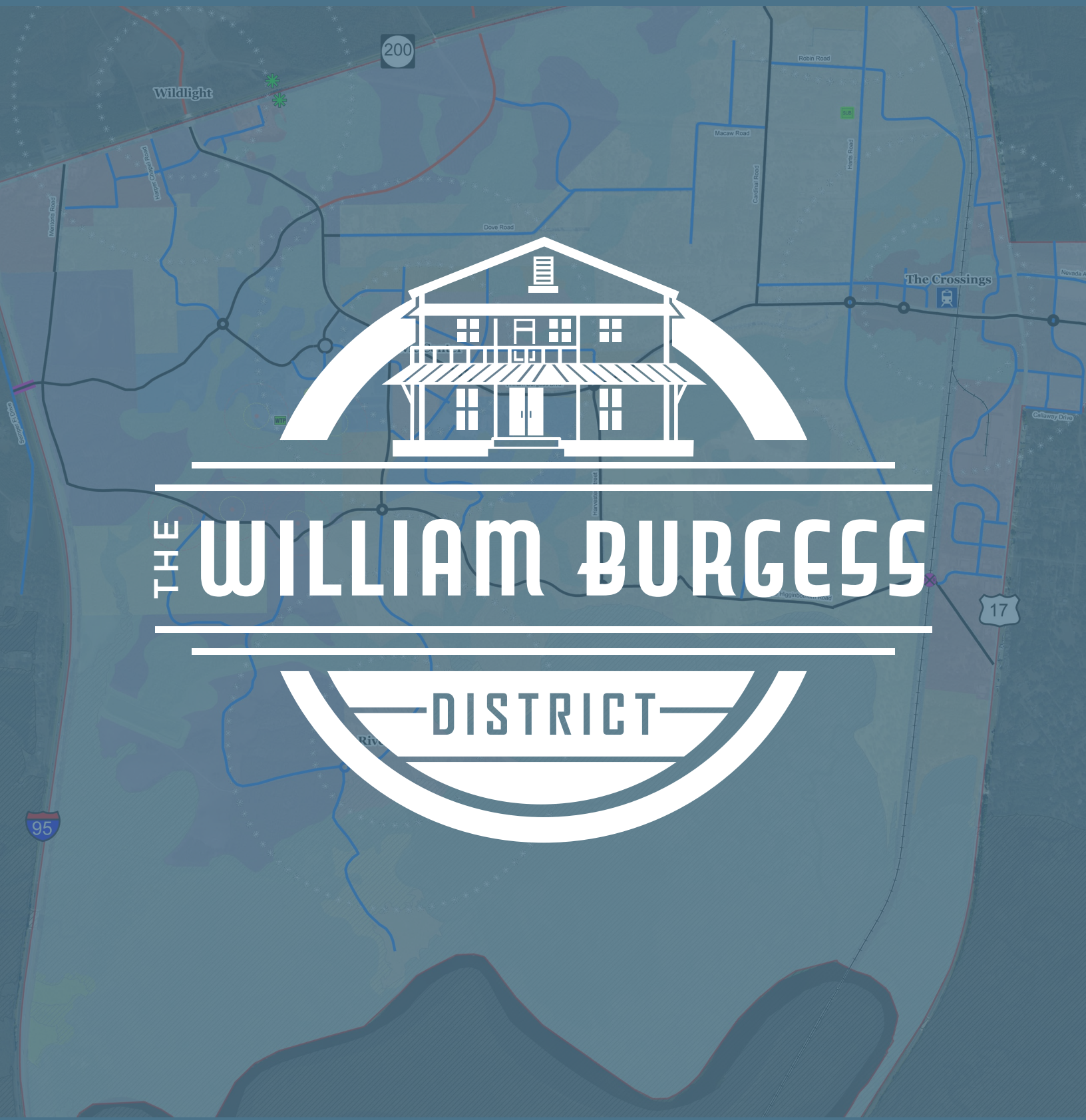
William Burgess Context and Connectivity Blueprint



April 10, 2019 DRAFT

Nassau County
Department of Planning and Economic Opportunity
Florida

Acknowledgments

List of Abbreviations

BEBR - Florida Bureau of Economic and Business Research
BMP - Best Management Practices
BOCC - Board of County Commissioners

CHHA - Coastal High Hazard Area
CHN - Coastal Habitat Network
CUVB - Conditional Use and Variahnce Board

DRC - Development Review Committee

ENCPA - East Nassau Community Planning Area
EOC - Emergency Operations Center
FAR - Floor to Area Ratio

FDEP - Florida Department of Environmental Protection
FEMA - Federal Emergency Management Agency
FHWA - Federal Highway Administration
FIRM - Flood Insurance Rate Map
FIS - Flood Insurance Studies
FLUCCS - Florida Land Use Cover and Classification System
FLUM - Future Land Use Map
FNAI - Florida Natural Areas Inventory
FSCJ - Florida State College at Jacksonville
FWC - Florida Fish and Wildlife Conservation Commission

ISR - Impervious Surface Ratio
ITE - Institute of Transportation Engineers

LDC - Land Development Code
LID - Low Impact Development
LOS - Levels of Service

MSA - Metropolitan Statistical Area

NCHRP- National Cooperative Highway Research Program
NCSB - Nassau County School Board
NOAA - National Oceanic and Atmospheric Administration
NWC - National Weather Services
NWI - National Wetlands Inventory

PEO - Planning and Economic Opportunity
PUD - Planned Unit Development
PZB - Planning and Zoning Board

SJRMWD - St. John's River Water Management District
SLOSH - Sea, Lake, and Overland Surges From Hurricanes

TND - Traditional Neighborhood Design
TOD - Transit Oriented Development

USDA - United States Drug Administration

WBD - William Burgess District
WB CCB - William Burgess Context and Connectivity Blueprint

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1. Introduction

The Community Vision

Section 1.1 WB CCB Overview/Context

The approximate 5,265 acre land area in Eastern Nassau County known as the William Burgess District (WBD) finds itself at a crossroads. One path continues the current low-density, suburban scale development pattern that has been prevalent across Northeast Florida and Nassau County since World War II. This path encourages a pattern of development that is not fiscally or environmentally sustainable and is based on the separation of land uses, dependency on the single occupant automobile, and is void of historic context and an authentic sense of place. The other path embraces the organic development patterns by which cities, towns and communities formed prior to contemporary influences. This path seeks to leverage the unique characteristics and history of Yulee/Nassau County, places a priority on civic and communal life, and encourages a pattern of development that is people-centric, fiscally sustainable and environmentally responsible. **No matter which path is chosen there is one certainty, the choice will have a generational impact on Nassau County, its civic institutions, communal life, and fiscal and environmental viability.**

The William Burgess Context + Connectivity Blueprint (WB CCB) represents a philosophical shift in land-use planning for the citizens of Nassau County. **A shift necessitated not by political actors or outside influences but rather by a citizen-lead and crafted vision for their community - the Vision 2032 Plan.** The Vision 2032 Plan is a shared vision that requires quality-of-life for current and future citizens of Nassau County be central to all public policy and directs the crafting of people-centric live, work, play, and stay communities with strong social centers from which a sense of place can be strengthened.

Figure 1.1 William Burgess District Boundary

With that said, creating vibrant and engaging people-centric places that are both fiscally and environmentally sustainable requires the collective vision of all community members. The collective vision of the WBD is captured in the WB CCB, a 24-month planning initiative which has taken a holistic view of the land areas served by William Burgess Boulevard. Initial efforts centered around a critical area of approximately 500 acres situated near the intersection of William Burgess Blvd., US Hwy 17, generally, and a CSX rail-line. Over the past ten (10) months, focus has expanded to include the approximately 5,265 acre land area defined by SR200/A1A to the north, the Nassau River to the south, US Hwy 17 to the east and I-95 to the west. See Figure 1.1 (left) for a more definitive boundary.

As part of the planning process over the last ten (10) months, Nassau County engaged property owners, local and state agencies, local officials, community groups, members of the development community, and the general public. In addition to numerous one-on-one meetings with various affected parties, partners and agencies, Nassau County hosted three community meetings, twelve publicly noticed workshops and four noticed public hearings. The feedback received during the public engagement process yielded invaluable information utilized in the formation of the WB CCB. Additional information related to community feedback is found in Appendix A of this plan.

Section 1.2 WB CCB Structure

The WB CCB is broken into five chapters:

1. Introduction: ***The Community Vision***
2. Why Plan: ***A Holistic Approach to Quality of Life***
3. What to Plan: ***Considering Tomorrow***
4. How to Plan: ***Implementing a Collective Vision***
5. Appendices: ***Data and Analysis***

1. Why Plan: *The Community Vision*

This chapter of the WB CCB provides an overview of the WB CCB. It describes the purpose and intent of the WBD, applicability, and the planning process behind the plan to ensure we implement the community's vision.

2. Why Plan: *A Holistic Approach to Quality of Life*

Chapter 2 of the WB CCB provides a synopsis of growth in Nassau County, trends in development, how those trends could impact the development of lands within the WBD, and how those impacts can be mitigated. In some cases, the mitigation could be repositioned to implement the community vision as defined in the Vision 2032 Plan and 2030 Comprehensive Plan.

3. What to Plan: *Considering Tomorrow*

Based on the Vision 2032 Plan, 2030 Comprehensive Plan, and citizen feedback received as part of the WB CCB initiative, Chapter 3, analyzes adopted levels of service and other components necessary to create a vibrant and sustainable community that implements the adopted community vision - the Vision 2032 Plan.

4. How to Plan: *Implementing a Collective Vision*

Nassau County is charged with implementing the Vision 2032 Plan. Chapter 4 of the WB CCB is the regulatory policy necessary to serve that purpose. The policy is implemented through the creation of an overlay district adopted in the 2030 Comprehensive Plan, and through this document, the WB CCB.

The overlay defines overarching requirements related to the provision of civic facilities and public infrastructure, integration of land-uses, historic context, creation of an authentic sense of place, and other characteristics necessary to promote social interaction - a people-centric live, work, play, and stay community.

5. Appendices: *Data and Analysis*

In executing a planning initiative the scale of the WB CCB, significant data and analysis is necessary to create public policy that will be effective and defensible. In addition, there are supplemental design and performance standards of technical nature which are necessary to implement the WB CCB. The level of detail and analysis results in documents that are of significant size and/or contain technical details that clutter the primary text of the document, and make use-ability difficult. As such, the WB CCB includes seventeen appendices that are hereby adopted by reference and shall be utilized to support, supplement, and implement the WB CCB, amended from time to time.

Section 1.3 Purpose and Intent

1.3.1 Purpose

It is the purpose of Nassau County to protect the health, safety and general welfare of the citizens of Nassau County by proactively planning the William Burgess District (WBD). It is the purpose of Nassau County to guide development in the WBD based on the citizen-created and adopted Vision 2032 Plan. The guiding principles of the WBD are defined in this William Burgess Context and Connectivity Blueprint (WB CCB). The purpose of the WB CCB is to prepare for the future with a focus on high quality-of-life and preservation of the unique character of the community. The purpose is to facilitate community formation through a built environment that is people-centric, socially responsible, fiscally and environmentally sustainable, and ensures the civic facilities and public infrastructure necessary to support new development are provided at the same time as new development is undertaken. Further, the purpose of the WB CCB is to ensure, to the extent possible, the burden to provide civic facilities and public infrastructure to support new development is not placed on existing residents.

Policy FL.02.05, the William Burgess Mixed-use Activity Center Overlay District is implemented through the WB CCB. The land area associated with the WB CCB and WBD is the same land area defined in Comprehensive Plan Policy FL.02.05 as the William Burgess Mixed-use Activity Center Overlay District, shown as FLUMS-10.

1.3.2 Intent

It is the intent of Nassau County to take a proactive approach to community planning and establish a regulatory framework that will control and direct new development and redevelopment within the WBD. It is the intent of Nassau County that the regulations defined in the WB CCB will be the instrument directing all development within the WBD. More specifically, it is the intent of Nassau County that the regulatory framework defined in the WB CCB will, at a minimum:

1. Implement the Vision 2032 Plan and 2030 Comprehensive Plan;
2. Ensure the civic facilities and public infrastructure necessary to support new development is provided along with new development and is not solely the burden of existing residents/tax payers;
3. Prevent property owners and development entities from subverting the requirement to provide lands for parks, public schools, road rights of ways and other critical civic facilities and public infrastructure by incrementally entitling and developing lands;
4. Proactively address floodplain management and resiliency;
5. Promote growth that is fiscally and environmentally sustainable;
6. Protect natural ecological systems and functions;
7. Restrict development in environmentally sensitive areas of the WBD while encouraging development in other areas. In the areas where development is to be encouraged, minimum intensity and density standards are to be defined and shall be enforced to activate village centers and promote alternative modes of transportation;
8. Direct residential development away from the Coastal High Hazard Area (CHHA) consistent with the 2030 Comprehensive Plan;
9. Beyond water dependent uses, limit public investment within the Coastal High Hazard Area (CHHA);
10. Result in a compact, walkable development pattern. The characteristics of a compact, walkable development pattern are:
    - the integration of different land-uses arranged at a human-scale and in a walkable pattern, preferably in the form of mixed-use structures;
    - complete communities offering live, work, play, and stay opportunities;
    - the ability to access retail, service, employment and entertainment options without dependency on the single occupant automobile;
    - the implementation of healthy community principles;
    - the integration of a variety of housing types to meet needs of a range of incomes; and
    - the creation of socially engaging communities with a sense of place derived from historic context.
11. Result in interconnected developments regardless of ownership. This includes but is not limited to ,interconnected street networks, bicycle and pedestrian facilities, private and public parks, open space, social spaces, architectural style, ecological systems, etc;
12. Create an authentic sense of place derived from the historic context of the area and requiring implementation

through design, form/pattern, and architectural standards;
13. Define development, design, form/pattern, and architectural standards including intensity and density minimums and maximums;
14. Define street types and minimum cross-section standards; and
15. Define a unified lighting and signage program.

Section 1.4 Applicability

1.4.1 Applicability

The William Burgess Context and Connectivity Blueprint (WB CCB) is the Nassau County adopted public policy which implements Policy FL.02.05, the William Burgess Mixed-use Activity Center Overlay District. The provisions defined in the WB CCB are applicable to all lands within the boundary of the William Burgess Mixed-use Activity Center Overlay District as defined in Comprehensive Plan Policy FL.02.05. The use of the terms 'William Burgess District (WBD)', 'the District', 'the Overlay', shall have the same meaning as the William Burgess Mixed-use Activity Center Overlay District. Further the terms, "this document", "this plan", "this code", "these regulations" or the "WBD design guidelines" throughout this document have the same meaning as the William Burgess Context and Connectivity Blueprint. The boundary of the WBD is shown graphically in Figure 1.1 William Burgess District Boundary, on Page 2.

Chapter 4 of the WB CBB provides for a more narrowed statement of applicability governing individual site design standards, architectural standards, and other regulatory controls.

Section 1.5 Planning Process & Public Engagement

1.5.1 Introduction

Public engagement is the key to creating a policy which implements the community's vision. In addition to the public engagement conducted during the drafting of the 2032 Vision Plan and adoption of the 2030 Comprehensive Plan, the planning process for the WB CCB included, three community meetings, twelve publicly noticed workshops, four noticed public hearings, community surveys, and countless one-on-one meetings/conversations with individual property owners, industry groups and development entities with stake in the WBD. In addition to the citizen engagement conducted, County staff engaged the North East Florida Regional Council, St. Johns River Water Management District, Florida Department of Transportation, Florida Department of Health, Nassau County School Board, Florida State College at Jacksonville Board of Trustees, Nassau County Economic Development Board Executive Director and others during the creation of the WB CCB.

1.5.2 Public Input and the Plan Development Process

Nassau County PEO staff held two open house events prior to the creation of this document. To invite the public to these meetings, PEO staff direct mailed 823 flyers to property owners within the WBD boundary, handed out flyers at Western Nassau Heritage Preservation outreach events, posted event information on the County website and Facebook page, posted flyers at county offices and Florida State College at Jacksonville (FSCJ) in Yulee, sent out emails to interested parties and stakeholders, and mentioned the meetings at televised BOCC public meetings. After a working draft of the WB CCB was created, PEO staff hosted an additional open house using the same advertising techniques.

The Nassau County Department of Planning and Economic Opportunity offered a variety of ways for the public to stay informed and participate directly during the development of this plan. These included:

- Open Houses
- Planning and Zoning Board Workshops
- County webpage dedicated to the William Burgess District
- Board of County Commissioners Meetings
- Inter-agency meetings
- One-on-one meetings with property owners and stakeholders in the William Burgess District

In addition to using the Vision 2032 Plan as a basis for this plan, PEO staff created questionnaire-based surveys to solicit feedback from the community. Overall, 1,639 individual data points were collected from the questionnaire-based surveys. The survey results are detailed in Appendix A. The surveys were structured to determine what residents/property owners wanted the future of the community be as it related to six categories: live, work, play, archaeology and history, natural features and ecology, and visual preferences. A brief synopsis of the results are listed below:

1. Live - It important for residents to have close healthcare options and elderly care for families, community-based social events and groups, close proximity to parks, recreation, grocery stores, retail, and restaurants - preferably within walking or biking distance, and access to public water and sewer.
2. Work - Residents want opportunities to find a high paying wages in Nassau County, to attract high wage employers, and have more employment opportunities . They wanted their jobs close enough to walk or bike to.
3. Play - Results show that residents want opportunities to recreate close to home, whether it be private or public recreation facilities. They also want opportunities to access entertainment centers and experience cultural arts. Access to the Nassau River and its tributaries was a top priority.
4. Natural Features & Ecology - Residents strongly support directing growth to suitable areas while leaving ecologically sensitive zones natural, preserving wetlands, protecting streams, marshes, aquifers, and forests. They want to have access to public waterways, state forests, and use these resources to promote Eco-tourism. Floodplain management was a common theme heard by both long-time residents and new residents.
5. History & Archaeology - Residents want to preserve the heritage and history of the area. They want to preserve sites and buildings of historic significance, and have access to museums and cultural resources.
6. Based on the results of the visual preference survey, residents support more mixed-use, traditional design at a human scale. The survey showed a priority on bicycle and pedestrian facilities, and open spaces/parks for recreation and access to the river.

The WB CCB took into account the results of the survey, the Vision 2032 Plan, and the 2030 Comprehensive Plan when drafting this document.

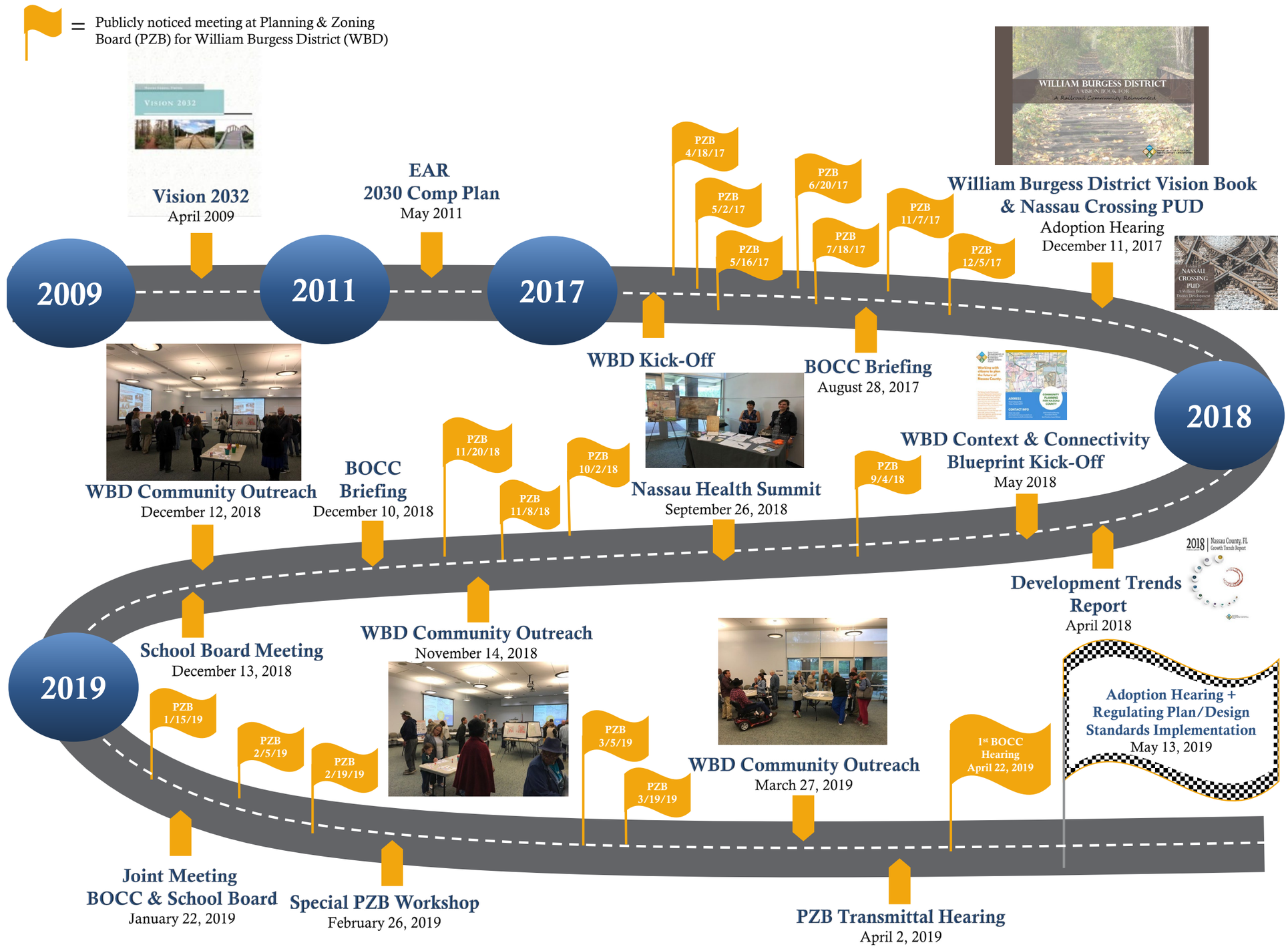

Figure 1.2 The William Burgess District Road Map to Adoption
This figure maps out the adoption process for the William Burgess District. This plan will implement key components of the Vision 2032 Plan and the EAR 2030 Comprehensive plan.

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2. Why Plan

A holistic approach to quality-of-life...

Section 2.1 Introduction

Despite adoption of the Final Report of the Vision 2032 Plan in 2009, Yulee, outside of the East Nassau Community Planning Area (ENCPA), has continued to grow without a vision or an overall plan. As a result, development in Yulee followed the dominant pattern of growth across Northeast Florida; a low-density, suburban scale development pattern which places a priority on facilitating (designing for) the automobile and segregating land uses (development types) through application of Euclidean zoning principles (separating uses by zoning districts). This automobile-oriented approach to land use planning and segregation of land uses resulted in:

- A lack of historic context and sense of place;
- Inefficient strip commercial corridors and low-density, sprawling sub-urban scale residential developments with no interconnectivity and a complete dependency on the automobile;
- A spatial mismatch (locational mismatch) between where people live, where they work, and where they access service, retail and entertainment opportunities;
- Lack of adequate civic facilities such as parks, schools, and libraries;
- Lack of adequate public infrastructure such as roads and availability of public water and waste water;
- Lack of a social/cultural nucleus - an identifiable place that serves as the epicenter of communal life (Places where people gather voluntarily and for no predetermined purpose, like Centre Street in Fernandina Beach).

For decades, Yulee has been largely relegated to being the land area people drive through to get from Interstate 95 to Amelia Island or, the bedroom community supporting jobs, retail and entertainment in Duval County. This development pattern has led to increased dependency on the single occupant automobile, longer vehicular travel times (longer time sitting in traffic), limited mobility alternatives, an over-burdening of existing civic facilities, an over-reliance on residential-based ad valorem tax revenue, and a built environment that lacks historic context and sense of place. Without thoughtful and comprehensive intervention, the current pattern of development will be replicated within the WBD and the deficiencies currently experienced in the greater Yulee community will be exacerbated. More importantly, **Nassau County will have failed to implement the citizen created and adopted vision - the Vision 2032 Plan.**

As the path forward is considered, we must remember that the built environment (buildings, roads, parks, etc.) is not the 'community' but rather the instrument that either facilitates or impedes the creation of community. In this context, community is not something you can touch but rather the relationships formed between people who live, work and play in a defined geographical area (like the area along the William Burgess Corridor) as they jointly pursue a shared vision. As such, it is important that we design and/or retrofit our neighborhoods, towns, and civic/social spaces in a manner that encourages people to interact with one another in public settings as a means of facilitating their pursuit of shared goals. As Lewis Mumford stated, **"…today we must treat the social nucleus as the essential element in every valid city plan…".** In other words, prioritize people in the planning process.

Section 2.2 Existing Regulatory Framework

The Nassau County 2032 Vision Plan and 2030 Comprehensive Plan are living documents created and adopted by the citizens of Nassau County. The two plans, collectively, are intended to guide public policy over the course of the defined planning horizon. The William Burgess Context & Connectivity Blueprint (WB CCB) is the regulatory instrument to implement the adopted public policy defined in the 2032 Vision Plan and 2030 Comprehensive Plan for the WBD. It is the intent of Nassau County that the WB CCB addresses the applicable elements of each plan, implement the defined goals, objectives, and strategies of the Vision 2032 Plan, and, most importantly, memorialize a planning paradigm that is people-centric and vision driven.

2.2.1 The Nassau County Vision 2032 Plan [See Appendix P]

Vision 2032 Statement:
Nassau County is committed to managing growth and creating sustainable economic development in a way that maintains and improves the quality of life and unique character of the communities by utilizing its strengths – the people, the abundance of unspoiled natural resources, and its strategic location as the "Eastern Gateway to Florida."

In 2009, Nassau County adopted the Vision 2032 Plan as a practical guide to public policy formation. The community recognized that population expansion in Nassau County was inevitable and if proactive measures were not taken the overall quality of life would suffer.

The plan identified 11 topic areas grouped into three main categories:

1. Quality of Life:
   - Economy & Workforce
   - Cultural Opportunities & The Arts
   - Education & School Facility Plan
   - Healthcare & Social Services
   - Recreation & Open Space
2. Infrastructure & Growth Management
   - Infrastructure
   - Growth Management
   - Environment
   - Tourism
   - Public Safety
3. Governance and Leadership
   - Governance

For each category, individual 'Issue Areas' were identified and goals, objectives and strategies were defined. The goals, objectives and strategies defined in the Vision 2032 Plan capture thoughtful concerns and practical solutions that are as relevant in 2019 as they were in 2009. The public sentiment and feedback expressed in 2009 mirrors the feedback received during the 2018/2019 public outreach sessions conducted for the creation of the WB CCB and the Western Nassau Heritage Preservation Project. The results of the 2018/2019 public outreach affirmed the validity of the Vision 2032 Plan and its basis for use as the foundational document for creation of public policy in the form of the WB CCB.

From the Vision 2032 Plan (2009);

"Yulee, the fastest growing and urbanizing area of the County: Next to Growth Management, Infrastructure and the Economy and Workforce were identified as the most important issues with Recreation and Open Space following closely. This reflects the concerns of residents in rapidly urbanizing areas over road congestion, strip urban development, overcrowding of schools, and the difficulty of keeping up with the demands for facilities, including recreation and open space."

2.2.2 Nassau County 2030 Comprehensive Plan

2.2.2.1 2030 Comprehensive Plan Policies

The Vision 2032 Plan informs and directs amendments to the 2030 Comprehensive Plan. The 2030 Comprehensive Plan incorporates various elements that set overarching public policy for Nassau County. These Elements are: Transportation, Recreation and Open Space, Public School Facilities, Public Facilities (Water, Sewer, Stormwater Management), Economic Development, Housing, Conservation, Coastal Management (Hazard Mitigation, Water Dependent Uses), Future Land Use, Regional Coordination, and Capital Improvements. Table 2.1 shows the elements, objectives, and policies of the 2030 Comprehensive Plan which support the William Burgess District Plan. This table is provided as a reference and is not intended to be all inclusive. Refer to the adopted 2030 Comprehensive Plan for the inclusive policies.

ELEMENT	OBJECTIVES	POLICIES
Transportation - Goal: Promote multi-modal transportation for the safe and efficient movement of people and goods	T.02	All
	T.03	All
	T.04	All
	T.05	All
Recreation and Open Space - Goal: Provide and maintain sufficient public parks, recreation facilities, and open space to meet the recreational needs of County residents and visitors.	ROS.01	01.04, 01.05, 01.12, 01.17
	ROS.02	All
	ROS.03	All
Public School Facilities - Goal: Work closely with the Nassau County School District to ensure a high quality, fiscally sound public school system which meet the needs of Nassau County's population by providing and maintaining adequate public school facilities for both existing and future populations.	PSF.01	.04
	PSF.02	All
	PSF.03	All
	PSF.04	All
Public Facilities Element - Water - Goal: Provide public potable water supply facilities in a manner, which ensures the health, welfare and safety of the residents of Nassau County; promotes compact, efficient development; reduces urban sprawl; protects and conserves natural resources; and satisfies the requirements of sound fiscal planning.	WAT.03	All
	WAT.05	All
Public Facilities Element - Sewer - Goal: Provide public sanitary sewer facilities in a manner, which ensures the health, welfare and safety of the residents of Nassau County; promotes compact, efficient development; reduces urban sprawl; protects and conserves natural resources; and satisfies the requirements of sound fiscal planning.	SEW.03	All
Public Facilities - Stormwater Management - Goal: Provide public stormwater management facilities in a manner which ensures the health, welfare and safety of the residents of Nassau County; protects and conserves natural resources; and satisfies the requirements of sound fiscal planning.	STM.03	All
	STM.04	All
Economic Development - Goal: Create and implement an economic development strategy focused on the retention, expansion, and relocation of high wage jobs and targeted businesses.	ED.05	.02
Housing - Goal: Assist private side and maintain an adequate inventory or decent, safe and sanitary housing in suitable neighborhoods at affordable costs.	H.08	All

Conservation - Goal: Conserve, and protect and enhance the natural resources that are important to the economy, health, and quality of life of County residents, ensuring that adequate resources are available for future generations.	CS.01	.03
	CS.02	All
	CS.03	All
	CS.08	All
Coastal Management - Goal: Promote the responsible management of its coastal area, balancing the provision of water-dependent and water-related uses with the protection of life and property from natural disasters and the preservation of natural resources.	CEV.03	All
	CEV.06	All
Coastal Hazard Mitigation - Goal: Promote the responsible management of coastal areas, balancing the provision of water-dependent and water-related uses with the protection of life and property from Natural Disasters and the preservation of natural resources.	CHZ.05	All
	CHZ.06	All
Coastal Management, Water Dependent Uses - Goal: Promote the responsible management of its coastal area, balancing the provision of water dependent and water-related uses with the protection of life and property from natural disasters and the preservation of natural resources.	WDU.02	All
Regional Coordination - Goal: Establish effective relationships among the various governmental and non-governmental organizations in the Northeast Florida region to preserve and enhance the quality of life and ensure the efficient use of available resources.	RC.01	All
	RC.02	All
	RC.04	0.5, 0.7
Capital Improvements - Goal: Based on the premise that existing taxpayers should not have to bear the financial burden of growth-related infrastructure needs, ensure the orderly and efficient provision of infrastructure necessary to serve existing and future populations and development in a manner that creates a fiscally sustainable community.	CI.01	All
	CI.04	All
	CI.05	All
	CI.06	.02
	CI.08	All
Future Land Use - Goal: Effectively manage growth by encouraging and accommodating land uses which create a sound revenue base and offer diverse opportunities for a wide variety of living, working, shopping, and leisure activities, with minimum adverse impacts on the natural environment.	FL.02	.05
	FL.04	All
	FL.05	All
	FL.06	All
	FL.08	All
	FL.09	All
	FL.13	.01, .03, .05, .06, .07

Table 2.1 Comprehensive Plan Policies Supporting William Burgess District

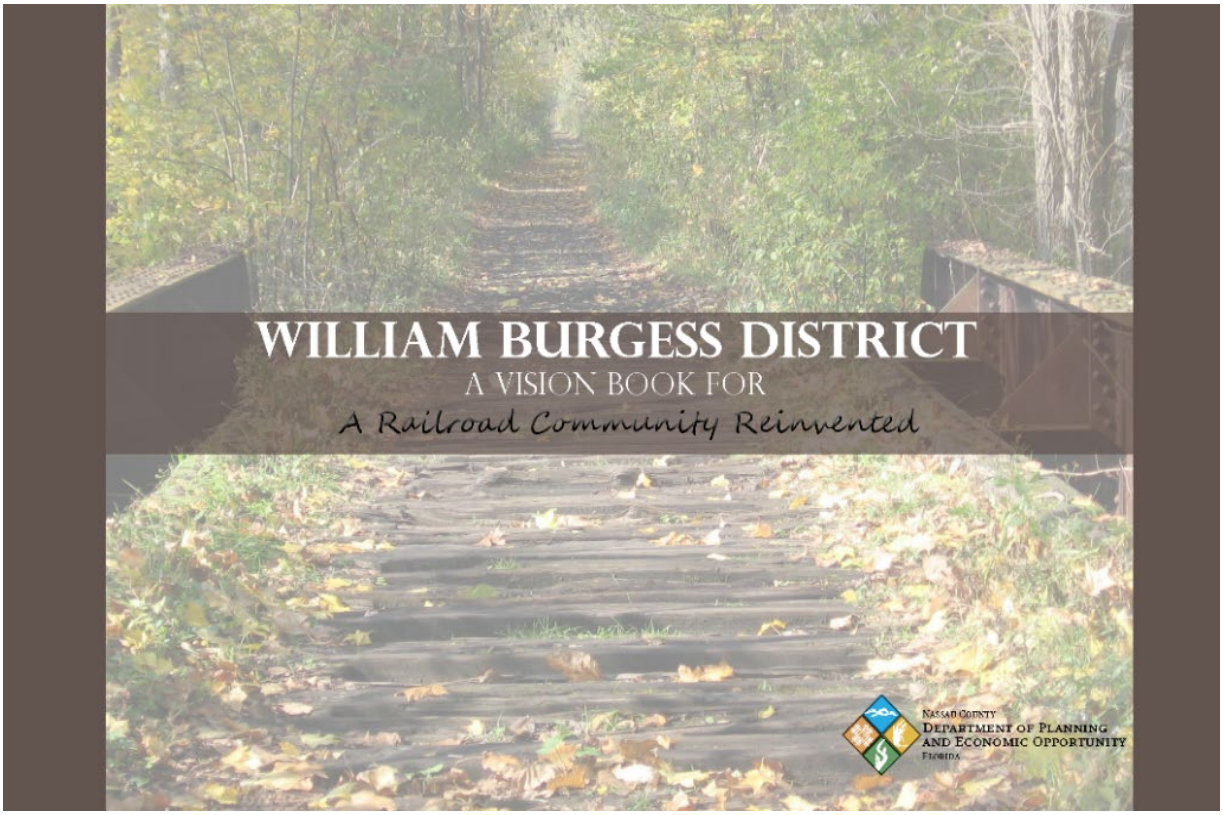
2.2.3 Previous Regulatory Framework for William Burgess District

As described in the introduction of this plan, initial efforts to implement best community planning practices along the William Burgess Boulevard Corridor commenced in January of 2017. These initial efforts centered around a critical area of approximately 500 acres located near the intersection of William Burgess Blvd., US Hwy 17 and a CSX railline. Those efforts culminated in the creation of the WBD in December of 2017. In May of 2018, efforts broadened to expand the boundary of the WBD and incorporate the entirety of the approximate 5,263 acre land area defined in this plan. As such, to avoid confusion, this section describes the historic regulatory framework of the original approximately 500 acre planning area known as the WBD.

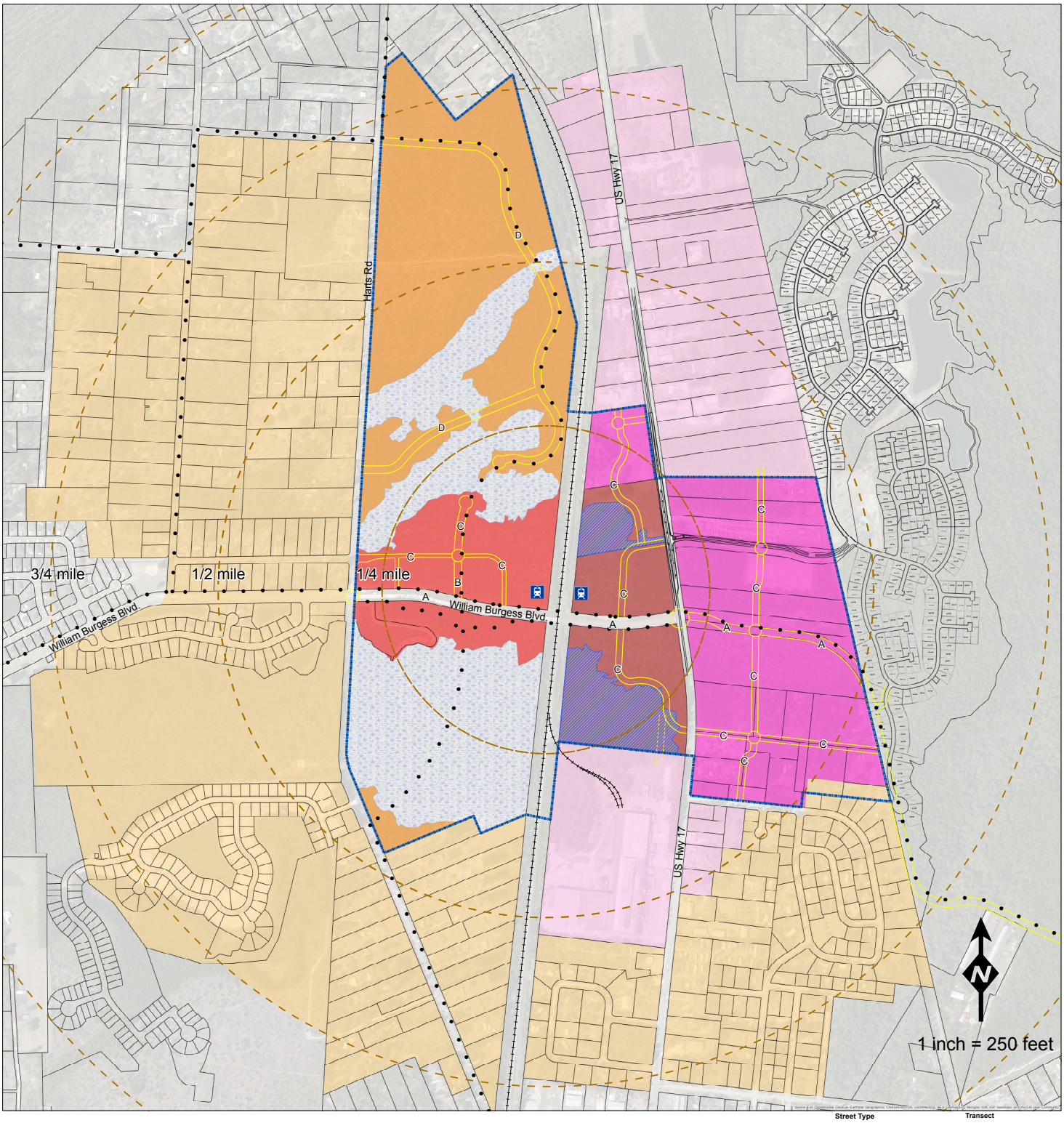
The previous regulatory structure of the WBD, The William Burgess District Vision Book, was adopted by Ordinance 2017-41 by the Nassau County the Board of County Commissioners on 12-11-2017. The WBD Vision Book, in its entirety, previously served as the implementation vehicle of the William Burgess Activity Center Overlay District as provided for in Policy FL.02.05 of the 2030 Comprehensive Plan. The WBD Vision Book, as previously adopted, included regulatory standards for development within the WBD.

Among the governing regulations defined in the WBD Vision Book was a provision which allowed properties within the WBD to choose to develop according to the existing zoning classification and Future Land Use Map (FLUM) designation, subject to the WBD supplemental design guidelines and other parameters defined in the WBD Vision Book, or rezone the property to Planned Unit Development (PUD). At the time, Policy FL.02.05 provided for an increase in both density and intensity standards for development within the WBD if a property rezoned to a PUD. Furthermore, the WBD Vision Book provided that no rezoning application within the WBD would be approved unless the request was to PUD and the application demonstrated consistency with the WBD Vision Book. In addition, no FLUM amendment applications would be processed except in conjunction with an application for a PUD and a demonstration that the FLUM amendment requested was consistent with the WBD Regulating Plan.

While the adoption of this plan, the William Burgess Context and Connectivity Blueprint (WB CCB), has caused the WBD Vision Book to be rescinded in its entirety and superseded by the provisions of the WB CCB, the WBD Vision Book remains an integral piece of reference material, especially for the Crossings Village Center, and is included as Appendix J of this plan. One PUD, Nassau Crossings - Ordinance. 2017-42, was approved consistent with the WBD Vision Book and previous standards of Policy FL.02.05. Except for the William Burgess Boulevard cross-sections, nothing within the WB CCB or the amended Policy FL.02.05 shall supersede any provision defined in the Development Order for the Nassau Crossing PUD, as adopted 12-11-2017.



2.2.4 Previous Regulating Plan for William Burgess District



William Burgess Mixed-Use Activity Center Overlay

Regulating Plan

June 28, 2017 - Update

Nassau County
Department of Planning
and Economic Opportunity
Florida

William Burgess Mixed-use Activity Center Transect Acreages

Existing	Potential
35 acres - Core 1	137 acres - Future Center
17 acres - Core 2	501 acres - Future Edge
86 acres - Center	
88 acres - Edge	638 acres - Total
79 acres - Conservation	
305 acres	

0 250 500 1,000 1,500 2,000 2,500 Feet

Street Type		Transect
A	Boulevard	Core - 1
B	Main Street	Core - 2
C	Commercial Street	Center
D	Naieghborhood Street	Future Center
	Multi-use Trail Spine	Edge
	William Burgess A.C. Boundary	Future Edge
	TOD Concentric Rings	Conservation
	CSX Rail Line	South Parcel Wetlands
	New Roadways	Commuter Rail Station

Section 2.3 Development Trends

2.3.1 General

Urban Sprawl

Urban sprawl is a pattern of uncontrolled or semi-controlled development around the periphery of a city that is an increasingly common feature of the built environment in the United States and other industrialized nations (Resnik, 2010 p. 1852). To a lesser and greater extent, Florida communities and metropolitan regions face a number of challenges, many of which can be attributed to sprawling low-density, auto-dependent development patterns caused by the outward expansion of sub-urban scale development on the urban fringe and the correlating strip commercial corridors radiating out from the States' historic city cores and coastal areas. In addition to contributing to the erosion of communal life, placing local governments in fiscal peril, and, more and less, degrading quality-of-place and general quality-of-life, there is substantial evidence that urban sprawl has negative effects on human health and the environment in the form of air and water pollution, deforestation, loss of environmentally sensitive lands, wildlife habitat fragmentation and loss of agricultural lands (Resnik 2010 p. 1853).

Post-World War II America

In post-World War II United States, the flight from historic city cores to the 'suburbs' set a course for sprawling, low density development patterns to dominate the US landscape for the following three-quarters of a century (Resnik, 2010, p. 1852). This change in development patterns across the US was no historic accident, but rather the direct result of a number of public policies that encouraged existing populations to leave urbanized areas. The two most significant were the Federal Housing Administration and Veterans Administration loan programs in the years following World War II. Concurrent with these two programs, the US embarked on a 41,000-mile interstate highway program that was coupled with federal and local subsidies for road improvements (Duany, 2000, p. 8). The prevalence of cheap fossil fuels, mass produced automobiles, government backed mortgages and a brand new interstate system made commuting affordable and allowed families to make financially rational decisions to enter suburbia (Duany, 2000, p. 8).

Florida Specific

Florida was not immune to the impacts of these national policies in the post-World War II era. In 1950 Florida had a population of 2,771,305. By 2017 that number proliferated to 20,484,142 making Florida the third most populated state in the Union with no sign of population expansion slowing in the near term. According to the 2070 Project, included as Appendix C of this plan, by 2070 Florida's population is expected to reach 33.7 million . More troubling, models predict that if Florida continues along the current development trend more than one-third of Florida will be fully converted from rural to urban by 2070 causing water demand to double over the same period. The Northeast Florida region specifically stands to lose an alarming amount of natural area and agricultural lands by 2070. It is estimated that roughly a third more of northeast Florida lands will be developed by 2070. This is due mostly to current sprawling development patterns coupled with almost a two-fold increase in population in the region between now and 2070.

Opposition to Principles that Combat Sprawl

Although there is considerable evidence that urban sprawl [low density development patterns] has adverse effects on public health and the environment, among others, policy frameworks designed to combat sprawl ... have proven to be controversial, making implementation difficult (Resnik 2010 p. 1852). One of the main difficulties obstructing the implementation of smart-growth policies is the considerable controversy these policies generate. Such controversy is understandable given that stakeholders affected by urban-planning policies have conflicting interests and divergent moral and political viewpoints (Resnik 2010 p. 1852). Further complicating the matter in Florida, efforts taken by the State over the past 25 years to curb the impacts of unregulated growth have come with mixed results, at best. Florida's transportation concurrency system is an example of a growth management policy with good intent resulting in unintended consequences detrimental to local environs. Tom Pelham (2010), former Secretary of the Florida Department of Community Affairs, stated that over a twenty-five year period, the system produced unexpected and troubling results. Focused on roadways and automobiles, the system not only failed to produce a sustainable transportation system, but it also contributed to the proliferation of urban sprawl by, in essence, penalizing in-fill development and encouraging greenfield development through significantly reduced regulatory oversight and lower development costs.

Practicality and Local Context to Move Forward

While historically Nassau has been a predominantly rural community, rapid urbanization over the past 20 years, especially in Eastern Nassau County, has reshaped the community. Eastern Nassau County includes vibrant urban

areas, eclectic historic districts, ultraluxe ocean-side resorts, 'A' graded schools, and, as customary to the mainland areas of many Florida coastal communities, areas of rampantly sprawling post-WWII automobile-oriented suburban scale development. Also customary to other coastal communities on the east-coast of Florida, urbanization in the areas of the County east of Interstate 95 have brought urban problems not previously experienced by the local jurisdiction.

As Nassau County enters an era that is predicted to bring about population expansion at a rate not previously experienced by the community, failure to acknowledge and address the impacts of low-density, auto-oriented development patterns will result in significant adverse impacts on the County's social, environmental, fiscal, and personal wellbeing. Deterring the proliferation of the dominant development pattern over the past twenty years and promoting sustainable development patterns and design techniques is paramount to protecting quality-of-place and quality-of-life for the citizens of Nassau County. Further, it is the responsibility of current caretakers to take proactive measures that ensure future generations are provided a solid civic, social and fiscal foundation whereon they can succeed. More importantly, it is the responsibility of Nassau County to set public policy that implements the goals of the citizen-driven and locally adopted 2032 Vision Plan.

2.3.1.1 County-wide Population And Projections

The data used in this analysis was based on the 2018 Growth Trends Report published by the Nassau County Department of Planning and Economic Opportunity in April 2018, data from the Florida Bureau of Economic and Business Research (BEBR), the 2018 ULI Western Nassau TAP final report, and the 2070 Project-Florida 2070 jointly published in 2016 by the University of Florida, 1,000 Friends of Florida and the Florida Department of Agriculture and Consumer Services. The referenced reports are included in Appendix B, C and D of this plan.

According to the BEBR, over the last eighteen years, 2000-2018, Nassau County's population has expanded by forty-three (43) percent: an increase from 57,663 people in 2000 to 82,676 people in 2018. BEBR projects that over the coming twenty-seven years, 2018-2045, Nassau County could experience a population expansion of an additional seventy-nine (79) percent: an increase from 82,676 people in 2018 to 147,600 people in 2045. However, analyzing BEBR projections alone does not capture the totality of regional and State drivers/variables that have the potential to influence population expansion in Nassau County. As part of the 2018 Growth Trends Report prepared by Nassau County, County staff analyzed Northeast Florida's regional drivers and factors at-play within the Jacksonville Metropolitan Statistical Area (MSA) impacting Nassau County. This included analyzing the historic growth patterns of St. Johns County, Clay County, Flagler County and to a lesser extent Volusia County. County Staff also analyzed State-wide growth and development projections.

Looking beyond the 2045 planning horizon of the WB CCB and analyzing Nassau County not only within a regional context but also in relation to the State of Florida, the projections for Nassau County's population expansion in year 2070 are staggering. According to the 2070 Project-Florida 2070, Florida's population is predicted to swell from 20,484,142 to 33.7 million people. In particular, the Northeast region of the State is projected to experience an eighty-five (85) percent increase in population from 2.3 million people in 2010 to 4.3 million people in 2070. By percent of population change, the Northeast Florida region is second only to the Central Florida region which is predicted to expand by ninety-two (92) percent.

According to the 2070 Report-Florida 2070, the Northeast Florida region specifically stands to lose an alarming amount of natural areas and agricultural lands by 2070. The correlating population expansion will result in roughly a third more of Northeast Florida lands to be developed by 2070. This is due mostly to current sprawling development patterns coupled with almost a two-fold increase in population predicted in the region. **The most dramatic changes are evident along the east coast** and in Marion, Lake and Sumter counties. **This is largely due to the significant population increase projected for these counties and their relatively low development densities.**

When the analysis conducted at the State level is combined with the more granular analysis conducted by the Nassau County Department of Planning and Economic Opportunity (PEO), it becomes evident there are certain probabilities that **Nassau County must accept as a baseline consensus in order to prudently prepare for the future**:

1. The State of Florida's population is going to expand;
2. Northeast Florida region will receive a disproportionate share, by percent growth, of the population expansion and related urbanization;
3. Within the Northeast Florida region the areas along the east coast are predicted to receive a larger percent of growth;
4. Juxtaposed to the City of Jacksonville and coupled with the lack of developable lands along Florida's east-coast, it is reasonable to assume Nassau County will take a greater share of the population expansion and related urbanization in the Northeast Florida region;

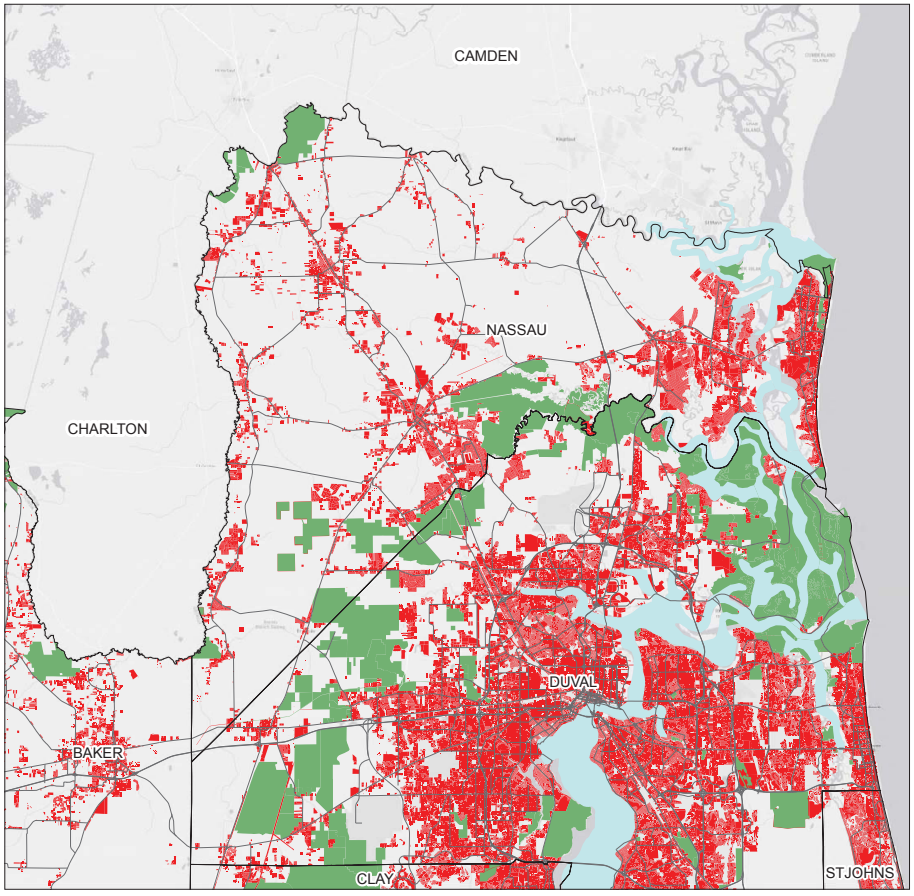
5. Nassau County's population is going to expand whether the County desires the expansion or not. As the population expands so will the level of urbanization (stores, roads, schools, etc) needed to support the expanding population base;
6. A seventy-nine (79) percent population expansion over the next 27 years is, more likely than not, a conservative estimate;
7. Nassau County is not currently prepared to responsibly handle the projected population expansion;
8. It is 100% the responsibility of Nassau County citizens and leaders to take proactive measures to prepare for growth. No State, federal, or regional entity/group has the authority or ability to take the necessary measures.

Consistent with key findings of The 2070 Project - Florida 2070 and Nassau County's analysis, **the following must be acknowledged**:

1. Land is a finite resource. The single most important finding is that even modest increases in development densities can result in substantial savings of land. These increases in residential densities must be paired with measures that identify lands to remain in agricultural production or be safeguarded from impacts of development to ensure natural ecosystem services, on which humans depend, are protected.
2. If gross densities are increased, there is sufficient land to accommodate growth while also providing protection for agricultural lands, natural areas and civic facilities.
3. Even with requiring higher gross development densities, it is possible to have a wide variety of housing types including single family detached residential products through the use of compact community and traditional design techniques.
4. There are clear fiscal advantages to more compact development patterns. These include lower costs to the public for utilities, roads, drinking water, stormwater management and sewage treatment. Compact development patterns also permit greater diversity of land-uses and transportation options and can save individuals time and money otherwise spent commuting or waiting in traffic.
5. Nassau County is empowered with setting public policy and making land use change decisions and must consider the long long-term impacts of decision making. This is imperative because, while the cumulative effect of small land use changes may seem minor in the short term, over time these incremental changes will shape the future landscape of Nassau County.
6. Land conservation, through fee-simple acquisition, conservation easements and regulatory control, is essential to protecting natural ecological functions such as storm-water management and floodplain functionality, and preservation of working agricultural lands as Nassau County's population grows.

Below are strategies consistent with recommendations of the American Planning Association, Urban Land Institute, the 2070 Project-Florida 2070, and Nassau County PEO staff which are applicable to all lands in Nassau County and are being applied to the WBD via the WB CCB:

1. Prepare for inevitable growth. Identify places Nassau County wants to protect from potential negative impacts of future development. Identify where Nassau County, as a community, wants to focus growth;
2. Protect significant historic and natural areas within communities and determine ideal characteristics of places where growth is directed. Support infill and redevelopment in a manner that is sensitive to existing communities and embraces unique character;
3. When new areas are developed, prioritize to those near existing communities and infrastructure;
4. Promote a mixture of homes, shops, schools, parks, and offices within close proximity to one another;
5. Include a range of housing choices and promote public policy that considers housing affordability;
6. Design for multiple transportation options, including walking, biking and public transportation;
7. Protect vital conservation, agricultural and other working lands including greenways and ecological corridors that protect wildlife habitats, preserve natural ecological functions and provide recreational opportunities;
8. Establish incentives and regulatory controls that increase funding to help landowners conserve important agricultural lands and other working landscapes;
9. Plan for future schools, parks, transportation corridors, public water/waste water service and other public facilities and infrastructure.
10. Above all else, put people first in the planning process and consider the long-term implications on the day-to-day life of current and future residents.



Existing Development Baseline

Updated on: February 20, 2018

Legend

- Developed Lands*
- Protected Lands**

*Developed Lands were selected from 2015 parcel data retrieved from the Florida Geographic Data Library.

**Protected Lands were selected from the Florida Geographic Data Library's Florida Managed Areas data layer.

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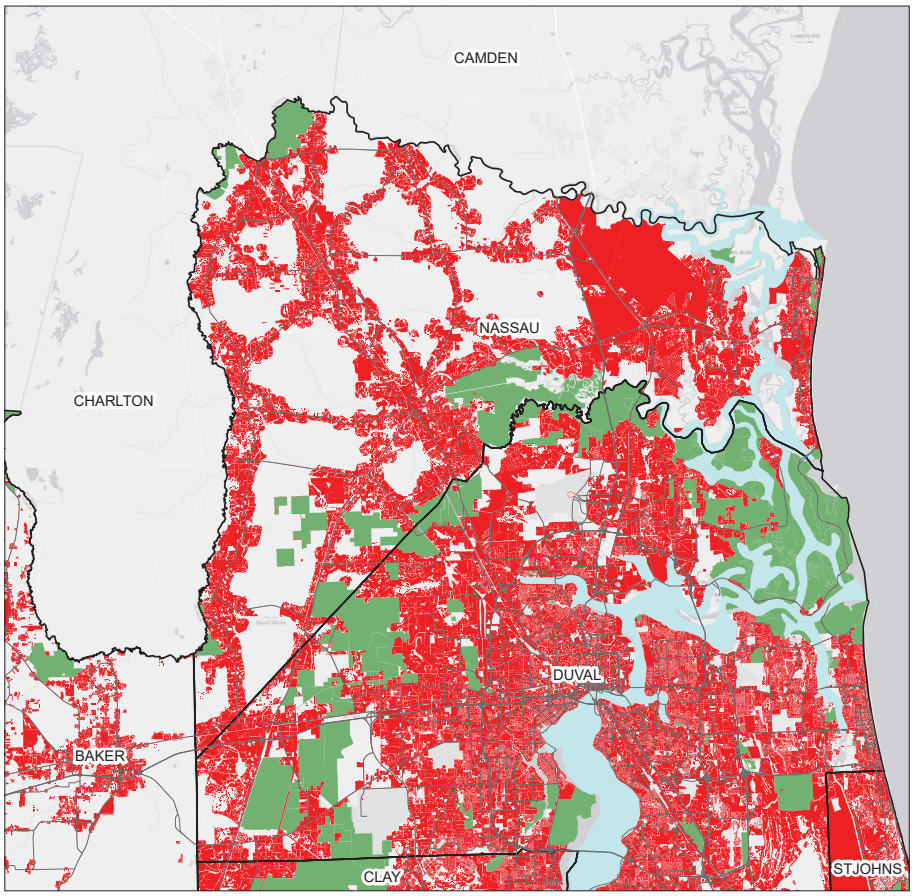
Figure 2.1 Existing Development Baseline



2070 Development Trend Scenario

Updated on: February 20, 2018

Legend

- 2070 Trend Scenario Developed Lands*
- 2070 Trend Scenario Protected Lands*

*Source: Layers for Protected and Developed Lands were obtained from the Florida Geographic Data Library. These projections were created as part of the Florida 2070 Project, a joint effort between 1000 Friends of Florida, The Department of Agriculture and Consumer Services (DACS), and the University of Florida's GeoPlan Center.

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0 5 10 20 Miles

Figure 2.2 2070 Development Trend Scenario

2.3.1.2 William Burgess District Development Scenarios

The previous sections, in concert with the referenced appendices, of this report analyzed growth projections for the State of Florida, how those projections impact the Northeast Florida region, and then how regional drivers specific to the Jacksonville MSA will impact Nassau County. This section analyzes internal regions of Nassau County and takes a more granular look at Eastern Nassau County, specifically, the 5,265 acre WBD. The purpose of this section is to briefly describe current and projected growth patterns within Nassau County, analyze development alternatives for the WBD, the correlating impacts to the remainder of the County, and demonstrate a need to increase the overall residential density permitted within the WBD as a means of furthering the expressed goals and intent of the Vision 2032 Plan.

It is the goal of the WB CCB and the related Transect Based Scenario to capture 15-25% of the expected population growth in Nassau County between 2019 and 2045 within the WBD. The development standards contained in the WB CCB provide safeguards to ensure that population expansion will progress in a responsible manner that promotes a strong jobs-to-housing balance ratio along with a high quality-of-place and high quality-of-life which, as recognized by the Florida Chamber of Commerce in their adopted Six Pillar's of Florida's Future Economy, are foundational elements of creating vibrant communities that can compete regionally and globally for finite human capital and promote long-term fiscal stability.

Nassau County PEO has analyzed four development scenarios for the WBD: 1) Potential Greenfield Scenario, 2) Existing Future Land Use Map (FLUM) Based Scenario, 3) Amelia Concourse Analogue Scenario, and 4) Transect Based Scenario. This section includes only a summary of findings. The related data, mapping and analysis of each scenario can be found in Chapter 5, Appendix E of this plan.

Summary of findings:
It is the intent of Nassau County to direct growth to strategic locations and mitigate potential adverse impacts of unregulated population expansion and related sub-urbanization. Nassau County is projected to experience an 80% increase in population over the horizon of this study, 2045. It is the intent of Nassau County to establish density and intensity standards sufficient to provide for a healthy mix of housing types at various price points, support retail, service, entertainment and employment opportunities embedded within the community, create a more sustainable environment to provide public infrastructure, services and facilities, maintain a healthy jobs-to-housing balance ratio, and, most importantly, create vibrant socially engaged communities that are people-centric and programed to be work, live, play and stay communities. The Transect Based Scenario is the only development scenario analyzed as part of the WB CCB that has the capacity, if implemented via the standards of the WB CCB, to achieve the goals and objectives of the Vision 2032 Plan and 2030 Comprehensive Plan.

While initial drafts of the Transect Based Scenario included a higher minimum density standard, concern was raised that requiring too high of a minimum density at the on-set of the project could adversely impact much needed initial private capital investment within the WBD to spur development of the more critical, long-term priorities of the WBD. Moving in a direction that acknowledges a minimum amount of residential density is required to activate a village center and produce a development pattern that is not auto-dependent and is capable, over the long-term (2045 planning horizon), of being self-sufficient is a monumental step forward in land-use planning for the jurisdiction and citizens. It is also important to note that this plan is a living document that should be reviewed and updated as needed. As part of a future review of the WB CCB, the minimum density standards can be increased if determined necessary to implement the WB CCB as defined by the purpose and intent of this plan.

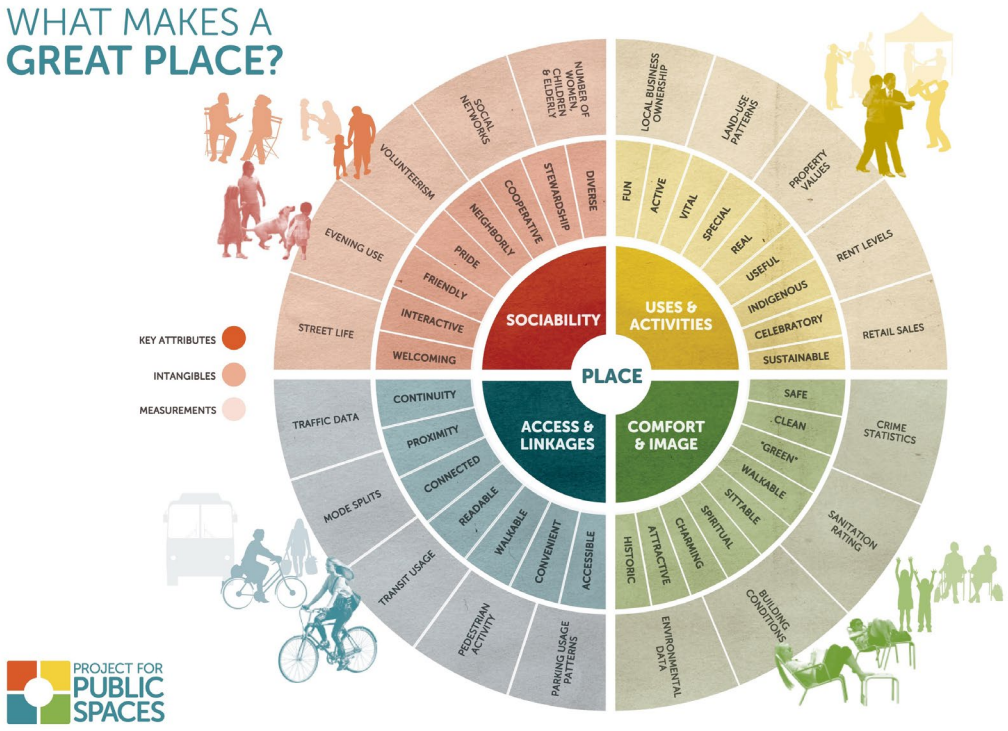
Nassau County must choose where to direct growth, define how that growth will be delivered, and create public policy that ensures the civic facilities and public infrastructure are provided to accommodate that growth. Based on the totality of analysis and research conducted as part of the WB CCB, the WBD is not only an area where the market is naturally directing growth but, is also a sub-region of the County that, if executed in accordance with the parameters defined in the WB CCB, should be adequately planned and prepared to capture a significant percentage of the projected growth between 2019 and 2045 and serve as a means to implement the expressed goals of the 2032 Vision Plan and 2030 Comprehensive Plan. Based on the analysis performed as part of the WB CCB, the Greenfield Development Scenario, Existing FLUM Based Scenario, and Amelia Concourse Analogue Scenario will perpetuate the low density, single use development pattern which has been predominate in Nassau County over the preceding decades and stands in contradiction to the expressed goals of the 2032 Vision Plan.

Section 2.4 Placemaking

The WBD is designed to be a place where people live, work, play, and stay. Placemaking is key to creating a community where people want to be. It is a mechanism which helps to design a community that meets the needs of its citizens, from social, to educational, recreational, accessible, and affordable. It provides the day to day services needed from shopping, to medical, service establishments, and care facilities. A great place incorporates sociability, uses and activities, access, and comfort for its residents. The William Burgess District aims to be a great place.

"As both an overarching idea and a hands-on approach for improving a neighborhood, city or region, placemaking inspires people to collectively reimagine and reinvent public spaces as the heart of every community. Strengthening the connection between people and the places they share, placemaking refers to a collaborative process by which we can shape our public realm in order to maximize shared value. More than just promoting better urban design, placemaking facilitates creative patterns of use, paying particular attention to the physical, cultural, and social identities that define a place and support its ongoing evolution." (Project for Public Spaces)

A people-centric approach to planning involves the components of placemaking as outlined by the Project for Public Spaces: sociability, uses and activities, access and linkages, and comfort and image. Nassau County has a unique opportunity to capitalize on the centralized location of the Civic Center complex, FSCJ Nassau, and approved recreation sites at the east end of William Burgess Boulevard, and utilize those significant public spaces as a base for increasing the amount of public spaces and social connectivity throughout the William Burgess area, and within the larger Yulee community, as spaces such as these do not currently exist.



Creating identifiable, soulful and vibrant places for people to gather; designing roadways for everyone; developing communities that are walkable and bikeable; and providing parks and open space in our neighborhoods and towns are founded strategies that have been proven to improve the quality of life and solidify economic sustainability. -Economies of Place -VHB

Placemaking strategies include identifying and using existing or new spaces for libraries, parks, or museums. Placemaking can also recognize venues for theater, music, art, multi-use public spaces, wayfinding, public art, cultural activities and events, linkages to recreation and activity centers. Public spaces like parking lots, parking spaces, alleys or streets can be re-purposed to create meaningful spaces. Events and sites can be temporary, to activate spaces for special events, or permanent.

Creative placemaking adds value across the built environment, increasing stakeholder benefits and promoting healthy communities. Placemaking can take into account transportation, parks and recreation, environmental and stormwater management systems, and access to healthy food, as well as social connections and cohesion. In this sense, communities cannot afford to not have active placemaking strategies, as they are an essential part of a healthy, resilient, equitable, thriving community (Business Case for Placemaking - ULI).

Placemaking is not limited to creation by the public sector. The private sector can incorporate placemaking strategies through art and culture throughout their design and development process. Based on research by the Urban Land Institute, projects incorporating such interventions are very successful, showing "triple-bottom-line benefits – social, environmental, and financial – for all stakeholders. Anecdotally, it can be seen that communities enjoy enhanced health, well-being and economic outcomes, and that local governments see gains in tax revenues that allow them to enhance resident services, as well as employment growth and improved public safety. Developers and their partners have reported higher market values, lower turnover rates, faster lease-ups, increased community buy-in, faster approval cycles, and enhanced branding and market recognition" (Business Case for Placemaking - ULI).

Some examples of Placemaking Techniques:

3. What to Plan

Considering tomorrow...

Section 3.1 Introduction

This chapter builds off Chapters 1 and 2, and analyzes adopted levels of service and other components necessary to create a vibrant community that implements the adopted community vision - the Vision 2032 Plan. This chapter also investigates what to plan outside of the adopted levels of services; factors which help to create a sustainable, resilient community.

More specifically, this section analyzes:

1. Civic Facilities and Public Infrastructure
   - Recreation
   - Schools
   - Fire
   - Law Enforcement
   - Water/Waste Water
   - Solid Waste
   - Mobility Network
2. Housing
3. Historic, Natural and Cultural Resources
4. Floodplain Management
5. Healthy Communities

Section 3.2 Civic Facilities and Public Infrastructure

A primary driver of the William Burgess Context and Connectivity Blueprint (WB CCB) planning effort is to ensure the civic facilities and public infrastructure necessary to serve the residents within the William Burgess District (WBD) are provided at the same time as the development associated with population growth. While the following provides a basis for projecting needs to meet adopted Levels Of Services (LOS) standards, the LOS standards are not static and will evolve with the community. This analysis provides for a baseline that:

1. Calls attention to the amount and location of land for providing public infrastructure and civic facilities, and
2. To ensure the necessary lands to develop required public infrastructure and civic facilities are reserved for future use, and,
3. The required public infrastructure and civic facilities are developed concurrently with new development.

It is the intent of Nassau County that each new development or redevelopment project provides for its proportionate share of lands, amenities, infrastructure and/or payment of monies to maintain/meet the adopted LOS and other operational impacts of their development project. This report shall not be misconstrued as a means to supersede any future action by Nassau County to amend adopted LOS, infrastructure standards, operational improvements and/or any related fees or other exactions to ensure new development and redevelopment provides for its proportionate share to offset impacts to civic facilities and/or public infrastructure.

For the purpose of this analysis, there is assumed to be a an 80% build-out of the WBD under the proposed Transect Based Scenario within the planning horizon of 2045. At 80% build-out, the development potential is up to 12,377 dwelling units. It is assumed that residential development will have a proportionate mix of housing types that will drive the persons per household multipliers. The persons per household multipliers are addressed in each individual study subcategory. As lands/projects seek development permits the actual LOS impact calculations will be performed with each development proposal. The actual persons per household multiplier and related development population will be determined by the actual mixture of housing types proposed. The projections provided herein are best estimates based on the data and assumptions defined in Chapter 2, Why Plan, and Appendix E. The standards defined in Chapter 4 of the WB CCB along with applicable appendices of the WB CCB will further shape application and implementation of LOS standards.

3.2.1 Recreation

New residential development and redevelopment in the County will necessitate expansion of the County's recreation system to support new residents. New development and redevelopment with a residential component will require the provision of a proportionate share of recreation lands and facilities based on the following rationale:

1. There is a reasonable relationship between the demand and need for incremental park/recreation land and facilities and the type of development; and
2. There is a reasonable relationship between the exaction of park/recreation lands and facilities and the type of development; and
3. There is a reasonable relationship between the amount of park/recreation land and facilities exacted and the type of development.

No lands designated as jurisdictional wetlands or the CHN shall be used to fulfill LOS demand for Regional, Community, or Neighborhood parks.

The Nassau County 2030 Comprehensive Plan addresses different park types and their LOS:

1. Community Parks - Policy ROS.01.04 of the 2030 Comprehensive Plan, provides for an Acreage LOS for Community Parks of 3.35 acres per one-thousand (1,000) people.
2. Regional Parks General - Policy ROS.01.04 of the 2030 Comprehensive Plan, provides for an Acreage LOS for Regional Parks of ten (10) acres per one-thousand (1,000) people.
3. Regional Parks Boat Facility - Policy ROS.01.04 of the 2030 Comprehensive Plan, provides for an Acreage LOS for Boat Facilities of four tenths (0.40) an acre per one-thousand (1,000) people.
4. Neighborhood Parks - Policy FL.02.05 of the 2030 Comprehensive Plan, provides for an Acreage LOS for Neighborhood Parks of four (4) acres per one-thousand (1,000) people within the WBD.
5. Recreation Facilities, Community and Regional Parks - Policy ROS.01.07 provides for recreation facility LOS standards to be used as planning guidelines for the purpose of providing public recreation facilities. The LOS standards are listed below in Table 3.1. Appendices F, G, and H include additional information related to recreation facilities. This includes, but is not limited to, the study prepared by GAI titled Nassau County Park Amenity Estimates dated January 18, 2019, Nassau County prototypical parks and other design standards. The referenced study and material, along with all other appendices, are hereby adopted by reference. In addition, the standards defined in Chapter 4, How to Plan, contains additional provisions that will influence Regional and Community park land dedication, reservation, siting and design.

RESOURCE/FACILITY	POPULATION PER UNIT (MEDIAN)
Baseball/Softball Field	2,500
Basketball Court	5,000
Football/Soccer Field	6,000
Equipped Play Area	10,000
Exercise/Parcours Trails	15,000
Aquatic Center	25,000
Tennis Court	5,000
Boat Ramp Lane	5,000

Table 3.1 Recreation Facilities LOS Standards - Comprehensive Plan Policy ROS.01.07 & ROS.01.04

6. Design, Siting and other Standards - Community and Regional Park: Appendix F, G and H include additional detail related to the intent, siting, and design standards for both Community and Regional Parks and are hereby adopted by reference. In addition, the standards defined in Chapter 4, How to Plan, contain additional provisions that will influence Regional and Community park dedication, reservation, siting and design.
7. Design, Siting and other Standards - Neighborhood Parks : Nassau County Comprehensive Plan Policy ROS.01.05 states: Criteria for the location and design of such facilities shall be included in the Land Development Code (LDC). Consistent with Policy ROS.01.05, Nassau County, in conjunction with Barth and Associates, Inc., created the Nassau County prototypical neighborhood park and related base elements, see Figure 3.1. The prototypical park, base elements and related standards are defined in Appendix H and is hereby adopted by reference. These standards, along with those provisions defined in Chapter 4, How to Plan, of the WB CCB shall control the provision of Neighborhood Parks.

Figure 3.1 Prototypical Neighborhood Park (Barth & Associates, 2019)

Projecting Recreation Demand

Persons Per Household:

For the purpose of this analysis, there is assumed to be a an 80% build-out of the WBD by 2045 under the proposed Transect Based Scenario. At 80% build-out, the projected population expansion is estimated to create up to 12,377 dwelling units. For the purposes of this study, a mixture of housing types is assumed. The mixture is assumed to be 33% Single Family, 33% Multi-family and 33% Duplex/Triplex/Quad.

Each individual development will determine the actual mix of housing proposed and the associated population. Further, the actual persons per household multipliers utilized at time of development application may be different from that utilized here, as the County's demographics are subject to change. However, until otherwise defined, the persons per household utilized in the GAI Recreation Impact Fee study dated January 18, 2019 as provided in Appendix F shall control.

Acreage and Facility LOS Demand:

Utilizing the adopted LOS defined in the Nassau County 2030 Comprehensive Plan, Table 3.2 defines the projected acreage and amenities necessary to meet recreation demand within the WBD using the proposed Transect Based Scenario at 80% build-out by 2045. Based on the calculations found in Appendix E, 12,377 dwelling units equates to 19,721.59 persons in the William Burgess District by 2045. The following projected recreation demands are based on projected number of persons in the WBD by 2045.

RECREATION TYPE	LOS	REQUIRED TO MEET LOS	UNIT OF MEASURE
Regional Park	10ac/1,000p	197.22	Acres
Community Park	3.35ac/1,000p	66.07	Acres
Neighborhood Park	4ac/1,000p	78.89	Acres
Regional Park - Boat Facility	.4/1,000p	7.89	Acres
Boat Facility Ramp Lanes	1/5,000p	3.94	Ramp Lanes
Baseball/Softball	1/2,500p	7.89	Fields/Amenities
Basketball	1/5,000p	3.94	Courts/Amenities
Football/Soccer	1/6,000p	3.29	Fields/Amenities
Equipped Play Area	1/10,000p	1.97	Facility(ies)
Exercise/Parcours Trails	1/15,000p	1.31	Facility(ies)
Aquatic Center	1/25,000p	0.79	Facility(ies)
Tennis Courts	1/5,000p	3.94	Courts/Amenities

Table 3.2 Land and Facilities to Meet Recreation Levels of Services Standards at 80% Build-Out Scenario

1-Minimum components for each amenity in GAI's Nassau County Park Amenity Estimates, February 2019 - See Appendix F and G for more information

Additional data and details regarding LOS, siting, recreation standards, and park/amenity design can be found in Appendices F, G, and H. In addition, Chapter 4, How to Plan, includes additional standard that will shape implementation of recreation LOS standards, including, but not limited to, dedication and reservation of lands necessary to meet LOS standards.

3.2.2 Public Schools

General:

The following projections were prepared by Nassau County PEO staff in collaboration with Nassau County School District staff. The student generation rates utilized in this analysis and related break down by school classification is subject to change as Nassau County's demographic make-up changes. Further, the Nassau County School Board (NCSB) operates independent of the Nassau County Board of Commissioners (BOCC). In no way is this analysis intended to usurp the authority of the NCSB in any decision-making process including but not limited to, school siting, school size, school type/classification or construction timing.

The following Comprehensive Plan Policies relate to the Adopted Level of Service for Public Schools:

- Policy PSF.06.01
- Policy PSF.03.01
- Policy PSF.03.03
- Policy PSF.01.04
- Policy PSF.01.05

Based on the Comprehensive Plan, this plan will focus on the impact to the school facilities based on the projected population growth, and uses the policies to require all development and redevelopment to mitigate their impacts on the school facilities within the WBD. This plan will help to ensure that suitable and sufficient lands are available to meet the needs of the School Board, based on the projected 80% build-out population growth in the WBD.

Student Generation Rates:

The purpose of the following projected public school demand is for illustrative purposes to ensure developers, public officials, and citizens realize the spatial aspects of Nassau County's public school LOS standards. Based on NCSB's student generation rates, land within the WBD must be reserved in order to meet LOS standards. To meet the school facility needs within the WBD, more efficient land use patterns must be utilized.

PEO staff used the student generation rate of 0.332 as defined in the Nassau County School Impact Fee Study Update, prepared by Fishkind and Associates dated 10/3/2017, coupled with an assumption of 80% build-out of the WBD by 2045 to arrive at a student generation by school classification for the District. In order to calculate student generation rates for the individual school classifications, Nassau County PEO took the overall student generation rate and analyzed the best available data to derive a percentile breakdown of students by school classification. [NOTE: While the overall number of students generated by population expansion as provided in Table 3.3 is consistent with the NCSB's adopted generation rates, the breakdown of generation rate by school type was executed by PEO staff solely to estimate necessary acreage reservations for future public schools within the WBD and in no way is intended to bind the NCSB to utilize the below breakdown of the overall generation rate by school type.]

SCHOOL CLASSIFICATION	RESIDENTIAL UNITS AT 80% BUILD-OUT	STUDENT GENERATION RATE	NUMBER OF STUDENTS GENERATED BY 2045 AT 80% BUILD-OUT SCENARIO
Elementary (K-5)	12,377.6	0.152	1,881.40
Middle School (6-8)	12,377.6	0.084	1,039.72
High School (9-12)	12,377.6	0.096	1,188.25
Overall	12,377.6	0.332	4,109.36

Table 3.3 Student Generation Rates

Overall student generation rate taken from NCSB 10-3-17 Impact Fee Update by Fishkind and Associates

Based on student generation rates it is projected that following will be needed by 2045 in the WBD:

- Three (3) 600 Student Elementary Schools
- One (1) 1,000 Student Middle School
- One (1) 1,200 Student High School

The breakdown of school sites is merely one an example of how the projected demand on the public school system can be mitigated. The breakdown considers the development of five (5) separate school sites within the District by 2045. The NCSB may choose to construct schools of mixed classifications such as a K-8 (elementary & middle combined) or develop a single campus that contains a middle and high school such as the Yulee High and Middle school campus.

The NCSB may also choose to provide for additional capacity for a particular school classification within the District and shift the demand of another classification to a school site outside of the WBD but within the same Public School

District as defined by the NCSB.

Site Standards and Acreage Requirements:

All potential public school sites shall be reviewed by the Nassau County School District. No public school site shall be accepted except as done so at the direction of the NCSB.

School siting shall be consistent with Chapter 1013, Educational Facilities, of Florida Statute, and the State Requirements for Educational Facilities (SERF) Handbook. Current NCSB standards and practices shall also be applied in school siting and design. This includes, among others, adjusting State recommended standards to account for the unique environmental and ecological challenges in finding an adequate school site, and/or, augmenting potential school sites to meet minimum standards.

The below minimum acreages by school type are provided by the Nassau County School District staff and are subject to change from time to time based on the direction of the Nassau County School Board. Nothing herein shall limit the NCSB from modifying minimum acreage standards.

- Elementary K-2, 3-5 or K- 5 : 27 acres
- K-8 School : 50 acres
- Middle School: 50 acres
- High School: 50 acres

Based on LOS standards, projected population and minimum school site acreage as approximated for this analysis, the WBD will need a total of 181 acres of land reserved for public school sites.

- 81 acres for elementary schools divide between three separate locations
- 50 acre for a middle school
- 50 acre for a high school

As stated above, the actual grade level and student capacity will dictate school site size and location. These estimations are based on the simplest and most straight forward means of estimating acreage demands taking into account school classification and capacity.

3.2.3 Fire Rescue

Each development shall coordinate with the Nassau County Fire Rescue Department to determine need for additional fire station sites, new fire stations and/or provision of additional or specialized equipment.

3.2.4 Law Enforcement

Each development shall coordinate with the Nassau County Sheriff's office to determine need for additional station sites, sheriff sub-stations and/or provision of additional or specialized equipment. All development proposals shall demonstrate consistency with the provisions of the 2030 Comprehensive Plan.

3.2.5 Water/Waste Water

Each development shall coordinate JEA to ensure available capacity for both potable water and sanitary sewer exists to serve proposed development. All development proposals shall demonstrate consistency with the provisions of the 2030 Comprehensive Plan.

3.2.6 Solid Waste

Each development shall demonstrate available capacity for solid waste disposal exists to serve proposed development. All development proposals shall demonstrate consistency with the provisions of the 2030 Comprehensive Plan.

3.2.7 Mobility Network

Each development shall ensure provisions to construct, cause to be constructed, or fund, the adopted mobility network and provide for non-mobility network improvements to support all new development and redevelopment. All development proposals shall demonstrate consistency with the provisions of the 2030 Comprehensive Plan and adopted LOS standards.

3.2.7.1 Mobility and Connectivity

The development pattern in Nassau County over the past several decades has, for the most part, led to auto-dependent, low-density suburban scale development. This development pattern has placed a burden on the existing transportation network. According to the U.S. Census Bureau, in 2013 approximately 86% of all workers in Nassau County traveled by private vehicle, and 76% drove alone. Further compounding the matter, 64.2% of the residents in Nassau County are employed outside of the County. Research by GAI in 2019 found that 89% of workers within the SR-200 corridor study area in Yulee work outside the study area. 85% of those workers commune alone.

A lack of interconnectivity in the transportation network coupled with insufficient parallel facilities has forced the arterial roadways, SR200 and US17, to function not only as arterial roadways but also as collector roads and local streets. The results are increased drive alone trips, increased vehicle miles driven by area residents and employees, decreased acceptability of other travel modes such as walking, biking, transit, carpooling and car sharing trips. Failure to addresses the public policy producing these results will likely lead to a replication of previous development patterns within the WBD which will further exacerbate transportation problems in Nassau County.

The WBD mobility network and Transect based mixed-use plan promotes parallel facilities, and a grid network of roads, and complete streets. Local facilities are proposed to run parallel to SR 200 from Semper Fi Drive to US 17, and parallel to US 17 from SR 200 to Harts Road. The parallel facilities, coupled with a mixed-use development pattern, will allow future road users to reduce their travel on SR 200 and US 17 within the limits identified by using the proposed local roads. These parallel roadways are planned to include bike lanes, sidewalks, and multi-use paths where possible to provide appropriate facilities for all users. According to FHWA these types of geographic areas are likely to assist in reducing drive alone trips, reducing vehicle miles driven by area residents and employees, increasing awareness and raising acceptability of all travel modes by increasing walking, biking, transit, carpooling and car sharing trips . Finally, the proposed overlay text amendment promotes increasing neighborhood mobility and livability. A cursory assessment using the NCHRP trip estimator spreadsheet, indicates the transportation network provides the opportunity to reduce motor vehicle travel.

In accordance with Chapter 163, Florida statutes, a review of transportation resources and facilities of state importance have been evaluated. The proposed overlay text amendment will have no adverse impacts to the state facilities (SR 200 and US 17). According to the 2017 FDOT D2 LOS Report, adjacent segments of both SR 200 and US 17 will operate at acceptable levels of service and will have available capacity in future years. In addition, consideration was given to the FDOT Context Sensitive Classification and the FDOT Bike/Ped LOS Future Demand Score. Neither of these measures conflict or will be adversely impacted by the proposed overlay text amendment. See attached reports in Appendix Q.

In more general terms, mobility, moving people from one place to another, is important for creating a network where people can get to their needs efficiently. Mobility allows people to have the freedom to safely choose which mode of transportation they would like to use to get to their needs. The WB CCB will include facilities which encourage multi-modal transportation, as well as prepare for transit and provide the ability to utilize technological advances in the future for autonomous vehicles. The district will prepare for transit service within the county, not only bus, but possible future commuter rail. It will include a network of multi-use trails and sidewalks.

Connectivity, having multiple ways to get from one place to another, is essential for creating a network which allows multiple routes for people to use. The network of roads in the WBD will create a complete system which provides for multiple connection points to William Burgess Boulevard, State Road 200, US-17, and provide for an alternate route west of I-95. It will create alternate east/west corridors to William Burgess Boulevard, and multiple north/south corridors. The plan will also provide for cross-connectivity between all developments. The increases in connectivity will disperse the traffic volumes throughout the network, rather than have them concentrated at certain intersections.

As identified in the Mobility Network for the WBD, as shown on Page 136 of this document and in Appendix Q and R, new corridors and access points will be created in the WBD to provide for mobility and connectivity. Further, the WBD will use context sensitive roadway design to ensure the safest conditions for all roadway users. Context sensitive solutions for roadways incorporate land uses and roadway design to create safe, walkable communities. In the WBD, a mixture of land uses will encourage compact development, connected with a network of thoroughfares, multi-use trails, sidewalks, and bicycle facilities to encourage multi-modal transportation. Having a comprehensive, safe network can reduce the need for people to own and/or operate motorized vehicles and creates a more walkable community; a walkable community where people can live, work, play, and stay. Chapter 4 of this plan goes into more detail on required cross-sections for roadways, multi-use trail networks, and the requirements which all development and redevelopment shall comply with.

Section 3.3 Housing + Jobs to Housing Balance Ratio

Who needs affordable housing? According to the U.S. Department of Housing and Urban Development: "Families who pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation and medical care. An estimated 12 million renter and homeowner households now pay more than 50 percent of their annual incomes for housing. A family with one full-time worker earning the minimum wage cannot afford the local fair-market rent for a two-bedroom apartment anywhere in the United States."

Housing is also changing. Multigenerational households have reached record levels according to a new study from the Pew Research Center. Around 64 million Americans, or 20 percent of the population, were living in homes with grandparents, grandchildren, or two or more adult generations in 2016. The trend has seen an uptick since 1980, Pew says, with a three percent increase since 2009, the last year of the recession.

In recognition of anecdotal evidence that the County has been facing housing pressures, in 2018, Nassau County and the City of Fernandina Beach partnered to have a housing affordability assessment completed for all of Nassau County. The University of Florida's Shimberg Center for Housing Studies completed the assessment. The Center completed their report in Fall 2018 and results were shared with the County Affordable Housing Advisory Committee and community stakeholders. The report was adopted as by resolution of the Board of County Commissioners on January 28, 2019.

Key Findings include:

1. Nassau is a prosperous county overall, but incomes and housing costs vary widely by region.
2. Most low-income households spend more than they can afford for their housing.
3. Rents outpace wages for several of the county's top industries.
4. The Island region is a magnet for low and moderate wage jobs in the county and metropolitan area.
5. Nassau County's housing stock is growing rapidly, particularly in the Central region.
6. Home sale volume is returning to boom era levels, but affordable home sales to owners are limited.
7. The county's housing stock is dominated by single family homes and mobile homes.
8. The county's supply of multifamily housing (2 or more units) is small.
9. Preserving Nassau County's assisted housing stock is critical to serving low-income renters.
10. Nassau County has a baseline gap of 1,060 rental units that are affordable and available to renters with incomes at or below 50% of AMI.
11. 1,455 owners with incomes of 50.01-80% of AMI are cost-burdened.

Four Key Areas for Local Affordable Housing Strategies to address these findings include: diversifying housing stock, expanding affordable rental housing, expanding affordable homeownership and addressing the jobs-housing transportation link.

In February 2019, Nassau County adopted changes to the Land Development Code to allow accessory dwellings by right in residentially zoned districts. The County will also be pursuing changes to impact fee withholding for qualifying affordable housing projects. It is the goal that such proactive policy changes, as well as those found in the William Burgess District plan that allow for a variety of housing stock and better access to jobs and services, will help position the County to begin addressing the housing affordability issue as well as accommodate the changing nature of households.

Jobs to Housing Balance Ratio (Reference Data and Analysis 2030 Comp Plan):

A jobs-to-housing balance is a metric of economic sustainability, measuring the relationship between jobs and employment seekers in a specific area. While there are several employment and housing measures available, Nassau County has chosen jobs to housing balance because it is generally superior to the other options and is easier to understand because parity can be expressed as a one-to-one ratio, i.e. one local job to one local worker (California Planning Roundtable, "Deconstructing Job-Housing Balance" 2008, p. 8). With this metric, a low jobs-to housing balance indicates a housing rich "bedroom community" while a high jobs-to-housing balance indicates that the community is a regional employment center. Although there is no single perfect balance, an area is generally considered to be in balance if it maintains a jobs-to housing balance (ratio) of 0.8 to 1.2 (Cervero, Robert, "Jobs-Housing Balance Revisited: Trends and Impacts in the San Francisco Bay Area", Journal of the American Planning Association, Vol.62 No. 4, 1996, pp. 492-511). As part of the 2030 EAR based amendment to the Nassau County Comprehensive Plan, Nassau County and the Department of Community Affairs established a threshold of 0.8 to 1.21 as a healthy jobs to housing ratio for Nassau County.

In 2010, Nassau County had a Jobs to Housing Ratio of 0.63. This low ratio in indicative of a bedroom community. Following the same methodology established in the 2010 EAR, there will be 14,979 employed persons living within the WBD in year 2045. Striving to produce a land-use plan that will result in producing the 'Mid' jobs to housing ratio of 1 job per employed person living within the WBD, the WBD will need to provide opportunity for 14,979 jobs.

Using an average of 450sf per employee for all non-residential land uses combined, the WBD will need to provide for 6,739,276sf of non-residential space. Existing and entitled non-residential square-footage within the WBD provides for 3,834,818sf. In addition, the WB CCB provides for more than 770 acres of mixed-use and/or non-residential land. This includes the Nassau County Judicial/Governmental Complex which is the future home of all Nassau County government offices and the FSCJ Nassau Campus. The 770 acres have an allowable Floor Area Ratio, based on Transect, of 1.5 - 4, respectively, providing for non-residential development potential far in excess of the minimum standard of 6,739,276sf required to produce a 'Mid' jobs to housing balance ratio of 1:1. If only 10% of the total lands which allow for non-residential uses develop at a FAR of 2 the non-residential square-footage, when combined with existing and entitled non-residential square-footage, would result in 10,543,058sf of non-residential space and a jobs to housing ratio of 1.57 to 1. If the non-residential space associated with the ENCPA lands that are located within the WBD are removed from the calculation, then the WBD is left with 8,672,553sf of non-residential space and a jobs to housing ratio of 1.29 to 1.

Section 3.4 Historic Cultural, and Natural Resources

3.4.1 History and Cultural Resources

Nassau County is one of the oldest counties in Florida, dating to c.1824, but the history in the county precedes that date extensively. Numerous archaeological sites in the county record evidence of prehistoric communities, and Nassau was the site of early European contact, dating to 1562, with the arrival of the French on present day Amelia Island. The County has seen occupation by the French, English, Spanish, and Americans, and Revolutionary War and Civil War action. Nassau County tells the story of industry, agriculture, seafaring, railroads, tourism, and life in early Florida in general.

In the William Burgess area, three industries in particular have played a role in shaping development: the railroad, timber industry, and early Florida auto-based tourism. The railroad played a formative role in Nassau County, and will continue to do so in its future. The railroad was the catalyst for the creation of compact mixed-use village centers across Nassau County, the remnants of which remain in Yulee at Harts Road Station. The timber industry transformed the natural landscape of the area as pines were planted. Historic documentation indicates the area was utilized for the turpentine/naval stores industry, and later for logging to supply nearby mills in Fernandina Beach. The former Stone Container Company or Trinity plant, constructed in 1953, on Highway 17 south is another example of a paper-based industrial complex related to the timber industry that is still in use today as an industrial center.

As Florida became a tourism destination and the rise of the automobile began, two transportation corridors shaped and defined the boundaries of the area we know today. Highway 17 South was a major north-south route for travelers from the north journeying to Florida. There are still remnants of early auto-centric development and some remaining tourism-affiliated sites such as hotels and early gas station structures. When I-95 was built, a new transportation corridor created a boundary for the William Burgess area, and the traffic that previously used Highway 17 shifted to the new interstate. Businesses on Highway 17 were impacted, and traveler-related services developed around the I-95 interchange on State Road 200/A1A. Where State Road 200/A1A had previously been an east-west route for internal travel in Nassau County, it too has become a primary tourism roadway bringing people from I-95 to Amelia Island.

The Florida Master Site File (FMSF) is the State of Florida's official inventory of cultural and historical resources. Site and places listed on the site file are not protected in any way; rather, the site file is strictly a listing of resources. The William Burgess study area has two bridges, three archaeological sites, eleven structures, six resource groups, and thirteen cultural resources surveys associated with it and included on the FMSF. The sites are largely related to railroad development, 19th to 20th century inhabitation and the transportation corridors. None of these sites are currently protected by any local regulations.

Preservation and adaptive reuse opportunities exist within the William Burgess Corridor and adjacent to it, especially along Highway 17 and SR 200/A1A: Harts Road Station, Stone Container Company/Trinity plant complex (if not utilized as industrial in the future), and Mid-century tourism related sites such as the hotel at SR200/A1A and gas station at Harts Road. These projects are anticipated to be evaluated as part of the County's SR200/A1A Corridor Design Plan, and potentially could be included in a future Highway 17 Corridor Design Plan.

The County does not currently have a historic preservation program. Individual comprehensive plan policies address historic and cultural resources, but there is not a historic preservation or cultural resource element. The current Land Development Code has a historic and archaeological resource section, but it is incomplete and does not formalize protections for historic and cultural resources. The County is not a Certified Local Government.

However, history can inform the use of space in the WBD, educational opportunities, and design standards. Nassau County's history is unique and tells the story of the County's evolution over time, bringing a sense of place and identity that cannot be found anywhere else. Although there are not substantial existing historic sites and structures left, the remaining structures can be prioritized. And the history and culture of the area can be incorporated into planning in other ways, including interpretive and educational displays, public art, and architectural design standards reflecting the community's past. Themes from the railroad industry, timber industry, and early Florida tourism can inform both architecture, design, and placemaking opportunities in the William Burgess District.

Public Art

Florida's oldest Public Art program, Miami Dade's, began in 1973. There are more than 60 public art programs in the State of Florida. (FL Assoc of Public Art Professionals). Nassau County has an Art in Public Places code, but does not have anything in place yet (County Code Chpt. 1, Art. XI). Incorporating public art into the William Burgess District is one form of placemaking, and presents an opportunity in particular to highlight the history and culture of the community. And, the design and architecture of the area, reinforced through architectural design standards, can be considered as the most visible form of public art.

Public art is not an art 'form.' Its size can be huge or small. It can tower fifty feet high or call attention to the paving beneath your feet. Its shape can be abstract or realistic (or both), and it may be cast, carved, built, assembled, or painted. It can be site-specific or stand in contrast to its surroundings. What distinguishes public art is the unique association of how it is made, where it is, and what it means. Public art can express community values, enhance our environment, transform a landscape, heighten our awareness, or question our assumptions. Placed in public sites, this art is there for everyone, a form of collective community expression. Public art is a reflection of how we see the world – the artist's response to our time and place combined with our own sense of who we are….Public art is a part of our public history, part of our evolving culture and our collective memory. It reflects and reveals our society and adds meaning to our cities. As artists respond to our times, they reflect their inner vision to the outside world, and they create a chronicle of our public experience." (Association for Public Art)

Public art can be integrated into the William Burgess District as part of the County's existing public art ordinance, addressing art on public property and working with Arts and Culture Nassau, the stewards of the County's public art ordinance. Artwork can be incorporated into private development throughout the District as well.

3.4.2 Natural Resources

The WBD is rich with natural resources including land cover, soil types, wetlands, and conservation habitats. This section of the WB CCB discusses these resources.

3.4.2.1 Land Cover

The William Burgess District as well as all of Nassau County lies in the Southern Coastal Plain which is a subtropical, low-elevation ecoregion situated between the Gulf of Mexico and the Atlantic Ocean. Swamps and marshlands occur across the ecoregion. Pasture land has also been an important agricultural resource. Extensive pine plantations, employed for timber production, are a relatively common use of forests in the ecoregion. Aside from agriculture and the extensive pine plantations, tourism and associated service industries are important economically.

Originally, pine and mixed hardwood forests covered much of the ecoregion. The native longleaf pine (Pinus palustris) was the dominant tree species; however, its current extent has been reduced by as much as 98 percent (Wear and Greis, 2002). Forests have been cleared for lumber and converted to pine plantations that favor the faster growing slash (Pinu elliotii) and loblolly pine (Pinus taeda L.) species. Longleaf pine and other forests have also been converted to cropland, pasture, mining, and urban uses.

The Southern Coastal Plain spans from the sandy beaches where the barrier islands meet the Atlantic Ocean to the portion of the mainland that remains within the zone of tidal influence (Edwards, et.al.). Because of the constant fluctuations in tides, salinity, moisture and wind, this is the most dynamic of Florida's ecoregions. The salt marsh consists mostly of tall grass, Spartina augustifolia, and provides an extremely important habitat and breeding ground for fish and shellfish used by inhabitants throughout history for sustenance.

If we look at our county as not just a region but an ecoregion we can begin to understand land use planning from a conservation viewpoint. Richard T.T. Forman defines an ecoregion as "a large unit of land and water typically characterized and delineated by climate, geology, topography, and associations of plants and animals" each depending on one another for survival. The ecoregion-based approach has been adopted by many conservation groups as the most effective way to ward off massive losses of biodiversity.

Figure 3.1 and Table 3.4 (right) illustrate the land cover types in the William Burgess District.

LAND COVER TYPE	LAND COVER NAME	DESCRIPTION
5240	Salt Marsh	Estuarine wetland inundated with saltwater by daily tides with a dense grass layer. (FNAI)
183332	Coniferous Plantations	Pine plantations that are artificially generated by planting seedling stock or seeds. (SJRWMD)
2233	Mixed Wetland Hardwoods	Wetland hardwood communities which are composed of a large variety of hardwood species tolerant of hydric conditions yet exhibit an ill-defined mixture of species. (FLUCCS)
1311	Mesic Flatwoods	Flatland with sand substrate; open pine canopy with a layer of low shrubs and herbs; longleaf pine and/or slash pine, saw palmetto, gallberry, dwarf live oak, wiregrass. (FNAI)
2240	Mixed Hardwood-Coniferous Swamps	Includes mixed wetlands forest communities in which neither hardwoods nor conifers achieve a 66 percent dominance of the crown canopy composition. (FLUCCS)
1400	Mixed Hardwood-Coniferous	Mix of hardwood and coniferous trees where neither is dominant
22211	Hydric Pine Flatwoods	Forest with a sparse to moderate canopy of Slash pine. The understory is grasses, wiregrass, forbs, and at times with sparse saw palmetto. (FLUCCS)
2112	Mixed Scrub-Shrub Wetland	Wetlands areas that are dominated by woody vegetation less than 20 feet in height. This can occur in many situations, but in most cases involves transitional or disturbed communities on drier sites. Persistent examples of shrub wetlands include shrub bogs and willow swamps. (SJRWMD)

Table 3.4 Natural Community types with greater than 100 acres in the William Burgess District

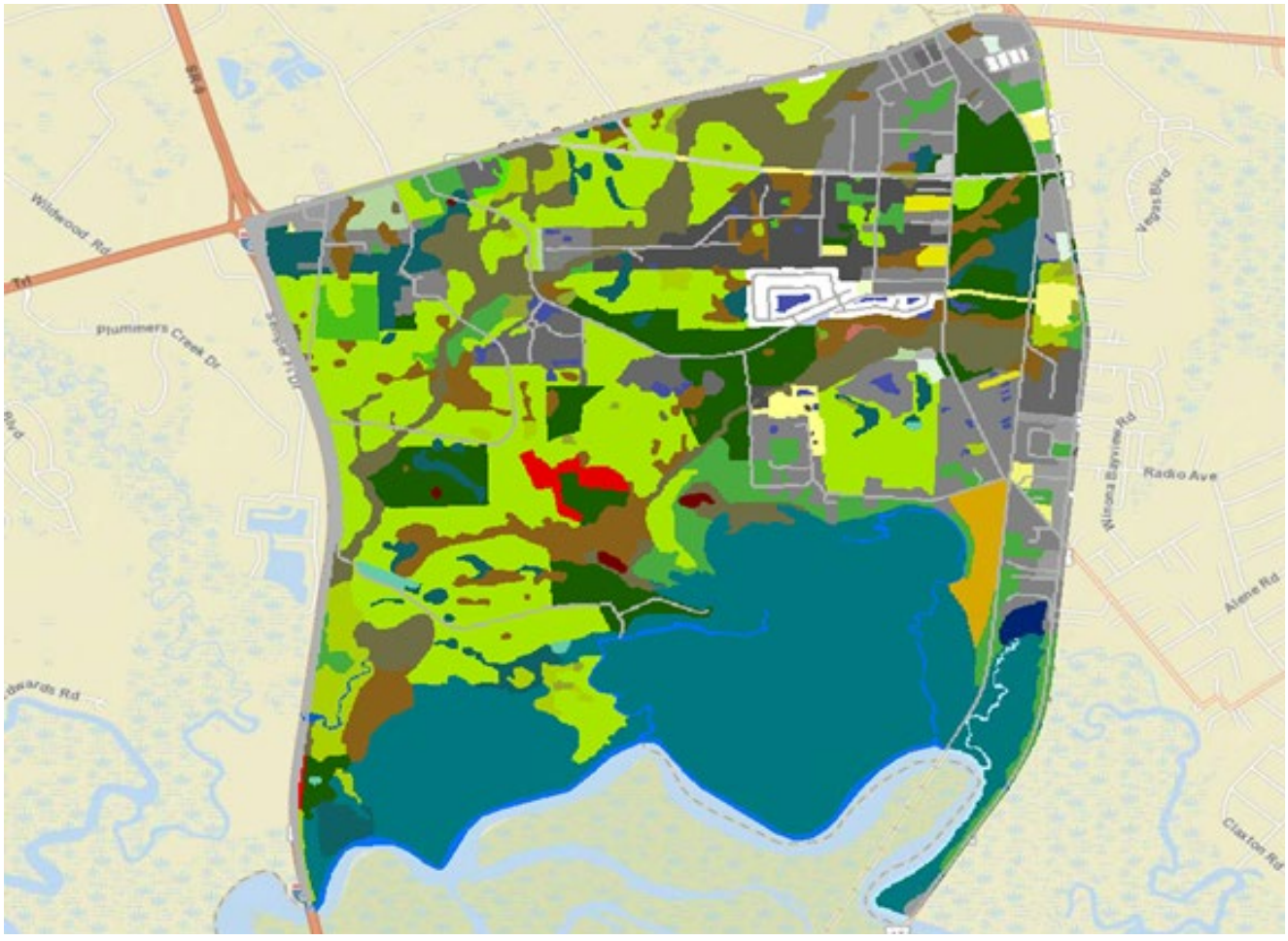


Figure 3.2 Florida Cooperative Land Cover from www.fnai.org/landcover.cfm

3.4.2.2 Wetlands

According to the Florida Department of Environmental Protection (FDEP):
"Florida wetlands are defined as those areas that are inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils. Soils present in wetlands generally are classified as hydric or alluvial, or possess characteristics that are associated with reducing soil conditions.

The prevalent vegetation in wetlands generally consists of facultative or obligate hydrophytic macrophytes that are typically adapted to areas having soil conditions described above. These species, due to morphological, physiological or reproductive adaptations, have the ability to grow, reproduce or persist in aquatic environments or anaerobic soil conditions. Florida wetlands generally include swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, riverine swamps and marshes, hydric seepage slopes, tidal marshes, mangrove swamps and other similar areas. Florida wetlands generally do not include longleaf or slash pine flatwoods with an understory dominated by saw palmetto."

Wetlands provide numerous benefits to society. In addition to providing ecological benefits for wildlife and natural systems, they help to reduce potential impacts from flooding and provide for water filtration and groundwater recharge. For these reasons, it is important to conserve wetlands and to maintain them in their natural state. Although stormwater management ponds can provide some drainage benefits, "they do not provide the same ecological and environmental functions as natural wetlands," (Environmental Planning and Land Use Management, p. 347).

Based on National Wetlands Inventory data, there are approximately 2,235 acres of wetlands in the William Burgess corridor. Within the WBD, all wetlands identified by the St. Johns River Water Management District (SJRWMD), and other delineated wetlands, are designated as T-1 Natural Zone, and development within that zone is prohibited. Based on current wetland policies in Nassau County, limited filling of wetlands will be allowed, subject to approval from local, state, and federal agencies.

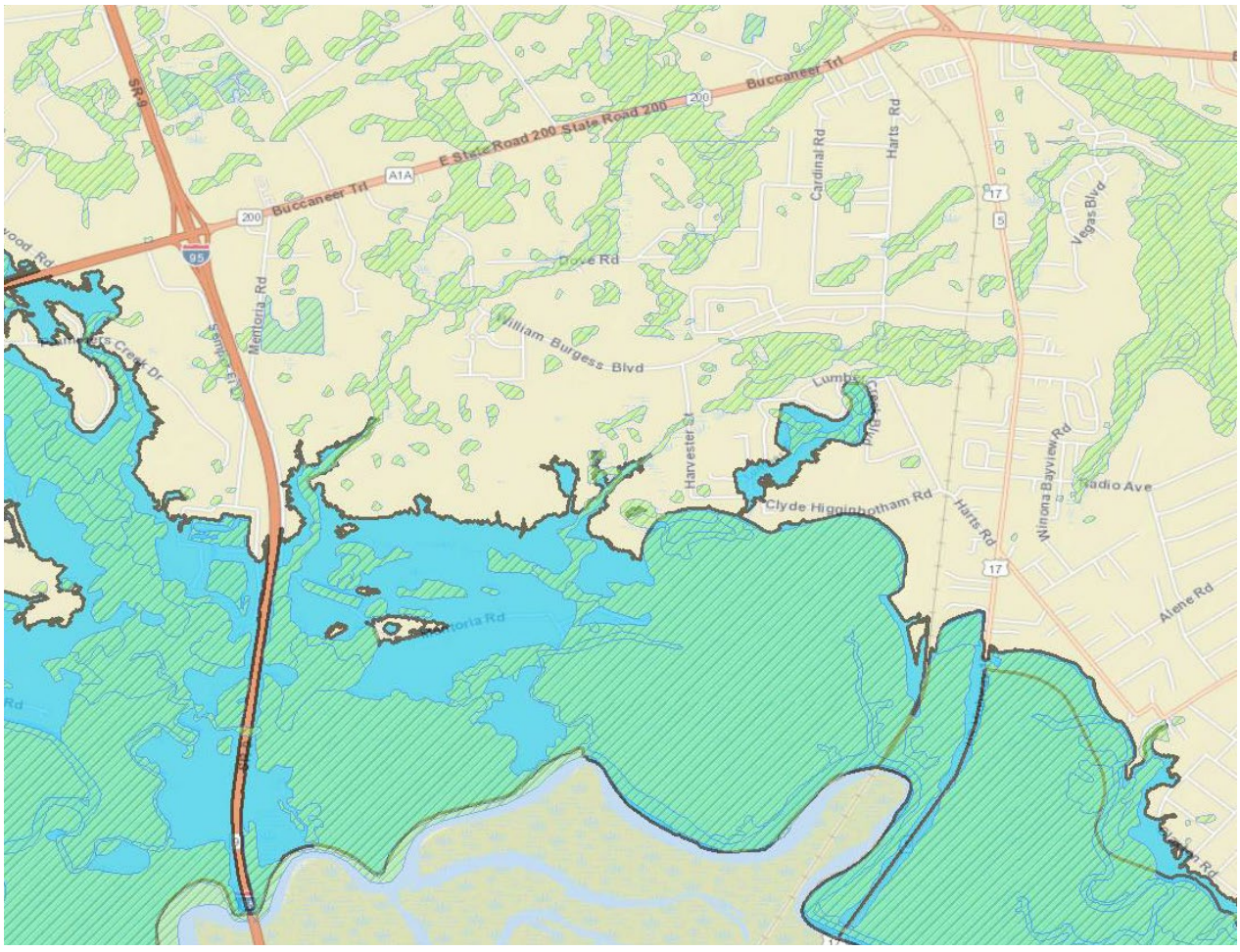


Figure 3.3 Wetlands within the William Burgess District

3.4.2.3 Soils

Table 3.5, below, shows the soil types found within the William Burgess District, and the total number of acres each soil type accounts for in the district.

NASSAU COUNTY, FLORIDA (FL089)			
MAP UNIT SYMBOL	MAP UNIT NAME	ACRES IN AOI	PERCENT OF AOI
2	Arents, nearly level	10.2	0.20%
4	Echaw fine sand	10.8	0.20%
6	Hurricane-Pottsburg fine sands, 0 to 5 percent slopes	513.9	7.90%
7	Kingsland mucky peat, frequently flooded	9.0	0.10%
9	Leon fine sand, 0 to 2 percent slopes	860.3	13.20%
1	Mandarin fine sand, 0 to 2 percent slopes	291.7	4.50%
11	Chaires fine sand	11.8%	0.20%
13	Goldhead fine sand	205.3	3.20%
14	Rutlege mucky fine sand, frequently flooded	25.4	0.40%
16	Ellabelle mucky fine sand, frequently flooded	484.7	7.50%
17	Urban Land	36.6	0.60%
18	Lynn Haven-Wesconnett-Leon complex, depressional	15.3	0.20%
19	Leon fine sand, tidal	38.6	0.60%
20	Ortega fine sand, 0 to 5 percent slopes	77.9	1.20%
22	Sapelo-Leon fine sand	1,188.10	18.30%
23	Ocilla fine sand, 0 to 5 percent slopes	5.1	0.10%
24	Kingsferry fine sand	10.8	0.20%
25	Maurepas muck, frequently flooded	2.6	0.00%
27	Ridgewood fine sand, 0 to 5 percent slopes	28.4	0.40%
28	Tisonia mucky peat, tidal	1,513.50	23.30%
32	Aqualfs, loamy	17.6	0.30%
33	Goldhead-Meadowbrook fine sands depressional	295.3	4.50%
34	Croatan muck, frequently flooded	53	0.80%
39	Evergreen-Leon mucks, depressional	182	2.80%
51	Albany fine sand, 0 to 5 percent slopes	49.1	0.80%
99	Water	187.2	2.90%

Table 3.5 Soils found within the William Burgess District

The most common soil type in the study area is Tisonia mucky peat found primarily in the marsh along the Nassau River. These soils are very poorly-drained and generally most suitable for wildlife habitat. Sapelo-Leon Fine Sand and Leon Fine Sand are the next most common soil types, both of which are poorly-drained.

3.4.2.4 Wildlife

The FNAI Biodiversity Matrix provides site information on rare species occurrence in the state of Florida. The matrix offers built-in interpretation of the likelihood of species occurrence for each 1-square-mile Matrix Unit across the state. The report includes a site map and list of species and natural communities by occurrence status: Documented, Documented-Historic, Likely, and Potential. The Biodiversity Matrix includes all species and natural communities tracked by the Florida Natural Areas Inventory, including all federal listed species. Species that are common and wide-ranging in Florida are not included.

According to the FNAI Biodiversity Matrix, species of note which have a high likelihood of occurrence in the William Burgess District area include the Eastern Indigo Snake and Wood Stork. Other potential significant species include the Florida Burrowing Owl, Worthington's Marsh Wren, and the Gopher Tortoise. Descriptions of the various species can be found in the FNAI Field Guide Descriptions at https://www.fnai.org/FieldGuide/index.cfm.

Conservation Habitat Network

The 2030 Comprehensive Plan establishes objectives related to protection of ecological resources within the County:
OBJECTIVE CS.02
OBJECTIVE CS.03
OBJECTIVE CS.06
CHN General Guidelines and Standards (FL 13.07(A))

The concept of the Conservation Habitat Network (CHN) is established in the Master Plan for the East Nassau Community Planning Area (ENCPA) which was adopted as an amendment to the Nassau County Comprehensive Plan. The CHN loosely consists of waterbodies, wetlands, buffers and uplands that have been removed from development to provide open space for conservation purposes.

In the WBD, the CHN and T-1 Natural Zone are one in the same. The intent of the T-1 Natural Zone is to preserve the natural habitat and limit the impact to the ecological resources within the WBD.

Wildlife Corridor Design

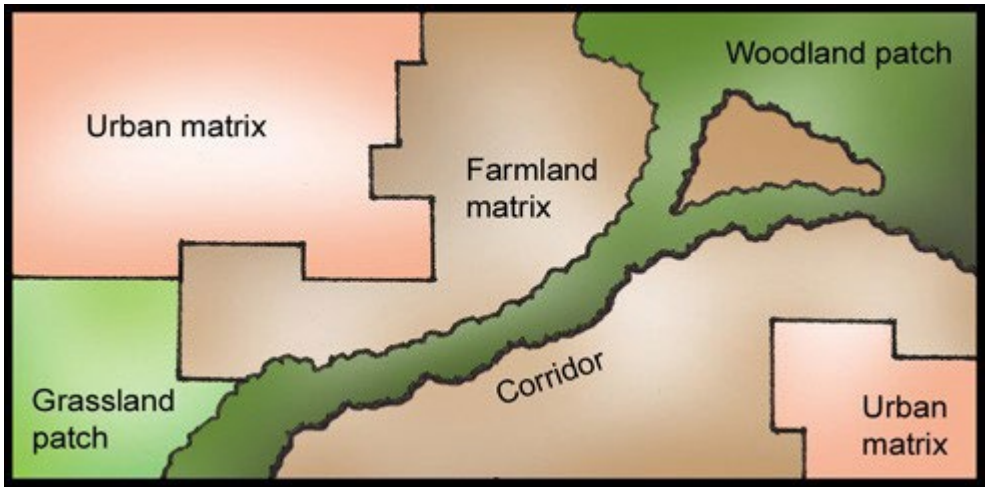


Figure 3.4 Wildlife Corridor Example

1. Design Considerations:

There are a number of resources for conservation network planning, including the USDA and the FWC. The USDA provides guidelines for conservation planning in their report "Conservation Buffers: Design Guidelines for Buffers, Corridors, and Greenways," (2008).

2. Corridors – Key Principles

- Continuous corridors are better than fragmented corridors
- Wider corridors are better than narrower corridors
- Natural connectivity should be maintained or restored
- Two or more corridor connections between patches (redundancy) are better than one

3. Key Design Considerations for Corridors (USDA)

- Design corridors at several spatial and temporal scales.
- Provide quality habitat in a corridor whenever possible.
- Locate corridors along dispersal and migration routes.
- Corridors, particularly regional corridors, should not be limited to a single topographic setting.
- Similarity in vegetation between corridors and patches is beneficial.
- Restore historical connections and generally avoid linking areas not historically connected.

4. Road and Wildlife Crossings

When wildlife corridors are bisected by roads, safe passage should be provided through culverts, bridges, and/or overpasses. Landscape-scale assessments can aid in locating wildlife crossings. When using culverts for crossings, include culverts of mixed-sized classes and avoid creating barriers to movement like debris grates. Design guides are available.

5. Roadside Corridors

In areas with limited habitat, roadsides may be beneficial for some species although for others it may be detrimental. Manage vegetation height to maintain visibility to reduce potential vehicle-wildlife collisions. Use native plants and maintain plant vigor by mowing or burning every 3 to 5 years. Burn or mow in blocks to ensure some portion remains undisturbed.

3.4.3 Resiliency and Sustainability

Flooding, stormwater, drainage are top of mind with elected officials and community based on recent storm events like Matthew and Irma, but also because of everyday flooding after thunderstorms. It is not uncommon to hear on a weekly basis from citizens in the county regarding road flooding issues or that they have been dropped from their flood insurance. The community has indicated they are ready for action. The County's Emergency Operations Center (EOC) is housed in William Burgess District in the Civic Center, as are other critical civic functions. Other future civic uses, such as schools, must take into account their ability to serve as emergency shelters.

Potential Hazards and Hazard Mitigation

Florida is vulnerable to both natural hazards and technological and human-caused hazards. The most common hazards to Florida are wildfires, floods, and sea level rise; however, hurricanes have historically inflicted catastrophic destruction.

Hazard mitigation is defined as any action taken to reduce or eliminate the long-term risk to human life and property from manmade or natural hazards. Hazard mitigation aims to make human development and the natural environment safer and more resilient and generally involves enhancing the built environment to significantly reduce risks and vulnerability to hazards. Mitigation can also include removing the built environment from disaster prone areas and maintaining natural mitigating features, such as wetlands or floodplains. Hazard mitigation makes it easier and less expensive to respond to and recover from disasters by breaking the damage and repair cycle.

Storm Surge

Storm surge is a rise of water generated by a storm, over and above the predicted astronomical tides. Storm surge should not be confused with storm tide, which is defined as the water level rise due to the combination of storm surge and the astronomical tide (Normal Tide + Surge = Storm Tide).

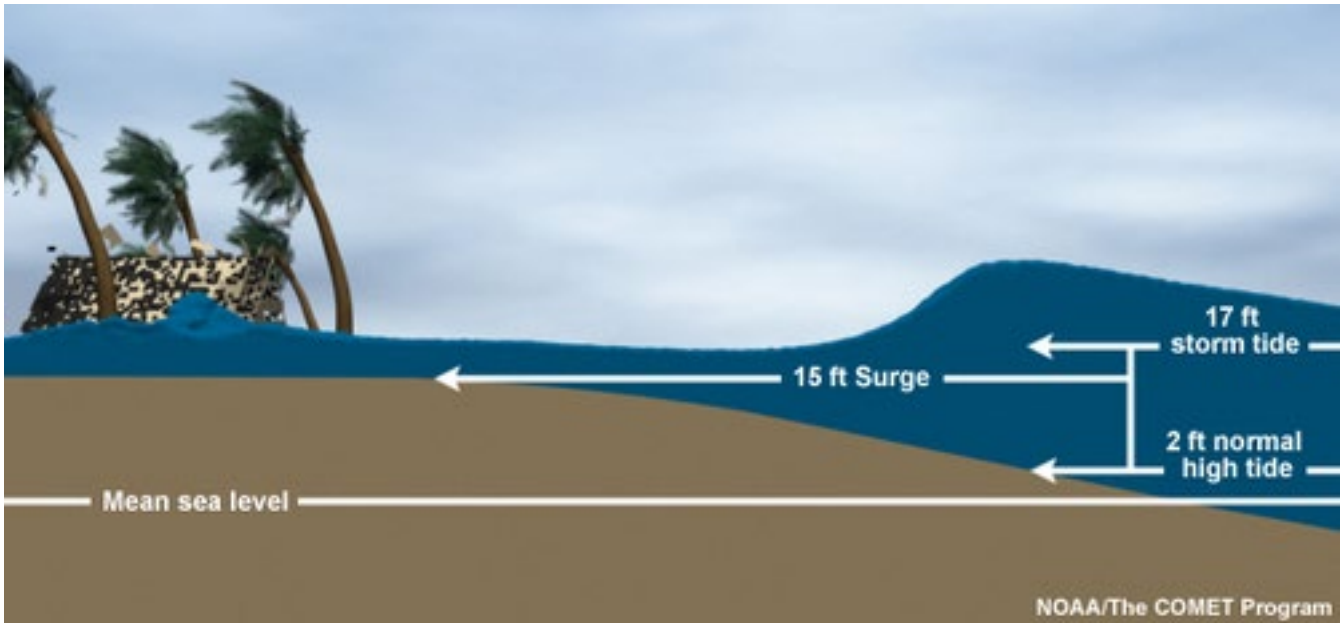
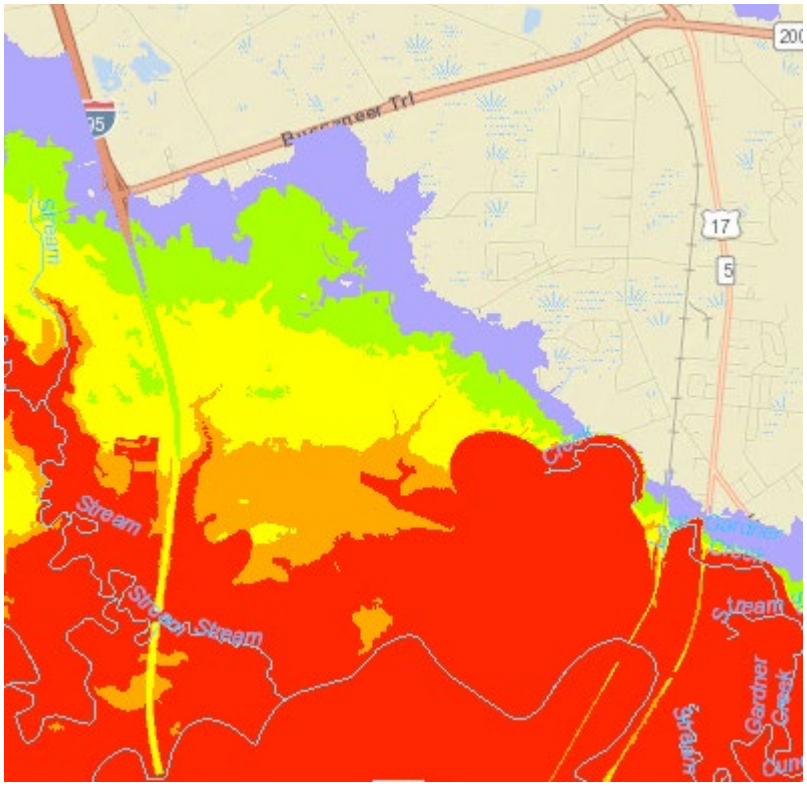


Figure 3.5 Storm Surge vs Storm Tide

The Sea, Lake and Overland Surges from Hurricanes (SLOSH) model is a computerized numerical model developed the National Oceanic and Atmospheric Administration (NOAA), specifically the National Weather Service's (NWS) National Hurricane Center (NHC), to estimate storm surge heights resulting from historical, hypothetical, or predicted hurricanes by taking into account the atmospheric pressure, size, forward speed, and track data. These maps make it clear that storm surge is not just a beachfront problem, with the risk of storm surge extending many miles inland from the immediate coastline in some areas.

The map represents the storm surge heights that a person should prepare for before a storm, given uncertainties in the forecast. The map shows a reasonable estimate of worst-case scenario flooding of normally dry land at particular locations due to storm surge. There is a 1-in-10 chance that the storm surge flooding at any particular location could be higher than the values shown on the map.

Per Florida Statute 163.3178(2)(h), the coastal high-hazard area (CHHA) is the area below the elevation of the Category 1 storm surge line as established by the SLOSH model. Per Policy CHA.05.01 of the 2030 Comprehensive Plan, SLOSH Category 1 is defined as the CHHA. In the WBD, properties in the CHHA cannot increase densities and intensities, per Comprehensive Plan Policy CHZ.05.02. In addition, the county will limit public facilities in the CHHA zones, including, but not limited to, roads and public parks, accept for water dependent uses such as boat ramps, kayak launches, river front promenades and multi-use trails, per Comprehensive Plan Policy CHZ.06.01 and CHZ.06.03. Approximately 1,530 acres of the William Burgess District are CHHA/SLOSH Category 1 (see Figure 3.5 (right)).



*Storm Strength	Nassau
Category 1	Up to 7.1′
Category 2	Up to 11.2′
Category 3	Up to 14.9′
Category 4	Up to 19.0′
Category 5	Up to 23.5′

Figure 3.6 Storm Surge Categories in the WBD

Sea Level Rise

The Fernandina Beach NOAA tide gauge is the one of the oldest in the state and closest to this study area. This gauge has shown SLR rise of 8.28 inches since it started recording in 1897. Based just on this historic SLR trend, anticipating up to an additional one foot is not unrealistic over the next 100 years. However, that is on low end of what scientific models are predicting at this point. See Figure 3.6 (below) for the Sea Level Rise prediction curves.

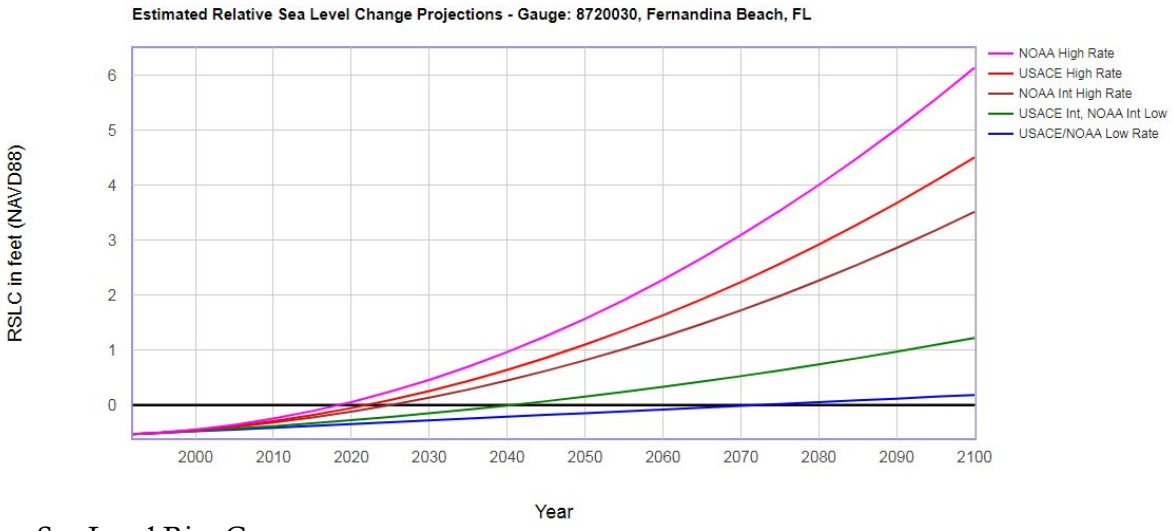


Figure 3.7 Sea Level Rise Curve

Scientists agree that sea level will continue to rise and that by the end of this century it will stand somewhere between two to seven feet higher than it is today. What that means for a particular area depends largely on local factors.

Rising sea level affects the salinity of both surface water and ground water through salt-water intrusion. Shallow coastal aquifers such as those in the William Burgess District are at risk to this salt-water intrusion process. Salt water intrusion raises the water table, which decreases the amount of rainwater the ground can absorb, which leads to greater flooding occurrences, especially during large storm events such as hurricanes.

The following data sources inform Nassau County's relationship to coastal and inland flooding and sea level rise:

- Nassau County Flood Zones – Effective August 2, 2017 (FEMA Flood Insurance Rate Maps)
- Wetlands Mapping Data – National Wetlands Inventory, Florida Land Use Classification Cover System, St. John's River Water Management District
- Nassau County Storm Surge Map and Coastal High Hazard Area (area below elevation of Storm Surge Category 1 per Comprehensive Plan Policy CHZ.05.01 and F.S. 163.3178(2)(h).)
- National Oceanic and Atmospheric Administration Tides and Currents – Historic Tide Gauge Data, Fernandina Beach (Recording since May 8, 1897)
- National Oceanic and Atmospheric Administration Office for Coastal Management – Sea Level Rise Viewer
- United States Army Corps of Engineers – Sea-Level Change Curve Calculator

In early 2019, the Nassau County Board of County Commissioners accepted a Florida Department of Environmental Protection (DEP) grant award to complete a Vulnerability Assessment for certain parts of the County. A Vulnerability Assessment reviews future exposure to existing developed areas and future areas of development, financial exposure, and risks to significant environmental and cultural resources. This project will specifically help the County assess the overall environmental and economic vulnerabilities related to flooding and sea level rise risks.
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Adaptation Planning for Sea Level Rise

Adaptation to sea level rise are the steps a community takes to become more resilient to the impacts of rising seas over a period of time. Adaptation strategies are complimentary of each other, rather than mutually exclusive, and may be applied comprehensively based on the context of a community's varying needs and vulnerabilities. Several adaptation strategies a community may use to address current and future coastal flooding include: protection, accommodation, strategic relocation, avoidance, and policy measures/procedural strategies. Strategies included in the William Burgess District include proactive floodplain management, low impact design elements, and placement of more intense and/or dense land uses outside of the Coastal High Hazard Area.

Water Quality

A wellhead protection area is a surface and subsurface land area regulated to prevent contamination of a well or well-field supplying a public water system. This program, established under the Safe Drinking Water Act (42 U.S.C. 330f-300j), is implemented through state governments. The Florida DEP Wellhead Protection Rule establishes a 500-foot radius circular Wellhead Protection Area around all wells which serve community and non-transient non-community public water supply systems. These systems include residences, stores, RV parks, hotels or churches, schools, factories, large businesses with their own drinking water supplies, and includes a range of sizes from small mobile home courts to city and county utilities.

The US Environmental Protection Agency (EPA) maintains a data base of State Water Quality Reports provided under the Clean Water Act. Recent reports note several issues with the Nassau River and Plummer Creek. In 2002, the assessment of the EPA based on these reports categorized the River and Creek as polluted. From that point forward no assessments were performed although as late as 2012 Technical Reports reported decreased oxygen, high levels of bacteria and other microbes, increased turbidity and high levels of nitrogen and phosphorus.

Measures within the WBD can be taken to improve water quality for run-off by using low impact development techniques to filter stormwater and runoff before it enters the creeks, rivers, and aquifers.

Invasive Plant Management

A non-native plant is one not native to the area where it growing. In their native ranges, plants generally do not become a nuisance. Today, with modern transportation, many exotic plants have caught a free ride to Florida. Once here, they are free from natural enemies that existed in their home range (animals that eat them, plant diseases, etc.), and can outgrow and replace Florida's native plants. Some non-native plants become invasive within the new ecology and pose a direct and urgent threat to the economy, health and wildlife of the area.

Not all non-native plants are invasive. But the ability to take over and crowd out the native plant material and compete for water and nutrients has an adverse effect on Nassau County's biodiversity and ecosystems – the very beauty cherished in Nassau County. There are tremendous eradication and control costs associated with agriculture, forests, fisheries, navigation and storm water management.

Identification and education can assist in removal and prevention efforts. Responsible disposal and prevention of spread on boats and construction vehicles can help minimize their spread. Maintaining the maximum amount of native plant material during development and minimizing clearcut practices can reduce the opportunities for invasive

plants to establish and spread.
The benefits of native plants are:

- Low water requirements
- Significant reduction of water runoff and, consequently, flooding
- Low maintenance therefore reduce the need for time, chemical and fertilizer
- Native plants attract a variety of birds, butterflies, and other wildlife by providing diverse habitats and food sources

The WBD will limit the use of non-native plans and restrict the use of invasive plant materials.

Peril of Flood Comprehensive Plan Amendments

In early 2019, the County approved changes to the 2030 Comprehensive Plan to comply with state Peril of Flood Requirements found in Chapter 163, F.S. This improves the County's Comprehensive Plan to proactively plan for our community and address citizen concerns about flooding, floodplain management, and resiliency.

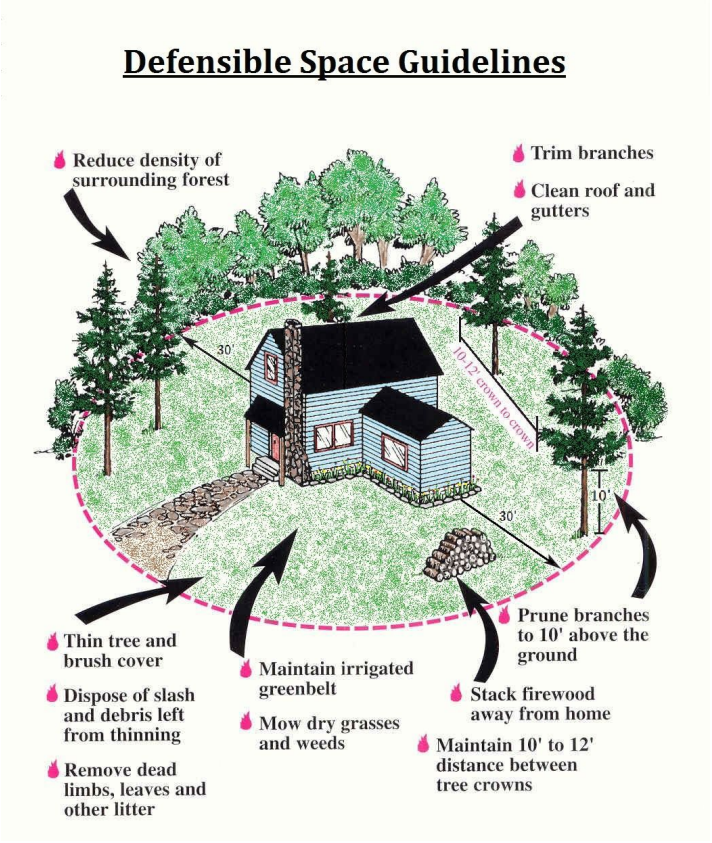
Wildfire Mitigation

Much of our area is considered "wildland/urban interface" at risk to wildfire. Over the past five years (2013-2017) Nassau had 206 wildfires that burned 1,538 acres; less than 25% of those fires were caused by nature (lightning), all others were "man-made" (e.g., debris burning, equipment, railroad sparks, etc.). Our Nassau County and Fernandina Beach firefighters partner with Emergency Management and the Florida Forest Service to advocate for fire prevention and mitigation through public outreach with the FireWise and ReadySetGo! Programs.

The wildland-urban interface (WUI) is defined in the National Fire Plan as the area where houses and wildland vegetation coincide. Areas mapped as low-risk include urban areas and large agricultural properties that have a low probability of wildfire occurring and/or a high level of suppression capabilities.

The FFS wildfire mitigation program has two major components designed to reduce risk throughout the state: Fuel Reduction and Information and Education.

The CHN serves as a buffer for Wildfire Mitigation in certain areas.



Types of Wildland-Urban Interface: 1) Boundary, 2) Intermix, and 3) Island or occluded

Stormwater Management

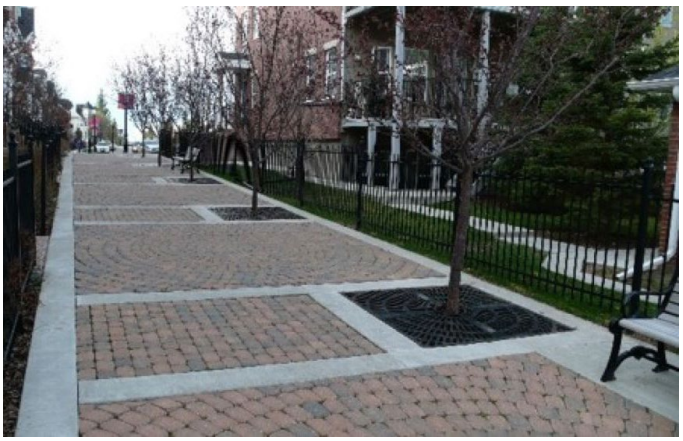
Until recently storm water and its associated runoff have been handled through highly engineered methods designed to move stormwater away from the built environment. Recent methods have utilized integrated storm water management techniques that utilize localized structures to keep water closer to where it has fallen to more closely mimic the natural and pre-development drainage of a site.

Best Management Practices (BMP) have been developed to address pollution prevention activities, quality and quantity control. These BMP's are based on a variety of structures capable of managing and controlling surface run-off through techniques, such as infiltration, detention, conveyance and/or rain harvesting. In general, they employ physical, chemical, and/ or biodegradation processes to improve the quality of surface run-off by minimizing the amount of storm water-based pollutants washed into nearby watercourses. The structures help to reduce flood impacts by temporarily storing water, often filtering the pollutants at source, and encouraging `infiltration of storm water into the ground. The design of structures can often be geared towards reducing impacts across the flood pathways and at distant impact sites further down a catchment area.

Stormwater management does not have to be limited to the traditional retention pond of yesteryear. Stormwater management strategies can be designed in a creative way that is both functional and an amenity to the community.

Methods for controlling surface runoff include:

- Downspout Disconnection
- Rainwater Harvesting
- Rain Gardens
- Planter Boxes
- Bioswales
- Permeable Pavements
- Green Streets and Alleys
- Green Parking
- Green Roofs
- Urban Tree Canopy
- Land Conservation



Dark Skies

Light pollution, the inappropriate use of artificial light at night, is an environmental pollutant that harms our planet and robs us of the opportunity to experience the wonder of a natural night sky. Proper lighting can be utilized that allow for safe use of public and private spaces without adversely affecting our heath, and the health of nighttime species. As an example, the Nassau County Code addresses beachside lighting as it affects migrating and nesting turtles, although all areas of the county can benefit from the reduction of light pollution.

Implementation of policy regarding lighting and dark skies relates to energy efficiency, ecology, human health, and public safety.

Reduction of Heat Island Effects

According to the Environmental Protection Agency, "urban heat islands" occur when cities replace natural land cover with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat. This effect increases energy costs, air pollution levels, and heat-related illness and mortality. Climate change will likely lead to more frequent, more severe, and longer heat waves during summer months.

In a growing area like the William Burgess District where land is positioned to be converted from greenfields to developed sites, being thoughtful about the heat island effect is an important consideration relative not only to a more environmentally smart community, but also a healthy community safe for its citizens.

Strategies around ensuring a robust tree canopy, green roofs, and vegetation can help reduce urban heat island effects. Vegetation shades building surfaces, deflects radiation from the sun, and releases moisture into the atmosphere. "Cool roofs" and ensuring more green open space are additional strategies

Green Building/Energy Efficient Buildings

In 2017, about 39% of total U.S. energy consumption was consumed by residential and commercial building sectors. Approximately 40% of materials produced by the economy go into the built environment. Finding ways to promote increased energy efficiency and smart sourcing and/or reuse of materials in the built environment is an important factor in ensuring environmentally sensitive development.

While various certification programs exist regarding the "Green" nature of a structure, principles of these programs can be incorporated into building and site design regardless. In Florida, public structures are required to meet a sustainable building rating system or green building code. Florida Statute 255.2575 regarding energy-efficient and sustainable buildings states that "all county, municipal, school district, water management district, state university, Florida College System institution, and state court buildings shall be constructed to comply with a sustainable building rating system or a national model green building code. This section applies to all county, municipal, school district, water management district, state university, Florida College System institution, and state court buildings the architectural plans of which are commenced after July 1, 2008."

Energy efficient building designs are encouraged in the WBD.

Section 3.5 Floodplain Management

Floods

A flood or flooding refers to the general or temporary conditions of partial or complete inundation of normally dry land areas from the overflow of inland or tidal water and of surface water runoff from any source. Floodplains are defined as any land areas susceptible to being inundated by water from any flooding source.

Flooding can occur in any season and can occur in several ways:

- River and lakes that overflow due to excessive rain
- Waterways that are blocked with debris and overflow
- Water containment structures such as levees, dams or water and sewer systems can break
- Strong winds from tropical storms or hurricanes cause a storm surge by pushing seawater on to land

Flood stages are the water elevations at which varying levels of damage to personal property occurs. Locally heavy precipitation may produce flooding in areas other than delineated floodplains or along recognized drainage channels. If local conditions cannot accommodate intense precipitation through a combination of infiltration and surface runoff, water may accumulate and cause flooding. Several variations of flooding occur in our area due to the effects of severe thunderstorms, tropical cyclones, seasonal rain, and other weather-related conditions.

Flooding impacts the public, first responders, private property, public infrastructure and facilities, the environment, cultural resources, and a community's economy.

Floodplain Management

Floodplain management is the operation of a community program of preventive and corrective measures to reduce the risk of current and future flooding, resulting in a more resilient community. These measures take a variety of forms, are carried out by multiple stakeholders with a vested interest in responsible floodplain management and generally include requirements for zoning, subdivision or building, building codes and special-purpose floodplain ordinances. A floodplain manager is the principal community administrator in the daily implementation of flood loss reduction activities including enforcing the community's flood damage prevention ordinance, updating flood maps, plans, and policies of the community, and any of the activities related to administration of the National Flood Insurance Program (NFIP).

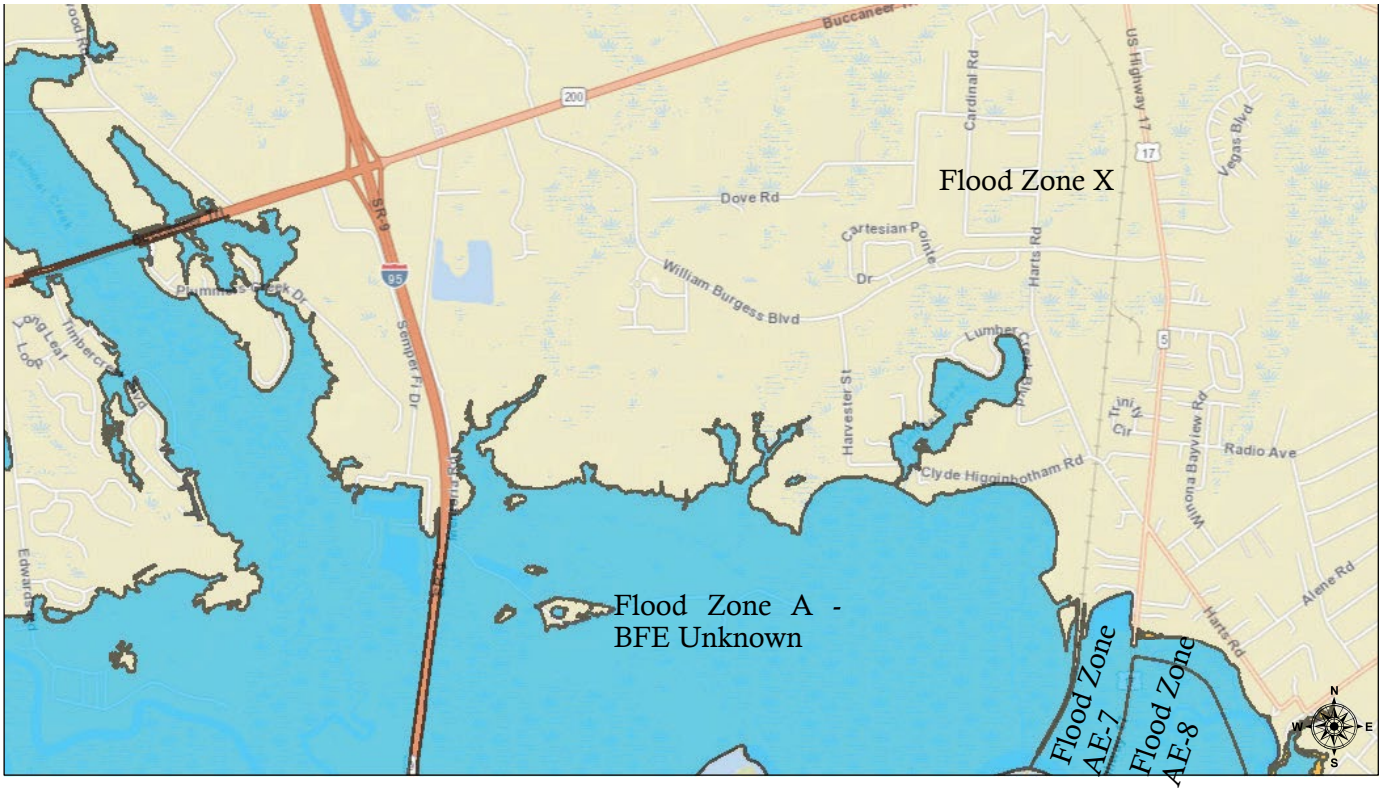


Figure 3.8 William Burgess District Flood Zones

While FEMA has minimum floodplain management standards for communities participating in the National Flood Insurance Program (NFIP), adopting higher standards will lead to safer, stronger, more resilient communities.

Floodplains

According to FEMA, a floodplain is any land area susceptible to being inundated by floodwaters, from any source. The USGS further defines a floodplain as the relatively flat lowland that borders a river, and is usually dry but is subject to flooding.

To establish floodplains, FEMA adopted the base flood elevation, which is the level of a flood that has a one percent probability of occurring in any given year. This level of flood is referred to as the base flood, the one percent flood, or the 100-year flood. The area that would be inundated by a base flood is called the 100-year floodplain. This is often misunderstood because many assume such a flood would only occur once every 100 years; however, as explained, the "100" number is referring to the one percent chance of the flood reaching that specified floodplain IN ONE YEAR.

Flood zones describe the land area in terms of its risk of flooding. Flood zones, floodplain boundaries, and base flood elevations are shown on the FEMA flood maps. Areas identified as a high flood hazard area on the Flood Insurance Rate Map (FIRM) is identified as a Special Flood Hazard Area (SFHA). SFHA are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. In high-risk areas, there is at least a 1 in 4 chance of flooding during a 30-year mortgage. SFHA's may have higher Base Flood Elevations (BFE) to ensure the safety of the buildings built in the flood zone. BFE is the computed elevation to which flood waters are anticipated to rise during the base (1-percent-annual-chance) flood event. BFEs, typically rounded to the nearest whole foot, are shown on the flood map for areas where a detailed study has been completed. BFE is the regulatory requirement for the elevation or floodproofing of buildings.

There are approximately 2,231 acres of land area located within the SFHA in the WBD.

Flood Risk Reduction

It is important for those located in the floodplain and those responsible for activity in the floodplain (public officials, invertors, and those relying on activities in the floodplain) to ensure that those in the floodplain understand the nature of the risks they face and the seeps that may be taken to reduce this risk. In communities that are part of the National Flood Insurance Program (NFIP), those portions of the community located in the SFHA are subject to mandatory insurance purchase and special land-use requirements including minimum first-floor elevations for new construction. FEMA's Community Rating System (CRS) identifies actions that can be taken by the community to reduce their risk and gives insurance premium reductions for communities that take appropriate mitigation actions.

Such actions include: structure elevation, land use planning and zoning, property acquisition or relocation, construction standards and building codes, natural storage, hazard forecasting, early warning systems and emergency plans, dry and wet floodproofing, and insurance.

Determining Base Flood Elevations in Approximate A Zones

Zone A identifies an approximately studied special flood hazard area for which no BFEs have been provided. Although BFEs are not provided, the community is still responsible for ensuring that new development within approximate Zone A areas is constructed using methods that will minimize flood damages. This often requires obtaining or calculating BFEs at a development site. Developers, property owners, engineers, surveyors, and others at the local level who may be required to develop BFEs for use in approximate Zone A areas. Any development or redevelopment in an A Zone shall comply with the Nassau County Code of Laws and Ordinances.

At this point in time, Nassau County requires developers of a five (5) acre parcel or a development of 50 lot or more subdivision, to perform a Hydrologic and Hydraulic study to determine the BFE of the acreage. In this case, an analysis should be conducted to determine the location of the 100-year floodplain and the BFE. Due to the development pressure in the WBD, it is our anticipation that a study will be done to determine the BFE in areas currently defined as Flood Zone A in the future.

For more information regarding Floodplain Management, please see the County's website: http://www.nassaucountyfl.com/774/Flood-Resources

Section 3.6 Healthy Communities

Human health is linked with the health of the environment. Much research has been done on the effects of the patterns of human settlement on human and environmental health. Both need to thrive synergistically. Planners in Nassau County have taken this into account when designing the WBD. Protecting areas of the natural environment for the benefit of water quality, air quality, and local flora and fauna also benefits the mental and physical health of the residents who will reside in the new community.

The connection between the health of a community and land use planning dates back to the middle of the nineteenth century when in big cities; health reforms were put in place to remedy unsanitary conditions and overcrowding. Today, however, public health concerns center around obesity and accompanying cardiovascular disease and diabetes which results from a sedentary lifestyle and excessive caloric intake of unhealthy types of fried, packaged or convenience foods.

Protecting the public health, welfare and safety has been the goal of planning since its origin. Nassau County planners have intentionally incorporated accessible and attractive amenities into the William Burgess District design in order to assist in efforts to improve the health of our community's citizens by encouraging healthy lifestyles through the built environment.

> *According to the Centers for Disease Control, only one in five adults, get the required amount of physical activity. Planners can, through the healthy design of communities, create places where it is easier to exercise.*

Collaborative land use planning can have a positive effect on many factors related to the health of the physical environment and the people who live within it such as:

- The opportunity for economic sufficiency;
- Locations for participating in physical activity;
- Options for safe transportation;
- A variety of housing choices including affordability;
- Healthy air and water quality; and
- Good mental health fostered by connections to social opportunities and public green space.

Nassau County Community Health

Since 2011, the Nassau County Community Health Improvement Planning group, together with local community public health professionals, non-profit partners, and faith-based members, has utilized the National Association of County and City Health Officials' (NACCHO) community-driven strategic planning process called Mobilizing for Action through Planning and Partnerships (MAPP). Through the MAPP process, Nassau County health officials collaborate to assess and achieve improved public health outcomes for county residents.

Every three years the community partners meet in September to discuss the findings of the most recent Community Health Assessment (CHA) for Nassau County. The partners then set priorities for the top areas of concern to address in the next three-year time period. In September 2018, the priorities to be addressed in the 2019-2021 Community Health Improvement Plan were determined to be:

- Housing & Healthy Places
- Access to Care
- Behavioral Health & Substance Abuse
- Health Disparities
- Community Support

Using statistics obtained from the Florida Health Charts website, the Health Planning Council of Northeast Florida, Inc. has prepared a report for Nassau County documenting indicators and developing initiatives http://nassau.floridahealth.gov/programs-and-services/community-health-planning-and-statistics/_documents/nassau-county-community-health-status-assessment-october-2018.pdf

According to the 2018 County Health Rankings, of the 67 counties in the state of Florida, Nassau County has the following standings:

- Nassau ranks 17th for Health Behaviors
- 17th for Clinical Care
- 5th for Socioeconomic Environment
- 57th for Physical Environment

Smart Growth

County planning officials can help boost Nassau County's rank with the smart growth design principles. These principles have been incorporated in regulations for the William Burgess District. In fact, the Florida Division of Environmental Health, the first public health agency in the United States to become a partner in the national Smart Growth Network, understands that urban planning and land-use patterns have a direct impact on public health and neighborhood prosperity. To this end, the Centers for Disease Control and Prevention's Community Preventive Services Task Force, recommends land use and environmental design interventions that increase physical activity. These include:

- Street connectivity;
- Sidewalk and trail infrastructure;
- Bicycle infrastructure;
- Public transit infrastructure and access;
- Mixed land use environments that increase the diversity and proximity of local destinations where people live, work, and spend their recreation and leisure time; and,
- Access to parks, and other public or private recreational facilities.

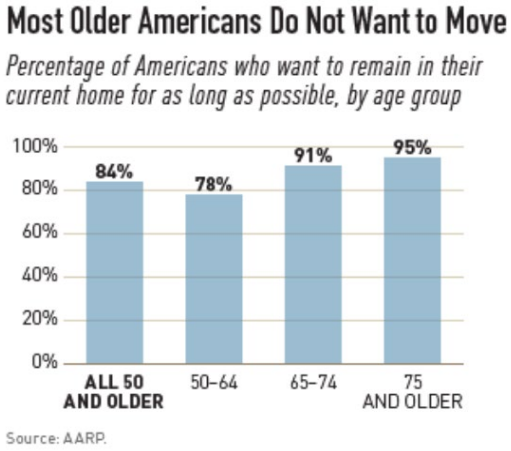
Development patterns that promote healthy living by encouraging walking, bicycling and other physical activity improve the quality of life for residents and can drive down healthcare costs. This is important to young and old alike. A study released in the Journal of Gerontology showed that older people with weak muscles are 50 percent more likely to die earlier. Having communities which encourage active transportation and recreation can help to support stronger muscles in our aging population.

Jay Walljasper, editor of On the Commons online magazine writes that walking and biking trails are the new Urban Commons where citizens are "seeking out a place to connect with neighbors, understand our surroundings and gain a sense of place."

Ryan Gavel, the concept originator of the Atlanta Beltline, a trail that circles the city of Atlanta, says, "I can go to the grocery store, we can go to the park. Our kids spend a lot less time in the car. It's just an amazing way of life..."

Aging in Place

Aging in Place is a concept of providing infrastructure, services, and opportunities that allow people to live independently in their homes as they age. The majority of people over 50 want to stay in their own homes as long as possible, according to a survey by AARP. 21% of Nassau County residents are age 65 and older. According to The University of Florida's Bureau of Economic Business Research (BEBR), that percentage is going to increase to 29% by 2045. In order to allow our residents to age in place, the design of our communities must be conducive to an aging society.



SENIORS FOCUS GROUP

The Florida Department of Health and a Partnership for a Healthier Nassau County conducted a focus group for seniors during the Community Health Needs Assessment held on May 22, 2015 at the Nassau County Council on Aging senior center in Hilliard. The focus group asked the seniors eight questions related to health. For five of the eight questions the reason stated by the seniors that health issues prevailed was lack of adequate transportation.

According to AARP, our communities are not prepared for an aging society. AARP therefore, developed an online assessment tool to encourage action by consumers and policymakers. The AARP Livability Index is a method by which the organization scores neighborhoods across the U.S. for the services and amenities that impact our lives the most. Users can search the Index by ZIP Code to find an overall livability score, as well as a score for each of seven major livability categories highlighted below. It is the first tool of its kind to measure livability at the neighborhood level for the entire country.

Yulee's livability score is 55 out of 100 based on the following categories:
Housing - Affordability and access (Score 53)
Neighborhood - Access to life, work, and play (Score 38)
Transportation - Safe and convenient options (Score 38)
Environment - Clean air and water (Socre 63)
Health - Prevention, access and quality (Score 48)
Engagement - Civic and social involvement (Score 86)
Opportunity - Inclusion and possibilities (Score 63)

https://livabilityindex.aarp.org/search#Yulee+FL+32097+USA

The WB CCB will help to increase the livability score by offering more housing options, better access to "live, work, play" opportunities within the District, encourage healthier living, promote development patterns which protect the environment, provide alternate modes of transportation and safe access to a comprehensive thoroughfare network, add to opportunities for civic engagement, and offer better opportunities for residents of all ages.