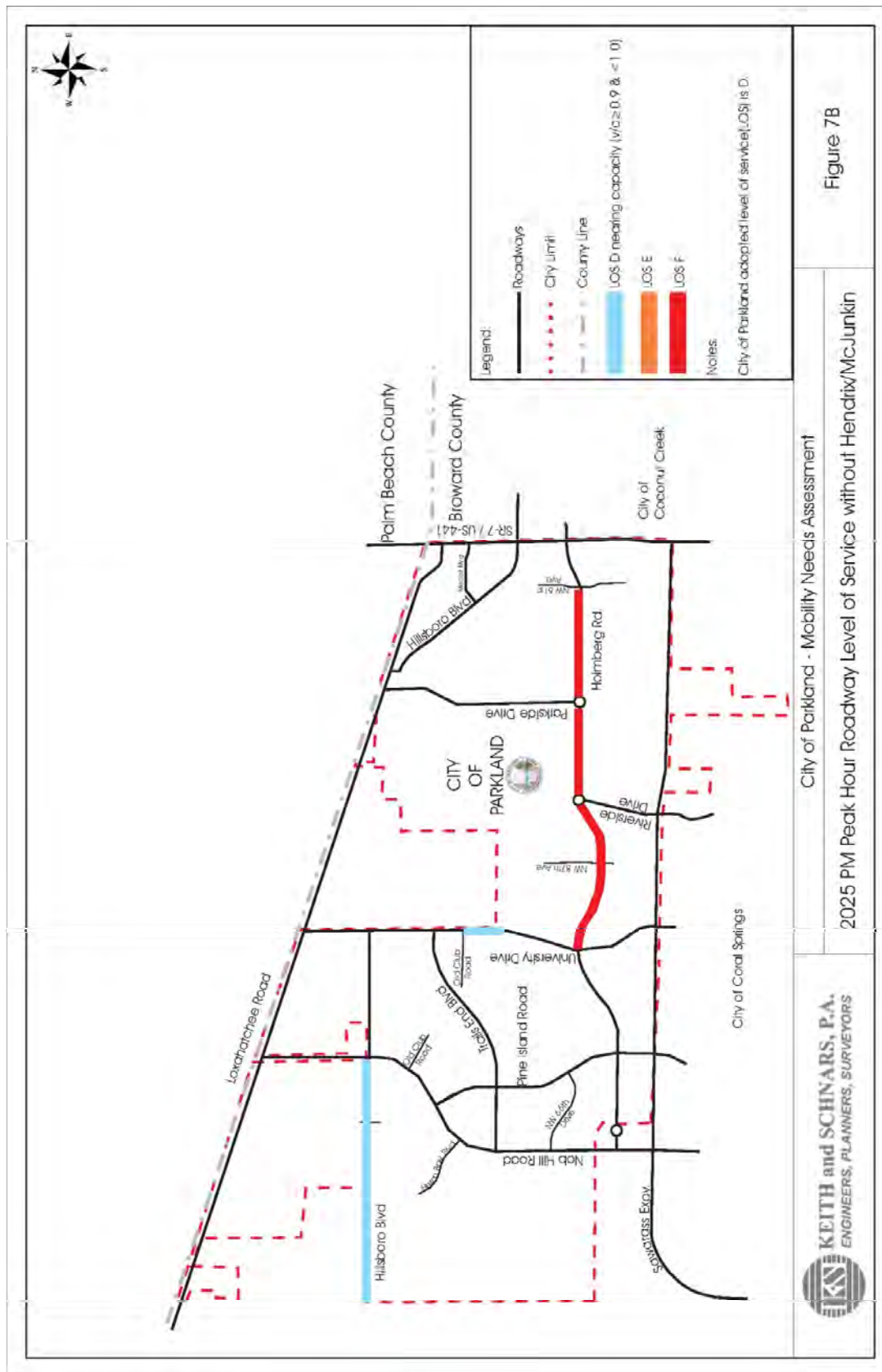
- Holmberg Road between NW 61st Avenue and Parkside Road (LOS F, $v/c=1.90$);
- Holmberg Road between Parkside Road and Riverside Drive (LOS F, $v/c=1.80$);
- Holmberg Road between Riverside Drive and University Drive (LOS F, $v/c=1.22$);
- University Drive between Old Club Road and NW 72nd Street (LOS D, $v/c=0.97$); and
- Hillsboro Boulevard, west of Nob Hill Road (LOS D, $v/c=1.00$).

5.4 2025 Future Conditions with Hendrix and McJunkins Properties

Figures 8A and 8B show the roadways that are either nearing the LOS D standard or Failing during the AM and PM peak hours, respectively, for the 2025 future conditions with Hendrix and McJunkins Properties:

AM Peak Hour

- Loxahatchee Road between SR-7 and Parkside Drive (LOS D, $v/c=0.96$);
- Loxahatchee Road between Parkside Drive and Trails End Boulevard (LOS D, $v/c=0.91$);
- Hillsboro Boulevard between SR-7 and Mecca Drive (LOS F, $v/c=1.21$);
- Hillsboro Boulevard between Mecca Drive and Trails End Boulevard (LOS D, $v/c>0.90$);
- Hillsboro Boulevard between University Drive and Nob Hill Road (LOS F, $v/c=1.18$);
- Hillsboro Boulevard, west of Nob Hill Road (LOS F, $v/c=2.63$);
- Trails End Boulevard between Hillsboro Boulevard and University Drive (LOS F, $v/c=1.50$);
- Holmberg Road between NW 61st Avenue and Riverside Drive (LOS F, $v/c>1.37$);
- Holmberg Road between Riverside Drive and University Drive (LOS D, $v/c=0.98$);
- Holmberg Road, west of Pine Island Road (LOS E, $v/c=1.04$);
- Nob Hill Road between Loxahatchee Road and Hillsboro Boulevard (LOS F, $v/c=1.44$);
- Nob Hill Road between Trails End Boulevard and Heron Bay Boulevard (LOS F, $v/c=1.11$); and
- Parkside Drive between Hillsboro Boulevard and Holmberg Road (LOS F, $v/c=1.08$).



PM Peak Hour

- Loxahatchee Road between SR-7 and Parkside Drive (LOS F, $v/c=1.07$);
- Hillsboro Boulevard, west of Nob Hill Road (LOS F, $v/c=1.08$);
- Trails End Boulevard between Hillsboro Boulevard and University Drive (LOS F, $v/c=1.50$);
- Holmberg Road between NW 61st Avenue and Riverside Drive (LOS F, $v/c>1.81$);
- Holmberg Road Riverside Drive and University Drive (LOS F, $v/c=1.28$); and
- Parkside Drive between Hillsboro Boulevard and Holmberg Road (LOS D, $v/c=0.92$).

6.0 INTERSECTION ANALYSIS

6.1 Operations Analysis

AM and PM peak hour Intersection operations analysis for the following six (6) intersections were performed to determine if and when signalization may be necessary:

1. Hillsboro Boulevard and Nob Hill Road;
2. Hillsboro Boulevard and University Drive;
3. Nob Hill Road and Pine Island Road; and
4. Hillsboro Boulevard and Mecca Boulevard;
5. University Drive and Old Club Road; and
6. Loxahatchee Road and Parkside Drive.

The 2020 and 2025 intersection traffic turning movement volumes were estimated consistent with the procedure described in *Section 4.0 Forecast*. The intersection traffic turning movement volumes are included in **Appendix G**. The operations analysis was performed using SYNCHRO 9.0 and the output sheets are included in **Appendix H**.

6.1.1 2015 Existing Conditions

Figures 9A and 9B show the LOS results for the six (6) intersections analyzed. All six (6) intersections operate at acceptable LOS during both the AM and PM peak hours.

6.1.2 2020 Future Conditions

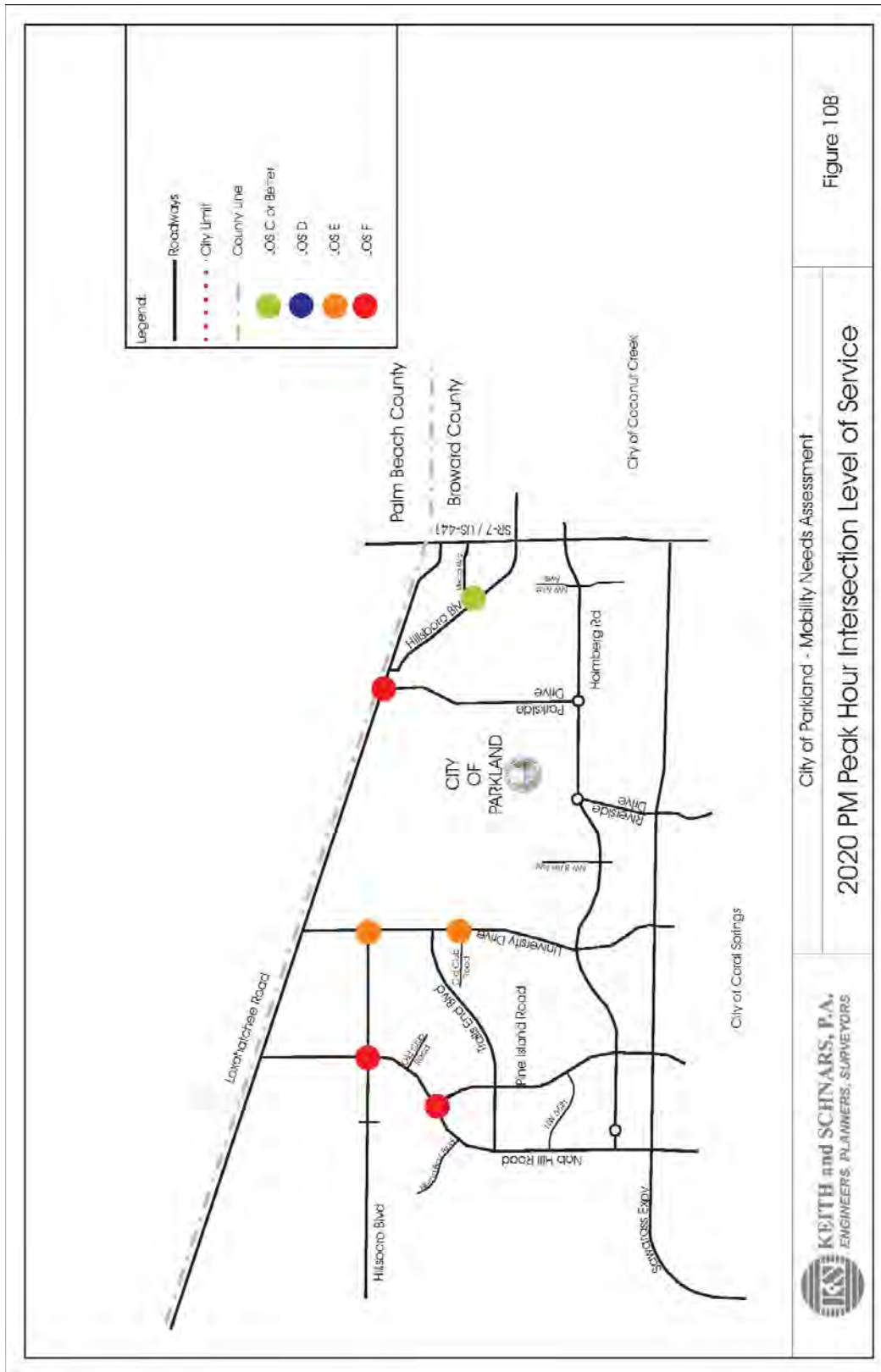
Figures 10A and 10B show the LOS results for the six (6) intersections analyzed. Except for Hillsboro Boulevard and Mecca Boulevard which operates at the adopted LOS D, all other intersections operate at LOS E or F.

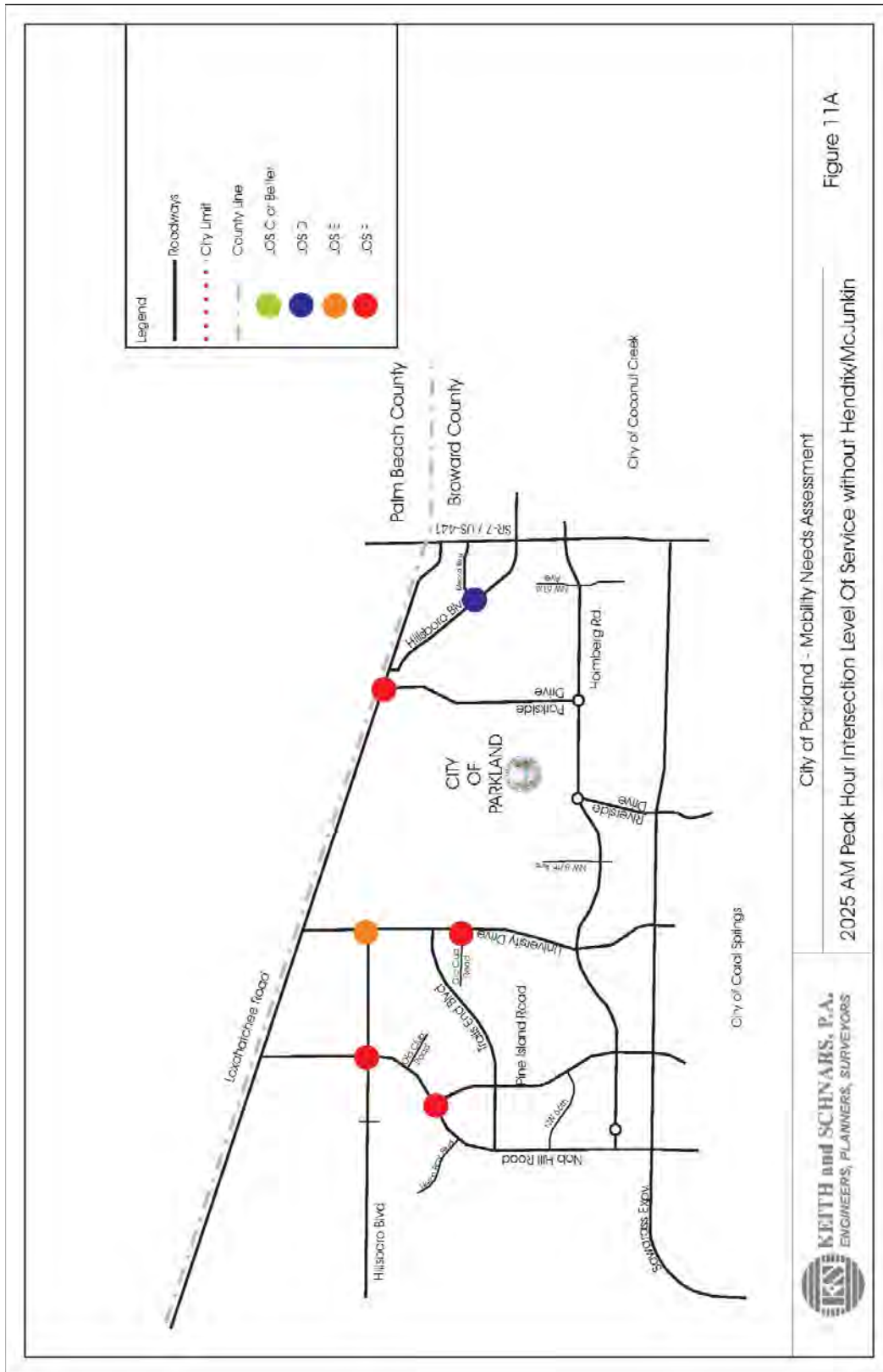
6.1.3 2025 Future Conditions without Hendrix Property

Figures 11A and 11B show the LOS results for the six (6) intersections analyzed. Except for Hillsboro Boulevard and Mecca Boulevard which operates at the adopted LOS D, all other intersections operate at LOS E or F.

6.1.4 Conceptual Improvement to University Drive and Old Club Road Intersection

The intersection of University Drive and Old Club Road, with All-Way stop control, currently operates at LOS D; however, in all future scenarios, the projected LOS is F. Also, the operational analysis, as confirmed by field observations, indicates that the northbound approach of University Drive (a single shared left-through lane) operates a LOS F during the AM peak hour.





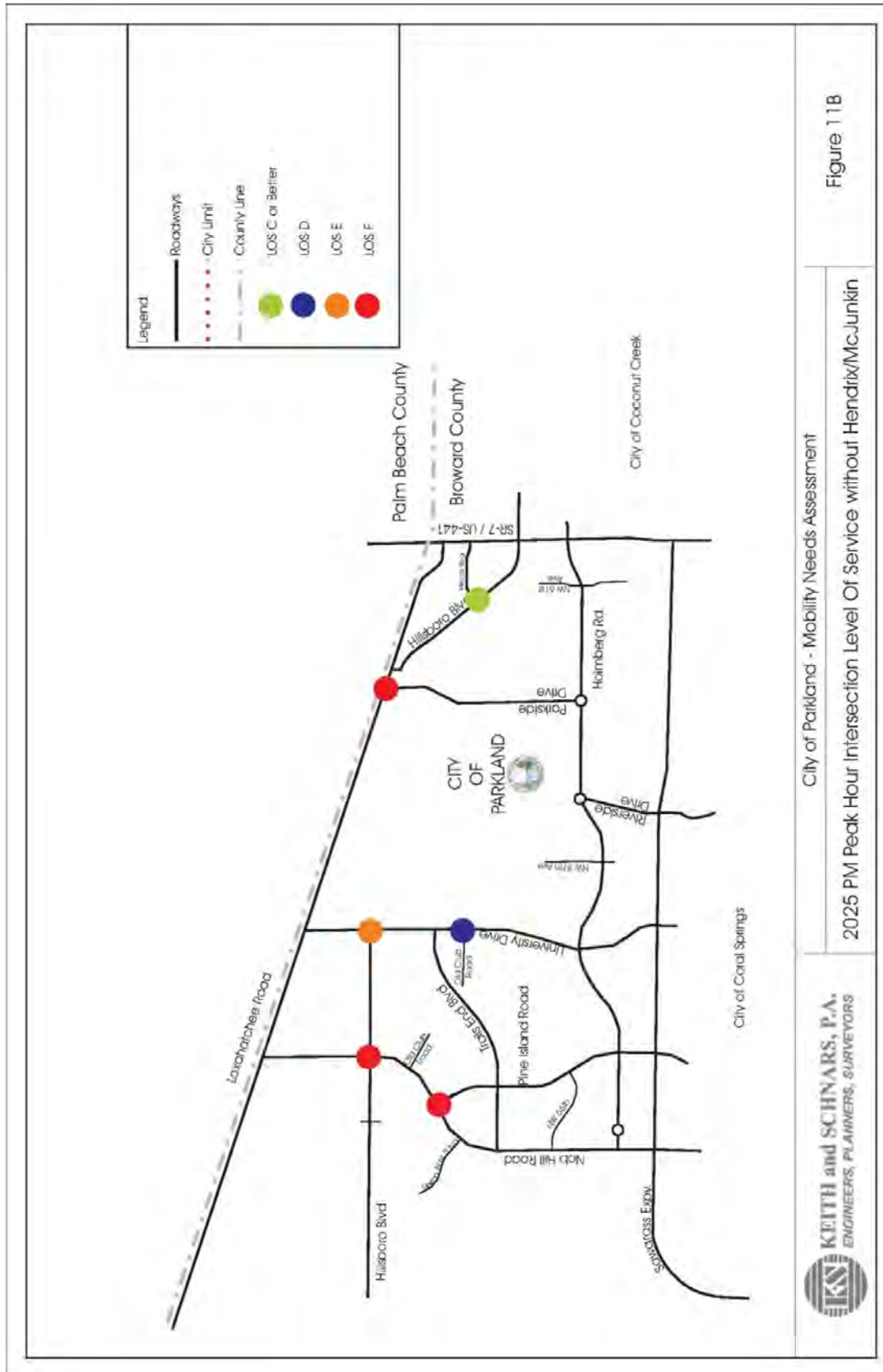


Figure 11B

Queues of over 40 vehicles were observed during the morning peak, resulting from the substantial northbound traffic (many motorists heading to the Trails Elementary School at Trails End and Pine Island Road) and the All-Way stop conditions.

To address the anticipated growth of traffic along University Drive, and assuming maintaining the road as a two-lane facility due to right-of-way restrictions on the east side, it is recommended that the stop signs on the northbound and south approaches be removed and that a left-turn lane be added on the northbound University Drive approach. This action would require some widening on the west side in order to accommodate the left-turn lane.

Figure 12A shows the existing intersection configuration and right-of-way parcels. As noted in the figure, the intersection lies within the University Drive and City of Parkland right-of-way. **Figure 12B** presents a conceptual rendering of the proposed left-turn lane. The widening would not require additional right-of-way. While there will be some increases in vehicle delay on the eastbound Old Club Road approach, the overall intersection will be at acceptable LOS D, and the northbound queues will be substantially reduced.

6.2 2020 and 2025 Planning Level Intersection Analysis

A planning level intersection analysis based on the approach volumes was conducted for the remaining intersections to determine possible capacity issues. Intersections that fail the planning level analysis will be recommended for detailed intersection operations analysis under a separate scope.

The planning level intersection analysis consisted in using the “preliminary” traffic signal warrant planning tool with the estimated intersections approach volumes. Turning movement counts were not collected at these intersections and the approach volumes were derived from the two-way roadway volumes.

After sorting out those intersections which are (1) already signalized, (2) currently approved for signalization, (3) analyzed in detail in this report, or (4) roundabouts, the planning level intersection analysis was applied to the following intersections:

- I1. Loxahatchee Road and Nob Hill Road;
- I2. Loxahatchee Road and University Drive;
- I6. Hillsboro Boulevard and Watercrest (Bruschi) Driveway;
- I8. Trails End and Nob Hill Road;
- I10. Trails End and University Drive;
- I14. Holmberg Road and NW 87th Avenue;
- I18. Nob Hill Road and NW 66th Drive; and
- I21. Pine Island Boulevard and NW 66th Drive.



Figure 12A: Existing Intersection Configuration and Right-of-Way



Figure 12B: Proposed Left Turn Lane Concept

The “preliminary” traffic signal warrant planning tool developed by the Oregon Department of Transportation - Transportation Planning Analysis Unit (Analysis Procedure Manual Version 1 7-50, last Updated 05/2015) was used. This worksheet based tool is based on the Manual of Uniform Traffic Control Devices (MUTCD) warrants, but requires less data for analysis. Traffic signal warrants as presented in the MUTCD are used to determine when signal installation may be justified by identifying conditions where the benefits may outweigh the costs. The MUTCD provides a series of warrants used in determining if the installation of a traffic signal should be considered. The analysis tool uses Signal Warrants 1, Case A and Case B, which deal primarily with high volumes on the intersecting minor street and high volumes on the major-street.

The preliminary warrants are generally not accepted as a basis for approving the installation of a traffic signal, but are useful for projecting signalization needs for future years. **Table 6** presents a summary of the findings of the planning level intersection analysis and also graphically shown in **Figure 13**.

Table 6: Planning Level Intersection Analysis

Intersection	Development Scenario					
	2020		2025 without Hendrix & McJunkin		2025 with Hendrix & McJunkin	
	AM	PM	AM	PM	AM	PM
I1. Loxahatchee Road and Nob Hill Road	No	No	No	No	No	No
I2. Loxahatchee Road and University Drive	No	No	No	No	No	No
I6. Hillsboro Boulevard and Brushy Driveway	No	No	No	No	No	No
I8. Trails End and Nob Hill Road	Yes (1)	No	Yes (1)	No	Yes(1)	No
I10. Trails End and University Drive	Yes	No	Yes	No	Yes	Yes
I14. Holmberg Road and NW 87 th Avenue	No Data (2)		No Data (2)		No Data (2)	
I18. Nob Hill Road and NW 66 th Drive	No Data (2)		No Data (2)		No Data (2)	
I21. Pine Island Boulevard and NW 66 th Drive	No Data (2)		No Data (2)		No Data (2)	

Notes:

(1) Meets preliminary signal warrant analysis for Case B Interruption of continuous traffic. Case A is Minimum vehicular flow.

(2) Insufficient data for minor road.

As shown in **Table 6**, the Loxahatchee Road intersections at University Drive and Nob Hill Road, and the Hillsboro Boulevard and Watercrest (Bruschi) Driveway, do not satisfy the preliminary signal warrants. This does not mean that these intersections may not require signalization sometime in the future as traffic development and patterns change.

The intersection of Nob Hill Road at Trails End meets the preliminary warrants only in the AM peak hour by 2020. The University Drive and Trails End intersection satisfies the preliminary signal warrants by 2020.

There was insufficient traffic data available for the remaining three intersections to be able to adequately analyze. NW 87th Avenue at Holmberg Road provides not only access to a significant number of homes in the southcentral City area, but also to the Equestrian Center, Liberty Park, and Barkland Park.

The two NW 66th Drive intersections serve as the access points to Parkland Isles, a gated community. Field observation noted a significant number of vehicles exiting the community to the south during the AM peak period.

7.0 TRANSIT

7.1 Existing Service

The City does not have public transit service within its boundaries. Bus service is currently provided by Broward County Transit (BCT) Route 19 (Sandalford Cove Boulevard to Lauderhill Mall) along the SR-7/US 441 corridor on the eastern boundary of the city. Other BCT bus routes serving this corridor include Route 31 (Broward Central Terminal to Hillsboro Boulevard and Lyons road) and Route 48 (SR-7/US 441 to SR A1A via Hillsboro Boulevard). Both of these latter routes operate along SR-7/US 441 between Hillsboro Boulevard and Johnson Road.

Bus stops along southbound SR-7/US-441 bordering the City are located at:

1. South of Loxahatchee Road(no amenities);
2. South of Mecca Boulevard (no amenities);
3. North of Hillsboro Boulevard (located within left turn lane to Shoppes of Parkland, bench);
4. South of Hillsboro Boulevard (full shelter with solar lighting);
5. South of Holmberg Road (shelter with no solar lighting); and
6. North of Regency Lakes Boulevard (no amenities).

Bus stops along northbound R-7/US-441 are located at:

1. North of NW 61st Street (no amenities);
2. North of Johnson Road (no amenities);
3. North of Hillsboro Boulevard (shelter with no solar lighting);
4. South of NW 74th Place; (no amenities); and
5. South of NW 76th Place/Loxahatchee Road (shelter with no solar lighting).

All of the bus stops, including those on the west side of SR-7/US-441, are located within the Coconut Creek city limits and FDOT right-of-way.

Access between the bus stops and the City is provided by continuous sidewalks extending along the corridor and adjacent streets and commercial developments.

The BCT also provides transit service in the westernmost sector of the County via Coral Ridge Drive (Nob Hill Road). BCT Route 88 (West Regional Terminal to Holmberg Road and Coral Ridge Drive via Pine Island Road/Coral Springs Drive) extends to the western edge of the city limit to the traffic circle at Holmberg Road and Heron Bay Boulevard. The Holmberg Road circle lies within the Coral Springs city limits and has a bus stop which is accessible to Westglades Middle School and Stoneman Douglas High School, both within the City.

The City contracts special Coach Bus Transportation Services for the Parks and Recreation Department summer camp, senior and library programs. The service consists primarily of

transporting children/adults to various sites throughout Palm Beach, Broward and Miami-Dade County areas. Specific pick-up areas are designated including:

1. Parkland Library;
2. Parkland Amphitheater;
3. Heron Heights Elementary School; and
4. Park Trails Elementary School; and West Glades Middle School.

7.2 Future Service

The 2014–2023 Transit Development Plan (TDP), known as BCT Connected, for Broward County Transit serves as the strategic guide for public transportation in Broward County over the next 10 years. The TDP, Annual Update 2015 – 2024, November 2014, serves as the first annual progress report to BCT Connected. This update identifies service achievements within the past year (2014), identify future plans and services for the coming year (2015), and provide recommendations for the new tenth year (2024).

The TDP Annual Update lists no planned routes for Parkland within the next ten years. Enhanced bus services, characterized by having a higher level of service than current BCT Breeze routes, would replace the latter service operating in the SR-7/US-441 Corridor by 2018.

The approved Broward County 2035 Transit Cost Feasible Plan has no planned local bus routes within the City. The Plan does identify the SR-7/US-441 Corridor as a High Capacity Transit corridor with a proposed Community Transit Hub at Hillsboro Boulevard.

8.0 CONCLUSION

A City-wide assessment of the existing and projected roadways and intersections from Loxahatchee Road to Homberg Road and from SR-7/US-441 to the western city boundary was conducted. Also, an inventory of the existing pedestrian facilities, bicycle lanes, location signage, and transit stops was prepared.

8.1 Roadway Analysis

The roadway analysis was conducted for four scenarios:

1. Existing 2015 conditions;
2. 2002 future conditions including all the major on-going or approved Wedge projects;
3. 2025 future conditions including all the major on-going or approved Wedge projects; and
4. 2025 future conditions with the projected Hendrix Farms and McJunkin developments.

The 2025 future conditions scenario with the projected Hendrix Farms and McJunkin developments assumed the additional roadway system:

4. The completion of Hillsboro Extension between Parkside Drive and University Drive as a four-lane divided roadway;
5. The widening of University Drive from two-lanes to a four-lane divided road south of Hillsboro Boulevard. University Drive is maintained as a two-lane road between Hillsboro Boulevard and Loxahatchee Road; and
6. Trails End is extended as a four-lane divided road from University Drive northeastward through Hillsboro Boulevard Extension and connect with Loxahatchee Road. This configuration is consistent with the Wedge Study recommendations.

The increase in traffic resulting from constructing the projects in the Wedge may impact (operate below the adopted LOS “D” standard) several roadways as summarized in **Table 8**. Also, the extension of University Drive and Nob Hill Road from Hillsboro Boulevard to Loxahatchee Road may change the traffic patterns within the City such as traffic that currently travels east/west on Holmberg Road may re-direct to Loxahatchee Road. It is therefore recommended that the City establish an annual traffic monitoring program consisting of collecting three consecutive weekdays (Tuesday through Thursday) machine traffic counts to compare with the adopted LOS “D” standard at the following four (4) locations:

1. Loxahatchee Road, east of Parkside Drive;
2. Holmberg Road, west of NW 61st Street;
3. University Drive, south of Old Club Road; and
4. Hillsboro Boulevard, west of Nob Hill Road.

Table 8: Roadways below the Adopted LOS “D”

Roadway	From	To	Failing Year
Scenarios without Hendrix Farms and McJunkin Developments			
Holmberg Road	NW 61 st Avenue	University Drive	2015
University Drive	Old Club Road	NW 72 nd Street	2020
Hillsboro Boulevard	Nob Hill Road	West of Nob Hill Road	2025
Additional Failing Roadways with Hendrix Farms and McJunkin Developments			
Loxahatchee Road	SR-7/US-441	Parkside Drive	2025
Trails End Boulevard	Hillsboro Boulevard	University Drive	2025
Hillsboro Boulevard	SR-7/US-441	Mecca Boulevard	2025
Hillsboro Boulevard	Nob Hill Road	University Drive	2025
Nob Hill Road	Loxahatchee Road	Hillsboro Boulevard	2025
Nob Hill Road	Trails End Boulevard	Heron Bay Boulevard	2025
Parkside Drive	Hillsboro Boulevard	Holmberg Road	2025
Holmberg Road	Pine Island Road	West of Pine Island Road	2025

8.2 Intersection Operational Analysis

AM (7:00 – 9:00) and PM (4:00 – 6:00) intersection turning movement counts were collected at the six (6) intersections shown in **Table 9** to perform operations analysis to determine if and when signalization may be necessary. Except for Hillsboro Boulevard and Mecca Boulevard which operates at the adopted LOS “D”, all other intersections operate at LOS E or F by 2020.

Table 9: Intersections Operation Analysis Results

Intersection	Failing Year	Needs Signal Warrant?
1. Hillsboro Boulevard and Nob Hill Road	2020	Yes
2. Hillsboro Boulevard and University Drive	2020	Yes
3. Nob Hill Road and Pine Island Road	2020	Yes
4. Hillsboro Boulevard and Mecca Boulevard	---	No
5. University Drive and Old Club Road	2020	No
6. Loxahatchee Road and Parkside Drive	2020	Yes

The intersection of University Drive and Old Club Road (All-Way stop control) field observations, and confirmed by the operations analysis, indicated that the northbound approach (a single shared left-through lane) operates at LOS F during the AM peak hour. Queues of over 40 vehicles were observed during the AM peak hour at the northbound approach resulting from motorists heading to the Trails Elementary School (Trails End and Pine Island Road) and the All-Way stop control. To address the northbound approach congestion, it is recommended that the stop signs on the northbound and southbound approaches be removed and a northbound left-turn lane be added. The northbound left-turn lane improvement will require widening on

the west side of University Drive but would not require additional right-of-way nor impact private property.

It is recommended to conduct signal warrant analysis consistent with the requirements set forth in the MUTD by 2020 at the four (4) intersections as indicated in **Table 9** to justify signalization. If warrants are met, the County will make the final decision on the installation of the signals.

8.3 Intersection Planning Level Analysis

The intersection planning level analysis consisted in using the “preliminary” traffic signal warrant planning tool with the estimated intersections approach volumes. Turning movement counts were not collected at these intersections and the approach volumes were derived from the two-way roadway volumes.

After sorting out those intersections which are (1) already signalized, (2) currently approved for signalization, (3) analyzed in detail in this report, or (4) roundabouts, the planning level analysis was applied to the intersections shown in **Table 10**.

Table 10: Intersection Planning Level Results

Intersection	Failing Year	Needs Additional Analysis?
1. Loxahatchee Road and Nob Hill Road	---	Yes
2. Loxahatchee Road and University Drive	---	Yes
3. Hillsboro Boulevard and Watercrest (Bruschi) Driveway	---	
4. Trails Ends and Nob Hill Road	2020	Yes
5. Trails Ends and University Drive	2020	Yes
6. Holmberg Road and NW 87 th Avenue	---	
7. Nob Hill Road and NW 66 th Drive	---	
8. Pine Island Boulevard and NW 66 th Drive	---	

Although the planning level analysis indicates that the Loxahatchee Road intersections at Nob Hill Road and University Drive may have adequate capacity, it is also recommended that these intersections be also evaluated by 2020. These intersections are expected to accommodate a large portion of “The Wedge” trips from the various developments.

The evaluation at the four (4) intersections indicated in **Table 10** may consist of collecting AM (7:00 – 9:00) and PM (4:00 – 6:00) hour turning movement counts to perform the operations analysis to assess the capacity adequacy under the stop-control condition.

8.4 Pedestrian Facilities

8.4.1 Sidewalks

The field review revealed that there are missing sidewalks along the three (3) roadways reported in **Table 11**. However, the City had previously recognized the need for Loxahatchee Road improvements and the designed to be uniform from SR-7/US-441 to the Conservation Area on the west side of the City. The approved design during the City Commission meeting on September 18, 2013 consists of two twelve (12) foot lanes separated by an eleven (11) foot median, a five (5) foot bike lane on the north side, a four (4) foot bike lane on the south side, and a six (6) foot sidewalk on the south side. The City is diligently working with the multiple agencies (County, FDOT, and Metropolitan Planning Organization) to ensure that this project moves forward and stays on track for funding which is expected in the fiscal year 2020/2021.

Table 11: Summary of Missing Sidewalks

Roadway	From	To	Sidewalk Missing?
Loxahatchee Road	SR-7/US-441	Parkside Drive	Partial South Side (1)
Loxahatchee Road	Parkside Drive	West of Nob Hill Road	South Side (2)
University Drive	Loxahatchee Road	NW 72 nd Street	East Side
Riverside Drive	Sawgrass Exp.	Holmberg Road	East Side

Notes:

- (1) There is no sidewalk on the north side of the road. However, only the south side is reported due to the canal on the north side of the road. There is a sidewalk which extends 600 feet west of SR-7/US-441.
- (2) There is no sidewalk on the north side of the road. However, only the south side is reported due to the canal on the north side of the road.

8.4.2 Pedestrian Crossings

It is recommended that the City investigates the feasibility of providing a pedestrian crossing on Holmberg Road at or near NW 61st Avenue. This crossing will enhance the pedestrian connectivity along Holmberg Road providing access to the Covered Bridge Park and Trail.

It is also recommended that the City review the existing pedestrian crosswalks along Parkside Road. A resurfacing project for Parkside Road is pending and will include providing bike lanes. This project may provide an opportunity for the City to review the existing crosswalks to either consolidate or investigate the feasibility of additional crosswalks. A potential location for a new crosswalk may be north of the Holmberg Road roundabout at the City Public Works Department and Fire House.

The feasibility to justify crosswalks requires additional data collection and analysis and County approval. The additional analysis will consist of pedestrian and speed studies as well as how the crossing will improve connectivity.

While the County has had a general policy of not installing crosswalks unless absolutely required, the newly adopted Complete Street Policy has provided an opportunity to consider them.

8.5 Bicycle Lanes

The field review revealed that there are missing bicycle lanes along the nine (9) roadways reported in **Table 12**.

Table 12: Summary of Missing Bicycle Lanes

Roadway	From	To	Jurisdiction
Loxahatchee Road	Parkside Drive	West of Nob Hill Road	City/County
Hillsboro Boulevard	SR-7/US-441	Loxahatchee Road	County
Trails End Boulevard	Pine Island Road	Nob Hill Road	City
Holmberg Road	Pine Island Road	West of Pine Island Road	City
Pine Island Road	NW 66 th Drive	Sawgrass Exp.	County
University Drive	Holmberg Road	Sawgrass Exp.	State
Parkside Drive	Holmberg Road	Loxahatchee Road	City
Riverside Drive	Holmberg Road	Sawgrass Exp.	County
Mecca Boulevard	SR-7/US-441	Hillsboro Boulevard	City

As previously discussed, the City is addressing the Bicycle lanes on Loxahatchee Road through the improvement project in partnership with other agencies. Trails End Boulevard is part of the North Springs Improvement District. Riverside Drive bicycle lanes will also be done with a proposed future project by the County. It is recommended that the City investigate the feasibility of implementing the bicycle lanes for the remaining roads.

8.6 Transit

The City does not have public transit service within its boundaries. Bus service is currently provided by BCT Route 19 (Sandalford Cove Boulevard to Lauderhill Mall) along the SR-7/US 441 corridor on the eastern boundary of the City. Other BCT bus routes serving this corridor include Route 31 (Broward Central Terminal to Hillsboro Boulevard and Lyons road) and Route 48 (SR-7/US 441 to SR A1A via Hillsboro Boulevard). Both of these latter routes operate along SR-7/US 441 between Hillsboro Boulevard and Johnson Road.

Bus stops along southbound SR-7/US-441 bordering the City are located at:

7. South of Loxahatchee Road(no amenities);
8. South of Mecca Boulevard (no amenities);
9. North of Hillsboro Boulevard (located within left turn lane to Shoppes of Parkland, bench);

10. South of Hillsboro Boulevard (full shelter with solar lighting);
11. South of Holmberg Road (shelter with no solar lighting); and
12. North of Regency Lakes Boulevard (no amenities).

Bus stops along northbound SR-7/US-441 are located at:

6. North of NW 61st Street (no amenities);
7. North of Johnson Road (no amenities);
8. North of Hillsboro Boulevard (shelter with no solar lighting);
9. South of NW 74th Place; (no amenities); and
10. South of NW 76th Place/Loxahatchee Road (shelter with no solar lighting).

All of the bus stops, including those on the west side of SR-7/US-441, are located within the Coconut Creek city limits and FDOT right-of-way. Access between the bus stops and the City is provided by continuous sidewalks extending along the corridor, adjacent streets, and commercial developments.

The City contracts special Coach Bus Transportation Services for the Parks and Recreation Department summer camp, senior and library programs. The service consists primarily of transporting children/adults to various sites throughout Palm Beach, Broward, and Miami-Dade County areas. Specific pick-up areas are designated including:

5. Parkland Library;
6. Parkland Amphitheater;
7. Heron Heights Elementary School; and
8. Park Trails Elementary School; and West Glades Middle School.

8.7 Facilities Location Signage

The City has a number of city parks, services, and schools which are often identified for motorist guidance. The signage is usually located near the nearest intersection to the facility and typical road signs are used. A field inventory and review of the existing facility location signage was performed for the following facilities:

- 6 Acre Wood Park;
- Barkland Dog Park;
- Covered Bridge Park;
- Doris Davis Forman Wilderness Preserve;
- Equestrian Center at Temple Park;
- John H. Quigley Park;
- Liberty Park;
- Pine Trails Park;
- Terramar Park;

- Margate Blount Archeological Site;
- City Hall;
- City Library;
- Public Safety;
- Public Works;
- Parkside Trailshead Preserve; and
- Parkland Schools

Those facilities which may be lacking additional signage are reported in **Table 13**. The City should investigate further if the additional signs at these locations are necessary.

Table 13: Summary Facility Location Signage

Site	Main Road	Comments
Equestrian Center at Temple Park	Holmberg Road (access via NW 87th Avenue and Ranch Road)	No sign on northbound approach of NW 87th Avenue at Ranch Road.
John H. Quigley Park	Parkside Drive	No signs on northbound and southbound approaches
Liberty Park	Holmberg Road (access via NW 87th Avenue and Ranch Road)	No sign on northbound approach of NW 87th Avenue at Ranch Road.
Pine Trails Park	Trails End	No signs on eastbound and westbound approaches
Terramar Park	Hillsboro Boulevard	No signs on eastbound and westbound approaches
Margate Blount Archeological Site	Trails End (Between Pine Island Road and Nob Hill Road)	No signs on eastbound and westbound approaches. Unsigned / unmarked off-street parking provided (formerly access road for fire station-recently relocated).
City Hall	University Drive north of Holmberg Road	No signs on eastbound Holmberg, and northbound and southbound University Drive.
City Library	University Drive north of Holmberg Road	No signs on eastbound Holmberg, and northbound and southbound University Drive.
Public Safety	University Drive north of Holmberg Road	No signs on Holmberg Road or University Drive
Public Works (including fire station)	NE Parkside Drive and Holmberg Road	No signs on Holmberg or Parkside Drive

CHAPTER FOUR

INFRASTRUCTURE ELEMENT

PURPOSE

The purpose of this element is to provide for necessary public facilities and services correlated to the future land use projections. This element addresses the general utilities which are provided by or managed by the City. These include:

- Sanitary
- Sewer Solid
- Waste
- Drainage
- Potable
Water
- Natural Ground Water and Aquifer Recharge

The element is organized to provide analysis information about each area of service individually. The City of Parkland 10-Year Water Supply Plan Facilities Update, adopted concurrently with the Comprehensive Plan Update on June 22, 2016, is provided as **Appendix B**.

EXISTING CONDITIONS AND DATA

Sanitary Sewer Analysis

The City of Parkland does not own, operate or maintain any sanitary sewer facilities. Sanitary sewer service is provided to the City of Parkland by domestic self-supply and three utilities: the City of Coconut Creek Utilities Department, Parkland Utilities, Inc., and the North Springs Improvement District, which are shown on Map 4-1. A majority of the Ranches and all of Pinetree Estates communities have sanitary sewer service available through Coconut Creek Utilities, but continue to operate on septic tanks. The City has not reported any problems in areas with septic service, and there are no plans in place to expand the sanitary sewer system use in these areas.

The sewage collected by Coconut Creek and NSID is transmitted to the Broward County North Regional Waste Water Treatment Plant (NRWWTP), which has a permitted capacity of 95 million gallons per day (MGD) and an annual average daily flow rate of 67.88 MGD. The Level of Service standard for sewage collection is 209








gallons per day per equivalent residential connection (GPD per ERC). Broward County Water and Wastewater Services expanded the treatment plant to handle a capacity of 100 MGD. This plant expansion was designed to serve the needs of the large users in the area served by the NRWWTP through projected buildout in 2025.

Map 4-1 – Sanitary Sewer Service Provider Boundaries



City of Parkland

Map 4-1
Sanitary Sewer
Service Provider
Boundaries

-  Septic Users in Coconut Creek Service Area
-  Parkland Streets
-  City of Parkland
- Sanitary Service Boundaries**
 -  City of Coconut Creek Utilities
 -  North Springs Improvement District
 -  Parkland Utilities
 -  Private Well

N

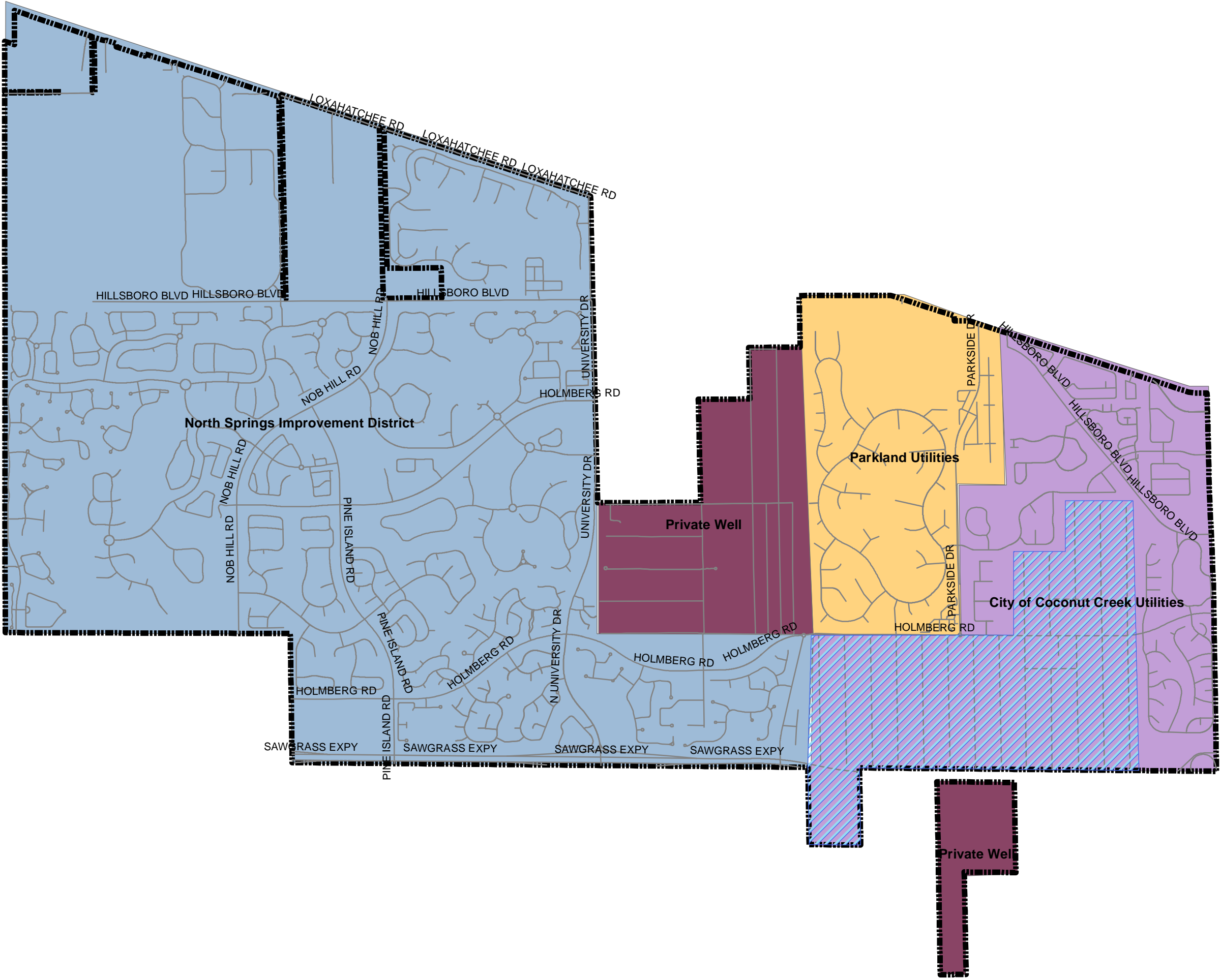


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Solid Waste Analysis

The City of Parkland has an exclusive contract for solid waste collection with Waste Management, Inc. (WMIF). Solid waste was processed at the north Waste to Energy facility in Pompano Beach, but the north facility stopped receiving waste in July 2015 and now operates as a transfer station. Waste collected from Broward County municipalities that are members of an Interlocal Agreement for disposal, or who have direct contracts with Wheelabrator South Broward, Inc. (the “South Plant”), utilize the transfer station to send waste to the South Plant located in the southern part of the County. The South Plant is no longer a Waste Management subsidiary. Therefore, Parkland’s waste is now disposed of at Monarch Hill Landfill. The Landfill has an approximate lifespan of 20 years at current volumes. The Landfill accepts municipal solid waste, construction and demolition debris, sludge, industrial wastes and other waste that can be disposed in a Class I landfill. Should Monarch Hill be unavailable for disposal of the City’s wastes, WMIF would utilize other disposal facilities for disposal including, but not limited to, Okeechobee Landfill, Medley Landfill and others.

Waste Management will deliver a plastic recycling container for newspaper, plastics #1-6, bi- metal cans, aluminum and clear glass to the residence once service is established. Additional containers can be purchased through Waste Management. Parkland’s Environmental Resources Division encourages residents to recycle by providing an energy incentive rewards program for residents and businesses that take the extra steps to being environmentally conscious. Eligible rewards are considered when Parkland residents purchase hybrid and/or electric cars, compact fluorescent light bulbs, solar power products, ultra-low fixtures, high efficiency home appliances, and sustainable landscape design. Parkland also supports environmental awareness by educating residents on reducing, reusing, and recycling through the City’s website.

Delta Recycling is responsible for collecting horticultural debris which consists of grass clippings, palm fronds and small branches. Additionally, bulk trash pickup is available three times annually; these items include household appliances, furniture and other household goods.

The City has been able to maintain its adopted LOS of 3.8 pounds per capita per day.

Drainage Analysis

The Pine Tree Water Control District (PTWCD) oversees drainage east of Parkside Drive and south of Holmberg Road in Pinetree Estates to the eastern city limits. PTWCD is a local purpose special government; they are responsible for canal and lake maintenance.

The North Springs Improvement District (NSID), which is also an independent taxing authority, oversees drainage from University Drive to the western city limits as well

as a small area in Tall Pines North. NSID is responsible for reviewing plans, overseeing design, constructing and maintaining primary drainage culverts, canals and lakes, building roadways and processing permits.

The Ranches and Cypresshead fall under jurisdiction of the South Florida Water Management District (SFWMD). Maintenance of drainage facilities in these areas is the responsibility of the City of Parkland Public Works Department, Streets and Stormwater Division. Drainage ditches abutting the roadway are for the sole purpose of providing water storage from runoff generated in the Right of Way. There is no capacity provided in the Right of Way for the private property within the Ranches, discharge either percolates or collects in private lakes.

The City also maintains a former agricultural pump that pumps water into the City's canal system from the Hillsboro Canal when water levels are low and a manual flood gate which releases storm water into the Hillsboro Canal during heavy rain events. Permit information was unavailable for these operations. See Map 4-2 for drainage district borders.

Map 4-2 - Drainage District Boundaries



City of Parkland

Map 4-2
Drainage District
Boundaries

- City of Parkland
- Parkland Streets
- NORTH SPRINGS IMPROVEMENT DISTRICT
- PINE TREE WATER CONTROL DISTRICT
- Palm Beach County
- Broward County

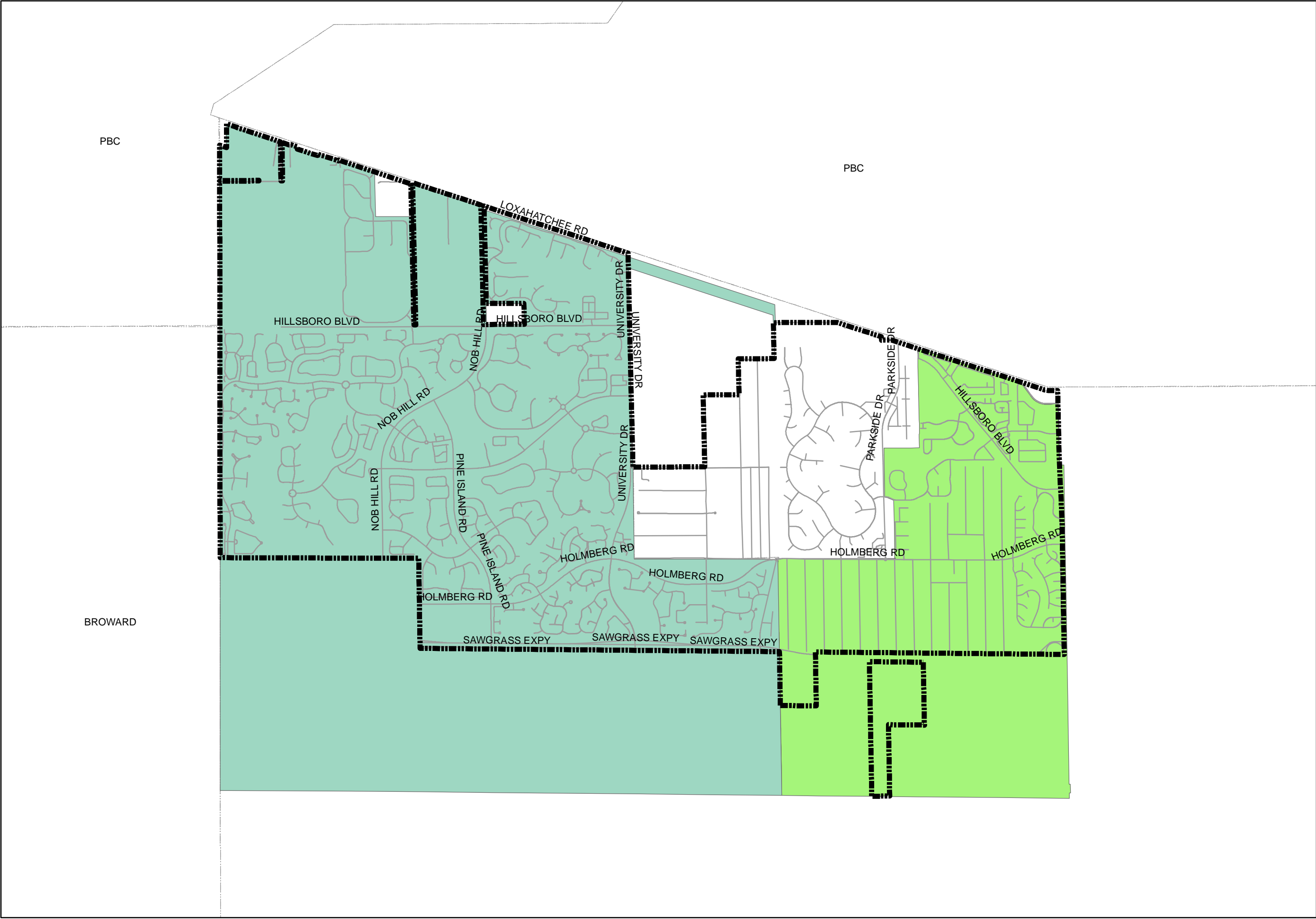


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This map was created with data from The South Florida Water Management District Environmental Resources Regulation Division. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.



Potable Water Analysis

The City of Parkland does not maintain any potable water facilities. Residents obtain water from the City of Coconut Creek Utilities Department, Parkland Utilities, North Springs Improvement District (NSID) or from private wells. See Map 4-3 for service areas. Of these providers, only the City of Coconut Creek is obliged to provide a 10-year water supply facility work plan.

The City of Coconut Creek Utilities Department provides potable water service to approximately 9,607 residents in the eastern portion of the City of Parkland. Coconut Creek purchases their water from the Broward County 2A/ North Regional Plant, who they have a Large User Agreement with. The current permitted capacity of this facility is 22.06 MGD; of which Coconut Creek uses approximately 13.27 MGD. Further analysis will be required to determine the exact volume needed for recharge. The county also plans to provide additional reuse water for irrigation. This will be reviewed by the water management district in the permit renewal process to determine the volume that can be counted as reducing potable demands. See Table 4-1 for population and demand projections. The level of service for Coconut Creek potable water is 119 GPD per ERC.

Table 4-1: Coconut Creek Utilities

		Finished Water			Raw Water Source - SAS			Treatment Capacity = 30.3 MGD	SAS Raw Water
Year	Population	Level of Service = 119 GPCD			Level of Service = 124 GPDC				Avg Day Allocation = 17.5 MGD
		Max / Avg Day Ratio = 1.3			Max / Avg Day Ratio = 1.1				
		Average Day (MGD)	Maximum Day (MGD)	Avg Month (MGM)	Avg Day (MGM)	Maximum Day (MGD)	Avg Month (MGM)	Treatment Surplus / (Deficit) MGD	Avg Day Surplus / (Deficit) (MGD)
2015	111,496	13.27	17.25	403	13.83	15.21	420.53	13.05	3.67
2020	116,272	13.84	17.99	415	14.42	15.86	438.54	12.31	3.08
2025	120,159	14.30	18.59	429	14.90	16.39	453.20	11.71	2.60
2030	124,209	14.78	19.22	443	15.40	16.94	468.47	11.08	2.10

Source: City of Coconut Creek 2015 Work Plan (Pending DEO Approval)

The list of Coconut Creek Utilities planned capital projects are listed below in Table 4-2.

Table 4-2: Coconut Creek Utilities Planned Capital Improvements

Projects	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Water Quality Improvements	\$250,000	\$250,000	0	0	0
Water Isolation Valve Improvements	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
Water Meter Connection Lines Retrofit Program	\$150,000	\$100,000	\$100,000	\$100,000	0
Water Valves Replacement Program	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Water Meter and Box Replacement Program	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
NSID and Coral Springs Interconnects	\$100,000	0	0	0	0
Automatic Meter Reading Conversion	\$1,000,000	0	0	0	0
Hilton Road Storage/Repump Facility Upgrades	0	\$500,000	\$500,000	0	0
Reclaimed Water Project	\$170,000	0	0	0	0

Coconut Creek is the only provider obligated to provide a capital improvements schedule. The 2013 SFWMD LECSWP describes a planned addition of FAS wells and a reverse osmosis plant in the NSID, but no schedule is available in the 2010 Water Facilities Work Plan.

Map 4-3 Potable Water Service Provider Boundaries



City of Parkland

Map 4-3
Potable Water
Service Providers

- Well Water
Users in
Coconut Creek
Service Area
- Parkland
Streets
- City of
Parkland

- Water Service
Provider
- City of Coconut
Creek Utilities
- North Springs
Improvement
District
- Parkland
Utilities
- Private Well

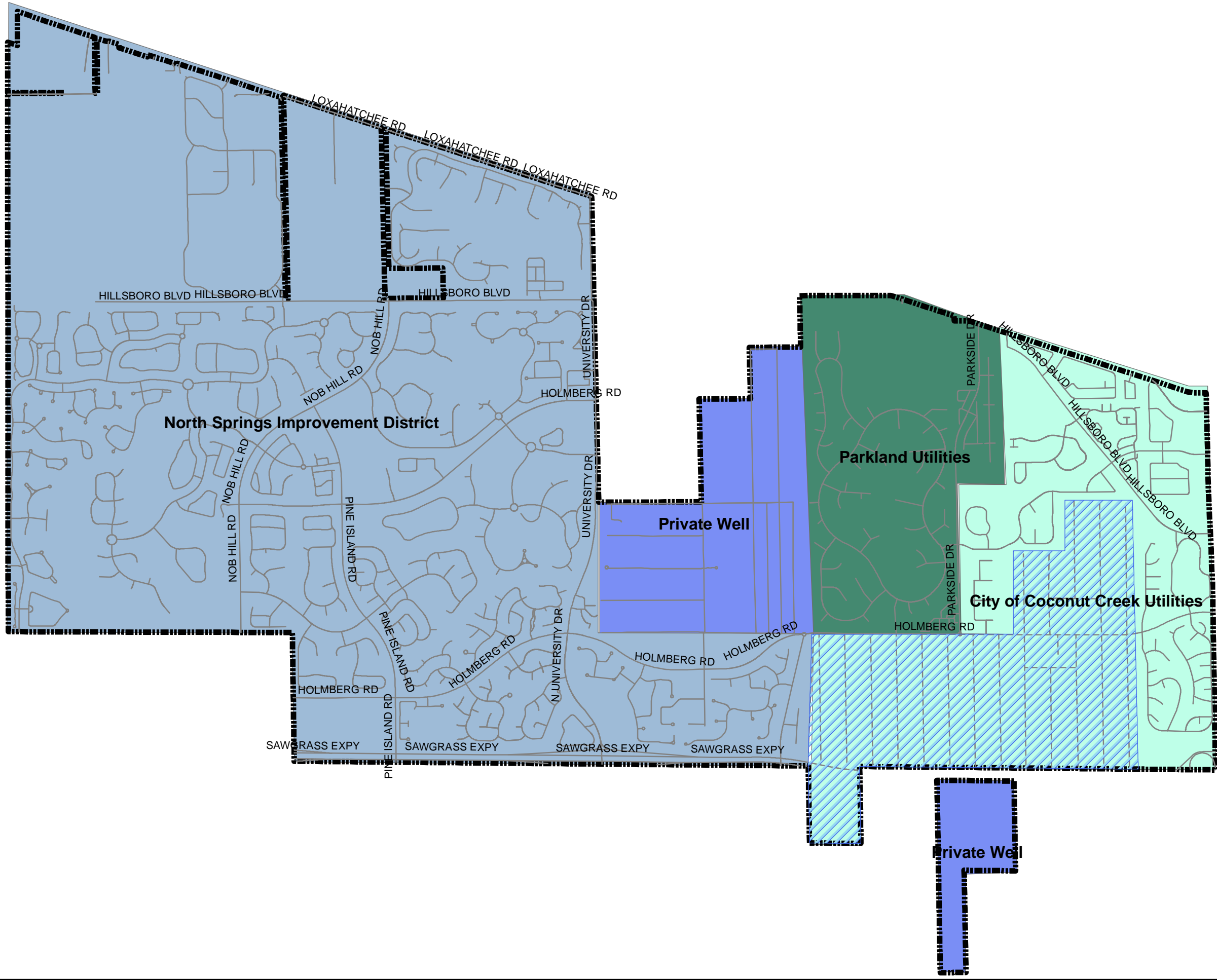
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Parkland Utilities, Inc., which is an investor owned public water and wastewater utility company under the jurisdiction of the Florida Public Service Commission, serves approximately 2,500 customers in portions of Parkland, Unincorporated Broward and Palm Beach Counties. Parkland Utilities is currently permitted for a monthly withdrawal not to exceed 12.77 MGD from the Biscayne Aquifer. The water is treated by a Lime Softening Plant, which has a design capacity of 0.58 MGD. For the portion of water demand served by this utility, the South Florida Water Management District recommended that the utility increase its purchases from existing suppliers, such as Palm Beach County Water Utilities Department (PBCWUD), to meet the projected shortfall of 0.25 MGD in 2025. Parkland Utilities now purchases .25 MGD from Palm Beach County Water Utilities Department (PBCWUD). The level of service for Parkland Utilities potable water service is 114 GPCD.

Table 4-3: Parkland Utilities

Item	Projected	
	2015	2025
Population	3,482	4,110
Per Capita (GPD Finished Water)	114	114
	MGD	MGD
Potable Water Demands (Daily Average Annual)	0.40	0.47
Water Source: Volume from Biscayne / SAS	0.28	0.28
Volume from Floridan	0.00	0.00
Volume from Other	0.15	0.25*
Volume from Reclaimed	0.00	0.00
Additional Potable Water Needed	0.00	0.00

Source: City of Parkland 2012 Comprehensive Plan Infrastructure Element

The North Springs Improvement District (NSID) provides water treatment, wastewater collection and stormwater management to approximately 35,000 residents of Parkland and Coral Springs. The general bounds of the service area are the City limits to the west, Palm Beach County Line to the north, the Sawgrass Expressway to the south and University Drive to the East, with the exception of the Grand Cypress and Tall Pines neighborhoods. NSID is permitted to withdraw 185.7158 MGD monthly from the Biscayne Aquifer, in accordance with their SFWMD Water Use permit. The permitted treatment capacity of the plant is 6.8 MGD which is sufficient to meet the future demand; the current committed capacity of the plant is 4.8 MGD. According to SFWMD, the Biscayne Aquifer will be unable to supply the projected future water demand. A 4.0 MGD Reverse Osmosis (RO) plant was proposed by NISD for completion by 2020. The RO plant will withdraw brackish water from the Floridan Aquifer, which is identified as an alternative water source. See Table 4-4 for NSID data.

Table 4-4: North Springs Improvement District

Item	Projected	
	2015	2025
Population	46,869	47,978
Per Capita (GPD Finished Water)	136	136
	MGD	MGD
Potable Water Demands (Daily Average Annual)	6.38	6.53
Water Source: Volume from Biscayne / SAS	3.91	3.91
Volume from Floridan	3.00	3.00
Volume from Other	0.00	0.00
Volume from Reclaimed	0.00	0.00
Additional Potable Water Needed	0.00	0.00

Source: City of Parkland 2012 Comprehensive Plan Infrastructure Element

Natural Groundwater and Aquifer Recharge Analysis

The City of Parkland contains many small areas of natural fresh water marsh/wet prairie; cypress dominated fresh water swamp and a network of man-made lakes and canals. It also shares borders with the SFWMD Water Conservation Area #2 and the Hillsboro Canal. These areas are all vital to the recharge of the Biscayne Aquifer. SFWMD does not identify any Floridan Aquifer recharge areas within the city. The individual drainage districts have, through their permitted discharge, new project approval process and necessary recharge systems such as lakes, swales, french drains and canals, met the requirements set forth by the SFWMD.

The existing regulations governing aquifer recharge are Florida Administrative Code (F.A.C.) 62-25, enforced by Florida Department of Environmental Protection and F.A.C. 40 E-40 enforced by SFWM.

CHAPTER FIVE

CONSERVATION ELEMENT

PURPOSE

The purpose of the Conservation Element is to promote the conservation, use, and protection of natural resources in the City.

NATURAL ENVIRONMENT

Climate

The climate of the City is subtropical. No long-term climate data is available that is specific for the City of Parkland, but the most recent nearby data is available for Fort Lauderdale, a City within close proximity. Climate data reported by the Southeast Regional Climate Center for Fort Lauderdale identifies that from 1912 to 2012 the average maximum annual temperature is 83.7° F and the average annual minimum temperature is 67.2° F. The average annual precipitation is 62.54 inches. Precipitation is not distributed evenly throughout the year; precipitation ranges from an average monthly level of 2.40 inches in February to 8.72 inches in September. No snowfall has been reported during this recording period.

The prevailing winds are from the southeast. Thunderstorms are common during the summer months when the highest average monthly precipitation occurs. Hurricanes, much less frequent occurrences, have the potential to occur from June through November; heavy rainfall, high winds, and widespread flooding may accompany these storms. No long-term hurricane data exists specific to the City of Parkland. The closest data is for Deerfield Beach which is approximately nine miles east of Parkland. Records from 1871 through 2014 indicate that 66 times in this period hurricanes or tropical storms have had direct hits, brushes, or back door entrances to Deerfield Beach. In October 2005, Hurricane Wilma hit from the southwest with 105 mph winds while moving quickly northeast. Wilma exhibited a very large 55 to 65 mile-wide eye while crossing the state, and the eye covered most of Broward County. The eye wall, the part of the storm with the strongest winds, affected virtually all of South Florida.

Soils

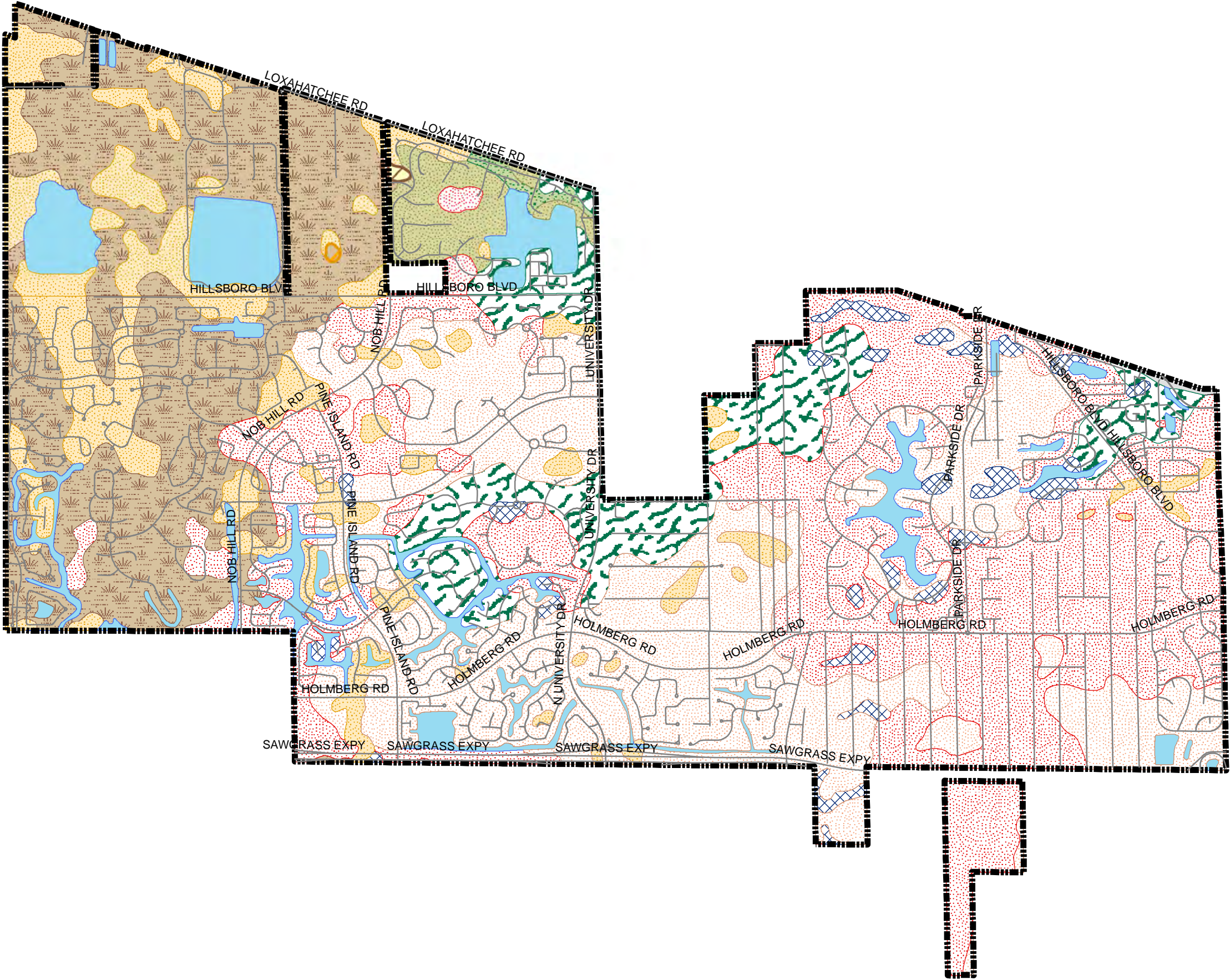
The general distribution of soils is shown in Map 5-1, *USDA Soils Classification Map*, which is based on the soil survey of Broward County conducted by the U.S. Department of Agriculture. The survey identifies the following soil series in the City of Parkland: Boca, Dania, Hallandale, Lauderhill, Margate, and Plantation.

Map 5-1 *USDA Soils Classification*



City of Parkland

Map 5-1
Soil Classification



- Parkland Streets
- Parkland City Boundary
- Parkland Soils
 - BOCA FINE SAND
 - CHOBEE FINE SANDY LOAM
 - DANIA MUCK
 - HALLANDALE FINE SAND
 - JUPITER FINE SAND
 - LAUDERHILL MUCK
 - MARGATE FINE SAND
 - OKEELANTA MUCK
 - PLANTATION MUCK
 - TERRA CEIA MUCK
 - UDORTHENTS
 - WATER

N



0.55

Miles



This map was created with data from the USDA Natural Resources Conservation Service. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.

The Department of Agriculture describes these as follows:

The Boca series consists of moderately deep, poorly drained and very poorly drained, moderately permeable soils in low broad flats, poorly defined drainage ways and depressions of the flatwoods and adjacent tidal flats. They are formed in sandy and loamy marine sediments deposited over limestone bedrock. Near the type location, the mean annual temperature is about 72° F., and the mean annual precipitation is about 55 inches. Slopes range from 0 to 1 percent.

The Chobee series consists of very deep, very poorly drained, slowly to very slowly permeable soils on marine terraces in depressions, flats, and occasionally on river flood plains of the Southern Florida Flatwoods (MLRA 155), and to a lesser extent in the Florida Everglades and Associated Areas (MLRA 156A), Southern Florida Lowlands (MLRA 156B), South Central Florida Ridge (MLRA 154, Eastern Gulf Coast Flatwoods (MLRA 152A) and the North Central Florida Ridge (MLRA 138) Major Land Resource Areas. They formed in thick beds of loamy marine sediments. Near the type location, the mean annual temperature is about 72 degrees F., and the mean annual precipitation is about 55 inches. Slopes range from 0 to 2 percent.

The Dania series consists of shallow, very poorly drained, rapidly permeable organic soils in fresh water marshes or swamps on the fringes of areas of deeper organic soils. They formed in thin beds of well decomposed, hydrophytic, non-woody, plant remains. Near the type location, the mean annual precipitation is about 61 inches and the mean annual temperature is about 75° F. Slopes are less than 2 percent.

The Hallandale series consists of shallow, poorly and very poorly drained, rapidly permeable soils formed in thin deposits of marine sandy materials over limestone. They occur on broad low flats, sloughs, shallow depressions, and adjacent tidal areas in Peninsular Florida. They are saturated during the summer rainy season and after periods of heavy rainfall in other seasons. Slopes are less than 2 percent.

The Jupiter series consists of shallow, poorly and very poorly drained, rapidly permeable soils formed in a thin bed of sandy marine sediments deposited over limestone. They are on broad low flats, low hammocks, and in poorly defined drainageways. Slopes are 2 percent or less.

The Lauderhill series consists of very poorly drained soils that are 16 to 36 inches thick over limestone. Lauderhill soils formed in organic deposits of freshwater marshes.

The Margate series consists of poorly drained, rapidly permeable soils that formed in sandy marine sediments of variable thickness over fractured limestone. The water table is near the surface during wet periods. Slope is less than 2 percent.

The Okeelanta series consists of very deep, very poorly drained, rapidly permeable soils in large fresh water marshes and small depressional areas of the Southern Flatwoods (MLRA 155) and the Southern Florida Lowlands (MLRA 156B) Major Land Resource Areas. They formed in moderately

thick deposits of decomposed hydrophytic non-woody sapric material overlying marine sand. Near the type location, the mean annual temperature is about 74 degrees F., and the mean annual precipitation is about 59 inches. Slopes range from 0 to 2 percent.

The Plantation series consists of moderately deep, very poorly drained, rapidly permeable soils on broad flats adjacent to the deeper organic soils. They formed in a thin layer of organic material and thin beds of marine sandy materials over limestone. Near the type location, the mean annual temperature is about 75° F, and the mean annual precipitation is about 63 inches. Slopes range from 0 to 1 percent.

The Terra Ceia series consists of very deep, very poorly drained, rapidly permeable soils in fresh water marshes Southern Florida Flatwoods (MLRA 155), and to a lesser extent in the South Central Florida Ridge (MLRA 154), Southern Florida Lowlands (MLRA 155B, Atlantic Coast Flatwoods (MLRA 153A), Eastern Gulf Coast Flatwoods (MLRA 152A) and the Florida Everglades and Associated Areas (MLRA 156A). They formed in more than 50 inches of well decomposed, hydrophytic, herbaceous plant remains. Near the type location, the mean annual precipitation is about 61 inches and the mean annual temperature is about 75 degrees F. Slopes are 0 to 1 percent.

Soil Erosion

Due to the relatively flat topography of the City, erosion is typically not a problem.

Commercially Valuable Minerals

The Florida Department of Environmental Protection has identified peat and limestone as the only commercially valuable mineral or soil in the City. A rock pit, located in the southeast corner of the City along the Sawgrass Expressway, was utilized to provide fill during the construction of the Expressway but is no longer active. "The Wedge" had 3 mines on the Bishop's Pit, Bruschi, and Debuy's properties, but all are closed and have undergone or are undergoing the reclamation process. At this time there are no active mining operations in the City.

Floodplains

The National Flood Insurance Program administered by the Federal Emergency Management Agency (FEMA) has identified the following flood zones within the City of Parkland.

Table 5-1: Federal Emergency Management Agency Flood Zones

Zone	Description
AH	Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between one and three feet. Base Flood Elevations (BFEs) derived from detailed hydraulic analyses are shown in this zone. Mandatory flood insurance purchase requirements and floodplain management standards apply.
AE	Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.
X	Areas of 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance (base flood) sheet flow flooding with average depths of less than 1 foot, areas of base flood stream flooding with a contributing drainage area of less than 1 square mile or areas protected from the base flood by levees. No BFEs or depths are shown in this zone and insurance purchase is not required, and; Areas outside the 0.2-percent-annual-chance floodplain. No BFEs or depths are shown in this zone, and insurance purchase is not required.

Source: FEMA

Map 5-2, *FEMA Flood Zones*, identifies the flood zones within the City and Map 5-3, *Existing Land Use*, illustrates the existing land uses found within the floodplain. The majority of the eastern portion of Parkland is an AH zone that is determined to be inundated by 100-year flooding. The majority of the southwest portion of the City is in the X area, a zone that is determined to be outside the 100- and 500 year floodplains. The majority of the newly annexed “Wedge” is in the AH zone. The City, located in northwest Broward County, ranges in elevation from 10 to 20 feet NGVD. Map 5-4, *Five Foot Contours Map*, identifies the topography of the City. Land use, as it relates to the discharge of stormwaters into and the use of natural drainage is regulated through the South Florida Water Management District environmental resource permitting process. The Florida Building Code regulates construction as it relates to flood zones.

Air

Air quality in the City is generally excellent. Low intensity development combined with limited point sources of pollution has resulted in low pollutant loads. Based upon ambient air quality monitoring, conducted by the Florida Department of Environmental Protection (FDEP), *The Florida Air Monitoring Report 2012*, reports that Broward County and adjacent Palm Beach County are attainment areas for five of the six major air contaminants: carbon monoxide (CO), nitrogen

dioxide (NO₂), particulate matter (PM₁₀, PM_{2.5} Continuous, and PM_{2.5} Manual), and sulfur dioxide (SO₂). The attainment area designation indicates that the concentrations of major pollutants are within the acceptable limits set by the FDEP and the U.S. Environmental Protection Agency (EPA). Both Broward County and Palm Beach County continue to be classified as attainment/maintenance areas for the pollutant ozone (O₃). Maintenance areas are areas previously classified as non-attainment, which have successfully reduced air pollutant concentrations to below the standard, but must maintain some of the non-attainment area plans to stay in compliance with the standards.

Map 5-2 *FEMA Flood Zones*




City of Parkland

Map 5-2
FEMA Flood
Hazard Areas



____ Parkland Streets

 City of Parkland

Parkland Flood
Zones

Flood Zone

	AE
	AH
	X

N



0.55

 Miles



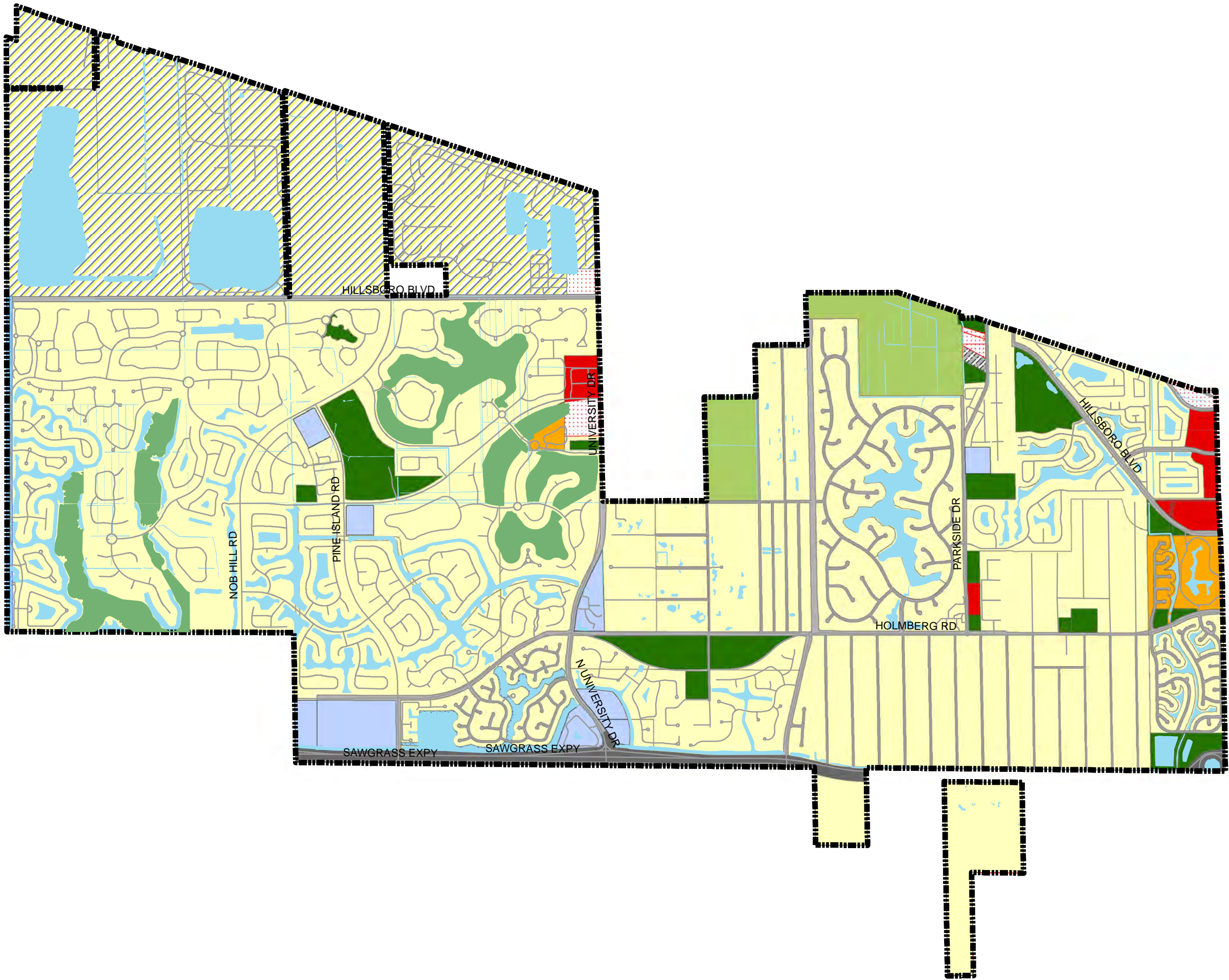
This map was created with data from the Federal Emergency Management Agency (FEMA). Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.

Map 5-3 *Existing Land Use*



City of Parkland

Map 5-3
Existing Land Use



- Golf Courses
- City of Parkland
- Parkland Streets
- Parkland Waterbodies
- Agricultural
- Commercial
- Vacant Commercial
- Residential
- Multi-Family Residential
- Vacant Residential
- Community Facilities
- Recreation and Open Space
- Right of Way
- Transportation
- Utilities
- Con - Reserve
- Water Supply Areas
- Water

N

0.5

Miles



This map was created with data from the Broward County Property Appraiser and the City of Parkland. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.

Map 5-4 *Five Foot Contours*



City of Parkland

Map 5-4
Five Foot Contours

5 Foot
Contours

10

15

20

Parkland
Streets

City of
Parkland

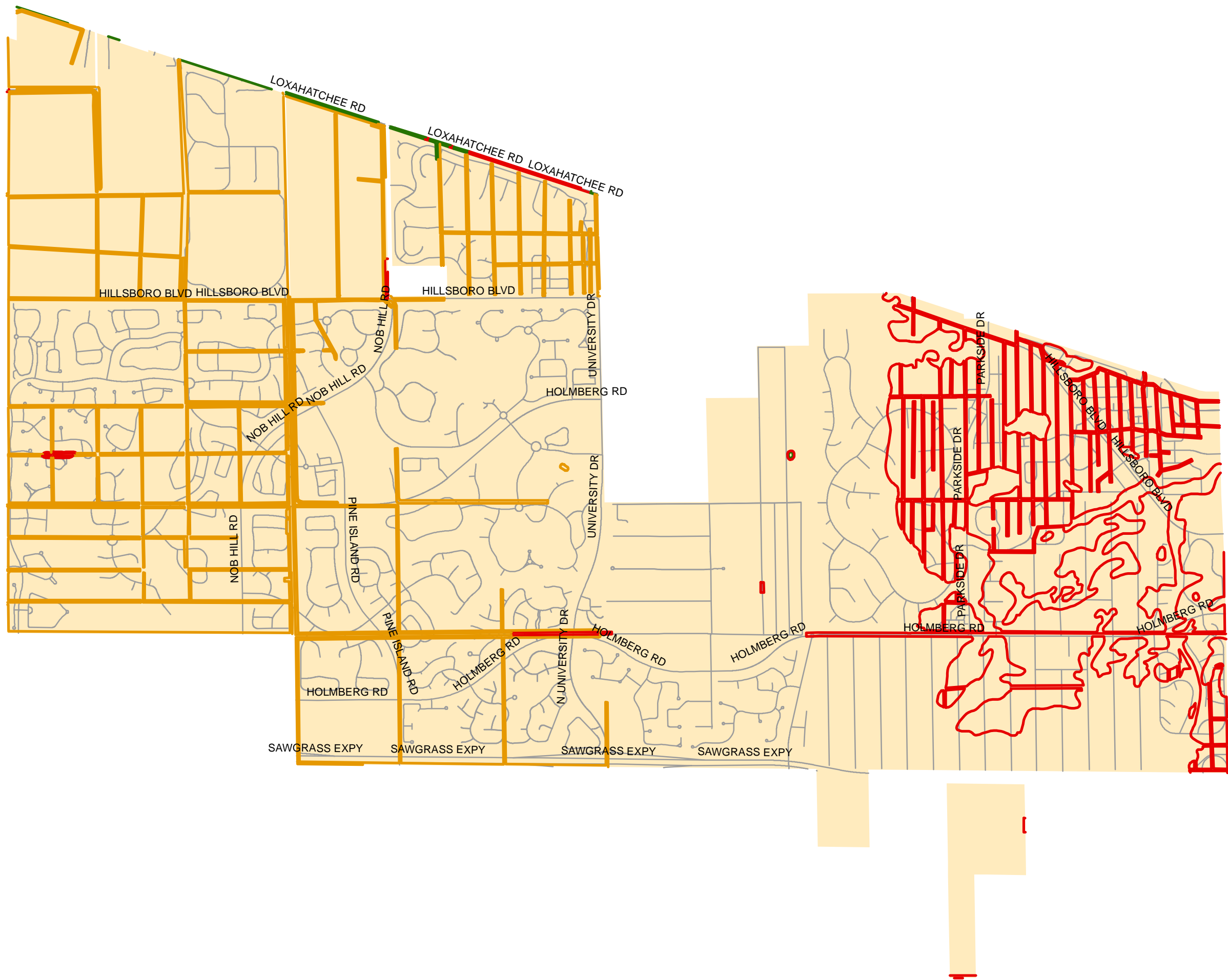
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Miles



This map was created with data from the US Geological Survey. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.



Water Resources

Although numerous water bodies and ponds occur within the City, few are naturally occurring lakes or waterways. The majority of existing water features are manmade as a part of land development projects. Map 5-5, *Hydrography*, identifies the existing water features located within the City, including wetlands.

LAND COVER

The City of Parkland was incorporated in 1963. In 2015 a large portion of the City is developed or disturbed land. Map 5-6, *Habitat and Land Cover*, identifies the habitat land coverage within the City as mapped by the Florida Fish and Wildlife Conservation Commission (FFWCC). The tables below identify and provide the acreage of each habitat.

Table 5-2: Natural/Native Habitats

Habitat / Landcover	Acres	Percentage
Agriculture	2700	29.47
Barren Land	77	.84
Rangeland	1065	11.62
Transportation / Communication	139	1.52
Upland Forrest	361	3.94
Urban, Built-Up	4082	44.55
Water	445	4.86
Wetlands	293	3.20
Total Acres	9162	100.00%

Source: Florida Fish and Wildlife Commission

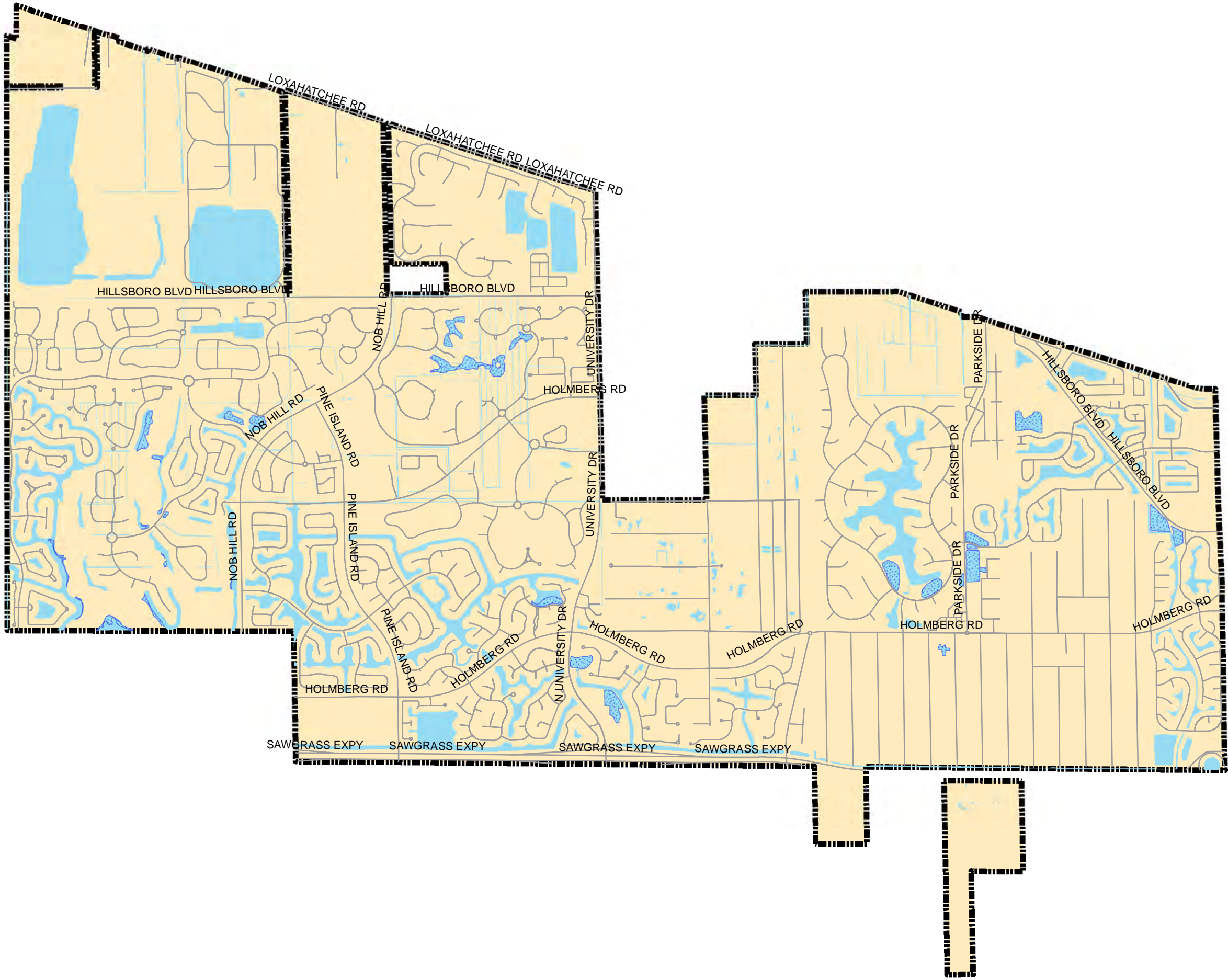
Map 5-5 USGS 1:24,000 Hydrography



City of Parkland

Map 5-5
Hydrography

- Parkland Streets
- Wetland
- Parkland Waterbodies
- City of Parkland



N

0.5

Miles



This map was created with data from The City of Parkland. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.

Map 5-6 *Habitat and Land Cover*



City of Parkland

**Map 5-6
Habitat and
Landcover**

- City of Parkland
- Waterbodies
- Parkland Parks
- Broward Co.
- Palm Beach Co.
- Agriculture
- Barren Land
- Rangeland
- Transportation, Communication
- Upland Forest
- Urban Built Up
- Water
- Wetlands

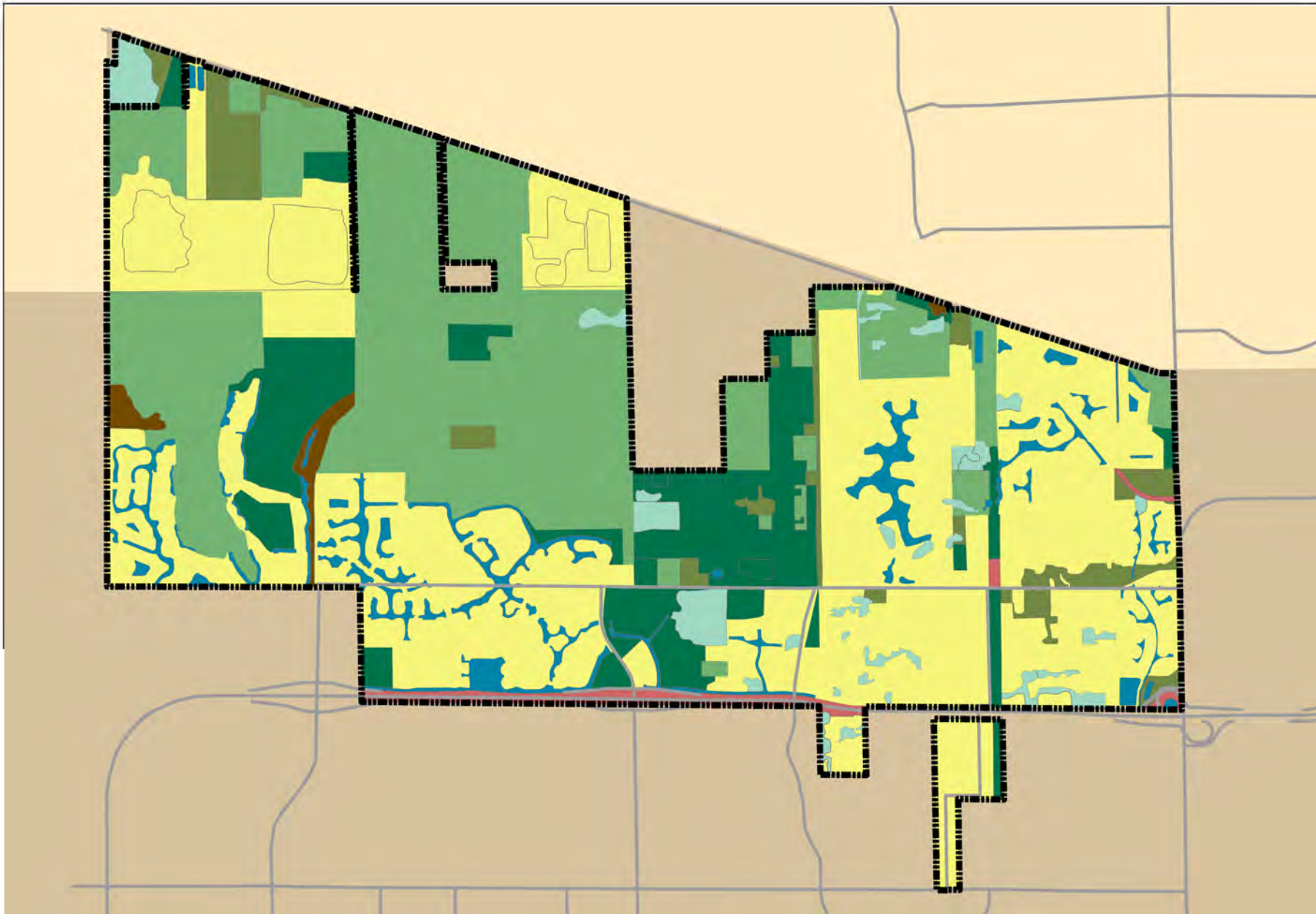
N

0.5

Miles



This map was created with data from the South Florida Water Management District. Any inaccuracies in the data are not the responsibility of The Mellgren Planning Group.



NATURAL HABITATS

A variety of the historic native vegetative communities still exist throughout the City. These habitats however, have been greatly fragmented and disrupted due to development and the encroachment of invasive exotic vegetation. The existing native vegetative communities are very limited in nature at this time. The bulk of Parkland's 9,155, 8,501 acres are developed or disturbed land.. Only 654 acres are identified by the Florida Fish and Wildlife Conservation Commission (FFWCC) as containing remnants of native vegetative habitats.

Listed species, and other animal species, depend on native vegetative communities; and any impacts to these habitats concurrently impact the associated wildlife which utilize these habitats for refuge, foraging, nesting or denning. **Appendix B**, *Native Plant Species*, contains a list of the native plant species that may be found or have the potential to occur in the City and identifies those that are listed as either threatened or endangered by federal and state agencies. **Appendix C**, *Listed Animal Species*, identifies the federal and state listed animal species that may occur within or utilize habitat within the City. **Appendix D**, *Invasive Plant List*, identifies the invasive exotic pest plant species that are problematic to the City.

Below are the descriptions from the FFWCC describing the characteristics of the vegetative communities that the FFWCC indicates may still occur within the City.

Cattail Marsh - Freshwater marsh areas dominated by cattails.

Cypress/Pine/Cabbage Palm - This community includes cypress, pine and/or cabbage palm in combinations in which none of the species achieves dominance. This assemblage forms a transition between moist upland and hydric sites.

Dry Prairies - Dry prairies are large native grass and shrublands occurring on very flat terrain interspersed with scattered cypress domes and strands, bayheads, isolated freshwater marshes, and hardwood hammocks. This community is characterized by many species of grasses, sedges, herbs, and shrubs, including saw palmetto, fetterbush, staggerbush, tar flower, gallberry, blueberry, wiregrass, carpet grasses, and various bluestems. The largest areas of these treeless plains historically occurred just north of Lake Okeechobee, and they were subject to annual or frequent fires. Many of these areas have been converted to improved pasture. In central and south Florida, palmetto prairies, which consist of former pine flatwoods where the overstory trees have been thinned or removed, are also included in this category. These sites contain highly scattered pines that cover less than 10 to 15 percent of an area.

Freshwater Marsh and Wet Prairie - These wetland communities are dominated by a wide assortment of herbaceous plant species growing on sand, clay, marl, and organic soils in areas of variable water depths and inundation regimes. Generally, freshwater marshes occur in deeper, more strongly inundated situations and are characterized by tall emergents and floating-leaved species. Freshwater marshes occur within flatwoods depressions, along broad, shallow lake and river shorelines, and scattered in open areas within hardwood and cypress swamps. Also, other portions of freshwater lakes, rivers, and canals that are dominated by floating-leaved plants

such as lotus, spatterdock, duck weed, and water hyacinths are included in this category. Wet prairies commonly occur in shallow, periodically inundated areas and are usually dominated by aquatic grasses, sedges, and their associates. Wet prairies occur as scattered, shallow depressions within dry prairie areas and on marl prairie areas in south Florida. Also included in this category are areas in Southwest Florida with scattered dwarf cypress having less than 20 percent canopy coverage, and a dense ground cover of freshwater marsh plants. Various combinations of pickerel weed, sawgrass, maidencane, arrowhead, fire flag, cattail, spike rush, bulrush, white water lily, water shield, and various sedges dominate freshwater marshes and wet prairies. Many marsh or wet prairie types, such as sawgrass marsh or maidencane prairie, have been described and so-named based on their dominant plant species.

Hardwood Hammocks and Forests - This class includes the major upland hardwood associations that occur statewide on fairly rich sandy soils. Variations in species composition and the local or spatial distributions of these communities are due in part to differences in soil moisture regimes, soil type, and geographic location within the state. Mesic and xeric variations are included within this association. The mesic hammock community represents the climax vegetation type within many areas of northern and central Florida. Characteristic species in the extreme north include American beech, southern magnolia, Shumard oak, white oak, mockernut hickory, pignut hickory, sourgum, basswood, white ash, mulberry, and spruce pine. Mesic hammocks of the peninsula are less diverse due to the absence of hardwood species that are adapted to more northerly climates, and are characterized by laurel oak, hop hornbeam, blue beech, sweetgum, cabbage palm, American holly, and southern magnolia. Xeric hammocks occur on deep, well-drained, sandy soils where fire has been absent for long periods of time. These open, dry hammocks contain live oak, sand-live oak, bluejack oak, blackjack oak, southern red oak, sand-post oak, and pignut hickory.

Hardwood Swamp - These wooded wetland communities are composed of either pure stands of hardwoods, or occur as a mixture of hardwoods and cypress where hardwoods achieve dominance. This association of wetland-adapted trees occurs throughout the state on organic soils and forms the forested floodplains of non-alluvial rivers, creeks, and broad lake basins. Tree species include a mixed overstory containing black gum, water tupelo, bald cypress, dahoon holly, red maple, swamp ash, cabbage palm, and sweetbay.

Mixed Hardwood-Pine Forests - This community is the southern extension of the Piedmont southern mixed hardwoods, and occurs mainly on the clay soils on the northern Panhandle. Younger stands may be predominantly pines, while a complex of various hardwoods become co-dominants as the system matures over time through plant succession. The overstory consists of shortleaf and loblolly pine, American beech, mockernut hickory, southern red oak, water oak, American holly, and dogwood. Also included in this category are other upland forests that occur statewide and contain a mixture of conifers and hardwoods as the co-dominant overstory component. These communities contain longleaf pine, slash pine, and loblolly pine in mixed association with live oak, laurel oak, and water oak, together with other hardwood species characteristic of the upland hardwood hammocks and forests class.

Pinelands - The pinelands category includes North and South Florida pine flatwoods, south

Florida Pine rocklands, and commercial pine plantations. Pine flatwoods occur on flat sandy terrain where the overstory is characterized by longleaf pine, slash pine, or pond pine. Generally, flatwoods dominated by longleaf pine occur on well-drained sites, while pond pine is found in poorly drained areas, and slash pine occupies intermediate or moderately moist areas. The understory and ground cover within these three communities are somewhat similar and include several common species such as saw palmetto, gallberry, wax myrtle, and a wide variety of grasses and herbs. Generally wiregrass and runner oak dominate longleaf pine sites; fetterbush and bay trees are found in pond pine areas, while saw palmetto, gallberry, and rusty lyonia occupy slash pine flatwoods sites. Cypress domes, bayheads, titi swamps, and freshwater marshes are commonly interspersed in isolated depressions throughout this community type, and fire is a major disturbance factor. An additional pine flatwoods forest type occurs in extreme south Florida on rocklands where the overstory is the south Florida variety of slash pine, and tropical hardwood species occur in the understory. Scrubby flatwoods is another pineland type that occurs on drier ridges, and on or near old coastal dunes. Longleaf pine or slash pine dominates the overstory, while the ground cover is similar to the xeric oak scrub community. Commercial pine plantations are also reluctantly included in the pinelands association. This class includes sites predominately planted to slash pine, although longleaf pine and loblolly pine tracts also occur. Sand pine plantations, which have been planted on severely site-prepared sandhill sites in the north Florida panhandle, are also included in this category. An acceptable accurate separation of areas of densely stocked native flatwoods and older planted pine stands with a closed canopy was not consistently possible.

Sawgrass Marsh - Freshwater marshes dominated by sawgrass.

Shrub Swamp - Shrub swamps are wetland communities dominated by dense, low-growing, woody shrubs or small trees. Shrub swamps are usually characteristic of wetland areas that are experiencing environmental change, and are early to mid-successional in species complement and structure. These changes are a result of natural or man-induced perturbations due to increased or decreased hydroperiod, fire, clear cutting or land clearing, and siltation. Shrub swamps statewide may be dominated by one species, such as willow, or an array of opportunistic plants may form a dense, low canopy. Common species include willow, wax myrtle, primrose willow, buttonbush, and saplings of red maple, sweetbay, black gum, and other hydric tree species indicative of wooded wetlands. In northern Florida, some shrub swamps are a fire-maintained subclimax of bay swamps. These dense shrubby areas are dominated by black titi, swamp cyrilla, fetterbush, sweet pepperbush, doghobble, large gallberry, and myrtle-leaf holly.

Mixed Wetland Forest - This category includes mixed wetland forest communities in which neither hardwoods nor conifers achieve dominance. The mix can include hardwoods with pine or cypress and can represent a mixed hydric site or a transition between hardwoods and conifers on hydric/mesic sites.

Shrub and Brushland - This association includes a variety of situations where natural upland community types have been recently disturbed through clear-cutting commercial pinelands, land clearing, or fire, and are recovering through natural successional processes. This type could be characterized as an early condition of old-field succession, and various shrubs, tree saplings, and lesser amounts of grasses and herbs dominate the community. Common species include

wax myrtle, saltbush, sumac, elderberry, saw palmetto, blackberry, gallberry, fetterbush, staggerbush, broomsedge, dog fennel, together with oak, pine and other tree seedlings or saplings.

Vegetative Community Impacts

Due to the growth and expansion of all communities of the state, the most prominent threats to the already fragmented natural vegetative communities and the wildlife that utilizes these habitats, is the continued fragmentation and loss due to continued development, the interruption of the natural hydropatterns due to adjacent development and the continued encroachment of invasive pest species.

The presence of an existing vegetative community can specifically be identified through the site plan approval process as development projects are proposed. Where these native habitats are present, the applicable federal, state, county and local criteria shall apply and coordination with the U.S. Fish and Wildlife Service (USFWS) and the FFWCC should be sought. Preservation and restoration should be considered a primary goal for these native habitats; however, when impacts are unavoidable, open space criteria, clustering provisions and mitigation measures can be considered as viable conservation tools.

Conservation Opportunities

Public lands provide recreation, open space and conservation opportunities. Within the City, public lands are owned, operated and maintained by the City, County, or State. There are fifteen parks located within City limits, thirteen of which are publicly owned. Map 5-7, *Parks and Open Space* identifies these parks and their locations. **Appendix F, City and County Parks in Parkland** lists the parks and their respective acreage. There are 284.26 acres of land under public ownership utilized for parks and open space. Map 5-8, *Future Land Use*, identifies those parcels designated as parks within the City.

Map 5-9 *Environmental Consideration Areas*, identifies the Wetland and the Upland Tree Resources (UTR) designated by Broward County. Within the City's municipal boundaries there are thirteen (13) Wetlands and five (5) UTRs. Natural Resource Areas are subject to the requirements of the Broward County Land Development Code. Tree resources are areas of significant native tree canopy in areas where the Broward County Tree Preservation Ordinance is enforced.

The trail system in the City has increased from 12 miles of trails in 2008 to approximately 30 miles, not including the 5-mile trail on the perimeter of Heron Bay.

Effective maintenance and management strategies to preserve and protect sensitive habitats and resources can also more readily be implemented through public ownership. The City and other public entities should continue to develop cooperative, compatible plans for the preservation and best utilization of their public park and open space resources.

Potable Water

Residents of Parkland receive water from a public utility, a private utility, individual private wells, and an improvement district. The Country Point and Cypress Trail subdivisions have a user's

agreement for water service through the City of Coconut Creek. Although water is supplied by Coconut Creek, water treatment is provided by Broward County's Water Treatment Plant 2A located at 1390 N.E. 50th Street, in Pompano Beach.

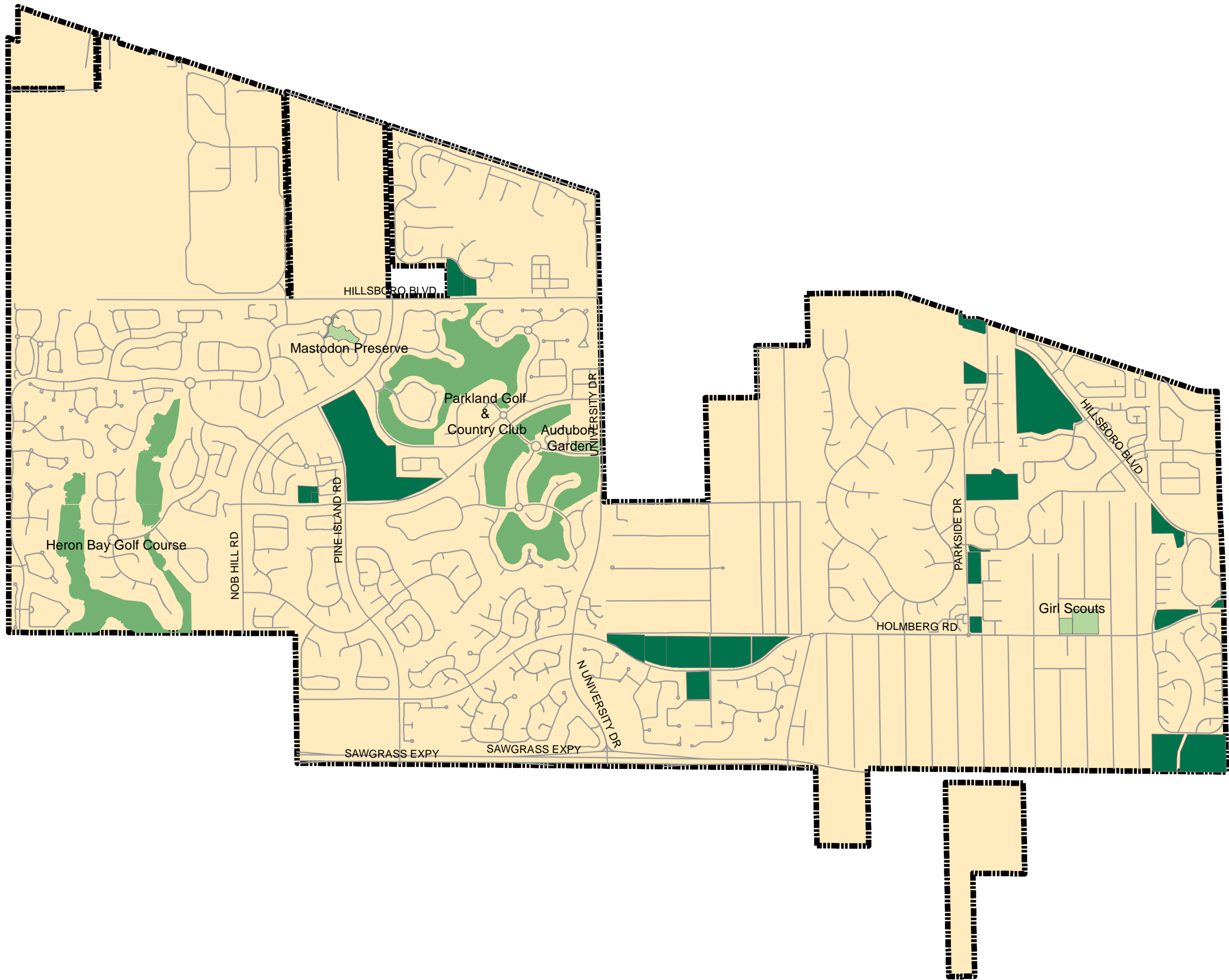
Map 5-7 2007 *Parks and Open Space*



City of Parkland

Map 5-7
Parks & Open Space

- Private Recreation
- Golf Courses
- Public Parks & Open Space
- Parkland Streets
- City of Parkland



0.5
Miles



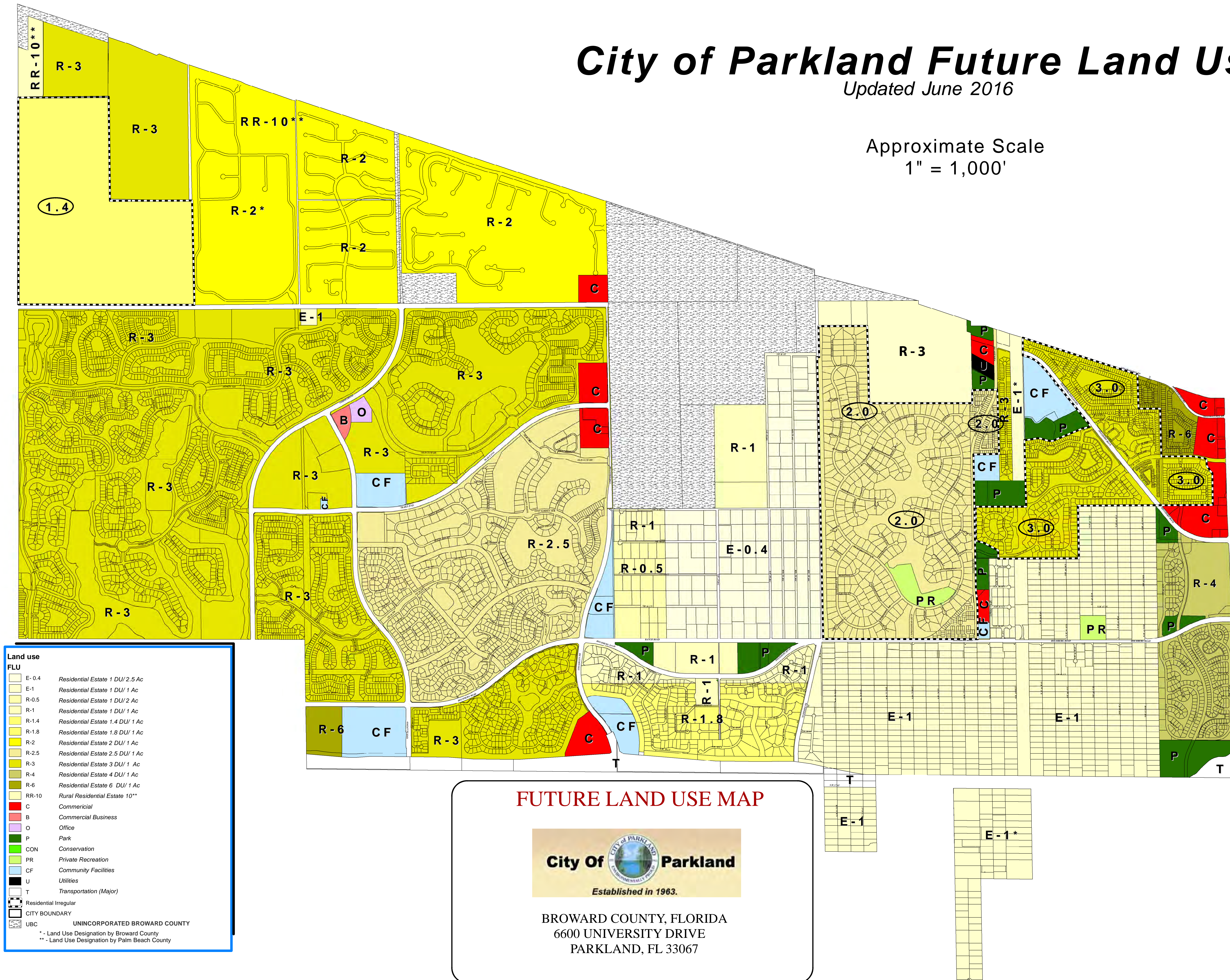
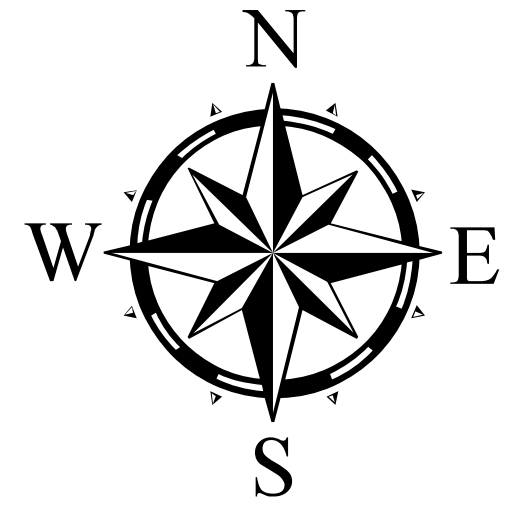
This map was created with data from the City of Parkland. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.

Map 5-8 *Effective Future Land Use*

City of Parkland Future Land Use Map

Updated June 2016

Approximate Scale
1" = 1,000'

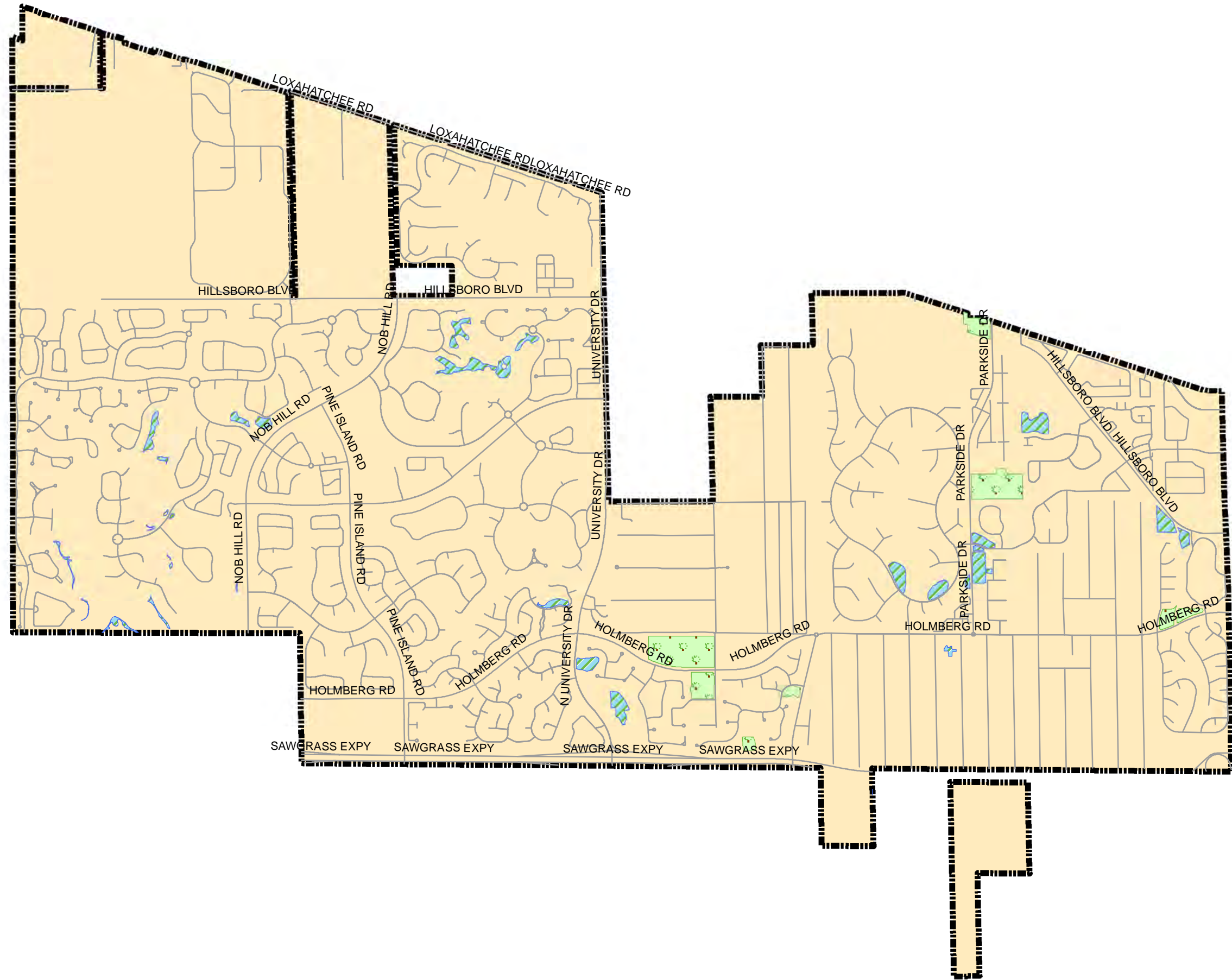


Map 5-9 *Environmental Consideration Areas*



City of Parkland

Map 5-9
Environmental
Consideration
Areas



- Parkland Streets
- Parkland Natural Lands**
- Forested Upland
 - Wetland
 - City of Parkland

N

0.55

Miles



This map was created with data from the Broward County Environmental Planning and Community Resilience Division. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.

The City of Coconut Creek also provides water services for Country Place, Sable Pass, Ternbridge, Terramar, Parkwood, Mayfair, Parkland Terraces, Lakes at Parkland, Parkland Place (Castle Rock) Winner's Circle, Shoppes of Parkland, Riverstone Shoppes and the Waterways Shoppes. Parkland Utilities, Inc., a private utility company, supplies water to the Parkland Lakes P.U.D., Cypress Cay, Parkside Estates and Parkland Town Center. The North Springs Improvement District (NSID) provides potable water service to that area of the City within its jurisdiction including Riverside Acres, The Landings, Tall Pines, Tall Pines North, Meadow Run, Meadow Run West, Water's Edge, Fox Ridge, Parkland Isles, Grand Cypress Estates, In The Pines, Aston Gardens, Heron Bay Parkland, Golf & Country Club, Parkland Estates and a small section of the Ranches. Those areas which do not receive water from one of the above are serviced by individual private wells. However all water ultimately comes from the Biscayne aquifer.

The 2013 *Lower East Coast Water Supply Plan* from the South Florida Water Management District (SFWMD) provides details on the current and projected water supply for the area. Broward County Plant 2A serves a portion of Parkland as well as numerous other areas in northern Broward County. Broward County Plant 2A's water usage was calculated to be approximately 15.07 MGD in 2005 with a projected need for 21.11 MGD in 2015 and 22.40 MGD in 2025. The County proposes to construct a Canal Recharge Project using advanced water treatment to provide indirect potable reuse water to allow for the increased withdrawal from the Biscayne aquifer. Broward County Plant 2A plans to provide an additional reuse for irrigation. Parkland Utilities, Inc. serves a small portion of the population of Parkland. Parkland Utilities, Inc. water usage was calculated to be approximately 0.26 MGD in 2005 with a projected need for 0.40 MGD in 2015 and 0.47 MGD in 2025. The SFWMD recommends the utility increase its purchases from existing suppliers to meet the projected shortfall. The North Springs Improvement District (NSID) includes portions of both Parkland and Coral Springs. The NSID's water usage was calculated to be approximately 3.91 MGD in 2005 with a projected need for 6.38 MGD in 2015 and 6.53 MGD in 2025. The SFWMD proposes a 3.0 MGD Reverse-Osmosis project.

GROUND WATER

Broward County and the City of Parkland are within the South Florida Water Management District (SFWMD). Parkland falls within the SFWMD Lower East Coast (LEC) Planning Area. The 2013 *LEC Regional Water Supply Plan* the SFWMD indicate the LEC planning area covers approximately 6,100 square miles and includes Miami-Dade, Broward, and Palm Beach counties, most of Monroe County, and the eastern portions of Hendry and Collier counties. The entire Lake Okeechobee service area is also included in the planning process, because of its reliance on Lake Okeechobee.

In the LEC Planning Area the population is expected to grow over 18 percent from 5.6 million residents in 2010 to 6.6 million in 2013, with 14 percent projected growth in Broward County. Miami-Dade, Broward and Palm Beach counties are among the state's five most populated counties. Increased population will result in a net increase in water demand for all use categories

during the next 20 years.. Water use from agricultural land totals 34 percent of water supply demand, making agriculture the second- largest use category in the LEC Planning Area, behind Public Water Supply (PWS). World-renowned ecosystems, such as the Everglades, Lake Okeechobee, Florida Bay and Biscayne Bay, are in the LEC Planning Area. Traditional water sources include fresh groundwater from the Surficial Aquifer System (SAS) and the Biscayne Aquifer, and surface water, primarily from the Everglades and Lake Okeechobee. In 2010, fresh groundwater accounted for 94 percent of potable water produced by PWS utilities. Alternative water sources include brackish water from the Floridan Aquifer System (FAS), reclaimed water, and excess stormwater during the rainy season.

Region-wide, Public Water Supply withdrawal demands (raw water) are expected to increase 12 percent to 1,933 MGD by 2030, at which time this water supply category will represent approximately 52 percent of the region's total water demands. Thermoelectric Power Generation Self-Supply is a rapidly growing water use category. Future customer demand projections reflect the 103 MGD required to serve new power generation facilities planned by Florida Power & Light (FPL). During the 20-year planning period, water withdrawal demands will increase from 5 MGD in 2005 to 103 MGD by 2025. The remaining water use categories, Domestic (Residential) Self-Supply, Commercial and Industrial, Recreational and Landscape, account for 14 percent of the water demand.

The SAS and surface water are dependent upon rainfall for recharge. The average annual rainfall in the LEC Planning Area is about 57 inches. Annually, 75 percent of this occurs during the wet season months, from May through October. In addition to seasonal variation, rainfall varies significantly from year to year with historic annual amounts ranging from 37 inches to 106 inches in the planning area. The amount of rainfall also varies regionally within the District. Rainfall also varies aurally, with rainfall amounts generally decreasing from east to west.

The principal ground water resources for the LEC Planning Area are the Surficial Aquifer System, including the Biscayne aquifer, and the Floridan Aquifer System. The surficial and Biscayne aquifers provide most of the fresh water for public water supply and agriculture within the LEC Planning Area. Due to the regional importance of the Biscayne aquifer, it has been designated as a sole source aquifer by the U.S. Environmental Protection Agency (USEPA) under the Safe Drinking Water Act and is, therefore, afforded stringent protection. This designation was made because it is a principal source of drinking water and is highly susceptible to contamination due to its high permeability and proximity to land surface in many locations. Major sources of contamination are saltwater intrusion and infiltration of contaminants from canal water.

The water supply is vulnerable to the introduction of chemicals from business and residential uses. In order to provide protection to the water supply, Broward County established zones of influence around each wellfield. The Broward County Environmental Protection Department began the Wellfield Protection Program in 1990. This program regulates activities in designated Wellfield protection areas, including the storage, handling, use, and production of regulated substances at hazardous material facilities. Zones are delineated by the theoretical time it takes

for contaminants to travel from the point they enter the ground water to the wellfield. Broward County has three delineated protective zones: Zone 1, Zone 2, and Zone 3. Restrictions are highest in Zone 1. These protected areas act as safety buffers against accidental contaminant releases wherein known contaminants can be reduced before they reach the public supply well. Zone 1 provides a ten day buffer around the wellfield; Zone 2 provides a thirty day buffer and Zone 3 provides a 210 day buffer.

Several wellfield protection zones originate in Palm Beach County and extend into the City of Parkland. Palm Beach County created the Water Resources Management Advisory Board in 1985 and enacted the Wellfield Protection Ordinance to regulate businesses using, handling, storing, or producing 5 gallons / 25 pounds or more of hazardous chemicals adjacent to a well pumping 100,000 gallons or more of potable water per day. There are 4 wellfield protection zones: Zone 1, Zone 2, Zone 3, and Zone 4. In Zone 1, businesses are prohibited from the use, storage, handling, or production of hazardous and toxic materials. Zone 1 provides a 30-day travel time, Zone 2 provides 30-210 day travel time, Zone 3 provides 210-500 day travel time, and Zone 4 is 1 foot drawdown.

Map 5-10, *Well Field Protection Zones*, designates the wellfield protection zones in the City of Parkland.

Pollutants

Landfills, waste generators, and above and underground storage tanks are licensed and monitored by the state. Within and immediately adjacent to the City limits, there are twenty one (21) locations with storage tanks licensed by the FDEP. Nine (9) of these sites are closed, while the remaining twelve (12) are listed as open. Map 5-11, *Petroleum Storage Tanks*, identifies the petroleum storage tanks from the 2015 Petroleum Tank Information dataset from the State of Florida.. The approval of a fuel station on 2.54 acres in northwest Parkland is expected by January 2016. Three (3) fuel storage tanks are proposed on the site.

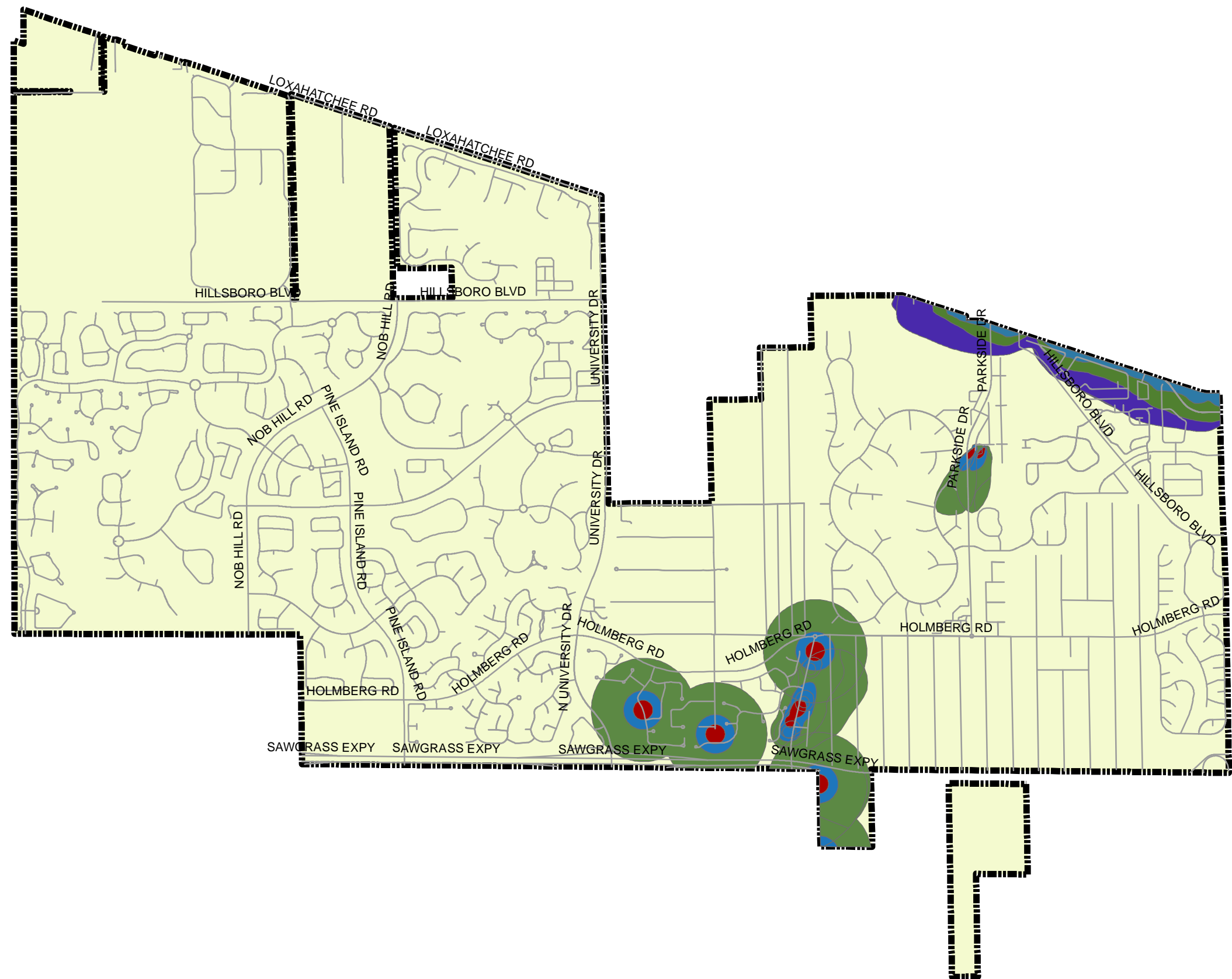
There are no sites within the City that are listed on the National Priorities List (NPL) or the federal Superfund list. Currently there are two (2) sites within the City listed as contaminated sites by Broward County. The sites are listed as Atlas-Lox Road, Inc. and Misty Meadows Property. . These sites are managed by the Environmental Assessment and Remediation Section of Broward County's Environmental Protection Department. In addition, there are two (2) sites in Coconut Creek on SR 7, immediately adjacent to the City of Parkland. Map 5-12, *Solid Waste Disposal Sites*, identifies the solid waste facilities in and immediately adjacent to the City; these three (3) sites are all currently listed as inactive.

Map 5-10 *Well Field Protection Zones*



City of Parkland

Map 5-10 Wellfield Protection Zones



- Parkland Streets
- Palm Beach
County Wellfield
Protection Zones
- 1
 - 2
 - 3
 - 4
- Broward County
Wellfield
Protection Zones
- 1
 - 2
 - 3
- City of Parkland

N



0.5

Miles



This map was created with data from the Broward County Water Resources Division and Palm Beach County Environmental Resources Management. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.

Map 5-11 *Petroleum Storage Tanks*



City of Parkland

Map 5-11
Petroleum Storage
Tanks

Parkland
Petroleum
Storage Tanks

Facility Status

- Closed
- Open

— Parkland
Streets

▬ Parkland
City
Boundary

N

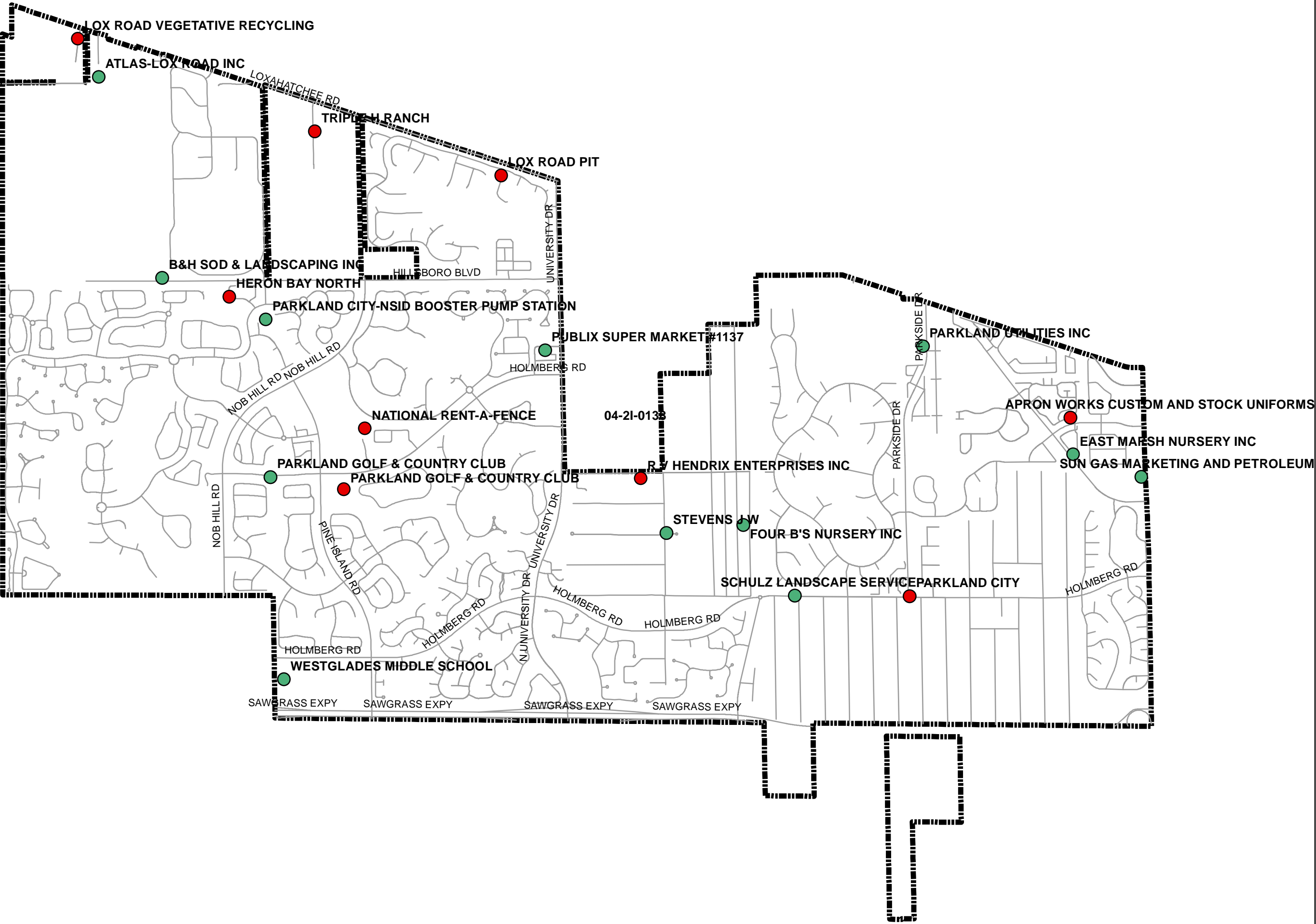


0.5

— Miles



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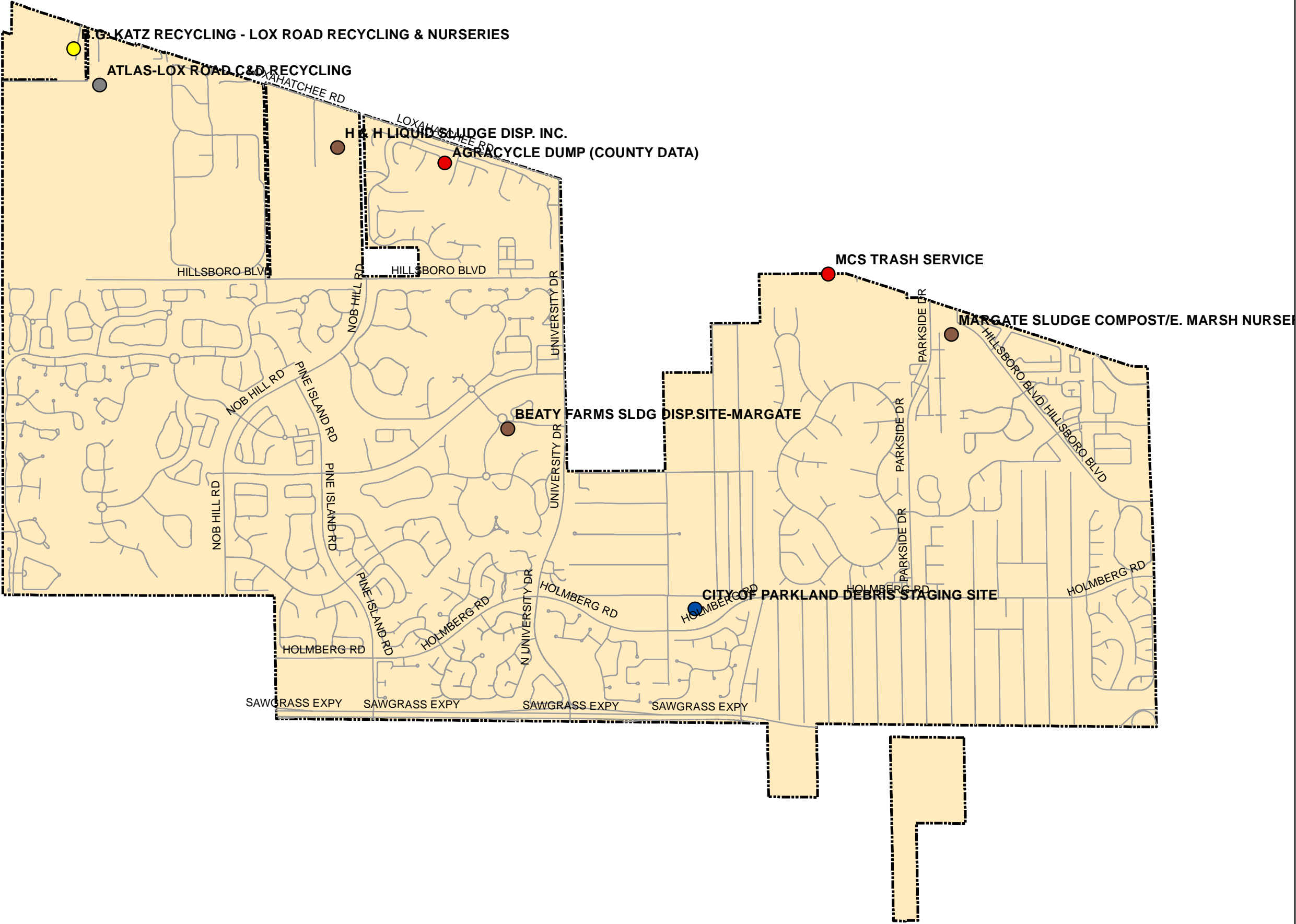


Map 5-12 *Solid Waste Disposal Sites*



City of Parkland

Map 5-12
Solid Waste
Disposal Sites



Facility Status

- Closed, No GW Monitoring
- Inactive
- NFA, No Further Action
- Proposed
- Registered
- Parkland Streets
- City of Parkland

N



0.5

Miles



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Appendix B: Native Plant Species that may occur in the City of Parkland

Scientific Name	Common Name	Family	Genus
Abildgaardia ovata	FLATSPIKE SEDGE	CYPERACEAE	Abildgaardia
Abrus precatorius	ROSARY PEA; BLACKEYED SUSAN	FABACEAE	Abrus
Abutilon permolle	COASTAL INDIAN MALLOW	MALVACEAE	Abutilon
Abutilon theophrasti	VELVETLEAF; BUTTERPRINT	MALVACEAE	Abutilon
Acacia auriculiformis	EARLEAF ACACIA	FABACEAE	Acacia
Acalypha alopecuroidea	FOXTAIL COPPERLEAF	EUPHORBIACEAE	Acalypha
Acalypha arvensis	FIELD COPPERLEAF	EUPHORBIACEAE	Acalypha
Acalypha gracilens	SLENDER THREESEED MERCURY	EUPHORBIACEAE	Acalypha
Acanthocereus tetragonus	TRIANGLE CACTUS; DILDOE CACTUS; BARBED-WIRE CACTUS	CACTACEAE	Acanthocereus
Acer rubrum	RED MAPLE	SAPINDACEAE	Acer
Achyranthes aspera	DEVIL'S HORSEWHIP	AMARANTHACEAE	Achyranthes
Achyranthes aspera var. pubescens	DEVIL'S HORSEWHIP	AMARANTHACEAE	Achyranthes
Acmella oppositifolia var. repens	OPPOSITELEAF SPOTFLOWER	ASTERACEAE	Acmella
Acrostichum aureum	GOLDEN LEATHER FERN	PTERIDACEAE	Acrostichum
Acrostichum danaeifolium	GIANT LEATHER FERN	PTERIDACEAE	Acrostichum
Adenantha pavonina	RED BEADTREE; RED SANDALWOOD	FABACEAE	Adenantha
Adiantum trapeziforme	DIAMOND MAIDENHAIR	PTERIDACEAE	Adiantum
Aeschynomene americana	SHYLEAF	FABACEAE	Aeschynomene
Aeschynomene pratensis	MEADOW JOINTVETCH	FABACEAE	Aeschynomene
Agalinis fasciculata	BEACH FALSE FOXGLOVE	OROBANCHACEAE	Agalinis
Agalinis filifolia	SEMINOLE FALSE FOXGLOVE	OROBANCHACEAE	Agalinis
Agalinis linifolia	FLAXLEAF FALSE FOXGLOVE	OROBANCHACEAE	Agalinis
Agalinis purpurea	PURPLE FALSE FOXGLOVE	OROBANCHACEAE	Agalinis
Agave angustifolia	CENTURY PLANT	AGAVACEAE	Agave
Agave sisalana	SISAL HEMP	AGAVACEAE	Agave
Agave weberi	WILD CENTURY PLANT	AGAVACEAE	Agave
Ageratina jucunda	HAMMOCK SNAKEROOT	ASTERACEAE	Ageratina
Ageratum conyzoides	TROPICAL WHITEWEED	ASTERACEAE	Ageratum
Ageratum houstonianum	BLUEMINK	ASTERACEAE	Ageratum
Albizia lebeck	WOMAN'S TONGUE	FABACEAE	Albizia
Aletris lutea	YELLOW COLICROOT	NARTECIACEAE	Aletris
Aleurites moluccanus	CANDLENUT TREE; INDIAN WALNUT	EUPHORBIACEAE	Aleurites
Allamanda cathartica	GOLDEN TRUMPET; BROWNBUD	APOCYNACEAE	Allamanda

	ALLAMANDA		
<i>Alocasia macrorrhizos</i>	GIANT TARO	ARACEAE	<i>Alocasia</i>
<i>Alstonia scholaris</i>	DITA; WHITE CHEESEWOOD	APOCYNACEAE	<i>Alstonia</i>
<i>Alternanthera brasiliana</i>	BRAZILIAN JOYWEED	AMARANTHACEAE	<i>Alternanthera</i>
<i>Alternanthera ficoidea</i>	SLENDER JOYWEED	AMARANTHACEAE	<i>Alternanthera</i>
<i>Alternanthera flavescens</i>	YELLOW JOYWEED	AMARANTHACEAE	<i>Alternanthera</i>
<i>Alternanthera maritima</i>	SEASIDE JOYWEED	AMARANTHACEAE	<i>Alternanthera</i>
<i>Alternanthera paronichyoides</i>	SMOOTH JOYWEED	AMARANTHACEAE	<i>Alternanthera</i>
<i>Alternanthera philoxeroides</i>	ALLIGATORWEED	AMARANTHACEAE	<i>Alternanthera</i>
<i>Alternanthera sessilis</i>	SESSILE JOYWEED	AMARANTHACEAE	<i>Alternanthera</i>
<i>Alysicarpus ovalifolius</i>	FALSE MONEYWORT; ALYCE CLOVER	FABACEAE	<i>Alysicarpus</i>
<i>Alysicarpus vaginalis</i>	WHITE MONEYWORT	FABACEAE	<i>Alysicarpus</i>
<i>Amaranthus australis</i>	SOUTHERN AMARANTH	AMARANTHACEAE	<i>Amaranthus</i>
<i>Amaranthus blitum</i> subsp. <i>emarginatus</i>	PURPLE AMARANTH	AMARANTHACEAE	<i>Amaranthus</i>
<i>Amaranthus hybridus</i>	SLIM AMARANTH; PIGWEED	AMARANTHACEAE	<i>Amaranthus</i>
<i>Amaranthus spinosus</i>	SPINY AMARANTH	AMARANTHACEAE	<i>Amaranthus</i>
<i>Amaranthus viridis</i>	SLENDER AMARANTH	AMARANTHACEAE	<i>Amaranthus</i>
<i>Ambrosia artemisiifolia</i>	COMMON RAGWEED	ASTERACEAE	<i>Ambrosia</i>
<i>Ambrosia trifida</i>	GIANT RAGWEED	ASTERACEAE	<i>Ambrosia</i>
<i>Ammannia coccinea</i>	VALLEY REDSTEM; SCARLET AMMANNIA	LYTHRACEAE	<i>Ammannia</i>
<i>Ammannia latifolia</i>	PINK REDSTEM; TOOTHCUPS	LYTHRACEAE	<i>Ammannia</i>
<i>Ammi majus</i>	LARGE BULLWORT	APIACEAE	<i>Ammi</i>
<i>Amorpha fruticosa</i>	BASTARD FALSE INDIGO	FABACEAE	<i>Amorpha</i>
<i>Ampelopsis arborea</i>	PEPPERVINE	VITACEAE	<i>Ampelopsis</i>
<i>Amphicarpum muhlenbergianum</i>	BLUE MAIDENCANE	POACEAE	<i>Amphicarpum</i>
<i>Amphitecna latifolia</i>	BLACK CALABASH	BIGNONIACEAE	<i>Amphitecna</i>
<i>Amyris elemifera</i>	SEA TORCHWOOD	RUTACEAE	<i>Amyris</i>
<i>Andropogon brachystachyus</i>	SHORTSPIKE BLUESTEM	POACEAE	<i>Andropogon</i>
<i>Andropogon floridanus</i>	FLORIDA BLUESTEM	POACEAE	<i>Andropogon</i>
<i>Andropogon glomeratus</i> var. <i>glaucopsis</i>	PURPLE BLUESTEM	POACEAE	<i>Andropogon</i>
<i>Andropogon glomeratus</i> var. <i>pumilus</i>	BUSHY BLUESTEM	POACEAE	<i>Andropogon</i>
<i>Andropogon longiberbis</i>	HAIRY BLUESTEM	POACEAE	<i>Andropogon</i>
<i>Andropogon ternarius</i>	SPLITBEARD BLUESTEM	POACEAE	<i>Andropogon</i>
<i>Andropogon virginicus</i>	BROOMSEDGE BLUESTEM	POACEAE	<i>Andropogon</i>
<i>Andropogon virginicus</i> var. <i>decipiens</i>	BROOMSEDGE BLUESTEM	POACEAE	<i>Andropogon</i>

Andropogon virginicus var. glaucus	CHALKY BLUESTEM	POACEAE	Andropogon
Anemia adiantifolia	MAIDENHAIR PINELAND FERN	SCHIZAEACEAE	Anemia
Annona glabra	POND APPLE	ANNONACEAE	Annona
Annona squamosa	SUGAR APPLE	ANNONACEAE	Annona
Anthurium schlechtendalii	BIRD'S NEST ANTHURIUM	ARACEAE	Anthurium
Antigonon leptopus	CORAL VINE; QUEEN'S JEWELS	POLYGONACEAE	Antigonon
Apios americana	GROUNDNUT	FABACEAE	Apios
Apteria aphylla	NODDING NIXIE	BURMANNIACEAE	Apteria
Arachis glabrata	GRASSNUT	FABACEAE	Arachis
Araucaria heterophylla	NORFOLK ISLAND PINE	ARAUCARIACEAE	Araucaria
Ardisia crenata	SCRATCHTHROAT	MYRSINACEAE	Ardisia
Ardisia elliptica	SHOEBUTTON	MYRSINACEAE	Ardisia
Ardisia escallonioides	MARLBERRY	MYRSINACEAE	Ardisia
Argemone albiflora	BLUESTEM PRICKLYPOPPY	PAPAVERACEAE	Argemone
Argemone mexicana	MEXICAN PRICKLYPOPPY	PAPAVERACEAE	Argemone
Argusia gnaphalodes	SEA ROSEMARY; SEA LAVENDER	BORAGINACEAE	Argusia
Argyreia nervosa	WOOLLY MORNING-GLORY; ELEPHANT CREEPER	CONVOLVULACEAE	Argyreia
Arisaema triphyllum	JACK-IN-THE-PULPIT	ARACEAE	Arisaema
Aristida gyrans	CORKSCREW THREEAWN	POACEAE	Aristida
Aristida palustris	LONGLEAF THREEAWN	POACEAE	Aristida
Aristida patula	TALL THREEAWN	POACEAE	Aristida
Aristida purpurascens	ARROWFEATHER THREEAWN	POACEAE	Aristida
Aristida purpurascens var. tenuispica	HILLSBORO THREEAWN	POACEAE	Aristida
Aristida purpurascens var. virgata	ARROWFEATHER THREEAWN	POACEAE	Aristida
Aristida rhizomophora	FLORIDA THREEAWN	POACEAE	Aristida
Aristida spiciformis	BOTTLEBRUSH THREEAWN	POACEAE	Aristida
Aristida stricta var. beyrichiana	WIREGRASS	POACEAE	Aristida
Aristolochia littoralis	ELEGANT DUTCHMAN'S-PIPE; CALICO FLOWER	ARISTOLOCHIACEAE	Aristolochia
Aristolochia pentandra	MARSH'S DUTCHMAN'S-PIPE	ARISTOLOCHIACEAE	Aristolochia
Arnoglossum ovatum	OVATELEAF INDIAN PLANTAIN	ASTERACEAE	Arnoglossum
Arundo donax	GIANT REED	POACEAE	Arundo
Asclepias curassavica	SCARLET MILKWEED; BLOODFLOWER	APOCYNACEAE	Asclepias
Asclepias curtissii	CURTISS' MILKWEED	APOCYNACEAE	Asclepias
Asclepias incarnata	SWAMP MILKWEED	APOCYNACEAE	Asclepias
Asclepias lanceolata	FEWFLOWER MILKWEED	APOCYNACEAE	Asclepias

<i>Asclepias pedicellata</i>	SAVANNAH MILKWEED	APOCYNACEAE	<i>Asclepias</i>
<i>Asclepias tuberosa</i>	BUTTERFLYWEED; BUTTERFLY MILKWEED	APOCYNACEAE	<i>Asclepias</i>
<i>Asclepias verticillata</i>	WHORLED MILKWEED	APOCYNACEAE	<i>Asclepias</i>
<i>Asemeia violacea</i>	SHOWY MILKWORT	POLYGALACEAE	<i>Asemeia</i>
<i>Asimina reticulata</i>	NETTED PAWPAW	ANNONACEAE	<i>Asimina</i>
<i>Asimina tetramera</i>	FOURPETAL PAWPAW	ANNONACEAE	<i>Asimina</i>
<i>Asparagus aethiopicus</i>	SPRENGER'S ASPARAGUS-FERN	ASPARAGACEAE	<i>Asparagus</i>
<i>Asparagus setaceus</i>	COMMON ASPARAGUS-FERN	ASPARAGACEAE	<i>Asparagus</i>
<i>Asplenium abscissum</i>	CUTLEAF SPLEENWORT	ASPLENIACEAE	<i>Asplenium</i>
<i>Asplenium dentatum</i>	TOOTHED SPLEENWORT; SLENDER SPLEENWORT	ASPLENIACEAE	<i>Asplenium</i>
<i>Asplenium serratum</i>	WILD BIRDNEST FERN; BIRD'S-NEST SPLEENWORT	ASPLENIACEAE	<i>Asplenium</i>
<i>Asystasia gangetica</i>	CHINESE VIOLET	ACANTHACEAE	<i>Asystasia</i>
<i>Atalantia buxifolia</i>	CHINESE BOXORANGE	RUTACEAE	<i>Atalantia</i>
<i>Atriplex pentandra</i>	CRESTED SALTBUCH	AMARANTHACEAE	<i>Atriplex</i>
<i>Avicennia germinans</i>	BLACK MANGROVE	AVICENNIACEAE	<i>Avicennia</i>
<i>Axonopus compressus</i>	TROPICAL CARPETGRASS; BROADLEAF CARPETGRASS	POACEAE	<i>Axonopus</i>
<i>Ayenia euphrasiifolia</i>	EYEBRIGHT AYENIA	MALVACEAE	<i>Ayenia</i>
<i>Azolla filiculoides</i>	AMERICAN WATERFERN; PACIFIC MOSQUITOFERN	AZOLLACEAE	<i>Azolla</i>
<i>Azolla pinnata</i> subsp. <i>asiatica</i>	FEATHERED MOSQUITOFERN	AZOLLACEAE	<i>Azolla</i>
<i>Baccharis angustifolia</i>	SALTWATER FALSEWILLOW	ASTERACEAE	<i>Baccharis</i>
<i>Baccharis glomeruliflora</i>	SILVERLING	ASTERACEAE	<i>Baccharis</i>
<i>Baccharis halimifolia</i>	GROUNDSEL TREE; SEA MYRTLE	ASTERACEAE	<i>Baccharis</i>
<i>Bacopa caroliniana</i>	LEMON BACOPA; BLUE WATERHYSSOP	PLANTAGINACEAE	<i>Bacopa</i>
<i>Bacopa innominata</i>	TROPICAL WATERHYSSOP	PLANTAGINACEAE	<i>Bacopa</i>
<i>Bacopa monnieri</i>	HERB-OF-GRACE	PLANTAGINACEAE	<i>Bacopa</i>
<i>Balduina angustifolia</i>	COASTALPLAIN HONEYCOMBHEAD	ASTERACEAE	<i>Balduina</i>
<i>Bambusa vulgaris</i>	COMMON BAMBOO	POACEAE	<i>Bambusa</i>
<i>Barleria cristata</i>	CRESTED PHILIPPINE VIOLET	ACANTHACEAE	<i>Barleria</i>
<i>Bartonia verna</i>	WHITE SCREWSTEM	GENTIANACEAE	<i>Bartonia</i>
<i>Bartonia virginica</i>	YELLOW SCREWSTEM	GENTIANACEAE	<i>Bartonia</i>
<i>Bauhinia purpurea</i>	PURPLE ORCHID TREE; BUTTERFLY TREE	FABACEAE	<i>Bauhinia</i>
<i>Bauhinia variegata</i>	ORCHID TREE; MOUNTAIN EBONY	FABACEAE	<i>Bauhinia</i>
<i>Bejaria racemosa</i>	TARFLOWER	ERICACEAE	<i>Bejaria</i>
<i>Bidens alba</i>	BEGGARTICKS; ROMERILLO	ASTERACEAE	<i>Bidens</i>
<i>Bidens bipinnata</i>	SPANISH NEEDLES	ASTERACEAE	<i>Bidens</i>

<i>Bidens laevis</i>	BURRMARIGOLD; SMOOTH BEGGARTICKS	ASTERACEAE	<i>Bidens</i>
<i>Bigelovia nudata</i> subsp. <i>australis</i>	PINELAND RAYLESS GOLDENROD	ASTERACEAE	<i>Bigelovia</i>
<i>Bignonia aequinoctialis</i>	GARLIC VINE	BIGNONIACEAE	<i>Bignonia</i>
<i>Bischofia javanica</i>	JAVANESE BISHOPWOOD	PHYLLANTHACEAE	<i>Bischofia</i>
<i>Blechnum serrulatum</i>	TOOTHED MIDSORUS FERN; SWAMP FERN	BLECHNACEAE	<i>Blechnum</i>
<i>Bletia purpurea</i>	PINEPINK	ORCHIDACEAE	<i>Bletia</i>
<i>Blutaparon vermiculare</i>	SAMPHIRE; SILVERHEAD	AMARANTHACEAE	<i>Blutaparon</i>
<i>Boehmeria cylindrica</i>	FALSE NETTLE; BOG HEMP	URTICACEAE	<i>Boehmeria</i>
<i>Boerhavia coccinea</i>	SCARLET SPIDERLING	NYCTAGINACEAE	<i>Boerhavia</i>
<i>Boerhavia diffusa</i>	RED SPIDERLING; WINEFLOWER	NYCTAGINACEAE	<i>Boerhavia</i>
<i>Boerhavia erecta</i>	ERECT SPIDERLING	NYCTAGINACEAE	<i>Boerhavia</i>
<i>Boltonia diffusa</i>	SMALLHEAD DOLL'S DAISY	ASTERACEAE	<i>Boltonia</i>
<i>Borrichia frutescens</i>	BUSHY SEASIDE OXEYE	ASTERACEAE	<i>Borrichia</i>
<i>Brassica juncea</i>	INDIA MUSTARD; LEAF MUSTARD	BRASSICACEAE	<i>Brassica</i>
<i>Brassica rapa</i>	RAPE; TURNIP	BRASSICACEAE	<i>Brassica</i>
<i>Broussonetia papyrifera</i>	PAPER MULBERRY	MORACEAE	<i>Broussonetia</i>
<i>Brugmansia suaveolens</i>	ANGEL'S TRUMPET	SOLANACEAE	<i>Brugmansia</i>
<i>Buchnera americana</i>	AMERICAN BLUEHEARTS	OROBANCHACEAE	<i>Buchnera</i>
<i>Buddleja indica</i>	INDOOR OAK	SCROPHULARIACEAE	<i>Buddleja</i>
<i>Bulbostylis barbata</i>	WATERGRASS	CYPERACEAE	<i>Bulbostylis</i>
<i>Bulbostylis ciliatifolia</i>	CAPILLARY HAIRSEEDGE	CYPERACEAE	<i>Bulbostylis</i>
<i>Bulbostylis stenophylla</i>	SANDYFIELD HAIRSEEDGE	CYPERACEAE	<i>Bulbostylis</i>
<i>Bulbostylis warei</i>	WARE'S HAIRSEEDGE	CYPERACEAE	<i>Bulbostylis</i>
<i>Burmannia biflora</i>	BLUETHREAD	BURMANNIACEAE	<i>Burmannia</i>
<i>Burmannia capitata</i>	SOUTHERN BLUETHREAD	BURMANNIACEAE	<i>Burmannia</i>
<i>Bursera simaruba</i>	GUMBO LIMBO	BURSERACEAE	<i>Bursera</i>
<i>Cabomba caroliniana</i>	CAROLINA FANWORT	CABOMBACEAE	<i>Cabomba</i>
<i>Caesalpinia bonduc</i>	GRAY NICKER	FABACEAE	<i>Caesalpinia</i>
<i>Caesalpinia crista</i>	YELLOW NICKER	FABACEAE	<i>Caesalpinia</i>
<i>Caesalpinia major</i>	HAWAII PEARLS; YELLOW NICKER	FABACEAE	<i>Caesalpinia</i>
<i>Cajanus cajan</i>	PIGEONPEA	FABACEAE	<i>Cajanus</i>
<i>Cakile lanceolata</i>	COASTAL SEAROCKET	BRASSICACEAE	<i>Cakile</i>
<i>Calliandra haematocephala</i>	POWDERPUFF TREE	FABACEAE	<i>Calliandra</i>
<i>Callicarpa americana</i>	AMERICAN BEAUTYBERRY	LAMIACEAE	<i>Callicarpa</i>
<i>Callisia cordifolia</i>	FLORIDA ROSELING	COMMELINACEAE	<i>Callisia</i>
<i>Callisia fragrans</i>	BASKETPLANT	COMMELINACEAE	<i>Callisia</i>
<i>Callisia ornata</i>	FLORIDA SCRUB ROSELING	COMMELINACEAE	<i>Callisia</i>

<i>Callisia repens</i>	CREeping INCHPLANT	COMMELINACEAE	<i>Callisia</i>
<i>Callitris glaucophylla</i>	WHITE CYPRESS-PINE	CUPRESSACEAE	<i>Callitris</i>
<i>Calophyllum antillanum</i>	SANTA MARIA; GALBA; ANTILLES CALOPHYLLUM	CLUSIACEAE	<i>Calophyllum</i>
<i>Calopogon barbatus</i>	BEARDED GRASSPINK	ORCHIDACEAE	<i>Calopogon</i>
<i>Calopogon multiflorus</i>	MANYFLOWERED GRASSPINK	ORCHIDACEAE	<i>Calopogon</i>
<i>Calopogon pallidus</i>	PALE GRASSPINK	ORCHIDACEAE	<i>Calopogon</i>
<i>Calopogon tuberosus</i>	TUBEROUS GRASSPINK	ORCHIDACEAE	<i>Calopogon</i>
<i>Calopogon tuberosus</i> var. <i>simpsonii</i>	SIMPSON'S GRASSPINK	ORCHIDACEAE	<i>Calopogon</i>
<i>Calyptocarpus vialis</i>	STRAGGLER DAISY	ASTERACEAE	<i>Calyptocarpus</i>
<i>Calystegia sepium</i> subsp. <i>limnophila</i>	HEDGE FALSE BINDWEED	CONVOLVULACEAE	<i>Calystegia</i>
<i>Campanula floridana</i>	FLORIDA BELLFLOWER	CAMPANULACEAE	<i>Campanula</i>
<i>Campyloneurum phyllitidis</i>	LONG STRAP FERN	POLYPODIACEAE	<i>Campyloneurum</i>
<i>Canavalia brasiliensis</i>	BRAZILIAN JACKBEAN	FABACEAE	<i>Canavalia</i>
<i>Canavalia rosea</i>	BAYBEAN; SEASIDE JACKBEAN	FABACEAE	<i>Canavalia</i>
<i>Canna flaccida</i>	BANDANNA-OF-THE-EVERGLADES	CANNACEAE	<i>Canna</i>
<i>Cannabis sativa</i>	HEMP; MARIJUANA	CANNABACEAE	<i>Cannabis</i>
<i>Caperonia castaneifolia</i>	CHESTNUTLEAF FALSECROTON	EUPHORBIACEAE	<i>Caperonia</i>
<i>Caperonia palustris</i>	SACATRAPO	EUPHORBIACEAE	<i>Caperonia</i>
<i>Capparis flexuosa</i>	BAYLEAF CAPERTREE	BRASSICACEAE	<i>Capparis</i>
<i>Capraria biflora</i>	GOATWEED	SCROPHULARIACEAE	<i>Capraria</i>
<i>Capsicum annuum</i> var. <i>glabriusculum</i>	BIRD PEPPER	SOLANACEAE	<i>Capsicum</i>
<i>Capsicum frutescens</i>	TABASCO PEPPER	SOLANACEAE	<i>Capsicum</i>
<i>Cardamine pensylvanica</i>	PENNSYLVANIA BITTERCRESS	BRASSICACEAE	<i>Cardamine</i>
<i>Cardiospermum microcarpum</i>	HEARTSEED	SAPINDACEAE	<i>Cardiospermum</i>
<i>Carex longii</i>	LONG'S SEDGE	CYPERACEAE	<i>Carex</i>
<i>Carex verrucosa</i>	WARTY SEDGE	CYPERACEAE	<i>Carex</i>
<i>Carex vexans</i>	FLORIDA HAMMOCK SEDGE	CYPERACEAE	<i>Carex</i>
<i>Carica papaya</i>	PAPAYA	CARICACEAE	<i>Carica</i>
<i>Carissa macrocarpa</i>	NATAL PLUM	APOCYNACEAE	<i>Carissa</i>
<i>Carphephorus corymbosus</i>	COASTALPLAIN CHAFFHEAD; FLORIDA PAINTBRUSH	ASTERACEAE	<i>Carphephorus</i>
<i>Carphephorus odoratissimus</i> var. <i>subtropicus</i>	PINELAND PURPLE; FALSE VANILLALEAF	ASTERACEAE	<i>Carphephorus</i>
<i>Carphephorus paniculatus</i>	HAIRY CHAFFHEAD	ASTERACEAE	<i>Carphephorus</i>
<i>Carya aquatica</i>	WATER HICKORY	JUGLANDACEAE	<i>Carya</i>
<i>Carya floridana</i>	SCRUB HICKORY	JUGLANDACEAE	<i>Carya</i>

<i>Caryota mitis</i>	BURMESE FISHTAIL PALM	ARECACEAE	<i>Caryota</i>
<i>Cassytha filiformis</i>	LOVE VINE; DEVIL'S GUT	LAURACEAE	<i>Cassytha</i>
<i>Casuarina cunninghamiana</i>	RIVER SHEOAK	CASUARINACEAE	<i>Casuarina</i>
<i>Casuarina equisetifolia</i>	AUSTRALIAN-PINE; HORSETAIL CASUARINA	CASUARINACEAE	<i>Casuarina</i>
<i>Casuarina glauca</i>	GRAY SHEOAK; SUCKERING AUSTRALIAN-PINE	CASUARINACEAE	<i>Casuarina</i>
<i>Catharanthus roseus</i>	MADAGASCAR PERIWINKLE	APOCYNACEAE	<i>Catharanthus</i>
<i>Catopsis floribunda</i>	FLORIDA STRAP AIRPLANT; MANY- FLOWERED AIRPLANT	BROMELIACEAE	<i>Catopsis</i>
<i>Cecropia palmata</i>	TRUMPET TREE	CECROPIACEAE	<i>Cecropia</i>
<i>Celtis laevigata</i>	SUGARBERRY; HACKBERRY	CANNABACEAE	<i>Celtis</i>
<i>Cenchrus ciliaris</i>	BUFFELGRASS	POACEAE	<i>Cenchrus</i>
<i>Cenchrus echinatus</i>	SOUTHERN SANDBUR	POACEAE	<i>Cenchrus</i>
<i>Cenchrus gracillimus</i>	SLENDER SANDBUR	POACEAE	<i>Cenchrus</i>
<i>Cenchrus spinifex</i>	COASTAL SANDBUR	POACEAE	<i>Cenchrus</i>
<i>Cenchrus tribuloides</i>	SANDDUNE SANDBUR	POACEAE	<i>Cenchrus</i>
<i>Centella asiatica</i>	SPADELEAF	APIACEAE	<i>Centella</i>
<i>Centrosema virginianum</i>	SPURRED BUTTERFLY PEA	FABACEAE	<i>Centrosema</i>
<i>Cephalanthus occidentalis</i>	COMMON BUTTONBUSH	RUBIACEAE	<i>Cephalanthus</i>
<i>Ceratiola ericoides</i>	FLORIDA ROSEMARY; SAND HEATH	ERICACEAE	<i>Ceratiola</i>
<i>Ceratophyllum demersum</i>	COONTAIL	CERATOPHYLLACEAE	<i>Ceratophyllum</i>
<i>Ceratopteris pteridoides</i>	WATER HORN FERN	PTERIDACEAE	<i>Ceratopteris</i>
<i>Ceratopteris thalictroides</i>	WATERSPRITE	PTERIDACEAE	<i>Ceratopteris</i>
<i>Cestrum diurnum</i>	DAYFLOWERING JESSAMINE	SOLANACEAE	<i>Cestrum</i>
<i>Chamaecrista fasciculata</i>	PARTRIDGE PEA	FABACEAE	<i>Chamaecrista</i>
<i>Chamaecrista nictitans</i> var. <i>aspera</i>	SENSITIVE PEA	FABACEAE	<i>Chamaecrista</i>
<i>Chamaecrista pilosa</i>	HAIRY SENSITIVE PEA	FABACEAE	<i>Chamaecrista</i>
<i>Chamaedorea seifrizii</i>	BAMBOO PALM	ARECACEAE	<i>Chamaedorea</i>
<i>Chamaesyce blodgettii</i>	LIMESTONE SANDMAT	EUPHORBIACEAE	<i>Chamaesyce</i>
<i>Chamaesyce bombensis</i>	DIXIE SANDMAT	EUPHORBIACEAE	<i>Chamaesyce</i>
<i>Chamaesyce conferta</i>	EVERGLADE KEY SANDMAT	EUPHORBIACEAE	<i>Chamaesyce</i>
<i>Chamaesyce cumulicola</i>	COASTAL DUNE SANDMAT; SAND DUNE SPURGE	EUPHORBIACEAE	<i>Chamaesyce</i>
<i>Chamaesyce hirta</i>	PILLPOD SANDMAT	EUPHORBIACEAE	<i>Chamaesyce</i>
<i>Chamaesyce hypericifolia</i>	GRACEFUL SANDMAT	EUPHORBIACEAE	<i>Chamaesyce</i>
<i>Chamaesyce hyssopifolia</i>	HYSSOPLEAF SANDMAT	EUPHORBIACEAE	<i>Chamaesyce</i>
<i>Chamaesyce lasiocarpa</i>	ROADSIDE SANDMAT	EUPHORBIACEAE	<i>Chamaesyce</i>
<i>Chamaesyce maculata</i>	SPOTTED SANDMAT	EUPHORBIACEAE	<i>Chamaesyce</i>

Chamaesyce mendezii	MENDEZ'S SANDMAT	EUPHORBIACEAE	Chamaesyce
Chamaesyce mesembrianthemifolia	COASTAL BEACH SANDMAT	EUPHORBIACEAE	Chamaesyce
Chamaesyce ophthalmica	FLORIDA HAMMOCK SANDMAT	EUPHORBIACEAE	Chamaesyce
Chamaesyce prostrata	PROSTRATE SANDMAT	EUPHORBIACEAE	Chamaesyce
Chamaesyce thymifolia	GULF SANDMAT	EUPHORBIACEAE	Chamaesyce
Chapmannia floridana	FLORIDA ALICIA	FABACEAE	Chapmannia
Chaptalia tomentosa	WOOLLY SUNBONNETS; PINELAND DAISY	ASTERACEAE	Chaptalia
Chenopodium murale	NETTLELEAF GOOSEFOOT	AMARANTHACEAE	Chenopodium
Chenopodium album	LAMB'S-QUARTERS	AMARANTHACEAE	Chenopodium
Chiococca alba	SNOWBERRY; MILKBERRY	RUBIACEAE	Chiococca
Chromolaena odorata	JACK-IN-THE-BUSH	ASTERACEAE	Chromolaena
Chrysobalanus icaco	COCO PLUM	CHRYSOBALANACEAE	Chrysobalanus
Chrysophyllum oliviforme	SATINLEAF	SAPOTACEAE	Chrysophyllum
Chrysopogon pauciflorus	FLORIDA FALSE BEARDGRASS	POACEAE	Chrysopogon
Chrysopsis delaneyi	DELANEY'S GOLDENASTER	ASTERACEAE	Chrysopsis
Chrysopsis scabrella	COASTALPLAIN GOLDENASTER	ASTERACEAE	Chrysopsis
Cicuta maculata	SPOTTED WATER HEMLOCK	APIACEAE	Cicuta
Cirsium horridulum	PURPLE THISTLE	ASTERACEAE	Cirsium
Cirsium nuttallii	NUTTALL'S THISTLE	ASTERACEAE	Cirsium
Cissus verticillata	SEASONVINE; POSSUM GRAPE	VITACEAE	Cissus
Citharexylum spinosum	FLORIDA FIDDLEWOOD	VERBENACEAE	Citharexylum
Cladium jamaicense	JAMAICA SWAMP SAWGRASS	CYPERACEAE	Cladium
Clematis baldwinii	PINE-HYACINTH	RANUNCULACEAE	Clematis
Cleome gynandra	SPIDERWISP	BRASSICACEAE	Cleome
Cleome hassleriana	PINKQUEEN SPIDERFLOWER	BRASSICACEAE	Cleome
Cleome ruidosperma	FRINGED SPIDERFLOWER	BRASSICACEAE	Cleome
Clerodendrum bungei	ROSE GLORYBOWER	LAMIACEAE	Clerodendrum
Clerodendrum chinense	STICKBUSH	LAMIACEAE	Clerodendrum
Clerodendrum indicum	TURK'S TURBAN; SKYROCKET	LAMIACEAE	Clerodendrum
Clerodendrum quadriloculare	STARBURST BUSH; SHOOTING STAR	LAMIACEAE	Clerodendrum
Clerodendrum speciosissimum	JAVANESE GLORYBOWER	LAMIACEAE	Clerodendrum
Clerodendrum X speciosum	JAVA GLORY BEAN; PAGODA FLOWER	LAMIACEAE	Clerodendrum
Clinopodium brownei	BROWNE'S SAVORY	LAMIACEAE	Clinopodium
Clitoria mariana	ATLANTIC PIGEONWINGS	FABACEAE	Clitoria
Clusia rosea	PITCHAPPLE; SCOTCH ATTORNEY	CLUSIACEAE	Clusia
Cnidoscolus stimulosus	TREAD-SOFTLY; FINGER-ROT	EUPHORBIACEAE	Cnidoscolus
Coccoloba diversifolia	TIETONGUE; PIGEON PLUM	POLYGONACEAE	Coccoloba

Coccoloba uvifera	SEAGRAPE	POLYGONACEAE	Coccoloba
Coccothrinax argentata	FLORIDA SILVER PALM	ARECACEAE	Coccothrinax
Coelorachis rugosa	WRINKLED JOINTTAILGRASS	POACEAE	Coelorachis
Colocasia esculenta	WILD TARO; DASHEEN; COCO YAM	ARACEAE	Colocasia
Colubrina asiatica	LATHERLEAF; ASIAN NAKEDWOOD	RHAMNACEAE	Colubrina
Combretum indicum	RANGOON CREEPER	COMBRETACEAE	Combretum
Commelina diffusa	COMMON DAYFLOWER	COMMELINACEAE	Commelina
Commelina diffusa var. gigas	CLIMBING DAYFLOWER	COMMELINACEAE	Commelina
Commelina erecta	WHITEMOUTH DAYFLOWER	COMMELINACEAE	Commelina
Commelina gambiae	GAMBIAN DAYFLOWER	COMMELINACEAE	Commelina
Condea verticillata	JOHN CHARLES	LAMIACEAE	Condea
Conocarpus erectus	BUTTONWOOD	COMBRETACEAE	Conocarpus
Conoclinium coelestinum	BLUE MISTFLOWER	ASTERACEAE	Conoclinium
Conradina grandiflora	LARGEFLOWER FALSE ROSEMARY	LAMIACEAE	Conradina
Conyza canadensis	CANADIAN HORSEWEED	ASTERACEAE	Conyza
Corchorus aestuans	JUTE	MALVACEAE	Corchorus
Cordia curassavica	BLACK SAGE	BORAGINACEAE	Cordia
Cordia dichotoma	FRAGRANT MANJACK	BORAGINACEAE	Cordia
Coreopsis floridana	FLORIDA TICKSEED	ASTERACEAE	Coreopsis
Coreopsis leavenworthii	LEAVENWORTH'S TICKSEED	ASTERACEAE	Coreopsis
Costus pulverulentus	SPIRAL GINGER	COSTACEAE	Costus
Crassocephalum crepidioides	REDFLOWER RAGLEAF	ASTERACEAE	Crassocephalum
Crinum americanum	SEVEN-SISTERS; STRING-LILY	AMARYLLIDACEAE	Crinum
Crocanthemum corymbosum	PINEBARREN FROSTWEED	CISTACEAE	Crocanthemum
Crocanthemum nashii	FLORIDA SCRUB FROSTWEED	CISTACEAE	Crocanthemum
Crotalaria incana	SHAKESHAKE	FABACEAE	Crotalaria
Crotalaria lanceolata	LANCELEAF RATTLEBOX	FABACEAE	Crotalaria
Crotalaria pallida var. obovata	SMOOTH RATTLEBOX	FABACEAE	Crotalaria
Crotalaria pumila	LOW RATTLEBOX	FABACEAE	Crotalaria
Crotalaria retusa	RATTLEWEED	FABACEAE	Crotalaria
Crotalaria rotundifolia	RABBITBELLS	FABACEAE	Crotalaria
Crotalaria spectabilis	SHOWY RATTLEBOX	FABACEAE	Crotalaria
Croton glandulosus var. floridanus	VENTE CONMIGO	EUPHORBIACEAE	Croton
Croton glandulosus var. septentrionalis	VENTE CONMIGO	EUPHORBIACEAE	Croton
Croton linearis	PINELAND CROTON; GRANNYBUSH	EUPHORBIACEAE	Croton
Croton michauxii	RUSHFOIL; MICHAUX'S CROTON	EUPHORBIACEAE	Croton
Croton punctatus	GULF CROTON; BEACH TEA	EUPHORBIACEAE	Croton

<i>Cryptostegia madagascariensis</i>	MADAGASCAR RUBBERVINE	APOCYNACEAE	<i>Cryptostegia</i>
<i>Ctenitis sloanei</i>	FLORIDA TREE FERN; RED-HAIR COMB FERN	DRYOPTERIDACEAE	<i>Ctenitis</i>
<i>Ctenitis submarginalis</i>	BROWN-HAIR COMB FERN	DRYOPTERIDACEAE	<i>Ctenitis</i>
<i>Ctenium aromaticum</i>	TOOTHACHEGRASS	POACEAE	<i>Ctenium</i>
<i>Cucumis melo</i>	CANTALOUPE	CUCURBITACEAE	<i>Cucumis</i>
<i>Cucurbita okeechobeensis</i>	OKEECHOBEE GOURD	CUCURBITACEAE	<i>Cucurbita</i>
<i>Cupaniopsis anacardioides</i>	CARROTWOOD	SAPINDACEAE	<i>Cupaniopsis</i>
<i>Cuphea carthagenensis</i>	COLOMBIAN WAXWEED	LYTHRACEAE	<i>Cuphea</i>
<i>Cuphea strigulosa</i>	STIFFHAIR WAXWEED	LYTHRACEAE	<i>Cuphea</i>
<i>Cuscuta exaltata</i>	TALL DODDER	CONVOLVULACEAE	<i>Cuscuta</i>
<i>Cuscuta pentagona</i>	FIVEANGLED DODDER	CONVOLVULACEAE	<i>Cuscuta</i>
<i>Cuscuta umbellata</i>	FLATGLOBE DODDER	CONVOLVULACEAE	<i>Cuscuta</i>
<i>Cyanthillium cinereum</i>	LITTLE IRONWEED	ASTERACEAE	<i>Cyanthillium</i>
<i>Cyclospermum leptophyllum</i>	MARSH PARSLEY	APIACEAE	<i>Cyclospermum</i>
<i>Cynanchum scoparium</i>	LEAFLESS SWALLOWWORT	APOCYNACEAE	<i>Cynanchum</i>
<i>Cynodon dactylon</i>	BERMUDAGRASS	POACEAE	<i>Cynodon</i>
<i>Cynodon nlemfuensis</i>	AFRICAN BERMUDAGRASS	POACEAE	<i>Cynodon</i>
<i>Cynoglossum zeylanicum</i>	CEYLON HOUND'S TONGUE	BORAGINACEAE	<i>Cynoglossum</i>
<i>Cyperus alopecuroides</i>	FOXTAIL FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus articulatus</i>	JOINTED FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus compressus</i>	POORLAND FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus croceus</i>	BALDWIN'S FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus distinctus</i>	SWAMP FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus elegans</i>	ROYAL FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus esculentus</i>	YELLOW NUTGRASS; CHUFA FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus flavescens</i>	YELLOW FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus haspan</i>	HASPAN FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus involucratus</i>	UMBRELLA PLANT	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus iria</i>	RICEFIELD FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus lecontei</i>	LECONTE'S FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus ligularis</i>	SWAMP FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus ochraceus</i>	POND FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus odoratus</i>	FRAGRANT FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus ovatus</i>	PINEBARREN FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus papyrus</i>	PAPYRUS FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus pedunculatus</i>	BEACHSTAR	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus planifolius</i>	FLATLEAF FLATSEDEGE	CYPERACEAE	<i>Cyperus</i>

<i>Cyperus polystachyos</i>	MANYSPIKE FLATSEEDGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus prolifer</i>	DWARF PAPYRUS; MINIATURE FLATSEEDGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus rotundus</i>	NUTGRASS	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus sphaelatus</i>	ROADSIDE FLATSEEDGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus surinamensis</i>	TROPICAL FLATSEEDGE	CYPERACEAE	<i>Cyperus</i>
<i>Cyperus tetragonus</i>	FOURANGLE FLATSEEDGE	CYPERACEAE	<i>Cyperus</i>
<i>Dactyloctenium aegyptium</i>	DURBAN CROWFOOTGRASS	POACEAE	<i>Dactyloctenium</i>
<i>Dalbergia ecastaphyllum</i>	COINVINE	FABACEAE	<i>Dalbergia</i>
<i>Dalbergia sissoo</i>	INDIAN ROSEWOOD	FABACEAE	<i>Dalbergia</i>
<i>Dalea carnea</i>	WHITETASSELS	FABACEAE	<i>Dalea</i>
<i>Dalea carthagenensis</i> var. <i>floridana</i>	FLORIDA PRAIRIECLOVER	FABACEAE	<i>Dalea</i>
<i>Dalea feayi</i>	FEAY'S PRAIRIECLOVER	FABACEAE	<i>Dalea</i>
<i>Dalea pinnata</i> var. <i>adenopoda</i>	SUMMER FAREWELL	FABACEAE	<i>Dalea</i>
<i>Dalechampia scandens</i>	SPURGE CREEPER	EUPHORBIACEAE	<i>Dalechampia</i>
<i>Delonix regia</i>	ROYAL POINCIANA	FABACEAE	<i>Delonix</i>
<i>Dennstaedtia bipinnata</i>	BIPINNATE CUPLET FERN; CUPLET FERN	DENNSTAEDTIACEAE	<i>Dennstaedtia</i>
<i>Descurainia pinnata</i>	WESTERN TANSYMUSTARD	BRASSICACEAE	<i>Descurainia</i>
<i>Desmodium incanum</i>	ZARZABACOA COMUN	FABACEAE	<i>Desmodium</i>
<i>Desmodium paniculatum</i>	PANICLED TICKTREFOIL	FABACEAE	<i>Desmodium</i>
<i>Desmodium tortuosum</i>	DIXIE TICKTREFOIL	FABACEAE	<i>Desmodium</i>
<i>Desmodium triflorum</i>	THREEFLOWER TICKTREFOIL	FABACEAE	<i>Desmodium</i>
<i>Dichanthelium aciculare</i>	NEEDLELEAF WITCHGRASS	POACEAE	<i>Dichanthelium</i>
<i>Dichanthelium commutatum</i>	VARIABLE WITCHGRASS	POACEAE	<i>Dichanthelium</i>
<i>Dichanthelium dichotomum</i>	CYPRESS WITCHGRASS	POACEAE	<i>Dichanthelium</i>
<i>Dichanthelium ensifolium</i>	CYPRESS WITCHGRASS	POACEAE	<i>Dichanthelium</i>
<i>Dichanthelium ensifolium</i> var. <i>breve</i>	DWARF CYPRESS WITCHGRASS	POACEAE	<i>Dichanthelium</i>
<i>Dichanthelium ensifolium</i> var. <i>unciphyllum</i>	CYPRESS WITCHGRASS	POACEAE	<i>Dichanthelium</i>
<i>Dichanthelium erectifolium</i>	ERECTLEAF WITCHGRASS	POACEAE	<i>Dichanthelium</i>
<i>Dichanthelium laxiflorum</i>	OPENFLOWER WITCHGRASS	POACEAE	<i>Dichanthelium</i>
<i>Dichanthelium leucothrix</i>	ROUGH WITCHGRASS	POACEAE	<i>Dichanthelium</i>
<i>Dichanthelium ovale</i>	EGGLEAF WITCHGRASS	POACEAE	<i>Dichanthelium</i>
<i>Dichanthelium portoricense</i>	HEMLOCK WITCHGRASS	POACEAE	<i>Dichanthelium</i>
<i>Dichanthelium strigosum</i> var. <i>glabrescens</i>	ROUGHHAIR WITCHGRASS	POACEAE	<i>Dichanthelium</i>
<i>Dichondra carolinensis</i>	CAROLINA PONYSFOOT	CONVOLVULACEAE	<i>Dichondra</i>
<i>Dichondra micrantha</i>	SMALLFLOWERED PONYSFOOT	CONVOLVULACEAE	<i>Dichondra</i>

Dichrostachys cinerea subsp. africana	AROMA	FABACEAE	Dichrostachys
Dicliptera sexangularis	SIXANGLE FOLDWING	ACANTHACEAE	Dicliptera
Dicranopteris flexuosa	DROOPING FORKED FERN	GLEICHENIACEAE	Dicranopteris
Dieffenbachia seguine	DUMB CANE	ARACEAE	Dieffenbachia
Digitaria bicornis	ASIAN CRABGRASS	POACEAE	Digitaria
Digitaria ciliaris	SOUTHERN CRABGRASS	POACEAE	Digitaria
Digitaria eriantha	PANGOLAGRASS	POACEAE	Digitaria
Digitaria filiformis	SLENDER CRABGRASS; SHAGGY CRABGRASS	POACEAE	Digitaria
Digitaria horizontalis	JAMAICAN CRABGRASS	POACEAE	Digitaria
Digitaria insularis	SOURGRASS	POACEAE	Digitaria
Digitaria longiflora	INDIAN CRABGRASS	POACEAE	Digitaria
Digitaria serotina	BLANKET CRABGRASS; DWARF CRABGRASS	POACEAE	Digitaria
Digitaria violascens	VIOLET CRABGRASS	POACEAE	Digitaria
Dimocarpus longan	LONGAN	SAPINDACEAE	Dimocarpus
Diodia virginiana	VIRGINIA BUTTONWEED	RUBIACEAE	Diodia
Dioscorea alata	WHITE YAM	DIOSCOREACEAE	Dioscorea
Dioscorea bulbifera	AIR-POTATO	DIOSCOREACEAE	Dioscorea
Diospyros ebenum	EBONY	EBENACEAE	Diospyros
Diospyros virginiana	COMMON PERSIMMON	EBENACEAE	Diospyros
Distichlis spicata	SALTGRASS	POACEAE	Distichlis
Dodonaea viscosa	VARNISHLEAF; FLORIDA HOPBUSH	SAPINDACEAE	Dodonaea
Dolichandra unguis-cati	CATCLAWVINE	BIGNONIACEAE	Dolichandra
Drosera capillaris	PINK SUNDEW	DROSERACEAE	Drosera
Drymaria cordata	DRYMARY; WEST INDIAN CHICKWEED	CARYOPHYLLACEAE	Drymaria
Drypetes lateriflora	GUIANA PLUM	PUTRANJIVACEAE	Drypetes
Dypsis lutescens	ARECA PALM	ARECACEAE	Dypsis
Dyschoriste angusta	PINELAND TWINFLOWER; PINELAND SNAKEHERB	ACANTHACEAE	Dyschoriste
Dysphania ambrosioides	MEXICAN TEA	AMARANTHACEAE	Dysphania
Echinochloa colona	JUNGLE RICE	POACEAE	Echinochloa
Echinochloa crus-galli	BARNYARDGRASS	POACEAE	Echinochloa
Echinochloa muricata	ROUGH BARNYARDGRASS	POACEAE	Echinochloa
Echinochloa paludigena	FLORIDA COCKSPUR	POACEAE	Echinochloa
Echinochloa walteri	COAST COCKSPUR	POACEAE	Echinochloa
Echites umbellatus	DEVIL'S POTATO; RUBBERVINE	APOCYNACEAE	Echites
Eclipta prostrata	FALSE DAISY	ASTERACEAE	Eclipta

<i>Egeria densa</i>	BRAZILIAN WATERWEED	HYDROCHARITACEAE	<i>Egeria</i>
<i>Eichhornia crassipes</i>	COMMON WATER-HYACINTH	PONTEDERIACEAE	<i>Eichhornia</i>
<i>Eleocharis albida</i>	WHITE SPIKERUSH	CYPERACEAE	<i>Eleocharis</i>
<i>Eleocharis baldwinii</i>	BALDWIN'S SPIKERUSH; ROADGRASS	CYPERACEAE	<i>Eleocharis</i>
<i>Eleocharis cellulosa</i>	GULF COAST SPIKERUSH	CYPERACEAE	<i>Eleocharis</i>
<i>Eleocharis elongata</i>	SLIM SPIKERUSH	CYPERACEAE	<i>Eleocharis</i>
<i>Eleocharis flavescens</i>	YELLOW SPIKERUSH; PALE SPIKERUSH	CYPERACEAE	<i>Eleocharis</i>
<i>Eleocharis geniculata</i>	CANADA SPIKERUSH	CYPERACEAE	<i>Eleocharis</i>
<i>Eleocharis interstincta</i>	KNOTTED SPIKERUSH	CYPERACEAE	<i>Eleocharis</i>
<i>Eleocharis nigrescens</i>	BLACK SPIKERUSH	CYPERACEAE	<i>Eleocharis</i>
<i>Eleocharis vivipara</i>	VIVIPAROUS SPIKERUSH	CYPERACEAE	<i>Eleocharis</i>
<i>Elephantopus elatus</i>	TALL ELEPHANTSFOOT	ASTERACEAE	<i>Elephantopus</i>
<i>Eleusine indica</i>	INDIAN GOOSEGRASS	POACEAE	<i>Eleusine</i>
<i>Elionurus tripsacoides</i>	PAN-AMERICAN BALSAMSCALE	POACEAE	<i>Elionurus</i>
<i>Eltroplectris calcarata</i>	LONGCLAW ORCHID; SPURRED NEOTTIA	ORCHIDACEAE	<i>Eltroplectris</i>
<i>Elytraria caroliniensis</i>	CAROLINA SCALYSTEM	ACANTHACEAE	<i>Elytraria</i>
<i>Emilia fosbergii</i>	FLORIDA TASSELFLOWER	ASTERACEAE	<i>Emilia</i>
<i>Emilia sonchifolia</i>	LILAC TASSELFLOWER	ASTERACEAE	<i>Emilia</i>
<i>Encyclia tampensis</i>	FLORIDA BUTTERFLY ORCHID	ORCHIDACEAE	<i>Encyclia</i>
<i>Enterolobium contortisiliquum</i>	EARPOD TREE	FABACEAE	<i>Enterolobium</i>
<i>Epidendrum anceps</i>	DINGY-FLOWERED STAR ORCHID; DINGY-FLOWERED EPIDENDRUM	ORCHIDACEAE	<i>Epidendrum</i>
<i>Epidendrum floridense</i>	UMBRELLA STAR ORCHID; UMBELLED EPIDENDRUM	ORCHIDACEAE	<i>Epidendrum</i>
<i>Epidendrum nocturnum</i>	NIGHT-SCENTED ORCHID; NIGHT- SCENTED EPIDENDRUM	ORCHIDACEAE	<i>Epidendrum</i>
<i>Epidendrum rigidum</i>	STIFF-FLOWER STAR ORCHID; RIGID EPIDENDRUM	ORCHIDACEAE	<i>Epidendrum</i>
<i>Epipremnum pinnatum</i>	GOLDEN POTHOS	ARACEAE	<i>Epipremnum</i>
<i>Equisetum hyemale</i> var. <i>affine</i>	SCOURING-RUSH	EQUISETACEAE	<i>Equisetum</i>
<i>Eragrostis amabilis</i>	FEATHER LOVEGRASS	POACEAE	<i>Eragrostis</i>
<i>Eragrostis atrovirens</i>	THALIA LOVEGRASS	POACEAE	<i>Eragrostis</i>
<i>Eragrostis bahiensis</i>	BAHIA LOVEGRASS	POACEAE	<i>Eragrostis</i>
<i>Eragrostis cilianensis</i>	STINKGRASS	POACEAE	<i>Eragrostis</i>
<i>Eragrostis ciliaris</i>	GOPHERTAIL LOVEGRASS	POACEAE	<i>Eragrostis</i>
<i>Eragrostis elliottii</i>	ELLIOTT'S LOVEGRASS	POACEAE	<i>Eragrostis</i>
<i>Eragrostis gangetica</i>	SLIMFLOWER LOVEGRASS	POACEAE	<i>Eragrostis</i>
<i>Eragrostis pilosa</i>	INDIAN LOVEGRASS	POACEAE	<i>Eragrostis</i>
<i>Eragrostis scaligera</i>	TENDER LOVEGRASS	POACEAE	<i>Eragrostis</i>

Eragrostis spectabilis	PURPLE LOVEGRASS	POACEAE	Eragrostis
Eragrostis virginica	COASTAL LOVEGRASS	POACEAE	Eragrostis
Erechtites hieraciifolius	AMERICAN BURNWEED; FIREWEED	ASTERACEAE	Erechtites
Eremochloa ophiuroides	CENTIPEDEGRASS	POACEAE	Eremochloa
Erigeron quercifolius	OAKLEAF FLEABANE	ASTERACEAE	Erigeron
Erigeron vernus	EARLY WHITETOP FLEABANE	ASTERACEAE	Erigeron
Eriobotrya japonica	LOQUAT	ROSACEAE	Eriobotrya
Eriocaulon compressum	FLATTENED PIPEWORT	ERIOCAULACEAE	Eriocaulon
Eriocaulon decangulare	TENANGLE PIPEWORT	ERIOCAULACEAE	Eriocaulon
Eriocaulon ravenelii	RAVENEL'S PIPEWORT	ERIOCAULACEAE	Eriocaulon
Eriochloa contracta	PRAIRIE CUPGRASS	POACEAE	Eriochloa
Eriochloa michauxii	MICHAUX'S CUPGRASS	POACEAE	Eriochloa
Eriochloa polystachya	CARIBGRASS	POACEAE	Eriochloa
Erithalis fruticosa	BLACKTORCH	RUBIACEAE	Erithalis
Ernodea littoralis	BEACH CREEPER; COUGHBUSH	RUBIACEAE	Ernodea
Erucastrum gallicum	COMMON DOGMUSTARD	BRASSICACEAE	Erucastrum
Eryngium aromaticum	FRAGRANT ERYNGO	APIACEAE	Eryngium
Eryngium baldwinii	BALDWIN'S ERYNGO	APIACEAE	Eryngium
Eryngium yuccifolium	BUTTON RATTLESNAKEMASTER; BUTTON ERYNGO	APIACEAE	Eryngium
Erythrina herbacea	CORALBEAN; CHEROKEE BEAN	FABACEAE	Erythrina
Eucalyptus grandis	GRAND EUCALYPTUS	MYRTACEAE	Eucalyptus
Eucalyptus torelliana	TORELL'S EUCALYPTUS; CADAGA	MYRTACEAE	Eucalyptus
Eugenia axillaris	WHITE STOPPER	MYRTACEAE	Eugenia
Eugenia foetida	SPANISH STOPPER; BOXLEAF STOPPER	MYRTACEAE	Eugenia
Eugenia uniflora	SURINAM CHERRY	MYRTACEAE	Eugenia
Eulophia alta	WILD COCO	ORCHIDACEAE	Eulophia
Eulophia graminea		ORCHIDACEAE	Eulophia
Eupatorium capillifolium	DOGFENNEL	ASTERACEAE	Eupatorium
Eupatorium leptophyllum	FALSEFENNEL	ASTERACEAE	Eupatorium
Eupatorium mikanioides	SEMAPHORE THOROUGHWORT	ASTERACEAE	Eupatorium
Eupatorium mohrii	MOHR'S THOROUGHWORT	ASTERACEAE	Eupatorium
Eupatorium serotinum	LATEFLOWERING THOROUGHWORT	ASTERACEAE	Eupatorium
Euphorbia graminea	GRASSLEAF SPURGE	EUPHORBIACEAE	Euphorbia
Euphorbia milii	CROWN-OF-THORNS; CHRISTPLANT	EUPHORBIACEAE	Euphorbia
Euphorbia polyphylla	LESSER FLORIDA SPURGE	EUPHORBIACEAE	Euphorbia
Euphorbia trichotoma	SANDDUNE SPURGE	EUPHORBIACEAE	Euphorbia
Eustachys glauca	SALTMARSH FINGERGRASS	POACEAE	Eustachys

Eustachys petraea	PINEWOODS FINGERGRASS	POACEAE	Eustachys
Eustoma exaltatum	MARSH GENTIAN; CATCHFLY PRAIRIE-GENTIAN	GENTIANACEAE	Eustoma
Euthamia caroliniana	SLENDER FLATTOP GOLDENROD	ASTERACEAE	Euthamia
Evolvulus alsinoides	SLENDER DWARF MORNING-GLORY	CONVOLVULACEAE	Evolvulus
Evolvulus sericeus	SILVER DWARF MORNING-GLORY	CONVOLVULACEAE	Evolvulus
Exothea paniculata	INKWOOD; BUTTERBOUGH	SAPINDACEAE	Exothea
Fagopyrum esculentum	BUCKWHEAT	POLYGONACEAE	Fagopyrum
Fatoua villosa	HAIRY CRABWEED; MULBERRYWEED	MORACEAE	Fatoua
Ficus altissima	COUNCIL TREE	MORACEAE	Ficus
Ficus aurea	STRANGLER FIG; GOLDEN FIG	MORACEAE	Ficus
Ficus benghalensis	BANYAN TREE	MORACEAE	Ficus
Ficus citrifolia	WILD BANYAN TREE	MORACEAE	Ficus
Ficus microcarpa	INDIAN LAUREL	MORACEAE	Ficus
Fimbristylis autumnalis	SLENDER FIMBRY	CYPERACEAE	Fimbristylis
Fimbristylis caroliniana	CAROLINA FIMBRY	CYPERACEAE	Fimbristylis
Fimbristylis cymosa	HURRICANEGRASS	CYPERACEAE	Fimbristylis
Fimbristylis dichotoma	FORKED FIMBRY	CYPERACEAE	Fimbristylis
Fimbristylis puberula	HAIRY FIMBRY	CYPERACEAE	Fimbristylis
Fimbristylis schoenoides	DITCH FIMBRY	CYPERACEAE	Fimbristylis
Fimbristylis spadicea	MARSH FIMBRY	CYPERACEAE	Fimbristylis
Flacourtia indica	GOVERNOR'S PLUM	SALICACEAE	Flacourtia
Flaveria linearis	NARROWLEAF YELLOWTOPS	ASTERACEAE	Flaveria
Flaveria trinervia	CLUSTERED YELLOWTOPS	ASTERACEAE	Flaveria
Forestiera segregata	FLORIDA SWAMPPRIVET	OLEACEAE	Forestiera
Froelichia floridana	COTTONWEED; PLAINS SNAKECOTTON	AMARANTHACEAE	Froelichia
Fuirena breviseta	SALTMARSH UMBRELLASEDGE	CYPERACEAE	Fuirena
Fuirena scirpoidea	SOUTHERN UMBRELLASEDGE	CYPERACEAE	Fuirena
Fuirena umbellata	YEFEN; TROPICAL UMBRELLASEDGE	CYPERACEAE	Fuirena
Fumaria officinalis	DRUG FUMITORY; EARTHSMOKE	PAPAVERACEAE	Fumaria
Gaillardia pulchella	FIREWHEEL	ASTERACEAE	Gaillardia
Galactia elliotii	ELLIOTT'S MILKPEA	FABACEAE	Galactia
Galactia regularis	DOWNY MILKPEA	FABACEAE	Galactia
Galactia volubilis	EASTERN MILKPEA	FABACEAE	Galactia
Galinsoga quadriradiata	PERUVIAN DAISY; SHAGGYSOLDIER	ASTERACEAE	Galinsoga
Galium hispidulum	COASTAL BEDSTRAW	RUBIACEAE	Galium
Galium tinctorium	STIFF MARSH BEDSTRAW	RUBIACEAE	Galium
Gamochaeta antillana	CARIBBEAN PURPLE EVERLASTING; DELICATE EVERLASTING	ASTERACEAE	Gamochaeta

Gamochaeta pensylvanica	PENNSYLVANIA EVERLASTING; PENNSYLVANIA CUDWEED	ASTERACEAE	Gamochaeta
Gamochaeta purpurea	SPOONLEAF PURPLE EVERLASTING; SPOONLEAF CUDWEED	ASTERACEAE	Gamochaeta
Gaylussacia dumosa	DWARF HUCKLEBERRY	ERICACEAE	Gaylussacia
Gelsemium sempervirens	YELLOW JESSAMINE; CAROLINA JESSAMINE; EVENING TRUMPETFLOWER	GELSEMIACEAE	Gelsemium
Genipa clusiifolia	SEVENYEAR APPLE	RUBIACEAE	Genipa
Geranium carolinianum	CAROLINA CRANESBILL	GERANIACEAE	Geranium
Glandularia maritima	COASTAL MOCK VERVAIN	VERBENACEAE	Glandularia
Gloriosa superba	FLAMELILY	COLCHICACEAE	Gloriosa
Glycosmis parviflora	FLOWER AXISTREE	RUTACEAE	Glycosmis
Gomphrena serrata	PROSTRATE GLOBE AMARANTH; ARRASA CON TODO	AMARANTHACEAE	Gomphrena
Gordonia lasianthus	LOBLOLLY BAY	THEACEAE	Gordonia
Gossypium hirsutum	UPLAND COTTON; WILD COTTON	MALVACEAE	Gossypium
Gratiola hispida	ROUGH HEDGEHYSSOP	PLANTAGINACEAE	Gratiola
Gratiola pilosa	SHAGGY HEDGEHYSSOP	PLANTAGINACEAE	Gratiola
Gratiola ramosa	BRANCHED HEDGEHYSSOP	PLANTAGINACEAE	Gratiola
Grevillea robusta	SILKOAK	PROTEACEAE	Grevillea
Guapira discolor	BEEFTREE; BLOLLY	NYCTAGINACEAE	Guapira
Guettarda elliptica	HAMMOCK VELVETSEED	RUBIACEAE	Guettarda
Guettarda scabra	ROUGH VELVETSEED	RUBIACEAE	Guettarda
Gymnanthes lucida	CRABWOOD; OYSTERWOOD	EUPHORBIACEAE	Gymnanthes
Gymnopogon ambiguus	BEARDED SKELETONGRASS	POACEAE	Gymnopogon
Gymnopogon chapmanianus	CHAPMAN'S SKELETONGRASS	POACEAE	Gymnopogon
Gynura aurantiaca	VELVETPLANT	ASTERACEAE	Gynura
Habenaria floribunda	TOOTHPETAL FALSE REINORCHID; MIGNONETTE ORCHID	ORCHIDACEAE	Habenaria
Habenaria nivea	SNOWY ORCHID	ORCHIDACEAE	Habenaria
Habenaria repens	WATERSPIDER FALSE REINORCHID	ORCHIDACEAE	Habenaria
Halodule wrightii	SHOALWEED	CYMODOCEACEAE	Halodule
Halophila decipiens	CARIBBEAN SEAGRASS	HYDROCHARITACEAE	Halophila
Halophila engelmannii	ENGELMANN'S SEAGRASS	HYDROCHARITACEAE	Halophila
Halophila johnsonii	JOHNSON'S SEAGRASS	HYDROCHARITACEAE	Halophila
Hamelia patens	FIREBUSH	RUBIACEAE	Hamelia
Harrisella porrecta	NEEDLEROOT AIRPLANT ORCHID; THREADROOT ORCHID	ORCHIDACEAE	Harrisella
Helenium amarum	SPANISH DAISY; BITTERWEED	ASTERACEAE	Helenium

<i>Helenium pinnatifidum</i>	SOUTHEASTERN SNEEZEWEED	ASTERACEAE	<i>Helenium</i>
<i>Helianthus annuus</i>	COMMON SUNFLOWER	ASTERACEAE	<i>Helianthus</i>
<i>Helianthus debilis</i>	EAST COAST DUNE SUNFLOWER	ASTERACEAE	<i>Helianthus</i>
<i>Heliconia latispatha</i>	EXPANDED LOBSTERCLAW	HELICONIACEAE	<i>Heliconia</i>
<i>Heliotropium angiospermum</i>	SCORPIONSTAIL	BORAGINACEAE	<i>Heliotropium</i>
<i>Heliotropium curassavicum</i>	SEASIDE HELIOTROPE; SALT HELIOTROPE	BORAGINACEAE	<i>Heliotropium</i>
<i>Heliotropium polyphyllum</i>	PINELAND HELIOTROPE	BORAGINACEAE	<i>Heliotropium</i>
<i>Heteranthera limosa</i>	BLUE MUDPLANTAIN	PONTEDERIACEAE	<i>Heteranthera</i>
<i>Heteropogon contortus</i>	TANGLEHEAD	POACEAE	<i>Heteropogon</i>
<i>Heterotheca subaxillaris</i>	CAMPORWEED	ASTERACEAE	<i>Heterotheca</i>
<i>Hibiscus acetosella</i>	AFRICAN ROSEMALLOW	MALVACEAE	<i>Hibiscus</i>
<i>Hibiscus coccineus</i>	SCARLET ROSEMALLOW	MALVACEAE	<i>Hibiscus</i>
<i>Hibiscus furcellatus</i>	LINDENLEAF ROSEMALLOW	MALVACEAE	<i>Hibiscus</i>
<i>Hibiscus grandiflorus</i>	SWAMP ROSEMALLOW	MALVACEAE	<i>Hibiscus</i>
<i>Hibiscus rosa-sinensis</i> var. <i>schizopetalus</i>	FRINGED ROSEMALLOW	MALVACEAE	<i>Hibiscus</i>
<i>Hieracium megacephalon</i>	COASTALPLAIN HAWKWEED	ASTERACEAE	<i>Hieracium</i>
<i>Hiptage benghalensis</i>	HIPTAGE	MALPIGHIACEAE	<i>Hiptage</i>
<i>Houstonia procumbens</i>	INNOCENCE; ROUNDEAF BLUET	RUBIACEAE	<i>Houstonia</i>
<i>Hydrilla verticillata</i>	WATERTHyme; HYDRILLA	HYDROCHARITACEAE	<i>Hydrilla</i>
<i>Hydrocotyle bonariensis</i>	LARGELEAF MARSHPENNYWORT	ARALIACEAE	<i>Hydrocotyle</i>
<i>Hydrocotyle umbellata</i>	MANYFLOWER MARSHPENNYWORT	ARALIACEAE	<i>Hydrocotyle</i>
<i>Hydrocotyle verticillata</i>	WHORLED MARSHPENNYWORT	ARALIACEAE	<i>Hydrocotyle</i>
<i>Hydrolea corymbosa</i>	SKYFLOWER	HYDROLEACEAE	<i>Hydrolea</i>
<i>Hygrophila corymbosa</i>	STARHORN	ACANTHACEAE	<i>Hygrophila</i>
<i>Hygrophila polysperma</i>	INDIAN SWAMPWEED	ACANTHACEAE	<i>Hygrophila</i>
<i>Hymenachne amplexicaulis</i>	TROMPETILLA	POACEAE	<i>Hymenachne</i>
<i>Hymenocallis palmeri</i>	ALLIGATORLILY	AMARYLLIDACEAE	<i>Hymenocallis</i>
<i>Hyparrhenia rufa</i>	JARAGUA	POACEAE	<i>Hyparrhenia</i>
<i>Hypericum brachyphyllum</i>	COASTALPLAIN ST.JOHN'S-WORT	CLUSIACEAE	<i>Hypericum</i>
<i>Hypericum cistifolium</i>	ROUNDPOD ST.JOHN'S-WORT	CLUSIACEAE	<i>Hypericum</i>
<i>Hypericum fasciculatum</i>	SANDWEED; PEELBARK ST.JOHN'S- WORT	CLUSIACEAE	<i>Hypericum</i>
<i>Hypericum gentianoides</i>	PINEWEEDS; ORANGEGRASS	CLUSIACEAE	<i>Hypericum</i>
<i>Hypericum hypericoides</i>	ST.ANDREW'S-CROSS	CLUSIACEAE	<i>Hypericum</i>
<i>Hypericum mutilum</i>	DWARF ST.JOHN'S-WORT	CLUSIACEAE	<i>Hypericum</i>
<i>Hypericum myrtifolium</i>	MYRTLELEAF ST.JOHN'S-WORT	CLUSIACEAE	<i>Hypericum</i>
<i>Hypericum tenuifolium</i>	ATLANTIC ST.JOHN'S-WORT	CLUSIACEAE	<i>Hypericum</i>

<i>Hypericum tetrapetalum</i>	FOURPETAL ST.JOHN'S-WORT	CLUSIACEAE	<i>Hypericum</i>
<i>Hypoxis curtissii</i>	COMMON YELLOW STARGRASS	HYPOXIDACEAE	<i>Hypoxis</i>
<i>Hypoxis juncea</i>	FRINGED YELLOW STARGRASS	HYPOXIDACEAE	<i>Hypoxis</i>
<i>Hypoxis wrightii</i>	BRISTLESEED YELLOW STARGRASS	HYPOXIDACEAE	<i>Hypoxis</i>
<i>Hyptis alata</i>	CLUSTERED BUSHMINT; MUSKY MINT	LAMIACEAE	<i>Hyptis</i>
<i>Ilex cassine</i>	DAHOON	AQUIFOLIACEAE	<i>Ilex</i>
<i>Ilex glabra</i>	INKBERRY; GALLBERRY	AQUIFOLIACEAE	<i>Ilex</i>
<i>Ilex opaca</i>	AMERICAN HOLLY	AQUIFOLIACEAE	<i>Ilex</i>
<i>Indigofera caroliniana</i>	CAROLINA INDIGO	FABACEAE	<i>Indigofera</i>
<i>Indigofera hirsuta</i>	HAIRY INDIGO	FABACEAE	<i>Indigofera</i>
<i>Indigofera miniata</i>	COASTAL INDIGO	FABACEAE	<i>Indigofera</i>
<i>Indigofera spicata</i>	TRAILING INDIGO	FABACEAE	<i>Indigofera</i>
<i>Indigofera suffruticosa</i>	ANIL DE PASTO	FABACEAE	<i>Indigofera</i>
<i>Ionopsis utricularioides</i>	DELICATE VIOLET ORCHID; DELICATE IONOPSIS ORCHID	ORCHIDACEAE	<i>Ionopsis</i>
<i>Ipomoea alba</i>	MOONFLOWERS; TROPICAL WHITE MORNING-GLORY	CONVOLVULACEAE	<i>Ipomoea</i>
<i>Ipomoea asarifolia</i>	GINGER-LEAF MORNING-GLORY	CONVOLVULACEAE	<i>Ipomoea</i>
<i>Ipomoea batatas</i>	SWEETPOTATO	CONVOLVULACEAE	<i>Ipomoea</i>
<i>Ipomoea cairica</i>	MILE-A-MINUTE VINE	CONVOLVULACEAE	<i>Ipomoea</i>
<i>Ipomoea cordatotriloba</i>	TIEVINE	CONVOLVULACEAE	<i>Ipomoea</i>
<i>Ipomoea hederifolia</i>	SCARLETCREEPER	CONVOLVULACEAE	<i>Ipomoea</i>
<i>Ipomoea imperati</i>	BEACH MORNING-GLORY	CONVOLVULACEAE	<i>Ipomoea</i>
<i>Ipomoea indica</i>	OCEANBLUE MORNING-GLORY	CONVOLVULACEAE	<i>Ipomoea</i>
<i>Ipomoea lacunosa</i>	WHITESTAR	CONVOLVULACEAE	<i>Ipomoea</i>
<i>Ipomoea pes-caprae</i> subsp. <i>brasiliensis</i>	RAILROAD VINE; BAYHOPS	CONVOLVULACEAE	<i>Ipomoea</i>
<i>Ipomoea quamoclit</i>	CYPRESSVINE	CONVOLVULACEAE	<i>Ipomoea</i>
<i>Ipomoea sagittata</i>	SALTMARSH MORNING-GLORY	CONVOLVULACEAE	<i>Ipomoea</i>
<i>Ipomoea triloba</i>	LITTLEBELL	CONVOLVULACEAE	<i>Ipomoea</i>
<i>Ipomoea x leucantha</i>		CONVOLVULACEAE	<i>Ipomoea</i>
<i>Iresine diffusa</i>	JUBA'S BUSH	AMARANTHACEAE	<i>Iresine</i>
<i>Iris hexagona</i>	DIXIE IRIS; PRAIRIE IRIS	IRIDACEAE	<i>Iris</i>
<i>Itea virginica</i>	VIRGINIA WILLOW; VIRGINIA SWEETSPIRE	ITEACEAE	<i>Itea</i>
<i>Iva imbricata</i>	SEACOAST MARSHELDER	ASTERACEAE	<i>Iva</i>
<i>Iva microcephala</i>	PIEDMONT MARSHELDER	ASTERACEAE	<i>Iva</i>
<i>Ixora coccinea</i>	SCARLET JUNGLEFLAME	RUBIACEAE	<i>Ixora</i>
<i>Ixora pavetta</i>	SMALLFLOWER JUNGLEFLAME	RUBIACEAE	<i>Ixora</i>

Jacquemontia pentanthos	SKYBLUE CLUSTERVINE	CONVOLVULACEAE	Jacquemontia
Jacquemontia reclinata	BEACH CLUSTERVINE; BEACH JACQUEMONTIA	CONVOLVULACEAE	Jacquemontia
Jacquemontia tamnifolia	HAIRY CLUSTERVINE	CONVOLVULACEAE	Jacquemontia
Jacquinia arborea	BRACELETWOOD	THEOPHRASTACEAE	Jacquinia
Jasminum dichotomum	GOLD COAST JASMINE	OLEACEAE	Jasminum
Jasminum fluminense	BRAZILIAN JASMINE; JAZMIN DE TRAPO	OLEACEAE	Jasminum
Jasminum grandiflorum	POET'S JASMINE	OLEACEAE	Jasminum
Jasminum sambac	ARABIAN JASMINE	OLEACEAE	Jasminum
Jatropha curcas	NUTMEG PLANT; PHYSIC NUT; BARBADOS NUT	EUPHORBIACEAE	Jatropha
Jatropha gossypifolia	BELLYACHE BUSH	EUPHORBIACEAE	Jatropha
Jatropha integerrima	PEREGRINA	EUPHORBIACEAE	Jatropha
Juncus marginatus	SHORE RUSH; GRASSLEAF RUSH	JUNCACEAE	Juncus
Juncus megacephalus	BIGHEAD RUSH	JUNCACEAE	Juncus
Juncus paludosus		JUNCACEAE	Juncus
Juncus scirpoides	NEEDLEPOD RUSH	JUNCACEAE	Juncus
Justicia angusta	PINELAND WATERWILLOW	ACANTHACEAE	Justicia
Justicia spicigera	MEXICAN HONEYSUCKLE; MOHINTLE	ACANTHACEAE	Justicia
Kalanchoe blossfeldiana	MADAGASCAR WIDOW'S-THRILL; CHRISTMAS KALANCHOE	CRASSULACEAE	Kalanchoe
Kalanchoe daigremontiana	DEVIL'S BACKBONE	CRASSULACEAE	Kalanchoe
Kalanchoe delagoensis	CHANDELIER PLANT	CRASSULACEAE	Kalanchoe
Kalanchoe fedtschenkoi	LAVENDER SCALLOPS	CRASSULACEAE	Kalanchoe
Kalanchoe pinnata	CATHEDRAL BELLS; LIFE PLANT	CRASSULACEAE	Kalanchoe
Kallstroemia maxima	BIG CALTROP	ZYGOPHYLLACEAE	Kallstroemia
Khaya senegalensis	AFRICAN MAHOGANY	MELIACEAE	Khaya
Koelreuteria elegans subsp. formosana	FLAMEGOLD	SAPINDACEAE	Koelreuteria
Kosteletzkya pentacarpos	VIRGINIA SALTMARSH MALLOW	MALVACEAE	Kosteletzkya
Krugiodendron ferreum	BLACK IRONWOOD; LEADWOOD	RHAMNACEAE	Krugiodendron
Kyllinga brevifolia	SHORTLEAF SPIKESEDGE	CYPERACEAE	Kyllinga
Kyllinga odorata	FRAGRANT SPIKESEDGE	CYPERACEAE	Kyllinga
Lachnanthes carolina	CAROLINA REDROOT	HAEMODORACEAE	Lachnanthes
Lachnocaulon anceps	WHITEHEAD BOGBUTTON	ERIOCAULACEAE	Lachnocaulon
Lachnocaulon beyrichianum	SOUTHERN BOGBUTTON	ERIOCAULACEAE	Lachnocaulon
Lachnocaulon engleri	ENGLER'S BOGBUTTON	ERIOCAULACEAE	Lachnocaulon
Lachnocaulon minus	SMALL'S BOGBUTTON	ERIOCAULACEAE	Lachnocaulon
Lactuca graminifolia	GRASSLEAF LETTUCE	ASTERACEAE	Lactuca

Laguncularia racemosa	WHITE MANGROVE	COMBRETACEAE	Laguncularia
Lantana camara	LANTANA; SHRUBVERBENA	VERBENACEAE	Lantana
Lantana involucrata	BUTTONSAGE	VERBENACEAE	Lantana
Laportea aestuans	WEST INDIAN WOODNETTLE	URTICACEAE	Laportea
Lasiacis divaricata	SMALLCANE; FLORIDA TIBISEE	POACEAE	Lasiacis
Lechea cernua	NODDING PINWEED; SCRUB PINWEED	CISTACEAE	Lechea
Lechea deckertii	DECKERT'S PINWEED	CISTACEAE	Lechea
Lechea divaricata	DRYSAND PINWEED; SPREADING PINWEED	CISTACEAE	Lechea
Lechea sessiliflora	PINELAND PINWEED	CISTACEAE	Lechea
Lechea torreyi	PIEDMONT PINWEED	CISTACEAE	Lechea
Leersia hexandra	SOUTHERN CUTGRASS	POACEAE	Leersia
Lemna aequinoctialis	LESSER DUCKWEED	ARACEAE	Lemna
Lemna obscura	LITTLE DUCKWEED	ARACEAE	Lemna
Lepidium didymum	LESSER SWINECRESS	BRASSICACEAE	Lepidium
Lepidium virginicum	VIRGINIA PEPPERWEED	BRASSICACEAE	Lepidium
Leptochloa fusca subsp. fascicularis	BEARDED SPRANGLETOP	POACEAE	Leptochloa
Leptochloa fusca subsp. uninervia	MEXICAN SPRANGLETOP	POACEAE	Leptochloa
Leptochloa panicea subsp. mucronata	RED SPRANGLETOP	POACEAE	Leptochloa
Leptospron adenanthum	WILD PEA	FABACEAE	Leptospron
Leucaena leucocephala	WHITE LEADTREE	FABACEAE	Leucaena
Liatris chapmanii	CHAPMAN'S GAYFEATHER	ASTERACEAE	Liatris
Liatris garberi	GARBER'S GAYFEATHER	ASTERACEAE	Liatris
Liatris gracilis	SLENDER GAYFEATHER	ASTERACEAE	Liatris
Liatris spicata	DENSE GAYFEATHER	ASTERACEAE	Liatris
Liatris tenuifolia var. quadriflora	SHORTLEAF GAYFEATHER	ASTERACEAE	Liatris
Licania michauxii	GOPHER APPLE	CHRYSOBALANACEAE	Licania
Lilium catesbaei	CATESBY'S LILY; PINE LILY	LILIACEAE	Lilium
Linaria canadensis	CANADIAN TOADFLAX	PLANTAGINACEAE	Linaria
Linaria floridana	APALACHICOLA TOADFLAX	PLANTAGINACEAE	Linaria
Lindernia crustacea	MALAYSIAN FALSE PIMPERNEL	LINDERNIACEAE	Lindernia
Lindernia dubia	MOISTBANK PIMPERNEL; YELLOWSEED FALSE PIMPERNEL	LINDERNIACEAE	Lindernia
Lindernia grandiflora	SAVANNAH FALSE PIMPERNEL	LINDERNIACEAE	Lindernia
Linum floridanum	FLORIDA YELLOW FLAX	LINACEAE	Linum
Linum medium var. texanum	STIFF YELLOW FLAX	LINACEAE	Linum
Lippia stoechadifolia	SOUTHERN FOGFRUIT; SOUTHERN MATCHSTICKS	VERBENACEAE	Lippia

Livistona chinensis	CHINESE FAN PALM	ARECACEAE	Livistona
Lobelia feayana	BAY LOBELIA	CAMPANULACEAE	Lobelia
Lobelia glandulosa	GLADE LOBELIA	CAMPANULACEAE	Lobelia
Lobelia paludosa	WHITE LOBELIA	CAMPANULACEAE	Lobelia
Lobularia maritima	SEASIDE LOBULARIA; SWEET ALYSSUM	BRASSICACEAE	Lobularia
Lonicera japonica	JAPANESE HONEYSUCKLE	CAPRIFOLIACEAE	Lonicera
Ludwigia alata	WINGED PRIMROSEWILLOW	ONAGRACEAE	Ludwigia
Ludwigia curtissii	CURTISS' PRIMROSEWILLOW	ONAGRACEAE	Ludwigia
Ludwigia erecta	YERBA DE JICOTEA	ONAGRACEAE	Ludwigia
Ludwigia grandiflora	LARGEFLOWER PRIMROSEWILLOW	ONAGRACEAE	Ludwigia
Ludwigia leptocarpa	ANGLESTEM PRIMROSEWILLOW	ONAGRACEAE	Ludwigia
Ludwigia linifolia	SOUTHEASTERN PRIMROSEWILLOW	ONAGRACEAE	Ludwigia
Ludwigia maritima	SEASIDE PRIMROSEWILLOW	ONAGRACEAE	Ludwigia
Ludwigia microcarpa	SMALLFRUIT PRIMROSEWILLOW	ONAGRACEAE	Ludwigia
Ludwigia octovalvis	MEXICAN PRIMROSEWILLOW	ONAGRACEAE	Ludwigia
Ludwigia peploides subsp. glabrescens	FLOATING PRIMROSEWILLOW	ONAGRACEAE	Ludwigia
Ludwigia peruviana	PERUVIAN PRIMROSEWILLOW	ONAGRACEAE	Ludwigia
Ludwigia pilosa	HAIRY PRIMROSEWILLOW	ONAGRACEAE	Ludwigia
Ludwigia repens	CREEPING PRIMROSEWILLOW	ONAGRACEAE	Ludwigia
Ludwigia suffruticosa	SHRUBBY PRIMROSEWILLOW	ONAGRACEAE	Ludwigia
Lupinus diffusus	SKYBLUE LUPINE	FABACEAE	Lupinus
Luziola fluitans	SOUTHERN WATERGRASS	POACEAE	Luziola
Lycopodiella appressa	SOUTHERN CLUB-MOSS; SOUTHERN BOG CLUB-MOSS	LYCOPODIACEAE	Lycopodiella
Lycopodiella caroliniana	SLENDER CLUB-MOSS	LYCOPODIACEAE	Lycopodiella
Lycopodiella cernua	NODDING CLUB-MOSS; STAGHORN CLUB-MOSS	LYCOPODIACEAE	Lycopodiella
Lygodesmia aphylla	ROSE-RUSH	ASTERACEAE	Lygodesmia
Lygodium japonicum	JAPANESE CLIMBING FERN	SCHIZAEACEAE	Lygodium
Lygodium microphyllum	SMALL-LEAF CLIMBING FERN	SCHIZAEACEAE	Lygodium
Lyonia fruticosa	COASTALPLAIN STAGGERBUSH	ERICACEAE	Lyonia
Lyonia lucida	FETTERBUSH	ERICACEAE	Lyonia
Lythrum alatum var. lanceolatum	WINGED LOOSESTRIFE	LYTHRACEAE	Lythrum
Lythrum lineare	WAND LOOSESTRIFE	LYTHRACEAE	Lythrum
Macroptilium atropurpureum	PURPLE BUSHBEAN	FABACEAE	Macroptilium
Macroptilium lathyroides	WILD BUSHBEAN	FABACEAE	Macroptilium
Macrothelypteris torresiana	MARIANA MAIDEN FERN	THELYPTERIDACEAE	Macrothelypteris
Magnolia virginiana	SWEETBAY	MAGNOLIACEAE	Magnolia

Malachra capitata	MALVA DE CABALLO	MALVACEAE	Malachra
Malvastrum corchorifolium	FALSE MALLOW	MALVACEAE	Malvastrum
Malvaviscus penduliflorus	MAZAPAN; TURKSCAP MALLOW	MALVACEAE	Malvaviscus
Mangifera indica	MANGO	ANACARDIACEAE	Mangifera
Manilkara zapota	SAPODILLA	SAPOTACEAE	Manilkara
Marshallia graminifolia	GRASSLEAF BARBARA'S BUTTONS	ASTERACEAE	Marshallia
Mazus pumilus	JAPANESE MAZUS	MAZACEAE	Mazus
Mecardonia acuminata subsp. peninsularis	AXILFLOWER	PLANTAGINACEAE	Mecardonia
Mecardonia procumbens	BABY JUMPUP	PLANTAGINACEAE	Mecardonia
Melaleuca quinquenervia	PUNKTREE	MYRTACEAE	Melaleuca
Melanthera nivea	SNOW SQUARESTEM	ASTERACEAE	Melanthera
Melia azedarach	CHINABERRYTREE	MELIACEAE	Melia
Melicoccus bijugatus	SPANISH LIME	SAPINDACEAE	Melicoccus
Melinis minutiflora	MOLASSESGRASS	POACEAE	Melinis
Melinis repens	ROSE NATALGRASS	POACEAE	Melinis
Melochia corchorifolia	CHOCOLATEWEED	MALVACEAE	Melochia
Melochia pyramidata	PYRAMIDFLOWER	MALVACEAE	Melochia
Melothria pendula	CREEPING CUCUMBER	CUCURBITACEAE	Melothria
Mentzelia floridana	POORMAN'S PATCH; STICKLEAF	LOASACEAE	Mentzelia
Merremia cissoides	ROADSIDE WOODROSE	CONVOLVULACEAE	Merremia
Merremia dissecta	NOYAU VINE	CONVOLVULACEAE	Merremia
Merremia tuberosa	SPANISH ARBORVINE; YELLOW MORNING-GLORY	CONVOLVULACEAE	Merremia
Mesosphaerum pectinatum	COMB BUSHMINT	LAMIACEAE	Mesosphaerum
Metopium toxiferum	FLORIDA POISONTREE; POISONWOOD	ANACARDIACEAE	Metopium
Micranthemum glomeratum	MANATEE MUDFLOWER	LINDERNIACEAE	Micranthemum
Mikania cordifolia	FLORIDA KEYS HEMPVINE	ASTERACEAE	Mikania
Mikania scandens	CLIMBING HEMPVINE	ASTERACEAE	Mikania
Millettia pinnata	KARUM TREE; POONGA-OIL TREE; PONGAME OILTREE	FABACEAE	Millettia
Mimosa pigra	BLACK MIMOSA	FABACEAE	Mimosa
Mimosa pudica	SENSITIVE PLANT; SHAMEPLANT	FABACEAE	Mimosa
Mimosa quadrivalvis var. angustata	SENSITIVE BRIER	FABACEAE	Mimosa
Mimosa quadrivalvis var. floridana	FLORIDA SENSITIVE BRIER	FABACEAE	Mimosa
Mimusops coriacea	MONKEY'S APPLE	SAPOTACEAE	Mimusops
Mimusops elengi	SPANISH CHERRY; KABIKI; BAKUL	SAPOTACEAE	Mimusops
Mirabilis jalapa	FOUR-O'CLOCK; MARVEL-OF-PERU	NYCTAGINACEAE	Mirabilis

Mitreola angustifolia	NARROWLEAF HORNPOD	LOGANIACEAE	Mitreola
Mitreola petiolata	LAX HORNPOD	LOGANIACEAE	Mitreola
Mitreola sessilifolia	SWAMP HORNPOD	LOGANIACEAE	Mitreola
Modiola caroliniana	CAROLINA BRISTLEMALLOW	MALVACEAE	Modiola
Mollugo verticillata	INDIAN CHICKWEED; GREEN CARPETWEED	MOLLUGINACEAE	Mollugo
Momordica charantia	BALSAMPEAR	CUCURBITACEAE	Momordica
Monarda punctata	SPOTTED BEEBALM	LAMIACEAE	Monarda
Monotropa uniflora	INDIANPIPE	ERICACEAE	Monotropa
Monstera deliciosa	SWISS-CHEESE PLANT; CUT-LEAF PHILODENDRON	ARACEAE	Monstera
Morinda royoc	REDGAL	RUBIACEAE	Morinda
Moringa oleifera	HORSERADISHTREE	MORINGACEAE	Moringa
Morus rubra	RED MULBERRY	MORACEAE	Morus
Mucuna pruriens	COWITCH; VELVETBEAN	FABACEAE	Mucuna
Mucuna sloanei	HORSEYBEAN	FABACEAE	Mucuna
Muhlenbergia capillaris	HAIRAWN MUHLY	POACEAE	Muhlenbergia
Muhlenbergia capillaris var. filipes	GULF HAIRAWN MUHLY	POACEAE	Muhlenbergia
Muntingia calabura	STRAWBERRYTREE	MUNTINGIACEAE	Muntingia
Murdannia nudiflora	NAKEDSTEM DEWFLOWER	COMMELINACEAE	Murdannia
Murraya paniculata	ORANGE JESSAMINE	RUTACEAE	Murraya
Musa x paradisiaca	COMMON BANANA	MUSACEAE	Musa
Myrcianthes fragrans	TWINBERRY; SIMPSON'S STOPPER	MYRTACEAE	Myrcianthes
Myrica cerifera	SOUTHERN BAYBERRY; WAX MYRTLE	MYRICACEAE	Myrica
Myriophyllum aquaticum	PARROT FEATHER WATERMILFOIL	HALORAGACEAE	Myriophyllum
Myrsine cubana	MYRSINE; COLICWOOD	MYRSINACEAE	Myrsine
Najas guadalupensis	SOUTHERN WATERNYMPH	HYDROCHARITACEAE	Najas
Najas wrightiana	WRIGHT'S WATERNYMPH	HYDROCHARITACEAE	Najas
Nelumbo lutea	AMERICAN LOTUS	NELUMBONACEAE	Nelumbo
Nemastylis floridana	CELESTIAL LILY; FALLFLOWERING IXIA	IRIDACEAE	Nemastylis
Nephrolepis biserrata	GIANT SWORD FERN	NEPHROLEPIDACEAE	Nephrolepis
Nephrolepis brownii	ASIAN SWORD FERN	NEPHROLEPIDACEAE	Nephrolepis
Nephrolepis cordifolia	TUBEROUS SWORD FERN	NEPHROLEPIDACEAE	Nephrolepis
Nephrolepis exaltata	SWORD FERN; WILD BOSTON FERN	NEPHROLEPIDACEAE	Nephrolepis
Nephrolepis falcata	FISHTAIL SWORD FERN	NEPHROLEPIDACEAE	Nephrolepis
Nephrolepis x averyi	AVERY'S SWORD FERN	NEPHROLEPIDACEAE	Nephrolepis
Neptunia pubescens	TROPICAL PUFF	FABACEAE	Neptunia
Neyraudia reynaudiana	BURMAREED; SILKREED	POACEAE	Neyraudia
Nicandra physalodes	APPLE-OF-PERU	SOLANACEAE	Nicandra

Nuphar advena	SPATTERDOCK; YELLOW PONDILLY	NYMPHAEACEAE	Nuphar
Nymphaea capensis var. zanzibariensis	CAPE BLUE WATERLILY	NYMPHAEACEAE	Nymphaea
Nymphaea mexicana	YELLOW WATERLILY	NYMPHAEACEAE	Nymphaea
Nymphaea odorata	AMERICAN WHITE WATERLILY	NYMPHAEACEAE	Nymphaea
Nymphoides aquatica	BIG FLOATINGHEART	MENYANTHACEAE	Nymphoides
Nymphoides cristata	CRESTED FLOATINGHEART	MENYANTHACEAE	Nymphoides
Ochna atropurpurea	AFRICAN BIRD'S-EYE BUSH	OCHNACEAE	Ochna
Ochrosia elliptica	ELLIPTIC YELLOWWOOD	APOCYNACEAE	Ochrosia
Ocotea coriacea	LANCEWOOD	LAURACEAE	Ocotea
Odontonema cuspidatum	FIRESPIKE	ACANTHACEAE	Odontonema
Oeceoclades maculata	MONK ORCHID	ORCHIDACEAE	Oeceoclades
Oenothera biennis	COMMON EVENINGPRIMROSE	ONAGRACEAE	Oenothera
Oenothera humifusa	SEABEACH EVENINGPRIMROSE	ONAGRACEAE	Oenothera
Oenothera laciniata	CUTLEAF EVENINGPRIMROSE	ONAGRACEAE	Oenothera
Oenothera simulans	SOUTHERN BEEBLOSSOM	ONAGRACEAE	Oenothera
Okenia hypogaea	BURROWING FOUR-O'CLOCK; BEACH PEANUT	NYCTAGINACEAE	Okenia
Oldenlandia corymbosa	FLATTOP MILLE GRAINES	RUBIACEAE	Oldenlandia
Oldenlandia uniflora	CLUSTERED MILLE GRAINES	RUBIACEAE	Oldenlandia
Ophioglossum nudicaule	SLENDER ADDER'S-TONGUE	OPHIOGLOSSACEAE	Ophioglossum
Ophioglossum palmatum	HAND FERN	OPHIOGLOSSACEAE	Ophioglossum
Ophioglossum petiolatum	STALKED ADDER'S-TONGUE	OPHIOGLOSSACEAE	Ophioglossum
Oplismenus hirtellus	WOODSGRASS; BASKETGRASS	POACEAE	Oplismenus
Opuntia humifusa	PRICKLYPEAR	CACTACEAE	Opuntia
Opuntia stricta	ERECT PRICKLYPEAR; SHELL-MOUND PRICKLYPEAR	CACTACEAE	Opuntia
Osmunda cinnamomea	CINNAMON FERN	OSMUNDACEAE	Osmunda
Osmunda regalis var. spectabilis	ROYAL FERN	OSMUNDACEAE	Osmunda
Oxalis corniculata	COMMON YELLOW WOODSORREL; CREEPING WOODSORREL	OXALIDACEAE	Oxalis
Oxalis debilis	PINK WOODSORREL	OXALIDACEAE	Oxalis
Oxalis intermedia	BROADLEAF WOODSORREL	OXALIDACEAE	Oxalis
Oxycaryum cubense	CUBAN BULRUSH	CYPERACEAE	Oxycaryum
Packera glabella	BUTTERWEED	ASTERACEAE	Packera
Paederia cruddasiana	SEWERVINE	RUBIACEAE	Paederia
Paederia foetida	SKUNKVINE	RUBIACEAE	Paederia
Palafoxia feayi	FEAY'S PALAFOX	ASTERACEAE	Palafoxia
Palafoxia integrifolia	COASTALPLAIN PALAFOX	ASTERACEAE	Palafoxia

Panicum abscissum	CUTTHROATGRASS	POACEAE	Panicum
Panicum amarum	BITTER PANICGRASS	POACEAE	Panicum
Panicum dichotomiflorum	FALL PANICGRASS	POACEAE	Panicum
Panicum dichotomiflorum var. bartowense	FALL PANICGRASS	POACEAE	Panicum
Panicum hemitomom	MAIDENCANE	POACEAE	Panicum
Panicum hians	GAPING PANICUM	POACEAE	Panicum
Panicum maximum	GUINEAGRASS	POACEAE	Panicum
Panicum miliaceum	BROOMCORN MILLET	POACEAE	Panicum
Panicum repens	TORPEDOGRASS	POACEAE	Panicum
Panicum rigidulum	REDTOP PANICUM	POACEAE	Panicum
Panicum tenerum	BLUEJOINT PANICUM	POACEAE	Panicum
Panicum verrucosum	WARTY PANICGRASS	POACEAE	Panicum
Panicum virgatum	SWITCHGRASS	POACEAE	Panicum
Parietaria floridana	FLORIDA PELLITORY	URTICACEAE	Parietaria
Parietaria praetermissa	CLUSTERED PELLITORY	URTICACEAE	Parietaria
Paronychia americana	AMERICAN NAILWORT	CARYOPHYLLACEAE	Paronychia
Parthenium hysterophorus	SANTA MARIA FEVERFEW	ASTERACEAE	Parthenium
Parthenocissus quinquefolia	VIRGINIA CREEPER; WOODBINE	VITACEAE	Parthenocissus
Paspalidium geminatum	EGYPTIAN PASPALIDIUM; KISSIMMEEGRASS	POACEAE	Paspalidium
Paspalum blodgettii	CORAL PASPALUM; BLODGETT'S CROWNGRASS	POACEAE	Paspalum
Paspalum boscianum	BULL CROWNGRASS	POACEAE	Paspalum
Paspalum conjugatum	SOUR PASPALUM; HILOGRASS	POACEAE	Paspalum
Paspalum distichum	KNOTGRASS	POACEAE	Paspalum
Paspalum monostachyum	GULFDUNE PASPALUM	POACEAE	Paspalum
Paspalum notatum var. sauræ	BAHIAGRASS	POACEAE	Paspalum
Paspalum pleostachyum	TROPICAL PASPALUM	POACEAE	Paspalum
Paspalum praecox	EARLY PASPALUM	POACEAE	Paspalum
Paspalum setaceum	THIN PASPALUM	POACEAE	Paspalum
Paspalum urvillei	VASEYGRASS	POACEAE	Paspalum
Passiflora biflora	TWOLOBE PASSIONFLOWER	PASSIFLORACEAE	Passiflora
Passiflora edulis	PASSIONFRUIT; PURPLE GRANADILLA	PASSIFLORACEAE	Passiflora
Passiflora foetida	FETID PASSIONFLOWER	PASSIFLORACEAE	Passiflora
Passiflora incarnata	PURPLE PASSIONFLOWER	PASSIFLORACEAE	Passiflora
Passiflora pallens	PINELAND PASSIONFLOWER; PINELAND PASSIONVINE	PASSIFLORACEAE	Passiflora
Passiflora suberosa	CORKSTEM PASSIONFLOWER	PASSIFLORACEAE	Passiflora

Passiflora x belotii		PASSIFLORACEAE	Passiflora
Pecluma ptilota var. bourgeauana	COMB POLYPODY; SWAMP PLUME POLYPODY; PALMLEAF ROCKCAP FERN	POLYPODIACEAE	Pecluma
Pectis glaucescens	SANDDUNE CINCHWEED	ASTERACEAE	Pectis
Pectis linearifolia	FLORIDA CINCHWEED	ASTERACEAE	Pectis
Pectis prostrata	SPREADING CINCHWEED	ASTERACEAE	Pectis
Pedilanthus tithymaloides subsp. smallii	JACOB'S LADDER; DEVIL'S BACKBONE; REDBIRD FLOWER	EUPHORBIACEAE	Pedilanthus
Peltandra virginica	GREEN ARROW ARUM	ARACEAE	Peltandra
Pennisetum purpureum	ELEPHANTGRASS; NAPIERGRASS	POACEAE	Pennisetum
Pennisetum setaceum	FOUNTAINGRASS	POACEAE	Pennisetum
Penstemon multiflorus	MANYFLOWER BEARDTONGUE	PLANTAGINACEAE	Penstemon
Pentalinon luteum	WILD ALLAMANDA; HAMMOCK VIPERSTAIL	APOCYNACEAE	Pentalinon
Pentodon pentandrus	HALES'S PENTODON	RUBIACEAE	Pentodon
Peperomia obtusifolia	FLORIDA PEPEROMIA; BABY RUBBERPLANT	PIPERACEAE	Peperomia
Peperomia pellucida	PEPPER-ELDER; RAT-EAR	PIPERACEAE	Peperomia
Pereskia aculeata	BARBADOS GOOSEBERRY; LEMON VINE	CACTACEAE	Pereskia
Persea borbonia	RED BAY	LAURACEAE	Persea
Persea palustris	SWAMP BAY	LAURACEAE	Persea
Petiveria alliacea	GUINEA HEN WEED	PHYTOLACCACEAE	Petiveria
Phlebodium aureum	GOLDEN POLYPODY	POLYPODIACEAE	Phlebodium
Phlox drummondii	ANNUAL PHLOX	POLEMONIACEAE	Phlox
Phoenix reclinata	SENEGAL DATE PALM	ARECACEAE	Phoenix
Phragmites australis	COMMON REED	POACEAE	Phragmites
Phyla nodiflora	TURKEY TANGLE FOGFRUIT; CAPEWEED	VERBENACEAE	Phyla
Phyllanthus abnormis	DRUMMOND'S LEAFFLOWER	PHYLLANTHACEAE	Phyllanthus
Phyllanthus amarus	GALE-OF-WIND; CARRY-ME-SEED	PHYLLANTHACEAE	Phyllanthus
Phyllanthus caroliniensis subsp. saxicola	ROCK CAROLINA LEAFFLOWER	PHYLLANTHACEAE	Phyllanthus
Phyllanthus tenellus	MASCARENE ISLAND LEAFFLOWER	PHYLLANTHACEAE	Phyllanthus
Phyllanthus urinaria	CHAMBER BITTER	PHYLLANTHACEAE	Phyllanthus
Phymatosorus scolopendria	SERPENT FERN; WART FERN	POLYPODIACEAE	Phymatosorus
Physalis angulata	CUTLEAF GROUNDCHERRY	SOLANACEAE	Physalis
Physalis angustifolia	COASTAL GROUNDCHERRY	SOLANACEAE	Physalis
Physalis arenicola	CYPRESSHEAD GROUNDCHERRY	SOLANACEAE	Physalis
Physalis pubescens	HUSK TOMATO	SOLANACEAE	Physalis
Physalis walteri	WALTER'S GROUNDCHERRY	SOLANACEAE	Physalis
Phytolacca americana	AMERICAN POKEWEED	PHYTOLACCACEAE	Phytolacca

<i>Pilea microphylla</i>	ARTILLERY PLANT; ROCKWEED	URTICACEAE	<i>Pilea</i>
<i>Pilea nummulariifolia</i>	CREEPING CHARLIE	URTICACEAE	<i>Pilea</i>
<i>Piloblephis rigida</i>	WILD PENNYROYAL	LAMIACEAE	<i>Piloblephis</i>
<i>Pinguicula caerulea</i>	BLUEFLOWER BUTTERWORT	LENTIBULARIACEAE	<i>Pinguicula</i>
<i>Pinguicula lutea</i>	YELLOW BUTTERWORT; YELLOW- FLOWERED BUTTERWORT	LENTIBULARIACEAE	<i>Pinguicula</i>
<i>Pinguicula pumila</i>	SMALL BUTTERWORT	LENTIBULARIACEAE	<i>Pinguicula</i>
<i>Pinus clausa</i>	SAND PINE	PINACEAE	<i>Pinus</i>
<i>Pinus elliotii</i>	SLASH PINE	PINACEAE	<i>Pinus</i>
<i>Piper auritum</i>	VERACRUZ PEPPER	PIPERACEAE	<i>Piper</i>
<i>Piriqueta cistoides</i> subsp. <i>caroliniana</i>	PITTED STRIPESEED	TURNERACEAE	<i>Piriqueta</i>
<i>Pisonia aculeata</i>	DEVIL'S CLAWS; PULLBACK	NYCTAGINACEAE	<i>Pisonia</i>
<i>Pistia stratiotes</i>	WATER-LETTUCE	ARACEAE	<i>Pistia</i>
<i>Pithecellobium keyense</i>	FLORIDA KEYS BLACKBEAD	FABACEAE	<i>Pithecellobium</i>
<i>Pityopsis graminifolia</i>	NARROWLEAF SILKGRASS	ASTERACEAE	<i>Pityopsis</i>
<i>Pityrogramma trifoliata</i>	GOLDENROD FERN	PTERIDACEAE	<i>Pityrogramma</i>
<i>Plantago major</i>	COMMON PLANTAIN	PLANTAGINACEAE	<i>Plantago</i>
<i>Plantago virginica</i>	VIRGINIA PLANTAIN; SOUTHERN PLANTAIN	PLANTAGINACEAE	<i>Plantago</i>
<i>Platynerium bifurcatum</i>	STAGHORN FERN	POLYPODIACEAE	<i>Platynerium</i>
<i>Pleopeltis astrolepis</i>	STAR-SCALE POLYPODY; STAR-SCALED FERN	POLYPODIACEAE	<i>Pleopeltis</i>
<i>Pleopeltis polypodioides</i> var. <i>michauxiana</i>	RESURRECTION FERN	POLYPODIACEAE	<i>Pleopeltis</i>
<i>Pluchea baccharis</i>	ROSY CAMPHORWEED	ASTERACEAE	<i>Pluchea</i>
<i>Pluchea carolinensis</i>	CURE-FOR-ALL	ASTERACEAE	<i>Pluchea</i>
<i>Pluchea foetida</i>	STINKING CAMPHORWEED	ASTERACEAE	<i>Pluchea</i>
<i>Pluchea odorata</i>	SWEETSCENT	ASTERACEAE	<i>Pluchea</i>
<i>Plumbago zeylanica</i>	DOCTORBUSH	PLUMBAGINACEAE	<i>Plumbago</i>
<i>Poa annua</i>	ANNUAL BLUEGRASS	POACEAE	<i>Poa</i>
<i>Podocarpus macrophyllus</i>	YEW PLUM PINE	PODOCARPACEAE	<i>Podocarpus</i>
<i>Pogonia ophioglossoides</i>	ROSE POGONIA; SNAKEMOUTH ORCHID	ORCHIDACEAE	<i>Pogonia</i>
<i>Poinsettia cyathophora</i>	PAINTEDLEAF; FIRE-ON-THE-MOUNTAIN	EUPHORBIACEAE	<i>Poinsettia</i>
<i>Poinsettia heterophylla</i>	FIDDLER'S SPURGE; MEXICAN FIREPLANT	EUPHORBIACEAE	<i>Poinsettia</i>
<i>Polanisia tenuifolia</i>	SLENDERLEAF CLAMMYWEED	BRASSICACEAE	<i>Polanisia</i>
<i>Polygala baldwinii</i>	BALDWIN'S MILKWORT	POLYGALACEAE	<i>Polygala</i>
<i>Polygala cruciata</i>	DRUMHEADS	POLYGALACEAE	<i>Polygala</i>
<i>Polygala cymosa</i>	TALL PINEBARREN MILKWORT	POLYGALACEAE	<i>Polygala</i>

<i>Polygala incarnata</i>	PROCESSION FLOWER	POLYGALACEAE	<i>Polygala</i>
<i>Polygala lutea</i>	ORANGE MILKWORT	POLYGALACEAE	<i>Polygala</i>
<i>Polygala nana</i>	CANDYROOT	POLYGALACEAE	<i>Polygala</i>
<i>Polygala polygama</i>	RACEMED MILKWORT	POLYGALACEAE	<i>Polygala</i>
<i>Polygala ramosa</i>	LOW PINEBARREN MILKWORT	POLYGALACEAE	<i>Polygala</i>
<i>Polygala rugelii</i>	YELLOW MILKWORT	POLYGALACEAE	<i>Polygala</i>
<i>Polygala setacea</i>	COASTALPLAIN MILKWORT	POLYGALACEAE	<i>Polygala</i>
<i>Polygala smallii</i>	SMALL'S MILKWORT; TINY POLYGALA	POLYGALACEAE	<i>Polygala</i>
<i>Polygonella ciliata</i>	HAIRY JOINTWEED	POLYGONACEAE	<i>Polygonella</i>
<i>Polygonella gracilis</i>	TALL JOINTWEED	POLYGONACEAE	<i>Polygonella</i>
<i>Polygonella polygama</i>	OCTOBER FLOWER	POLYGONACEAE	<i>Polygonella</i>
<i>Polygonella polygama</i> var. <i>brachystachya</i>	OCTOBER FLOWER	POLYGONACEAE	<i>Polygonella</i>
<i>Polygonella robusta</i>	LARGEFLOWER JOINTWEED; SANDHILL WIREWEED	POLYGONACEAE	<i>Polygonella</i>
<i>Polygonum glabrum</i>	DENSEFLOWER KNOTWEED	POLYGONACEAE	<i>Polygonum</i>
<i>Polygonum hydropiperoides</i>	MILD WATERPEPPER; SWAMP SMARTWEED	POLYGONACEAE	<i>Polygonum</i>
<i>Polygonum lapathifolium</i>	CURLYTOP KNOTWEED; PALE SMARTWEED	POLYGONACEAE	<i>Polygonum</i>
<i>Polygonum punctatum</i>	DOTTED SMARTWEED	POLYGONACEAE	<i>Polygonum</i>
<i>Polygonum setaceum</i>	BOG SMARTWEED	POLYGONACEAE	<i>Polygonum</i>
<i>Polypremum procumbens</i>	RUSTWEED; JUNIPERLEAF	TETRACHONDRAEAE	<i>Polypremum</i>
<i>Polystachya concreta</i>	GREATER YELLOWSPIKE ORCHID; PALE- FLOWERED POLYSTACHYA	ORCHIDACEAE	<i>Polystachya</i>
<i>Pontederia cordata</i>	PICKERELWEED	PONTEDERIAEAE	<i>Pontederia</i>
<i>Ponthieva racemosa</i>	HAIRY SHADOW WITCH	ORCHIDACEAE	<i>Ponthieva</i>
<i>Portulaca amilis</i>	PARAGUAYAN PURSLANE	PORTULACACEAE	<i>Portulaca</i>
<i>Portulaca oleracea</i>	LITTLE HOGWEED	PORTULACACEAE	<i>Portulaca</i>
<i>Portulaca pilosa</i>	PINK PURSLANE; KISS-ME-QUICK	PORTULACACEAE	<i>Portulaca</i>
<i>Potamogeton illinoensis</i>	ILLINOIS PONDWEED	POTAMOGETONACEAE	<i>Potamogeton</i>
<i>Potamogeton pusillus</i>	SMALL PONDWEED	POTAMOGETONACEAE	<i>Potamogeton</i>
<i>Pouzolzia zeylanica</i>	POUZOLZ'S BUSH	URTICACEAE	<i>Pouzolzia</i>
<i>Proserpinaca palustris</i>	MARSH MERMAIDWEED	HALORAGACEAE	<i>Proserpinaca</i>
<i>Proserpinaca pectinata</i>	COMBLEAF MERMAIDWEED	HALORAGACEAE	<i>Proserpinaca</i>
<i>Prunus caroliniana</i>	CAROLINA LAURELCHERRY	ROSACEAE	<i>Prunus</i>
<i>Pseudelephantopus spicatus</i>	DOG'S-TONGUE	ASTERACEAE	<i>Pseudelephantopus</i>
<i>Pseudognaphalium obtusifolium</i>	SWEET EVERLASTING; RABBIT TOBACCO	ASTERACEAE	<i>Pseudognaphalium</i>
<i>Pseudogynoxys chenopodioides</i>	MEXICAN FLAMEVINE	ASTERACEAE	<i>Pseudogynoxys</i>
<i>Psidium cattleianum</i>	STRAWBERRY GUAVA	MYRTACEAE	<i>Psidium</i>

<i>Psidium guajava</i>	GUAVA	MYRTACEAE	<i>Psidium</i>
<i>Psilotum nudum</i>	WHISK-FERN	PSILOTACEAE	<i>Psilotum</i>
<i>Psychotria nervosa</i>	WILD COFFEE	RUBIACEAE	<i>Psychotria</i>
<i>Psychotria sulzneri</i>	SHORTLEAF WILD COFFEE	RUBIACEAE	<i>Psychotria</i>
<i>Pteridium aquilinum</i> var. <i>caudatum</i>	LACY BRACKEN	DENNSTAEDTIACEAE	<i>Pteridium</i>
<i>Pteridium aquilinum</i> var. <i>pseudocaudatum</i>	TAILED BRACKEN	DENNSTAEDTIACEAE	<i>Pteridium</i>
<i>Pteris bahamensis</i>	BAHAMA LADDER BRAKE	PTERIDACEAE	<i>Pteris</i>
<i>Pteris quadriaurita</i>	STRIPED BRAKE	PTERIDACEAE	<i>Pteris</i>
<i>Pteris tripartita</i>	GIANT BRAKE	PTERIDACEAE	<i>Pteris</i>
<i>Pteris vittata</i>	CHINESE LADDER BRAKE	PTERIDACEAE	<i>Pteris</i>
<i>Pterocaulon pycnostachyum</i>	BLACKROOT	ASTERACEAE	<i>Pterocaulon</i>
<i>Pteroglossaspis ecristata</i>	GIANT ORCHID; NON-CRESTED EULOPHIA	ORCHIDACEAE	<i>Pteroglossaspis</i>
<i>Ptilimnium capillaceum</i>	MOCK BISHOPSWEEED; HERBWILLIAM	APIACEAE	<i>Ptilimnium</i>
<i>Ptychosperma elegans</i>	ALEXANDER PALM; SOLITAIRE PALM	ARECACEAE	<i>Ptychosperma</i>
<i>Pueraria montana</i> var. <i>lobata</i>	KUDZU	FABACEAE	<i>Pueraria</i>
<i>Pyrostegia venusta</i>	FLAMEVINE	BIGNONIACEAE	<i>Pyrostegia</i>
<i>Quercus chapmanii</i>	CHAPMAN'S OAK	FAGACEAE	<i>Quercus</i>
<i>Quercus geminata</i>	SAND LIVE OAK	FAGACEAE	<i>Quercus</i>
<i>Quercus laurifolia</i>	LAUREL OAK; DIAMOND OAK	FAGACEAE	<i>Quercus</i>
<i>Quercus minima</i>	DWARF LIVE OAK	FAGACEAE	<i>Quercus</i>
<i>Quercus myrtifolia</i>	MYRTLE OAK	FAGACEAE	<i>Quercus</i>
<i>Quercus nigra</i>	WATER OAK	FAGACEAE	<i>Quercus</i>
<i>Quercus pumila</i>	RUNNING OAK	FAGACEAE	<i>Quercus</i>
<i>Quercus virginiana</i>	LIVE OAK	FAGACEAE	<i>Quercus</i>
<i>Quercus x rolfii</i>		FAGACEAE	<i>Quercus</i>
<i>Quercus x succulenta</i>		FAGACEAE	<i>Quercus</i>
<i>Randia aculeata</i>	WHITE INDIGOBERRY	RUBIACEAE	<i>Randia</i>
<i>Ranunculus sardous</i>	HAIRY BUTTERCUP	RANUNCULACEAE	<i>Ranunculus</i>
<i>Rauvolfia tetraphylla</i>	BE-STILL TREE	APOCYNACEAE	<i>Rauvolfia</i>
<i>Rhabdadenia biflora</i>	RUBBERVINE; MANGROVEVINE	APOCYNACEAE	<i>Rhabdadenia</i>
<i>Rhexia cubensis</i>	WEST INDIAN MEADOWBEAUTY	MELASTOMATAACEAE	<i>Rhexia</i>
<i>Rhexia nashii</i>	MAID MARIAN	MELASTOMATAACEAE	<i>Rhexia</i>
<i>Rhexia nuttallii</i>	NUTTALL'S MEADOWBEAUTY	MELASTOMATAACEAE	<i>Rhexia</i>
<i>Rhizophora mangle</i>	RED MANGROVE	RHIZOPHORACEAE	<i>Rhizophora</i>
<i>Rhodomyrtus tomentosa</i>	ROSE MYRTLE	MYRTACEAE	<i>Rhodomyrtus</i>
<i>Rhus copallinum</i>	WINGED SUMAC	ANACARDIACEAE	<i>Rhus</i>

Rhynchosia cinerea	BROWNHAI SNOUTBEAN	FABACEAE	Rhynchosia
Rhynchospora chapmanii	CHAPMAN'S BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora ciliaris	FRINGED BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora colorata	STARRUSH WHITETOP	CYPERACEAE	Rhynchospora
Rhynchospora corniculata	SHORTBRISTLE HORNED BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora divergens	SPREADING BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora fascicularis	FASCICLED BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora filifolia	THREADLEAF BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora galeana	SHORTBRISTLE BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora globularis	GLOBE BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora harperi	HARPER'S BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora intermedia	PINEBARREN BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora inundata	NARROWFRUIT HORNED BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora latifolia	GIANT WHITETOP; SANDSWAMP WHITETOP	CYPERACEAE	Rhynchospora
Rhynchospora megalocarpa	SANDYFIELD BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora microcarpa	SOUTHERN BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora microcephala	BUNCHED BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora miliacea	MILLET BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora nitens	SHORTBEAK BEAKSEDGE; BALDRUSH	CYPERACEAE	Rhynchospora
Rhynchospora odorata	FRAGRANT BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora plumosa	PLUMED BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora rariflora	FEWFLOWER BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora tracyi	TRACY'S BEAKSEDGE	CYPERACEAE	Rhynchospora
Rhynchospora wrightiana	WRIGHT'S BEAKSEDGE	CYPERACEAE	Rhynchospora
Richardia brasiliensis	TROPICAL MEXICAN CLOVER	RUBIACEAE	Richardia
Richardia grandiflora	LARGEFLOWER MEXICAN CLOVER	RUBIACEAE	Richardia
Richardia scabra	ROUGH MEXICAN CLOVER	RUBIACEAE	Richardia
Ricinus communis	CASTORBEAN	EUPHORBIACEAE	Ricinus
Rivina humilis	ROUGEPLANT	PHYTOLACCACEAE	Rivina
Rorippa palustris	BOG YELLOWCRESS	BRASSICACEAE	Rorippa
Rorippa teres	SOUTHERN MARSH YELLOWCRESS	BRASSICACEAE	Rorippa
Rotala ramosior	LOWLAND ROTALA; TOOTHCUP	LYTHRACEAE	Rotala
Rotala rotundifolia	DWARF ROTALA; ROUNDLEAF TOOTHCUP	LYTHRACEAE	Rotala
Rottboellia cochinchinensis	ITCHGRASS	POACEAE	Rottboellia
Rousselia humilis	ROUSSELIA	URTICACEAE	Rousselia
Roystonea regia	FLORIDA ROYAL PALM	ARECACEAE	Roystonea
Rubus cuneifolius	SAND BLACKBERRY	ROSACEAE	Rubus

Rubus trivialis	SOUTHERN DEWBERRY	ROSACEAE	Rubus
Rudbeckia hirta	BLACKEYED SUSAN	ASTERACEAE	Rudbeckia
Ruellia blechum	BROWNE'S BLECHUM	ACANTHACEAE	Ruellia
Ruellia caroliniensis	CAROLINA WILD PETUNIA	ACANTHACEAE	Ruellia
Ruellia ciliatiflora	HAIRYFLOWER WILD PETUNIA	ACANTHACEAE	Ruellia
Ruellia simplex	BRITTON'S WILD PETUNIA; MEXICAN BLUEBELL	ACANTHACEAE	Ruellia
Ruellia succulenta	THICKLEAF WILD PETUNIA	ACANTHACEAE	Ruellia
Rumex pulcher	FIDDLE DOCK	POLYGONACEAE	Rumex
Rumex verticillatus	SWAMP DOCK	POLYGONACEAE	Rumex
Russelia equisetiformis	FOUNTAINBUSH; FIRECRACKER PLANT	PLANTAGINACEAE	Russelia
Sabal etonia	SCRUB PALMETTO	ARECACEAE	Sabal
Sabal palmetto	CABBAGE PALM	ARECACEAE	Sabal
Sabal x miamiensis		ARECACEAE	Sabal
Sabatia brevifolia	SHORTLEAF ROSEGENTIAN	GENTIANACEAE	Sabatia
Sabatia calycina	COASTAL ROSEGENTIAN	GENTIANACEAE	Sabatia
Sabatia decandra	BARTRAM'S ROSEGENTIAN	GENTIANACEAE	Sabatia
Sabatia grandiflora	LARGEFLOWER ROSEGENTIAN	GENTIANACEAE	Sabatia
Sabatia stellaris	ROSE-OF-PLYMOUTH	GENTIANACEAE	Sabatia
Saccharum giganteum	SUGARCANE PLUMEGRASS	POACEAE	Saccharum
Saccharum officinarum	SUGARCANE	POACEAE	Saccharum
Saccharum spontaneum	WILD SUGARCANE	POACEAE	Saccharum
Sacciolepis indica	INDIAN CUPSCALE	POACEAE	Sacciolepis
Sacciolepis striata	AMERICAN CUPSCALE	POACEAE	Sacciolepis
Sacoila lanceolata	LEAFLESS BEAKED LADIESTRESSES; LEAFLESS BEAKED ORCHID	ORCHIDACEAE	Sacoila
Sacoila lanceolata var. paludicola	LEAFY BEAKED LADIESTRESSES	ORCHIDACEAE	Sacoila
Sagittaria lancifolia	BULLTONGUE ARROWHEAD	ALISMATACEAE	Sagittaria
Sagittaria latifolia	BROADLEAF ARROWHEAD; COMMON ARROWHEAD; DUCK POTATO	ALISMATACEAE	Sagittaria
Salix caroliniana	CAROLINA WILLOW; COASTALPLAIN WILLOW	SALICACEAE	Salix
Salsola kali subsp. pontica	PRICKLY RUSSIAN THISTLE	AMARANTHACEAE	Salsola
Salvia azurea	AZURE BLUE SAGE	LAMIACEAE	Salvia
Salvia coccinea	TROPICAL SAGE; BLOOD SAGE	LAMIACEAE	Salvia
Salvia misella	SOUTHERN RIVER SAGE; RIVER SAGE	LAMIACEAE	Salvia
Salvia occidentalis	WEST INDIAN SAGE	LAMIACEAE	Salvia
Salvia serotina	LITTLEWOMAN	LAMIACEAE	Salvia
Salvinia minima	WATER SPANGLES	SALVINIACEAE	Salvinia

<i>Sambucus nigra</i> subsp. <i>canadensis</i>	AMERICAN ELDER; ELDERBERRY	ADOXACEAE	<i>Sambucus</i>
<i>Samolus ebracteatus</i>	WATER PIMPERNEL; LIMEWATER BROOKWEED	SAMOLACEAE	<i>Samolus</i>
<i>Samolus valerandi</i> subsp. <i>parviflorus</i>	PINELAND PIMPERNEL; SEASIDE BROOKWEED	SAMOLACEAE	<i>Samolus</i>
<i>Sansevieria hyacinthoides</i>	BOWSTRING HEMP; MOTHER-IN-LAW'S TONGUE	RUSCACEAE	<i>Sansevieria</i>
<i>Sapindus saponaria</i>	SOAPBERRY	SAPINDACEAE	<i>Sapindus</i>
<i>Sarcocornia ambigua</i>	PERENNIAL GLASSWORT; VIRGINIA GLASSWORT	AMARANTHACEAE	<i>Sarcocornia</i>
<i>Sarcostemma clausum</i>	WHITE TWINEVINE	APOCYNACEAE	<i>Sarcostemma</i>
<i>Saururus cernuus</i>	LIZARD'S TAIL	SAURURACEAE	<i>Saururus</i>
<i>Scaevola plumieri</i>	BEACHBERRY; INKBERRY; GULLFEED	GOODENIACEAE	<i>Scaevola</i>
<i>Scaevola taccada</i>	BEACH NAUPAKA	GOODENIACEAE	<i>Scaevola</i>
<i>Scaevola taccada</i> var. <i>sericea</i>	BEACH NAUPAKA	GOODENIACEAE	<i>Scaevola</i>
<i>Schefflera actinophylla</i>	AUSTRALIAN UMBRELLA TREE; OCTOPUS TREE	ARALIACEAE	<i>Schefflera</i>
<i>Schefflera arboricola</i>	DWARF SCHEFFLERA	ARALIACEAE	<i>Schefflera</i>
<i>Schinus terebinthifolia</i>	BRAZILIAN PEPPER	ANACARDIACEAE	<i>Schinus</i>
<i>Schizachyrium gracile</i>	WIRE BLUESTEM	POACEAE	<i>Schizachyrium</i>
<i>Schizachyrium sanguineum</i>	CRIMSON BLUESTEM	POACEAE	<i>Schizachyrium</i>
<i>Schizachyrium scoparium</i>	LITTLE BLUESTEM	POACEAE	<i>Schizachyrium</i>
<i>Schizaea pennula</i>	RAY FERN	SCHIZAEACEAE	<i>Schizaea</i>
<i>Schoenocaulon dubium</i>	FLORIDA FEATHERSHANK	MELANTHIACEAE	<i>Schoenocaulon</i>
<i>Schoenolirion albiflorum</i>	WHITE SUNNYBELL	HYACINTHACEAE	<i>Schoenolirion</i>
<i>Schoenoplectus californicus</i>	GIANT BULRUSH; CALIFORNIA BULRUSH	CYPERACEAE	<i>Schoenoplectus</i>
<i>Schoenoplectus pungens</i>	THREESQUARE BULRUSH	CYPERACEAE	<i>Schoenoplectus</i>
<i>Schoenoplectus robustus</i>	SALTMARSH BULRUSH	CYPERACEAE	<i>Schoenoplectus</i>
<i>Schoenoplectus tabernaemontani</i>	SOFTSTEM BULRUSH	CYPERACEAE	<i>Schoenoplectus</i>
<i>Schoenus nigricans</i>	BLACK BOGRUSH	CYPERACEAE	<i>Schoenus</i>
<i>Schoepfia chrysophylloides</i>	GRAYTWIG	SCHOEPFIACEAE	<i>Schoepfia</i>
<i>Scleria baldwinii</i>	BALDWIN'S NUTRUSH	CYPERACEAE	<i>Scleria</i>
<i>Scleria ciliata</i>	FRINGED NUTRUSH	CYPERACEAE	<i>Scleria</i>
<i>Scleria distans</i>	RIVERSWAMP NUTRUSH	CYPERACEAE	<i>Scleria</i>
<i>Scleria gaertneri</i>	CORTADERA BLANCA	CYPERACEAE	<i>Scleria</i>
<i>Scleria georgiana</i>	SLENDERFRUIT NUTRUSH	CYPERACEAE	<i>Scleria</i>
<i>Scleria lacustris</i>	WRIGHT'S NUTRUSH	CYPERACEAE	<i>Scleria</i>
<i>Scleria reticularis</i>	NETTED NUTRUSH	CYPERACEAE	<i>Scleria</i>
<i>Scleria triglomerata</i>	TALL NUTGRASS; WHIP NUTRUSH	CYPERACEAE	<i>Scleria</i>
<i>Scleria verticillata</i>	LOW NUTRUSH	CYPERACEAE	<i>Scleria</i>

Scoparia dulcis	SWEETBROOM; LICORICEWEED	PLANTAGINACEAE	Scoparia
Selaginella arenicola	SAND SPIKE-MOSS	SELAGINELLACEAE	Selaginella
Selenicereus grandiflorus	QUEEN OF THE NIGHT	CACTACEAE	Selenicereus
Senna alata	CANDLESTICK PLANT	FABACEAE	Senna
Senna ligustrina	PRIVET WILD SENSITIVE PLANT	FABACEAE	Senna
Senna obtusifolia	COFFEEWEED; SICKLEPOD	FABACEAE	Senna
Senna occidentalis	SEPTICWEED	FABACEAE	Senna
Senna pendula var. glabrata	VALAMUERTO	FABACEAE	Senna
Serenoa repens	SAW PALMETTO	ARECACEAE	Serenoa
Sericocarpus tortifolius	WHITETOP ASTER; DIXIE ASTER	ASTERACEAE	Sericocarpus
Sesbania herbacea	DANGLEPOD	FABACEAE	Sesbania
Sesbania sericea	SILKY SESBAN	FABACEAE	Sesbania
Sesbania vesicaria	BLADDERPOD; BAGPOD	FABACEAE	Sesbania
Sesuvium portulacastrum	SHORELINE SEAPURSLANE	AIZOACEAE	Sesuvium
Setaria barbata	EAST INDIAN BRISTLEGRASS; MARYGRASS; CORNGRASS	POACEAE	Setaria
Setaria corrugata	COASTAL BRISTLEGRASS; COASTAL FOXTAIL	POACEAE	Setaria
Setaria macrosperma	CORAL BRISTLEGRASS; CORAL FOXTAIL	POACEAE	Setaria
Setaria magna	GIANT BRISTLEGRASS	POACEAE	Setaria
Setaria parviflora	YELLOW BRISTLEGRASS; KNOTROOT FOXTAIL	POACEAE	Setaria
Setaria pumila	YELLOW BRISTLEGRASS; YELLOW FOXTAIL	POACEAE	Setaria
Setaria verticillata	HOOKED BRISTLEGRASS	POACEAE	Setaria
Seymeria pectinata	PIEDMONT BLACKSENNA	OROBANCHACEAE	Seymeria
Sida ciliaris	BRACTED FANPETALS; FRINGED FANPETALS	MALVACEAE	Sida
Sida cordifolia	LLIMA	MALVACEAE	Sida
Sida rhombifolia	CUBAN JUTE; INDIAN HEMP	MALVACEAE	Sida
Sida ulmifolia	COMMON WIREWEED; COMMON FANPETALS	MALVACEAE	Sida
Sida urens	TROPICAL FANPETALS	MALVACEAE	Sida
Sideroxylon foetidissimum	FALSE MASTIC	SAPOTACEAE	Sideroxylon
Sideroxylon reclinatum	FLORIDA BULLY	SAPOTACEAE	Sideroxylon
Sideroxylon salicifolium	WILLOW BUSTIC; WHITE BULLY	SAPOTACEAE	Sideroxylon
Sideroxylon tenax	TOUGH BULLY	SAPOTACEAE	Sideroxylon
Simarouba glauca	PARADISE TREE	SIMAROUBACEAE	Simarouba
Sinapis arvensis	CHARLOCK MUSTARD	BRASSICACEAE	Sinapis
Sisyrinchium angustifolium	NARROWLEAF BLUE-EYED GRASS	IRIDACEAE	Sisyrinchium

<i>Sisyrinchium nashii</i>	NASH'S BLUE-EYED GRASS	IRIDACEAE	<i>Sisyrinchium</i>
<i>Sisyrinchium rosulatum</i>	ANNUAL BLUE-EYED GRASS	IRIDACEAE	<i>Sisyrinchium</i>
<i>Sisyrinchium xerophyllum</i>	JEWEL BLUE-EYED GRASS	IRIDACEAE	<i>Sisyrinchium</i>
<i>Smilax auriculata</i>	EARLEAF GREENBRIER	SMILACACEAE	<i>Smilax</i>
<i>Smilax bona-nox</i>	SAW GREENBRIER	SMILACACEAE	<i>Smilax</i>
<i>Smilax laurifolia</i>	LAUREL GREENBRIER; BAMBOO VINE	SMILACACEAE	<i>Smilax</i>
<i>Smilax tamnoides</i>	BRISTLY GREENBRIER; HOGBRIER	SMILACACEAE	<i>Smilax</i>
<i>Solanum americanum</i>	AMERICAN BLACK NIGHTSHADE	SOLANACEAE	<i>Solanum</i>
<i>Solanum bahamense</i>	BAHAMA NIGHTSHADE; CANKERBERRY	SOLANACEAE	<i>Solanum</i>
<i>Solanum capsicoides</i>	SODA APPLE; COCKROACHBERRY	SOLANACEAE	<i>Solanum</i>
<i>Solanum chenopodioides</i>	BLACK NIGHTSHADE	SOLANACEAE	<i>Solanum</i>
<i>Solanum diphyllum</i>	TWOLEAF NIGHTSHADE	SOLANACEAE	<i>Solanum</i>
<i>Solanum erianthum</i>	POTATOTREE	SOLANACEAE	<i>Solanum</i>
<i>Solanum lycopersicum</i>	GARDEN TOMATO	SOLANACEAE	<i>Solanum</i>
<i>Solanum seaforthianum</i>	BRAZILIAN NIGHTSHADE	SOLANACEAE	<i>Solanum</i>
<i>Solanum torvum</i>	TURKEYBERRY	SOLANACEAE	<i>Solanum</i>
<i>Solanum viarum</i>	TROPICAL SODA APPLE	SOLANACEAE	<i>Solanum</i>
<i>Solidago fistulosa</i>	PINEBARREN GOLDENROD	ASTERACEAE	<i>Solidago</i>
<i>Solidago leavenworthii</i>	LEAVENWORTH'S GOLDENROD	ASTERACEAE	<i>Solidago</i>
<i>Solidago odora</i> var. <i>chapmanii</i>	CHAPMAN'S GOLDENROD	ASTERACEAE	<i>Solidago</i>
<i>Solidago sempervirens</i>	SEASIDE GOLDENROD	ASTERACEAE	<i>Solidago</i>
<i>Solidago stricta</i>	WAND GOLDENROD	ASTERACEAE	<i>Solidago</i>
<i>Sonchus asper</i>	SPINY SOWTHISTLE	ASTERACEAE	<i>Sonchus</i>
<i>Sonchus oleraceus</i>	COMMON SOWTHISTLE	ASTERACEAE	<i>Sonchus</i>
<i>Sophora tomentosa</i> var. <i>occidentalis</i>	YELLOW NECKLACEPOD	FABACEAE	<i>Sophora</i>
<i>Sophora tomentosa</i> var. <i>truncata</i>	YELLOW NECKLACEPOD	FABACEAE	<i>Sophora</i>
<i>Sorghastrum secundum</i>	LOPSIDED INDIANGRASS	POACEAE	<i>Sorghastrum</i>
<i>Sorghum bicolor</i>	GRAIN SORGHUM; BROOMCORN	POACEAE	<i>Sorghum</i>
<i>Sorghum bicolor</i> subsp. <i>verticilliflorum</i>	BROOMCORN	POACEAE	<i>Sorghum</i>
<i>Sorghum halepense</i>	JOHNSONGRASS	POACEAE	<i>Sorghum</i>
<i>Spartina alterniflora</i>	SALTMARSH CORDGRASS; SMOOTH CORDGRASS	POACEAE	<i>Spartina</i>
<i>Spartina bakeri</i>	SAND CORDGRASS	POACEAE	<i>Spartina</i>
<i>Spathodea campanulata</i>	AFRICAN TULIPTREE	BIGNONIACEAE	<i>Spathodea</i>
<i>Spathoglottis plicata</i>	PHILIPPINE GROUND ORCHID	ORCHIDACEAE	<i>Spathoglottis</i>
<i>Spermacoce prostrata</i>	PROSTRATE FALSE BUTTONWEED	RUBIACEAE	<i>Spermacoce</i>
<i>Spermacoce remota</i>	WOODLAND FALSE BUTTONWEED	RUBIACEAE	<i>Spermacoce</i>

<i>Spermacoce verticillata</i>	SHRUBBY FALSE BUTTONWEED	RUBIACEAE	<i>Spermacoce</i>
<i>Sphaeropteris cooperi</i>	COOPER'S CYATHEA	CYATHEACEAE	<i>Sphaeropteris</i>
<i>Sphagneticola trilobata</i>	CREEPING OXEYE	ASTERACEAE	<i>Sphagneticola</i>
<i>Spigelia anthermia</i>	WEST INDIAN PINKROOT	LOGANIACEAE	<i>Spigelia</i>
<i>Spiranthes laciniata</i>	LACELIP LADIESTRESSES	ORCHIDACEAE	<i>Spiranthes</i>
<i>Spiranthes longilabris</i>	LONGLIP LADIESTRESSES; GIANTSPIRAL LADIESTRESSES	ORCHIDACEAE	<i>Spiranthes</i>
<i>Spiranthes odorata</i>	FRAGRANT LADIESTRESSES; MARSH LADIESTRESSES; UNDERWATER ORCHID	ORCHIDACEAE	<i>Spiranthes</i>
<i>Spiranthes praecox</i>	GREENVEIN LADIESTRESSES	ORCHIDACEAE	<i>Spiranthes</i>
<i>Spiranthes torta</i>	SOUTHERN LADIESTRESSES	ORCHIDACEAE	<i>Spiranthes</i>
<i>Spiranthes vernalis</i>	SPRING LADIESTRESSES	ORCHIDACEAE	<i>Spiranthes</i>
<i>Spirodela polyrhiza</i>	COMMON DUCKWEED	ARACEAE	<i>Spirodela</i>
<i>Sporobolus domingensis</i>	CORAL DROPSEED	POACEAE	<i>Sporobolus</i>
<i>Sporobolus indicus</i>	SMUTGRASS	POACEAE	<i>Sporobolus</i>
<i>Sporobolus indicus</i> var. <i>pyramidalis</i>	WEST INDIAN DROPSEED	POACEAE	<i>Sporobolus</i>
<i>Sporobolus junceus</i>	PINEYWOODS DROPSEED	POACEAE	<i>Sporobolus</i>
<i>Sporobolus virginicus</i>	SEASHORE DROPSEED	POACEAE	<i>Sporobolus</i>
<i>Stachytarpheta jamaicensis</i>	BLUE PORTERWEED; JOEE	VERBENACEAE	<i>Stachytarpheta</i>
<i>Stellaria media</i>	COMMON CHICKWEED	CARYOPHYLLACEAE	<i>Stellaria</i>
<i>Stenandrium dulce</i>	SWEET SHAGGYTUFT	ACANTHACEAE	<i>Stenandrium</i>
<i>Stenotaphrum secundatum</i>	ST. AUGUSTINEGRASS	POACEAE	<i>Stenotaphrum</i>
<i>Stillingia aquatica</i>	WATER TOOTHLEAF; CORKWOOD	EUPHORBIACEAE	<i>Stillingia</i>
<i>Stillingia sylvatica</i>	QUEENSDELIGHT	EUPHORBIACEAE	<i>Stillingia</i>
<i>Stipulicida setacea</i>	PINELAND SCALYPINK	CARYOPHYLLACEAE	<i>Stipulicida</i>
<i>Stuckenia pectinata</i>	SAGO PONDWEED	POTAMOGETONACEAE	<i>Stuckenia</i>
<i>Stylisma villosa</i>	HAIRY DAWNFLOWER	CONVOLVULACEAE	<i>Stylisma</i>
<i>Stylosanthes hamata</i>	CHEESYTOES	FABACEAE	<i>Stylosanthes</i>
<i>Suriana maritima</i>	BAY CEDAR	SURIANACEAE	<i>Suriana</i>
<i>Swietenia mahagoni</i>	WEST INDIAN MAHOGANY	MELIACEAE	<i>Swietenia</i>
<i>Syagrus romanzoffiana</i>	QUEEN PALM	ARECACEAE	<i>Syagrus</i>
<i>Symphyotrichum bahamense</i>	BAHAMAN ASTER	ASTERACEAE	<i>Symphyotrichum</i>
<i>Symphyotrichum carolinianum</i>	CLIMBING ASTER	ASTERACEAE	<i>Symphyotrichum</i>
<i>Symphyotrichum elliotii</i>	ELLIOTT'S ASTER	ASTERACEAE	<i>Symphyotrichum</i>
<i>Symphyotrichum simmondsii</i>	SIMMONDS' ASTER	ASTERACEAE	<i>Symphyotrichum</i>
<i>Synedrella nodiflora</i>	NODEWEED	ASTERACEAE	<i>Synedrella</i>
<i>Syngonanthus flavidulus</i>	YELLOW HATPINS	ERIOCAULACEAE	<i>Syngonanthus</i>
<i>Syngonium podophyllum</i>	AMERICAN EVERGREEN	ARACEAE	<i>Syngonium</i>

<i>Syzygium cumini</i>	JAVA PLUM	MYRTACEAE	<i>Syzygium</i>
<i>Syzygium jambos</i>	MALABAR PLUM; ROSE APPLE	MYRTACEAE	<i>Syzygium</i>
<i>Tabebuia aurea</i>	CARIBBEAN TRUMPET-TREE	BIGNONIACEAE	<i>Tabebuia</i>
<i>Tabebuia heterophylla</i>	WHITE CEDAR	BIGNONIACEAE	<i>Tabebuia</i>
<i>Tagetes erecta</i>	AZTEC MARIGOLD	ASTERACEAE	<i>Tagetes</i>
<i>Talipariti tiliaceum</i>	SEA HIBISCUS; MAHOE	MALVACEAE	<i>Talipariti</i>
<i>Tamarindus indica</i>	TAMARIND	FABACEAE	<i>Tamarindus</i>
<i>Taxodium ascendens</i>	POND-CYPRESS	CUPRESSACEAE	<i>Taxodium</i>
<i>Taxodium distichum</i>	BALD-CYPRESS	CUPRESSACEAE	<i>Taxodium</i>
<i>Tecoma capensis</i>	CAPE HONEYSUCKLE	BIGNONIACEAE	<i>Tecoma</i>
<i>Tecoma stans</i>	YELLOW ELDER; YELLOW TRUMPETBUSH	BIGNONIACEAE	<i>Tecoma</i>
<i>Tectaria heracleifolia</i>	BROAD HALBERD FERN	DRYOPTERIDACEAE	<i>Tectaria</i>
<i>Tectaria incisa</i>	INCISED HALBERD FERN	DRYOPTERIDACEAE	<i>Tectaria</i>
<i>Tephrosia angustissima</i> var. <i>curtissii</i>	CURTISS' HOARYPEA	FABACEAE	<i>Tephrosia</i>
<i>Tephrosia florida</i>	FLORIDA HOARYPEA	FABACEAE	<i>Tephrosia</i>
<i>Tephrosia rugelii</i>	RUGEL'S HOARYPEA	FABACEAE	<i>Tephrosia</i>
<i>Tephrosia spicata</i>	SPIKED HOARYPEA	FABACEAE	<i>Tephrosia</i>
<i>Terminalia buceras</i>	BLACK OLIVE; OXHORN BUCIDA	COMBRETACEAE	<i>Terminalia</i>
<i>Terminalia catappa</i>	WEST INDIAN ALMOND	COMBRETACEAE	<i>Terminalia</i>
<i>Terminalia muelleri</i>	AUSTRALIAN ALMOND	COMBRETACEAE	<i>Terminalia</i>
<i>Teucrium canadense</i>	WOOD SAGE; CANADIAN GERMANDER	LAMIACEAE	<i>Teucrium</i>
<i>Thalia geniculata</i>	ALLIGATORFLAG; FIREFLAG	MARANTACEAE	<i>Thalia</i>
<i>Thelypteris augescens</i>	ABRUPT-TIP MAIDEN FERN	THELYPTERIDACEAE	<i>Thelypteris</i>
<i>Thelypteris dentata</i>	DOWNY MAIDEN FERN; DOWNY SHIELD FERN	THELYPTERIDACEAE	<i>Thelypteris</i>
<i>Thelypteris hispidula</i> var. <i>versicolor</i>	HAIRY MAIDEN FERN	THELYPTERIDACEAE	<i>Thelypteris</i>
<i>Thelypteris interrupta</i>	HOTTENTOT FERN; WILLDENOW'S FERN	THELYPTERIDACEAE	<i>Thelypteris</i>
<i>Thelypteris kunthii</i>	WIDESPREAD MAIDEN FERN; SOUTHERN SHIELD FERN	THELYPTERIDACEAE	<i>Thelypteris</i>
<i>Thelypteris ovata</i>	OVATE MARSH FERN	THELYPTERIDACEAE	<i>Thelypteris</i>
<i>Thelypteris palustris</i> var. <i>pubescens</i>	MARSH FERN	THELYPTERIDACEAE	<i>Thelypteris</i>
<i>Thelypteris reptans</i>	CREEPING STAR-HAIR FERN	THELYPTERIDACEAE	<i>Thelypteris</i>
<i>Thelypteris reticulata</i>	LATTICE-VEIN FERN	THELYPTERIDACEAE	<i>Thelypteris</i>
<i>Thelypteris serrata</i>	TOOTHED LATTICE-VEIN FERN; DENTATE LATTICE-VEIN FERN	THELYPTERIDACEAE	<i>Thelypteris</i>
<i>Thespesia populnea</i>	PORTIA TREE	MALVACEAE	<i>Thespesia</i>

Thlaspi arvense	FIELD PENNYCRESS	BRASSICACEAE	Thlaspi
Thunbergia alata	BLACKEYED SUSAN VINE	ACANTHACEAE	Thunbergia
Tiedemannia filiformis	WATER COWBANE	APIACEAE	Tiedemannia
Tillandsia balbisiana	NORTHERN NEEDLELEAF	BROMELIACEAE	Tillandsia
Tillandsia fasciculata	CARDINAL AIRPLANT; COMMON WILD PINE; STIFF-LEAVED WILD PINE	BROMELIACEAE	Tillandsia
Tillandsia flexuosa	TWISTED AIRPLANT; BANDED AIRPLANT	BROMELIACEAE	Tillandsia
Tillandsia ionantha	BLUSHING BRIDE AIRPLANT; SKY PLANT	BROMELIACEAE	Tillandsia
Tillandsia paucifolia	POTBELLY AIRPLANT	BROMELIACEAE	Tillandsia
Tillandsia recurvata	BALLMOSS	BROMELIACEAE	Tillandsia
Tillandsia setacea	SOUTHERN NEEDLELEAF	BROMELIACEAE	Tillandsia
Tillandsia usneoides	SPANISH MOSS	BROMELIACEAE	Tillandsia
Tillandsia utriculata	GIANT AIRPLANT; GIANT WILD PINE	BROMELIACEAE	Tillandsia
Tillandsia variabilis	LEATHERLEAF AIRPLANT; SOFT-LEAVED WILD PINE	BROMELIACEAE	Tillandsia
Tillandsia x smalliana	REDDISH WILD-PINE	BROMELIACEAE	Tillandsia
Tithonia diversifolia	SHRUB SUNFLOWER	ASTERACEAE	Tithonia
Tolumnia bahamensis	VARIEGATED ORCHID; ANGELITA; DANCINGLADY ORCHID	ORCHIDACEAE	Tolumnia
Toxicodendron radicans	EASTERN POISON IVY	ANACARDIACEAE	Toxicodendron
Tradescantia pallida	PURPLEQUEEN	COMMELINACEAE	Tradescantia
Tradescantia spathacea	MOSES-IN-THE-CRADLE; OYSTER-PLANT; BOATLILY	COMMELINACEAE	Tradescantia
Tradescantia zebrina	WANDERING-JEW; INCHPLANT	COMMELINACEAE	Tradescantia
Tragia urens	WAVYLEAF NOSEBURN	EUPHORBIACEAE	Tragia
Trema micrantha	NETTLETREE	CANNABACEAE	Trema
Trema orientalis	ORIENTAL TREMA	CANNABACEAE	Trema
Triadenum virginicum	VIRGINIA MARSH ST.JOHN'S-WORT	CLUSIACEAE	Triadenum
Trianthema portulacastrum	DESERT HORSEPURSLANE	AIZOACEAE	Trianthema
Tribulus cistoides	BURRNUT; JAMAICAN FEVERPLANT	ZYGOPHYLLACEAE	Tribulus
Trichosanthes cucumerina	SNAKEGOURD	CUCURBITACEAE	Trichosanthes
Trichostema dichotomum	FORKED BLUECURLS	LAMIACEAE	Trichostema
Trichostigma octandrum	HOOPVINE	PHYTOLACCACEAE	Trichostigma
Tridax procumbens	COATBUTTONS	ASTERACEAE	Tridax
Tridens flavus	TALL REDTOP; PURPLETOP TRIDENS	POACEAE	Tridens
Trifolium repens	WHITE CLOVER; DUTCH CLOVER	FABACEAE	Trifolium
Triglochin striata	ARROWGRASS	JUNCAGINACEAE	Triglochin
Trimezia martinicensis	MARTINIQUE TRIMEZIA	IRIDACEAE	Trimezia
Triphasia trifolia	LIMEBERRY	RUTACEAE	Triphasia

Triphora gentianoides	GENTIAN NODDINGCAPS	ORCHIDACEAE	Triphora
Triplasis americana	PERENNIAL SANDGRASS	POACEAE	Triplasis
Triplasis purpurea	PURPLE SANDGRASS	POACEAE	Triplasis
Tripsacum dactyloides	EASTERN GAMAGRASS; FAKAHATCHEEGRASS	POACEAE	Tripsacum
Triumfetta rhomboidea	DIAMOND BURRBARK	MALVACEAE	Triumfetta
Triumfetta semitriloba	SACRAMENTO BURRBARK	MALVACEAE	Triumfetta
Turbina corymbosa	CHRISTMASVINE	CONVOLVULACEAE	Turbina
Turnera ulmifolia	YELLOW ALDER; RAMGOAT DASHALONG	TURNERACEAE	Turnera
Typha domingensis	SOUTHERN CATTAIL	TYPHACEAE	Typha
Typha latifolia	BROADLEAF CATTAIL	TYPHACEAE	Typha
Ulmus americana	AMERICAN ELM	ULMACEAE	Ulmus
Uniola paniculata	SEAOATS	POACEAE	Uniola
Urena lobata	CAESARWEED	MALVACEAE	Urena
Urochloa adspersa	DOMINICAN SIGNALGRASS	POACEAE	Urochloa
Urochloa distachya	TROPICAL SIGNALGRASS	POACEAE	Urochloa
Urochloa mutica	PARAGRASS	POACEAE	Urochloa
Urochloa plantaginea	CREEPING SIGNALGRASS; PLANTAIN SIGNALGRASS	POACEAE	Urochloa
Urochloa ramosa	BROWNTOP MILLET; DIXIE SIGNALGRASS	POACEAE	Urochloa
Utricularia cornuta	HORNED BLADDERWORT	LENTIBULARIACEAE	Utricularia
Utricularia foliosa	LEAFY BLADDERWORT	LENTIBULARIACEAE	Utricularia
Utricularia gibba	HUMPED BLADDERWORT	LENTIBULARIACEAE	Utricularia
Utricularia purpurea	EASTERN PURPLE BLADDERWORT	LENTIBULARIACEAE	Utricularia
Utricularia resupinata	LAVENDER BLADDERWORT; SMALL PURPLE BLADDERWORT	LENTIBULARIACEAE	Utricularia
Utricularia simulans	FRINGED BLADDERWORT	LENTIBULARIACEAE	Utricularia
Utricularia subulata	ZIGZAG BLADDERWORT	LENTIBULARIACEAE	Utricularia
Vaccinium myrsinites	SHINY BLUEBERRY	ERICACEAE	Vaccinium
Vachellia farnesiana	SWEET ACACIA	FABACEAE	Vachellia
Vachellia farnesiana var. pinetorum	PINELAND ACACIA	FABACEAE	Vachellia
Vallisneria americana	TAPEGRASS; AMERICAN EELGRASS	HYDROCHARITACEAE	Vallisneria
Verbena scabra	SANDPAPER VERVAIN; HARSH VERVAIN	VERBENACEAE	Verbena
Verbesina virginica	WHITE CROWNBEARD; FROSTWEED	ASTERACEAE	Verbesina
Vernonia blodgettii	FLORIDA IRONWEED; BLODGETT'S IRONWEED	ASTERACEAE	Vernonia

Viburnum obovatum	WALTER'S VIBURNUM; SMALL-LEAF VIBURNUM	ADOXACEAE	Viburnum
Vicia acutifolia	FOURLEAF VETCH	FABACEAE	Vicia
Vigna luteola	HAIRYPOD COWPEA	FABACEAE	Vigna
Vigna unguiculata	BLACKEYED PEA; COWPEA	FABACEAE	Vigna
Viola lanceolata	BOG WHITE VIOLET	VIOLACEAE	Viola
Viola palmata	EARLY BLUE VIOLET	VIOLACEAE	Viola
Viola primulifolia	PRIMROSELEAF VIOLET	VIOLACEAE	Viola
Viola sororia	COMMON BLUE VIOLET	VIOLACEAE	Viola
Vitex trifolia	SIMPLELEAF CHASTETREE	LAMIACEAE	Vitex
Vitis aestivalis	SUMMER GRAPE	VITACEAE	Vitis
Vitis cinerea var. floridana	FLORIDA GRAPE	VITACEAE	Vitis
Vitis rotundifolia	MUSCADINE	VITACEAE	Vitis
Vitis shuttleworthii	CALLOOSE GRAPE	VITACEAE	Vitis
Vittaria lineata	SHOESTRING FERN	PTERIDACEAE	Vittaria
Waltheria indica	SLEEPY MORNING	MALVACEAE	Waltheria
Washingtonia robusta	WASHINGTON FAN PALM	ARECACEAE	Washingtonia
Wolffia columbiana	COLUMBIAN WATERMEAL	ARACEAE	Wolffia
Woodwardia areolata	NETTED CHAIN FERN	BLECHNACEAE	Woodwardia
Woodwardia virginica	VIRGINIA CHAIN FERN	BLECHNACEAE	Woodwardia
Xanthosoma sagittifolium	ARROWLEAF ELEPHANT'S EAR	ARACEAE	Xanthosoma
Ximenia americana	TALLOW WOOD; HOG PLUM	XIMENIACEAE	Ximenia
Xyris ambigua	COASTALPLAIN YELLOWEYED GRASS	XYRIDACEAE	Xyris
Xyris brevifolia	SHORTLEAF YELLOWEYED GRASS	XYRIDACEAE	Xyris
Xyris calcicola	LIMESTONE YELLOWEYED GRASS	XYRIDACEAE	Xyris
Xyris caroliniana	CAROLINA YELLOWEYED GRASS	XYRIDACEAE	Xyris
Xyris elliotii	ELLIOTT'S YELLOWEYED GRASS	XYRIDACEAE	Xyris
Xyris flabelliformis	SAVANNAH YELLOWEYED GRASS	XYRIDACEAE	Xyris
Xyris jupicai	RICHARD'S YELLOWEYED GRASS	XYRIDACEAE	Xyris
Xyris smalliana	SMALL'S YELLOWEYED GRASS	XYRIDACEAE	Xyris
Youngia japonica	ORIENTAL FALSE HAWKSBEARD	ASTERACEAE	Youngia
Yucca aloifolia	SPANISH BAYONET; ALOE YUCCA	AGAVACEAE	Yucca
Yucca filamentosa	ADAM'S NEEDLE	AGAVACEAE	Yucca
Zamia furfuracea	CARDBOARD PALM; CARDBOARD CYCAD	ZAMIACEAE	Zamia
Zamia pumila	FLORIDA ARROWROOT; COONTIE	ZAMIACEAE	Zamia
Zanthoxylum clava-herculis	HERCULES-CLUB	RUTACEAE	Zanthoxylum
Zanthoxylum coriaceum	BISCAYNE PRICKLYASH; LEATHERY PRICKLYASH	RUTACEAE	Zanthoxylum

Zanthoxylum fagara	WILD LIME; LIME PRICKLYASH	RUTACEAE	Zanthoxylum
Zephyranthes citrina	YELLOW ZEPHYRLILY	AMARYLLIDACEAE	Zephyranthes
Zephyranthes insularum	ISLAND ZEPHYRLILY	AMARYLLIDACEAE	Zephyranthes
Zephyranthes simpsonii	REDMARGIN ZEPHYRLILY; SIMPSON'S ZEPHYRLILY	AMARYLLIDACEAE	Zephyranthes
Zeuxine strateumatica	SOLDIER'S ORCHID; LAWN ORCHID	ORCHIDACEAE	Zeuxine
Zizaniopsis miliacea	SOUTHERN WILD RICE; GIANT CUTGRASS	POACEAE	Zizaniopsis
Ziziphus mauritiana	INIDAN JUJUBE	RHAMNACEAE	Ziziphus
Zoysia matrella	MANILA TEMPLEGRASS; MANILAGRASS	POACEAE	Zoysia
Zoysia pacifica	MANILA TEMPLEGRASS; MASCARENEGRASS	POACEAE	Zoysia

Appendix C: Listed Animal Species that may occur in the City of Parkland

Common Name	Scientific Name	Status
Birds		
Whooping crane	(<i>Grus americana</i>)	EP
Everglade snail kite	(<i>Rostrhamus sociabilis plumbeus</i>)	E
Kirtland's Warbler	(<i>Setophaga kirtlandii</i> (= <i>Dendroica kirtlandii</i>))	E
Red-cockaded woodpecker	(<i>Picoides borealis</i>)	E
Wood stork	(<i>Mycteria americana</i>)	T
Audubon's crested caracara	(<i>Polyborus plancus audubonii</i>)	T
Piping Plover	(<i>Charadrius melodus</i>)	T
Florida scrub-jay	(<i>Aphelocoma coerulescens</i>)	T
Red knot	(<i>Calidris canutus rufa</i>)	T
Flowering Plants		
Four-petal pawpaw	(<i>Asimina tetramera</i>)	E
Okeechobee gourd	(<i>Cucurbita okeechobeensis</i> ssp. <i>okeechobeensis</i>)	E
Beach jacquemontia	(<i>Jacquemontia reclinata</i>)	E
Tiny polygala	(<i>Polygala smallii</i>)	E
Lichens		
Florida perforate cladonia	(<i>Cladonia perforata</i>)	E
Mammals		
West Indian Manatee	(<i>Trichechus manatus</i>)	E
Florida panther	(<i>Puma</i> (= <i>Felis</i>) <i>concolor coryi</i>)	E
Southeastern beach mouse	(<i>Peromyscus polionotus niveiventris</i>)	T
Puma	(=mountain lion) (<i>Puma</i> (= <i>Felis</i>) <i>concolor</i> (all subsp. except <i>coryi</i>))	S
Reptiles		
American alligator	(<i>Alligator mississippiensis</i>)	S
Hawksbill sea turtle	(<i>Eretmochelys imbricata</i>)	E
Leatherback sea turtle	(<i>Dermochelys coriacea</i>)	E
Green sea turtle	(<i>Chelonia mydas</i>)	E
Loggerhead sea turtle	(<i>Caretta caretta</i>)	T
Eastern indigo snake	(<i>Drymarchon corais couperi</i>)	T
American crocodile	(<i>Crocodylus acutus</i>)	T
Gopher tortoise	(<i>Gopherus polyphemus</i>)	C

E = Endangered

T = Threatened

C = Candidate

EP = Experimental Population, Non-Essential

S = Similarity of Appearance (Threatened)

Source: U.S. Fish and Wildlife Service

Appendix D: Invasive Plant Species

Category 1 Invasive exotics that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. This definition does not rely on the economic severity or geographic range of the problem, but on the documented ecological damage caused.			
Scientific Name	Common Name	Government List	Regional Distribution
<i>Abrus precatorius</i>	rosary pea	N	C, S
<i>Acacia auriculiformis</i>	earleaf acacia		C,S
<i>Albizia julibrissin</i>	mimosa, silk tree		N,C
<i>Albizia lebbbeck</i>	woman's tongue		C, S
<i>Ardisia crenata</i> (A. crenulata misapplied)	coral ardisia	N	N, C, S
<i>Ardisia elliptica</i> (A. humilis misapplied)	shoebutton ardisia	N	C, S
<i>Asparagus aethiopicus</i> (A. sprengeri; A. densiflorus misapplied)	asparagus-fern		N, C, S
<i>Bauhinia variegata</i>	orchid tree		C, S
<i>Bischofia javanica</i>	bishopwood		C, S
<i>Calophyllum antillanum</i> (C. calaba misapplied)	Santa Maria, mast wood, Antilles calophyllum		S
<i>Casuarina equisetifolia</i>	Australian-pine, beach sheoak	P, N	N, C, S
<i>Casuarina glauca</i>	suckering Australian-pine, gray sheoak	P, N	C, S
<i>Colocasia esculenta</i>	wild taro	N, C, S	
<i>Colubrina asiatica</i>	lather leaf	N	S
<i>Cupaniopsis anacardioides</i>	carrotwood	N	C, S
<i>Deparia petersenii</i>	Japanese false spleenwort		N, C
<i>Dioscorea alata</i>	winged yam	N	N, C, S
<i>Dioscorea bulbifera</i>	air-potato	N	N, C, S
<i>Dolichandra unguis-cati</i> (=Macfadyena unguis-cati)	cat's claw vine		N, C, S
<i>Eichhornia crassipes</i>	water-hyacinth	P	N, C, S
<i>Eugenia uniflora</i> I C, S	Surinam cherry		C, S
<i>Ficus microcarpa</i> (F. nitida and F. retusa var. nitida misapplied)	laurel fig		C, S

Hydrilla verticillata	hydrilla	P, U	N, C, S
Hygrophila polysperma	green hygro	P, U	N, C, S
Hymenachne amplexicaulis	West Indian marsh grass		N, C, S
Imperata cylindrica (I. brasiliensis misapplied)	cogon grass	N, U	N, C, S
Ipomoea aquatica	water-spinach	P, U	C
Jasminum dichotomum	Gold Coast jasmine		C, S
Jasminum fluminense	Brazilian jasmine		C, S
Lantana camara (= L. strigocamara)	lantana, shrub verbena		N, C, S
Ligustrum lucidum	glossy privet		N, C
Ligustrum sinense	Chinese privet, hedge privet	N ₂	N, C, S
Lonicera japonica	Japanese honeysuckle		N, C, S
Ludwigia hexapetala	Uruguay waterprimrose		N, C
Ludwigia peruviana	Peruvian primrosewillow		N, C, S
Lumnitzera racemosa	kripa; white-flowered mangrove; black mangrove		S
Luziola subintegra	Tropical American water grass		S
Lygodium japonicum	Japanese climbing fern	N	N, C, S
Lygodium microphyllum	Old World climbing fern		N, U
Macfadyena unguis-cati (see Dolichandra unguis-cati)			
Manilkara zapota	sapodilla		S
Melaleuca quinquenervia	melaleuca, paper bark	P, N, U	C, S
Melinis repens (= Rhynchelytrum repens)	Natal grass		N, C, S
Mimosa pigra	catclaw mimosa	P, N, U	C, S
Nandina domestica	nandina, heavenly bamboo		N, C
Nephrolepis brownii (= N. multiflora)	Asian sword fern		C, S
Nephrolepis cordifolia	sword fern		N, C, S
Neyraudia reynaudiana	Burma reed, cane grass	N	S
Nymphoides cristata	crested floating heart	N	C, S
Paederia cruddasiana	sewer vine, onion vine	N	S
Paederia foetida	skunk vine	N	N,C,S
Panicum repens	torpedo grass		N,C,S
Pennisetum purpureum	Napier grass, elephant grass		N,C,S

<i>Phymatosorus scolopendria</i>	serpent fern, wart fern		S
<i>Pistia stratiotes</i>	water-lettuce	P	N, C, S
<i>Psidium cattleianum</i> (= <i>P. littorale</i>)	strawberry guava		C, S
<i>Psidium guajava</i>	guava		C, S
<i>Pueraria montana</i> var. <i>lobata</i> (= <i>P. lobata</i>)	kudzu	N	N, C, S
<i>Rhodomyrtus tomentosa</i>	downy rose-myrtle	N	C, S
<i>Rhynchelytrum repens</i> (See <i>Melinis repens</i>)			
<i>Ruellia simplex</i>	Mexican petunia		N, C, S
<i>Salvinia minima</i>	water spangles		N, C, S
<i>Sapium sebiferum</i> (= <i>Triadica sebifera</i>)	popcorn tree, Chinese tallow tree	N	N, C, S
<i>Scaevola taccada</i>	scaevola, half-flower, beach naupaka	N	C, S
<i>Schefflera actinophylla</i> (= <i>Brassaia actinophylla</i>)	schefflera, Queensland umbrella tree		C, S
<i>Schinus terebinthifolius</i>	Brazilian-pepper	P, N	N, C, S
<i>Scleria lacustris</i>	Wright's nutrush		C, S
<i>Senna pendula</i> var. <i>glabrata</i> (= <i>Cassia coluteoides</i>)	climbing cassia, Christmas cassia,		C, S
<i>Solanum tampicense</i> (= <i>S. houstonii</i>)	wetland nightshade, aquatic soda apple	N, U	C, S
<i>Solanum viarum</i>	tropical soda apple	N, U	N, C, S
<i>Sporobolus jacquemontii</i> * (= <i>S. indicus</i> var. <i>pyramidalis</i>)	West Indian dropseed		C, S
<i>Syngonium podophyllum</i>	arrowhead vine		N, C, S
<i>Syzygium cumini</i>	jambolan-plum, Java-plum		C, S
<i>Tectaria incisa</i>	incised halberd fern		S
<i>Thespesia populnea</i>	seaside mahoe		C, S
<i>Tradescantia fluminensis</i>	small-leaf spiderwort		N, C
<i>Urena lobata</i>	Caesar's weed		N, C, S
<i>Urochloa mutica</i> (= <i>Brachiaria mutica</i>)	Para grass		C, S
<i>Vitex rotundifolia</i>	beach vitex		N

Category 2

Invasive exotics that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species. These species may become ranked Category I if ecological damage is demonstrated.

Scientific Name	Common Name	Government List	Regional Distribution
Adenanthera pavonina	red sandalwood		S
Agave sisalana	sisal hemp		C, S
Aleurites fordii (= Vernicia fordii)	tung oil tree		N, C
Alstonia macrophylla	devil tree		S
Alternanthera philoxeroides	alligator weed	P	N, C, S
Antigonon leptopus	coral vine		N, C, S
Ardisia japonica	Japanese ardisia		N
Aristolochia littoralis	calico flower		N, C, S
Asystasia gangetica	Ganges primrose		C, S
Begonia cucullata	wax begonia		N, C, S
Blechum pyramidatum (<i>see</i> Ruellia blechum)			
Broussonetia papyrifera	paper mulberry		N, C, S
Bruguiera gymnorhiza	large-leaved mangrove		S
Callisia fragrans	inch plant, spironema		C, S
Casuarina cunninghamiana	river sheoak, Australian-pine	P	C, S
Cecropia palmata	trumpet tree		S
Cestrum diurnum	day jessamine		C, S
Chamaedorea seifrizii	bamboo palm		S
Clematis terniflora	Japanese clematis		N, C
Cocos nucifera	coconut palm		S
Crassocephalum crepidioides	redflower ragleaf, Okinawa spinach		C, S
Cryptostegia madagascariensis	rubber vine		C, S
Cyperus involucratus (C. alternifolius misapplied)	umbrella plant		C, S
Cyperus prolifer	dwarf papyrus		C, S
Dactyloctenium aegyptium	Durban crowfoot grass		N, C, S
Dalbergia sissoo	Indian rosewood, sissoo		C, S

<i>Elaeagnus pungens</i>	silverthorn, thorny olive		N, C
<i>Elaeagnus umbellata</i>	silverberry, autumn olive		N
<i>Epipremnum pinnatum</i> cv. Aureum	pothos		C, S
<i>Eulophia graminea</i>	Chinese crown orchid		S
<i>Ficus altissima</i>	false banyan, council tree		S
<i>Flacourtia indica</i>	governor's plum		S
<i>Hemarthria altissima</i>	limpo grass		C, S
<i>Heteropterys brachiata</i>	red wing		S
<i>Hibiscus tiliaceus</i> (See <i>Talipariti tiliaceum</i>)			
<i>Hyparrhenia rufa</i>	jaragua		N, C, S
<i>Ipomoea carnea</i> ssp. <i>fistulosa</i> (= <i>I. fistulosa</i>)	shrub morning-glory	P	C, S
<i>Kalanchoe pinnata</i> (= <i>Bryophyllum pinnatum</i>)	life plant		C, S
<i>Koelreuteria elegans</i> ssp. <i>formosana</i> (= <i>K. formosana</i> ; <i>K. paniculata</i> misapplied)	flamegold tree		C, S
<i>Landoltia punctata</i> (= <i>Spirodela punctata</i>)	spotted duckweed		N, C, S
<i>Leucaena leucocephala</i>	lead tree	N	N, C, S
<i>Limnophila sessiliflora</i>	Asian marshweed	P, U	N, C, S
<i>Livistona chinensis</i>	Chinese fan palm		C, S
<i>Macroptilium lathyroides</i>	phasey bean		N, C, S
<i>Melaleuca viminalis</i> (= <i>Callistemon viminalis</i>)	bottlebrush, weeping bottlebrush		C, S
<i>Melia azedarach</i>	Chinaberry		N, C, S
<i>Melinis minutiflora</i>	molasses grass		C, S
<i>Merremia tuberosa</i>	wood-rose		C, S
<i>Mikania micrantha</i>	mile-a-minute vine	N, U	S
<i>Momordica charantia</i>	balsam apple, balsam pear		N, C, S
<i>Murraya paniculata</i>	orange-jessamine		S
<i>Myriophyllum spicatum</i>	Eurasian water-milfoil	P	N, C, S
<i>Panicum maximum</i> (= <i>Urochloa maxima</i> , <i>Megathyrsus maximus</i>)	Guinea grass		N, C, S
<i>Passiflora biflora</i>	two-flowered passion vine		S
<i>Pennisetum setaceum</i>	green fountain grass		S
<i>Phoenix reclinata</i>	Senegal date palm		C, S

<i>Phyllostachys aurea</i>	golden bamboo		N, C
<i>Pittosporum pentandrum</i>	Philippine pittosporum, Taiwanese cheesewood		S
<i>Praxelis clematidea</i>	praxelis		C
<i>Pteris vittata</i>	Chinese brake fern		N, C, S
<i>Ptychosperma elegans</i>	solitaire palm		S
<i>Rhoeo spathacea</i> (see <i>Tradescantia spathacea</i>)			
<i>Richardia grandiflora</i>	large flower Mexican clover		N, C, S
<i>Ricinus communis</i>	castor bean		N, C, S
<i>Rotala rotundifolia</i>	roundleaf toothcup, dwarf <i>Rotala</i> , redweed		S
<i>Ruellia blechum</i> (= <i>Blechum brownei</i>)	green shrimp plant, Browne's blechum		N, C, S
<i>Sansevieria hyacinthoides</i>	bowstring hemp		C, S
<i>Sesbania punicea</i>	purple sesban, rattlebox		N, C, S
<i>Solanum diphyllum</i>	two-leaf nightshade		N, C, S
<i>Solanum torvum</i>	susumber, turkey berry	N, U	N, C, S
<i>Spermacoce verticillata</i>	shrubby false buttonweed		C, S
<i>Sphagneticola trilobata</i> (= <i>Wedelia trilobata</i>)	wedelia		N, C, S
<i>Stachytarpheta cayennensis</i> (= <i>S. urticifolia</i>)	nettle-leaf porterweed		S
<i>Syagrus romanzoffiana</i> (= <i>Arecastrum romanzoffianum</i>)	queen palm		C, S
<i>Syzygium jambos</i>	Malabar plum, rose-apple		N, C, S
<i>Talipariti tiliaceum</i> (= <i>Hibiscus tiliaceus</i>)	mahoe, sea hibiscus		C, S
<i>Terminalia catappa</i>	tropical-almond		C, S
<i>Terminalia muelleri</i>	Australian-almond		C, S
<i>Tradescantia spathacea</i> (= <i>Rhoeo spathacea</i> , <i>Rhoeo discolor</i>)	oyster plant		S
<i>Tribulus cistoides</i>	puncture vine, burr-nut		N, C, S
<i>Vitex trifolia</i>	simple-leaf chaste tree		C, S
<i>Washingtonia robusta</i>	Washington fan palm		C, S
<i>Wedelia</i> (see <i>Sphagneticola</i> above)			
<i>Wisteria sinensis</i>	Chinese wisteria		N, C
<i>Xanthosoma sagittifolium</i>	malanga, elephant ear		N, C, S
Legend: P = Prohibited aquatic plant by the Florida Department of Agriculture and Consumer Services			

N = Noxious weed listed by Florida Department of Agriculture & Consumer Services

U = Noxious weed listed by USDA

Regional Distribution:

N = north, C = central, S = south (Referring to each species' current distribution in general regions of Florida (not its potential range in the state).

Source: FLEPPC. 2015. List of Invasive Plant Species. Florida Exotic Pest Plant Council. <http://www.fleppc.org/list/list.htm>

Appendix E: Inventory of Parks, Recreation, and Open Space

Number	Facility Name	Ownership	Actual Acreage	Acreage for LOS Standard	Active / Passive	Facilities / Misc. / Other
1	Pine Trails Park	Parkland	79.82	79.82	Active	Soccer fields, basketball courts, t-ball fields, multi-purpose fields, playgrounds, meeting rooms, trails, open space, picnic pavilions, concession, restroom
2	Liberty Park	Parkland	7.13	7.13	Active	Tot lot and playground, water play area, pavilions, restroom, horse corral
3	Equestrian Center at Temple Park	Parkland	26.49	26.49	Active	Equestrian rings, open space, picnic pavilion, concession, restroom
4	John H. Quigley Park	Parkland	5.36	5.36	Active	T-ball/coach pitch fields; soccer, football, and baseball fields; playground area, concession, restroom, picnic pavilion
5	Terramar Park	Parkland	49.89	49.89	Active	Trails; baseball, softball, soccer, football, and multi-purpose fields; tennis, pickleball, and basketball courts; playgrounds; picnic pavilions; concession; restroom
6	Doris Davis Forman Wilderness Preserve	Parkland	20.03	20.03	Passive	Open space, boardwalk and trails, conservation area, pavilion
7	Barkland Dog Park	Parkland	7	7	Active	Open space, trails, picnic area
8	Ternbridge Preserve	Parkland	3.50	3.50	Passive	Open space
9	6 Acre Wood Park	Parkland	7.28	7.28	Passive	Open space, trails, conservation area
10	Covered Bridge Park	Parkland	6.70	6.70	Passive	Open space
11	Margate-Blount Archaeological Site	Parkland	4.91	4.91	Passive	Open space, archaeological feature
12	Hillsboro Boulevard 11 Acre Park	Parkland	11.17	11.17	Passive	Undeveloped
13	County Preserve	Broward County	38.38	3.84	Passive	Preserve
14	Mastedon Preserve	WCI	5.23	5.23	Passive	Open space
15	Audubon Garden	WCI	4.00	4.00	Passive	Open space
16	FDOT open space	FDOT	39.18	3.92	Passive	Open space, not publicly accessible and includes freeway ramp
17	Other miscellaneous open space	- Parkland - Broward County	City: 27.77 County: 0.00	City: 27.77 County: 0.00	Passive	Open space, trails
	Golf Courses: - Parkland Golf and Country Club - TPC at Heron Bay	- WCI - HB Partners	- WCI: 269.00 - HB: 171.63	66.09	Active	- WCI: 18-hole golf course (private) - HB Partners: 18-hole golf course (open to public; privately owned)
	Girl Scouts Site	Girl Scouts of Broward County	12.52	12.52	Active	Private facility deed restricted for recreation
	TOTAL		796.99	352.65		

Source: City of Parkland

CHAPTER SIX

CAPITAL IMPROVEMENTS ELEMENT

PURPOSE

Florida Statutes Chapter 163.3177 requires that all comprehensive plans contain a Capital Improvements Element. Chapter 9J-5.016, Florida Administrative Code, states that the purpose of the Capital Improvements Element is to evaluate the need for public improvements as identified in other elements of the local comprehensive plan; estimate the cost of improvements for which the local government is responsible; analyze the local government's fiscal capability to execute capital improvements; and establish financial policies and schedules to assure the timely delivery of facilities and services based upon prevailing and projected needs. This element also serves as a mechanism to implement the City's Concurrency Management System; thereby safeguarding the integrity of capital facilities servicing the preexisting built environment while assuring the timely availability of adequate services for future development.

The Capital Improvements Element identifies necessary improvements to rectify existing deficiencies and physical facilities required to maintain levels of service (LOS) identified elsewhere in the local comprehensive plan. This Capital Improvements Element is not to be mistaken for the City's Capital Improvement Program (CIP). To this end, the Capital Improvements Element focuses on capital outlays for both immediate and long term needs to assure the orderly growth and development of the City by maintaining adequate capital facilities and proactively responding to projected demands. Through responsible capital facility planning and evaluation, this Element supports the achievement of identified levels of service for existing and future residents alike.

EXISTING DATA AND CONDITIONS

Inventory of Capital Improvement Needs

A listing of the public facilities and capital improvements that are necessary to correct preexisting deficiencies or maintain LOS as identified in the Elements within this Comprehensive Plan are reflected in Table 6-1. These elements include:

- Recreation and Open Space
- Transportation
- Potable Water
- Wastewater
- Stormwater

This table also includes projects that are not measured by a defined LOS but are required to fulfill needs within the City. The nature of each need (i.e. existing deficiency or projected) and year of planned capital expenditure is also indicated within Table 6-1.

Table 6-1: City of Parkland Capital Improvement Needs

No.	Facility	Existing Deficiency/ Projected Need (ED/PN)	Fiscal Years
<i>City Recreation and Open Space Needs</i>			
1.	Pine Trails Park Completion	PN	2015-2016
2.	Liberty Park Splash Pad Renovation	PN	2015-2016
3.	Field Renovations, Pine Trails	PN	2015-2020
4.	Quigley Tennis Center	PN	2015-2016
5.	Public Property Beautification	PN	2015-2020
<i>City Infrastructure Improvements</i>			
1.	Loxahatchee Road Improvements	PN	2018-2019
2.	Street Lighting, City Wide	PN	2016-2020
3.	Traffic Signal Preemption Device	PN	2015-2016
4.	Information Technology Improvements	PN	2015-2018
5.	Doris Forman Boardwalk Railing Replacement	PN	2015-2016
6.	Irrigation Pump Station Replacements	PN	2015-2016
7.	Fire Station Emergency Traffic Signals	PN	2015-2017
<i>Public Services Improvements</i>			
1.	Library Redesign and Reconfiguration	PN	2015-2017

Source: City of Parkland, Broward County, Florida's Turnpike Enterprise, Coconut Creek Utility, Parkland Utilities, North Springs Improvement District

Public Education and Health Care Systems

Public school facilities within the City of Parkland are operated by the Broward County School Board. Due to this regional approach of delivering public education service, needs associated with the Broward County School Board are beyond the financial responsibility of the City and are therefore not included in this Element. The City actively coordinates with the Broward County School Board on public school facility planning issues. The Broward County School Board operates the following 8 public schools that serve students from the City of Parkland:

1. Heron Heights Elementary, 11010 Nob Hill Road, Parkland, FL
2. Riverglades Elementary, 7400 Parkside Drive, Parkland, FL
3. Park Trails Elementary, 10700 Trails End, Parkland, FL
4. Coral Park Elementary, 8401 Westview Drive, Coral Springs, FL

5. Westglades Middle, 11000 Holmberg Road, Parkland, FL
6. Forest Glen Middle, 6501 Turtle Run Blvd., Coral Springs, FL
7. Stoneman Douglas High, 5901 Pine Island Road, Parkland, FL
8. Coral Springs High, 7201 West Sample Road, Coral Springs, FL

The majority of elementary schools located within the City have exceeded their enrollment capacity and are projected to be critically overcrowded by 2019/2020. The City of Parkland is actively coordinating with Broward County Schools to address school capacity issues. The County School District will construct 24 classrooms within this planning period to mitigate forecasted growth demands of elementary schools in Parkland. West Glades Middle School and Stoneman Douglas High School are significantly below permanent capacity for the current planning period. The high school services a student body of 3,075 comprising of grades 9 through 12.

Public health care services are delivered by the North Broward Hospital District (NBHD), which is one of the five largest public healthcare systems in the nation. Providing service since 1938, NBHD is a nonprofit community health system offering a full spectrum of healthcare services. The District encompasses more than 30 healthcare facilities including two facilities located within close proximity to the City of Parkland: The North Broward Medical Center, located at 201 E. Sample Road, Deerfield Beach, and the Coral Springs Medical Center, located at 3000 Coral Hills Drive in Coral Springs. There are adequate health care facilities to accommodate the projected population and associated demands for health services for the City of Parkland.

EXISTING REVENUES AND FUNDING SOURCES

The City of Parkland utilizes a variety of revenue sources to finance capital improvement projects. At present the City's primary revenue sources include the General Fund and financial allocations from federal agencies (i.e. Federal Emergency Management Agency), state grants and municipal bonds. These sources are not, however, exhaustive of all resources that the City could consider or utilize should alternatives be found advantageous. While capital project financing is not limited solely to the sources that are inventoried in this section, these major financial resources provide a basis for assessing the City's capacity to finance capital improvements.

BUDGET OVERVIEW

The Fiscal Year 2016 Proposed General Fund Budget is, \$29,400,000 which is \$1,320,000 or 4.7% more than the adopted Fiscal Year 2015 Budget. Departments began the budget process by justifying all changes being made from FY 2015 to FY 2016. The largest departmental operating increases are for Human Resources, City Manager, and City Clerk.

The Proposed Capital Improvement Budget is \$6,935,100 which is detailed below in Table 6-2, Fund Summary.

Table 6-2: Fund Summary

Fund	Adopted FY 2016
General Fund	\$29,400,000
Park & Community Improvement Fund	\$2,735,000
Capital Projects Fund	\$3,782,300
Capital Replacement Fund	\$155,800
Infrastructure Replacement Fund	\$182,000
Government Building & Library Impact Fee Fund	\$80,000
GRAND TOTAL	\$36,335,100

Source: City of Parkland Finance Department

The Park & Community Improvement Fund was created to establish future land or funds dedicated for parks, open space and recreational needs of the residents in the development area. Developers must provide five acres for every 1,000 residents in the development area. If land is not dedicated, developers can provide equivalent funding determined by market value. The equivalent funding for developers is set at \$175,000 per acre and the assessment fee is \$3,850 per acre.

The Capital Projects Fund records acquisitions and construction of major capital projects. Projects are funded by cash reserves, impact fees and grants. All projects that were budgeted in prior fiscal years will be carried forward until completion. Only new funded projects are included in the capital projects budget.

The Capital Replacement Fund is where acquisitions for replacement fleet/equipment and computer/printers are funded. In order to maintain this fund, general fund reserves are transferred annually from the General Fund.

The Government & Library Building Fund was created in FY 2012 for the collection of impact fees for government buildings and the library. Impact fees represent new developments proportionate share of the capital costs associated with providing

additional infrastructure capacity. Government and Library Impact Fees are assessed on new construction of residential land uses.

GENERAL FUND

The General Fund accounts for revenues and expenditures associated with the general operation of city government functions. This Fund comprises the largest individual component of the City's annual budget. The significant factors affecting the formulation of the Fiscal Year 2016 Proposed Budget includes: taxable values, millage rate, fire assessment fee, solid waste assessment fee, and contractual services. On July 1st the Broward County Property Appraiser's Office provided taxable value to all taxing authorities. The City of Parkland had an increase of 12.8% or \$433 million in taxable value. This increase resulted in an additional \$1.5 million in ad valorem revenue.

Table 6-3: General Fund Revenue Sources

Revenue Sources	Actual Budget FY 2014	Year End Budget FY 2015	Proposed Budget 2016	\$ Change
Ad Valorem Taxes	\$12,224,931	\$12,910,336	\$14,441,941	\$1,531,605
Franchise Fees	\$346,923	\$370,408	\$352,000	\$20,000
Utility Service Taxes	\$3,010,550	\$2,815,000	\$2,855,000	\$40,000
Intergovernmental Revenues	\$2,835,791	\$3,081,120	\$2,781,260	\$159,046
Licenses-Permits	\$5,661,320	\$4,652,900	\$3,151,490	(\$1,501,410)
Service Charges	\$4,578,598	\$3,479,030	\$3,518,915	\$47,129
Fines and Forfeitures	\$275,590	\$185,000	\$200,000	\$15,000
Miscellaneous	\$678,344	\$550,570	\$559,200	\$8,630
Non-Revenue Sources	\$744,488	\$5,568,009	\$1,532,950	(\$4,000,000)
TOTAL	\$30,356,535	\$35,032,754	29,400,000	(\$3,680,000)

Source: City of Parkland Finance Department, Fiscal Year 2015/2016 Adopted Annual Budget.

General Fund revenue sources include taxes, license and permit fees, intergovernmental revenues, service charges, fines and forfeitures, loan proceeds, grants and aids, and miscellaneous revenues. Major components of expenditures from the General Fund include personal services and operations costs. The following sources generate funds that account for the City's General Fund balance:

Ad Valorem Taxes: Taxes levied against personal property provide the single greatest source of revenue for the City of Parkland. Property is taxed based upon a millage rate (\$1 per \$1,000, or .01%) that is applied to the assessed taxable value of real property. The City of Parkland has lowered its millage rate from 4.0198 in FY 2011 to the FY 2016 proposed rate of 3.9890. Ad valorem tax revenues are projected at \$16,057,336 for FY 2015/2016. The ad valorem tax revenues are projected at \$17,656,185 for FY 2016/2017, which accounts for 60% of all General Fund revenues. Fluctuation in real estate values and their direct correlation to property tax revenue have had and will continue to have an extraordinary influence on the City's General Operating Budget.

Franchise Fee: Franchise fees provide payments by garbage and gas companies to the City for exclusive/non-exclusive rights to operate within municipal boundaries, including the company's use and occupancy of public streets and public easements. Examples include electricity, telephone, cable television, and sold waste. Franchise fees make up \$352,000 of the \$29,400,000 total General Revenues for FY 2016/2017.

Utility Service Taxes: A utility tax is levied against consumer consumption of utility services provided in the City, such as electricity, water and telephone services. These funds will total \$2,855,000 in FY 2016/2017.

Licenses and Permits: This revenue source is derived from annual fees associated with licensure of private business operations with the City, as well as applicants for various City permits. Specific examples of revenue sources include, but are not limited to, occupational licenses, building permits, demolition permits, contractor licenses, and special event permits. Revenues from licenses and permits are projected at \$4,652,900 in FY 2015/2016 and \$3,151,490 in FY 2016/2017.

Intergovernmental Revenues: These funds include proceeds from state revenue sharing; state dispersion of the “half-cent” sales tax; occupational license fees collected by Broward and other various sources. Intergovernmental revenues, and interest associated with the current fiscal period are all considered to be susceptible to accrual and so have been recognized as revenues of the current fiscal period. All other revenue items such as fines and forfeitures and licenses and permits are considered to be measurable and available only when cash is received by the City. Total intergovernmental revenues are estimated at \$2,781,260 for FY 2016.

Service Charges: On an annual basis, charges for miscellaneous City services account for a small percentage of total General Fund revenues. Service charges are typically associated with sales and reproduction of public documents and application fees not accounted for within other General Fund categories. This source accounts for \$3,102,234 of revenue within the City’s 2015 General Fund. Service charges are expected to total \$3.52 million in FY 2016.

Miscellaneous Revenues: All revenues not otherwise accounted for include interest payments, interest collected on fire assessments, liens, sales of surplus equipment, and funds from various City services and facilities. The FY 2016 includes \$559,200 in miscellaneous funds.

STATE SOURCES

The City of Parkland annually receives monetary allocations from the State of Florida to supplement local revenues and fulfill budgetary obligations. It should be noted that revenues from state sources fluctuate from year to year based upon state budgeting capacities, legislative decisions, and other circumstances. Nonetheless, funds derived from state resources play a significant role in the City’s revenue stream.

Local Option Gas Tax: The State of Florida has authorized local governments to exercise a gas tax; revenues from which are limited to funding for transportation expenditures. Gas tax revenues are collected by the State and distributed between Parkland, Broward County, and other municipalities throughout the county in accordance with an interlocal agreement. The tax is levied at a rate of 1 to 6 cents per gallon of motor and diesel fuel sales with the actual rate being approved by referendum or majority vote of the Board of County Commissioners. In Fiscal Year 2016, Parkland anticipates an allocation of \$420,000 of proceeds from the Local Option Gas Tax and is included in the Intergovernmental Revenues category of funds.

OTHER REVENUE SOURCES

Impact Fees: An impact fee is a charge on new development to pay for the construction or expansion of off-site capital improvements that are necessitated by and benefit the new development. The City currently does not collect impact fees, but may want to consider this funding source in the future if financial feasibility is a concern.

Proportionate Fair Share Mitigation: The City adopted an ordinance that provides for a methodology for proportionate fair share mitigation. This will allow the City to collect proportionate fair share contributions from developers for concurrency requirements.

CAPITAL IMPROVEMENTS ANALYSIS

Timing and Priority of Capital Improvement Needs

The City of Parkland Comprehensive Plan has identified capital improvements by type, location and cost. Timing and priority of capital improvement needs will be determined by the following:

Capital projects will be evaluated using the following criteria:

- Preserve the health and ensure the safety of the public by eliminating public hazards.
- Promote efficient development and prevent urban sprawl.
- Level of impact on operating budget.
- Protect prior infrastructure investments.
- Consistent with County plans and the plans of other agencies.
- Eliminate existing deficiencies.
- Maintain adopted levels of service.
- Availability of funds.

Table 6-4 shows a summary of the City's existing and projected needs by facility type. The City's own capital improvements projects needs have been combined with capital improvements project needs that are the responsibility of Broward County, the Florida Department of Transportation, and the utilities serving Parkland.

Table 6-4: Existing and Projected Needs by Funding Source

Facility Type	FY16	FY17	FY18	FY19	FY20	Total 5-Year Cost (FY16 to FY20)
Capital Improvement Projects Fund						
	\$3,782,300					\$3,782,300
Capital Replacement Fund						
	\$155,800					\$155,800
Infrastructure Replacement Fund						
	\$182,000					\$182,000
Government Building & Library Fee Fund						
	\$80,000					\$80,000

Source: City of Parkland

The projects identified are to be used as a planning tool for development of future projects within the City. The City Commission and staff will incorporate the needed improvements within the City of Parkland Capital Improvement Program as planning proceeds.

PROJECTED REVENUES

The City of Parkland continues to be in excellent financial health. The Fiscal Year 2016 Budget is balanced with a slight decrease in the millage rate, from 4.0198 in FY 2011 to the FY 2016 rate of 3.9870. Even with the millage rate decreasing, the budget will continue to include a stabilization/operating reserve. In Fiscal Year 2016 this reserve will be increased by five percent (5%) for a total of twenty-five percent (25%) of the General Fund Operating Budget. The purpose for this reserve is to be prepared for unforeseen economic conditions and natural disasters (hurricanes) that could affect our community and the additional 5% will be needed due to population growth. Every year we reserve a portion of available fund balance to adhere to this policy which in the Fiscal Year 2016 Budget the reserve is \$6,737,500. With such a strong financial position, the City can maintain excellent services to our residents while undertaking a steady amount of significant projects to improve our community.

The following table (Table 6-5) projects revenue for the City over the next five year period. While assumptions utilized to derive these projections are specific to each fund source, much reliance has been placed upon population forecasts and trends reflected by historic data. The City of Parkland's 2015-2016 budget is reflective of economic improvements that come in the heels of at least five (5) years of fiscal decline. This year, the Property Appraiser is predicting over a twelve percent (12%) increase in Parkland property values, the largest municipal increase in Broward County. The City of Parkland anticipates similar growth in the future due to new development.

The Capital Improvement Budget is \$6,935,100 for the FY 2016. A total of \$4,137,300 of existing cash reserves will be used to fund projects within this fund. The three largest projects are the completion of Pine Trails Park, installation of fire station emergency traffic signals, and the renovation of the Liberty Park Splash Pad.

Table 6-5: Projected Revenues and Expenditures

Revenue Source	FY2016	FY2017	FY2018	FY2019	FY2020
Property Taxes	\$17,648,941	\$19,111,491	\$20,764,315	\$22,424,824	\$23,921,990
Licenses and Permits	3,151,490	3,086,967	2,399,954	2,219,917	2,006,065
Intergovernmental	2,781,260	2,963,783	3,165,688	3,340,146	3,511,093
Fines and Forfeitures	200,000	202,400	204,848	207,345	209,892
Service Charge	3,526,159	3,637,775	3,675,332	3,782,783	3,860,276
Miscellaneous	2,092,150	1,100,927	1,110,007	1,119,403	1,129,125
Fund Expenditures	29,400,000	28,948,321	30,648,200	32,404,052	33,758,840
Surplus	\$0.00	\$1,155,022	\$671,944	\$690,000	\$1,000,000

In addition to local action, policy changes or the state or federal government could affect revenue sharing funds available to the City. Unanticipated capital improvement requirements and associated operating costs could increase and/or offset projected gains in future revenues.

Millage Rate

Growth in the tax base provided the opportunity to add the needed public safety service enhancements to address the City's growing population. Even in doing so, the adopted budget provides for a tax rate of \$3.9890 for Fiscal Year 2016.

Financial Feasibility

Per Table 6-4, the City demonstrated a need for \$6.9 million for its own Capital Improvements over the FY16-FY20 period. The City has determined that capital improvements projects originating from the City are financially feasible and dependent on committed revenue sources.

Bonding Capacity

The City is liable for approximately \$1.5 million in debt service yearly. Table 6-6 shows the City's debt service obligations from FY16 - FY20.

Table 6-6: Debt Service

Fiscal Year	Principal	Interest	FEES	Total
2016	\$1,039,697	\$467,555	\$2,298	\$1,509,550
2017	\$1,075,989	\$430,592	\$2,163	\$1,508,744
2018	\$1,113,462	\$392,940	\$2,023	\$1,508,425
2019	\$1,156,739	\$353,949	\$1,878	\$1,512,567
2020	\$1,195,469	\$313,772	\$1,723	\$1,510,964
Total	\$5,581,356	\$1,958,808	\$10,085	\$7,550,250

Source: City of Parkland Finance Department

Capital Improvements Implementation

Individual project listings of proposed capital improvements are shown on Table 6-7. Efforts have been made to account for this by use of contingencies.

The listing of capital improvements in Table 6-7, 5-Year Schedule of Capital Improvements is considered feasible within the five-year period based on current revenue projections and sources of funding. Chapter 163 of the Florida Statutes requires sufficient revenues be available for the first three years or will be available from committed or planned funding sources for years 4 and 5 of a 5-year capital improvement schedule.

The Capital Improvement Element requires yearly updates per Chapter 163 of the Florida statutes. The yearly update will allow the City to assess public facility needs based upon its changing boundary, new development and redevelopment. It will also ensure that the City may require proportionate fair share mitigation contributions from developers with interests in the City of Parkland.

SCHEDULE OF CAPITAL IMPROVEMENTS

The following Schedule of Capital Improvements (SCI) is the mechanism by which the City of Parkland can effectively stage the timing, location, projected cost, and revenue sources for the capital improvements derived from the other comprehensive plan elements, in support of the Future Land Use Element. The Five-Year Schedule of Improvements together with the Annual Budget Report is used to document the economic feasibility of the City's Comprehensive Plan.

The City's own capital improvement projects have been combined with capital improvement projects from Coconut Creek Utility, Parkland Utilities, and the North Springs Improvement District.

Table 6-7: Five-Year Adopted Capital Improvement Program, City of Parkland (FY2015/16 - 2019/20)

Project	FY15-16 FY08	FY16-17	FY17-18	FY18-19	FY19-20	Total 5-Year Cost	Funding Source
<i>City Recreation and Open Space Improvements</i>							
Pine Trails Park	2,200,000					2,200,000	General Fund
Pine Trails Park Field Renovations	89,800	89,800	89,800	89,800	89,800	449,000	General Fund
Doris Forman Boardwalk Rail Replacement	108,000					108,000	General Fund
Quigley Park Tennis Center	2,735,000					2,735,000	General Fund/ Impact Fees
Parks Irrigation Improvements	74,000					74,000	General Fund
Liberty Park	280,000					280,000	General Fund
Public Property Beautification	20,000	20,000	20,000	20,000	20,000	100,000	General Fund
<i>General Government Improvements</i>							
Library Redesign & Reconfiguration	80,000	1,250,000				1,330,000	Impact Fees
Information Services Improvements		150,000		104,000		254,000	General Fund
<i>City Transportation Improvements</i>							
Fire Station Emergency Traffic Signals	725,000	275,000				1,000,000	General Fund
Street Lighting	85,000	594,000	67,000	512,000	340,000	1,598,000	General Fund
Roadway and Trail Improvements			580,000		1,655,000	2,235,000	General Fund
Loxahatchee Road Improvements	220,000			2,640,000		2,860,000	General Fund/ FDOT/MPO
Traffic Signal Preemption Device	45,000					45,000	General Fund
Citywide Traffic Circulation Improvements		320,000	320,000			640,000	General Fund
<i>Physical Environment Improvements</i>							
Vehicles and Equipment	230,100					230,100	General Fund
<i>Public Safety Improvements</i>							
Western Fire Station Carpet Replacement	5,200					5,200	General Fund
Total Capital Improvements FY 16 - FY 20						\$16,143,300	

Source: City of Parkland

Monitoring and Evaluation

As part of the annual budgeting process, the City will evaluate the status of all scheduled capital improvements and the overall status of public facilities in relation to current and projected demand, so that revision to budget, work programs, the Capital Improvements Program and this Comprehensive Plan may be made as necessary to ensure that facilities are provided in a timely and financially feasible manner, consistent with adopted level-off-service standards. This review will be coordinated by the City Manager. Also, the issuance of development orders and development permits will be monitored continuously to ensure consistency with this plan.

The City's annual review will include the following considerations which will also be evaluated each year to determine their continued applicability:

- a. Any corrections, updates, and modifications concerning costs, revenue sources, acceptance of facilities pursuant to dedications which are consistent with the element, or the date of construction of any facility enumerated in the element.
- b. The Capital Improvement Element's consistency with other elements and its support of the Future Land Use Element.
- c. The City's ability to provide public facilities and services within service areas in order to determine any need for boundary modification or adjustment.
- d. The priority assignment of existing public facility deficiencies and the City's progress in meeting those needs that are determined to be existing deficiencies.
- e. The criteria used to evaluate capital improvement projects in order to ensure that projects are being ranked in their appropriate order of priority.
- f. The City's effectiveness in maintaining the adopted LOS standards.
- g. The City's effectiveness in reviewing the impacts of plans and programs of state agencies and water management districts that provide public facilities within the City's jurisdiction.
- h. The effectiveness of impact fees, and mandatory dedications or fees in lieu of, for assessing new development a pro rate share of the improvement costs which they generate.
- i. The impacts of special districts and any regional facility and service provision upon the City's ability to maintain its adopted LOS standards.
- j. Efforts made to secure grants or private funds, whenever available, to finance the provision of capital improvements.

- k. The transfer of any unexpended account balances.
- l. The criteria used to evaluate proposed amendments and requests for new development or redevelopment.
- m. Capital improvements needed for the latter part of the planning period, for inclusion in the Schedule of Improvements.

CHAPTER SEVEN

INTERGOVERNMENTAL COORDINATION ELEMENT

PURPOSE

The purpose of the Intergovernmental Coordination Element is to identify and resolve incompatibilities between Parkland's comprehensive planning processes and those of other governmental entities with interests in or related to the City's area of concern. The areas of concern for Parkland include adjacent municipalities, Broward County, Broward County School Board, the South Florida Water Management District, regional planning agencies, state government, federal government, independent special districts, and utility companies.

Specific coordination needs within each of the elements of the Parkland comprehensive plan that would benefit from improved or additional intergovernmental coordination and mechanisms for satisfying these needs are also identified, as appropriate.

EXISTING DATA AND CONDITIONS

Parkland currently has either formal or informal coordination agreements, or interacts through standard operating procedures under statutory authority, with the following agencies or jurisdictions:

Adjacent Municipalities

- Coral Springs
- Coconut Creek

Adjacent Counties

- Palm Beach

Broward County

- Broward County Division of Parks and Recreation
- Broward County Environmental Engineering and Licensing
- Broward County Environmental Licensing and Building Permitting Division
- Broward County Environmental Protection and Growth Management Department

Broward County Emergency Management Division
Broward County Department of Transportation
Broward County Transit
Broward County Highway Construction and Engineering Division
Broward County Traffic Engineering Division
Broward County Metropolitan Planning Organization
Broward County Planning and Redevelopment Division
Broward County Planning Council
Broward County Administration
Broward County Board of County Commissioners
Broward County School Board
Broward County Sheriff's Office
Broward County Public Works Department
Broward County Property Appraiser
Broward County Tax Collector
Broward County Water Advisory Board

Florida Departments and Agencies

Department of Economic Opportunity, Division of Community Planning
Department of Economic Opportunity, Division of Finance and Administration
Florida Division of Emergency Management
Florida Department of Environmental Protection
Florida Department of Business and Professional Regulation
South Florida Regional Planning Council
South Florida Water Management District
Florida Department of State, Division of Historic Resources
Florida Department of Transportation
Florida Department of Health, Broward County
University of Florida – Bureau of Economic and Business Research

United States Departments and Agencies

Department of Commerce, Census Bureau
Department of Defense
US Army Corps of Engineers
Environmental Protection Agency
U.S. Postal Service
Department of Transportation

Regulated Utilities

Advanced Cable

Communications BellSouth
Comcast Cable Television
Florida Power and Light
Company Parkland Utilities
Pine Tree Water Control District
North Springs Improvement District
Waste Management

EVALUATION OF EXISTING COORDINATION MECHANISMS

For each agency listed above, Table 7-1 briefly describes the existing coordination mechanisms indicating the subject, nature of the relationship and the office with primary responsibility for coordination.

Parkland is a stable and well-planned community. Unless specifically noted, there are no identified problems associated with the coordination of the Comprehensive Plan. Policy issues and needs that would benefit from increased coordination include: water and sewer services, fire protection, law enforcement, schools, transportation, and annexation. Through frequent communication in written and verbal form, Parkland develops and enhances positive, effective relationships with the intent of addressing issues when identified.

JOINT PLANNING AREAS

Parkland is party to several Joint Planning Areas through formal agreements with the following agencies: City of Coconut Creek, Parkland Utilities, North Springs Improvement District, and Pine Tree Water Control District for water and sewer services; Coral Springs Fire Rescue for fire protection; Broward County School Board for design, development, and construction of portable classroom facilities and permanent schools in the City of Parkland; Broward County Metropolitan Planning Organization (MPO) in order to qualify for the receipt of federal transportation funds; Florida Department of Transportation (FDOT) and the Turnpike Enterprise to coordinate transportation issues and needs on state road facilities; and, Broward County Sheriff's Office for law enforcement. Coordination mechanisms between the City and these agencies are delineated in Table 7-1.

The following abbreviations are used in Table 7-1:

AE - Advise and Encourage	AP - Approval, Permit
CA - City Agency	FA - Formal Agreement
FN - Formal Notice	IN - Informal Notice
OA - Outside Agencies	TA - Technical Assistance
PM - Periodic Meetings to Coordinate Programs	

TABLE 7-1: COORDINATING AGENCIES

Agency	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Parkland Office with Primary Responsibility For Coordination
ADJACENT MUNICIPALITIES:					
Coral Springs	Land Use Fire Rescue Services Law Enforcement	AE, CA, FA, PM	Existing Contract for Services	Effective	City Manager, Intergovernmental Relations Officer, Planning and Zoning Division, Community Services Department
Coconut Creek	Land Use Water Service Wastewater Treatment	AE, CA, FA, TA, PM	Existing Contract with the City of Coconut Creek, Water Service and Wastewater Treatment	Effective	City Manager, Intergovernmental Relations Officer, Planning and Zoning Division, Community Services Department
BROWARD COUNTY AGENCIES:	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Parkland Office with Primary Responsibility For Coordination
Broward County Division of Parks and Recreation	Parks, Nature Centers, Neighborhood Parks, Natural Areas, Trails	TA, PM	Interlocal Agreements & Informal Coordination	Effective	Development Services Department, Parks and Recreation Division

Broward County Environmental Engineering & Licensing	Plans Examination Inspections Code Enforcement, DRI, LUPA, Plat	CA, FN, IN	Existing Contract for Services for Newly Annexed Areas, County Land Development Code	Effective	Development Services Department
Broward County Environmental Licensing and Building Permit Division	Water Use/Wastewater Collection	TA	Land Development Code	Effective	Public Services Development Services
Broward County Environmental Protection and Growth Management Department	DRI, Plans Examination, Engineering, Planning, Permitting, Wetland Mitigation	AE, TA, PM, AP	County Land Development Code & Natural Resource Protection Code & Broward Co. Charter	Effective	Planning and Zoning Division, Development Services Department, Public Services Dept.
Broward County Emergency Management Division	Emergency preparedness, disaster planning, mitigation and response activities	TA, PM, IN	Informal Coordination	Effective	City Manager, Intergovernmental Relations Coordinator, Public Services Department
Broward County Transit and Dept. of Transportation	Bus Services	AE	Informal Coordination	Effective	City Manager Development Services Department
Broward County Highway Construction and Engineering Division	Engineering/ Utilities	AE,AP,PM, TA	Permitting, Informal Coordination	Effective	Public Services Department
Broward County Traffic Engineering Division	Traffic Engineering	AE, AP, PM, TA	Interlocal Agreement	Effective	Public Services Department Development Services Department
Broward Metropolitan Planning Organization	Long Range Transportation Planning and Funding	AE,AP,PM, TA	Technical Coordinating Committee and Advisory Board	Effective	Public Services Department Planning Development Services Department

Broward County Planning and Redevelopment Division	Development of Regional Impact, Land Use Plan Amendments, Plats	AP	Broward County Land Development Code	Effective	Planning Department
Broward County Planning Council	Land Use Plan Amendments, Plats, Trafficways Plan Amendments	AP	Charter, Land Development Code	Effective	Planning Department
Broward County Administration	Administrative Duties	PM	Interlocal Agreements	Effective	City Manager
Broward County Board of County Commissioners	DRI, LUPA, Plat, Administrative Duties	FN, IN	County Land Development Code	Effective	City Manager, Intergovernmental Affairs Coordination, Planning and Zoning Division
Broward County School Board	Maintenance, Facility Planning	PM, TA, FN	Interlocal Agreement, TAC	Effective	City Manager Intergovernmental Relations Coordinator Planning Department
Broward County Sheriff's Office	Law Enforcement	OA	Existing Contract for Services	Effective	City Manager
Broward County Public Works Department	Construction, engineering, facilities management, waste and recycling services, water services	AE, TA, AP, PM	Interlocal Agreement	Effective	Public Works, Engineering
Broward County Property Appraiser	GIS Data, Tax Revenues	PM, TA	Interlocal Agreement	Effective	City Manager and Finance Department
Broward County Tax Collector	Ad Valorem Collection	OA	Interlocal Agreement	Effective	City Manager and Finance Department

Broward County Water Advisory Board	Water supply, water conservation, ground water recharge, reuse of wastewater effluent, stormwater management	AE, PM	Quarterly Meetings	Effective	Development Services, Intergovernmental Coordinator
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Agency	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Parkland Office with Primary Responsibility For Coordination
Broward County Traffic Engineering Division	Traffic Engineering	AE, AP, PM, TA	Interlocal Agreement	Effective	Public Services Department Development Services Department
FLORIDA DEPARTMENTS AND AGENCIES:					
Department of Economic Opportunity, Division of Community Planning	Planning Activities	AP, TA	Oversight of Comprehensive Plan, Regulation of Land Development Code	Effective	Planning Department
Florida Division of Emergency Management	Mutual Aid Agreement	OA, TA	Informal Coordination	Effective	City Manager, Development Services, Intergovernmental Affairs Coordinator

Environmental Protection	Water Quality	AP	Permitting, Informal Coordination	Effective	Public Services Department
Business and Professional Regulation	Various Licenses	AP	Informal Coordination	Effective	Development Services Department
South Florida Regional Planning Council	General Planning	TA,AE,AP	Review of Comprehensive Plan	Effective	Development Services Department Planning Department
South Florida Water Management District	Stormwater Management Wetlands Mitigation Water Use	TA,AE,AP	Quarterly Meetings	Effective	Public Services Department
State, Division Of Historic Resources	Historic Lands & Buildings	TA/AE	Informal Coordination	Effective	Planning Department
Florida Department of Transportation	Long Range Planning	AE, AP, PM, TA	Information Coordination	Effective	Planning Department, Public Services
University of Florida Bureau of Economic and Business Research	Long Range Planning, Demographic Analysis	AE, OA	Informal Coordination	Effective	Planning Department

UNITED STATES DEPARTMENTS AND AGENCIES:	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Parkland Office with Primary Responsibility For Coordination
Commerce, Census Bureau	Decennial Census	TA	Informal Coordination	Effective	Planning Department

Defense/ US Army Corps of Engineers	Cut and Fill (Wetland Mitigation)	TA, AP	Permitting, Informal Coordination	Effective	Public Services Department
Environmental Protection Agency	Cut and Fill (Wetland Mitigation)	TA, AP	Informal Coordination	Effective	Public Services Department
U.S. Postal Service	Address Development, Mail Delivery	OA	Informal Coordination	Effective	City Manager Planning Department
Dept. of Transportation	Transportation Planning	AE, AP, PM, TA	Informal Coordination	Effective	Public Services Department Development Services Department
REGULATED UTILITIES:					
Advance Cable Communications	Cable Services	OS	Informal Coordination	Effective	Public Service Department
BellSouth	Telephone Service	OA	Informal Coordination	Effective	Public Services Department
Comcast Cable Television	Cable Services Underground Utilities	OA	Informal Coordination	Effective	Public Services Department
Florida Power and Light Company	Underground Utilities	OA	Informal Coordination	Effective	Public Services Department
Parkland Utilities	Water/Wastewater Services	OA	Informal Coordination	Effective	Public Services Department
Pinetree Water Control District	Water/Wastewater Services	OA	Informal Coordination	Effective	Public Services Department
North Springs Improvement District	Water/Wastewater Services	OA	Informal Coordination	Effective	Public Services Department

Waste Management	Solid Waste Disposal	OA	Existing Contract	Effective	Public Services Department
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Source: City of Parkland

ANALYSIS

Evaluation of Existing Coordination Mechanisms

The current process of coordination amongst the identified agencies and the City of Parkland has proven to be generally effective. The City has expanded its boundary to remaining adjacent unincorporated areas of Broward County and also extended the city boundary to include the “Wedge” piece. Increases in population will create greater demands on roadways, parks, schools, other components of the City’s physical infrastructure and the natural environment. Increased coordination through frequent written and verbal communication on topics such as, but not limited to schools, transportation, parks and annexation would greatly benefit the City.

Comparison with Regional Policy Plan

The Strategic Regional Policy Plan issued by the South Florida Regional Planning Council has been reviewed and considered during the process of writing this Comprehensive Plan. The Comprehensive Plan conforms to the Regional Policy Plan.

Specific Coordination Issues in Each Element

Each Comprehensive Plan element was reviewed for interagency coordination needs. These needs are described below.

Future Land Use

Increasing population due to substantial residential development has led to overcrowded schools. The City will continue to coordinate with the Broward County School Board during facility planning periods to share information, evaluate level of service options and assist in addressing public school facility planning issues. Also, communication on student generation rates and demographic issues is also essential.

Transportation

The City wishes to maintain its semi-rural character and therefore opposes widening of Holmberg Road (between University Drive and NW 61st Avenue) and University Drive. The City also opposes any future connections of Nob Hill Road, University Drive, and Riverside Drive between Palmetto Park Road and Loxahatchee Road. Communication on these issues is essential with the related transportation agencies.

Housing

The City is interested in coordinating with Broward County on affordable housing issues and solutions.

Infrastructure

Rapid growth in South Florida has created a need for greater coordination in the areas of water resource supply, service and management. The City will also coordinate with utilities providing potable water on alternate water supply sources as described in the Lower East Coast Water Supply Plan.

Conservation

Coordination with the Broward County Environmental Protection Department (EPD), Florida Department of Environmental Protection, and South Florida Water Management District is effective and satisfactory.

Capital Improvement

Coordination with the Broward County Property Appraiser is effective and satisfactory.

Parks, Recreation and Open Space

The City would like to continue coordination on the multipurpose trails with the South Florida Water Management District and Broward County.

Areas of Critical State Concern

There are no areas of critical state concern in the City of Parkland.

CHAPTER EIGHT

PARKS, RECREATION, AND OPEN SPACE ELEMENT

PURPOSE

The Parks, Recreation, and Open Space Element is an optional component of the City of Parkland Comprehensive Plan. The inclusion of this element reflects the City's interest, acknowledgement, and dedication to recreation lands and open spaces as a fundamental component of the community fabric. This element inventories existing recreation and open space opportunities that are located within the City of Parkland and available for use by the general public. Specific types of amenities and facilities that are available at each location are also tabulated. Current and projected recreation needs are assessed to establish minimum Level of Service (LOS) standards in support of adequate recreation and open space facilities for the City's residents of today and tomorrow.

The purpose of this Element is to address planning issues associated with a comprehensive system of public recreation and open space facilities. Inasmuch, this Element is intended to establish a framework to guide public policy decisions and capital improvement outlays for recreation and open space facilities located throughout the City of Parkland. This Element concludes with a series of goals, objectives, and policies that will assist the City in achieving recreation and open space facilities that are functionally adequate and sufficient to support the local population. Furthermore, these statements are intended to guide the decision making process relative to recreation facilities and programs, including ongoing maintenance, retention, refinement, and facility development to assure that the needs and aspirations of Parkland's residents will be met throughout the foreseeable future.

CLASSIFICATION OF PUBLIC RECREATION AND OPEN SPACE FACILITIES

The City of Parkland boasts a diverse collection of park, recreation, and open space facilities. The City's Comprehensive Plan groups parks into two categories: *neighborhood parks* and *community parks*. As defined by Policy 8.1.7 of this Element, Neighborhood parks serve up to 5,000 residents and include up to 10 acres of land for passive and active uses. Community parks serve between 10,000 and 30,000 residents and include between 10 and 80 acres of land in passive and active uses.

The Florida Department of Environmental Protection's *Outdoor Recreation in Florida* (2008) publication provides a detailed description for each.

Neighborhood Park – The neighborhood park is a "walk-to" park, generally located along streets where people can walk or bicycle without encountering heavy traffic. It serves the population of a neighborhood in a radius of up to one-half mile, and should have at least two acres for each 1,000 population. Its size usually ranges from five to 10 acres, and it serves a population of up to 5,000. Because the service areas of a neighborhood park and an elementary school often coincide, it is desirable for the neighborhood park to physically join the elementary school, when feasible. Both park and school serve the same basic population, share compatible land uses, and contain recreation facilities that are of mutual benefit. Because recreation needs vary from one neighborhood to another, site design for this type of park should be flexible in order to meet the particular recreation needs of each neighborhood. Site design should also reflect the character of the neighborhood and incorporate compatible elements of both passive and active types of recreation. Typical facilities developed in the neighborhood park may include play apparatus, recreation buildings, multipurpose courts, sports fields, picnic areas and free play areas. Additional facilities may be added, depending on the recreation demands of the neighborhood.

Community Park – A community park is a "ride to" park, located near major streets. It is designed to serve the needs of four to six neighborhoods. It serves an area with a radius of up to three miles, or a service population of up to 25,000. A minimum of 20 acres for each community park is recommended, with acreage needs based on a standard of two acres per 1,000 population. Where a community park can be located adjacent to a junior or senior high school, a minimum of five acres is recommended. The community park offers a wide range of program and facility opportunities for all individuals and families. Just as the neighborhood park fulfills the recreation needs of the neighborhood, the community park is designed to meet the recreation needs of the entire community. Typical facilities at a community park may include swimming pools, ball fields, tennis courts, play areas, picnic areas, multipurpose courts, recreation buildings, and sports fields. Additional recreation facilities may be included to meet a particular recreation demand in the community. Adequate off-street parking may be needed to contain parking overflow from the school parking areas. Two important elements of every community park are the use of landscaping and the provision of passive recreation activity areas.

Based on the City’s definitions as indicated in Policy 8.1.7, the following City-owned areas fall under the category of *neighborhood parks*:

- Liberty Park
- John H. Quigley Park
- Covered Bridge Park
- 6 Acre Wood Park
- Barkland Dog Park
- Ternbridge Preserve
- Margate-Blount Archeological Site

Further, the following City-owned areas are considered *community parks*:

- Doris Davis Forman Wilderness Preserve
- Terramar Park
- Equestrian Center at Temple Park
- Pine Trails Park

Open space, as defined in Policy 8.2.11, shall be defined as land which is used deed restricted or zoned and restricted by other development order for passive recreation or conservation. Within the City of Parkland, this includes natural areas, significant vegetation areas, wide right-of-ways, and parks with multiple jurisdictions.

INVENTORY OF EXISTING RECREATION AND OPEN SPACE FACILITIES

Table 8-1 provides an inventory of park, recreation, and open space areas located within the current municipal limits of the City of Parkland that are owned by a public entity, available for use by the general public, deed restricted for open space use, or zoned and restricted by other development order for open space use. The location of public facilities and significant private open space are graphically depicted on Map 8-1.

Table 8-1: Inventory of Parks, Recreation, and Open Space

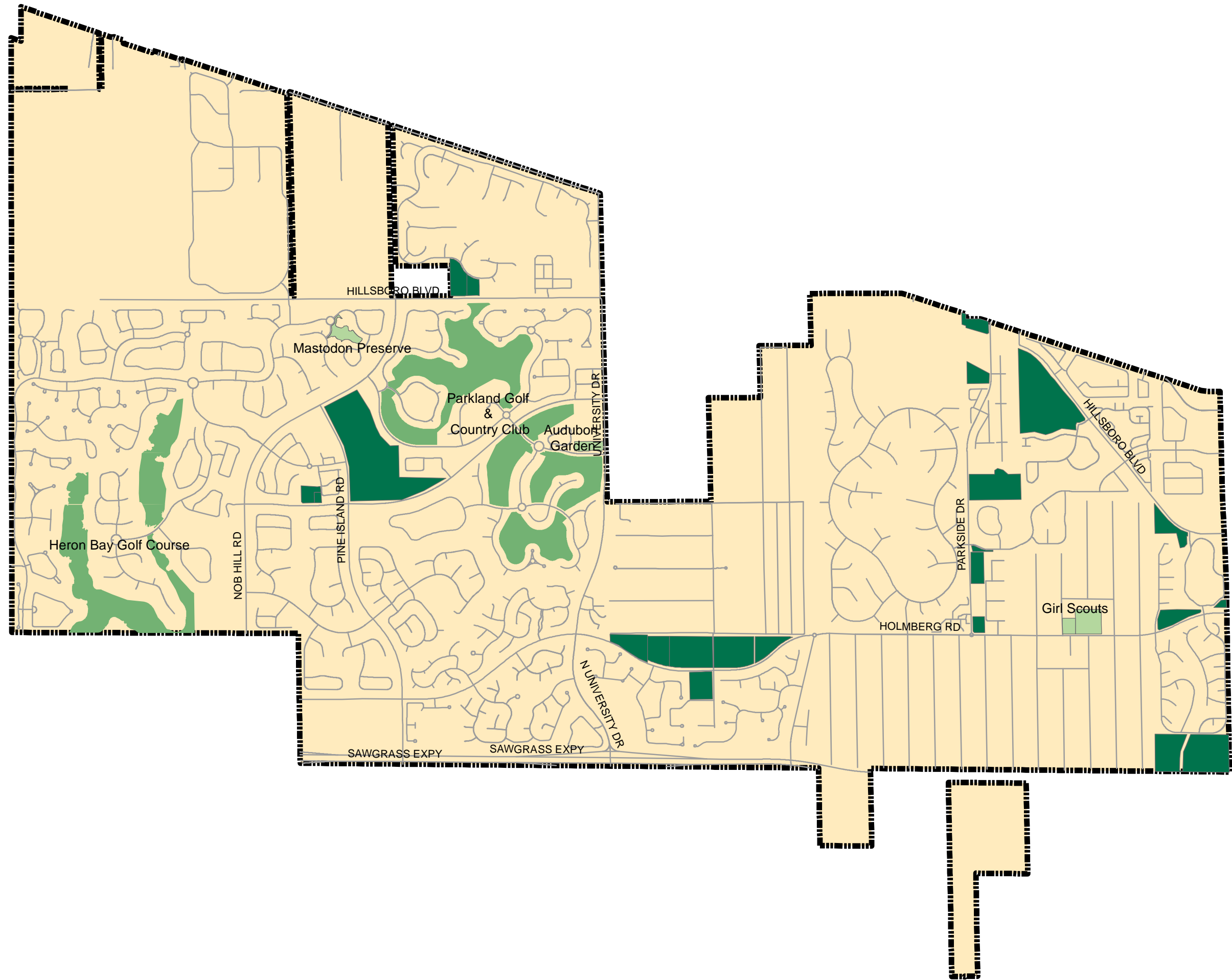
Number	Facility Name	Ownership	Actual Acreage	Acreage for LOS Standard	Active / Passive	Facilities / Misc. / Other
1	Pine Trails Park	Parkland	79.82	79.82	Active	Soccer fields, basketball courts, t-ball fields, multi-purpose fields, playgrounds, meeting rooms, trails, open space, picnic pavilions, concession, restroom
2	Liberty Park	Parkland	7.13	7.13	Active	Tot lot and playground, water play area, pavilions, restroom, horse corral
3	Equestrian Center at Temple Park	Parkland	26.49	26.49	Active	Equestrian rings, open space, picnic pavilion, concession, restroom
4	John H. Quigley Park	Parkland	5.36	5.36	Active	T-ball/coach pitch fields; soccer, football, and baseball fields; playground area, concession, restroom, picnic pavilion
5	Terramar Park	Parkland	49.89	49.89	Active	Trails; baseball, softball, soccer, football, and multi-purpose fields; tennis, pickleball, and basketball courts; playgrounds; picnic pavilions; concession; restroom
6	Doris Davis Forman Wilderness Preserve	Parkland	20.03	20.03	Passive	Open space, boardwalk and trails, conservation area, pavilion
7	Barkland Dog Park	Parkland	7	7	Active	Open space, trails, picnic area
8	Ternbridge Preserve	Parkland	3.50	3.50	Passive	Open space
9	6 Acre Wood Park	Parkland	7.28	7.28	Passive	Open space, trails, conservation area
10	Covered Bridge Park	Parkland	6.70	6.70	Passive	Open space
11	Margate-Blount Archaeological Site	Parkland	4.91	4.91	Passive	Open space, archaeological feature
12	Hillsboro Boulevard 11 Acre Park	Parkland	11.17	11.17	Passive	Undeveloped
13	County Preserve	Broward County	38.38	3.84	Passive	Preserve
14	Mastedon Preserve	WCI	5.23	5.23	Passive	Open space
15	Audubon Garden	WCI	4.00	4.00	Passive	Open space
16	FDOT open space	FDOT	39.18	3.92	Passive	Open space, not publicly accessible and includes freeway ramp
17	Other miscellaneous open space	- Parkland - Broward County	City: 27.77 County: 0.00	City: 27.77 County: 0.00	Passive	Open space, trails
	Golf Courses: - Parkland Golf and Country Club - TPC at Heron Bay	- WCI - HB Partners	- WCI: 269.00 - HB: 171.63	66.09	Active	- WCI: 18-hole golf course (private) - HB Partners: 18-hole golf course (open to public; privately owned)
	Girl Scouts Site	Girl Scouts of Broward County	12.52	12.52	Active	Private facility deed restricted for recreation
	TOTAL		796.99	352.65		

MAP 8-1 PARKS AND OPEN SPACE



City of Parkland

Map 8-1
Parks & Open Space



- Private Recreation
- Golf Courses
- Public Parks & Open Space
- Parkland Streets
- City of Parkland



0.5 Miles



This map was created with data from the City of Parkland. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.

As reflected in Table 8-1, the 796.99 acres of parks and open space lands located within the City of Parkland are diverse and support a wide range of facilities and amenities. Notable private recreation facilities include the Heron Bay Golf Course in the western portion of the City extending south into Coral Springs; Parkland Golf & Country Club located west of University Drive along Trails End; and a Girl Scouts site on Holmberg Road at NW 65th Terrace. Most of the private recreation lands are located in gated residential communities. Although private, such facilities should not be dismissed given the quality and diverse contributions to a comprehensive assortment of available recreation venues.

Pine Trails Park is by far the most ambitious undertaking of public park improvements in Parkland in recent years. Pine Trails Park has a boardwalk, concessions, an amphitheater, community center, playgrounds, and pavilion, as well as multiple fields and tennis courts. In FY 2015/2016, the City will add an additional restroom, two (2) basketball courts, a new playground facility, and a pavilion.

Park, recreation, and open space resources within the City of Parkland are owned, operated, and maintained by a host of entities. The City of Parkland's Leisure Services Department is responsible for many of the individual City park and open space facilities. Additionally, Broward County and the State of Florida have park and open space lands within the City's limits including a County preserve, and FDOT open space lands along the Sawgrass Expressway at the SR 7/US 441 interchange. The City will continue to rely upon the cooperation and support from both public and private sources to maintain high quality facilities and services for City residents.

PARKS, RECREATION, AND OPEN SPACE ANALYSIS

Existing Levels of Service (LOS)

Comprehensive Plan Policy 8.1.11 dictates that a minimum of five (5) acres of neighborhood parks or community parks per 1,000 population be owned by the City. A separate five (5) acres of parks, recreation areas, and open space per thousand population standard shall be applied to all new residential development, as described in Section 22-207. It should be noted that level of service (LOS) standards for park acreage vary from municipality to municipality. This fluctuation is explained to some degree by vast differences in existing facilities, the availability of land resources for future recreation improvements, and preferences of local residents and leaders. The existence of the Parkland's Parks and Recreation Advisory Board demonstrates substantial public interest in and support for its parks, recreation, and open space facilities. Parkland's 5 park/open space acres per 1,000 residents and 5 park / open space acres per 1,000 residents standard for developments exceeds other nearby municipalities. For example, Coral Springs and Weston respectively have an LOS standard of 4 and 6 acres of parks per 1,000 population. Broward County only has a 3:1,000 *park acreage-to-population* LOS ratio. Parkland will be able to maintain the 5:1,000

LOS standard through 2040, as seen in Table 8-2.

Table 8-2: Projected Park Needs at 5 Acres / 1,000 Parkland LOS Standard

Year	Population (Projected)	Park acreage needed to maintain 5 acres / 1,000 population LOS standard	City-owned Neighborhood and Community Parks Acreage (2015 inventory)	Surplus acreage of City-owned Neighborhood and Community Parks
2010	23,962	119.81	257.05	137.24
2015	28,128	140.64	257.05	116.41
2020	30,498	152.49	257.05	104.56
2025	33,741	168.71	257.05	88.34
2030	36,909	184.55	257.05	72.50
2035	39,851	199.26	257.05	57.79
2040	42,651	213.26	257.05	43.79

Source: City of Parkland, US Census (1990, 2000, and 2010), Shimberg Center, and Mellgren Planning Group

It should be noted that the potential exists for an even greater surplus of parkland if any new park facilities are built in the annexation areas in “The Wedge.” Currently, 11.17 acres on Hillsboro Boulevard have been set aside for park facilities, and are included in the total city-owned acreage.

The previous section inventoried a total of 796.99 acres of recreation and open space in the City of Parkland. However, the Broward County Land Use Plan (BCLUP) provides certain criteria regarding calculation of park space for determining compliance with the county-wide three (3) acres per 1,000 population level of service standard promulgated under the BCLUP 3:1,000 LOS standard. While 100% of city-owned park and open space acreage may be used, other publicly-owned facilities are limited to 10% of the total acreage with a maximum of 10 acres per park. The Broward County Land Use Plan also allows public and semi-public golf courses to be used to satisfy the county-wide parks requirement subject to certain conditions. Golf courses are limited to 50 percent of the golf course acreage, and only if they are protected through zoning and other legal restrictions. Golf course acreage may not count for more than 15 percent of the total parks requirement for a municipality. Even though the City is not bound by said criteria in order to meet its own five (5) acres per 1,000 LOS standard, the City of Parkland more than exceeds the standards described in the Broward County Land Use Plan, as seen in Table 8-3.

With an estimated 2015 population of 28,128 residents, a total of 84.38 acres of park lands are needed to maintain the 3 acre/1,000 population LOS standard. Thus, there is currently a 268.27 acre surplus of park land. Table 8-3 charts Parkland’s projected park needs through 2040, based on the BCLUP standard.

Table 8-3: Projected Park Needs at 3 Acres / 1,000 BCLUP LOS

Year	Population (Projected)	Park acreage needed to maintain 3 acres / 1,000 population LOS standard	BCLUP Eligible Acreage (2015 inventory)	Surplus BCLUP Acreage
2010	23,962	71.87	352.65	280.75
2015	28,128	84.38	352.65	268.27
2020	30,498	91.49	352.65	261.16
2025	33,741	101.22	352.65	251.43
2030	36,909	110.73	352.65	241.92
2035	39,851	119.55	352.65	233.10
2040	42,651	127.95	352.65	224.70

Source: City of Parkland, US Census (1990, 2000, and 2010), Shimberg Center, and Mellgren Planning Group

The ongoing monitoring and enforcement of LOS standards will ensure that recreation and open space opportunities are not only available to City residents, but available in acceptable qualities and quantities relative to the City's population.

At an October 2006 Parks and Recreation Advisory Board meeting, Board members were asked to propose new policies and amendments to this Element of the Comprehensive Plan. A public discussion ensued, and the result was the idea for a large central park, most likely within the new annexation area. This was fulfilled in the creation and ongoing development of Pine Trails Park.









The other major goal of the City with regard to parks, recreation, and open space is to strive to provide a multipurpose trail system which includes city-wide and county-wide connections. Map 8-2, displays existing and proposed multiuse trails. Policy 8.3.13 identifies these trails and the preservation of right of way and other public space, in order to protect these trails from encroachment due to development. It is the City's intention to provide residents with a network of impressive nature trails as well as equestrian, bicycle, and walking paths to further advance the recreational opportunities in Parkland. Additionally, the City would like to collaborate with Broward County's *Greenways System* to provide connectivity to the County's trails and greenways.

Map 8-2: Multi-Use Trails



City of Parkland

Map 8-2
Multi-Use
Trails

-  Parkland Trails
-  County and Municipal Trails
-  Major Roads
-  Parkland Streets
-  Waterbodies
-  City of Parkland
-  Palm Beach County
-  Broward County

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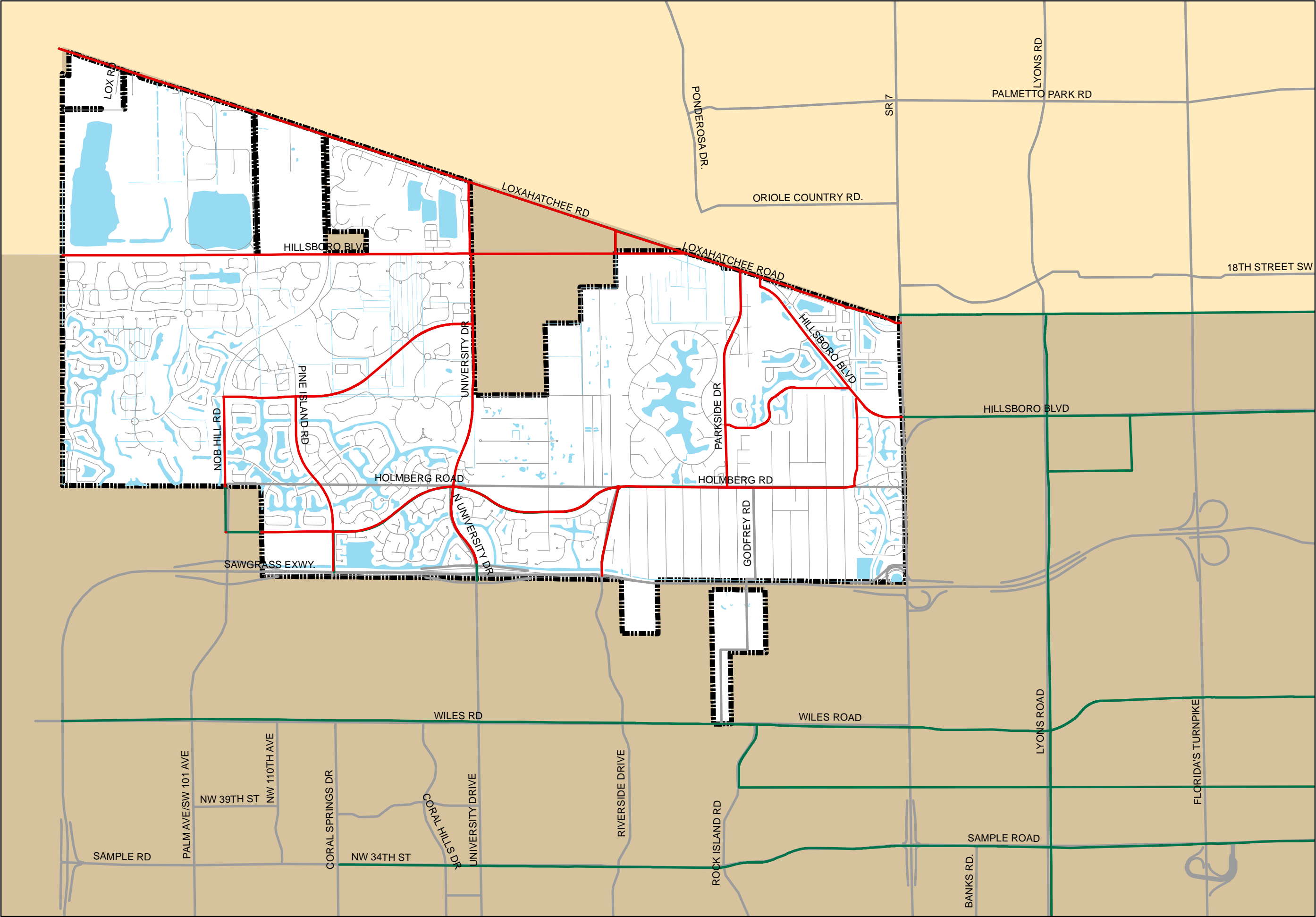


0.7

Miles



This map was adapted from data from The City of Parkland. Any inaccuracies or misrepresentations in the data are not the responsibility of The Mellgren Planning Group.



A review of the City's Capital Improvement Program further demonstrates Parkland's commitment to recreation facilities and open space resources. Significant park improvements are denoted in the following chart.

Table 8-4: Recreation and Open Space Improvements

Project	FY16	FY17	FY18	FY19	FY20	Total 5-Year Cost (FY16-FY20)	Funding Source
Pine Trails Park - Completion - Field Renovations - Maintenance Equipment	\$2,200,000 89,800 29,600					\$2,319,400	Capital Improvements Fund
Doris Forman Boardwalk Replacement	108,000					108,000	Capital Improvements Fund
Quigley Park Tennis Center	2,735,000					2,735,000	Capital Improvements Fund
Liberty Park Splash Pad Renovation	280,000					280,000	Capital Improvements Fund
Total	\$5,442,400					\$5,442,400	

Source: City of Parkland

Pine Trails Phase II included over \$11 million in improvements, Phase III had \$1.9 million in improvements from general capital revenues, and \$2.3 million are budgeted for completion of the park, field renovations, and maintenance equipment in 2016. The schedule of capital improvements also includes \$3.1 million in site improvements at Doris Foremen, Liberty Park, and Quigley Park Tennis Center.

The following Goals, Objectives, and Policies are hereby provided to steer the City of Parkland toward a future of successful and adequate recreation and open space opportunities by protecting existing recreation and open space inventories; diverting and deficient resource scenarios; accommodating the needs of existing and future residents; and mandating ambitious level of service standards.

CHAPTER NINE

COMMUNITY FACILITIES ELEMENT

PURPOSE

Community facilities and services provide for the day-to-day needs of the City. They include services which affect the health, safety, and well-being of area residents and businesses. Some are an absolute necessity, while others are highly desirable. All are key factors in the overall quality of life in the City and must be adequately provided for in the future.

This element of the Plan reviews the existing community facilities, discusses key issues involved in planning for future facilities and services, and presents the Plan recommendation for resolving these issues.

FACILITIES INVENTORY

Table 9-1 shows the Community Facilities within the City of Parkland. There are 45,626 square feet of Administrative office space; 34,508 square feet of public safety buildings (police and fire) and 5,400 square feet of Public Works facilities. There is also 13,100 square feet of library space.

Table 9-1: Community Facilities Inventory

Public Buildings	Floor Area (Sq. Ft.)
Administrative Buildings	
City Hall	17,380
Pine Trails Park Community Center / Amphitheatre	28,246
Total	45,626
Public Safety Buildings	
Public Safety Building (6600 N. University Drive)	13,122
Fire Station #42 (6500 Parkside Drive)	12,590
Fire Station #109 (10555 Trails End)	7,095

Development Services	1,701
Total	34,508
Library	
Parkland Library	13,100
Total	13,100
Public Works Facilities	
Administrative Office at City Hall	3600
Storage Buildings	1,800
Total	5,400

Source: City of Parkland

LEVEL OF SERVICE

The City has established a set of Level of Service Standards for community facilities. The Level of Service standards allow the City to accommodate needed services as the City grows and expands.

The City's Level of Service standards for Community Facilities are as follows:

ADMINISTRATIVE BUILDING

20,001 to 366,500 people

22,330 sq. ft. plus .75 sq.
ft./ person over 20,000
population

PUBLIC SAFETY

20,001 to 366,500 people

9,000 sq. ft. base plus .3 sq. ft.
over 20,000 population

PUBLIC WORKS

Public Works

0.20 sq. ft./person

An analysis of Parkland's Community Facilities and Level of Service Standards indicate that Parkland is meeting its goals for Administrative Building and Public Safety Building space in FY15-16, and is below its goals for library and Public Works facilities. The City will need to identify funding sources and additional Public Works facilities.

The City will more than meet Level of Service standards for the long term planning period through FY35 for Public Safety and Administrative Buildingspace.

The City has one library facility that provides 13,100 square feet of public library space. Although the Florida Library Association's *Standards and Guidelines for*

Florida Public Library Services 2013, are being phased out as strict standards, and should be viewed as helpful guidelines in space planning.

The *Standards for Florida Public Libraries* provides for three quality levels for libraries: Essential, Enhanced and Exemplary. The quality levels depend on hours of operation, staffing, continuing education, amount of materials, technological resources, and facility size. As of 2015, the City provides 0.47 square feet of library space per capita falling below the Essential Quality Standard. With the projected population increase to 30,498 in 2020, the City will stay well below the Essential quality level with 0.46 square feet per capita.

However, the City of Parkland has an expansion planned, with the final size of the expansion to be determined in the fall of 2016. The library division plans to expand the facility to support a maximum population of 35,000.

Table 9-2: Community Facilities Level Service Analysis

Public Buildings	Floor Area (Sq. Ft.)	LOS Standard	Existing LOS (2015 Population - 28,128)	Future LOS (2020 Population - 30,498)	Future LOS (2020 Population - 33,741)
Administrative Buildings	45,626	22,330 sq. ft. plus 0.75 sq. ft./person	22,330 sq. ft. plus .79 sq. ft./person	22,330 sq. ft. plus 0.76 sq. ft./person	22,330 sq. ft. plus 0.35 sq. ft./person
Public Safety Buildings	32,712	9,000 sq. ft. base plus 0.3 sq. ft./person	9,000 sq. ft. base plus .84 sq. ft./person	9,000 sq. ft. base plus 0.78 sq. ft./person	9,000 sq. ft. base plus 0.70 sq. ft./person
Public Works	5,400	0.20 sq. ft./person	0.19 sq. ft./person	0.18 sq. ft./person	0.16 sq. ft./person

Source: City of Parkland, The Mellgren Planning Group.

Table 9-3: Library Level of Service: Facility Space

Quality Level	Total Gross Square Feet Per Capita			
	Up to 25,000 persons	25,001 – 100,000 persons	100,001 – 750,000 persons	750,001 persons and above
Essential	.6 SF with .8 SF desired (.6 SF - state construction standard)	.6 SF	.6 SF	.6 SF
Enhanced	.9 SF	.8 SF	.7 SF	.65 SF
Exemplary	1.0 SF	1.0	1.0 SF	.85 SF

Source: Florida Library Association, *Standards for Florida Public Libraries 2013*

Table 9-4: Library Level of Service Analysis

Public Building	Floor Area (Sq. Ft.)	LOS Standard	LOS 2015 (Pop. 28,128)	Future LOS 2020 (Pop. 30,498)	Future LOS 2025 (Pop. 33,741)
Total	13,100	0.6 sq.ft./person	0.47 sq.ft./person	0.46 sq.ft./person	.39 sq.ft./person

Source: City of Parkland, The Mellgren Planning Group