

CITY OF EDGEWOOD
COMPREHENSIVE PLAN

VOLUME II
DATA AND ANALYSIS

Prepared By:

Edgewood City Council
with technical assistance provided by Florida Engineering Group, Inc.
November, 2013

CITY OF EDGEWOOD
COMPREHENSIVE PLAN BACKGROUND ANALYSIS

Contents

INTRODUCTION..... 3

FUTURE LAND USE ELEMENT 5

TRANSPORTATION ELEMENT..... 13

 Existing Transportation System 17

 Analysis of Future Land Use Upon Transportation 19

HOUSING ELEMENT 22

CONSERVATION ELEMENT..... 38

RECREATION AND OPEN SPACE ELEMENT..... 61

INTERGOVERNMENTAL COORDINATION ELEMENT 64

CAPITAL IMPROVEMENTS ELEMENT 68

 TEN- YEAR WATER SUPPLY FACILITIES WORK PLAN 79

INTRODUCTION

The City of Edgewood Comprehensive Plan has been developed pursuant to the Local Government Comprehensive Planning and Land Development Regulation Act, Chapter 163, Florida Statutes, Criteria for Review of Local Government Comprehensive Plans. The Plan is designed to provide policy direction for the City over the next twenty- year period.

Volume I consists of Goals, Objectives and Policies for the required elements, procedures for monitoring and evaluation, and documentation of plan consistency with the State Comprehensive Plan. Accompanying maps describing the Future Land Use and Future Transportation have also been included.

Volume II consists of the Comprehensive Plan Background Analysis. Each of the plan elements is based on an extensive analysis that describes existing and future conditions and a needs assessment developed in response to the demands anticipated from the projected population growth. The Comprehensive Plan Background Analysis is a support document presented under separate cover from Volume I: Comprehensive Plan Goals, Objectives and Policies.

A Note about Revisions to the
Proposed Edgewood Comprehensive Plan

Underlines are text added to the original document; strikethroughs are text deleted from the original.

In some cases, titles in the original text were underlined.

FUTURE LAND USE ELEMENT

TABLE OF CONTENTS ANALYSIS

	Page
INTRODUCTION	6
Purpose	6
DEVELOPMENT FACTORS	6
Existing Land	6
ANALYSIS	8
Vacant/Undeveloped Land Area	8
Future Land Use Need	10
REFERENCES	12
TABLES	
Table 1-1 - Existing Land Use	7
Table 1-2 - Soil Types	9

City of Edgewood Future Land Use Element

INTRODUCTION

Purpose

The purpose of the Future Land Use Element is to set forth a desirable spatial arrangement for the major categories of land deemed necessary to support the projected population of the City over the next twenty years. The land use plan proposed in the element provides a guideline for future land use and establishes the standards and principles by which future development should take place.

As an element of the Comprehensive Plan, the land use element will present a development scenario that is supportive of and implements the goals and policies of the other Plan elements. The Future Land Use Map is one means by which this is to be accomplished. The Map should be recognized, however, as a graphic representation of the development direction proposed by the Plan and articulated through the goals and policies within this element. It is the policies and guidelines which are the basis for the Plan and provide the flexibility for its future use and interpretation.

The future land use proposals provided in this element result from consideration of community goals and objectives as expressed by the City. Additional consideration was given to existing development patterns, availability and future extension of community facilities and services and subsequent carrying capacity, and the capacity of the area's natural systems to support development. The proposals outlined in this element represent the most desirable trends based upon what can now be anticipated about future growth needs and demands.

DEVELOPMENT FACTORS

The determination of future land uses for Edgewood involved an inventory and analysis of the City's existing conditions and an evaluation of their potential effect on future land use needs. The analysis of development factors relating to natural features, development characteristics, vacant land use analysis and historic sites forms the basis upon which planning for future growth and development in Edgewood may proceed. A description of existing land uses and future development is presented below.

Existing Land Use Data

Existing land use data was collected for the City of Edgewood. The data used to update the existing land use inventory was the Department of Revenue (DOR) codes assigned to each property by the Orange County Property Appraiser in 2012.

TABLE 1-1
EXISTING LAND USE 2012
CITY OF EDGEWOOD

Existing Land Use	Acreage	Percent of Total
Residential	513.316	56.78%
Commercial	149.852	16.57%
Religious	8.319	0.92%
Institutional	1.301	0.14%
Agricultural	40.817	4.51%
Vacant	41.986	4.64%
Water	54.46	6.02%
Assisted Living	1.101	0.12%
Non Ag acreage	30.005	3.32%
Public Facilities	5.199	0.58%
Vacant HOA Land	38.493	4.26%
Other/ROW	19.27	2.13%
Total	904.119	100%

ANALYSIS

The City of Edgewood is a small community of approximately 2500 people located in an urban area of Orange County. The predominant land uses within the City are residential and commercial, representing 73.35% of all non-vacant land. Future development will continue to be residential and commercial. Below is an analysis of the vacant land in the City and its potential for development, followed by an analysis of the future land use need for the City's projected population.

Vacant/Undeveloped Land Area

Vacant lands presently make up approximately 4.64% of the City (approximately 42 acres).

Soils and Topography

Although soils in Edgewood do not necessarily need protection, underlying soil can constrain development. The Orange County Soil Conservation Survey designates soil limitations for certain types of development. Soil constraints are rated with respect to four land use areas: septic tank absorption fields, dwellings without basements, low commercial buildings, and roads and streets. Each soil is rated as favorable or unfavorable for development. Favorable conditions are defined as those that allow development without major constraints, such as a high water table. Unfavorable conditions are defined as those that have one or more major constraints to overcome, thus having a lower potential rating for development. Soil potential is defined as the ability of the soil to produce, yield or support a given structure or activity.

Soils in Edgewood tend to be sandy and relatively infertile. Most of the soil varieties present in the City that have not become part of the Urban Land Complex do not have very good natural drainage features. There are almost no crops in the City, thus obviating the need to include agricultural soils. (There is still one small area of citrus grove in Edgewood; it is located in an area only mildly suited to its growth.) The Soils Map included in this element shows the major soil types in the City. A summary of these soils can be found in Table 1-2.

Table 1-2
Soil Types

Type	Symbol
Basinger fine sand	3
Candler - Urban land complex	7 and 8
Hontoon Muck	19
Lochloosa fine sand	22
Millhopper - Urban land complex	24
Seffner fine sand	43
Smyrna - Urban land complex	45
Tavares - Urban land complex	48
Urban Land	50
Zolfo - Urban land complex	55

Source: Orange County Soil Survey.

As stated above, most of the soils in the City do not have very good natural drainage features. The Orange County Soil Survey rates the soils in Edgewood as having slight to severe limitations for septic tanks. Generally, the soils in the northern half of the City have only slight to moderate limitations for septic tanks, while the soils in the southern half of the City have more severe limitations. Approximately half of the City is served by septic tanks, while the remainder is hooked up to central wastewater. The areas served by septic tanks are located throughout the City. The City will not allow new development to use septic tanks; all new development will be required to hook up to the central wastewater system.

Most of Orange County is nearly level. The topography of Edgewood is relatively flat, ranging from 85 to 110 feet above sea level. The City borders on several lakes of varying size, but the elevation gradient is not worthy of note. The topography in Edgewood does not result in development constraints.

Natural Resources

Natural resources in Edgewood that should be protected from development consist of the wetlands surrounding the City's lakes. These wetlands will be protected in the policies of this plan as lakefront buffer. There are no known commercially valuable resources within Edgewood with the possible exception of clayey sand; the economic importance of this is at best limited due to its variable quality and low volume.

Historic Resources

There is only one historic site within Edgewood listed on the Florida Master Site File; the

Lake Jennie Jewel archaeological site. This site has already been developed. Several homes in Edgewood are over 50 years old and may have some historical significance. The City should assist the owners of these properties to submit applications for these homes to the Florida Master Site File, The City should also consider the preservation of any historic homes when permitting future development.

Future Land Use Need

1. Future Residential Land Use

Most of the work necessary to determine the amount of space needed for residential development was carried out in the Edgewood population projections (see Housing Element).

Based on the population projections, it was determined that an additional inventory of 274 housing units will be needed over the twenty-year planning period.

Because the City is predominantly built-out with only 4.64% of vacant land, additional housing stock will likely come through a combination of using existing sites that have an agricultural use to develop as residential or through conversion and redevelopment of existing properties.

2. Future Commercial/Services Land Use

Approximately 150 acres of the City is in commercial use. This total is expected to be maintained as the commercial corridor is defined adjacent to Orange Avenue.

3. Future Institutional Land Use

Only .14% percent is presently devoted to Institutional use within Edgewood. There will be no increase in institutional use within Edgewood during the planning period.

4. Future Recreation and Open Space Land Use

There is presently no space being used as Parkland within Edgewood and there is no anticipation that any space will be allocated for such use in the future. City residents presently utilize nearby district or local parks and open areas if they desire.

5. Future Agricultural Land Use

Edgewood's agricultural land, about 4.5% of the City's total land, consists entirely of citrus groves. This percentage of groves in the City will not increase in the future;

in fact, it is likely that the existing agricultural properties will be converted to other uses.

6. Future Conservation and Historic Land Uses

No conservation uses presently exist within Edgewood and there is no indication that this situation will change in the future. The City should determine whether any homes in the City can be considered historic resources and take actions to preserve these properties. The only site listed on the Florida Master Site File is the Lake Jennie Jewel archaeological site, which has already been developed.

7. Renewal of Blighted Areas

Edgewood has no blighted areas.

8. Flood Areas

Most of the flood-prone areas in Edgewood are residential and sit on the perimeter of Lake Jennie Jewel, Lake Gatlin, and Little Lake Conway on the northern and eastern borders of the City. The single worst threat of flood comes from Lake Jessamine to the City's west. Both the 100 and 500 year flood boundaries are wider than anywhere else in Edgewood.

REFERENCES

1. Orange County Florida 2012 Geodatabase.
2. Orange County Soil Survey Sheets, U.S. Department of Agriculture, Soil Conservation Service, 1989.

TRANSPORTATION ELEMENT
TABLE OF CONTENTS
ANALYSIS

	Page
PURPOSE AND SCOPE	14
STANDARDS	14
Transportation Systems Planning Principles	14
Levels of Service	15
Existing Transportation System	17
Analysis of Future Land Use Upon Transportation	19
REFERENCES	21
TABLES AND MAPS	
Table 2-1 - Average Daily Traffic Counts	18
Map 2-1 - Existing and Future Traffic Transportation Map	20

City of Edgewood Transportation Element

PURPOSE AND SCOPE

The purpose of the Transportation Element is to guide the City in developing a safe and efficient transportation system, based on the City's future land use plans, and consistent with the community Goals and Objectives. Secondly, this element will help to ensure consistency among the Transportation Plans of Edgewood, Orange County, and the State of Florida.

STANDARDS

Transportation planning decisions have a major impact on growth patterns within a city. The improvement of existing roads, and the construction of new facilities act to change overall travel patterns in ways that not only affect immediate individual land use decisions, but also eventually influence entire land use patterns. Due to this inherent relationship, development of the Transportation Element of the Comprehensive Plan should be closely coordinated with development of the Future Land Use Element, reflecting the access and travel needs of any proposed new or revised land uses.

Transportation Systems Planning Principles

In preparing alternative potential transportation systems to serve projected travel demand, a number of general items should be considered. The broad categories of factors influencing local transportation planning include:

- Existing facilities
- Current and future land uses being served
- Local terrain
- Financing
- Travel characteristics of the local population
- Travel patterns dictated by the character of the surrounding areas

In designing the actual transportation system, it is important to maintain flexibility, both by providing alternative routes and travel modes and in allowing for additions and modifications to the system. The following principles should be kept in mind while preparing the transportation plan:

- Provide many alternative travel paths, while keeping traffic conflicts to a minimum
- Maintain system continuity, providing smooth and logical traffic flow patterns

- Reflect land use access requirements
- Consider mass transit service, bicycle travel, and pedestrian safety
- Pay special attention to freeways and interchanges
- Consider one-way street systems
- Provide for traffic signal coordination
- Provide for future modification and expansions
- Ensure environmental compatibility

Levels of Service

The concept of levels of service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations, from A to F, with level-of-service A representing the best operating conditions and level-of-service F the worst.

Level-of-service - In general, the various levels of service are defined as follows for uninterrupted flow facilities:

*Level-of-service A represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent.

*Level-of-service B is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS A. The level of comfort and convenience provided is somewhat less than at LOS A, because the presence of others in the traffic stream begins to affect individual behavior.

*Level-of-service C is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly

affected by interactions with others in the traffic stream. The selection of speed is now affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level.

*Level-of-service D represents high-density, but stable, flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.

*Level-of-service E represents operation conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle or pedestrian to "give way" to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and driver or pedestrian frustration is generally high. Operations at this level are usually unstable, because small increases in flow or minor perturbations within the traffic stream will cause breakdowns.

*Level-of-service F is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclic fashion. Level-of-service F is used to describe the operating conditions within the queue, as well as the point of the breakdown. It should be noted, however, that in many cases operation conditions of vehicles or pedestrians discharged from the queue may be quite good. Nevertheless, it is the point at which arrival flow exceeds discharge flow which causes the queue to form, and level-of-service F is an appropriate designation for such points.

These definitions are general and conceptual in nature, and they apply primarily to uninterrupted flow. Levels of service for interrupted flow facilities vary widely in terms of both the user's perception of service quality and the operational variables used to describe them.

Functional roadway classification is defined as the assignment of roads into systems according to the character of service they provide in relation to the total road network. Basic functional categories include arterial roads, collector roads and local roads which may be subdivided into principal, major or minor levels. Those levels may be additionally divided into rural and urban categories. Within Edgewood, two minor arterials and one principal arterial were identified (see the Existing Traffic Circulation Map). Roadway classifications are defined as follows:

ARTERIAL ROAD - A route providing service which is relatively continuous and of relatively high traffic volume, long average trip length, high operating speed and high mobility importance. In addition, every United States numbered highway is an arterial road.

URBAN PRINCIPAL ARTERIAL ROAD - Routes which generally serve the major centers of activity of an urban area, the highest traffic volume corridors, and the longest trip purpose and carry a high proportion of the total urban area travel on a minimum of mileage. The routes are integrated, both internally and between major rural connections.

URBAN MINOR ARTERIALS - Routes which generally interconnect with, and augment, urban principal arterial routes and provide service to trips of shorter length and a lower level of travel mobility. Such routes include all arterials not classified as "principal" and contain facilities that place more emphasis on land access than the higher system.

COLLECTOR ROAD - A route providing service which is of relatively moderate average traffic volume, moderately average trip length, and moderately average operating speed. Such a route also collects and distributes traffic between local roads or arterial roads and serves as a linkage between land access and mobility needs.

LOCAL ROAD - A route providing service which is of relatively low average traffic volume, short average trip length or minimal through-traffic movements, and high land access for abutting property.

The classification of the roadways was obtained from the Florida Department of Transportation (FDOT) office in Winter Park. FDOT currently is classifying all roadways in the state which are classified as collector roads or higher in compliance with 355.04 F.S.

Existing Transportation System

Map 2-1 depicts the following existing and future transportation system features:

Road System locations within the City that are collector roads and arterial roads. Based on the location of Edgewood, existing and proposed are the same.

There are no limited and controlled access facilities, significant parking facilities, public transit system facilities, public transit terminals or transfer stations, public transit rights-of-way, port facilities, airports facilities including clear zone obstructions, freight and passenger rail lines and terminals, intermodal terminals and access to intermodal

facilities, or major public transit trip generators and attractors, based on the existing land use map, within Edgewood.

Bicycle infrastructure and Lynx bus service routes are available along State Road 527 (Orange Avenue and Hansel Avenue).

Table 2.1 shows the average daily traffic counts and level of service (LOS) within the City of Edgewood. All roadways within the corporate limits are two lane facilities. The Florida Department of Transportation Functional Road Classification System identifies State Road 527 (Orange Avenue and Hansel Avenue), as a Principal Arterial Urban in the State Highway System. Gatlin Avenue and Holden Avenue are Urban Collector and Minor Arterial Urban respectively. The Florida Department of Transportation Functional Classification System states that, “all local roads (not otherwise identified) within the municipal limits are included on the city street system.”

Traffic counts in the City of Edgewood for the Collectors and State Roads are as follows:

Table 2.1

Average Daily Traffic Counts and LOS

Roadway	Functional Classification	Minimum Standard LOS	Current Operating LOS
Orange Ave. (at Holden) (SR 527)	Principal arterial urban	E	C
Orange Ave. (at one-way pair) (SR 527)	Principal arterial urban	E	C
Hansel Ave. (SR 527)	Principal arterial urban	E	B
Gatlin Ave.	Urban collector	E	C
Holden Ave.	Minor arterial urban	E	C

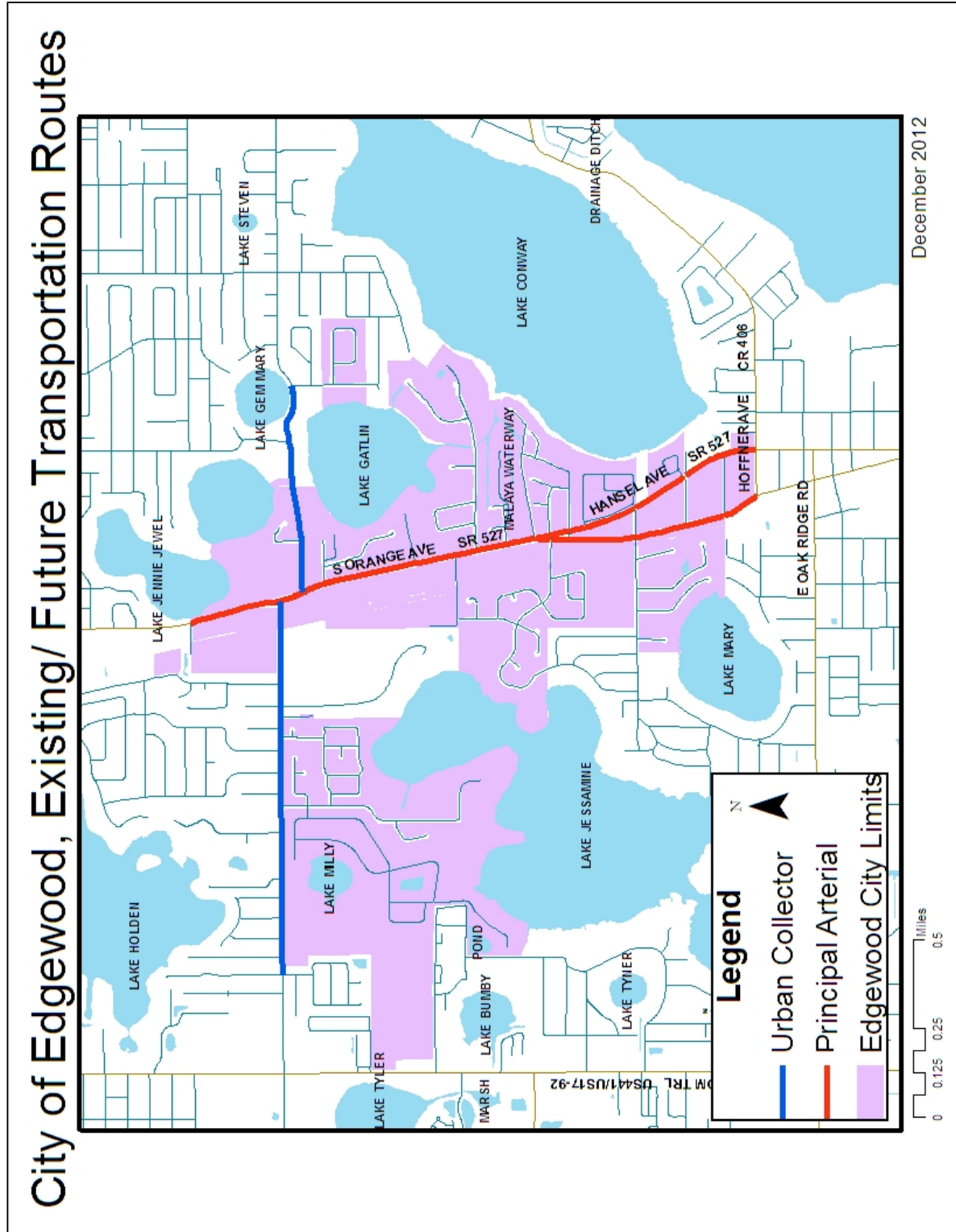
(Data obtained from Orange County Government Staff)

Analysis of Future Land Use Upon Transportation

As noted in the Future Land Use Element, the City of Edgewood is essentially a fully developed community with a limited supply of vacant parcels remaining to be developed. Thus, development consistent with the Future Land-Use Element will have very little impact upon the Level of Service of existing roadways within the area. The existing number of occupied units within the Town is 983 . By the year 2030 this number will rise to 1257 (based on the projected addition of 274 units identified in the Housing Element data and analysis). Based upon the average number of weekday trip ends as outlined in the Institute of Transportation Engineers Trip Generation, Informational Report for residential uses (10 trips for single family detached was used to supply a conservative measure) an additional 2740 trips may expected, for the entire City by 2030.

Impacts to the transportation system by the remaining properties to be developed in Edgewood are minimal. Those impacts will not create a necessity for capacity improvements on any of the arterial or collector roadways within the Town. Thus, efforts toward reducing the impacts of existing development will be the focus of the planning and coordination efforts during the next 5 and 10 year planning horizons. Coordination with Orange County in efforts toward enhancement of pedestrian and bicycle facilities and encouraging use of the transit service will be the most feasible and productive efforts in reduction of traffic congestion.

Map2-1 - Existing and Proposed Transportation Routes



REFERENCES

1. Chapter 334.03 (6) F.S.
2. FDOT. Florida Highway System Plan: Level Of Service Standards and Guidelines Manual.
3. Orange County Comprehensive Plan, 2010-2030.
4. Metroplan Orlando, Long Range Transportation Plan, 2030.FDOT Florida Traffic Online (2011).

HOUSING ELEMENT
TABLE OF CONTENTS
ANALYSIS

	Page
INTRODUCTION	23
EXISTING CONDITIONS	23
FUTURE NEEDS ASSESSMENTS	
Population Expected to Reside in City	31
Projected Housing Demand	31
Age Profile	33
Income Range of Households	34
Substandard Housing	35
Land Requirements for the Estimated Housing Units	35
SUMMARY AND RECOMMENDATIONS	35
REFERENCES	37
TABLES	
Table 3-1 - Housing Units - Edgewood and Orange County, 2010	24
Table 3-2 - Number of Housing Units in Structure, All Units	25
Table 3-3 - Year Structures Built, All Units	26
Table 3-4 - Value of Housing Units Owner-Occupied Housing Units	27
Table 3-5 - Monthly Cost	27
Table 3-6 - Monthly Contract Rent, City of Edgewood and Orange County	28
Table 3-7 - Rent to Income Ratio	29
Table 3-8 - Specified Housing Characteristics, City of Edgewood and Orange County, All Units	30
Table 3-9 - Population Estimates, Orange County and City of Edgewood	31
Table 3-10- Housing Tenure by Type	32
Table 3-11- Projected Housing Needs to 2030	33
Table 3-12- Population by Age	34

City of Edgewood Housing Element

INTRODUCTION

The Housing Element of the City of Edgewood's Comprehensive Plan is intended to be a framework which will assist in identifying and meeting the housing needs of the City's current and prospective population. It is also intended to serve as a guide and information source for governmental decision-making in all matters related to housing. By providing this summary of the housing conditions in the City of Edgewood, the plan will: assist the City's builders and developers by identifying the housing construction needs of the City's population; assist the local government to identify the housing problems of the City's low- and moderate-income families; assist the local government to preserve existing housing and neighborhoods; and maximize coordination among all public and private entities concerned with the provision of housing within the City.

The Housing Element is divided into three sections: existing conditions; future needs assessments; and summary and recommendations. In the first section, data is provided which illustrates current housing conditions in Edgewood. The second section analyzes current conditions in terms of demographics and types and costs of available housing. Also analyzed are projected population trends and their effect on the housing market.

The source for most of the data provided in this element is the 2010 US Census the Florida Housing Data Clearinghouse, and the University of Florida, Bureau of Economic and Business Research, Florida Population Studies, Bulletin 162 (Revised), March 2012. Additional sources are indicated where used.

EXISTING CONDITIONS (2010)

In this section, existing housing conditions are identified. This information includes the number of housing units in Edgewood identified by type, tenure (owner or renter), age, , value, monthly cost of owner-occupied units, and rent or cost-to-income ratio. Tables 3-1 through 3-7 provide this information. These tables also provide a comparison of Edgewood statistics with those of Orange County.

Table 3-1 lists the total housing units and the number of units which are owner-occupied, renter-occupied or vacant. According to these numbers, the vacancy rate in 2010 for all units was 10.4%, while the vacancy rate for sale or rent units was 5.1%. Edgewood had a lower percentage of occupied rental housing (15.3%) in 2010 than did Orange County (36.5%). This could be indicative of increased single-family construction since the last update of the Comprehensive Plan. Availability of rental housing is an important factor to consider when analyzing the affordable housing situation in a community.

TABLE 3-1
Housing Units - Edgewood and Orange County 2010

	Edgewood	Orange County
Total Housing Units	1,097	487,839
Year-Round Housing Units	Not Available	Not Available
Seasonal Units	Not Available	Not Available
Total Occupied Units	983	421,847
Owner-Occupied Units	815	243,950
Renter-Occupied Units	168	177,897
Total Vacant Units	114	65,992
Vacant For Sale or Rent Units	56	37,470
Vacant Seasonal Units	24	13,633
Other Vacant Units	34	14,889

SOURCES: United States Census Bureau, 2010 Census Demographic Summary Files for the City of Edgewood and Orange County.

In Table 3-2, housing units are shown by the number of units in the structure. In 2010, a majority of the housing units (80.2%) were single-family homes, while multi-family units accounted for the remaining 19.8% of the total units. There are no mobile homes in Edgewood; the only mobile home park closed in 1987.

TABLE 3-2
 Number of Housing Units in Structure, All Units
 (2010)

Number of Units in Structure	Edgewood		Orange County	
	Number	Percent	Number	Percent
1	877	80.2	310,894	63.7
2-4	72	6.5	23,442	4.8
5-9	21	1.9	29,251	6.0
10-19	84	7.7	50,994	10.4
20 or more	40	3.7	54,196	11.1
Mobile Home	0	0.0	19,262	3.9
Boat, RV, van	0	0.0	133	0.1
TOTAL	1,094	100.0%	488,172	100.0%

The age of the housing units in Edgewood is shown in Table 3-3. Age of the housing stock is one of the variables to be considered when estimating future occurrences of substandard housing. Approximately 21% of the housing in Edgewood was built prior to 1970. The housing in Edgewood is, on the whole, newer housing, as approximately 80% has been built after 1970. Orange County data reveals that the County has a similar pattern of housing stock by year built.

TABLE 3-3
Year Structure Built, All Units
(2010)

Year Structure Built	Edgewood		Orange County	
	Number	Percent	Number	Percent
1939 or earlier	24	2.2	Not available	2.0
1940-1969	206	18.8	Not available	18.5
1970- 1999	604	55.2	Not available	53.6
2000-2004	180	16.5	Not available	16.9
2005 or later	80	7.3	Not available	9.1
TOTAL	1,094	100.0	488,172	100.0%

Affordability of housing is an issue that must be analyzed in any Housing Element. One measure of affordability is the value of existing housing. The median value of housing in Edgewood was 330,000 in 2010, which is approximately 53% higher than the median value of \$174,200 in Orange County. Another measure of affordability is the monthly cost of housing. The median monthly cost of units with a mortgage was somewhat higher for Edgewood (\$2099) than for Orange County (\$1,674). The median monthly cost for units without a mortgage is \$114 higher in Edgewood than in unincorporated Orange County. Table 3-4 and Table 3-5 contains these figures.

TABLE 3-4
Value of Housing Units
Owner-Occupied
Housing Units
(2010)

Value of Unit	Edgewood		Orange County	
	Number	Percent	Number	Percent
Less than \$50,000	6	.7	Not available	5.9
\$50,000 - \$99,999	14	1.7	Not available	15.2
\$100,000-\$149,000	47	5.6	Not available	16.5
\$150,000-\$199,999	137	16.3	Not available	21.5
\$200,000-\$299,999	132	15.7	Not available	21.8
\$300,000-\$499,999	347	41.3	Not available	12.5
\$500,000-\$999,999	138	16.4	Not available	4.3
\$1,000,000 or more	19	2.3	Not available	2.2
Total	840	100.0	237,734	100.0
Median	\$330,000		\$174,200	

Table 3-5
Monthly Cost
(2010)

	Edgewood	Orange County
Units with Mortgage Median Monthly Cost	\$2099	\$1674
Units without Mortgage Median Monthly Cost	\$587	\$473

Monthly contract rent for housing units in Edgewood is an important measure of housing affordability, because often low and moderate-income families cannot afford to buy a

home and therefore must rent housing. Rental housing in Edgewood was slightly less expensive in 2010 than housing in the rest of Orange County (see Table 3-6).

TABLE 3-6
 Monthly Contract Rent
 City of Edgewood and Orange County
 Renter-Occupied
 Housing Units
 (2010)

Monthly Rent	Edgewood		Orange County	
	Number	Percent	Number	Percent
Less than \$200	0	0	Not available	.5
\$200 - \$299	0	0	Not available	.6
\$300-\$499	0	0	Not available	2.6
\$500-\$749	53	54.1	Not available	13.7
\$750-\$999	28	28.6	Not available	31.2
\$1000-\$1499	17	17.3	Not available	37.4
\$1500 or more	0	0	Not available	14.0
No Rent Paid	--	--	4,850	Not available
Total	98	100.0	159,857	100.0
Median	\$744		\$1,013	

In Table 3-7, rent-to-income ratios for housing are given for the City of Edgewood. Almost one quarter of the renters (24.4%) spend less than 25% of their monthly income on housing. 57.1% of the total number of renters spend less than 35% of their income on rent. 42.9% of the renters spend in excess of 35% of their income on housing costs, which is less than that for Orange County as a whole, which has 51% of the renter population paying greater than 35% of their monthly income on housing. This data indicates that affordability within the City is good condition comparatively.

TABLE 3-7
Rent to Income Ratio
(2010)

Rent-To-Income Ratio	Number	Percent
Less than .15	18	18.4
.15 - .19	6	6.1
.20 - .24	0	0
.25 - .29	20	20.4
.30 - .34	12	12.2
.35 or more	42	42.9
Not computed	22	Not available
Total	98	100.0

The condition of existing housing will affect the projected demand for housing to meet future population needs. Housing that is substandard must be rehabilitated or demolished, and any housing lost through demolition must be replaced.

On the whole, the condition of housing units in Edgewood is good. Given the age of housing stock, where approximately 80% of all housing units has been built within the past 40 years (1970-2010), according to the U.S. Census Bureau 2006-2010 Community Survey 5-Year Estimates, and the condition of existing units within the Town, replacement housing is not seen as a significant consideration.

The definitions of standard and substandard housing to be used throughout the Housing Element are as follows:

Classification of Housing Conditions

Standard Housing Unit - Any housing unit which is suitable for human occupancy, which has working and operable plumbing, which has an adequate heating system, and which is in a safe structural condition. A standard housing unit may have incipient housing code violations which may be corrected by relatively inexpensive means by the occupant. These code violations consist of those which require only minor repairs and upkeep. A standard housing unit has a life expectancy of a minimum of ten years.

Substandard Housing Unit Suitable for Rehabilitation - A housing unit which is suitable for human occupancy but which has some degree of hazardous conditions to the health or safety of the occupants. A substandard housing unit which is suitable for

rehabilitation is structurally sound but has visible degrees of deterioration and several housing code violations, all of which are economically feasible to correct to standard conditions. A substandard housing unit suitable for rehabilitation has a life expectancy of a minimum of three years.

Substandard Housing Unit Not Suitable for Rehabilitation - Any housing unit which is structurally unsound and which possesses a serious and immediate threat to the health and safety of the occupants. A substandard housing unit not suitable for rehabilitation is also unsuitable for occupancy, and the conditions or code violations are not economically feasible to correct to standard conditions. Housing units in this classification include units damaged by fire, storm or other natural causes. Demolition and clearance is the recommended action for these units (and relocation of the occupants if necessary).

The 2010 U.S. Census identified that 100% of housing in Edgewood is determined to have complete plumbing and kitchen facilities.

TABLE 3-8
Specified Housing Characteristics
City of Edgewood and Orange County, All Units
(2010)

	Edgewood	Orange County
Units lacking complete plumbing	0	683
Units lacking complete kitchen facilities	0	991
Units lacking central heating	Not available	815
Overcrowded units	0	3,081

SOURCE (Table 3-2 through Table 3-8): U.S. Census Bureau, 2006-2010 American Community Survey. Please note that the totals are slightly less for total housing units between the data source used in Table 3-1 (1097 versus 1094). This is accounted for by the source in Table-1 being a completed Census count, whereas the source in Table 3-2-Table 3-8 is a survey prior to the final Census count.

FUTURE NEEDS ASSESSMENTS

Edgewood Population: Census and BEBR Summary

In 2010, the City population total as determined by the 2010 Census was 2,503. Orange County's total population was 1,145,956. Based on this information, Edgewood's population represented approximately .22% of the Orange County population. The table below shows the projected population to 2030 for Edgewood based on the BEBR projected populations for Orange County through 2030.

Table 3-9

Population Estimates, Orange County and Edgewood

				*BEBR Medium Estimates			
	Census 2010	**2012 Estimates	Percent of Total	2015	2020	2025	2030
Orange County	1,145,956	1,175,941	100%	1226823	1355676	1480887	1597847
Edgewood	2503	2602	0.22%	2671	2892	3103	3303

*University of Florida Bureau of Economic and Business research, Population Projections; U.S. Census Bureau, 2010 Decennial Census. **University of Florida Bureau of Economic and Business research, Florida Estimates of Population 2012

Table 3-10
Housing Tenure by Type
(2010)

Housing Tenure	Number	Percent
Occupied housing units	983	100
Owner-occupied housing units	815	82.9
*Population in owner-occupied units	2,102	---
Average household size of owner-occupied units	2.58	---
Renter-occupied units	168	17.1
*Population in renter-occupied units	377	---
Average household size of renter-occupied units	2.24	---
Average household size All units	2.41	---

*Please note that of the total 2010 population, 24 (10 male and 14 female are housed in Noninstitutionalized group quarters.

Source: United States Census Bureau, 2010 Census Demographic Summary Files for the City of Edgewood and Orange County.

Table 3-11

Projected Housing Needs to 2030

*University of Florida Bureau of Economic and Business research, Population Projections; U.S. Census Bureau, 2010 Decennial Census. **University of Florida Bureau of Economic and Business research, Florida Estimates of Population 2012

*Housing Needs	2012**	2015*	2020*	2025*	2030*
Population	2602	2671	2892	3103	3303
Units Needed	0	11	92	88	83

*24 has been subtracted for each population projection by year to account for population in Noninstitutionalized group quarters.

Based upon data from the U. S. Census and Florida Housing Data Clearinghouse, 2006-2010, population projections, it is expected that the City of Edgewood will need to add an additional 274 housing units by 2030. In Table 3-11 above, these are broken down by year of need, projected based on the average household size of All Units, as identified in Table 3-10. Each subsequent year is calculated for need with the assumption that the previous year need has been achieved.

Since the Town is urban in nature with no agricultural land-uses, there is no demonstrated need for rural or farm worker housing.

Given the age of housing stock, where approximately 80% of all housing units has been built within the past 40 years (1970-2010), according to the U.S. Census Bureau 2006-2010 Community Survey 5-Year Estimates, and the condition of existing units within the Town, replacement housing is not seen as a significant consideration.

Age Profile

Population by age statistics were obtained for Edgewood from the 2010 Census. This data reveals that the majority of the population is under 55 years of age. The median age in the City is 42.5. The number of residents 65 years or older only represents 370 City residents or approximately 15%.

Table 3-12
Population by Age
(2010)

Age	Number	Percentage
19 or younger	579	23
20-54	1206	48
55-Over 85	718	29
Total	2503	100

The elderly often have housing needs which differ from those of the rest of the population. This can be due to the fact that many people in the senior population are retired and or have a restricted income. This population may also have different housing type needs than other population groups.

According to the Florida Housing Data Clearinghouse, in 2009, 72 of those people 65 years of age or older paid 30 percent or more of their income for housing. This represents approximately 3% of the City's 2010 total population. In the same age group for 2009, approximately 73% of that age group paid up to 30% of their income for housing. Based on this information, coupled with the limited number of senior population representative of Edgewood's total population, affordable senior housing opportunities do not appear to be a major issue for the City within the five and ten year planning timeframes.

It is also important in determining housing affordability for all people within the City. The Florida Housing Data Clearinghouse, in 2009 identified that for the total population, that approximately 73% pay up to 30% of their income for housing, while 16% pay 30-50% of their income for housing and 11% pay more than 50% of their income for housing.

The burden of income for housing is greater for the rental population, however, 57.1% of the rental population in Edgewood pay less than 35% of their monthly income for housing. Of owner occupied housing, approximately 76% pay up to 30% of their income for housing according to the Florida Housing Data Clearinghouse, in 2009.

Additional housing needs identified over the planning period identified in Table 3-11 may be met with policies that encourage infill development and additional housing opportunities such as mixed-use development, or realized through orderly annexation policies that encourage additional residential opportunities within the City.

Substandard Housing

In Edgewood, it was determined that there are currently no housing units that are structurally deteriorated. At the time of the 2010 Census, no units lacked complete plumbing facilities and no houses were without some type of heating fuel. Conservation of the existing housing stock in standard condition will be achieved generally through private investment in maintenance and repair and the enforcement of the City codes. Financial assistance may be made available to low-income families to correct violations of the housing code, and technical assistance should be made available to all.

Land Requirements for the Estimated Housing Units

According to the above estimates, there will be an expected demand for 274 additional housing units in Edgewood between 2015 and 2030. It has been determined that there is adequate land within the City of Edgewood to build the additional housing units needed, whether through infill and redevelopment, increased density options, or traditional ground-build methods.

The Housing Delivery System: Achieving Full Production

The Housing Element of the Comprehensive Plan differs from most of the other elements in that housing for the City's population is provided exclusively by the private sector. Limited supplies of public housing have been built in the past to house low-income families, but this housing has never been built in adequate quantities to resolve existing affordable housing problems. Also, housing assistance programs have recently changed their emphasis from building low-income housing to subsidizing low-income families so they can live wherever they choose. Subsequently, any housing needs that have been diagnosed in this element must be met by the private sector. The private sector has the capacity to meet the housing need; the housing need identified in this element from the present through the year 2030 will be met by the private sector. The focus of this section of the housing element, therefore, should be to determine what, if any, problems exist in the housing delivery process, and to recommend actions to be taken between builders and local government to alleviate those problems.

SUMMARY AND RECOMMENDATIONS

In the preceding sections, the demographics of Edgewood's population and its existing housing conditions were identified. Housing needs were projected through the year 2030. Financial assistance resources should be identified for availability from appropriate agencies to low-income families to address violations of the housing code.

According to the 2010 Census, there were 24 people in Noninstitutionalized Group housing. Edgewood is reviewing and addressing housing policies for group housing to be consistent with state law.

There are currently no housing units listed on the Florida Master Site File as historically significant.

Provision of land for the needed housing units is accommodated in Edgewood, either through existing development potential or redevelopment potential. The City is evaluating incorporating policies to promote additional density opportunities that will further provide for the additional housing needs to be met.

REFERENCES

1. U.S. Census Bureau, 2010 Census Summary File 1, Edgewood, Florida.
2. U.S. Census Bureau, 2011 American Community Survey, Orange County, Florida.
3. Florida Housing Data Clearinghouse, U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Summary File.
4. University of Florida Bureau of Economic & Business Research, Florida Population Studies, Bulletin 162 (Revised), March 2012.

**CONSERVATION ELEMENT
TABLE OF CONTENTS
ANALYSIS**

	Page
PURPOSE AND SCOPE	40
WATER QUALITY PROTECTION	40
Introduction	40
Existing Conditions	41
Existing Needs Assessment	42
Future Needs Assessment	42
Summary and Recommendations	42
WATER SUPPLY	42
Introduction	42
Existing Conditions	43
Existing and Future Needs Assessment	43
Summary and Recommendations	43
AIR QUALITY	44
Introduction	44
Existing Conditions	44
Existing and Future Needs Assessment	45
Summary and Recommendations	45
ENDANGERED AND THREATENED SPECIES	46
Introduction	46
Existing Conditions	46
Existing Needs Assessment	47
Future Needs Assessment	47
Summary and Recommendations	47
VEGETATIVE COVER AND WILDLIFE HABITAT	51
Introduction	51
Existing Conditions	51
Existing Needs Assessment	52
Future Needs Assessment	53
Summary and Recommendations	53
FISHERIES	54
Introduction	54
Existing Conditions	54
Existing Needs Assessment	54

	Page
Future Needs Assessment	54
Summary and Recommendations	55
FLOODPLAIN MANAGEMENT	55
Introduction	55
Existing Conditions	56
Existing Needs Assessment	56
Future Needs Assessment	57
Summary and Recommendations	57
SOIL CONSERVATION AND MINERAL RESOURCES	58
Introduction	58
Existing Conditions	58
Future Needs Assessment	58
Summary and Recommendations	59
HAZARDOUS WASTE AND MATERIALS	59
Introduction	59
Existing Conditions	59
Existing Needs Assessment	60
Future Needs Assessment	60
Summary and Recommendations	60
TABLES	
Table 5-1 Lake Water Quality Conditions	41
Table 5-2 Listed Species	49

City of Edgewood Conservation Element

PURPOSE AND SCOPE

The purpose of this Conservation Element is to identify existing natural resources, wildlife and vegetation in the City and to provide for the protection of these resources. In this element, several types of natural resources will be identified and analyzed, including: water bodies and wetlands; air and water quality; vegetation and wildlife native to the community; areas experiencing soil erosion problems; sources of commercially valuable minerals; and existing conservation areas within the City. Once these resources have been identified and the existing conditions in Edgewood have been analyzed, objectives and policies will be implemented to meet the conservation goals of the City.

WATER QUALITY PROTECTION

Introduction

Water is indispensable for many reasons: consumption by humans; consumption by livestock; irrigation of agriculture and landscaping; maintenance of natural aquatic ecosystems; and industrial consumption and cooling uses. Although the degree of water purity required to meet each of these needs is different, there is good reason to maintain water quality at the highest reasonable level: failure to maintain the quality of natural waters could result in shortages of drinking water, or damage to crops or fisheries resources. In order to ensure the continued use and enjoyment of the state's water resources, the Florida Department of Environmental Protection (FDEP) has developed minimum water quality criteria for both surface waters and groundwater. The FDEP's water quality criteria, which appear in Chapter 62-302, F.A.C., define the various types of waters and the minimally acceptable contamination levels for each.

Surface waters are classified according to their suitability for various uses: Class I (potable water supply), Class II (shellfish propagation or harvesting), Class III (fish consumption, recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife), Class IV (agricultural water supplies) and Class V (navigation, utility and industrial use). Each class carries its own minimum acceptable pollutant criteria, which are most stringent for Class I and become progressively less restrictive for other classes. When the FDEP and water management districts review permits for projects that affect surface waters, they determine whether the project can proceed without violating the minimum water quality criteria for the type of surface water involved.

Groundwater is classified in a similar manner pursuant to Chapter 62-520.410, F.A.C. In addition to general groundwater quality criteria in Chapter 62-520, F.A.C., the primary and secondary criteria for public drinking water supplies (Chapter 62-550, F.A.C.)

applies to Class G-1 and G-II waters, except where natural background conditions in those waters exceed the criteria of Chapter 62-550, F.A.C. ; in those cases, the natural background is the accepted criterion. The Floridan aquifer is the source of potable water in the Edgewood area.

The St. Johns River Water Management District (SJRWMD) has several policies that affect water conservation, use and protection in Edgewood. Chapter 40C-21, F. A. C. is the SJRWMD Water Conservation Rule. This rule is comprised of various water conservation measures, including limiting irrigation to evening and night hours and requiring large volume users to obtain a consumptive use permit from the SJRWMD prior to initiating use. Local governments are authorized to enforce the provisions of this rule.

Chapter 40C-21, F.A.C. also includes the Water Shortage Rule. This rule establishes four phases of water use restrictions. The SJRWMD imposes the phases when necessary to reduce the water use to meet current and projected demand. Local governments are also authorized to enforce the provisions of this rule.

The other rule that addresses the protection of water is the Stormwater Rule contained in Ch. 40C-42, F.A.C. This rule regulates the discharge of stormwater in order to reduce pollutants carried into surface waters by stormwater.

Existing Conditions

Lakes and wetlands have been identified on the Existing Land Use Map for the City of Edgewood. There are no rivers, harbors, bays or estuaries in the City. The City is bound on the north by Lake Jennie Jewel, on the west by Lake Jessamine and Lake Mary, and on the east by Lake Gatlin and Lake Conway. There are no lakes fully within the city limits.

Orange County maintains a database of lake information, which is called the "Orange County Wateratlas". Below is a table indicating the current condition of each of these lakes. The condition provided is called the trophic state index. The Trophic State Index (TSI) includes chlorophyll, nitrogen, and phosphorus levels. A TSI number of 0-59 is classified as "good". All of the lakes indicated below have good water quality condition. The data collection for the TSI Index was reported in 2012 and is the most current data.

Table 5-1
Lake Water Quality Conditions

Lake	TSI Index
Lake Jennie Jewel	8
Lake Jessamine	59
Lake Mary	30
Lake Gatlin	37
Lake Conway	28

Existing Needs Assessment

Various means of conserving freshwater supplies are addressed in the Potable Water sub-element.

Stormwater Runoff--Stormwater carries more than half of all pollutants entering Florida surface waters. Runoff from streets and parking lots is responsible for 80 to 95 percent of heavy metals (for example, lead zinc, iron, cadmium) that enter surface waters. Unmanaged stormwater runoff from the City is jeopardizing water quality in both the lakes mentioned above. Retrofitting of stormwater pollution treatment and adoption of Best Management Practices (BMP's) is necessary to reduce pollutant loadings to acceptable levels (i.e., consistent with Chapter 62, F.A.C.).

Future Needs Assessment

Stormwater Runoff--There is vacant land within the City that will become developed as the City grows in population. The regulations of the SJRWMD require that new development projects install stormwater pollution treatment. However, single family units which are not part of a "larger plan of development" are exempt from these requirements. In order to reduce pollution generation by numerous "sub-threshold" projects, the City should coordinate with Orange County enforcing stormwater standards to ensure that individual housing units provide adequate stormwater treatment.

Summary and Recommendations

The lakes in Edgewood are important aesthetic and recreational natural amenities. The lack of true recreation and open space land within the City can be partially offset by the expanse of the lakes. The City should coordinate with the County in enforcing stormwater Best Management Practices for all developments. Also, adoption of policies regarding shoreline vegetation clearing and a public education program concerning the use of pesticides, herbicides, and yard clipping disposal could reduce the amount of nutrient entering the water.

WATER SUPPLY

Introduction

All human activities are ultimately dependent upon the availability of water, whether for industry, agriculture or direct human consumption. Consequently, the water supply directly limits the potential for economic and population growth in a community. Withdrawal of water for human consumption also has environmental consequences. Withdrawals of groundwater from surficial aquifers can affect groundwater table elevations, which might adversely impact wetlands. Groundwater withdrawals from deep aquifers have little or no affect on surface conditions, but could increase the likelihood

that the groundwater supply could be contaminated by saltwater intrusion, unless the water resource is carefully managed.

Existing Conditions

The estimates were made using projected future population and current GPCPD. These estimates are based on the following assumptions: (1) Population estimates accurately reflect expected growth in Edgewood; (2) estimates of GPCPD water usage are representative of the Edgewood population; (3) water usage is linearly dependent upon population change; and (4) GPCPD water usage rates will remain constant over time. The last assumption may be especially vulnerable to changes in land use. Should a large industrial plant be established that uses large amounts of potable water from the public supply system, the GPCPD would be skewed upward; disproportionate increases in agricultural or landscape irrigation would also account for greater per capita water usage. However, the water use estimates assume that no water conservation measures, which would reduce per capita consumption and possibly reduce overall water demand below the figures given, will be imposed during the projection period. This assumption provides a conservative "safety-factor" in these estimates.

Existing water regulations that affect water consumption in the City or Edgewood include those imposed by the St. John's River Water Management District (SJRWMD), Orange County and the City itself. The SJRWMD has statutory authority to regulate all consumptive use of water, including groundwater and surface water withdrawals for public water supply or irrigation use. At present, the SJRWMD requires that consumptive use permit (CUP) applicants who are using potable water to irrigate golf courses, pastures or fruit not intended for direct human consumption to investigate sources of reclaimed wastewater and arrange to use such water where it is available and not economically prohibitive.

Existing and Future Needs Assessment

The Orlando Utilities Commission has sufficient capacity to meet the existing demands of the City. Consequently, there are no pressing water supply needs facing the community which require immediate attention by the City.

Summary and Recommendations

Orlando Utilities Commission has sufficient supply of potable water for the City or Edgewood. Future demand by the City will increase insignificantly compared to the OUC's entire service area. Water quality meets all federal and state standards and is expected to continue to in the future.

Even though the City has an adequate water supply for the planning period, they have added water conservation measures to the City codes. Article I, Section 114-6 addresses water efficient landscaping.

AIR QUALITY

Introduction

State air quality standards are set by the Department of Environmental Protection (FDEP), and appear in Chapter 62, F.A.C. The standards are identical to the National Ambient Air Quality Standards (NAAQS) set by the Environmental Protection Agency except for sulfur dioxide and particulates, for which the State standard is more stringent.

Air pollution is defined not only by ambient air quality in the region, but also by the source of the pollutants. EPA defines the source as either stationary or mobile. Stationary sources refer to point sources characterized by smokestacks or polluting machinery and operations. Mobile refers to automobiles. Their different characteristics requires different solutions to reduce emissions.

Existing Conditions

Air quality data specifically for the City of Edgewood is not available due to the City's small size. For this reason, data from Orange County is used which has been analyzed by the County's Environmental Protection Division.

The most significant source of air pollution in the City is from auto emissions. These emissions are high in ozone which is the predominant component of photochemical smog. Ozone is also a pulmonary irritant that affects the mucous lining, other lung tissue and respiratory functions. This can have harmful affects to those suffering from respiratory illnesses such as asthma, chronic bronchitis and emphysema. For the general population, ozone is capable of producing eye, nose and throat irritation.

The state and federal air quality standard for ozone is 0.12 parts per million. An exceedence of the ozone standard was recorded on March 3, 1983 in Orange County. No other exceedences have been recorded through 1989. The County was redesignated as an air quality maintenance area for ozone on May 15, 1987. The most recent Air Quality Index (AQI) report for Orange County reveals that, from 2005-2007, the County has consistently had over 75% of the year with days reporting as "Good" air quality. This measure includes ozone, sulfur dioxide, nitrogen dioxide, and carbon dioxide.

Orange County has identified one point source of air pollution in Edgewood: Florida Mining and Materials at 101 Mary Jess Road. This company is currently operating within federal and state guidelines and is reviewed periodically. The characteristic pollutant is concrete dust.

Total suspended particulate (TSP) are particles suspended in the air and of local origin. Particulate matter is emitted from both natural and manmade sources. Natural sources account for the greatest portion of TSP, on a global basis. Natural forms of TSP include: pollen and spores, sea salt, wind blown dust and products of combustion from wildfires. Manmade sources include: motor vehicles, commercial ovens, utility boilers, industrial boilers and dryers, and most material handling processes in industry.

Existing and Future Needs Assessment

Although the current AQI for the Orange County and Edgewood is good, the past trend shows a steady increase that can be expected to continue in the future. The primary cause of the increase is from increases in automobile traffic. Any improvements in the AQI will only be brought about by greater efficiency in traffic components such as engine combustion, roadway design and signalization; or reduction in the number of automobile trips, which may come through increased multi-modal transportation options.

Summary and Recommendations

Air quality in the City of Edgewood is presently good, and is likely to remain so for the near future. However, increases in traffic congestion could result in increased vehicular emissions at certain locations within the City. The City should continue to monitor the traffic situation and, if necessary, should consider the following options:

1. Transportation System Management--This includes a variety of measures designed to increase the efficiency of the existing traffic network. They include actions such as: (a) encouraging mass transit use by establishing transit shelters, (b) encouraging use of bicycles by commuters by establishing safer bike facilities, (c) improving traffic flow through intersections by installing actuated signals, or tying signal timing at several intersections together through a progressive or computer controlled network. This can be achieved through coordination with the County and FDOT.
2. Roadway Construction or Improvements--Construct new transportation facilities, or improve old ones to increase their capacity (e.g., by adding lanes or reconstructing intersections to include longer and more turn bays). This can be achieved through coordination with the County and FDOT.

More aggressive means of controlling vehicular emissions need not be considered until a specific air quality problem (or potential problem) is identified by the FDEP.

Stationary sources can be controlled through Land Development Regulations that ensure industrial type land uses control emissions.

ENDANGERED AND THREATENED SPECIES

Introduction

The everyday activities of obtaining the essentials of food, clothing and shelter in a modern, urbanized society unavoidably disrupts the natural environment. The clearing of land for crops, housing developments and shopping centers means a reduction in the amount of natural habitat for the various plants and animals which live in the Edgewood area. For many species, the adverse affects which human activities have on their survival are minimal. However, in some cases human disturbances threaten to eliminate a species entirely. In the past, some species were driven to extinction through excessive hunting pressures (e.g., the passenger pigeon), but today direct endangerment of that kind is only a problem with a few species which are illegally poached. Today most species threatened with extinction are in trouble because their habitat is being lost to development.

The preservation of species is important for aesthetic, ecological and economic reasons. Plants and animals are valuable simply because they are attractive or interesting to humans. More importantly, almost all species have some role in maintaining the natural ecological balance necessary to prevent outbreaks of pests or other undesirable environmental affects. Lastly, plant and animal species may have some commercial significance, or may be important in maintaining a commercially harvested biological system (e.g., crops dependent upon insect pollination, or "bait" fish which serve as prey for a commercially valuable species). For these reasons the federal government has extended protection in the Endangered Species Act of 1973 to those species that are endangered or threatened with extinction. The State of Florida has also recognized the need to preserve threatened species with the Florida Endangered and Threatened Species Act of 1977, and the provisions of the State Plan. Because development decisions are ultimately made at the local level, and development is one of the principal factors accelerating the loss of species, the City must plan for the protection of endangered species.

Existing Conditions

Florida's Endangered and Threatened Species report, Updated October 2012, by the (FWC) was used as the basis for the Edgewood list (Table 5-2). The Florida Forest Service, Federally Listed Plant Species was also used. Those species whose geographic ranges included the Edgewood area were included in the list. Geographic ranges for species were derived from the FNAI biodiversity database, Biodiversity Matrix Map Server). Species for whom geographic range information was detailed enough to determine that its range in Orange County did not include the Edgewood area were excluded from the list.

Eighteen species listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) may occur in Edgewood based on their geographic ranges. Suitable habitat for many of these species may exist in the City or its vicinity. However, the

habitat available for some of these species must be considered "marginal" due to its small size, poor condition or its lack of the peculiar conditions needed by the species. Nevertheless, listed species may still occur even in the absence of ideal habitat.

The information in Table 5-2 is only as current as the lists obtained from the various agencies at the time the plan was prepared. Likewise, -the information about the geographic ranges of species is only as current as the sources used. In this sense, the list of species is conservatively large. However, the range of some of these species is not well known, and there may be species which occur in Edgewood unobserved. Nevertheless, the Edgewood list probably includes most, if not all, of the listed species which may affect natural resource planning in the city.

Existing Needs Assessment

The lack of appropriate habitat in Edgewood, makes it unlikely that many of these species will occur. The birds may be present in the area on a temporary basis because of their long range travel and feeding habitats. The gopher tortoise may inhabit the citrus grove sites within the City limits. The presence of gopher tortoises in the City would be significant not only because they are a State Listed Species of Special Concern, but also because three other listed species (indigo snake, Florida mouse and gopher frog) are known to inhabit gopher tortoise burrows with regularity.

The approval of new development within largely natural areas may affect one or more of the above species. In order to prevent unintentional and/or unmitigated harm to endangered or threatened species within the City, an assessment should first be made to determine more accurately which species are present and where. Once the areas known to provide habitat for listed species are identified, any development proposed for such areas should be required to provide for maintenance of the endangered population on site or its relocation to suitable habitat nearby.

Future Needs Assessment

Identification of any and all listed species within the City and the establishment of development regulations governing their protection will provide for limited protection for those populations in the direct path of near-term development plans. Land acquisition, which is a commonly used method to preserve listed species, is impractical in Edgewood because of the City's urban character and lack of significant undeveloped land.

Summary and Recommendations

There are 18 species listed by either the U.S. Fish and Wildlife Service, the State of Florida or the Florida Natural Areas Inventory (FNAI) which may occur in Edgewood, given their geographic distributions and the availability of suitable habitat in the City. The future persistence of some of the species in Orange County outside of wildlife reserves is in doubt.

In order to insure that the persistence of listed species is not further endangered by development activities, the following actions should be taken:

1. Conduct Listed Species Survey--The City should have a thorough biological study conducted in its remaining natural areas to determine which, if any, listed species do occur or have a strong potential to occur based on the availability of suitable habitat. This study should provide population estimates for those species that are found, and should specifically designate parcels of land likely to be inhabited by listed species.
2. Develop Listed Species Protection Ordinance-- Development regulations describing measures that developers should take to identify, preserve or relocate listed species that occur on their property should be established once the listed species survey (#1, above) is completed.

Table 5-2 Listed Species

Species (Common Name)	Designation
Bird	
Little Blue Heron	State Species of Special Concern (SSC)
Snowy Egret	SSC
Wood Stork	Federally-designated Endangered (FE)
Southeastern American Kestrel	State-designated Threatened (ST)
Limpkin	SSC
Ivory-billed Woodpecker	FE
Red-cockaded Woodpecker	FE
Mammal	
Florida Mouse	SSC
Sherman's Fox Squirrel	SSC
Reptile	
American Alligator	SSC
Eastern Indigo Snake	Federally-designated Threatened (FT)
Florida Pine Snake	SSC
Short-tailed Snake	ST
Gopher Tortoise	ST

Plants	
Clasping Warea	FE
Srub Lupine	FE
Pigeon Wings	FT
Florida Bonamia	FT
Britton's Beargrass	FE

VEGETATIVE COVER AND WILDLIFE HABITAT

Introduction

Even within urbanized areas like the City of Edgewood, stands of natural vegetation provide a number of important benefits. The most direct beneficiaries of natural vegetation within an urban area are those plant and animal species for whom the vegetation provides breeding or foraging habitat. Even where the wildlife habitat within the urban area is sub-optimal, such areas can still provide connections between preserves of higher quality habitat along which plants and animals may disperse. The physical presence of vegetation may moderate climatic conditions by providing shade and windbreaks for nearby development; additionally, their lower reflectivity reduces the "heat island" effect of urban development, which may affect rainfall patterns. Where hydrologic conditions are appropriate, natural areas may contribute to groundwater recharge or flood storage. Lastly, these natural areas also provide humans with aesthetically pleasing open spaces and, if properly developed and managed, recreational opportunities.

Existing Conditions

Habitat Inventory--Following is a description of the principal habitats present within the City of Edgewood. Vegetative cover was identified by field surveys of selected areas. The plant communities identified this way were not easily categorized into existing classification schemes, such as the Florida Land Use Cover and Classification System (FLUCCS) or the system of the Florida Natural Areas Inventory (FNAI). Four distinct vegetative community types were identified, and each type is described briefly below.

Orange Groves--Several orange groves exist within the City, but were killed from past freezes (One of the groves is currently being replanted the others lie dormant). The groves possess qualities similar to that of a scrub habitat. Common scrub animals that may be present are: spotted skunk, cottontail rabbit, beach mouse, eastern mole, white-eyed towhee, mockingbird, loggerhead shrike, yellow-rumped warbler, palm warbler, ground dove, coachwhip snake, eastern diamondback rattlesnake, six-lined racerunner, oak toad, and gopher frog. The most significant listed species that may occur in scrub is the gopher tortoise.

Oak Forest (Xeric Hammock)--Oaks, principally live oak, dominate the canopy. In some locations where this community type occurs the oak forest takes the form of a mesic hardwood hammock: trees are large, and canopy closure is nearly complete, forming a park-like understory. Duever, et al. (1982) report that typical animals in a mature xeric hammock may include: "... cotton mouse, grey squirrel eastern flying squirrel, eastern mole ... screech owl, blue jay, black racer, Carolina anole, southern toad and squirrel tree frog." The indigo snake, short tailed snake and (where sufficient open areas exist) gopher tortoise are among the rare and endangered fauna which may be found on these sites. The immature oak forests which have yet to develop into true hammocks

may support a fauna more like that of the pine flatwoods communities from which they have evolved.

Non-Forested Wetlands--Wetland areas characterized by a variety of emergent and floating aquatic plants, which may include cattails, various rushes and sedges, pickerel weed, aquatic grasses, water lilies and the exotic water hyacinth. Willows may also be included in this classification, although as trees they are not "non-forested" wetlands, strictly speaking. Because of the small number of wetlands, their small areal extent and their diversity, it is not possible to further subdivide them into various types based on their characteristic vegetation. For the same reason, it is not possible to relate this classification to that of the FNAI.

Open Water--Includes the four lakes around Edgewood. Because non-forested wetlands are found on the littoral margins of open waters, many (if not all) of the species cited above may be found in open waters of the City. However, there are a few species which are not found in vegetated wetlands which do use open waters, or which are more appropriately classified as open water species. These include many fishes, the most common of which are probably various species of minnows, mol lies, killifish, shad and catfish. Game fish such as the largemouth bass and bream species (e. g., . bluegill, warmouth, red-ear) will likely also occur, though not in numbers and sizes suitable for much sustained recreational fishing.

Assessment of Conditions--Only 120 acres or 27% of the City can be characterized as undeveloped wildlife habit; this includes: undeveloped land, citrus groves, wetlands and open water (FLUCCS categories 191,231,600,500 respectively). It is likely that many of the parcels are too small to support "a truly diverse habitat. Assuming that the undeveloped land and dead citrus groves reach build-out in the future, native species will be relegated to the lakes, the four acres of wetlands, and residents yards.

The 100 year floodplain occupies 57 acres or 13% of the City. The 100 year floodplain represents a biologically diverse sampling of natural areas that persist today in Edgewood, and contain many of the elements necessary to maintaining high wildlife abundance and diversity. Those areas which contain wetlands and/or open water are especially important, since access to water is necessary for almost all wildlife and is essential for those species which require such habitat for feeding or breeding.

Existing Needs Assessment

Unlike housing or public facilities, natural vegetation and wildlife habitat can only be lost, never created. Once a natural area has been cleared for agriculture or urban development, it is technically difficult and usually practically impossible to restore what was lost. Since the City now possesses as much natural habitat as it ever will, there are no issues which can be identified as "existing needs" with respect to vegetative communities and wildlife habitat. However, considerable action can be taken by the City to ensure that representative amounts of natural communities' presently occurring in

Edgewood are conserved, and habitat for wildlife is optimized, as development proceeds in the future. These issues are addressed in the next section.

Future Needs Assessment

As Edgewood continues to grow economically and in numbers of inhabitants, pressure to develop the City's remaining natural plant communities will increase. In keeping with the urban character of the City, and the desire to limit "sprawl" development, few if any of these existing natural areas can be preserved if development is to be permitted within Edgewood. Nevertheless, many of the objectives of the State and Regional Plans with regard to conservation of natural communities and wildlife habitat can be achieved within Edgewood through careful planning. In particular, the regulation of floodplains and the approval of new development can ensure that wildlife habitat and natural vegetation can be maintained in the City. Towards this end, the following actions should be taken:

Establishment of Landscaping/Open Space Ordinances- - Natural vegetative communities are usually cleared during site preparation for development in the absence of requirements to the contrary, given the short-term economic benefits of doing so. To ensure that natural open spaces are maintained for aesthetic, health and environmental reasons, regulations which require the maintenance of open space in new development or re-development should be promulgated. The preservation of native vegetation should be encouraged in such an ordinance, both to preserve natural habitat and conserve potable water used for irrigation (see Water Conservation section).

Revision of Flood Damage Prevention Ordinance--Unrestricted development of floodplains will eventually result in loss of flood storage with damaging consequences despite flood-proofing. Consequently, placement of fill in the 100 year floodplain should be discouraged through the requirement that compensatory storage be created for all such fill. (See Floodplain Management section). In order to advance natural vegetation and wildlife habitat values, the revised ordinance should encourage property owners to use those portions of their property in the floodplain to satisfy open space requirements. Because a large fraction of the City's natural vegetation is found within the floodplain, this action will have the effect of simultaneously preserving wildlife habitat while ensuring future flood protection.

Summary and Recommendations

Natural vegetative communities are a dwindling resource. The loss of natural communities even within an urbanized area such as the City of Edgewood may have long-term repercussions on the future persistence of those community types and the wildlife that inhabit them within Orange County. Additionally, their loss would reduce the aesthetic, ecological, climatic and hydrological benefits associated with the maintenance of open space and natural vegetation.

A dual approach to the protection of natural vegetation and wildlife habitat could accomplish much, while limiting the cost to the public. Regulation of floodplain development can ensure this important wildlife area remains viable. Enacting a requirement that new development set aside open space areas, preferably of natural vegetation, will provide aesthetic, water conservation, and climatic benefits as well wildlife habitat. These measures combined will act to achieve a city landscape that is a mosaic of the built and natural environments.

FISHERIES

Introduction

Freshwater fisheries are of immense recreational, economic and ecological value in Florida. Freshwater fish populations also constitute an important link in a food chain which supports many large predators other than Man, such as the bald eagle and the alligator.

The maintenance of existing fisheries is of importance in local government planning because development activities on-shore (especially at the water's edge) can dramatically affect the ability of a lake, stream or estuary to support viable fish populations. However, the concern for fisheries impacts is not limited to near-shore development. The indirect effects of development far inland, such as increased stormwater runoff or sewage discharge, can have adverse consequences for fisheries just as serious as direct destruction of aquatic habitat.

Existing Conditions

Edgewood is situated between four lakes that each provide recreational fishing but no commercial fishing due to their size and limited fish population. Edgewood's lakes undoubtedly provide prey for ospreys and wading birds, and possibly other predators such as the raccoon, alligator or bald eagle. There are also no marine habitats within Edgewood.

Existing Needs Assessment

There is little or no immediate threat to the lakes that form the basis of the freshwater fisheries habitat in Edgewood, with the possible exception of stormwater runoff.

Future Needs Assessment

Development of the lands surrounding freshwater lakes will subject them to a variety of potential environmental threats. Development effects which may adversely affect fisheries in ponds include: (1) clearing of littoral zone vegetation in the lake, which would reduce fish habitat and natural sediment trapping/nutrient assimilation functions; (2) removal of natural vegetation bordering the lake, which could increase erosion potential and sediment transport; and (3) introduction of urban stormwater pollutants into the lake. The City should take steps to ensure that future development avoids these potential adverse effects.

Summary and Recommendations

Freshwater fisheries in the City of Edgewood are of little commercial importance, although their ecological and recreational contribution may be significant. The lakes in Edgewood should be protected from the direct effects of new development to ensure that fish populations are minimally affected. Specific actions which the City could adopt include:

1. Establishment of a maximum allowable shoreline clearing distance for development of waterfront property. By establishing a relatively small maximum allowable clearing distance (e.g., 30 feet or 20% of frontage, whichever is larger) would reduce the loss of shoreline and littoral vegetation needed to sustain fisheries habitat and good water quality in lakes.
2. Development of stormwater retrofit program. A program to identify and implement treatment for the unchecked stormwater entering the lakes should be established (see Public Facilities Element, Sub-Element: Drainage).
3. Prohibition of inappropriate dredge/fill projects. The City development code should be modified to prohibit those projects which are only feasible through dredging and/or filling of wetlands and deepwater habitats, except for those projects which are of overriding public interest.

FLOODPLAIN MANAGEMENT

Introduction

Floodplains are those areas which become inundated by water on a regular, recurring basis. The most familiar floodplains are those associated with permanent bodies of surface water, such as lakes and rivers; following large rainstorms, the surface of these water bodies increases in elevation and floods low-lying adjacent lands. Floodplains are described according to the frequency with which they are inundated. The annual floodplain is the elevation to which water rises, on average, every year during the wet season. The 100 year floodplain is the elevation to which water is expected to rise roughly once in every 100 years; there is therefore a 1% chance that the 100 year floodplain will be inundated in any given year. Although floodplains are always associated with permanent surface waters, some areas which appear "dry" most of the time may flood after large storm events and therefore may be included in the floodplains of lower return frequency (e.g., 25 year, 100 year floodplains).

Development within floodplains can have many undesirable effects. Structures located in floodplains that are not designed to withstand flooding or the hydrodynamic forces associated with flooding can be damaged. Roads and public utilities located within floodplains can become dangerous or unusable during times of high water if their elevation is below the flood crest elevation. Some of these effects can be ameliorated through "flood-proofing," which consists largely of constructing the habitable area of

buildings above the flood elevation by placing the building on fill or (less frequently) on raised pilings. Flood-proofing is not a panacea, however. Its purpose is largely to limit permanent damage to a structure to make it usable after the flood, not to make it continuously habitable during the flood (FEMA, 1986).

Flood-proofing also has its own adverse consequences. When new development is flood-proofed through the use of fill to raise floor elevations, the fill displaces part of the flood storage capacity of the floodplain. Although the degree to which flood elevations would rise as a result might be inconsequential for a few minor intrusions, each new development in the floodplain contributes to the increase in the flood elevation. Eventually, if left unchecked, the placement of fill in the floodplain can raise flood elevations to levels which would flood structures previously believed to be above the floodplain. In areas where the floodplain is associated with flowing waters (either permanent or intermittent), the placement of fill may reduce not only flood storage but flood conveyance as well. By "backing up" floodwaters which would otherwise drain away, flood elevations can also be increased to the point where previously safe structures are threatened.

Recognizing the public health, safety and welfare problems associated with floodplain development, the U.S. Congress enacted the National Flood Insurance Act of 1968 (Public Law 90 -448, 82 Stat .476) establishing a federal program of floodplain management, part of which involved the creation of the National Flood Insurance Program to provide flood damage insurance to private property owners. The availability of the insurance is dependent upon the adoption by local government of floodplain management regulations that meet certain federal requirements. The Federal Emergency Management Agency (FEMA) produces Flood Insurance Rate Maps (FIRM maps) which delineate the areas which are subject to flooding under specific conditions (e, g., 100 year flood, hurricane storm surge), and for which floodplain management regulations should apply. Although communities are eligible for the NFIP after adopting the minimum federally required floodplain management regulations, FEMA encourages the adoption of stricter standards which further reduce reliance on flood-proofing and structural controls, and increases the protection of the natural resource values of floodplains (FEMA, 1986).

Existing Conditions

A floodplains map has been prepared as part of the Future Land Use Element. The data used to prepare this map was obtained from the Orange County map server, water layer.

A total of 57.5 acres, or 13% of the City of Edgewood is located within the 100 year floodplain. Most of the floodplain is developed; 51.1 acres (89%) of floodplains support commercial, utilities, parks, transportation, institutional or residential land uses. Of the remainder, 6.4 acres (11%) is undeveloped. The floodplain map found in the Future Land Use Element illustrates the location of the floodplains within the City, and the land uses found there.

The City currently has zoning codes that mandate a 50 foot setback from the normal water elevation. The City adopted new regulations in 2009 to address and implement additional floodplain management.

Existing Needs Assessment

The City complies with and participates in the National Flood Insurance Program. Only 6.4 acres of undeveloped floodplain exist within the City, therefore extensive rules concerning floodplain development are unnecessary.

Future Needs Assessment

Future expansion in floodplains should insure that any loss in floodplain storage from fill projects will be mitigated by onsite retention.

Summary and Recommendations

The City of Edgewood has experienced near complete floodplain build out. Regulations concerning floodplain management should address expansion of existing land uses to mitigate loss of floodplain storage.

SOIL CONSERVATION AND MINERAL RESOURCES

Introduction

The presence of vegetation binds and holds topsoil in place, resisting the action of wind and water to strip the soil away. Whenever land is cleared of vegetation the soil is subject to wind and water erosion. Erosion *is* a serious problem for several reasons: (1) topsoil, which is essential to agricultural production and which takes many years to accumulate, can be lost; (2) erosion along stream or canal banks can reduce their structural soundness, resulting in the collapse of the bank and the actual loss of land area; (3) soil eroded by the wind can cause respiratory problems in human beings; and (4) the transport of sediment by water into streams, lakes or estuaries can cause severe damage to aquatic ecosystems through the resulting increases in turbidity and direct siltation of aquatic organisms.

Fortunately, the gentle slope of the land in most parts of central Florida reduces the general potential for soil erosion below that experienced in highly erosive parts of the country. Nevertheless, individual projects may cause significant harm if erosive conditions are left unchecked. This is true even of development sites, where the exposure of bare soil to a few weeks of heavy rains may cause sedimentation problems in surface waters or in drainage systems. The FDEP has established turbidity criteria for surface waters (s. 62, F.A.C.), and both the FDEP and the Water Management Districts (WMDs) require that projects permitted by them use erosion control measures to protect surface waters from increases in turbidity. However, these controls do not apply to projects which escape the FDEP or WMD permitting processes.

Existing Conditions

According to the U.S. Department of Agriculture's Soil Conservation Service, Edgewood has no consistent soil erosion problems.

According to the Florida Department of Environmental Protection, Edgewood has no mineral resources of major economic significance. However, sands and clayey sands are present in the surface and near-surface throughout the area. Clayey sand is used in construction and road base as fill material. It is unlikely these sediments will be commercially valuable due to their low volume, but may be used locally for fill purposes.

Future Needs Assessment

It is unlikely that any new large scale mining operations will begin in the City. Likewise, recent freezes have made citrus grove profitability so uncertain that it is doubtful that additional areas will be opened up for agriculture. However, conversion of former agriculture sites and other undeveloped lands to urban development may result in intense, though temporary, erosion problems if not adequately controlled. There are numerous Best Management Practices guidelines available from state and federal

agencies which, if applied uniformly on all cleared lands, would effectively manage soil erosion and sedimentation problems for agriculture, development and mining activities.

Summary and Recommendations

Edgewood has no erosion problems, nor are any expected in the future. New urban development is the most likely source of soil erosion, and can be controlled through the adoption of soil conservation Best Management Practices as a part of the City's building code.

Mining should be banned in the City due the disruption it can cause in an urban neighborhood community.

HAZARDOUS WASTE AND MATERIALS

Introduction

Hazardous materials are substances which have one or more of the following properties: ignitable, corrosive, reactive or toxic. This definition encompasses a variety of materials, from exotic organic solvents used in electronics manufacture to household cleaners and pesticides. "Hazardous wastes" are the residues of hazardous materials, or by-products of a process which produces a substance with hazardous properties. The regulation of the storage, transport and disposal of hazardous wastes is a responsibility of the FDEP and is addressed in Chapters 62-710,730,731,737, and 740, F.A.C.

Although large industrial plants may have the greatest potential to cause a single, large scale hazardous waste/materials contamination problem, the threat from many small quantity generators is probably more serious due to the relatively uncontrolled manner in which such wastes may be stored and discarded. Even small spills of a household hazardous material, such as used motor oil, may contaminate many thousands of gallons of surface water or groundwater. Disposal of hazardous materials in household trash may represent a significant threat to environmental quality and human health, since these materials may accumulate and leach out from old landfills constructed without liners and/or leachate collection systems.

Existing Conditions

The Orange County Environmental Protection Division (OCEPD) provided a list of hazardous waste generators in Orange County. None are directly within Edgewood.

Existing Needs Assessment

The largest existing problem is that of improper waste disposal. Although the City has little direct involvement in the management of hazardous wastes, it should help to identify those businesses which might be waste generators and encourage them to find appropriate means to discard their wastes. This program should be performed in coordination with the Orange County Environmental Protection Division.

Future Needs Assessment

Because responsibility for the management of hazardous wastes and materials is vested in the FDEP and county governments, there is little direct action that the City can take to assist in their control. However, the City can provide assistance to those programs in several ways. One such way is to provide approval for the placement of a temporary "Amnesty Day" collection site within the City should the program be continued by the FDEP or Orange County. By providing easy access to such a collection center, the City would improve the chances that a significant fraction of the populace would use the opportunity to discard improperly stored wastes.

Additional support can be lent to existing programs through the City's building code and site plan approval process. The City can ensure that those business which, by their nature, use or generate hazardous materials comply with the necessary building facilities to prevent the loss of these materials into the environment. Proposed industrial parks which are to include tenants which generate, store or use hazardous materials should be designed so as to limit the potential adverse impact of accidental spills through appropriate design of buildings and drainage systems. Requiring the construction of interim storage facilities for hazardous materials located at a common point on the grounds of an industrial park would simplify the problems associated with containing and transporting the materials to a proper treatment facility.

Summary and Recommendations

The City does not, at present, harbor any large quantity hazardous waste generators. The City's role in hazardous waste management is limited. Nevertheless, active cooperation with the FDEP and the County in their programs benefit the City and its residents if the amount of improperly stored and discarded wastes could be reduced. The City continues to meet with Orange County regarding the solid waste program.

RECREATION AND OPEN SPACE ELEMENT
TABLE OF CONTENTS
ANALYSIS

	Page
DATA SET	
Existing Recreation Areas	62
ANALYSIS OF CURRENT NEEDS AND FUTURE NEEDS	63
REFERENCES	63
TABLES	
Table 6-1 EXISTING RECREATIONAL FACILITIES	62
Table 6-2 PROJECTED RECREATIONAL FACILITY NEEDS	63

City of Edgewood
Recreation and Open Space Element

DATA SET - Existing Recreation Areas

Edgewood and the surrounding areas were inventoried in order to determine the number of existing parks, recreational facilities and open spaces available for use by Edgewood residents. A list of these facilities follows. There are no public recreation or open space facilities within the City itself; private facilities within the City are minimal. There are, however, several significantly large recreational facilities outside of Edgewood yet still within Edgewood's recreational district and within easy reach of its residents.

TABLE 6-1
EXISTING RECREATIONAL FACILITIES

Name	Type	Acreage	Available Facilities
Moss Park	Regional	1,551.0	Camping, Swimming, Showers, Restrooms, Barbecue Grills, Fishing, Boat Ramps, Playground Equipment, Tennis Courts, Ball Field, Nature Trails, Picnic Tables Pavilions, Horseshoe Pitching Area, Sports Equipment
Cypress Grove Park	Regional	80	
Warren Park	Community	8.0	Swimming Beach, Ball Diamond, Horseshoe Pitching Area, Picnic Tables, Pavilions, Barbeque Grills
TOTAL PARK ACREAGE		1639.0	

ANALYSIS OF CURRENT NEEDS AND FUTURE NEEDS

The City of Edgewood has no public recreational facilities within its city limits; however, city residents have access to recreational facilities within Orange County. There are currently 1639.0 park acres available to Edgewood residents. The current recreational needs of the City's residents are being met by the facilities identified in Table 6-1. With the population projections for Edgewood through 2030, the City is meeting and will continue to meet its LOS policy for provision of recreational facilities.

Table 6-2
Projected Recreational Facility Needs

		* BEBR Medium Estimates			
	Census 2010	2015	2020	2025	2030
Population	2503	2671	2892	3103	3303
Recreational Facilities Needed (acres)	3.8	4.0	4.3	4.7	5.0

The four lakes that surround the City provide for recreation and open space; however they cannot be considered when determining a level of service. The Lake Conway chain is accessible by the Randolph boat ramp, just outside of the City, and Lake Jessamine is accessible by the Woodsmere boat ramp on the west side of the lake.

REFERENCES

1. Orange County, Florida: Parks Inventory listing at www.ocfl.net, 2012.
2. City of Edgewood Comprehensive Plan.

INTERGOVERNMENTAL COORDINATION ELEMENT
TABLE OF CONTENTS
ANALYSIS

	Page
INTRODUCTION	65
PRIMARY INTERGOVERNMENTAL ISSUES	65
TABLE 7-1 Intergovernmental Coordination Mechanisms	67

City of Edgewood

Intergovernmental Coordination Element

Introduction

The existing Intergovernmental Coordination mechanisms have been inventoried and are presented in Table 7-1 in this Element. The inventory includes local municipalities, county offices, state agencies, sub-state districts, and federal agencies which provide services, planning and technical assistance, and/or have regulatory authority over land use. All of these existing Intergovernmental Coordination mechanisms are effective in addressing any issues between the City of Edgewood and other jurisdictions.

The Comprehensive Plan Elements describe various issues which potentially involve adjacent jurisdictions and state agencies.

Primary Intergovernmental Issues

There are three primary intergovernmental issues that the City could improve coordination and thus improve the quality of life for City residents.

1. Transportation

Orange Avenue (SR 527) which divides the City of Edgewood is a principal arterial operating at LOS C. Continued coordination with Orange County and FDOT will remain a priority.

2. Recreation and Open Space

The City of Edgewood sets the LOS for Recreation and Open Space the same as Orange County's LOS. The City is almost completely developed and land is of limited quantity and size; thus future park creation is not feasible. Orange County maintains many parks in the area that adequately serve the residents of Edgewood.

3. Water Quality/Drainage

The City of Edgewood is surrounded by four lakes which provide aesthetic and recreation benefits. These lakes suffer from degradation caused by uncontrolled stormwater runoff. Continued monitoring of lake water quality by OCEPD and retrofit of old drainage systems, determined to be contributing pollutants, can ensure that the lakes remain a benefit to City residents.

Existing intergovernmental coordination with the agencies included in Table 7 -1 involves informal communication between the City Clerk and the listed agencies. There

have been no problems with this existing intergovernmental coordination mechanism. This plan provides provisions for ensuring that public facilities and services will be available concurrent with development. Policies addressing availability of Public facilities and services concurrent with development include provisions for coordination with the appropriate agencies.

There also exists a need for intergovernmental coordination with regard to provision of recreational facilities. There are no recreational facilities within the jurisdiction of the City; Edgewood's residents are served by recreational facilities within Orange County and the City of Orlando. Edgewood continues to coordinate use of Orange County parks facilities for its residents.

Table 7-1

Intergovernmental Coordination Mechanisms

Agency	Coordination of	*Role
Florida Department of Transportation	Comprehensive statewide transportation planning; licensure and regulation of transportation systems	R, S,
Florida Fish and Wildlife Conservation Commission	Protection of wild animals and freshwater aquatic life; recreational development; aquatic weed control	R, S, P&TA
Florida Department of Economic Opportunity	Comprehensive planning, local government technical assistance	S, P&TA
Florida Department of Environmental Protection	Quality of air, water, and land; control of pollution	R, S, P&TA
Florida Department of Health	Delivery of health and social services offered by the State to people in need of assistance	S
Florida Division of Historic Resources	Historic property preservation	P&TA
St. Johns River Water Management District	Manage fresh water supplies for social and natural resource needs; protect floodplains	R, S, P&TA
East Central Florida Regional Planning Council	Regional comprehensive planning and local government plan review and technical assistance	S, P&TA
MetroPlan Orlando	Prepare ongoing comprehensive transportation plans for the region; direct federal transportation funds	P&TA
Orlando-Orange County Expressway Authority	Agency to design, oversee, and build toll roads	P&TA
Orange County Government	Air quality monitoring, parks, fire, police, wastewater/sewer, libraries	S, P&TA
City of Orlando	Mutual Assistance police protection	S

* R- Regulatory authority over land use

S- Service to City

P&TA- Planning and technical assistance

CAPITAL IMPROVEMENTS ELEMENT
TABLE OF CONTENTS
ANALYSIS

EDGEWOOD/CIE	Page	
Purpose of the CIE	69	
Public Facility Service Delivery in Edgewood	69	
Inventory of Educational and Health Care Systems Serving Edgewood	70	
Public Facility Needs Derived from Plan Elements – Subject to Concurrency	71	
Other Public Facility Needs - Not Subject to Concurrency	72	
Level of Service Standards Derived from Plan Elements	72	
Inventory of Financial Resources	74	
Existing Local Policies and Practices for Capital Improvements	76	
The CIE and the Future Land Use Element	77	
Fiscal Assessment	77	
TABLES AND MAPS		
Table 8-1	Provision of Public Facilities in Edgewood	70
Table 8-2	Facility Needs Subject to Concurrency	71
Table 8-3	LOS Standards for Facilities Subject to Concurrency	73
Table 8-4	General Fund Revenue Sources	75
Table 8-5	Transportation Special Fund Revenue Sources	75
Table 8-6	Five-Year Capital Improvements Schedule	78

Capital Improvements Element

1. PURPOSE OF THE CAPITAL IMPROVEMENTS ELEMENTS

The Capital Improvements Element (CIE) has several purposes:

- 1) To summarize the public facility needs that have been identified in the Plan elements.
- 2) To assess the City's financial ability to provide these needs.
- 3) To provide, for public facilities in a manner that is consistent with the Comprehensive Plan and the Future Land Use Element in particular.
- 4) To adopt a financially feasible, Five Year Schedule of Improvements consistent with adopted level of service (LOS) standards.
- 5) To adopt Goals-Objectives-Policies which direct future development to be consistent with the Comprehensive Plan and concurrency provisions.

The following public facilities requiring LOS standards are included in the Concurrency Management System requirements of Florida Statutes:

- | | |
|-------------------|------------------|
| 1) roads | 4) drainage |
| 2) sanitary sewer | 5) potable water |
| 3) solid waste | |

2. PUBLIC FACILITY SERVICE DELIVERY IN EDGEWOOD

The City of Edgewood receives services from several governmental entities and one private contractor. The City consists of approximately 904 acres located in the southern metropolitan Orlando area between the central downtown core and the outer suburban areas. The City is essentially surrounded by urban land uses with a principal arterial road (SR 527, Orange Avenue) defining a linear development pattern. Like other small cities in the metro-Orlando area, Edgewood has developed as an urban node which receives public facility services from larger governmental entities. Table 8-1 shows service providers.

Table 8-1
Provision of Public Facilities in Edgewood

Facility	Provider
Roads: arterial local	FDOT and Orange County, Edgewood
Water	Orlando Utilities Commission
Sanitary Sewer	Orange County
Solid Waste	Waste Management, Inc. - collection, Orange County - landfill disposal
Drainage	Edgewood. FDOT and Orange County
Parks and Recreation	Orange County*

*The City does not contain a park-recreation system. Residents utilize the Orange County park system, which does not have any facilities located in Edgewood.

3. INVENTORY OF EDUCATIONAL AND HEALTH CARE SYSTEMS SERVING EDGEWOOD

Education

The 2012/2013 School Attendance Zone Maps for Orange County Public Schools were used to determine which schools service the City of Edgewood. The following public schools serve grades K-12:

School	Grades	Capacity
Pine Castle Elementary	K-6	457
Pine loch Elementary	K-6	482
Walker Middle	7-9	1199
Memorial Middle	7-9	1191
Oak Ridge High	10-12	2180

SOURCES: Orange County Public Schools, Concurrency Data, 2010/2011.

Health Care

There are no public healthcare facilities located within the City of Edgewood.

4. PUBLIC FACILITY NEEDS DERIVED FROM PLAN ELEMENTS - SUBJECT TO CONCURRENCY

Eleven capital improvement projects are scheduled for the 2012-2013 budgetary year. No additional projects are planned at this time.

There are no additional deficiencies, repair, replacement, or future growth needs.

TABLE 8-2
Facility Needs Subject to Concurrency

Plan Element	Facility	Existing Deficiency Identified Need	Repair/Replacement Future Growth	Responsible Entity
1. Transportation	roads-arterial	none		FDOT
	roads-local	none		Edgewood
2. Potable Water	potable water	none		Orlando Utilities Commission
3. Sanitary Sewer	sanitary sewer	none		Orange County
4. Solid Waste	solid waste	none		Waste Management, Inc. and Orange County
5. Drainage	drainage	none		Edgewood, FDOT, Orange County
6. Recreation and Open Space	parks	none		Orange County

5. OTHER PUBLIC FACILITY NEEDS - NOT SUBJECT TO CONCURRENCY

Edgewood does not have fiscal responsibility for public facilities which are subject to concurrency, with the exception of local roads. However, the City does provide police service for its residents. Police vehicles are a capital improvement need for Edgewood that is not subject to concurrency. Approximately every other year the City will replace one of its three police vehicles.

6. LEVEL OF SERVICE STANDARDS DERIVED FROM PLAN ELEMENTS

Level of Service (LOS) standards are an indicator of the extent of service provided or proposed to be provided by a facility based on its operational characteristics. LOS indicates the capacity per unit of demand for each public facility. Chapter 163 F.S. requires LOS standards to be included for public facilities addressed by local governments in their comprehensive plans. Specifically, these LOS's will be established to ensure that adequate facility capacity will be maintained and provided for in the future to serve the City's residents. LOS standards can affect the timing and location of development by encouraging growth in areas where facilities have excess capacity. On the other hand, development will not be permitted unless needed facilities and services are provided. The provision of services and new development may occur in a phased sequence over time.

Level of service standards must be adopted for those services located within the area for which the city has authority to issue development orders and permits. Although the city does not have operational or fiscal responsibility for these services, the issuance of development orders and permits will affect the level of service. Therefore, it is necessary for the city to adopt those standards which have been identified by the service providers. In most cases this requires planning coordination with other governmental entities. Table 8-3 lists the LOS standards which will apply for concurrency.

Table 8-3
LOS Standards for Facilities Subject to Concurrency

Facility	Level of Service	Service Provider
Roads		
Orange Avenue (SR 527)	E	FDOT
Hansel Avenue (SR 527)	E	FDOT
Holden Avenue	E	Orange County
Gatlin Avenue	E	Orange County
Potable Water	325 gallons/dwelling unit/day (reclaimed)	Orlando Utilities Commission
Sanitary Sewer	225 gpd	Orange County
Solid Waste	Two per week per household 6.0 lbs per day per person	Waste Management, Inc. (collection) Orange County (disposal)
Parks	1.5 acres per every 1000 people	Orange County
Drainage		Edgewood, FDOT, Orange County
* all storm events are 24-hr. duration		
Bridges	50 year	
Canals, ditches or culverts for drainage external to the development	25 year	
Crossdrains, storm sewers	10 year	
Roadside swales for drainage internal to the development	10 year	
Detention/Retention basins	25 year	
Retention/Detention basins (no positive outfall)	*	

*meet pre and post development runoff volumes and rates for the 25-year, 96-hour storm event

Water Quality: For a dry retention system retain 0.5 inch of runoff from the contributing basin or 1.25 inches of runoff from impervious areas, whichever is greater, plus half an inch of runoff from the contributing basin. For a wet detention system detain 1 inch of runoff from the contributing basin or 2.5 inches of runoff from the impervious areas, whichever is greater.

Stormwater quantity = post development stormwater runoff flow rates, peaks, and velocities shall be equal to or less than levels which existed prior to development for the, 25 year, 24 hour storm event

Stormwater quality = no degradation of existing water quality conditions in receiving waterbodies below the minimum conditions necessary to ensure the suitability of the water for the designated use of its classification as established in Ch. 17-302, F. A. C.

7. INVENTORY OF FINANCIAL RESOURCES

The four categories of revenue sources are local, county shared, state shared and federal shared revenue. Local revenue sources are those which the City of Edgewood may levy, collect and disburse at the local level. County shared revenue is, in Edgewood's case, generated locally but collected by the state and returned to the City. State shared revenue sources are those funds which are: (a) generated locally, but collected and later returned by state agencies to the City; (b) adopted as a local option tax or license fee, collected and returned by the state; or (c) shared by the state in the form of grants to the local government, by originated from state general revenue. Federal shared revenue is limited to grants for specific projects and uses such as Community Development Block Grant (CDBG).

General Fund

For the fiscal year 2012/13, the City of Edgewood projects a total of \$ 3,165,596 in revenues from the following sources identified in Table8-4:

Table 8-4

General Fund Revenue Sources	2012/2013	Percentage
1. Total Taxes	1,721,499	54.38%
2. Total Licenses/Permits	46,750	1.48%
3. Total Grant Funding	0	0
4. Total Intergovernmental Revenue	436,100	13.78%
5. Total Charges for Services	541,600	17.1%
6. Total Fines and Forfeitures	414,072	13.08%
7. Total Miscellaneous Revenues	5,575	0.18%
Total	3,165,596	100%

As shown above, the City's major sources of revenues are from the Total Taxes category (54.38%), which includes ad valorem taxes, tangible taxes, franchise tax-gas, utility/service tax-power, utility service tax-water, and local communications service tax.

Transportation Special Revenue Fund

Table 8-5

Roads and Streets	2012/2013	Percentage
1. Local Option Gas Tax	76,000	85.1%
2. Transportation Impact Fee	0	0
3. Interest- SBA Road	90	0.1%
4. FDOT Reimbursement-Traffic Light	13,244	14.8%
Total	89,334	100%

SOURCE: Resolution No. 2012-02. City of Edgewood Budget. 2012-2013.

8. EXISTING AND PROPOSED LOCAL POLICIES AND PRACTICES FOR CAPITAL IMPROVEMENTS.

Existing Practices

1. The City currently funds only two types of capital improvements: Improvements on the local roadway network (excludes county and state roads), and the purchase of vehicles for the City's police department.
2. Funding for capital improvements is provided through gas taxes (road improvements) and the general fund/ad valorem taxes (police vehicles).
3. The City does not provide its own water and sewer and, therefore, does not require impact fees for these services. There are no city impact fees or user fees in effect in Edgewood.
4. The City currently has no debt obligations and does not intend to acquire debt through general obligation or revenue bonds.
5. The City has designated a dollar amount threshold of \$10,000 that identifies an item as a capital improvement.
6. The City prepares and adopts an annual budget which includes any necessary capital improvements. The small scale operations of Edgewood do not necessitate a separate capital improvement program.
7. The City coordinates with service providers whenever a capital improvement project involves facilities which serve Edgewood.
8. The City will include drainage capital improvements in the capital improvements budget as required.

Proposed Future Practices

1. Maintain the above policies and practices with these exceptions:
 - a) A capital improvement will be defined as any item or improvement project which costs \$10,000 or more, and is expected to last five years or more.
 - b) Capital improvements will be identified as either subject to, or not subject to, concurrency management.
 - c) A capital improvement budget will be included in the City's annual budget.

9. THE CIE AND THE FUTURE LAND USE ELEMENT

The CIE demonstrates how public facilities will be provided in order to support future growth as discussed in the Future Land Use Element, and the land uses shown on the Future Land Use Map (FLUM). As discussed earlier, Edgewood provides only for its local roads. All other public facilities and services are provided by other governmental entities and one private contractor. The City's population is expected to increase modestly over the planning period. Demand for services is not expected to exceed capacity.

At the present time there are no current or anticipated facility deficiencies. The FLUM does not illustrate dramatic or significant change for the City. If there are any pressures on the provision of services, it will be due to the expansion needs of adjacent jurisdictions competing for available capacity in water, sewer, roads, etc. Edgewood will need to maintain a strong commitment to intergovernmental coordination so that facilities that are shared by several local governments will continue to provide services in a fair and equitable manner. The Intergovernmental Coordination Element addresses the review of proposed development in other jurisdictions when that development impacts the City of Edgewood.

10. FISCAL ASSESSMENT

1. Following is a fiscal assessment identifying the capital projects in the Five Year Capital Improvement Schedule for the City of Edgewood (Table 8-6) The Transportation Special Fund is used to fund road maintenance or improvement projects that may or may not meet the designated threshold of \$10,000 for capital improvements.

Table 8-6

Five-Year Capital Improvements Schedule

PROJECT NAME	SOURCE FUND		FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 18/19	Totals
Mandalay Road Rehab & Regrade	ROADS	STREETS	125,000					125,000
Oak Lynn Drive Rehab & Regrade	ROADS	STREETS						
Lynwell Court Rehab & Regrade	ROADS	STREETS						
Alleman Drive Rehab & Regrade	ROADS	STREETS						
Haveril Drive Rehab & Regrade	ROADS	STREETS						
Linson Court Rehab & Regrade	ROADS	STREETS						
Hedge Court Rehab & Regrade	ROADS	STREETS						
Lake Mary Jess	ROADS	STORMWATER	15,506					
				349,200				349,200
Lake Mary Jess Area	ROADS	STREETS			72,750			72,750
Stratemeyer	ROADS	STREETS				145,000		145,000
Jessamine Lane	ROADS	STREETS					49,450	49,450
Total			140,506	349,200	72,750	145,000	49,450	741,400

TEN- YEAR WATER SUPPLY FACILITIES WORK PLAN

1.0 INTRODUCTION

1.1 Purpose and Objectives

The purpose of the City of Edgewood Water Supply Facility Work Plan (hereinafter the Work Plan) is to identify and plan for the water supply sources and facilities needed to serve existing and new development within the local government's jurisdiction. Chapter 163, Part II, F.S., requires local governments to prepare and adopt Work Plans into their comprehensive plans within 18 months after the water management district approves a regional water supply plan or its update. The St. Johns River Water Management District implemented their Water Supply Plan in 2005.

The City of Edgewood residential and non-residential users purchase retail water directly from the Orlando Utilities Commission (OUC). This is enabled through a franchise agreement. OUC has franchise agreements to serve other local governments and area of unincorporated Orange County to ensure that enough capacity is available for existing and future customers in the OUC service area.

According to state guidelines, the Work Plan and the comprehensive plan amendment must address the development of traditional and alternative water supplies, bulk sales agreements and conservation and reuse programs that are necessary to serve existing and new development for at least a 10-year planning period. OUC/City of Orlando adopted their Work Plan in 2007, which estimates future water supply needs through the year 2023.

OUC has completed a plan that addresses each of these requirements. Since the City of Edgewood does not produce potable water or have a potable water distribution system, the development of traditional water supplies and alternative water supplies, and bulk sales agreements are not tasks that are possible to accomplish. Conservation and reuse programs administered by OUC are implemented throughout the service territory, including the City of Edgewood. Additionally, the City of Edgewood is implementing the

Work Plan into the City's Comprehensive Plan by adding policies to address conservation and reuse. These policies are identified at the end of this Work Plan report.

DATA AND ANALYSIS

The information below is excerpted from the OUC Ten-Year Water Supply Facilities Work Plan, the OUC Consumptive Use Permit #3159, issued by the SJRWMD on May 10, 2011, the H2OUC Water Statistics, and the OUC Water Quality Report, 2012.

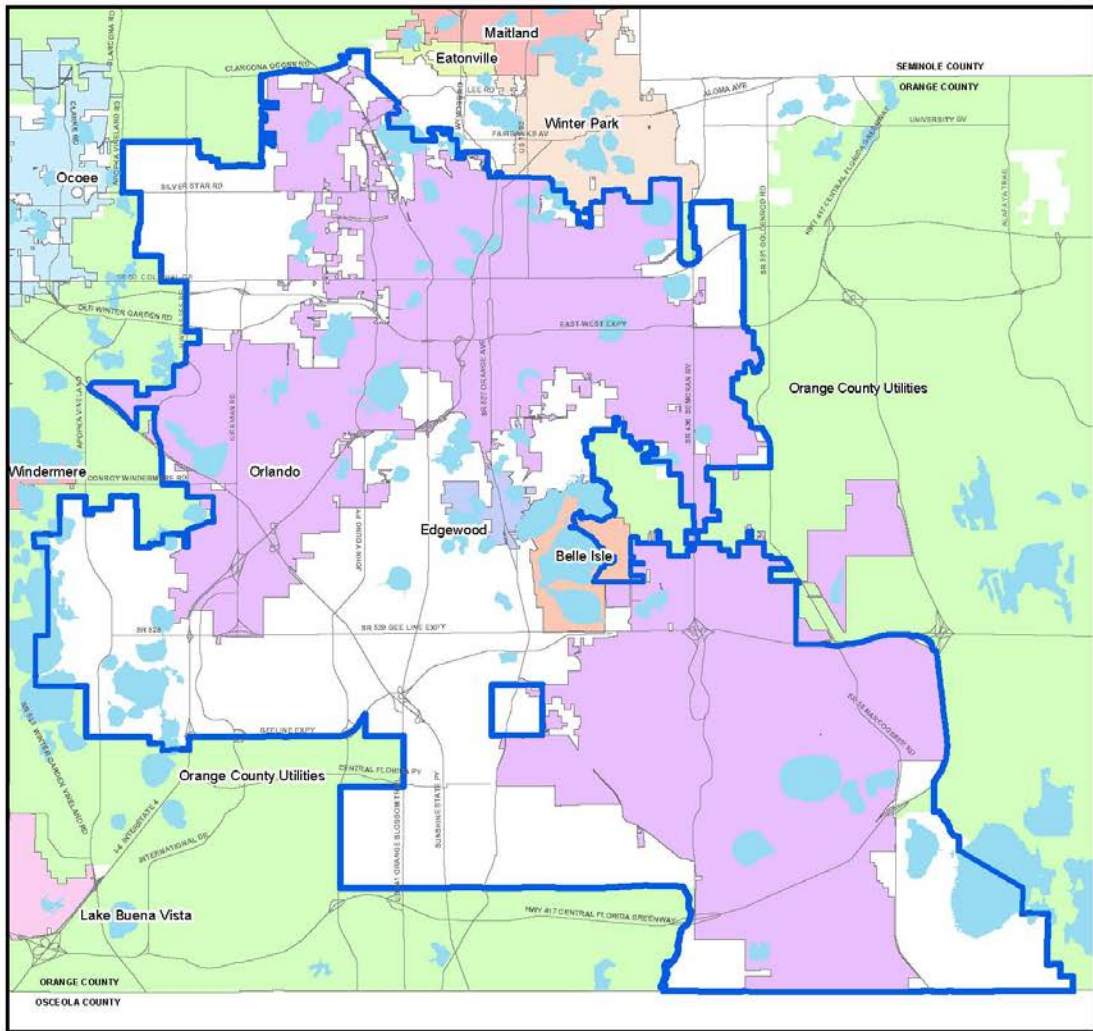
Permit Conditions and Duration

OUC has a consumptive use permit (CUP) from the St. Johns River Water Management District (SJRWMD) for its potable water system. The permit (CUP No. 3159) was updated in May 2011, and will expire in 2023. The permit allows for ground water supply from the Florida Aquifer for 109.22 million gallons per day (mgd) and 11.1 mgd of reclaimed water from the Iron Bridge, Conserve I and Conserve II water reclamation facilities to serve a projected population of 522,848 in 2023 for household, commercial/industrial, irrigation, and water utility type use.

Service Area - Population Information and Potable Water Supply Demand Projections

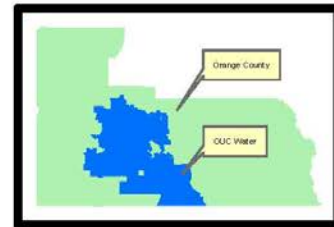
CUP No.3159 allows OUC to provide water services to the OUC Potable Water Supply Service Area (Utility Service Area), which includes the City of Edgewood, and surrounding areas as shown in Figure 1 from the OUC Work Plan, inserted below. Approximately 364,500 customers are served over 195 square miles, with a population of about 423,900.

OUC WATER SERVICE AREA



LEGEND

- STREETS
- LAKES
- OUC SERVICE AREA BOUNDARY



LOCATION MAP

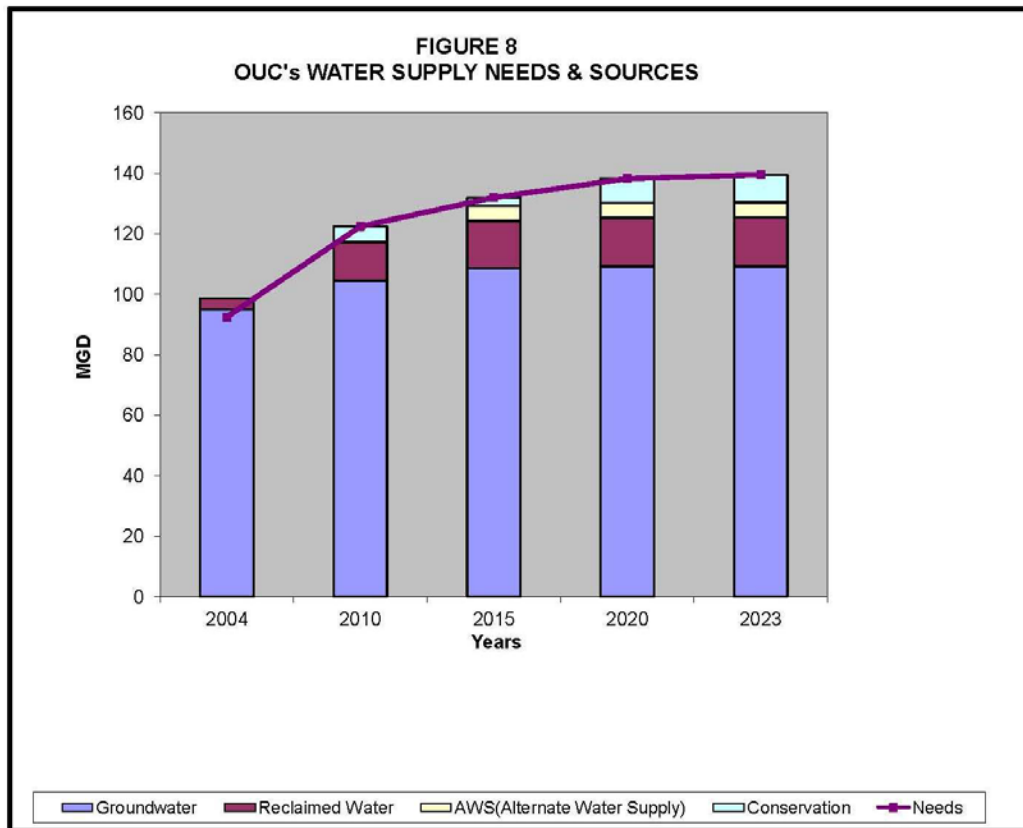


05/12/06

FIGURE 1

Historical Water Use

Figure 8 from the OUC Work Plan (inserted below) shows the historical and projected need trend for OUC's Water Supply Needs and Sources for 2004-2023. Table 7 from OUC's Work Plan (inserted below) provides forecasted water supply needs and sources to 2023. Need projections were based on forecasting customer demand at the meter.



**Table 7
Forecasted Water Supply Needs and Sources**

Year	Needs Within OUC Water Service Area			
	Potable Water Supply Needs Avg. Rainfall Year (mgd)	Potable Water Supply Needs 1-in-10 Rainfall Year (mgd)	Reclaimed Water Supply Needs Avg. Rainfall Year (mgd)	Reclaimed Water Supply Needs 1-in-10 Rainfall Year (mgd)
2004	83.86	88.90	3.42	3.63
2010	103.39	109.59	12.09	12.82
2015	109.72	116.30	14.80	15.69
2020	115.28	122.20	15.14	16.05
2023	116.40	123.38	15.21	16.12

Note 1 Note 1 Note 1 Note 1

Year	Sources To Meet Needs Within OUC Water Service Area During 1-in-10 Rainfall Year				
	Reclaimed Water Sources (mgd)	Potable Water			
Groundwater Sources (mgd)		Alternative Water Supply Sources (mgd)	Conservation (mgd)		
2004	3.63	95.00	0.00	0.00	95.00
2010	12.82	104.40	0.00	5.19	109.59
2015	15.69	108.60	5.00	2.70	116.30
2020	16.05	109.20	5.00	8.00	122.20
2023	16.12	109.20	5.00	9.18	123.38

Note 2 Note 3 Note 4

Note 1: The SJRWMD draft "Water Supply Assessment 2003" states that future water supply needs, for planning purposes, may be based on a 1-in-10 rainfall year. A 1-in-10 rainfall year is the one year out of ten years when rainfall is the lowest. Water supply needs in a 1-in-10 rainfall year are greater than they would be in an average rainfall year. Based on data provided by the District, water supply needs in the 1-in-10 rainfall year are 6% higher than the needs during an average rainfall year.

Note 2: The City of Orlando has pledged to provide OUC's future reclaimed water supply needs, including reclaimed water needed to supply demands within the OUC water service area, as well as the reclaimed water needed to implement Project RENEW. The City has sufficient quantities of reclaimed water available at the appropriate future time periods to meet OUC's needs, as documented in "Orlando Utilities Commission Project RENEW Engineering Report" (April 2006) prepared by CDM. The numbers for reclaimed water sources presented in this table match the reclaimed water needs because the City has adequate resources.

Note 3: From Condition 18, Consumptive Use Permit No. 3159 issued to Orlando Utilities Commission on May 11, 2004. Groundwater sources are assumed to be limited by the current CUP conditions.

Note 4: Conservation is treated as a potable water supply source because it stretches other supply sources by reducing needs. By showing it as a supply source, the amount of conservation needed to balance needs and sources can be calculated. The conservation quantities shown in this table are reasonable levels of conservation that are attainable based on OUC's past experience and the experience of other large utilities in Florida.

Table 7 reveals that groundwater sources totaling 109.2 mgd will be required in the future. The OUC Work Plan identifies that the capacity of the existing facilities is sufficient to supply future needs through 2023, based on limitations imposed by the CUP. An additional well will be installed (Sky Lake Plant) to withdraw the maximum allocation allowed under the CUP.

The OUC Work Plan identifies that OUC will need to do three things to assure forecasted needs are met to 2023:

1. Participate in the St Johns/Taylor Creek Reservoir Project (identified alternative water supply source);

2. Implement reclaimed water projects; and,
3. Continue conservation efforts (a water conservation plan is in the CUP)

City of Edgewood Impact on Potable Water Demand to 2023

The CUP approved by the SJRWMD anticipates a 2023 population served at 522,848. At the population projections for the City of Edgewood identified in the Future Land Use and Housing Elements data and analysis sections, even at the BEBR projected 2025 Edgewood population of 3,103 people, Edgewood's population would represent approximately .6% (six-tenths of a percent) of the total OUC population served in year 2023. Based on this data, the OUC forecasted need projections adequately provide for the potable water needs of Edgewood now and in the future. No increased demands are envisioned based on the Edgewood population projections to 2030 and development patterns of the City.

Conservation and Reuse Programs

OUC has had an active water conservation program. AS part of the CUP application process, OUC submitted a conservation plan. The following programs are utilized to promote conservation and reuse:

- In 2001, OUC adopted a water-conserving rate structure. Customers who use large quantities of water each month pay a higher per gallon charge; and,
- OUC has produced television, radio, written and web material to encourage customers to reduce quantity of water use for irrigation by providing them with actions customers can take to reduce water use while not damaging lawns or landscaping.

SUMMARY

The City of Edgewood can proactively participate in implementing the OUC Work Plan components as part of this Work Plan by incorporating applicable strategies into the City's Comprehensive Plan.-These will facilitate meeting the forecasted needs by helping OUC continue conservation efforts. To coordinate with and contribute to meeting these water conservation and planning measures, the City hereby adds the following goal, objectives, and policies within the Intergovernmental Coordination Element and Conservation Element of the Comprehensive Plan:

Intergovernmental Coordination Element

- Objective 7.3: The City shall participate in conservation and coordination activities with Orange County, OUC, the Florida Department of Environmental Protection, and the St. Johns River Water Management District in order to provide for coordinated management and use of the water resources.
- POLICY 7.3.1: A Future Land Use amendment requires the demonstration of adequate water supplies and demonstrates that associated public facilities are (or will be) available to meet projected growth demands pursuant to state statutes.
- POLICY 7.3.2: Prior to approving a building permit or its functional equivalent, the City will consult with the Orange County and OUC to determine whether adequate water supplies will be available to serve the new development prior to issuing a development order building permit.
- POLICY 7.3.3: The City has developed a ten-year water supply work plan that addresses current and projected water needs and sources. The City shall coordinate with all applicable local, state, and federal agencies regarding the work plan. In addition, the City will update the work plan within 18 months of any update to the regional water supply plan.
- POLICY 7.3.4: The City will participate in the development of updates to the SJRWMD's water supply assessment and district water supply plan and in other water supply development-related initiatives facilitated by SJRWMD that affect the City.

POLICY 7.3.5: The City will coordinate with the Orlando Utilities Commission (OUC), Orange County, and other local jurisdictions in OUC's and Orange County's water service area regarding population projections and development projects that affect future water demands to assist in master planning to ensure that current and future water demands can be met.

Conservation Element

Add to GOAL5: Promote water conservation through practicing water conservation strategies.

OBJECTIVE 5.2 The City shall identify key areas to contribute to water conservation and smart use of water resources to ensure capacity can be achieved and quality maintained. The City will use OUC, Orange County, and the SJRWMD as resources in implementing non-facility based water supply and conservation programs

POLICY 5.3.7:

The City will encourage water conservation regulations that promote and encourage the use of low impact development techniques such as those that use the Florida Water Star Program.

POLICY 5.3.8:

The City will evaluate creating incentive programs that encourage the installation of water-saving plumbing devices, such as indoor water audits and leak detection and will consider adopting regulations that require water-efficient landscaping for all new development projects and require functioning rain sensor devices on automatic irrigation systems, as well as overriding green lawn deed restrictions.

POLICY 5.3.9:

The City commits to using lower quality sources of water for non-potable needs when such sources (storm water, surface water, or reclaimed water) become available.

POLICY 5.3.10:

The City commits to implementing water conservation practices that include: educational programs at schools; observing "Water Conservation Month" in April through press releases and resolution; promoting water conservation and environmental education newsletters, as well as web-based newsletters; and, enforcement of the Water Management District's "permanent water conservation rule".