



ALACHUA COUNTY COMPREHENSIVE PLAN: 2011-2030 EVALUATION AND APPRAISAL ISSUE SUMMARY

March 12, 2018

INTRODUCTION

Issue Area 1: Land Use and Development Standards

This issue paper covers the following three topics:

- A. Capacity of the Urban Cluster, including the availability of adequate areas for housing types traditionally in the Alachua County and North Florida market; and the potential for higher density residential uses.
- B. Minimize urban sprawl, reduce flood and stormwater impacts, and preserve rural values and way of life; also consider minimum homestead lot size requirements and their effect on agricultural operations; role of agriculture as part of rural landscape.
- C. Potential impacts on population from sea level rise and retirees; also consider preparation for long-term impacts of climate change in the region.

ISSUE PAPER CONTENTS

Background.....	2
Data and Analysis Relating to Issues.....	3
Population Trends and Projections.....	3
Capacity of Urban Cluster.....	6
Undeveloped Lands.....	6
Approved Development Plans and Subdivision Lots.....	8
Summary of Urban Cluster Capacity Assessment.....	9
Potential for Higher Densities in Urban Cluster.....	10
Housing Types.....	12
Family Homestead Exception in Rural Area.....	12
Potential Impacts of Sea Level Rise, Retirees and Climate Change.....	17
Impacts on Population from Sea Level Rise and Retirees.....	17
Long Term Impacts of Climate Change.....	23
Potential Strategies for Addressing Issues.....	25
Comprehensive Plan Policies Relating to Issues.....	26
Appendix.....	32

BACKGROUND

Preservation of open space, farmland, natural beauty, and critical environmental areas, and strengthening and directing development towards existing communities, are complementary goals. Directing growth towards areas where development already exists increases opportunities for rural countryside to remain open. An urban growth boundary is a planning tool that can help achieve both these goals.

Areas of human settlement, cities, towns, suburbs, villages, are located within a context of natural systems and/or agricultural lands. Any area experiencing growth must make decisions about not only the location and form that urban development will take within this “open space” context, but also the effects of that growth on the surrounding lands.

Urban areas by their very nature need urban services, including transportation networks, municipal water and sewer systems, schools, and fire and police protection. The efficient provision and delivery of these services suggests a strategy of directing investment and infrastructure where they can serve higher concentrations and focused areas of development.

An urban growth boundary is a mapped line around an existing urban area intended to control sprawl by defining the extents of future urban development. The area inside the boundary is designated for urban uses, with land use policies and zoning regulations promoting urban development, and including appropriate and efficient services and infrastructure such as roads, water and sewer systems, parks, schools, and fire and police protection. The area outside the boundary is protected from encroaching sprawl and remains as natural open space, agricultural uses, and less intense development, also with corresponding policies and regulations.

Some of the advantages of urban growth boundaries are that it promotes more compact development, establishes predictability in the location of urban development, connects urban development with appropriate investment in infrastructure, and promotes reuse and redevelopment of buildings and infrastructure. Some of the challenges associated with urban growth boundaries are that it requires monitoring of land supply and market forces, and controls or incentives on agricultural lands outside the boundary.

In addition to providing more compact, efficient development inside the boundary, preserving land outside the boundary also has benefits. Natural areas provide immensely valuable functions to not only wildlife, but for flood control, maintenance of air and water quality, and recreational and aesthetic value. In addition to many of these natural functions, agricultural lands also provide food that supports urban areas and add economic value throughout the region.

One of the fundamental land use strategies of the Alachua County Comprehensive Plan is the implementation of an urban growth boundary, known as the “Urban Cluster”. The Urban Cluster boundary is adopted as part of the Comprehensive Plan on the Future Land Use Map. It includes about 39,000 acres of unincorporated area generally surrounding, and adjacent to, the City of Gainesville. The Urban Cluster and related policies were initially established as part of the Alachua County Comprehensive Plan in 1991.

The Urban Cluster is the area where necessary public services and infrastructure, such as potable water and sanitary sewer, are readily available, or can be expanded in a cost-efficient manner, to serve urban levels of development. The Comprehensive Plan directs future urban land uses such as higher density residential, commercial, industrial, and mixed use development to be located within the designated Urban Cluster. This approach provides for efficient and cost-effective use of public services and infrastructure and provides for a separation of the urban and rural areas of unincorporated Alachua County. The Urban Cluster also helps to protect existing agricultural lands from encroachment by urban development and enables the preservation of significant environmentally sensitive lands and historic resources within the rural areas of Alachua County. Within the Urban Cluster, policies in the Comprehensive Plan promote compact, mixed use, and interconnected development.

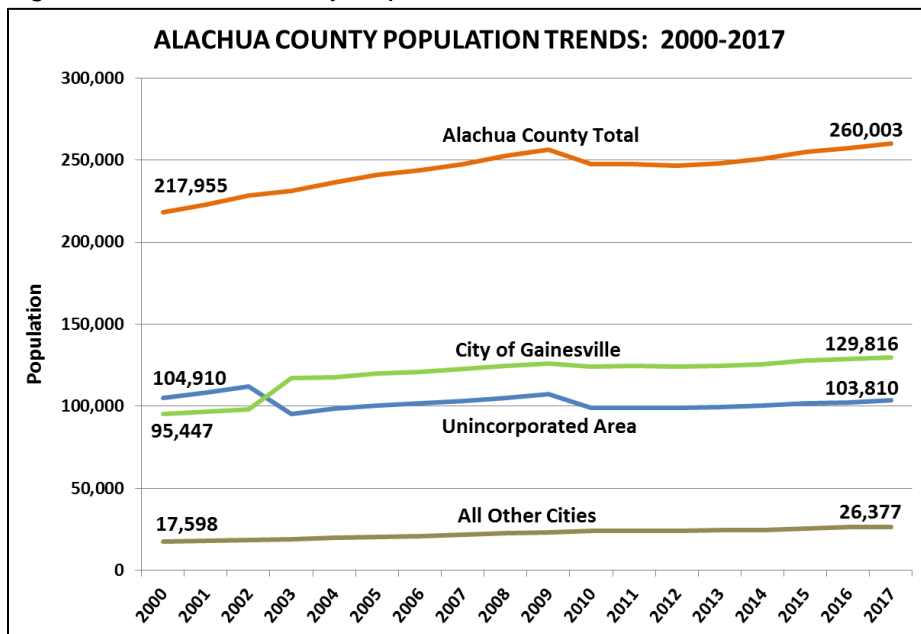
DATA AND ANALYSIS RELATING TO ISSUE

Policies in the Comprehensive Plan require that, as part of the periodic update of the Plan, the Urban Cluster must be evaluated to ensure that there is a sufficient and non-excessive amount of land to accommodate projected future population growth within the Urban Cluster. The purpose of this analysis is to evaluate whether there is sufficient capacity within the Urban Cluster for urban land uses to accommodate the projected population growth for ten and twenty-year time frames. There are two primary data components of this analysis: (1) projections of future population growth, and (2) inventory of land for urban development. Each of these components is discussed below.

Population Trends and Projections

The current (2017) population of Alachua County is 260,003. The City of Gainesville accounts for about 50% of the County’s population, while the unincorporated area accounts for about 40%, and the remaining eight cities/towns account for about 10% of the County’s population.

Figure 1. Alachua County Population Trends: 2000 to 2017



Sources: For years 2000 and 2010: United States Census
For other years: University of Florida Bureau of Economic and Business Research, "Florida Population Estimates for Counties and Municipalities April 1, 2017".

As shown in Figure 1, over the past 17 years, the population of Alachua County has grown by about 42,000 people, from 217,955 in 2000 to 260,003 in 2017. The annual population growth over this period averaged about 2,500 persons per year.

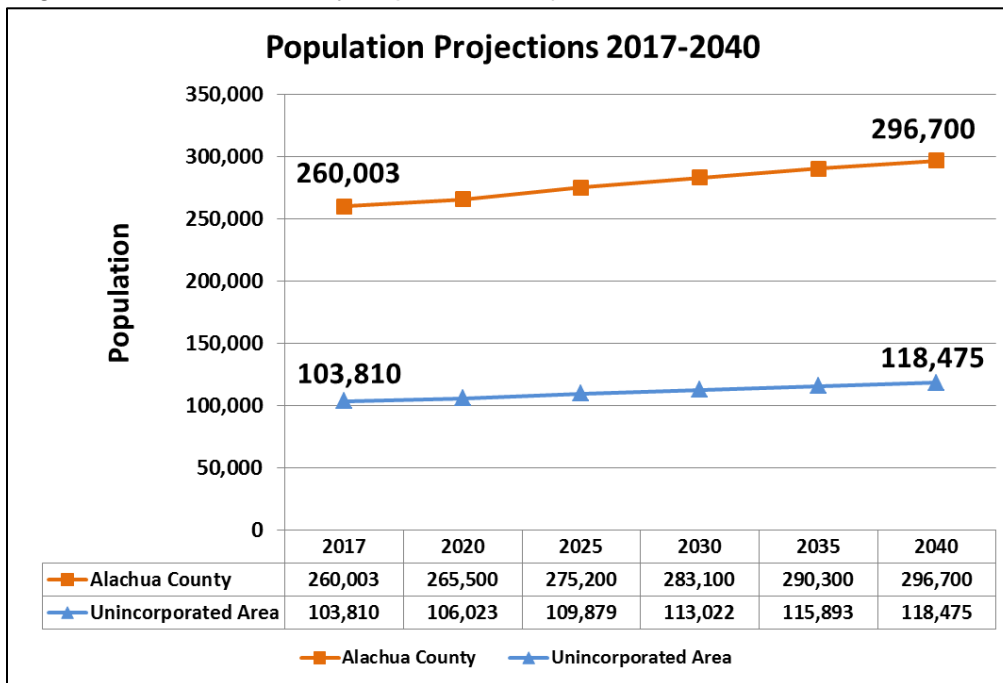
The Bureau of Economic and Business Research (BEBR) at the University of Florida publishes annual reports on population projections for the State of Florida and each county. BEBR publishes “low”, “medium”, and “high” sets of projections, and Alachua County uses the “medium” population projections for planning purposes. According to a recent report published by BEBR, “To account for uncertainty regarding future population growth, we publish three series of projections. We believe the medium series is the most likely to provide accurate forecasts in most circumstances, but the low and high series provide an indication of the uncertainty surrounding the medium series.” State law requires that the Comprehensive Plan be based on at least the minimum amount of land required to accommodate the medium population projections for at least a 10-year planning period.

Based on the BEBR “medium” projections, Alachua County’s population is projected to increase by nearly 37,000 people by the year 2040, from 260,003 in 2017 to 296,700 in 2040. This amounts to a population increase of 14% by 2040, which would be nearly 1,600 people per year countywide, on average, over the next 23 years.

BEBR does not publish population projections for unincorporated areas or cities, therefore, Alachua County must derive its population projections for the unincorporated area based on the countywide projections. For purposes of this analysis, County staff calculated unincorporated area population projections based on the assumption that the unincorporated area would maintain a constant 2017 share of the total County population going forward through 2040. In 2017, the unincorporated area population was 103,810, which was about a 40% share of the total County population. The chart below shows how the population of the unincorporated area would increase through the Year 2040 based on a constant 40% share of the total county population.

Policy 7.1.3 of the Future Land Use Element requires that, as part of the Urban Cluster assessment, the County must evaluate a 10-year and 20-year planning time frame. Due to the fact that BEBR publishes population projections in 5-year increments, this assessment considers the ten-year time frame to be 2030 and the 20-year time frame to be 2040. For the Year 2030, the population of the unincorporated area of Alachua County is projected to be 113,022, which is an increase of about 9,200, or 9%, over the 2017 population. For the Year 2040, the population of the unincorporated area of Alachua County is projected to be 118,475, which is an increase of nearly 15,000 people, or 14%, over the year 2017.

Figure 2. Alachua County Population Projections: 2017 to 2040



Sources: 1) University of Florida Bureau of Economic and Business Research, "Projections of Florida Population by County, 2020–2045, with Estimates for 2016", Volume 50, Bulletin 177, April 2017. 2) University of Florida Bureau of Economic and Business Research, University of Florida Bureau of Economic and Business Research, "Florida Population Estimates for Counties and Municipalities April 1, 2017".

Unincorporated population projections calculated by Alachua County staff by projecting the 2017 unincorporated share of the County population through the Year 2040.

For this analysis, it is necessary to determine how the projected future population growth in the unincorporated area will be distributed between the Urban Cluster and the Rural areas of the County. One of the fundamental strategies of Alachua County Comprehensive Plan is to promote future urban development within the designated Urban Cluster where public facilities and services can be most efficiently provided, and to promote the separation of urban and rural land uses. For areas outside the Urban Cluster, the Comprehensive Plan provides for new residential development in the Rural/Agriculture areas at a 1-unit- per-5-acre density, subject to requirements for clustering of lots and an annual cap on the number of new lots that may be approved in any calendar year. Given these general land use strategies in the Comprehensive Plan, it is anticipated that the substantial majority of future population growth and new development in the unincorporated area will occur within the Urban Cluster.

In order to estimate the portion of population growth and new development that will occur within the Urban Cluster in the future, it is useful to look at past evaluations and updates of the Comprehensive Plan, and to also look at recent trends in development approvals. The major evaluation and update of the Comprehensive Plan that occurred during the 1998 to 2002 time period assumed that 80% of future new residential development would occur within the Urban Cluster. The next major evaluation and update of the Comprehensive Plan during the 2008 to 2011 time period assumed that 85% of future new residential development would occur within the Urban Cluster. More recent data indicates that the percentage of new residential units located within the Urban Cluster has been increasing in the last several years. Data on final development plans approved by the County from 2010 through 2017 indicates that 4,838 new residential units were approved during this time period; 4,807 of these residential units, or 99%, were part of development plans for areas within the Urban Cluster.

Based on the assumptions used in past Comprehensive Plan evaluations and more recent trends in development plans approved by the County, this analysis assumes that 90% of future new residential development will be located within the Urban Cluster.

Capacity of Urban Cluster

Policy 7.1.3 of the Future Land Use Element requires that, as part of the periodic update of the Comprehensive Plan, the County must conduct an evaluation to determine whether “a sufficient and non-excessive amount of land” is available within the Urban Cluster to accommodate urban uses for a ten year and twenty-year time frame.

The previous section discussed past population trends and future population projections for Alachua County. The following section provides data on the capacity of the Urban Cluster for future urban development. This inventory takes into account both undeveloped lands within the Urban Cluster, and previously-approved development plans which are under development or have not yet been built.

Undeveloped Lands

This section provides an inventory of undeveloped lands that can potentially accommodate future urban development within the Urban Cluster. For purposes of this analysis, undeveloped lands include those that do not presently contain existing development and are not subject to any active approved development plans. Publicly-owned lands, and lands that are subject to known conservation easements, have been excluded from this inventory. Additionally, lands that contain significant conservation resources, such that future urban development of that land would be unlikely, have been excluded from the inventory.

It should be recognized that in addition to undeveloped lands in the Urban Cluster, there are some lands that are not developed at the density or intensity that would potentially be allowable under the applicable Future Land Use designation in the Comprehensive Plan. For example, if a ten-acre tax parcel is presently used for one single-family residence, then it would not be considered undeveloped land because it is developed with a residence. If that tax parcel had a “Low Density Residential” Future Land Use designation, then it could potentially be redeveloped in the future at a density between 1 and 4 residential units per acre. Such “underdeveloped” lands have not been included in the inventory of undeveloped lands for purposes of this analysis because they are currently developed with some land use. However, such lands do have the potential to accommodate additional residential capacity within the Urban Cluster if or when they are redeveloped in the future in accordance with the residential density that is allowable under the Comprehensive Plan.

In addition, there are some lands within the Urban Cluster that are undeveloped or partially developed, and are also subject to development plans that have been approved by Alachua County. There is a separate inventory of these active/ongoing development plans in the subsequent section of this report, which shows the remaining unbuilt residential dwelling units that may be permitted under the approved development plans (see “Approved Development Plans and Subdivision Plats” on the following pages).

Figure 3 provides a table that summarizes the inventory of undeveloped lands within the Urban Cluster. The table shows the number of undeveloped acres and the allowable residential density

ranges for each Future Land Use category that provides for residential uses in the Comprehensive Plan. Staff estimated the potential number of residential units that could be accommodated within each Future Land Use category using density multipliers for each Future Land Use category. The density multiplier is an estimated average density (in dwelling units per acre) that could be anticipated for future development, and is based on a combination of recent development trends and the density ranges that are allowed pursuant to the Comprehensive Plan.

There are about 6,252 acres of undeveloped lands within the Urban Cluster that are designated for residential uses or mixed uses that include residential. The largest amount of undeveloped land in the Urban Cluster is within the Low Density Residential category with 3,172 acres, followed by Estate Residential with 1,692 acres, Residential 0-2 (Idylwild-Serenola) with 597 acres, and Medium Density Residential with 413 acres. Figure 4 provides a map showing the locations of undeveloped lands in the Urban Cluster.

Based on the acreages of undeveloped lands by Future Land Use category and the average residential density multipliers, staff calculated the estimated number of residential units that could be developed within each category as shown in Figure 3. It is estimated that the undeveloped lands in the Urban Cluster have the capacity to accommodate about 13,027 total new dwelling units. The majority of these would be within the Low Density Residential (6,344) and Medium Density Residential (2,475) categories. Additional residential dwelling units can be accommodated within the numerous development plans that have been approved by the County, as discussed in the following section, "Approved Development Plans and Subdivision Plats".

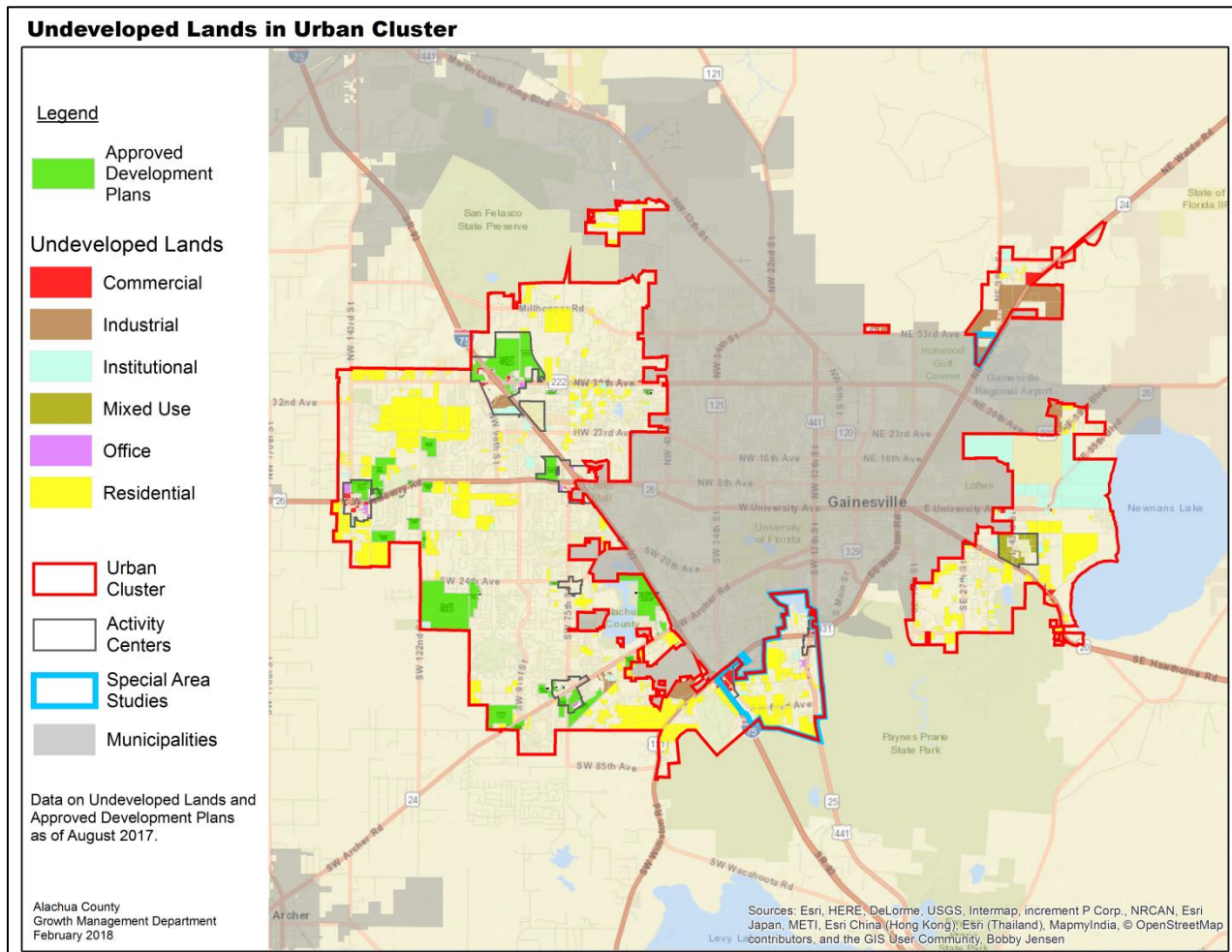
It should be noted, that while this analysis has used density multipliers based on estimated average residential densities within the allowable ranges for each Future Land Use category, the Comprehensive Plan also provides for higher densities above the maximums of these ranges as part of Traditional Neighborhood Developments (TND), Transit Oriented Developments (TOD), and Cottage Neighborhoods.

Figure 3. Inventory of Undeveloped Lands and Estimated Residential Capacity

Future Land Use Category	Density Range Per Comprehensive Plan	Number of Undeveloped Parcels	Undeveloped Acres	Density Multiplier Used for Capacity Assessment	Estimated Residential Units
Estate Residential	Max. 1 unit per 2 acres	122	1,692	1 unit per 2 acres	847
Residential Low	1 to 4 units per acre	358	3,172	2 units/acre	6,344
Residential Medium	4 to 8 units per acre	55	413	6 units/acre	2,475
Residential Medium-High	8 to 14 units per acre	12	64	10 units/acre	639
Residential High	14 to 24 units per acre	3	44	18 units/acre	791
Mixed Use Employment	1 to 2 units per acre	4	33	2 units/acre	65
Mixed Use Low Residential	1 to 4 units per acre	1	20	2 units/acre	39
Mixed Use Medium Residential	4 to 8 units per acre	7	71	6 units/acre	427
Mixed Use Medium-High Residential	8 to 14 units per acre	2	10	10 units/acre	103
Mixed Use Neighborhood Convenience	1 to 8 units per acre	3	6	2 units/acre	11
Residential 0-2	0 to 2 units per acre	51	597	1.5 units/acre	894
Residential 2-4	2 to 4 units per acre	9	131	3 units/acre	392
Total		627	6,252		13,027

Source: Alachua County G.I.S. and Development Plan Database, August 2017

Figure 4. Undeveloped Lands in the Urban Cluster



Approved Development Plans and Subdivision Lots

There are some lands within the Urban Cluster that are undeveloped (or partially developed) but are subject to development plans or subdivision plats that have been approved by Alachua County. These approved development plans are a significant part of the available capacity of the Urban Cluster because they are areas that are likely to see new residential construction in the short term future. The number of unbuilt residential units in approved preliminary or final development plans, and unbuilt residential platted lots, are included in the estimate of the Urban Cluster capacity because the actual approval numbers are the best indicator of the development potential of those areas. The number of unbuilt residential units is based on the number of units that have been approved, excluding the number of units that have already been built according to the County's permit data. The acreage of the areas with approved development plans and unplatted residential lots has not been included in the inventory of undeveloped lands discussed in the previous section to ensure that those areas are not counted twice.

According to County data, there were **13,303 unbuilt residential units within approved development plans, and 693 unbuilt residential lots within platted subdivisions** (as of August 2017). These numbers will constantly change as new dwelling units are permitted and constructed. Appendix A provides additional detail on the approved development plans that are included in this total.

Summary of Urban Cluster Capacity Assessment

Based on the data presented in the previous sections, the following is a summary analysis comparing the capacity of the Urban Cluster to the projected need for urban residential development based on projected population, average household size, residential vacancy rate, and a market factor, in accordance with the methodology in Policy 7.1.3 of the Future Land Use Element. **Based on this analysis, there is sufficient capacity in the Urban Cluster to accommodate the projected need for new residential dwelling units for both 2030 and 2040.**

Population Projections

Countywide Population 2017:	260,003
Countywide Projected Population 2030:	283,100
Countywide Projected Population 2040:	296,700
Unincorporated Area Population 2017:	103,810
Unincorporated Area Projected Population 2030:	113,022
Unincorporated Area Projected Population 2040:	118,475

2030 Projection of Urban Cluster Dwelling Unit Need

Unincorporated Area Projected Population Growth 2017-2030: <i>Share allocated to Urban Cluster = 90%</i>	9,212
Urban Cluster Share of Projected Population Growth 2017-2030: <i>Divided by Persons Per Household of 2.34</i>	8,291
Additional Dwelling Units Needed in Urban Cluster: <i>Plus Vacancy Rate of 10%</i>	3,543
Additional Dwelling Units Needed in Urban Cluster, factoring in vacancy rate: <i>Multiplied by Market Factor of 2.0 per Policy 7.1.3, FLUE</i>	3,897
Additional Dwelling Unit Need with Market Factor applied:	7,794

2040 Projection of Urban Cluster Dwelling Unit Need

Unincorporated Area Projected Population Growth 2017-2040: <i>Share allocated to Urban Cluster = 90%</i>	14,665
Urban Cluster Share of Projected Population Growth 2017-2040: <i>Divided by Persons Per Household of 2.34</i>	13,199
Additional Dwelling Units Needed in Urban Cluster: <i>Plus Vacancy Rate of 10%</i>	5,641
Additional Dwelling Units Needed in Urban Cluster, factoring in vacancy rate: <i>Multiplied by Market Factor of 1.5 per Policy 7.1.3, FLUE</i>	6,205
Additional Dwelling Unit Need, with Market Factor applied:	9,308

Available Capacity in Urban Cluster

Unbuilt Residential Units in Approved Development Projects	13,303 dwelling units
Unbuilt Lots in Platted Subdivisions (not included in number above)	693 lots
Estimated Development Capacity of Undeveloped Land	13,027 dwelling units
Total Capacity for New Residential Development:	27,023 dwelling units

Potential for Higher Densities in Urban Cluster

Although staff's analysis shows that there is adequate capacity within the Urban Cluster to accommodate projected population growth for both a ten and twenty-year time frame, the County has taken steps in recent years to increase the residential capacity of the Urban Cluster by increasing allowable residential densities.

In 2009, as part of the County's Mobility Plan linking land use and transportation, new policies were adopted in the Comprehensive Plan which provided for Traditional Neighborhood Developments (TND) and Transit Oriented Developments (TOD) within urban residential future land use categories and Activity Centers within the Urban Cluster. TNDs and TODs are mixed-use developments with design standards that promote pedestrian and bicycle connectivity, reduce vehicular trips on external roadways and provide for development patterns that are transit supportive. TNDs and TODs may be approved for residential densities that are higher than the allowable density ranges of the underlying future land use categories, subject to meeting specific design requirements. These policies have resulted in the approval of several new TNDs and/or TODs within the Urban Cluster over the past several years, many of which have been approved for residential densities that exceed the maximum density of their underlying future land use categories (see Figure 5 below).

Figure 5. Recent Traditional Neighborhood Developments and Transit Oriented Developments

Development Name	Prelim or Final Approval	Year of Approval	Future Land Use Category	Acres	Units	Density
23 West	Final	2015	Residential Low	21.76	174	8.0
Celebration Pointe	Prelim	2016	Mixed Use <i>Formerly Residential Low, Residential Medium, and Tourist/Entertainment</i>	244	1,772	7.3
Dogwood Park	Prelim	2015	Residential Low	25	224	9.0
Lugano	Prelim	2016	Residential Low	145	460	3.2
Multerra	Prelim	2015	Residential Low	25.38	228	9.0
Newberry Road & 122nd TND	Prelim	2014	Residential Low	30.96	300	9.7
Park Avenue TND	Final	2015	Residential Medium	27.7	298	10.8
Springhills TND and TODs	Prelim	2014	Mixed Use/Activity Center	387.92	3,296	8.5
Totals				907.72	6,752	7.4

Source: Alachua County G.I.S. and Development Plan Database, August 2017

Another strategy to further increase densities within the Urban Cluster is the recently adopted policies for "Cottage Neighborhoods", which are groups of smaller homes that are built around a common green space. Cottage Neighborhoods offer opportunities for creative, diverse and high quality infill development within the Urban Cluster, and promote a variety of housing types and sizes meet the needs of a population that is diverse in age, income, and household composition. Residential developments that meet the design requirements for Cottage Neighborhoods are permitted to develop at two times the maximum density of the underlying future land use

designation. Given that these policies are so recent, the County has not yet approved any development applications for Cottage Neighborhoods, therefore, it is not yet possible to determine the effectiveness of these policies. It is anticipated that the Cottage Neighborhood policies will result in increased densities within the Urban Cluster as these types of development projects are eventually approved and constructed.

While the TND and TOD policy framework has been effective in providing for higher residential densities in the Urban Cluster, and the Cottage Neighborhood policies are expected to do the same, a discussion of increasing densities should also consider residential development that is not part of one of these development types. If a proposed residential development is not a mixed use TND or TOD, or a Cottage Neighborhood, then it is subject to the standard residential density ranges in Policy 1.3.2 of the Future Land Use Element. The standard density ranges for the major residential future land use categories are identified in Figure 6.

Figure 6. Standard Density Ranges for Urban Residential Future Land Use Categories (as adopted in Comprehensive Plan)

Future Land Use Category	Minimum Density	Maximum Density
Residential Estate	N/A	1 unit per 2 acres
Low Density Residential	1 unit per acre	4 units per acre
Medium Density Residential	4 units per acre	8 units per acre
Medium-High Density Residential	8 units per acre	14 units per acre
High Density Residential	14 units per acre	24 units per acre

Each of the residential future land use categories, with the exception of Residential Estate, has both a minimum and a maximum density. Proposed residential development is generally required to have a gross residential density that falls within these ranges. If the County Commission would like to further increase the allowable residential densities within the Urban Cluster, then revisions to the adopted density ranges for various future land use categories could be considered.

Possible options for increasing densities could include increasing the minimum densities, increasing the maximum densities, or some combination of both. The Low Density Residential future land use category, in particular, constitutes the largest land area within the Urban Cluster, by far, with over 3,000 acres of undeveloped land. Efforts to increase densities within the Urban Cluster could focus on raising the density ranges for the Low Density Residential category to achieve the greatest effect.

Another aspect of density that could be considered is locational context. On the County's adopted Future Land Use Map, the Low Density Residential designation (1 to 4 dwelling units per acre) applies within a large area extending from NW 43rd Street near the City limits of Gainesville on the east to County Road 241 in the Jonesville area on the west; it also extends from areas south of Archer Road on the south to areas north of NW 39th Avenue on the north. This large Low Density Residential area has varying land use characteristics and levels of urban development. Areas that are closer to the City of Gainesville are generally more densely developed and have higher levels of urban infrastructure and services than areas closer to the western edge of the Urban Cluster.

Given the diverse range of land use contexts within the Urban Cluster, and specifically within the Low Density Residential areas of the Urban Cluster, it may be appropriate to further evaluate the Urban Cluster to identify areas where higher density levels may be appropriate based on certain criteria relating to land use compatibility, availability of public services and facilities, and environmental factors.

Housing Types

The unincorporated Urban Cluster, and its related policy framework, provide for areas that may be developed for a variety of housing types. Previous sections of this report describe the undeveloped areas that are available for residential development in the Urban Cluster, and their designations on the Future Land Use Map. Within those areas, a variety of housing types may be permitted.

The County's urban residential future land use categories are based on gross density ranges for residential units, and they generally do not dictate specific housing types that may occur within those prescribed density ranges. Most of the major urban residential future land use categories that are identified on the Future Land Use Map allow for various types of residential development. Adopted policies in the Comprehensive Plan specifically allow for a mix of single-family residential detached or attached dwellings, and multiple family residential dwellings, within the Low, Medium, Medium-High, and High Density Residential future land use categories (see Policies 1.3.7.1, 1.3.7.2, 1.3.8.3, 1.3.9.1, 1.3.10.2, and 1.4.2, Future Land Use Element).

The Comprehensive Plan also allows for one residential unit that is accessory to a primary residence ("accessory dwelling unit") on single family residential lots in the Estate, Low, and Medium Density residential areas without the second residential unit being included in gross residential density calculations (see Policy 1.3.6 Future Land Use Element). This provides for a greater range of choices of housing types within single family residential areas.

Also as previously discussed, Traditional Neighborhood Developments and Transit Oriented Developments both provide for a variety of housing types within compact, mixed use and interconnected developments. Housing options within TODs and TNDs are provided in close proximity to employment, shopping, dining and recreation in pedestrian-oriented and transit-accessible neighborhoods. TODs and TNDs may be permitted within urban residential future land use categories and Activity Centers.

Also, if Cottage Neighborhoods begin to develop in Alachua County in accordance with the recently adopted Comprehensive Plan policies, this would also be a unique type of housing option that would become available in Alachua County.

Family Homestead Exception in Rural Area

Since 1992, Florida Statutes, Section 163.3179 Family Homestead, has provided for a local government to allow for an exception to the density or intensity of use of a parcel as assigned in the comprehensive plan, where the lot will be used solely as a homestead by an immediate family member of the person who conveyed the property. Immediate family member is specified as a

grandparent, parent, stepparent, adopted parent, sibling, child, stepchild, adopted child, or grandchild of the person who conveyed the property. The provision shall apply only once to any individual. The Alachua County Comprehensive Plan provides for this density exception as a “Family Homestead Exception” in areas designated as Rural Agriculture on the Future Land Use Map.

Policy 6.2.14 Applicability

- ...
- (c) Exceptions to the density and intensity standards in the Rural/Agriculture area may be granted for use of a parcel as a homestead by family members that meet the family relationship criteria under Future Land Use Element Policy 7.1.20 as provided in the Land Development Regulations.
- ...

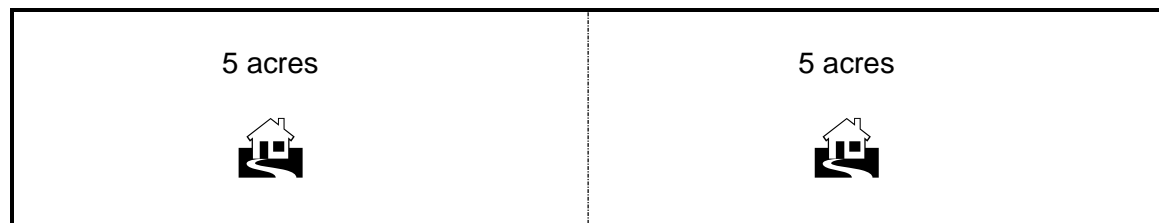
Policy 7.1.20 The land development regulations shall provide for the use of a parcel of property solely as a homestead by an individual who is the grandparent, parent, stepparent, adopted parent, sibling, child, stepchild, adopted child, or grandchild of the person who conveyed the parcel to said individual, notwithstanding the density or intensity of use assigned to the parcel by the Future Land Use Map of the Comprehensive Plan.

New residential uses are permitted in the Rural Agriculture designation at a maximum gross density of one dwelling unit per five acres, with a minimum lot size of 3 acres. The Family Homestead Exception allows for the creation of lots as small as 1 acre in size with a minimum 1 acre residual lot. (A minimum 1 acre lot is also typically required for residential lots utilizing individual well and septic systems, as is common in rural areas.) Under a provision for Family Homestead Subdivisions, up to 6 lots including the residual lot may be created with the same exception to the permitted density requirement. For example, a 10 acre parcel could be subdivided as a Family Homestead Subdivision into four 1 acre lots and a 2 acre lot, with a 4 acre residual lot for a total of 6 dwelling units on 10 acres, also expressed as a gross density of 1 dwelling unit per 1.67 acres or about 3 times the permitted density of 1 dwelling unit per 5 acres.

The following diagrams illustrate the division of a theoretical 10 acre “parent parcel” in the Rural/Agricultural area, by the permitted density and lot size, and by the Family Homestead Exception.

Figure 7. Parcel Division by Permitted Density and Lot Size in the Rural/Agricultural Area:

- A) 10 acre parent parcel divided into two 5 acre lots. Gross density is 2 dwelling units per 10 acres, or the maximum permitted density of 1 dwelling unit per 5 acres.



- B) 10 acre parent parcel divided into a minimum 3 acre lot and a 7 acre lot. Gross density is 2 dwelling units per 10 acres, or the maximum permitted density of 1 dwelling unit per 5 acres.

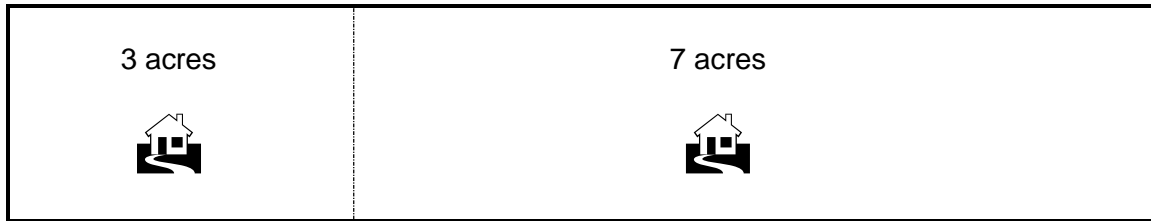
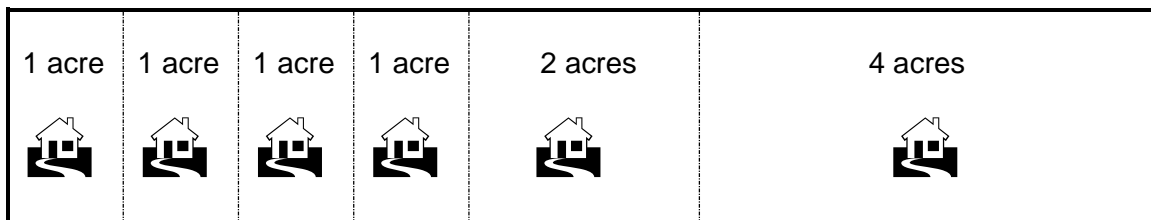


Figure 8. Parcel Division by Family Homestead Exception in the Rural/Agricultural Area

- A) 10 acre parent parcel divided into a minimum 1 acre lot and a 9 acre residual lot. Gross density is 2 dwelling units per 10 acres, or 1 dwelling unit per 5 acres.



- B) 10 acre parent parcel divided into four minimum 1 acre lots, a 2 acre lot, and a 4 acre residual lot. Gross density is 6 dwelling units per 10 acres, or 1 dwelling unit per 1.67 acres.



These lot exceptions must meet certain minimum requirements as specified in the land development regulations, including creation from a legal lot of record designated as Rural Agricultural on the Future Land Use map, which has been in fee simple ownership for at least 5 years by the immediate family member conveying the lot. Per the statute, the new exception lot will be for use by an immediate family member of the person who conveys the property.

Family homestead exception lots cannot be created from a platted lot, a nonconforming lot, a lot previously created as part of a subdivision with unpaved roads in the Rural Agricultural Area, or a lot created by variance through the Board of Adjustment or Board of County Commissioners (unless the variance was approved prior to October 2, 1991).

Applications for a Family Homestead Exception are currently \$70 and can be approved administratively by the Alachua County Zoning Administrator in the Growth Management Department if the residual parcel fronts a public road. Applications require proof of legal lot of

record, proof of Rural/Ag land use, proof of family relationship, proof of ownership for at least five years, and affidavit stating 5 year residency commitment by family members. The application must meet all other land development code requirements and be outside any conservation areas.

In the 5 years from 2013-2017, a total of 17 new Family Homestead Exception applications were approved by Alachua County, for a total of 31 lots including residual lots. (Approved applications included several that did not create new lots, either from applicant inaction, transfer of a previous application, or other subdivision issues.)

Figure 9. Approved Alachua County Family Homestead Exception Lots 2013-2017

Lot Size (acres)	Number of Lots Created (including Residual Lots)	Lot size exception to minimum permitted size of 3 acres
1.0 – 1.9	7	Yes
2.0 – 2.9	8	Yes
3.0 – 3.9	6	No
4.0 – 4.9	1	No
5.0 – 5.9	3	No
6.0 – 6.9	1	No
7.0 – 7.9	1	No
8.0 – 8.9	1	No
10.0 – 10.9	2	No
> 100 (120.38)	1	No
TOTAL	31	15 lots < 3 acres size

Figure 10. Approved Alachua County Family Homestead Exception Applications 2013-2017

Year	Family Homestead Exception Applications Approved	Number of Lots Created (including Residual Lots)	Gross Densities Permitted per Application (dwelling units / acre) ¹
2013	3	7	1/2.7 1/2.8 1/1.9
2014	2	4	1/2.7 1/3.0
2015	2	4	1/1.8 1/3.9
2016	4 ²	6	1/3.7 1/4.6 1/3.1
2017	6 ²	10	1/3.6 1/4.8 1/10.0 1/61.2
TOTAL	17	31	12 applications < 1 du/5 acres

1. Maximum gross density permitted in Rural/Agricultural area is 1 dwelling unit/5 acres

2. Includes applications approved but not resulting in lot creation

The Family Homestead Exception has been used 17 times in the last 5 years, resulting in the creation of 31 total lots ranging in size from 1 acre to 120 acres. Of those 31 lots, 15 lots were between 1.0 acres and 2.9 acres. The current minimum permitted lot size in the Rural/Agricultural area is 3 acres. Of the 17 applications, 12 resulted in gross densities of less than the 1 dwelling unit per 5 acres permitted in the Rural/Agricultural area. Of those, the highest gross density was 1 dwelling unit/1.8 acres, the lowest gross density was 1 dwelling unit/4.8 acres. Those 12 applications resulted in 27 lots ranging from 1.0 acre to 8.7 acres. Since 2016, residual lots of at least 1 acre in size can be approved administratively; prior to that, residual lots less than 5 acres could be approved by variance.

A survey of other Florida counties providing for family homestead exceptions shows similar minimum lot size requirements. Nearby, Levy County provides for three different rural future land use designations that include residential uses: Forestry/Rural Residential permits a maximum residential density of 1 dwelling unit/20 acres, Agriculture/Rural Residential permits a maximum density of 1 dwelling unit/10 acres, and Rural Residential permits a maximum density of 1 dwelling unit/3 acres. The Lineal Heir Homestead Density Exemption provides for lot sizes as small as 1 acre in a non-flood zone and 2 acres in a flood zone.

Marion County provides a Future Land Use category of Rural Land with a maximum allowable density of 1 dwelling unit/10 acres. The Family Division provision permits property within Rural Land to be subdivided into one 1 acre lot with a minimum 1 acre residual lot.

Polk County provides a Future Land Use category of Agriculture/Residential-Rural that permits a maximum residential density of 0.2 dwelling units/acre, that is, 1 dwelling unit/5 acres. The Family Homestead and Family Farm density exemptions allow for a maximum residential density of 1 dwelling unit/acre. Properties approved for a family farm density exemption are not divided from the parent farm parcel, while the family homestead exemption requires division of separate lots.

Tallahassee/Leon County provides for the Rural land use designation with a maximum density of 1 dwelling unit/10 acres, Urban Fringe designation with a maximum density of 1 dwelling unit/3 acres, Lake Talquin Recreation/Urban Fringe designation with a maximum density of 1 dwelling unit/3 acres, and Lake Protection with a maximum density of 1 dwelling unit/2 acres. The Family Heir provision allows for a minimum lot size of 0.5 buildable acre, with the maximum number of lots equal to the number of eligible heirs plus the original homestead family member.

Figure 11. Comparison of Florida Counties offering Family Homestead Exceptions

County	Maximum Permitted Density in Rural Area (dwelling units / acre)	Family Homestead Minimum Lot Size
Alachua	1/5	1 acre
Levy	1/20, 1/10, 1/3	1 acre (2 acres in flood zone)
Marion	1/10	1 acre
Polk	1/5	1 acre
Tallahassee / Leon	1/10, 1/3, 1/2	0.5 acre

The Alachua County Comprehensive Plan broadly provides for the statutory-based Family Homestead Exception in areas designated as Rural Agriculture on the Future Land Use Map. The use of the Family Homestead Exception to the permitted maximum gross density (1 dwelling unit/5 acres) in the Rural/Agricultural area of Alachua County (with lots as small as 1 acre or possibly less in rural clustered subdivisions) does not present a significant impact to the uses and functions of the rural area. Alachua County's permitted maximum gross density and family exception is similar to other counties in Florida. It appears the exception is functioning as intended therefore no changes are proposed.

Potential Impacts from Sea Level Rise, Retirees, and Climate Change

Sea level rise is a significant issue for the State of Florida, as much of the State's population resides in coastal areas. While Alachua County is not directly impacted by sea level rise due to its inland location, it has been suggested that rising sea levels could cause a long term shift in population away from those coastal areas that are most vulnerable to sea level rise, and to inland areas such as Alachua County. It is unclear at this time how much sea level rise in coastal areas could impact Alachua County's population in the future, however, the County does take into account future population growth as part of its planning efforts.

The potential impact of retirees is another aspect of Alachua County's projected population growth that should be taken into account. There are published reports which indicate that the overall population of Alachua County is expected to become older through the year 2040, meaning that greater percentages of the County's population will be in the higher age brackets than there are currently. This projected aging of the population presents planning challenges in terms of housing, transportation, and community health.

Climate change is an issue that could potentially impact areas around the world. There have been numerous scientific studies on climate change and its potential impacts on people, property, and natural systems. While climate change has potential wide-reaching global impacts, it is important to consider the specific local impacts for Alachua County and potential strategies to address those impacts. It is not the purpose of this issue paper to review or evaluate the validity of any published studies on climate change.

Impacts on Population from Sea Level Rise and Retirees

Over the past 17 years, Alachua County's population has grown by just over 42,000 people, from 217,955 in the year 2000 to 260,003 in the year 2017. This represents a 19% increase in the countywide population over that time. The population of Alachua County is projected grow by nearly 37,000 people, to about 296,700, by the year 2040. Population growth is influenced by many factors such as birth rate, death rate, and migration patterns.

It has been speculated that sea level rise in Florida could result in population migration away from coastal areas to more inland areas of Florida, or to areas outside the state. While there has been much research on sea level rise, staff has not been able to find any studies to date that describe how sea level rise could impact population in terms of in-migration or out-migration at a local or regional level. Alachua County relies on population projections published by the University of Florida's Bureau of Economic and Business Research (BEBR). The methodology used by BEBR

does take into account population migration patterns in general, but it does not directly take into account sea level rise as a potential cause of population migration patterns.

According to the report, “Projections of Florida Population by County, 2020–2045, with Estimates for 2016”, BEBR used a “cohort-component” methodology to develop population projections at a State level. In this methodology, births, deaths, and migration are projected separately for various age, sex, and race cohorts in Florida. The State level population projections are a basis for some of the various population projection techniques used in projecting the population for each County.

BEBR makes population projections for each county in Florida using four different techniques. The four techniques are:

1. Linear – The population will change by the same number of persons in each future year as the average annual change during the base period.
2. Exponential – the population will change at the same percentage rate in each future year as the average annual rate during the base period.
3. Share-of-growth – each county’s share of state population growth in the future will be the same as its share during the base period.
4. Shift-share – each county’s share of the state population will change by the same annual amount in the future as the average annual change during the base period.

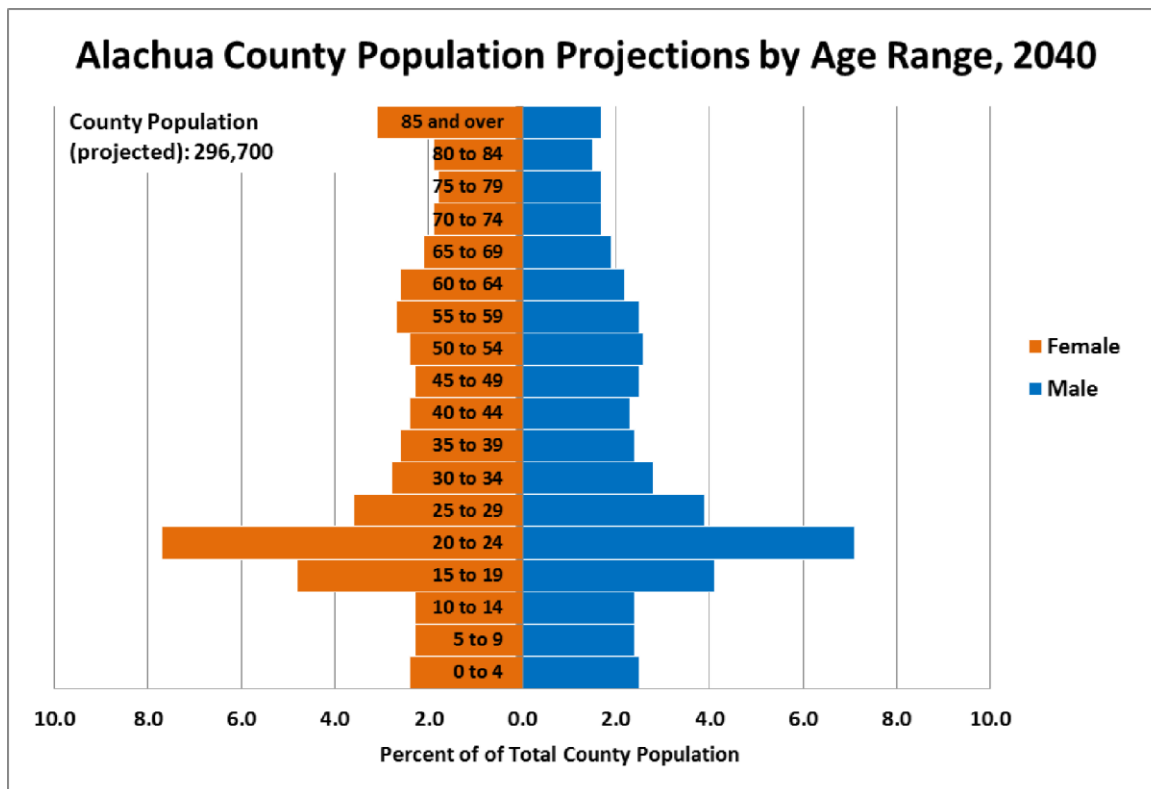
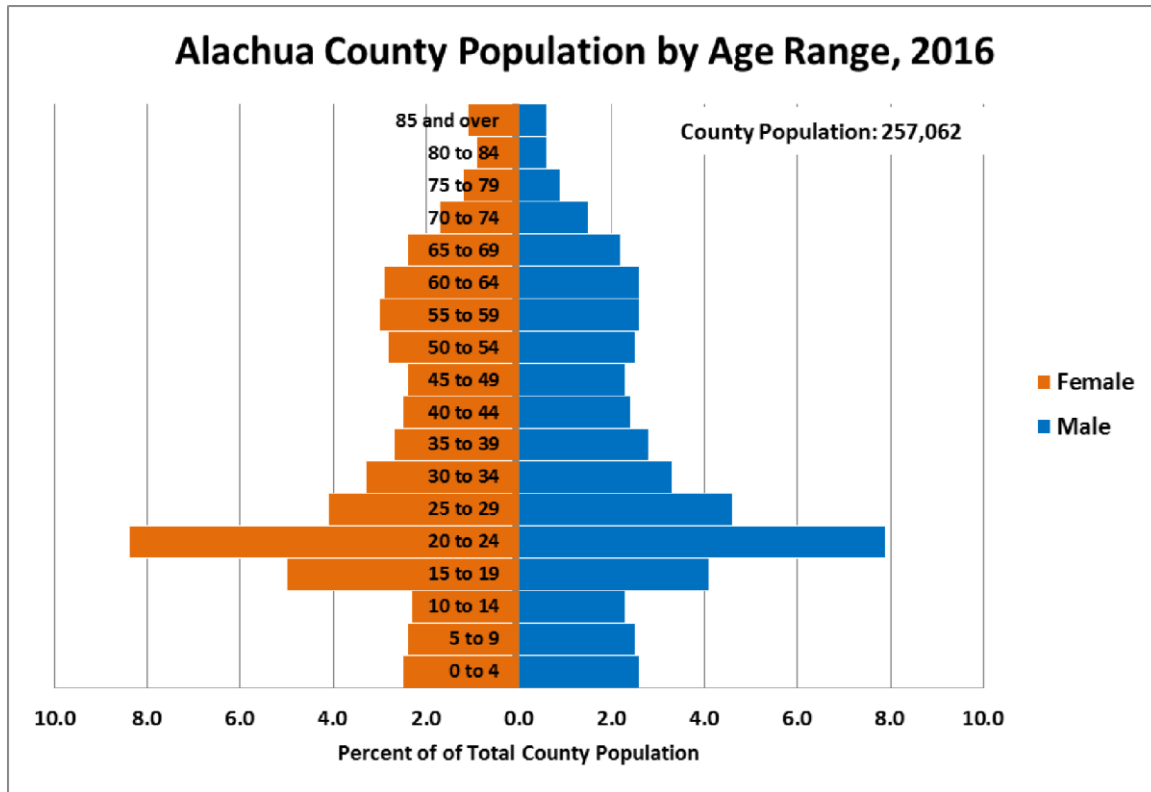
BEBR used different base period lengths for determining the base period growth rates for each County, including 2, 5, 10 and 15 year periods. BEBR developed a series of several population projections for each County based on the four different projection techniques and different base periods. From this series of population projection techniques, various average projections were calculated for each county. This is a simplified summary of BEBR’s methodology. A detailed description of the methodology can be found at

https://www.bibr.ufl.edu/sites/default/files/Research%20Reports/projections_2017.pdf

If there are any population shifts taking place among Florida counties due to sea level rise, these shifts would be taken into account as part of the base period population data for each County, as well as part of the state level migration data. County staff believes that any impacts on Alachua County’s population due to sea level rise, and related migration away from coastal areas, will be reflected in BEBR’s published population projections. It should be noted that BEBR publishes new population estimates and projections for the State of Florida and each of its counties each year. Adjustments are made in the population projections from year to year to reflect updated data. County staff will continue to monitor future population projections and take those into account as part of the supporting data and analysis for the Alachua County Comprehensive Plan.

Data indicate that the overall population profile of Alachua County will become older over the next couple decades. It is not clear how much of this will be due to current residents aging in place versus in-migration of retirees. Either way, planning for an aging population is expected to become an increasing challenge for Alachua County. Figure 12 shows Alachua County’s population profile for the year 2016 as compared to the projected population profile for the year 2040.

Figure 12. Alachua County Population Profiles, 2016 and 2040



Source: University of Florida Bureau of Economic and Business Research (BEBR), "Population Projections by Age, Sex, Race, and Hispanic Origin For Florida and Its Counties, 2020–2045, With Estimates for 2016", Bulletin 178, June 2017; Supplemented by data from BEBR web site obtained on 7/24/17 (<https://www.bebr.ufl.edu/data/series/77>).

According to 2016 data:

- 25% of Alachua County's population was within the age ranges of 15 to 24, as compared to 12% for the State of Florida.
- 13% of Alachua County's population was age 65 and over, as compared to 19% for the State of Florida.
- The primary working-age groups (20-64) represented 63% of Alachua County's population as compared to 60% for the State of Florida.
- The median age in Alachua County was 31 as compared to 41 for the State of Florida.

According to population projections for the year 2040:

- 19% of the County's population will be age 65 and over by 2040, which is a 6% increase over 2016.
- 24% of the County's population will be in the age ranges of 15-24 by 2040, which is 1% lower than in 2016.
- The primary working-age groups (20-64) are projected to represent 57% of Alachua County's population by 2040, which is a 6% decrease from 2016.

In terms of whole numbers, Figure 13 compares the population of Alachua County in 2016 to the projected population in 2040, by age ranges. According to these projections, Alachua County could have about 57,335 residents age 65 and over by the year 2040, which is 23,321 more than in 2016. This represents a significant increase in the retirement-age population in Alachua County, which could present unique challenges in planning for this population increase.

Figure 13. Alachua County Population by Age Range, 2016 and 2040

Age Range	Population 2016	Population 2040 (proj.)	Change 2016-2040	Percent Change 2016-2040
0 to 4	12,963	14,514	1,551	12.0%
5 to 9	12,490	13,996	1,506	12.1%
10 to 14	11,852	14,357	2,505	21.1%
15 to 19	23,458	26,615	3,157	13.5%
20 to 24	41,892	44,110	2,218	5.3%
25 to 29	22,208	21,895	-313	-1.4%
30 to 34	16,985	16,916	-69	-0.4%
35 to 39	14,245	14,529	284	2.0%
40 to 44	12,522	13,695	1,173	9.4%
45 to 49	12,122	14,437	2,315	19.1%
50 to 54	13,571	15,973	2,402	17.7%
55 to 59	14,532	15,250	718	4.9%
60 to 64	14,208	13,112	-1,096	-7.7%
65 to 69	11,908	11,541	-367	-3.1%
70 to 74	8,237	10,511	2,274	27.6%
75 to 79	5,594	11,553	5,959	106.5%
80 to 84	3,829	10,727	6,898	180.2%
85 and over	4,446	13,003	8,557	192.5%
Total	257,062	296,700	39,638	15.4%

Source: University of Florida Bureau of Economic and Business Research (BEBR), "Population Projections by Age, Sex, Race, and Hispanic

The American Planning Association’s (APA’s) “Aging in Community Policy Guide” published in 2014 provides the following general statement regarding the aging of the population:

The American Planning Association (APA) recognizes that the aging of the population creates a unique opportunity and responsibility to apply sound planning approaches and policy to improve communities to serve the spectrum of needs and abilities of older adults. The APA supports the creation and integration of housing, land-use, transportation, economic, social service and health systems that support a high quality of life for people of all ages and abilities.

The APA Policy Guide also provides guiding policies for addressing issues related to an aging population at the local level. **The following guiding policies (A. through F.) on aging have been directly reproduced from the APA’s “Aging in Community Policy Guide”** for consideration as part of the update of Alachua County Comprehensive Plan.

A. Actively Involve Older Adults and Engage the Aging Perspective in the Planning Process

Older adults are the experts on their own lives, so effective planning in all dimensions—physical design, social and community supports—must involve older adult participation on an ongoing basis. Older adults are producers, consumers, leaders, community and family members, and when their potential is maximized, people of all ages benefit. Planners also must take a lead role in bringing together leaders across sectors to assess and plan for the needs of older adults living in their jurisdictions.

B. Ensure a Range of Affordable Housing Options are Available for Older Adults

The promise of aging in community can be challenging to deliver. Communities should make provisions for ensuring a continuum of housing options to support older adults ranging from those who are fully independent to those requiring progressively more assistance in daily life. Policies and programs should promote affordability, safety and accessibility, incorporate enabling design-based home and energy efficiency modifications, and foster upkeep and sustainability of the housing stock. The design of homes should be adaptable and allow different generations or household types to live in a single home, as well as allow for technologies, devices and in-home management systems that optimize active aging. In addition, planners will need to work diligently to ensure access to fair housing, and address the disparate impacts of housing location and availability for elders of all races and incomes. There may also be an exit of older adults from homeownership as they seek to relocate, downsize, or withdraw from the housing market. Planners may need to anticipate and prepare for this transition.

C. Ensure Access to Quality Transportation Options for Older Adults

A range of transportation choices, including grassroots services such as shared autos, is critical for older adults to be able to maintain their independence. Transforming transportation systems to maximize connections with land-uses critical to older adults, particularly housing, health care, and human services will enhance the livability of our communities. Viable transportation options can directly benefit older adults, their caregivers, and health care workers, and emergency responders. Funding mechanisms should support new and improved transportation options. Funding and appropriate design of transportation components such as benches, bus shelters, good lighting,

cross walks that are well marked, and crossing signals with adequate time to cross for persons of all abilities is essential. The cross- disciplinary education of planners, transportation engineers, and the people who use transportation systems in support of increasing these choices is imperative. When transportation systems are properly designed and implemented, they can help individuals maintain their independence and mobility by ensuring accessibility to destinations important to older adults. This includes the maintenance of sidewalks and lights for safe and walkable neighborhoods.

D. Use Land-Use and Zoning Tools to Create Welcoming Communities for Older Adults

In many communities, planning for an aging population often has been limited to concerns over providing space for nursing homes and age-restricted housing. As planners, we recognize that the location of where we develop or re-develop housing is equally as important as what type of housing we build, as is proximity to essential goods and services. Policies, investments, and new tools such as form-based codes should help create a built environment that intentionally provides opportunities for older people to easily participate in community life and activities. This allows them to age in community and not in isolated age-specific enclaves. Because mobility limitations may increase with age, it is important to facilitate quality of life for older adults by creating mixed-use, well-connected neighborhoods with access to health centers, pharmacies, grocery stores, parks and cultural activities. This includes the maintenance of sidewalks and lights for safe environments, walkable neighborhoods, and natural areas to recreate. Redevelopment should occur in areas with an existing network of community supports and services.

E. Support the Economic Well-Being of Older Adults and their Caregivers

Local economic development policies and planning should address the needs of community members of all ages and income levels. When economic development policies and local businesses recognize the needs and assets of older adults as consumers, workers, mentors, and entrepreneurs, resilient economies are built. Additionally, formal and informal caregivers represent a large and largely invisible and undercounted component of local economies. Caregivers should be recognized and considered in planning, land-use, and economic policy development. Home care workers, in particular, need access to efficient transportation and affordable housing options.

F. Strengthen the Community Assets of and Supports for Older Adults

Planners need to design policy and planning responses that address the needs of older adults—particularly, those at-risk of homelessness—and also take advantage of the contributions of older adults in all community contexts. Inadequate physical design must be recognized as a barrier and addressed to ensure segments of our society are not excluded. Community services and the assets that older adults and their social networks represent are key complements to physical design. Older adults have the skills, connections, and time to put toward helping their communities and are looking to keep active and remain engaged in civic life. Communities that incorporate opportunities and services for older adults in all aspects of zoning and economic, land-use, and transportation planning will allow older adults and their families to engage more fully in community and economic activities, reducing the individual and societal costs of institutionalizing older adults who could be better cared for in community settings. Moreover, community inclusion of older adults will reduce both individual and societal costs associated with institutionalization. Greener buildings may also improve the health of their occupants.

There are some key takeaways from the APA Policy Guide that have implications for the Alachua County Comprehensive Plan. These include the need to provide a range of affordable housing options for older adults as well as their caregivers. This can involve providing adequate areas for the development of affordable housing, as well as policies and regulations that promote mixed housing types within areas or neighborhoods, recognizing that many older adults desire smaller housing units with smaller lots, or attached units. Another key takeaway with applicability to the Comprehensive Plan is the need to provide a range of quality transportation choices for older adults. Transportation systems should maximize connections between land-uses that are critical to older adults, particularly housing, health care, and human services.

Long Term Impacts of Climate Change

According to the United States Environmental Protection Agency (US EPA) publication, “What Climate Change Means for Florida” (2016), the Florida peninsula has warmed more than one degree (F) during the last century. Climate is changing because the earth is warming; the amount of carbon dioxide in the air has increased by 40 percent since the late 1700s, and other heat-trapping greenhouse gases are also increasing. According to the US EPA, the following are some of the key impacts of changing climate in Florida for the coming decades that would be particularly relevant to Alachua County:

- Changing climate is likely to increase the need for water. Higher air temperatures increase the rate at which water evaporates (or transpires) into the air from soils, plants, and surface waters. Because irrigated farmland would need more water, the total demand for water is likely to increase more than 25 percent during the next half century. But the amount of available water is unlikely to increase significantly—and it may decrease.
- Changing climate is also likely to increase inland flooding. Since 1958, the amount of precipitation during heavy rainstorms has increased by 27 percent in the Southeast, and the trend toward increasingly heavy rainstorms is likely to continue. More intense rainstorms can increase flooding because rivers overtop their banks more frequently, and more water accumulates in low-lying areas that drain slowly.
- Changing climate will have both harmful and beneficial effects on farming. Freezing temperatures will become very rare in most of the state, which would benefit citrus trees and other fruits and vegetables grown during winter. During summer, however, hotter temperatures are likely to reduce yields of corn and may also reduce yields of sugar, peanuts, and cotton, depending on whether sufficient water is available for irrigation. Higher temperatures are also likely to reduce livestock productivity, because heat stress disrupts the animals’ metabolism.
- Hot days can be unhealthy—even dangerous. Certain people are especially vulnerable, including children, the elderly, the sick, and the poor. High air temperatures can cause heat stroke and dehydration and affect people’s cardiovascular and nervous systems. Seventy years from now, temperatures in most of the state are likely to rise above 95°F between 45 and 90 days per year, compared with less than 15 days per year today. Higher humidity will further increase the heat index and associated impacts on health.

A key component of local climate change planning and response is mitigating the impacts of various natural hazards on the community. Toward that end, the Alachua County Local Mitigation Strategy (LMS) establishes a framework to lessen the vulnerability of Alachua County and its municipalities to various natural, societal or technological hazards that have the potential to have adverse human, environmental or economic impacts on the community. The Alachua County LMS addresses projects, policies and programs to reduce the County's vulnerability to the impacts of disasters before and after they happen. The LMS also outlines actions that are initiated post-disaster to prevent recurring losses from future disasters.

The following is a summary of the Alachua County Comprehensive Plan provisions that are relevant to natural hazard avoidance or mitigation, floodplain regulation, or the Local Mitigation Strategy. The Comprehensive Plan contains a general strategy to minimize the conversion of land from rural to urban uses by, among other things, incorporating hazard-resilient land planning into the land use decision-making process [FLUE General Strategy 1]; provides for clustering in rural subdivisions to avoid natural hazards [FLUE 6.2.9]; provisions to include hazard mitigation into stormwater management system design, public education about floodplain protection, and avoidance of actions that would change or obstruct floodways [Stormwater Element Obj 7.1 and related policies]; provisions for mapping of flood and fire prone areas [COSE Policy 2.1.1]; provisions for public education concerning flood and fire hazard mitigation [COSE Policy 2.2.2]; provisions to maintain the natural function of flood plains and flood ways [COSE Obj 4.8 and Policies]; provisions for wildfire hazard mitigation [COSE Obj 5.6 and Policies]; provisions to implement hazard mitigation plans such as the LMS [ICE Policy 1.1.10]; provisions for capital improvement projects for public facilities that mitigate hazards as ranked in the LMS Project List [CIE Policy 1.5.2]; provisions for the protection of natural drainage features through floodplain management [Stormwater Element Goal 1]; establishes levels of service that require all new building lots to include adequate buildable area above the 100-year floodplain and all new habitable structures must be constructed outside the floodplain and prohibits adverse impacts to the 100-year floodplain [Stormwater Element Policy 3.1.1]; designation of wetlands, surface waters and floodplains as conservation areas with related policies to protect such areas [COSE Policy 3.1.1 and related policies]; provisions for the protection of the natural functions of floodplains and floodways and other areas of 100-year flood elevation [COSE Obj 4.8 and policies]; provisions that floodplains be designated as open space in development plans [COSE Obj 5.2 and policies].

Another key component of local climate change planning is local land use policies. The American Planning Association (APA) has adopted a "Policy Guide on Planning and Climate Change" (Adopted 2008, Updated 2011), which has extensive discussion of the impacts of climate change and identifies various policy recommendations for addressing climate change at the federal, state, and local levels. This extensive document identifies potential policies that can be implemented at the local level through land use planning to address the long terms impacts of climate change, including the following:

- Land use – more compact urban form; reduce VMT and GHG emissions associated with transportation
- Integrate land use and transportation
- Mixed use development

- Higher density development centers
- Transit-ready locations
- Jobs-housing proximity
- Compact regions
- Promote infill development and redevelopment

The Alachua County Comprehensive Plan provides for many of the suggested local strategies listed above to address the long term impacts of climate change. As described in previous sections of this report, the Alachua County Comprehensive Plan has adopted policies which promote compact urban development patterns and higher density and mixed use development within the Urban Cluster. Additionally, the County's Mobility Plan, as articulated in the Future Land Use and Transportation Mobility Elements, emphasizes the integration of land use and transportation in a way that promotes more compact urban development patterns and transit supportive densities that are supported by a multimodal transportation system. The County Comprehensive Plan also has goals for communitywide greenhouse gas reductions (Energy Element Obj. 1.1 and subsequent policies) and related goals for reduction in vehicle miles traveled (Energy Element Obj. 4.1 and 4.2 and subsequent policies). In addition, the County's adopted policies in the Conservation and Open Space Element for the protection of wetlands, floodplains, and other natural resources are important strategies in mitigating the long term impacts of climate change.

ADOPTED STRATEGIES THAT ARE EFFECTIVE IN ACHIEVING THE PLAN'S GOALS

- Maintain the Urban Cluster boundary as adopted in the Comprehensive Plan.
- Continue to promote higher densities in the Urban Cluster by implementing the adopted policies for Traditional Neighborhood Developments (TND), Transit Oriented Developments (TOD), and Cottage Neighborhoods.

POTENTIAL STRATEGIES FOR ADDRESSING ISSUES

1. Increase the minimum and/or maximum densities identified in the Comprehensive Plan for various residential Future Land Use categories in the Urban Cluster, with particular focus on the Low Density Residential category.
2. Review and consider revision of the market factors in assessing the capacity of the Urban Cluster in the future.
3. Monitor future population projections and studies for potential shifts in population that may be due to in-migration from coastal areas, or other reasons.
4. Update and clarify policies regarding housing to serve aging adults, including ALF's, nursing homes, and rehabilitation centers.
5. Continue to implement and update the Alachua County Local Mitigation Strategy; review and update as appropriate policies related to Hazard Resilience Planning, and update and

strengthen as needed to take into account emerging climate change issues.

COMPREHENSIVE PLAN POLICIES RELATING TO ISSUES

Future Land Use Element

PRINCIPLE 2

BASE NEW DEVELOPMENT UPON THE PROVISION OF NECESSARY SERVICES AND INFRASTRUCTURE. FOCUS URBAN DEVELOPMENT IN A CLEARLY DEFINED AREA AND STRENGTHEN THE SEPARATION OF RURAL AND URBAN USES.

GENERAL STRATEGY 1

Minimize the conversion of land from rural to urban uses by maximizing the efficient use of available urban infrastructure, while preserving environmentally sensitive areas, according to the following:

- Designate and maintain on the Future Land Use Map an urban cluster that sets a boundary for urban growth.

...

- Provide a range of urban residential densities with the highest densities located in or near urban activity centers, and lower densities located in outlying rural areas or areas of the County which have physical limitations to development.
- Utilize mechanisms such as land acquisition, conservation easements, variable lot sizes, and conservation subdivisions.

...

GENERAL STRATEGY 2

Promote land development that maximizes the use of public investments in facilities and services, ensures a proper level of public services for all new development, and preserves existing amenities. Land use decisions shall be made consistent with public facility improvements which shall be provided in accordance with the following priorities:

- in areas where the lack of public facilities threatens the health and safety of the community;
- in urban areas that are lacking adequate public facilities to meet the needs of existing development and to encourage infill development, and mixed-use redevelopment;
- in new areas which are part of a planned expansion of public services to encourage growth; and

- to extend individual services to meet the demands created by a specific development.

OBJECTIVE 1.2 - LOCATION, MIX OF USES, AND IMPLEMENTATION CONSISTENT WITH MARKET DEMAND

Provide for adequate future urban residential development that includes a full range of housing types and densities to serve different segments of the housing market, designed to be integrated and connected with surrounding neighborhoods and the community, with opportunities for recreation and other mixed uses within walking or bicycling distance.

Policy 1.2.4 All new residential development in the urban cluster shall:

- (a) be economically and efficiently served by supporting community facilities, and services such as streets, utilities, public educational facilities, and public protection.
- (b) connect to centralized potable water supply and sanitary sewer systems in accordance with Policy 2.1.1 of the Potable Water and Sanitary Sewer Element.

Policy 1.3.2 The following classification of gross residential densities shall serve as a standard for evaluating development in Alachua County, unless specific provisions are otherwise provided in the Plan (DU/Acre = Dwelling Units per Acre), such as for Transit Oriented Developments and Traditional Neighborhood Developments.

Policy 1.3.2.1 Urban Residential Densities - Areas designated on the Future Land Use Map for gross residential densities of one unit per acre or greater shall be considered as urban in character. There shall be four gross residential density ranges as follows:

- (a) Low Density: One to Four dwelling units per acre.
- (b) Medium Density: Greater than Four to less than or equal to Eight dwelling units per acre.
- (c) Medium-High Density: Greater than Eight to less than or equal to 14 dwelling units per acre.
- (d) High Density: Greater than 14 to less than or equal to 24 dwelling units per acre.

Policy 1.3.2.2 Estate Residential - The Estate Residential designation, with a maximum density of one dwelling unit per two acres, shall only be located in the urban cluster on properties adjacent or near Preservation areas, as identified on the Future Land Use Map, as a transitional land use to higher intensity or density urban development.

Policy 1.3.3 A range in urban residential densities should be provided with the highest densities located in or near urban activity centers and transit oriented developments, and lower densities located in outlying areas or areas of the County which have physical limitations to development.

Policy 1.3.6 To provide for a greater range of choices of housing types in single family residential areas, affordable housing, and the promotion of infill to new and existing neighborhoods while maintaining single family character, one accessory dwelling unit shall be allowed on single family residential lots in the Estate, Low, and Medium Density residential areas without being included in gross residential density calculations.

Policy 1.3.7.1 Low Density residential land use category shall provide for single residential detached and attached dwellings. In addition, traditional neighborhood developments (TND), transit oriented developments (TOD) and planned developments may include mixed housing types and mixed uses.

Policy 1.3.7.2 The Low Density residential land use category shall provide for various housing types, such as conventional site-built single family homes, accessory living units, attached structures including townhouses, multi-family developments in planned developments, dwellings with zero lot line orientation, factory-built modular units, manufactured homes, or mobile homes.

Policy 1.3.7.3 The County's Land Development Regulations shall allow Low or Medium density residential land use to include flexible and mixed minimum lot sizes, relying on design standards and gross density. Such provisions shall address the need for affordable housing, compatibility with transit alternatives, and open space preservation including greenway corridors.

Policy 1.3.8.1 Medium Density residential development shall provide for small lot single family residential detached and attached dwellings, and multi-family residential dwellings. In addition, traditional neighborhood developments (TND), transit oriented developments (TOD) may include mixed housing types and mixed uses.

Policy 1.3.8.3 The Medium Density residential land use category shall provide for various housing types, such as conventional, site-built single family dwellings, accessory living units, attached structures including townhouses, dwellings with zero lot line orientation, factory-built modular units, manufactured homes, mobile homes, or multi-family dwellings.

Policy 1.3.9.1 The Medium-High Density residential land use category shall provide for small lot single family residential detached and attached dwellings, and multiple family residential dwellings. In addition, traditional neighborhood developments (TND) and transit oriented developments (TOD) may include mixed housing types and mixed uses.

Policy 1.3.10.2 The High Density Residential land use category shall provide for small lot single family residential detached and attached dwellings, and multiple family residential dwellings. In addition, transit oriented developments (TOD) may include mixed housing types and mixed uses.

Policy 1.4.2 Residential developments of mixed housing types may be allowed through the development review process provided the development is consistent with Comprehensive Plan policies, Land Development Regulations, and provides:

- (a) A pedestrian and bicycle friendly environment that encourages walking and bicycling as a primary means of mobility within the development,
- (b) A gridded street network that allows for multiple route choices, reduces the distance between uses to encourage walking and biking, accommodates transit service and connects with adjacent developments,
- (c) On-street parking and screening of off-street surface parking.

Policy 1.6.5.1 The density for Traditional Neighborhood Developments shall be as follows:

- (a) Within the transit supportive area, a minimum of four (4) units per acre, or the minimum density of the underlying land use category, whichever is greater,
- (b) The density for areas outside the transit supportive area shall be consistent with the underlying land use category,
- (c) For TNDs that are not contiguous with a planned Rapid Transit or Express Transit Corridor, an additional four (4) units per acre within the transit supportive area are allowed,
- (d) For TNDs contiguous with a Rapid Transit or Express Transit Corridor, an additional eight (8) units per acre within the village center and six (6) units per acre within the transit supportive area outside of the Village Center are allowed.

Policy 1.7.5.1 To ensure the density needed to support transit service is provided within a walkable distance from transit, the following minimum residential densities shall be provided:

- (a) Ten (10) units per acre within the village center
- (b) Seven (7) units per acre within the transit supportive area outside of the village center
- (c) Three (3) units per acre outside the transit supportive area
- (d) Development less than 20 acres shall provide a minimum of at least 200 units

Policy 1.7.5.2 The maximum allowable density within the transit supportive area is twenty-four (24) units per acre, except as provided for in Policy 1.3.10.4 of this element. Within the Urban Service Area, the maximum allowable density within the Village Center is forty-eight (48) units per acre. The maximum allowable density outside the transit supportive area is the maximum allowable under the underlying land use.

OBJECTIVE 1.8 COTTAGE NEIGHBORHOODS

Cottage Neighborhoods offer opportunities for creative, diverse and high quality infill development within the Urban Cluster and promote a variety of housing types and sizes available within the community to meet the needs of a population diverse in age, income, and household composition. These neighborhoods provide for more efficient use of land through density bonuses consistent with Housing Element Policy 1.2.2, which provides incentives for development of affordable housing. Cottage Neighborhoods encourage the creation of more usable open space for residents of the development and maximize resident and pedestrian oriented outdoor spaces while minimizing the impact of automobile traffic and parking.

Policy 1.8.1 Cottage Neighborhoods are groups of smaller homes built around a common green space.

Policy 1.8.2 Design criteria for Cottage Neighborhoods shall be established in the Unified Land Development Code and shall include, but not be limited to, provisions for clustering and maximum neighborhood size.

Policy 1.8.3 Cottage Neighborhoods meeting the design requirements for such neighborhoods in the Unified Land Development Code shall be allowed to develop at two times the maximum units per acre of the underlying future land use designation.

Policy 2.1.4 A mixture of residential and non-residential land uses shall be provided in Activity Centers to reduce travel distances between different types of land uses and support pedestrian,

bicycle and transit opportunities.

- (a) Mixed use development plans, including vertical and horizontal mixed uses, shall be allowable in all areas within Activity Centers.
- (b) In order to increase the variety of housing opportunities within walking distance of existing or future commercial and employment areas, residential uses shall be allowable as part of mixed use development in non-residential Future Land Use designations...

6.0 RURAL AND AGRICULTURAL POLICIES

OBJECTIVE 6.1 - GENERAL

Rural and agricultural areas shall be protected in a manner consistent with the retention of agriculture, open space, and rural character, and the preservation of environmentally sensitive areas, and efficient use of public services and facilities.

Policy 6.2.9 Clustering

The preferred design for new rural residential subdivisions is that they be clustered in order to protect the characteristics and features of rural areas through the following goals:

- (f) Reduce natural hazard risks to life and property.

Policy 7.1.3 As part of the periodic update of the Comprehensive Plan and any proposed amendments to the Urban Cluster, determine a sufficient and non-excessive amount of land within the Urban Cluster to accommodate urban uses for a ten year and twenty year time frame.

- (a) The determination (methodology is shown in Appendix A) shall be based on a comparison of:
 - (1) a forecast need for land for urban residential and non-residential development based on projected population, average household size, a residential vacancy rate, and a market factor. The market factor for the ten year time frame shall be 2.0. The market factor for the 20 year time frame shall be 1.5
 - (2) land available in the Urban Cluster for urban residential and non-residential uses. Mapping of environmentally sensitive areas shall be utilized as a factor for determining land availability
- (b) If the comparison shows that the land available is less than the forecast need for land, the following measures shall be considered:
 - (1) revisions to density standards and land development regulations, or other measures, to accommodate greater population within the existing Urban Cluster
 - (2) coordination with municipalities regarding possible reallocation of forecast need to the incorporated areas
 - (3) phased expansion of the Urban Cluster

- (c) If the forecast need for one type of land use exceeds the supply of land for that particular use, a revision to the allocation of land uses within the Urban Cluster shall be considered before the Urban Cluster is expanded.
- (d) If this methodology determines expansion of the Urban Cluster is warranted, the evaluation of appropriate location shall be subject to analysis including the following economic, infrastructure, transportation, and conservation and recreation criteria:
 - (1) rural character and viable agriculture land and the potential impact of expansion of the Urban Cluster on existing agricultural uses
 - (2) economic development considerations including affordable housing
 - (3) relationship to existing and planned future urban services and infrastructure
 - (4) access to the regional transportation network and multi-modal transportation systems
 - (5) Conservation and Preservation land uses
 - (6) planned recreation/open space or greenway systems
- (e) In addition to meeting the requirements identified above, any proposed amendment to expand the Urban Cluster must include a commitment to purchase development rights at a rate equivalent to or greater than the proposed increase in density or intensity through the Transfer of Development Rights program in accordance with Section 9.0 of this Element.

Hazard Resilient Land Planning: Land use planning process that includes suitability analysis for development of land exposed to natural hazards, so the limitations of hazard prone areas are understood by citizens, potential investors, and government officials. The plan results in a linkage of land-use and emergency planning efforts.

Intergovernmental Coordination Element

Policy 1.1.10 Alachua County, with other local, regional and state agencies, will prepare and implement hazard mitigation plans to reduce and minimize the exposure of Alachua County citizens and local economy to future natural or man-induced disasters or hazards. This interagency process will seek grant funding for projects listed in the County's adopted Local Mitigation Strategy.

Appendix

Approved Development Plans Included in Urban Cluster Capacity Analysis

Development Name	Status	Acres	Approved Units	Built Units	Unbuilt Units
Brytan PD	Final	144.05	700	37	663
Grand Preserve at Kanapaha	Final	40.34	240	34	206
Celebration Pointe TOD	Final	218.03	2,225	0	2,225
Estates of Wilds Plantation	Final	76.58	99	37	62
Lugano TND	Final	146.01	460	19	441
Town of Tioga PD - South	Final	75.62	104	5	99
Lexington Place	Final	8.28	17	5	12
Oakmont PD	Final	534.97	999	184	815
Arbor Greens Phases I II III	Final	123.05	400	140	260
Amariah Park Subdivision	Final	37.62	80	0	80
Chesnut Plantation	Final	31.57	137	0	137
Arbor Greens PD, Phase 4	Final	22.71	260	0	260
Crofton Subdivision	Final	9.44	16	0	16
Tioga Town Center Phase 6	Final	2.34	18	0	18
Gloria's Way	Final	20.99	42	0	42
Dogwood Park TND	Preliminary	25.01	224	0	224
Newberry Village TOD	Preliminary	89.29	801	0	801
Springhills TOD	Preliminary	349.49	3296	0	3296
Santa Fe Village TOD	Preliminary	158.60	2310	0	2310
Jonesville Business Park Mixed Use PD	Preliminary	80.28	300	0	300
Newberry Park TND	Preliminary	30.92	300	0	300
Multerra TND	Preliminary	25.47	228	0	228
Park Lane Phase IIA	Preliminary	12.74	176	0	176
Park Lane Mixed Use Retail/Residential	Preliminary	1.01	28	0	28
West End PD	Planned Dev.	5.83	58	0	58
Southpointe PD	Planned Dev.	69.96	246	0	246
Total		2,340.19	13,764	461	13,303

Source: Alachua County G.I.S. and Development Plan Database, August 2017