Equity Advisory Council

October 17, 2024
6:00 pm
County Administration Building - Grace Knight Conference Room
12 SE 1 Street, 2nd Floor, Gainesville, FL 32601

Pages

1. Call to Order
2. Welcome and Introduction of New Members - Jorelle Degen and Frank White
3. Approval of the Agenda
4. Approval of Minutes 1
5. Comp Plan Review - Environment, Climate, and Energy 4
6. Departmental Orientation
    - 6.1 Environmental Protection Department - Stephen Hofstetter 162
7. New Business
    - 7.1 Annual Work Plan and Accomplishments Report 202
8. Member Comments
9. Public Comment
10. Announcements
11. Adjournment

Equity Advisory Board

Date:	September 19, 2024
Time:	6:00 pm
Location:	County Administration Building - Grace Knight Conference Room 12 SE 1 Street, 2nd Floor, Gainesville, FL 32601

1. Call to Order

Chair Rawls called the meeting to order.

Members Present: Kali Blount, Yvette Carter, Gerie Crawford (Vice Chair), Nancy Dean, Diane Dimperio, Alena Lawson-Bennett, and Ronald Rawls (Chair)

Members Absent: N/A

2. Approval of the Agenda

Gerie Crawford made a motion to approve the agenda as presented; Yvette Carter second; unanimous approval; motion carried.

3. Approval of Minutes

Diane Dimperio made a motion to approve the August 24 minutes as corrected; Yvette Carter second; unanimous approval; motion carried.

4. Departmental Orientation

Fire Rescue

Chief Harold Theus provided an overview of Fire Rescue services. The Department has five divisions including Finance & Accounting; Revenue Collections; Operations; Emergency Management; and Enhanced 911 & Communications. Currently, the department has 367 employees.

The Department hires people based on their character and commitment to public service and trains them to be fire fighters and Emergency Medical Technicians (EMT's). The department has 17 stations and provides county-wide ambulance service. The Towns of High Springs, LaCrosse, and Newberry have their own fire departments.

Department demographics for gender are 81% Male and 19% Female and for ethnicity 72% White; 11% Black; 12% Hispanic; and 5% Other. The physical

agility assessment was difficult for females to pass years ago, but new tools and technology reduces this barrier. Our Captain for Recruitment goes to local schools to recruit. One Assistant Chief is Female and one is African American. Two African Americans are eligible for promotion to Lieutenant. The majority of employees have less than five years experience.

Chief Theus invited the Board to attend an upcoming "Let's Talk - How to have a conversation with someone who is different than you" session to ensure all employees feel welcome and included. The next is tentatively scheduled for November.

Retention has dramatically improved over the last three years due to better pay, schedules, and work environments. Employees who are multi-lingual receive additional pay. The starting salary is $48,100 for an EMT Firefighter. Paramedics will receive an additional $8,500; Driver Operators are paid $4 more per hour.

The Combined Communications Center (911 operators) has a contract to allow non-English speakers to provide emergency services and care.

The department is starting a Mobile Integrated Health Services program wherein a Mental Health Counselor, Paramedic and EMT provide community paramedicine, funded by the federal Opioid Settlement Grant. This will bring services to people in unincorporated Alachua County so they don't need to go to the Emergency Room for routine health services.

Environmental Protection

Director Stephen Hofstetter was postponed until the October 17 meeting.

5. Equity Audit Tool

Housing Element

Ben Chumley, Growth Management, reported that staff used the Equity Audit tool to answer questions regarding the Housing Element of the Comp Plan. Inclusionary Housing policies are being developed for review by the Equity Advisory Board before presenting to the County Commission. This could be a good tool to increase mixed income housing.

Some situations will require mandatory Inclusionary Housing. Mixed use developments can exchange non-residential components for affordable housing.

It was suggested that staff either define or remove the term "Fair Share Housing." The definition of "Affordable Housing" is paying no more than 30% of household income. One of the main objectives of the Housing Element is to disburse

2

affordable housing throughout the County. The County can donate surplus property for affordable housing projects. It was suggested that staff consider reducing the one-home-per-five-acres for family subdivisions.

This information will be used during the next update of the Comprehensive Plan. Items that were listed as "generally" should be updated so they are "specifically" addressed.

6. Member Comments

None.

7. Public Comments

None.

8. Announcements

The consensus was to cancel the December meeting in observance of the Christmas holiday.

The County purchased the Sunrise Motel ($2 million for 35 units) so as not to displace occupants in 30 units.

The Eastside Health Clinic is now operating. It is located off Hawthorne Road.

Dr. Houchen resigned. Recruitment hasn't started, but the position will be filled.

The NAACP will be hosting "Souls to the Polls" Saturday from 1-7 p.m. outside the Supervisor of Elections Office.

9. Adjournment

The meeting was adjourned by Chair Rawls.

3

ENERGY ELEMENT

ALACHUA COUNTY COMPREHENSIVE PLAN 2019-2040

GOAL

REDUCE GREENHOUSE GAS EMISSIONS AND FOSSIL FUEL CONSUMPTION; MITIGATE THE EFFECTS OF RISING ENERGY COSTS; AND PROMOTE THE LONG-TERM ECONOMIC SECURITY OF ALACHUA COUNTY THROUGH ENERGY CONSERVATION, ENERGY EFFICIENCY AND RENEWABLE ENERGY PRODUCTION.

STRATEGY

Priority 1

Practice energy conservation.

Priority 2

Maximize energy efficiency.

Priority 3

Promote and invest in renewable energy production.

1.0 REDUCTION GOALS

OBJECTIVE 1.1

Reduce countywide greenhouse gas (GHG) emissions by 80% from 2009 baseline emissions by 2050, with an intermediate goal of a 40% reduction by 2020 and a short term goal of 5% annual reduction.

Policy 1.1.1 The County shall implement a plan to reduce GHG emissions per Objective 1.1. To accurately monitor progress, the County shall measure GHG emissions for County operations and implement a method for estimating countywide emissions. Findings shall be released in an annual status report for County operations, with an estimate of community emissions reported biennially (i.e. every two years.) In addition to changes in total GHG emissions, reports shall include indicators of improvements in efficiency such as reductions in emissions per person, per employee or per square foot, improvements in building performance ratings, or similar measures.

Policy 1.1.2 The County shall work with other local governments, groups and organizations to achieve Objective 1.1 through coordinated reduction strategies, and to encourage adoption of a common method for estimating local and regional GHG emissions.

Policy 1.1.3 As water conservation contributes to the reduction of greenhouse gas emissions, reduce total water consumption in Alachua County by 10% from 2010 levels by 2020 through the policies of the Conservation and Open Space and Potable Water and Sanitary Sewer Elements. In addition to changes in total consumption, the County, in coordination with potable water suppliers, shall track and report on indicators of improvements in efficiency such as rates of participation in voluntary conservation programs like Florida Water Star^{SM} or other similar measures.

2.0 THE BUILT ENVIRONMENT

OBJECTIVE 2.1 - COMMUNITY

Encourage energy conservation and energy-efficient design in the built environment of Alachua County.

Policy 2.1.1 The land development regulations shall provide, and encourage the use of, energy efficient design techniques such as passive solar design for streets and houses, sustainable landscaping, and techniques identified in Objective 5.1 of the Conservation and Open Space Element and Policy 2.2.5 of the Housing Element.

Policy 2.1.2 Work with the community to develop an incentive program to encourage new structures and retrofits to exceed the required minimum energy and water efficiency standards of the Florida Building Code.

Policy 2.1.2.1 As one incentive, the County shall develop a program where the efficiency rating of a structure, such as the Energy Performance Level (EPL) rating for residential structures or the equivalent for non-residential structures, can be used as a basis for recognition of buildings exceeding a defined threshold for efficiency.

Policy 2.1.2.2 Owners of recognized structures shall be encouraged to participate in a performance monitoring program to track the energy usage of the buildings over time, as an indicator of success in achieving reductions.

Policy 2.1.2.3 The incentive program shall be evaluated periodically to determine whether adjustments to the established threshold are warranted.

Policy 2.1.3 Alachua County shall work with other local governments and local groups and organizations to develop a community weatherization program to improve the energy efficiency of existing structures.

OBJECTIVE 2.2 - COUNTY GOVERNMENT

The County shall explore new opportunities and adopt measures to conserve energy, maximize energy efficiency and use renewable energy in County facilities.

Policy 2.2.1 Weatherize all County buildings to the maximum extent practical.

Policy 2.2.2 The County shall incorporate into its annual Capital Improvements budget a category for energy and water conservation and efficiency projects for County facilities.

Policy 2.2.3 Construct all new County facilities to conform to a nationally recognized, high performance energy efficiency standard and to Florida Water Star^{SM} standards.

Policy 2.2.4 The County shall work with the School Board of Alachua County and other local governments to seek funding and develop strategies to build energy and water efficient schools, retrofit and upgrade existing schools to be more energy and water efficient, and use renewable energy sources for school facilities.

3.0 ENERGY EFFICIENT LAND USE

OBJECTIVE 3.1

Promote energy-efficient land use patterns that reduce travel costs and encourage long-term carbon sequestration.

Policy 3.1.1 Promote energy efficient land use patterns through the policies of the Future Land Use Element, Transportation Mobility Element and this Element, including measures such as:

(a) Mix of uses;

(b) Transit supportive density;

(c) Compact growth patterns;

(d) Road connectivity and multimodal efficiency;

(e) Pedestrian and transit oriented design techniques; and

(f) Clustering techniques in the rural area.

Policy 3.1.2 The Unified Land Development Code shall be reviewed for opportunities to promote the goals, objectives and policies of this Element, and updated as needed.

Policy 3.1.3 Work with the community to develop an incentive program encouraging energy efficient, sustainable developments that exceed the minimum standards of the Comprehensive Plan and Unified Land Development Code.

Policy 3.1.3.1 As one incentive, the County shall develop a program recognizing sustainable development projects incorporating the techniques identified in Policy 3.1.1.

Policy 3.1.3.2 Owners of structures within participating developments shall be encouraged to participate in a performance monitoring program to track the energy usage of the development over time, as an indicator of success in achieving reductions.

Policy 3.1.4 Promote redevelopment and infill within the Urban Cluster, and within municipal boundaries consistent with Policy 1.1.7 of the Intergovernmental Coordination Element.

Policy 3.1.5 The County shall work with the School Board of Alachua County and coordinate through the Elected Officials' Group and Staff Workgroup to evaluate the energy efficiency of the school siting standards in the Interlocal Agreement for Public School Facility Planning and Public School Facilities Element, and encourage siting of new schools in locations that promote infill and compact growth patterns, minimize vehicle miles travelled, and promote walking and bicycling opportunities for students.

OBJECTIVE 3.2

The County shall encourage long-term carbon sequestration practices on both public and private land.

Policy 3.2.1 Promote retention of sustainable agriculture and conservation land uses that serve as stable carbon sinks.

Policy 3.2.2 The County shall protect and seek to increase tree canopy in the Urban Cluster.

Policy 3.2.2.1 The County shall partner with local groups and organizations to develop a community outreach program that encourages the public to plant trees and provides information on the resulting energy conservation and carbon sequestration benefits.

Policy 3.2.2.2 Periodic reports on tree canopy coverage in the Urban Cluster shall be provided to the County Commission.

Policy 3.2.3 Promote and provide incentives for the use of Low Impact Development strategies in new developments to protect natural ecosystems in accordance with Policies 5.11 and 5.12 of the Stormwater Management Element and Policies 3.6.15 and 4.5.21 of the Conservation and Open Space Element.

Policy 3.2.4 Alachua County shall develop and maintain a carbon sequestration inventory map to be used as a basis for long range planning and development of partnerships with other local governments to encourage carbon sequestration.

OBJECTIVE 3.3

Identify key features within the County that help to further the energy conservation goals of the Comprehensive Plan in accordance with Florida Statutes.

Policy 3.3.1 The following maps identify energy conservation features and facilities that contribute to energy conservation, greenhouse gas reductions and carbon sequestration in Alachua County:

(a) Urban Cluster Area on Future Land Use Map

(b) Rapid Transit Corridors, TME

(c) Express Transit Corridors, TME

(d) Existing and Future Bicycle and Pedestrian Network, TME

(e) Preservation Areas on Future Land Use Map

(f) Strategic Ecosystems, COSE

(g) Alachua County Forever Land Conservation Projects

(h) Alachua County "GeoGreen Mapper" (http://maps.alachuacounty.us/geogreen)

4.0 ENERGY EFFICIENT TRANSPORTATION SYSTEM

OBJECTIVE 4.1

Develop a diversified transportation system that reduces per capita and total fossil fuel consumption through mechanisms that reduce vehicle miles travelled, enhance walking, cycling and transit opportunities, and encourage renewable fuel vehicles.

Policy 4.1.1 Implement transportation mobility and capital improvements plans that promote compact, mixed use development patterns in accordance with Policies 3.1.1 of this Element. Plans shall include funding for transportation modes that provide an alternative to single occupant automobiles.

Policy 4.1.2 The County shall collaborate with other local governments to investigate the use of alternative fuel sources such as biofuel, methane, electric and/or solar in government fleets.

Policy 4.1.3 Work with other local governments and agencies to promote and expand use of fixed rail transportation.

OBJECTIVE 4.2

Reduce vehicle miles of travel and increase non-automobile mode share in accordance with the policies of the Transportation Mobility Element.

Policy 4.2.1 Reduce vehicle miles traveled per capita within the Urban Cluster by 10% from 2010 levels by the year 2020.

Policy 4.2.2 Increase non-automobile transportation mode share to 5% in the Urban Cluster by 2020 and 10% by 2030.

Policy 4.2.3 To measure success in achieving the goals of this Objective, the County shall include analysis of vehicle miles traveled and non-automobile mode share within the Urban Cluster as part of the annual update of the Capital Improvements Element in accordance with Policy 1.1.6.1 of the Transportation Mobility Element.

Policy 4.2.4 The County shall work with the Metropolitan Transportation Planning Organization and other local governments to develop a baseline estimate of vehicle miles traveled and non-automobile mode share Countywide and adopt a long-term goal for reduction of vehicle miles traveled from the established baseline.

OBJECTIVE 4.3

Encourage alternative transportation options not dependent on fossil fuels.

Policy 4.3.1 Maintain and publish online a map that identifies where low speed, neighborhood electric vehicles can be legally driven.

Policy 4.3.2 Identify areas with barriers to multimodal connectivity in the Urban Cluster and work to eliminate those barriers.

Policy 4.3.3 Require new development to accommodate bicycle and pedestrian modes and seek opportunities to create connections to existing facilities in accordance with the policies of the Future Land Use Element and Transportation Mobility Element.

5.0 COUNTY GOVERNMENT INITIATIVES

OBJECTIVE 5.1

Adopt and implement practices within Alachua County Government that contribute to the energy conservation goals of the Comprehensive Plan.

Policy 5.1.1 The County shall collaborate with other local government entities to share information and strategies on energy saving practices, and pursue joint funding opportunities.

Policy 5.1.2 The County shall pursue development of a program to mitigate for greenhouse gas emissions and develop project ideas to offset carbon impacts of County operation, such as energy conservation and efficiency projects, ecosystem restoration projects or the County's Tree Planting Program.

Policy 5.1.3 Alachua County shall develop a Energy Conservation Investment Program (ECIP) using savings from conservation and efficiency enhancements to County facilities. These

funds shall be reinvested in conservation enhancements through each year's capital improvements program.

Policy 5.1.4 The County shall consider developing and implementing a plan to significantly reduce fossil fuel use in the County fleet for the transportation of waste to the landfill by creating a zero waste initiative in coordination with the municipalities and University of Florida.

Policy 5.1.5 Energy usage and costs shall be considered as part of the life cycle analysis required for capital project decisions by the County.

Policy 5.1.6 Promote the location and expansion of energy conservation, alternative energy, waste reuse/recycling-based and sustainable food production and processing industries as part of the County's economic development efforts.

Policy 5.1.7 Promote telecommuting and use of teleconferencing in County operations.

OBJECTIVE 5.2

Increase the use of renewable energy in County government.

Policy 5.2.1 The County's goal by 2030 is that 100% of energy purchased or produced for County facilities be from solar photovoltaic sources, with an interim target of 50% by 2025.

Policy 5.2.2 The County shall incorporate renewable energy production into County facilities where appropriate.

Policy 5.2.3 Pursue funding to develop alternative energy facilities that would be capable of producing energy from anaerobic digestion, solar energy, biodiesel or other forms of sustainable energy resources.

6.0 RENEWABLE ENERGY

OBJECTIVE 6.1

Encourage renewable energy production and a countywide system of distributed residential and commercial power generation.

Policy 6.1.1 Encourage all utilities within Alachua County to retrofit existing systems to incorporate net metering and establish net metering agreements.

Policy 6.1.2 Alachua County shall pursue implementation of an efficiency and renewable energy financing program, such as a Property Assessed Clean Energy (PACE) program.

OBJECTIVE 6.2

Increase the use of solar and other forms of renewable energy by County residents, businesses and agricultural operations.

Policy 6.2.1 Encourage and provide incentives for installing solar arrays on rooftops and other impervious spaces, and remove any barriers to their installation in such areas.

Policy 6.2.2 Provide incentives for use of open space areas within Rural Clustered Subdivisions for renewable energy production in accordance with Policy 6.2.12 of the Future Land Use Element.

7.0 SOLID WASTE

OBJECTIVE 7.1

Reduce the solid waste stream generated by Alachua County.

Policy 7.1.1 To help achieve the 75% waste recycling goal mandated by the state by 2020 and reduce greenhouse gas emissions associated with the transport of municipal solid waste, promote a cluster of waste to wealth industries at the Resource Recovery Park to make useful products from recycled materials. As a component of this, work to direct municipal solid waste to the Leveda Brown Environmental Park.

Policy 7.1.2 Achieve a diversion rate from disposal of 40% by December 31, 2012; 50% by December 31, 2014; 60% by December 31, 2016, 70% by December 31, 2018; and 75% by December 31, 2020. Special waste being recycled such as tires, appliances, yard trash and construction and demolition debris will be included. The calculation will be made in accordance with the accepted methodology of the State of Florida Department of Environmental Protection. In addition to changes in total waste diversion, the County shall track and report on indicators of improvements in waste diversion such as percentage of businesses in compliance with the mandatory commercial recycling program, percentage of residential users voluntarily recycling, rates of recycled vs. disposed waste collected at rural collection centers, or similar measures.

Policy 7.1.3 The County shall explore the feasibility of a program that requires source separated organic waste collection and processing.

Policy 7.1.4 The County shall use a portion of the waste stream, such as food waste and brush cuttings, for composting and work with other local groups to make it available for use by community gardens and local farms.

Policy 7.1.5 The County shall seek ways to reduce the amount of yard waste collected and transported to the Leveda Brown Environmental Park, including encouraging composting, mulching, and other onsite methods of yard waste disposal.

8.0 EDUCATION AND PUBLIC INFORMATION

OBJECTIVE 8.1

Provide educational information to the public to promote and encourage energy conservation, energy-efficiency and renewable energy use.

Policy 8.1.1 The County shall work with other local governments, groups and organizations to educate and inform the public regarding energy conservation practices, including strategies identified in Objective 2.2 of the Housing Element.

Policy 8.1.2 Make information available to the community on potential energy conservation incentives such as county recognition of energy efficient homes and developments, credits toward transportation fees, streamlined permitting requirements for redevelopment, and financial incentives available at the state and federal level.

Policy 8.1.3 Partner with local utility providers, municipalities and the University of Florida to make information available to the public on their personal energy usage and possible conservation techniques, the benefits of using renewable energy, and the local, state

and federal incentives and programs available to assist with the installation of solar and other forms of renewable energy.

ENERGY ELEMENT DEFINITIONS

Alternative energy: see renewable energy

Carbon sequestration: The placement of carbon dioxide into a repository, such as geologic formations and terrestrial ecosystems, in such a way that it will remain permanently sequestered.

Carbon Sink: A natural or manmade reservoir that accumulates and stores some carbon-containing chemical compound for an indefinite period.

Consumptive water use: Water removed from available supplies without return to a water resources system, e.g. water used in manufacturing, agriculture, and food preparation.

Diversion rate: The percentage of waste materials diverted from traditional disposal such as landfilling or incineration to be recycled, composted, or re-used.

Energy Conservation: The implementation of practices or strategies that reduce the amount of energy consumed (e.g. turning off the lights, opening windows in moderate temperatures, weatherization, setting thermostats governing heating systems at lower levels and thermostats governing air conditioning at higher levels)

Energy Efficiency: The implementation of practices, strategies and technologies that reduce the amount of energy consumed to achieve a desired effect (e.g. use of engines that provide more miles per gallon of gas, use of heating or cooling appliances that produce more BTU's per watt of electricity consumed, patterns of land use that result in lower greenhouse gas emissions per household)

Greenhouse Gases: Gases that trap heat in the atmosphere that are emitted both through natural processes and human activities, including gases such as carbon dioxide, methane and nitrous oxide.

Green roof: A roof of a building that is partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane. It may also include additional layers such as a root barrier and drainage and irrigation systems.

Low Impact Design (LID): See Stormwater Management Element Definitions

Net metering: A process that enables utility customers to use their own renewable energy generation to offset their consumption and sends excess energy back to the grid thus allowing their electric meters to turn backwards when they generate electricity in excess of the their demand. This offset means that customers receive retail prices for the excess electricity they generate.

Passive solar design: A broad term used to describe non-mechanical design of a building's infrastructure that allows regulation of internal temperature. Principles include orientation of room, location of windows and thermal mass (a material's ability to store heat).

Property Assessed Clean Energy (PACE) Program: A financing structure that enables local governments to raise money through the issuance of bonds or other sources of capital to fund energy efficiency and renewable energy projects. The local government establishes an assessment district and issues bonds to fund renewable energy projects. The property owners that benefit from the improvement repay the bond through property assessments, which are secured by a property lien and paid as an addition to the property tax bill.

Renewable Energy (see also Alternative Energy): Systems that generate energy from non-fossil fuel resources that are locally harvested, collected or concentrated in such a way as to not deplete nor imperil the resource base from which they are derived. These systems are meant to *supplant* fossil fuel based energy production and are best implemented after conservation and energy efficiency

opportunities have been maximized. (e.g. solar photovoltaic panels or solar thermal systems, geothermal energy for heating or cooling of structures, biomass, biodiesel, cellulosic ethanol, wind turbines, methane production via anaerobic digestion from organic materials and discarded foodstuffs)

Sustainability: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs, recognizing the interdependence and mutual importance of environmental, economic and social equity requirements to achieve these ends. The term sustainability is used in Alachua County to describe activities that include, but are not limited the following goals:

- Tend to improve social conditions for all kinds of people
- Increase economic opportunities
- Improve environmental protection or restoration efforts
- Will continue to have these effects for the foreseeable future

Weatherization: The practice of protecting a building and its interior from the elements, particularly from sunlight, precipitation and wind, and of modifying a building to reduce energy consumption and optimize energy efficiency.

CONSERVATION AND OPEN SPACE ELEMENT




ALACHUA COUNTY COMPREHENSIVE PLAN 2019-2040

GOAL

TO CONSERVE, MANAGE AND RESTORE OR ENHANCE THE NATURAL AND HUMAN-RELATED RESOURCES OF ALACHUA COUNTY TO ENSURE LONG-TERM ENVIRONMENTAL QUALITY FOR THE FUTURE.

1.0 CONSERVATION OVERVIEW

OBJECTIVE 1.1 - CONSERVATION STRATEGIES

Embrace multiple, diverse strategies for the conservation of natural systems in Alachua County.

Policy 1.1.1 The County shall promote the long-term maintenance of natural systems through a comprehensive approach that involves education, public participation, regulations, incentives, acquisition, intergovernmental coordination, and other appropriate mechanisms.

OBJECTIVE 1.2 - CONSERVATION AS PRIORITY

Establish environmental conservation as a priority in all decision-making for Alachua County.

Policy 1.2.1 Any decision may directly or indirectly affect the conservation, management, preservation, enhancement, and use of the natural resources of Alachua County. It is the intent of this Element that County officials, staff, and citizens constantly monitor all decisions for the effects they may have on appropriate conservation and use of resources, and that such decisions be made with consideration given to the principles and policies of the Comprehensive Plan and this Element.

Policy 1.2.2 The County shall establish as a priority all principles and policies in this Element when making decisions concerning new or expanded public facilities.

2.0 ENVIRONMENTAL INFORMATION MANAGEMENT

OBJECTIVE 2.1 - INFORMATION SYSTEM

Establish an information system for the natural resources and human-related resources associated with the natural environment, and be proactive in providing public access to this information. Use the information system to measure environmental quality necessary to protect and maintain natural resources that provide a safe and healthy environment for all living things in Alachua County.

Policy 2.1.1 The County shall update and maintain the Conservation Element Map Series and related information system containing data relevant to protect the environmental quality of Alachua County's natural resources. The information shall include, at a minimum, an inventory and maps of:

(a) Surface waters, wetlands and floodplains;

(b) Groundwater resources, including high aquifer recharge areas and wellfield protection areas, and groundwater quality;

(c) Strategic ecosystems;

(d) Listed species and their habitat;

(e) Public parks, preserves and forests, including those held in fee and less than fee simple ownership, such as conservation easements and leaseholds;

(f) Significant geologic features;

(g) Scenic corridors;

(h) Hazard areas including fire and flood prone areas, and existing and potential hazardous materials storage, treatment, and disposal sites; and

(i) Alachua County soil survey and maps.

(j) Open space and greenways.

Policy 2.1.2 Alachua County shall establish a monitoring program using performance indicators to determine the health of natural resources. The monitoring program shall be developed as part of a special work program that includes the following components:

(a) The County shall develop indicators that highlight changes in natural resources.

(1) Indicators may include but are not limited to:

a. Indicators of natural resource losses:

1. Loss of various types of habitat, including wetlands and uplands.
2. Increase in density or intensity of zoning, land use and development in conservation areas.
3. Increase in impervious surfaces in the unincorporated portions of the County.
4. Acres of land converted from agriculture and silviculture.
5. Habitat fragmentation.
6. Acres of forest converted to plantations.

b. Indicators of natural resource gains:

1. Number of acres of preservation land owned or protected by the public or private sector.
2. Number of acres of land that is restored to more natural functioning or quality.
3. Number and acreage of farms using sustainable practices for irrigation, fertilizing, and disposal of animal wastes.
4. Number of housing developments utilizing native plant materials.
5. Acres of forest under certified sustainable management.

c. Indicators whose change may show either natural resources gains or losses:

1. Tree canopy.
2. Air quality.
3. Surface water and ground water quality.
4. Results of voluntary community-based species counts such as Audubon bird counts.
5. Number of listed and/or indicator (key) species.

(b) Indicators shall be tracked and measured incrementally using a geographic information system as part of the land use planning and development review processes.

(c) The County shall implement a performance-based development review process based on selected indicators in conjunction with items in the natural resources checklist referenced in Policy 3.4.1.

(d) The County annually shall compile and review data on selected indicators to determine resource losses and gains and the impacts of development on natural resources in Alachua County.

(e) These data shall be gathered from best available existing sources, including development review data, aerial photography, and mapping resources of other governmental agencies, academic institutions, and non-profit organizations.

(f) The review shall include an evaluation of the effectiveness of current policies and land development regulations, and identification of areas that need improvement to ensure the meaningful protection of natural resources.

(g) The County shall incorporate the results of the review into an annual report that presents the state of the County's natural resources. The report shall be publicized and made readily accessible to all members of the community.

OBJECTIVE 2.2 - EDUCATION AND OUTREACH

Increase public understanding of natural resources issues and provide access to the most current and reliable information so that the public may make informed decisions regarding their health, welfare, and safety.

Policy 2.2.1 The County shall encourage environmental stewardship among all citizens of Alachua County by advancing conservation principles in the everyday operations of Alachua County.

Policy 2.2.2 The County shall implement proactive, innovative, and creative educational programs concerning natural resource issues including, but not limited to:

Air quality;

Surface water and wetlands quality and function;

Groundwater quality and vulnerability;

Water conservation;

Wildlife and aquatic species and habitat;

Native vegetative communities;

Invasive species control;

Natural areas protection;

Agricultural preservation;

Sustainable agriculture and forestry;

Soil conservation;

Energy conservation;

Flood and fire hazard mitigation;

Hazardous waste; and

Waste management.

Policy 2.2.3 The County shall actively pursue interactive public involvement and functional partnerships with the School Board of Alachua County, private schools, the University of Florida and Santa Fe College, the Alachua County Extension Office, and environmental and agricultural organizations, for the purposes of developing and disseminating educational materials and programs.

Policy 2.2.4 The County shall develop and disseminate information bulletins regarding development review regulations and criteria which can be used in the field by field technicians to promote environmentally responsible land use and development practices.

Policy 2.2.5 Educational materials shall be made available to developers, homeowners, and other interested citizens concerning proper maintenance, management, restoration, and development in natural areas (for example, habitat creation, endangered species, management of development ponds, wetlands vegetation, xeriscape, water quality, and water conservation).

Policy 2.2.6 The County shall recognize individuals, groups, developments and projects that exemplify concepts of environmental stewardship embodied in the Comprehensive Plan.

Policy 2.2.7 The County shall actively pursue funding sources for environmental programs based on volunteer participation, such as the River keepers, Lake Watch, World Games, Forest Stewardship Council certification, and Environmental Justice/Environmental Ambassadors programs.

Policy 2.2.8 Where consistent with natural resources protection, the County shall provide interactive opportunities for education and public viewing and enjoyment of wildlife at County-owned lands.

OBJECTIVE 2.3 - RESOURCE AREAS PLANNING

Manage natural resources at a scale appropriate to their protection, and facilitate consensus-building in the public participation process.

Policy 2.3.1 The County shall implement a geographic area-based approach to environmental planning programs.

(a) Area boundaries shall be determined based on the location of natural resources, for example, watersheds.

(b) The County shall seek residents, property owners, and business owners in the area that represent a diversity of environmental, economic, and social interests to form a task force in each area.

(c) Each task force shall work with the County to create plans for the efficient utilization and conservation of human-related and natural resources in the area.

Policy 2.3.2 A Community and Neighborhood Planning program, per Future Land Use Element Section 7 (Implementation), shall address conservation issues including provisions for regional habitat corridors, watersheds and greenways.

3.0 ENVIRONMENTAL LAND USE CATEGORIES

OBJECTIVE 3.1 - CONSERVATION LAND USE CATEGORIES

A conservation land use category shall be established to recognize and protect natural resources within privately owned lands in Alachua County utilizing appropriate regulatory, acquisition, and incentive mechanisms.

Policy 3.1.1 Conservation areas shall consist of natural resources that, because of their ecological value, uniqueness and particular sensitivity to development activities, require stringent protective measures to sustain their ecological integrity. These areas shall include:

(a) Wetlands;

(b) Surface waters;

(c) 100-year floodplains;

(d) Listed species habitat;

(e) Significant geologic features; and

(f) Strategic ecosystems.

Policy 3.1.2 In conservation areas, the following uses, if otherwise consistent with the Comprehensive Plan, generally shall be permitted to the extent that they do not significantly alter the natural functions of the conservation area:

(a) Public and private conservation, recreation and open space uses.

(b) Public and private wildlife preserves, game management and refuge areas.

(c) Water conservation and retention/detention areas that are determined to be appropriate for stormwater management.

(d) Agricultural uses, employing latest applicable best management practices.

Policy 3.1.3 Conservation areas shall be developed only in a manner consistent with protection of the ecological integrity of natural resources, and in accordance with standards which are outlined subsequently in this Element.

Policy 3.1.4 All conservation areas should be avoided as potential locations for personal wireless service facilities.

Policy 3.1.5 Certain resources such as mineral resources and high aquifer recharge areas, because of their location, nature, or extent cannot be protected to the extent of conservation areas, but have been identified for protection in this Element. Policies applicable to these resources shall be those specific policies in Section 4 which apply to development activities within or affecting such areas and policies which apply generally to natural resources.

OBJECTIVE 3.2 - PRESERVATION LAND USE CATEGORY

A preservation land use category shall be established to recognize and protect natural resources within publicly owned lands in Alachua County.

Policy 3.2.1 Preservation areas shall consist of publicly owned lands, including lands owned and managed by non-profit conservation organizations, which are intended for use as natural reserves or managed conservation lands for the preservation of natural resources in perpetuity.

Policy 3.2.2 Preservation areas shall include but are not limited to:

(a) Austin Carey Memorial Forest;

(b) Goethe State Forest (Watermelon Pond Unit)

(c) Gum Root Swamp Conservation Area;

(d) Lake Alto Swamp;

(e) Lochloosa Wildlife Conservation Area;

(f) OLeno State Park;

(g) Orange Lake (Bird Island);

(h) Paynes Prairie Preserve State Park;

(i) Poe Springs;

(j) Prairie Creek Conservation Area;

(k) River Rise Preserve State Park;

(l) San Felasco Hammock Preserve State Park;

(m) Santa Fe Swamp Conservation Area;

(n) Warren Cave; and

(o) Property acquired in fee or less than fee simple for preservation by federal, state, and local agencies, Water Management Districts, local municipalities, or Alachua County for use as natural reserves or managed conservation lands for the preservation of natural resources in perpetuity. The identification of less-than-fee properties as preservation areas will be based on the management goals and objectives for the property. This includes properties acquired or managed under programs such as Alachua County Forever, Florida Communities Trust, Save-Our-Rivers, and Conservation and Recreation Lands.

Policy 3.2.3 A management plan shall be developed for each preservation area by the responsible public agency, in accordance with the following:

(a) The management plan shall include but is not limited to:

(1) Documents and maps that identify the location of areas and natural resources to be preserved, including any protective buffers.

(2) An assessment of the existing quality and characteristics of the natural resources to be preserved and/or restored.

(3) A description of the goals and objectives for each site.

(4) A description of all proposed uses, including existing and any proposed physical and access improvements.

(5) A description of activities that will be performed to protect, restore, or enhance the natural resources to be preserved.

(6) A set of schedules and assignments of responsibility for specific implementation activities to be performed as part of the management plan.

(b) The management plan shall take into account the ownership interests of public and private entities and provide for protection of private ownership interests.

(c) If a preservation area is subject to a conservation easement, the agreement for the conservation easement may serve as the management plan in the absence of a management plan.

(d) The land shall be subject to the conservation policies of the Comprehensive Plan that are applicable to the resources within those areas.

OBJECTIVE 3.3 - FUTURE LAND USE MAP

Identify conservation and preservation areas on the Future Land Use Map.

Policy 3.3.1 The adopted Future Land Use Map shall identify wetlands, surface waters, wellfield protection areas, 100-year floodplains, soils, strategic ecosystems and preservation areas.

Policy 3.3.2 The Conservation Element Map Series data and analysis shall identify the resources listed in policy 3.3.1, as well as other conservation areas, in the form of individual, resource-specific maps consistent with policy 2.1.1.

Policy 3.3.3 The adopted Future Land Use Map and the Conservation and Open Space Element Map Series data and analysis are general in nature.

(a) This mapping shall be based upon the best available digital data sources, including digital resources from the National Wetlands Inventory, Florida Geographical Data Library, Water Management Districts, Federal Emergency Management Agency (FEMA), and United States Department of Agriculture Natural Resources Conservation Service (USDA-NRCS).

(b) This mapping shall be used for multiple planning purposes, for example, as a first review in the land use, zoning, and development approval processes, as a tool in the identification and evaluation of potential land acquisition projects, and as a guide in identifying potential special area planning boundaries.

Policy 3.3.4 Site Specific Delineation: The parcel-specific boundaries of preservation and conservation areas shall be verified by ground surveys conducted in the course of special studies or development review. County-initiated mapping efforts shall be performed at the County's expense, except when an applicant seeks land use change, zoning change, or development approval prior to the completion of the County's mapping efforts, consistent with policies 3.4.2 and 4.10.3. Conservation policies shall be applied based on the resulting site specific delineation.

OBJECTIVE 3.4 - DEVELOPMENT REVIEW PROCESS

Protect natural resources during the land use planning and development review process from activities that would significantly damage the ecological integrity of these areas. The applicability of the policies and standards in this section shall be determined for all development at each stage of the land use planning, zoning, and development review and permitting process.

Policy 3.4.1 All applications for land use change, zoning change and development approval shall be required to submit an inventory of natural resource information.

(a) The inventory shall include site specific identification, mapping, and analysis of each natural resource or natural resource characteristic present on or adjacent to the site.

(b) The inventory shall be prepared by person(s) qualified in the appropriate fields of study, and conducted according to professionally accepted standards.

(c) The County shall provide a natural resources checklist to each applicant identifying natural resources that must be analyzed.

(d) The analysis shall consist of a resources management plan that includes the following:

(1) an assessment of the existing quality and characteristics of each natural resource,

(2) an evaluation of the impact of the proposed land use change, zoning change, or development on the resource, with consideration of the indicators in Policy 2.1.2,

(3) a discussion of the proposed measures to protect or mitigate the impacts on the resource, and

(4) a maintenance and monitoring plan.

(e) In the land use and zoning context, the County shall use this information to determine whether the requested change is consistent with protection of natural resources. In the development review context, the County shall use this information to determine appropriate site designs and strategies that maintain and protect the character and amenities of the natural environment on the site during construction and after development.

Policy 3.4.2 Where site specific analysis or verification is required to determine the presence of natural resources protected under this Element the cost of such analysis or verification shall be borne by the applicant.

Policy 3.4.3 The County shall require landowners or developers to notify and copy the Alachua County Environmental Protection Department on permit applications, approvals, compliance and enforcement issues, and other significant contact with Water Management Districts and state and federal environmental permitting agencies.

Policy 3.4.4 For certain developments located within greenline areas designated by the Florida Department of Environmental Protection around State parks and preserves, the County shall notify and request comments from the State Division of Recreation and Parks(DRP) concerning potential impacts that such developments could have on the State parks or preserves. The notification process shall apply to those developments meeting specified

threshold requirements to be developed by the County and the State Division of Recreation and Parks. Information provided by DRP shall be considered with other comments during rezonings and the development review processes prior to making decisions regarding proposed developments.

OBJECTIVE 3.5 - DEVELOPMENT REGULATIONS

Adoption of new or revisions to existing land development regulations based on policies in this Element shall begin immediately following the adoption of this Element by the Alachua County Board of County Commissioners and shall be completed in accordance with a rigorous adoption schedule.

Policy 3.5.1 The County shall collaborate with affected local, state, and federal regulatory agencies and the Water Management Districts to adopt and enforce specific land development regulations (LDRs) that implement the goals, objectives, and policies of this Element and provide the fullest protection for natural resource areas and characteristics.

Policy 3.5.2 LDRs shall provide performance standards for development in and adjacent to conservation and preservation areas to protect and enhance the natural, physical, biological, ecological, aesthetic, and recreational functions of these areas. Performance standards for the rural area shall include innovative approaches such as flexible lot sizes, clustered subdivisions, setbacks, buffers, and density transfers as provided in the policies under Objective 6.2 of the Future Land Use Element.

Policy 3.5.3 LDRs shall provide standards for the placement of public facilities that address, at a minimum, the impacts to air, surface water and groundwater quality, wildlife, vegetation, natural systems function, noise, and waste disposal.

OBJECTIVE 3.6 - RESOURCE PROTECTION STANDARDS

Protect natural resources by requiring that all development activities be conducted in accordance with at least minimum resource protection standards.

Policy 3.6.1 All development shall conform with the environmental regulations of federal, state, and local agencies as well as the Water Management Districts.

Policy 3.6.2 The County shall coordinate with adjacent counties and WMDs to conserve, appropriately use, or protect unique natural resources located within more than one local jurisdiction.

Policy 3.6.3 Parcels that include or are adjacent to conservation or preservation areas shall not receive planning and zoning designations that are higher in density or intensity than the currently adopted designations unless adequate natural resources protection is ensured.

Policy 3.6.4 The County shall prohibit subdivision of land after January 21, 1993 that would create new lots lacking sufficient buildable area, as defined by setback requirements and other development standards, outside of conservation areas.

Policy 3.6.5 Development on land that includes conservation areas shall be sited and designed according to the following standards and consistent with policies under Objective 5.2:

(a) The preservation of conservation areas shall be required on all development sites to the greatest extent possible, consistent with standards which are outlined subsequently in this Element.

(b) Density or intensity shall be transferred from conservation areas to non-conservation portions of the property, to adjoining property under common ownership or management and within a unified development, or to other development receivership areas, at a rate consistent with that of the underlying zoning district, but not to exceed the maximum density allowed by the land use designation.

(c) When there are no non-conservation areas to which density or intensity may be transferred, the development shall be clustered in the portion of the site that will result in least environmental impact.

(d) When connection to central sewer is not required, septic wastes shall be disposed of according to the Comprehensive Plan, land development regulations, and health department standards, and without adversely affecting ecosystem health. When septic systems must be installed within surface water and wetland buffers they must be located and designed to minimize impacts to regulated resources as determined in the Land Development Regulations and Water Quality Code.

(e) Existing landscape connections to other conservation areas shall be maintained so that fragmentation is avoided.

(f) Development in rural areas shall be consistent with policies under Objective 6.2. of the Future Land Use Element.

Policy 3.6.6 Development on land that includes or is adjacent to conservation or preservation areas shall exhibit best environmental management practices with the emphasis on designing with nature, e.g. in the context of the natural features of the landscape, such as topographic and stormwater features, vegetative edges, and soil types, to avoid and minimize adverse environmental and visual impacts. The major criterion for approval shall be the continued functioning, with minimum disturbance, of the ecosystem which the development is impacting.

Policy 3.6.7 Development shall not be allowed at the maximum densities and intensities of the underlying zoning district, if those densities would be harmful to natural resources.

Policy 3.6.8 Development occurring along the edges of conservation and preservation areas shall be designed to protect and minimize the impact of development on conservation areas through the use of natural vegetative buffers.

(a) Buffer width shall be determined on a case-by-case basis depending on what is demonstrated to be scientifically necessary to protect natural ecosystems from significant adverse impact. This determination shall be made in consideration of at least the following factors:

(1) Type of development and associated potential for adverse site-specific and off-site impacts;

(2) Natural community type and associated hydrologic or management requirements;

(3) Buffer area characteristics and function;

(4) Presence of listed species of plants and animals.

(b) Absent scientific information which demonstrates that a larger or smaller buffer width is appropriate, the following buffer widths shall apply for the resources set forth in the table below.

Protected Resource	Buffer Distance (feet)*
Surface waters and wetlands less than or equal to 0.5 acre that do not include OFWs or listed animal species as described elsewhere in this table	50 average, 35 minimum
Surface waters and wetlands greater than 0.5 acre that do not include OFWs or listed animal species as described elsewhere in this table	75 average, 50 minimum
Areas where federally and/or state regulated vertebrate wetland/aquatic dependent animal species have been documented within 300 feet of a surface water or wetland	100 average, 75 minimum
Outstanding Florida Waters (OFWs)	200 average, 100 minimum

* If the buffer precludes all economically viable use of a particular property, development may be allowed within the buffer in accordance with policy 3.6.5, and where applicable, policies 4.6.6 and 4.7.4.

(c) Buffers shall be measured from the outer edge of the protected resource.

Policy 3.6.9 The County shall encourage the control or elimination where feasible, of invasive vegetation within the protected area.

Policy 3.6.10 The intensity of development on land adjacent to conservation and preservation areas shall be determined based on the unique characteristics of the conservation area. Land use shall be consistent with natural resource protection.

Policy 3.6.11 Septic tanks and drainfields shall be sited in a manner to protect conservation areas from the discharge of improperly treated effluent. The use of alternative systems shall be required under appropriate circumstances to protect environmental health.

Policy 3.6.12 All public projects, such as utilities, new travel corridors, and travel corridor modifications, shall be located and designed to avoid adverse impacts to conservation and preservation areas, except where it is demonstrated that there is no prudent and feasible alternative that avoids adverse impact. The County shall use an interdepartmental team to determine whether a particular project warrants adverse impact, based on an evaluation of the environmental, economic, and social costs and benefits of the proposal and alternatives. Inconvenience alone is insufficient justification for adverse impact.

Policy 3.6.13 In the case of a public project for which there is no prudent and feasible alternative that avoids adverse impacts to conservation and preservation areas, the project shall incorporate appropriate design features that enhance habitat connectivity, provide for

the safe passage of wildlife, and provide other significant environmental benefits. Mitigation shall be required as for private developments.

Policy 3.6.14 Alachua County shall require mitigation of significant adverse impacts on conservation and preservation areas within the County. Mitigation shall include funding for the acquisition and management, preservation, replacement, or restoration of significant ecological resources.

Policy 3.6.15 The County shall identify and protect green infrastructure through the development review process by protecting conservation resources and natural areas and allow and encourage proven environmentally-friendly development techniques, like low impact development that minimize impacts to natural resources and water quality and maintain existing hydrologic conditions.

4.0 NATURAL RESOURCES

OBJECTIVE 4.1 - AIR RESOURCES

Alachua County shall take appropriate steps to maintain or improve ambient air quality to ensure the protection of public health and the environment and to exceed compliance with state and national ambient air quality standards.

Policy 4.1.1 The County shall track and maintain awareness of air quality regulatory issues and new emission sources which have the potential to impact ambient air quality in the County including the potential to increase the levels of hazardous air pollutants in the County.

Policy 4.1.2 The County shall maintain an inventory of greenhouse gas emissions (GHG) for County operations and the local community, and shall develop and implement a plan to reduce countywide GHG emissions by 80% from 2009 baseline emissions by 2050, with an intermediate goal of a 40% reduction by 2020 and a short term goal of 5% annual reduction. Findings shall be released in an annual status report for County operations, with an estimate of community emissions reported biennially (i.e., every two years). In addition to changes in total GHG emissions, reports shall include indicators of improvements in efficiency such as reductions in emissions per person, per employee or per square foot, improvements in building performance ratings, or similar measures.

Policy 4.1.3 The County shall maintain an air quality public education function that has the following components:

(a) A general air quality website to provide the public with educational information about air quality, radon and indoor air pollution issues.

(b) A radon information education program that informs the public about the soil radon potential in different areas of Alachua County.

Policy 4.1.4 All incineration, prescribed open burning, and yard trash burning shall be conducted in accordance with local, State and Federal regulations such that the health and safety of the public and the environment is protected.

(a) Open burning of land clearing debris in the urban cluster shall be prohibited. This does not preclude burning of vegetative debris accumulated as a result of cleanup from a local emergency or severe weather event, such as a hurricane or tornado. Such burning shall only be conducted with a permit from the appropriate local or state agency(s).

(b) In lieu of burning, the following practices shall be used:

(1) Vegetative debris may be ground and used as mulch or compost onsite;

(2) Vegetative debris may be delivered to an appropriately permitted facility for processing and disposal;

(3) Non-vegetative land clearing debris must be separated out of the vegetative debris and transported to an appropriately permitted facility for processing and disposal.

(c) Prescribed burning for fuel reduction or maintenance of ecosystem health shall be in accordance with a land management plan, where required, and all applicable permits.

Policy 4.1.5 Factors contributing to the maintenance or improvement of air quality shall be identified and considered during land use planning and development review. These factors include but are not limited to:

(a) Increased use of mass transit and non-motorized modes of transportation, and the promotion of a land development pattern conducive to support of public transportation, including containment of urban development in existing urban areas or carefully planned expansions of urban areas;

(b) Increased use of green space in site planning for all types of development and along major roadways; and

(c) Increased strategic planting of trees and shrubs to shade streets and buildings, and use physical barriers if necessary to reduce particulate air pollution, and reduce energy consumption and new carbon dioxide generation caused by combustion of fossil fuels; and

(d) Control of airborne dust generated from land clearing and site preparation activities. Control may involve the use of techniques such as temporary silt fencing, immediate seeding or sodding, permanent vegetative buffering, phasing land clearing with development, or sprinkling the area with water.

(e) Promotion of industries that exceed Federal and State air quality and emission standards.

Policy 4.1.6 The County shall pursue and support programs that reduce adverse impacts on air quality due to traffic emissions by encouraging use of public transit, multiple ridership in automobiles, and safe use of bikeways.

Policy 4.1.7 Asbestos shall be surveyed for and removed by a licensed contractor prior to demolition or renovation of all buildings.

Policy 4.1.8 The County shall establish a tree planting program to improve air quality in designated areas.

Policy 4.1.9 The County shall establish an intergovernmental task force, comprised minimally of representatives from local governments and utilities, to coordinate on air quality issues such as alternative fuels and the use of hybrid fuel vehicles.

OBJECTIVE 4.2 - SOILS AND SLOPES

Reduce the rate of soil erosion and sedimentation from development activities and encourage the utilization of the soil consistent with the ability of the physical properties of the soil to support appropriate land uses.

Policy 4.2.1 Characteristics of soil suitability and capability shall be considered in determining appropriate land uses. Preliminary recommendations concerning soil suitability can be found in the Alachua County Soil Survey prepared by the United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS). To insure that the soils at the development site can support the development, the County will require the developer to submit detailed information on soils which may require an independent soil analysis with detailed information on soils.

Policy 4.2.2 Land clearing. All development shall occur such that land clearing is phased with construction activity and includes measures to:

(a) Minimize soil erosion.

(b) Minimize removal of native and non-invasive trees and vegetation.

(c) Strictly limit the removal and damage of champion and designated specimen trees in accordance with policy 5.4.3.

(d) Stabilize and revegetate the site with native vegetation after clearing.

Specific criteria for achieving these standards shall be provided in the land development regulations.

Policy 4.2.3 Land shall be developed with regard for natural topographic features. The development regulations shall provide standards to minimize adverse impacts on development in areas with extreme slopes. Such standards shall include minimizing disturbance of steep slope areas in site designs by retaining existing vegetation.

Policy 4.2.4 Where steep slopes are found adjacent to watercourses, existing vegetation shall be substantially retained to minimize erosion consistent with Best Management Practices and surface water and wetland buffers. The slopes of constructed lakes from the top of the bank to the control water elevation (landward edge of littoral zone) shall be immediately stabilized using appropriate vegetation upon completion of the lake construction.

Policy 4.2.5 Development shall be designed to include retention of the natural character of seepage slopes and shallow ground water tables that have been demonstrated to be essential to the hydrologic support of associated conservation areas. Specific standards to accomplish this shall be included in the development regulations. In the interim, the Development Review Committee shall require measures that execute this policy.

Policy 4.2.6 The County shall continue to cooperate with and assist the Alachua County Soil and Water Conservation District in their efforts to implement techniques such as best management practices to reduce the rate of soil erosion. The County Agricultural Extension Office will assure that the recent applications and research results of these control techniques are made available through demonstration projects, educational seminars and information pamphlets to the public.

Policy 4.2.7 In conjunction with the Soil and Water Conservation District, Water Management Districts, the U.S. Geological Survey, and Army Corp of Engineers, Alachua County shall seek funding to perform a comprehensive soil erosion control study to identify relative

erosion potentials for the soil types found in the County, identify a standard for soil erosion reduction that can be technically achieved, and require that standard be maintained at all sites where site alteration is being done.

Policy 4.2.8 All stormwater outfall and irrigation connections, including those associated with agricultural uses shall be designed to prevent erosion and sedimentation.

OBJECTIVE 4.3 - MINERAL RESOURCES

Regulate extraction activities so that they do not adversely affect the quality of air, groundwater, surface water, land, and wildlife.

Policy 4.3.1 The County shall develop a comprehensive approach to mineral resources. Existing land development regulations that address mineral resources shall be reviewed, consolidated, and revised to provide for comprehensive natural resource protection. Revisions shall include the following:

(a) Identification of a mining and excavation district, with associated policy directives.

(b) Restriction of mining and excavation in conservation and preservation areas.

(c) Provisions for avoidance, minimization, and mitigation of adverse impacts, including but not limited to impacts related to noise, lighting, traffic, habitat, listed species, air, surface water and ground water quality and quantity.

(d) Standards for reclamation and reuse that provide for restoration of the functions of natural systems.

Policy 4.3.2 The County shall review its regulatory approach to filling activities, including landfilling, and the storage and handling of construction and demolition debris. The County shall revise its approach to ensure natural resources protection and consistency with state law.

Policy 4.3.3 The development regulations shall address mining, land excavation, and filling activities, and shall include provisions for reclamation and reuse, and assure successful completion of approved reclamation and reuse plans. Mining, land excavation, and filling activities shall be consistent, at a minimum, with the Alachua County Excavation and Fill Ordinance and the Alachua County Surface Mining and Land Reclamation Ordinance which provide for permit requirements and standards for site location, site design, environmental protection and reclamation.

Policy 4.3.4 The quality and quantity of ground and surface waters shall not be significantly altered through extraction operations. Potential groundwater impacts shall be evaluated by the applicant prior to commencement of mining activities as part of the permitting process. Water quality and quantity monitoring activities at extraction sites shall be reviewed by the County. Costs for providing water quality and quantity monitoring at extraction sites shall be borne by the extractor.

Policy 4.3.5 Extraction operations shall minimize potential adverse impacts to surrounding areas and use specific mitigation criteria to minimize air, noise, and traffic impacts.

Policy 4.3.6 Buffer zones shall be established adjacent to natural streams and watercourses and existing parks and preserves so that they will not be adversely impacted by extraction activities.

Policy 4.3.7 Mining activities shall not be initiated in established residential areas or in designated conservation or preservation areas identified on the Future Land Use Map. New residential developments shall be restricted in the vicinity of operating mines or shall provide for adequate buffers and noise abatement. Areas containing sources of commercially valuable minerals shall be protected from the encroachment of incompatible land uses.

OBJECTIVE 4.4 - GEOLOGICAL RESOURCES

Protect and maintain significant natural geologic features such as special karst features -- springs, caves and sinkholes in their natural condition.

Policy 4.4.1 Significant geologic features, such as springs, caves, sinkholes, and other karst features, shall be identified and evaluated for their importance to the overall natural resource system of the County.

Policy 4.4.2 Outstanding geologic features, such as certain springs, sinkholes, and caves, shall be considered for acquisition, provided appropriate protective management can be assured.

Policy 4.4.3 In instances where geologic features function as habitats for listed species, special protection will be provided commensurate with the character of the habitat.

Policy 4.4.4 Significant geological features shall be accurately identified on development proposals. The Development Review Committee shall require strategies for protecting these features during construction and after development. These strategies shall address:

(a) Inclusion of significant geologic features as part of common open space;

(b) Utilization of principles of good landscape design to incorporate features as aesthetic elements;

(c) Pretreatment of stormwater runoff, in accordance with County and water management district rules and regulations, prior to discharging to karst geology features;

(d) The identification of the appropriate level of treatment of wastewater effluent prior to discharge to any karst geology features; and

(e) Perimeter edge buffering around features to maintain natural context, edge vegetation, and structural protection.

Policy 4.4.5 The land development regulations shall include standards and procedures consistent with this policy.

Policy 4.4.6 The County shall cooperate with municipalities on the protection of groundwater within any watershed having the Floridan aquifer exposed in sinks or open pits to potentially harmful deposition of atmospheric and other non-point source surface pollution where citizens of the County may be affected.

Policy 4.4.7 The County shall establish management strategies for sinkholes and sinkhole-prone areas that protect water quality, hydrologic integrity, and ecological value. Management strategies may include, among other techniques, filling and development restrictions, buffers, runoff diversion, muck and debris removal, berm and weir construction, and filtration.

OBJECTIVE 4.5 - GROUNDWATER AND SPRINGS

Protect and conserve the quality and quantity of groundwater and springs resources to ensure long-term public health and safety, potable water supplies from surficial, intermediate, and Floridan aquifers, adequate flow to springs, and the ecological integrity of natural resources.

Policy 4.5.1 The County shall establish a comprehensive wellhead protection program through implementation of the Murphree Wellfield Code and the Hazardous Materials Management Code to protect current and future public water supply needs from potential adverse effects from incompatible land uses and activities.

(a) The County shall assist the WMDs and the municipalities with environmental suitability analysis for expansion of existing wellfields or location of future wellfield areas.

Policy 4.5.2 Until wellfield protection areas are established for each public water supply well, the following standards shall apply in the areas surrounding such wells:

(a) Each public water supply well shall be protected by a 200 foot zone of exclusion within which no new development approvals will be granted.

(b) The following new uses or expansions of existing uses shall be prohibited in the vicinity of each public water supply well as specified in the Alachua County Hazardous Materials Management Code:

(1) Class C or D facilities as defined by the Alachua County Hazardous Materials Management Code.

(c) The following new uses or expansions of existing uses shall be prohibited in the vicinity of public water supply wells:

(1) Landfills;

(2) Feedlots or other commercial animal facilities;

(3) Wastewater treatment plants and percolation ponds, including wastewater reuse and discharge facilities;

(4) Mines;

(5) Excavation of waterways or stormwater management facilities which intersect the water table;

(6) Stormwater retention and detention basins except pursuant to performance controls where configuration or topography of a lot of record precludes location of a required retention or detention basin outside the Wellfield Protection Area; and

(7) All uses prohibited in High Aquifer Recharge Areas by Policy 4.5.5(e), below.

Policy 4.5.3 The County adopts the Alachua County Floridan Aquifer High Recharge Area map. This map is for information and outreach purposes and provides a generalized indication/depiction of relative aquifer recharge/vulnerability and high aquifer recharge

areas as general background to be used in combination with site-specific hydrogeologic assessment for development review in the unincorporated portion of the County.

Policy 4.5.4 The County adopts the Alachua County Outstanding Florida Springs Priority Focus Areas (PFAs) map. This map is to guide the implementation of springs protection measures throughout the County.

Policy 4.5.5 Appropriate local planning, development design standards, and special construction practices shall be required to ensure both short and long-term mitigation of impacts on groundwater created by activities occurring in High Aquifer Recharge Areas. The following provisions shall apply:

(a) All new development or modifications to existing development shall provide stormwater treatment consistent with the Stormwater Element of the Comprehensive Plan.

(b) All stormwater basins in high aquifer recharge areas shall be designed and constructed to provide for at least three (3) feet of unconsolidated solid materials such as sand, silts, and clays between the surface of limestone bedrock and the bottom and sides of the stormwater basin. Utility lines shall not be installed beneath stormwater basins in karst sensitive areas. Any lines for temporary irrigation of vegetation in and around stormwater management systems shall be installed to minimize excavation in karst sensitive areas.

(c) Corrective action to retrofit or upgrade existing hazardous material facilities consistent with standards applicable to new facilities shall be required by the County.

(d) New development activities which involve handling or storing of hazardous materials may be prohibited in High Aquifer Recharge Areas and Outstanding Florida Springs Priority Focus Areas, and, where permitted, shall be subject to the general requirements, siting prohibitions, storage facility standards, secondary containment requirements, and monitoring provisions of the Hazardous Materials Management Code. Where such facilities exist and are proposed to be modified, development review and permitting activities shall include careful evaluation and implementation of engineering and management controls, setbacks and buffers, and monitoring. Existing facilities shall meet the requirements of the Hazardous Materials Management Code pertaining to such facilities.

(e) The following new uses shall be prohibited in unincorporated areas of Alachua County designated as the high vulnerability zone of the Alachua County Floridan Aquifer High Recharge Area map and Outstanding Florida Springs Priority Focus Areas, unless it can be demonstrated that the material, in the quantity and/or solution stored or the conditions under which it is to be stored, does not pose a hazard to human health or the environment:

(1) Wholesale bulk fuel storage;

(2) Chemical manufacturing;

(3) Pesticide manufacturing;

(4) Auto salvage or junk yard;

(5) Asphalt plant;

(6) Battery reclamation or manufacturing;

(7) Electronics manufacturing using halogenated solvents;

(8) Any hazardous waste transfer site;

(9) Any site defined by the Resource Conservation and Recovery Act (RCRA) as a treatment, storage, or disposal (TSD) facility for hazardous waste;

(10) Regional pesticide distribution site;

(11) Underground storage tank for the storage of hazardous materials; and

(12) Portland cement manufacturing.

(f) Limitations on package treatment plants and septic systems are as follows:

(1) Package treatment plants shall not be allowed in areas served by centralized wastewater treatment plants. The use of new package treatment plants is discouraged, and may be considered outside the urban cluster only in accordance with Policy 2.1.6 of the Potable Water and Sanitary Sewer Element.

(2) New development not connected to central sanitary sewer shall be limited to a minimum lot size of one (1) acre to prevent degradation of groundwater quality unless the applicant can demonstrate that smaller lot sizes and associated sanitary systems will cause no degradation of groundwater quality.

(g) The Alachua County Hazardous Materials Management Code provides the following measures towards the protection of natural resources:

(1) Regulates hazardous materials to prevent discharges to the environment in the County.

(2) Provides uniform standards for the proper storage, handling, and monitoring of hazardous materials on a county-wide basis.

(3) Provides for early detection, containment, and recovery of discharges.

(4) Establishes a cost recovery mechanism to pay for hazardous materials emergency response actions performed by the Environmental Protection Department.

(5) Provides Alachua County with legal authority to establish environmental monitoring, remediation, and closure requirements for contaminated sites: and,

(6) Disallows the construction of new storage tank systems within three hundred (300) feet of an existing private water supply utility well, or within one thousand (1000) feet of an existing public water supply well.

Policy 4.5.6 Appropriate development regulations shall be established to control land uses and activities in proximity to wellfields and designated High Aquifer Recharge Areas and Outstanding Florida Springs Priority Focus Areas. These controls will be based at a minimum upon:

(a) The potential of the land use or activity to contaminate groundwater;

(b) Distance from a public wellfield;

(c) Local aquifer geology; and

(d) The capability of the activity to contain or eliminate the hazard of contamination.

These regulations shall control activities involving fuel storage tanks, hazardous waste generators and hazardous material users, private wells, waste water treatment systems, landfilling operations, dairies or other uses with a high potential for ground water contamination. Interim control of activities shall be through the development review Committee process and shall be consistent, at a minimum, with the Hazardous Materials Management Code.

Policy 4.5.7 The land development regulations shall be reviewed and revised, if necessary, to ensure that groundwater is adequately protected.

Policy 4.5.8 Applicants for new development or additions to existing development shall address potential groundwater quality impacts. Development applications shall be denied if they are insufficiently protective of groundwater quality.

Policy 4.5.9 In accordance with Florida Statutes for Water Supply Planning, the County shall cooperate with the St. Johns River and Suwannee River Water Management Districts in the evaluation of updates of applicable data and analysis of current and projected water needs for at least a 10-year period; initiate Comprehensive Plan amendments to incorporate appropriate water supply projects, including conservation and reuse projects, identified in regional water supply plans; and coordinate with WMD updates of the regional water supply plans. Within 18 months of adoption of an updated North Florida Regional Water Supply Plan (NFRWSP), the County shall update the Joint Alachua County/City of Gainesville Water Supply Facilities Work Plan (WSFWP) as needed and any corresponding County comprehensive plan amendments as needed with Gainesville Regional Utilities.

Policy 4.5.10 Withdrawals of ground water have the potential to result in adverse impacts on potable water supply and natural ecosystems. Development shall occur only when adequate water supplies are concurrently available to serve such development without adversely affecting local or regional water sources or the natural ecosystem, as determined in accordance with local and state law.

(a) The County shall take an active role in providing input to the water management districts permitting process for activities that use large volumes of groundwater.

(b) The County shall support the efforts of the Alachua County Health Department to seek delegation of water well construction permitting responsibility from both the St. Johns River and Suwannee River Water Management Districts to ensure that all new wells are properly constructed, modified, sealed or abandoned.

Policy 4.5.11 The County shall encourage the development of local and regional water supplies within water management districts through the following strategies

(a) Participating in the development of the water supply assessments, regional water supply plans, and five year work plans of the Suwannee River and St. Johns River Water Management Districts;

(b) Requesting to receive water management district notice of any consumptive use applications that involve the transfer of water, where that transfer originates within the jurisdictional boundaries of the County and advocating for water conservation and reuse, and the development of alternate supply sources (such as desalinization) by such applicants;

(c) Considering the establishment of a regional water supply authority; and

(d) Amending existing legislation regarding consumptive use permitting and exercising vigilance through the County's legislative delegation.

Policy 4.5.12 The County shall cooperate with the Suwannee River Water Management District, the St. Johns River Water Management District, and local governments to update the Joint Alachua County/City of Gainesville Water Supply Facilities Work Plan 2018-2028,conduct current and future water conservation programs and prepare an emergency water management conservation plan.

Policy 4.5.13 A County-wide groundwater monitoring program shall be developed and funded to coordinate and expand upon existing groundwater monitoring efforts. This program shall include monitoring of springs in coordination with state agencies.

Policy 4.5.14 Groundwaters shall be monitored throughout the County to provide ambient quantity and quality information. Contaminated sites shall be identified and groundwater in these areas shall be monitored by the responsible party for the purpose of providing water quality and hydrogeologic information to the County. This information shall be used by the County to determine and require the implementation of appropriate corrective or protective action. The development regulations shall specify the measures necessary to protect the groundwater and remediate contaminated groundwater. The measures to be required shall be determined by the activity's potential for groundwater contamination and the vulnerability of the area to groundwater contamination. The regulations shall, at a minimum, address:

(a) Method(s) of assessing contamination risk.

(b) Types of controls to abate the risk. Methods may include, but are not limited to, stringent engineering controls, limited densities, setback requirements, buffers, restricted uses, types of leak detection, operating procedures, and types of primary and secondary containment.

(c) Monitoring activities which verify the success of the controls. It shall be the responsibility of the facility or activity to pay the costs of the monitoring activities.

Applicable interim standards shall be consistent, at a minimum, with federal, state, and water management regulations in effect at the time of adoption of the Comprehensive Plan.

Policy 4.5.15 Abandoned installations or facilities shall be properly deactivated, with contaminants properly disposed. Leaking underground storage tanks shall be promptly taken out of service and repaired. Abandoned underground storage tanks shall be removed, unless removal would threaten the structural integrity of a nearby building or other structure. In such cases where in-place abandonment is necessary, the tanks shall be abandoned in-place by removing all hazardous materials, cleaning the tank, and filling with an appropriate inert substance. The development regulations shall specify proper

procedures for the various types of materials and installations and shall address methods of assessing and recovering the costs of the activity. Abandoned wells shall be sealed. The County shall evaluate the feasibility of locating and regulating all drainage wells in Alachua County. Interim applicable standards shall, at a minimum, be consistent with federal, state, local, and water management district regulations in effect at the time of adoption of the Comprehensive Plan.

Policy 4.5.16 Existing installations or facilities that have the potential for significant contamination of ground waters shall be retrofitted or replaced with leak detection, secondary containment, and environmental monitoring. Ground waters that may be significantly and adversely affected by new installations, facilities, or other development activities shall be protected by stringent engineering controls, limited development densities and/or use restrictions, and monitoring. The development regulations shall specify the engineering controls, setback requirements, buffers, appropriate densities, use restrictions, and monitoring to implement this policy. This policy is implemented through the provisions of the County's Hazardous Materials Management Code.

Policy 4.5.17 Approval of development or redevelopment of a contaminated site shall be withheld until the applicant demonstrates to the County's satisfaction that contamination will not be exacerbated by the activity.

Policy 4.5.18 Old garbage disposal areas, illegal dumps, other waste sites where groundwater contamination has been determined to exist, and such other sites that may potentially contain contaminants that threaten groundwater resources shall be evaluated and appropriate cleanup activities identified and implemented. When the responsible party for the site is known, such person or persons shall assume the costs of the evaluation, monitoring and cleanup measures.

Policy 4.5.19 Disposal of effluents of wastewater treatment processes shall be accomplished by environmentally sound procedures consistent with FDEP regulations which may include land application, deep well injection, and reuse or wetlands disposal. New deep well injection shall be prohibited except for the return of non-contact water from residential and commercial heat pumps, and injection of "high-quality" treated water and for the purpose of aquifer storage and recovery. Expansion or renewal of existing deep well injection operations shall require a special use permit through which monitoring conditions will be established. All new wastewater treatment plants in high aquifer recharge areas shall provide advanced treatment including nutrient removal prior to discharge. All existing wastewater treatment plants in high aquifer recharge areas shall be encouraged to upgrade to provide for advanced treatment. Alachua County shall emphasize the reuse of water where economically feasible. High rates of infiltration shall not be permitted in high aquifer recharge areas unless the effluent has received advanced treatment and nutrient removal and the wastewater treatment plant has been built and is being operated according to DEP Class I reliability standards.

Policy 4.5.20 The County shall encourage the redevelopment of brownfields consistent with protection of human health and natural resources.

Policy 4.5.21 The County shall continue to promote water conservation techniques and programs for current and future development (consistent with Energy Element Objective 1.1). The County shall support water conservation practices and standards, including but not limited to, Florida Water Star ^{SM}, Florida Friendly Landscaping, LID techniques,

installation of water efficient fixtures, soil moisture sensors and smart irrigation systems, and landscape irrigation restrictions.

(a) The County shall continue to update its land development regulations to require a reduction in permanently irrigated areas for all new development.

(b) Indoor and outdoor use of water should, at a minimum, meet or exceed Florida Water Star [SM] criteria or the equivalent intended to provide water-efficient options for homes and landscapes. The County will coordinate with potable water suppliers to develop an incentive, education and outreach program that encourages participation in water conservation programs such as Florida Water Star [SM].

(c) The County shall develop measures that promote water conservation to preserve groundwater levels that retain adequate spring discharge from the Floridan Aquifer springs along the Santa Fe River with the objective of no net loss in biological, ecological, and hydrological function.

(d) The County shall lead by example in the area of water conservation by reducing indoor and outdoor water use at all County facilities with a goal of meeting Florida Water Star[SM] commercial criteria by 2022.

(e) The County shall encourage the public and private water suppliers in the County to implement aggressive but fair water conservation pricing rate structures.

Policy 4.5.22 The County shall establish a comprehensive springshed protection program to protect the resource from potential adverse effects from incompatible land uses and activities.

(a) Springshed protection areas shall be identified for all springs in the County; springsheds within the County that extend from springs located outside the County shall also be identified.

(b) The latest scientific modeling shall be reviewed and, as necessary, updated to assist in the identification of springshed, springs, Outstanding Florida Springs, and Floridan Aquifer High Recharge Areas.

(c) For these springs and groundwater protection areas, land development regulations shall specify the size, location, and applicable requirements of protection zones, including specific requirements on activities associated with domestic waste treatment including septic tanks, package plants, and regional wastewater treatment facilities and their effluent disposal practices.

(d) Fertilizer shall be regulated to ensure that excess nitrogen and phosphorus are not leached into the Floridan Aquifer.

(e) The County shall provide municipalities with current modeling and protection standards for their use in protecting these resources.

(f) The following new uses or expansions of existing uses shall be prohibited in designated springsheds, springs buffers, and Floridan Aquifer High Recharge Areas:

(1) Rapid infiltration basins (RIBs) for wastewater effluent disposal.

(2) New or expanded surface water discharge of treated wastewater.

(3) Large scale land application of Class A or B biosolids.

(4) Land application of septage.

(g) The County shall develop effluent discharge standards for new and existing wastewater treatment plants in springshed protection areas for inclusion in the Land Development Code.

(h) Reclaimed water standards in Policy 4.6.16 item (d) shall apply.

OBJECTIVE 4.6 - SURFACE WATER SYSTEMS

Ensure the protection and improvement of the water quality, biological health, and natural functions of surface water systems in Alachua County.

Policy 4.6.1 Water quality standards for Class III surface waters shall be used as minimum criteria for maintenance of water quality in Alachua County, unless a water body is specifically exempted as a Class IV surface water.

Policy 4.6.2 Alachua County shall promote recovery to water quality standards by identifying significant point and non-point sources of water pollution, and acting to reduce the harmful impacts of these pollutants on the natural environment.

Policy 4.6.3 Biodiversity shall be used as a measure of the biological health of surface water systems. Alachua County shall strive to maintain the biodiversity and habitat diversity of its surface water systems.

Policy 4.6.4 The natural hydrologic character and function of surface waters, including natural hydroperiods, flows found in floodways, flows that connect wetlands with other wetlands and surface waters, and wildlife habitat and connectivity, shall be protected. Land development regulations shall specify criteria for site design including limits on and mitigation for filling and excavation. In addition, the County shall establish an appropriate review and approval process that provides for regulation of docks, boat ramps, water control structures and other water dependent structures including but not limited to indirect impacts from land development activities.

Policy 4.6.5 All surface water systems in the County shall continue to be protected by buffer widths established in Policy 3.6.8.

Policy 4.6.6 The following activities may be allowed within the buffer subject to standards that regulate environmental impacts:

(a) Agricultural and silvicultural operations consistent with Objective 5.5;

(b) Water dependent facilities;

(c) Minimal impact activities;

(d) Activities that serve the overriding public interest; and

(e) Development allowed through implementation of Policy 3.6.5(c), provided that the development impact area shall not exceed the rate of one-half (1/2) acre per ten acres of conservation area, including the footprint of principal and accessory structures and parking, allowing for reasonable access.

Policy 4.6.7 The clearing of shorelines and riparian wetlands for viewsheds, sand beaches, access, and similar purposes shall be prohibited, except when clearing constitutes a minimal impact activity or serves an overriding public interest.

Policy 4.6.8 Native vegetation that occurs in natural surface waters, buffers, and natural floodways shall be retained in its natural state. Harvesting, cutting, and clearing activities shall be restricted except to remove non-native species or as part of good vegetative management, including legitimate silvicultural activities consistent with Objective 5.5, or to protect public health, safety, and welfare.

Policy 4.6.9 Chemical control of aquatic weeds, non-native species, animal pests, insect pests, or undesirable fish shall be performed as specified under State and Federal Law, such that degradation of surface water quality will be minimized consistent with the protection of the health of the public and wildlife. The use of safe biological and mechanical controls shall be encouraged. Any such activity shall be conducted to maintain natural ecosystems and to achieve sound resource management and public health objectives consistent with all applicable regulations.

Policy 4.6.10 The County shall maintain a local surface water monitoring program dually focused on water quality and biological health.

(a) Monitoring shall be conducted to determine baseline water quality and biological health, as well as to establish trends.

(b) Water quality indicators to be monitored include field parameters, flow, general physical parameters, selected major ions, nutrients and bacteria.

(c) Biological health shall be determined by conducting habitat assessments and collecting macro invertebrate samples.

(d) Monitoring shall be performed by the Alachua County Environmental Protection Department, in cooperation with the Florida Department of Environmental Protection, applicable Water Management Districts and local municipalities.

(e) The County shall adjust its sampling locations, parameters, and frequency to maximize county-wide coverage while minimizing duplication of sampling efforts by other entities. Locations shall include mining pits and sinkholes.

(f) Alachua County shall continue to seek funding from the Water Management Districts, state, federal, and other appropriate entities for surface water quality and biological monitoring purposes.

(g) Subject to available funding, implement a volunteer water quality monitoring program.

Policy 4.6.11 Alachua County shall continue to support the Basin Management Action Plans (BMAPs) and the ongoing refinement of these plans. The County shall participate in multi-agency task forces and working groups established to address specific surface water quality concerns in the County. Alachua County shall continue to work towards the restoration of impaired water bodies and to meet Orange Creek Basin and Santa Fe River Basin Total Maximum Daily Loads (TMDLs) and BMAPs. Alachua County shall continue to conduct projects for water quality improvement, including land acquisition and restoration, in the Orange Creek Basin (OCB) and Santa Fe River Basin (SFRB) in conjunction with those individual BMAPs.

Policy 4.6.12 Alachua County shall continue to coordinate with the water management districts on activities in the Orange Creek and Santa Fe River basins. Alachua County shall continue to work with the water management districts toward meeting Minimum Flows and

Levels (MFLs) on the Upper and Lower Santa Fe River as established by the districts and implementation for future water supply and need for conservation.

Policy 4.6.13 Alachua County shall develop watershed management plans.

Policy 4.6.14 There shall be no direct or indirect discharge of pollutants to surface waters, ground waters, or sinkholes in violation of federal, state, Water Management District, or local water quality standards.

Policy 4.6.15 Land uses that have the potential to pollute surface waters (are located adjacent to surface waters and that contribute significant nutrient loadings) shall be identified and regulated using the following measures to protect water quality and biological health.

(a) Buffers to surface waters shall be increased for activities which have been associated with surface water quality and biological health problems such as landfills, composting facilities, wastewater treatment percolation ponds or rapid infiltration basins (RIBs), spray fields, golf courses, dairies, row crops, septage or biosolids land application sites, septage stabilization facilities, and onsite sewage treatment systems or septic systems.

(b) The implementation of best management practices shall be required in buffers to surface waters to control nutrient loadings, including retrofitting if needed to maintain water quality and biological health.

(c) The use of pesticides and fertilizers shall be discouraged in buffers.

(d) The use of reclaimed water shall be regulated to conform with environmentally sound practices and not allowed to adversely impact surface water or groundwater by increasing nutrient concentrations. Nutrients present in the reclaimed water shall not be discharged in a manner that will cause impairment of surface waters, cause an imbalance of flora and fauna in the aquatic ecosystem, or cause eutrophication of the receiving waters. Land development regulations shall be adopted that include setbacks to surface waters for the use of reclaimed water for irrigation that are protective of the aquatic ecosystem.

(e) All fill material used onsite shall be free of phosphatic Hawthorn Group sediments or other phosphorous rich materials that may leach phosphorus causing surface water quality degradation and lake eutrophication.

(f) Any excavation that would lead to exposure of Hawthorn Group sediments or other phosphorus rich materials that could leach and adversely impact groundwater or surface water shall be mitigated by covering, backfilling or using other techniques to reduce phosphorus leaching.

(g) Fertilizer shall be regulated in buffers to surface waters to ensure that excess nitrogen and phosphorus are not leached into surface water bodies causing water quality degradation and/or lake eutrophication.

(h) The use of enhanced nitrogen reduction septic tank systems may be required in highly sensitive areas, such as in proximity to Outstanding Florida Waters, impaired waters, springs priority focus areas, in other areas and springsheds where karst features are prominent and conduit flow is known to exist, or where the lot sizes are small and do not allow for adequate nutrient reduction to be met at the property boundary. These systems shall be designed and

permitted through the Florida Department of Health in Alachua County. This measurable performance standard can be adopted as a risk based mitigation strategy for site specific concerns.

Policy 4.6.16 Wastewater and stormwater discharges to surface waters and wetlands shall be allowed only if the following criteria are satisfied:

(a) The quantity, timing, and quality of the discharge maintain or improve water quality, biological health, and the function of the natural ecosystem.

(b) Downstream waters are not affected by nutrient loading.

(c) The project owner or developer prepares and implements maintenance and monitoring plan acceptable to the County.

(d) The project owner or developer corrects any failures in design or operation of the system that cause degradation of water quality, biological health, or the function of the natural ecosystem.

(e) The owner or developer posts a performance bond or similar financial guarantee to assure implementation of the maintenance and monitoring plan.

Policy 4.6.17 Wastewater treatment facilities shall be planned and constructed at a scale that is compatible with the natural hydroperiod and the assimilative and hydraulic loading capacities of receiving surface waters and associated wetlands. The use of alternative technologies that are more protective of water quality, biological health, and the function of the natural ecosystem shall be encouraged.

Policy 4.6.18 Alachua County shall prohibit the use of wastewater treatment plants and septic tanks in flood prone areas.

Policy 4.6.19 The County shall monitor emerging state-of-the-art wastewater and stormwater treatment technology and shall cooperate with Water Management Districts, state and local agencies to ensure that water quality objectives are met through the most appropriate and effective methodologies.

Policy 4.6.20 Retrofitting where practicable of substandard stormwater management systems shall be required during repair, expansion, or redevelopment activities. This policy is intended to address water quality and biological health problems resulting from the absence of stormwater management systems, as well as obsolete, inadequately designed or improperly maintained systems. Where retrofit occurs, protection of water quality, biological health, and the function of the natural ecosystem shall be required.

Policy 4.6.21 The development of stormwater management systems across or for multiple properties and for multi-purpose use shall be encouraged.

Policy 4.6.22 The County shall coordinate with the Water Management Districts and applicable local, state and federal agencies on the evaluation of existing surface water control structures, such as, but not limited to, those on Orange Creek and Prairie Creek, for their economic benefits and impact on lake and wetland ecosystems.

Policy 4.6.23 Where past modifications have been made and restoration of original natural flows would be beneficial to water management and wildlife needs, consistent with development needs and good site design practices, restoration shall be encouraged and may be required prior to development approval. The County shall include standards in

the development regulations that will evaluate the feasibility of restoration on a case-by-case basis.

OBJECTIVE 4.7 - WETLAND ECOSYSTEMS

Wetland acreage and function shall be protected.

Policy 4.7.1 Wetlands of all sizes shall be regulated without exception.

Policy 4.7.2 Alachua County shall utilize the uniform statewide methodology adopted by the Florida Department of Environmental Protection and Water Management Districts to delineate wetlands, as outlined in Rule 62-340, Florida Administrative Code, as the rule exists on January 1, 2001. The County shall not be limited by the threshold or connection requirements utilized by these agencies for purposes other than delineation.

Policy 4.7.3 Wetland ecosystems shall be protected by buffer widths established in Policy 3.6.8.

Policy 4.7.4 Development activity shall not be authorized in wetlands or wetland buffers except when all of the following conditions are met:

(a) The applicant has taken every reasonable step to avoid adverse impact to the wetland and buffer; and

(b) The applicant has taken every reasonable step to minimize adverse impact to the wetland and buffer; and

(c) The applicant has provided appropriate mitigation for adverse impact to the wetland and buffer; and

(d) The applicant shows that one of the following circumstances applies:

(1) Minimal impact activity; or

(2) Overriding public interest; or

(3) All economically beneficial or productive use of the property is otherwise precluded.

The development impact area shall not exceed the rate of one-half (½) acre per ten acres of conservation area, including the footprint of principal and accessory structures and parking, allowing for reasonable access. Notwithstanding the above, mitigated impact may be allowed to any isolated poor quality wetland that is less than 0.25 acre in size, provided the total impact area is not greater than or equal to 0.25 acre per development. Poor quality shall be defined in the land development regulations based on factors relative to ecological value.

Policy 4.7.5 Structural and hydrologic alterations to wetlands shall be designed to ensure that natural hydroperiods and functions are maintained. Draining or filling wetlands shall not be allowed, except as permitted by the most restrictive of federal or state law, water management district rules, or Alachua County land development regulations. All forestry operations conducted in wetlands shall**,** be conducted in accordance with the following policies and consistent with Objective 5.5:

(a) Silviculture activities shall follow the most recent applicable best management practices. The silvicultural policies and the references to best management practices in this Comprehensive Plan shall not be construed as authorizing new

regulations that conflict with Section 823.14(6), Florida Statutes (Florida Right to Farm Act).

(b) The overall ecological integrity of the wetlands community shall be maintained as follows:

(1) Viable populations of the endangered, threatened, and species of special concern found onsite can be maintained onsite;

(2) Harvests are planned to provide for varying age and height diversity, supporting a variety of vegetative successional stages within the overall wetland ecosystem;

(3) The natural hydrology and hydroperiod of wetlands are not significantly modified on a long-term basis and state water quality standards are not violated; and

(4) There is no conversion of wetland system to upland systems.

Policy 4.7.6 The County may provide incentives such as density bonuses to developments for restoration of previously degraded wetlands on proposed new development sites. The extent of degradation of such wetlands and necessary steps to restore them shall be evaluated during the development review process. The evaluation shall include consideration of the feasibility of restoration and reasons for current state of degradation. Restoration of degraded wetlands shall be required where such degradation has been a result of new development or agricultural activities. The development regulations shall set forth the measures to be taken when restoration is required or intended.

Policy 4.7.7 Any development activity or alteration within an onsite, or affecting an offsite, surface waters or wetlands or associated buffers that are expected to result in significant adverse impacts, and any unavoidable significant adverse impacts to wetland and wetland buffers must be subject to review and approval by the Board of County Commissioners (BoCC). Mitigation proposals shall be submitted for consideration by to the BoCC only after all practicable alternatives to direct impacts have been implemented and after all practicable measures to reduce unavoidable impacts have been incorporated into the project design. The BoCC shall approve, approve with conditions, or deny impacts and mitigation proposals.

The Land Development Regulations shall require Development Review Committee (DRC) approval of a final development plan ensuring implementation of the BoCC-approved mitigation plan and such DRC approval must be received prior to wetland or buffer alteration. BoCC/DRC-approved mitigation generally shall be required to be completed prior to issuance of a project construction permit except in those cases where BoCC and/or DRC approvals specifically authorize alternate timelines.

In order to be considered, the mitigation plan must ensure the long term viability of the mitigation project, advance the County's natural resources conservation objectives and policies, and meet the following minimum guidelines:

(a) Wetland buffer mitigation shall include any one or a combination of: monetary compensation, or acquisition, restoration, enhancement, or preservation of wetlands, other surface waters or uplands.

(b) Preservation shall not be considered when protection of the resource proposed for preservation is already ensured by federal, state, water management district, or local regulations.

(c) Wetland buffer mitigation shall be determined by applying the Uniform Mitigation Assessment Method (UMAM), pursuant to Chapter 62-345, F.A.C.

(d) Mitigation should be permitted only within the boundaries of Alachua County and, to the maximum extent practicable, within the local watershed in which the impact occurs.

(e) Wetland mitigation activity conducted by a public agency may not be utilized for wetland mitigation credit by private entities unless approved by Alachua County.

(f) The landowner shall post a performance bond or similar financial guarantee to assure implementation of the mitigation and monitoring plan.

(g) No mitigation credits will be given for onsite preservation of wetlands, unless such proposals can demonstrate implementation and sustainability of adequate and appropriate enhancement and/or restoration of habitat.

(h) Designated wetland and buffer mitigation areas related to development shall be permanently protected in perpetuity using a legal instrument that runs with the land, in a form acceptable to the County, and duly recorded in the Public Records of Alachua County, which assures preservation and maintenance of the associated areas. The preferred legal instrument shall be a conservation easement (Section 407.06, F.S.), however depending on conditions, may also include other dedication options such as deed restrictions.

Policy 4.7.8 Development activity that occurs in violation of the County's Comprehensive Plan or land development regulations shall be required to mitigate, in addition to paying monetary penalties provided by the land development regulations. Mitigation shall include, at a minimum, onsite restoration of buffers, habitat, and hydrology of the original wetland area.

Policy 4.7.9 The County shall support the development of a unified and coordinated wetland compensatory mitigation and restoration program by appropriate federal, state and local environmental regulatory agencies that will not weaken local regulatory authority and will ensure no net loss of wetland acreage and a measurable increase in restored wetland function and acreage.

Policy 4.7.10 Use of certain wetlands for stormwater treatment or for tertiary treatment of wastewater may be allowed only for innovative designs which demonstrate that:

(a) The continued natural functioning of the wetland system will be maintained or improved.

(b) The natural hydroperiod of the wetland will be maintained.

(c) Water quality, vegetation, and aquatic lifeforms will be maintained or improved.

(d) All substances that could adversely impact water quality, vegetation and aquatic lifeforms will be removed or treated prior to discharge to the wetland system.

(e) The wetland's ability to assimilate any nutrients in the effluent discharged to the wetland system will not be exceeded.

The project shall be monitored over time at the owner's expense. Any degradation of the wetland system that occurs during the monitoring period due to project design failure shall be corrected by the project owner or operator at the owner or operator's expense.

Policy 4.7.11 The County shall require the use of native wetland plant species, where design allows, for the creation of wetland habitat and for biologically enhancing filtration and treatment of pollutants in newly constructed stormwater retention and detention ponds.

Policy 4.7.12 The development regulations shall incorporate the policies in this element for wetlands protection and provide standards for development within or near wetlands. These regulations shall address, at a minimum, the following:

(a) location and extent of wetlands on site plans;

(b) provisions for wetlands delineation consistent with the uniform statewide methodology outlined in Chapter 62-340, Florida Administrative Code;

(c) measures to assure normal flows and quality of water during and after development;

(d) requirements for review and approval of any use, development, or capital improvement resulting in the conversion of existing wetlands to a non-wetland ecosystem through filling, drainage or other measures;

(e) clustering of development away from wetland areas;

(f) provision of undisturbed natural buffers;

(g) mitigation requirements;

(h) measures to be taken when restoration is required or intended; and

(i) modification and use of wetlands.

OBJECTIVE 4.8 - FLOOD PLAINS AND FLOODWAYS

Protect and maintain the natural functions of floodplains, floodways, and all other natural areas having hydrological characteristics of the one hundred (100)-year flood elevation. Natural functions include water purification, flood hazard mitigation, water supply, and wildlife habitat and connectivity.

Policy 4.8.1 The County shall encourage and contribute to watershed management through a variety of programs to include education initiatives, enforcement of wetland and surface water setbacks, and interagency partnerships and workshops.

Policy 4.8.2 The County shall encourage watershed planning and shall:

(a) Define 100-year floodplains and floodways as conservation areas;

(b) Continue to maintain, and enhance where possible, the current biodiversity in floodplains of the County;

(c) Continue to cooperate with the Water Management Districts and other appropriate agencies in expanding or enhancing existing natural habitats associated with floodplains;

(d) Recognize floodplains in the land development regulations as unique resources requiring protection and conservation;

(e) Develop specific criteria for slope protection and erosion control in floodplains and along natural banks and shores; and

(f) Enforce erosion control regulations to reduce sedimentation in floodplains resulting from development activities.

Policy 4.8.3 Development regulations shall provide specific standards for development activities (including permitted land uses and development limitations) in areas of special flood hazard. These standards shall:

(a) At a minimum, be consistent with General Objective 3 of the Stormwater Element, the Alachua County Flood Hazard Area Ordinance, Surface Waters and Wetlands Ordinance, Hazardous Materials Management Code, and other County regulations.

(b) Recognize that, in some instances, the character of the area of special flood hazard is inappropriate for alteration due to the existence of other natural resource constraints.

(c) Include a review process allowing for:

(1) Evaluation of sites for compliance with this policy; and

(2) The implementing of regulations on a case-by-case basis.

Policy 4.8.4 Connectivity of floodways and habitat for wildlife and their mobility shall be accommodated by applying design criteria consistent with Stormwater Element policies.

Policy 4.8.5 An undisturbed regulated buffer determined on a site-specific basis shall be required within the property lines of public lands within the one hundred (100) - year floodplain for the purposes of visual screening, stormwater treatment, erosion control, and public safety.

Policy 4.8.6 The County shall participate in the acquisition planning process of federal, state, local and regional agencies for lands and unique natural areas located within the one hundred (100)-year floodplain.

Policy 4.8.7 The County shall monitor the use of County-owned facilities on or within the one hundred (100)-year floodplain to ensure that the public use of these facilities does not threaten the facility or adjacent natural resources. Such facilities shall be maintained in order to prevent any potential adverse impacts such as erosion, release of inadequately treated stormwater or wastewater, or the accumulation of trash and debris.

Policy 4.8.8 The County shall coordinate with the Water Management Districts during the Development Review Process for development located in the 100-year floodplain to allow them an opportunity to review and make comments on proposed development activities.

Policy 4.8.9 Shallow wells, solid waste disposal sites, septic tank drainfields, and sewage treatment plants shall be located to prevent inundation by floodwaters.

OBJECTIVE 4.9 – BIODIVERSITY

Maintain and enhance plant and animal species diversity and distribution within Alachua County by protecting significant plant and wildlife habitats, providing for habitat corridors, and preventing habitat fragmentation.

Policy 4.9.1 A critical portion of each significant plant and wildlife habitat type in Alachua County shall be protected. Protection shall be accomplished using all available methods, including land acquisition, incentives and requirements for the provision of conservation or preservation areas, habitat corridors, greenways, and common open space.

Policy 4.9.2 During the land use planning and development review processes, the County shall minimize the effects of development on significant plant and wildlife habitat. All developments shall protect the significant plant and wildlife habitat that occurs on site, subject to the limitation of 4.9.12.

(a) The habitat to be conserved shall be selected based on the quality and viability of the habitat. The County shall work with the landowner to select the portion of the habitat that will be included in the set aside.

(b) Conserved habitat shall be located and maintained in areas with intact canopy, understory and groundcover in functional, clustered arrangement which maximizes use by wildlife and maintains the long-term viability of native upland plant communities. Linkages to habitat corridors and greenways shall be required where available.

(c) The County shall have the authority to accept alternatives to onsite conservation that provide for the long-term protection and management of significant plant and wildlife habitat of equal or greater habitat value that would not have otherwise been preserved.

(d) The land development regulations shall establish criteria for determining which projects warrant the use of alternatives to onsite conservation. Criteria may include but are not limited to: the size of the development site, habitat quality, uniqueness, connectivity, management opportunities, and adjacent uses.

(e) Off-site conservation shall not be permitted for listed species habitat that is capable of being managed or restored on-site as a high quality natural plant or animal community or communities.

(f) This requirement is not intended to limit the effect of other resource-specific protective measures in this element, such as clustering and buffers.

Policy 4.9.3 The County shall require the development and implementation of management plans for all significant plant and wildlife habitat that is to be protected. The management plan shall be prepared at the expense of the developer by an appropriately qualified professional and provide for the following:

(a) Removal of invasive vegetation and debris.

(b) Replanting with native vegetation as necessary.

(c) Maintenance of biodiversity, with special emphasis on protection of listed plant and animal species.

(d) Any additional measures determined to be necessary to protect and maintain the functions and values of the habitat conservation areas while ensuring protection from wildfire.

Policy 4.9.4 The County shall consult with the Florida Fish and Wildlife Conservation Commission, United States Fish and Wildlife Service, Florida Department of Agriculture and Consumer Services or other appropriate agencies prior to authorizing development that could

result in potential adverse impacts to any listed species. The County shall utilize these recommendations to provide specific requirements regarding development where these species are encountered. Conditions of approval shall ensure the maintenance and, where feasible and appropriate, increase the abundance and distribution of populations of listed species.

Policy 4.9.5 The use of listed plant and wildlife species habitat shall be restricted to that which is compatible with the requirements of listed species. Development activities that would threaten the life or habitat of any listed species shall not be permitted.

Policy 4.9.6 The County shall prohibit the alteration of natural shorelines or degradation of water quality where listed species feed or breed, through the establishment of buffers as set out in Policy 3.6.8. The County shall encourage the restoration of degraded shorelines when possible.

Policy 4.9.7 The County shall periodically review monitoring data from federal, state, regional, and local agencies to determine the status of listed species habitats in Alachua County. The County shall use this information to maintain and provide, for the convenience of the public, a table of listed species and listed species habitats in Alachua County.

Policy 4.9.8 The County shall recommend specific management and recovery strategies for listed species, as they are developed by the Florida Fish and Wildlife Conservation Commission and the U.S. Fish and Wildlife Service, and shall assist in their implementation. These management techniques shall be incorporated into the land development regulations, as well as the management plans of County-owned preservation areas.

Policy 4.9.9 Wildlife habitat enhancement and management programs in urban areas shall be promoted through such techniques as designation of bird sanctuary areas where rookeries or other significant bird populations exist and landscaping schemes for stormwater detention and retention areas that maintain native vegetation and establish littoral zones which encourage wildlife usage.

Policy 4.9.10 The County shall develop incentives designed to encourage private land owners to manage land holdings for wildlife attributes.

Policy 4.9.11 The County shall establish and preserve habitat corridors that connect significant plant and wildlife habitats throughout the County. The County shall perform an objective analysis to determine the appropriateness of habitat corridors, how extensive they should be the location of potential corridors, what fiscal resources are available for implementation, and economic incentives for property owners to voluntarily participate in formation of a habitat corridor program.

Policy 4.9.12 Upland habitat protections under Objective 4.9 shall be limited as follows:

(a) No more than 25% of the upland portion of a property may be required to be set aside for preservation pursuant to policies under this Objective without landowner consent. Upland areas required to be protected pursuant to policies for significant geological features and wetland and surface water buffers shall be counted in calculation of the 25% limitation, however, the extent of protection of significant geological features and wetland and surface water buffers shall not be reduced by this limitation.

(b) This limitation shall not apply to 100-year floodplains and wellfield protection areas, which are addressed independently through policies under Objectives 4.8 and 4.5, respectively.

(c) This limitation shall not restrict in any way state and federal agency protections.

(d) For purposes of applying this limitation, a property shall include all contiguous land under common ownership or control. Properties may not be disaggregated, processed in piecemeal fashion, reviewed or developed in any manner that results in lesser upland protections than would otherwise be required under this Objective.

OBJECTIVE 4.10 - STRATEGIC ECOSYSTEMS

Protect, conserve, enhance, and manage the ecological integrity of strategic ecosystems in Alachua County.

Policy 4.10.1 Conserve strategic ecosystems that are determined through ground-truthing using the KBN/Golder report as a guide to maintain or enhance biodiversity based on an overall assessment of the following characteristics:

(a) Natural ecological communities that exhibit:

(1) Native biodiversity within or across natural ecological communities.

(2) Ecological integrity.

(3) Rarity.

(4) Functional connectedness.

(b) Plant and animal species habitat that is:

(1) Documented for listed species.

(2) Documented for species with large home ranges.

(3) Documented as a special wildlife migration or aggregation site for activities such as breeding, roosting, colonial nesting, or over-wintering.

(4) High in vegetation quality and species diversity.

(5) Low in non-native invasive species.

(c) Size, shape, and landscape features that allow the ecosystem to be restored to or maintained in good condition with regular management activities, such as prescribed burning, removal of exotic vegetation, or hydrological restoration.

The Alachua County 2001 digital orthophotographic series (for purposes of this policy, the date of this photography is March 1, 2001) shall presumptively establish the baseline condition of the strategic ecosystem property as of the effective date of this policy. The County shall adopt land development regulations that set forth additional guidance for the determination of whether and the extent to which strategic ecosystems exist on a property.

Policy 4.10.2 Strategies shall be implemented through the land use planning and development review processes to ensure that each strategic ecosystem is evaluated and protected based on the integrity of the ecological unit.

(a) The County shall create special area plans in cooperation with landowners to establish specific guidelines for strategic ecosystems prior to approval of land use change, zoning change, or development approval.

(b) The County shall devise a schedule for creating special area plans, based on current development pressures and anticipated priorities.

(c) The County shall create special area plans for each strategic ecosystem, in accordance with the schedule and with the standards under Objective 3.6.

Policy 4.10.3 If an applicant seeks development prior to the County's creation of a special area plan for a particular strategic ecosystem, the applicant has two avenues for pursuing development. A special area study may be conducted at the applicant's expense. Alternatively, if the applicant demonstrates that the ecological integrity of the strategic ecosystem will be sufficiently protected, the applicant may proceed according to the clustering provisions in policies under Objective 6.2 of the Future Land Use Element.

Policy 4.10.4 Management strategies for strategic ecosystems shall be developed with landowners in conjunction with special area plans or cluster developments and may include, but are not limited to:

(a) Prescribed burning.

(b) Control of invasive species.

(c) Silvicultural activities according to BMPs, with particular emphasis on maintenance and improvement of water quality, biological health, and the function of natural systems.

(d) Reduction in the intensity of site preparation activities, including bedding and herbicide application.

(e) Provision for listed species habitat needs, including restricting, at appropriate times, intrusions into sensitive feeding and breeding areas.

(f) Cooperative efforts and agreements to help promote or conduct certain management activities, such as cleanups, maintenance, public education, observation, monitoring, and reporting.

(g) Land acquisition.

Policy 4.10.5 Each strategic ecosystem shall be preserved as undeveloped area, not to exceed 50% of the upland portion of the property without landowner consent and in accordance with the following:

(a) Upland areas required to be protected pursuant to policies for significant geological features and wetland and surface water buffers shall be counted in calculation of the 50% limitation, however, the extent of protection of significant geological features and wetland and surface water buffers shall not be reduced by this limitation.

(b) This limitation shall not apply to 100-year floodplains and wellfield protection areas, which are addressed independently through policies under Objectives 4.8 and 4.5, respectively.

(c) This limitation shall not restrict in any way state and federal agency protections.

Policy 4.10.6 The County shall provide regulatory flexibility to facilitate planning across multiple parcels that protects the integrity of the strategic ecosystem as an ecological unit. Existing cluster and PUD ordinances shall be revised to enhance long-term protection of strategic ecosystems.

Policy 4.10.7 The County shall work with owners of agricultural and silvicultural lands to retain the ecological integrity and ecological value of strategic ecosystems through management plans and incentives. A management plan shall be required before any activity occurs in a strategic ecosystem that has not been used for agriculture or silviculture within the last 20 years, in accordance with the following:

(a) The management plan shall provide for retention of the ecological integrity and ecological value of the strategic ecosystem.

(b) The management plan shall be submitted to Alachua County for review and approval by appropriately qualified technical staff.

(c) The management plan may be satisfied by Forest Stewardship Council certification, land acquisition, or participation in a conservation program sponsored by the USDA Natural Resources Conservation Service.

(d) Passive recreational and ecotourism activities shall be encouraged where consistent with protection of the ecological integrity of the strategic ecosystem.

The County shall, through community outreach and collaboration, facilitate participation of landowners in forestry certification programs, land acquisition programs, and federal and state cost-share conservation programs, such as the Environmental Quality Incentive Program, the Conservation Reserve Program, the Wildlife Habitat Incentive Program, and the Farmland Protection Program.

Policy 4.10.8 Alachua County shall implement an ordinance that specifically addresses the preservation of strategic ecosystems, significant plant and wildlife habitat, habitat corridors, and vegetative communities.

5.0 HUMAN-RELATED RESOURCES

OBJECTIVE 5.1 - ENERGY DEVELOPMENT AND CONSERVATION

Provide for energy efficiency in human activities, land uses, and development patterns in order to reduce overall energy requirements for the County and its residents.

Policy 5.1.1 The County shall encourage the development and use of economically feasible and environmentally safe, innovative energy sources and management techniques for housing, transportation, commerce, and government offices by providing amendments to building codes, where applicable, that facilitate the use of such sources and techniques and through promotion of applicable tax incentives.

Policy 5.1.2 The development regulations shall be revised to encourage and accommodate site design techniques which provide for passive heating and cooling in construction and landscape design.

Policy 5.1.3 A safe, practical system of walkways and/or bikeways shall be established in conjunction with County road improvement projects within and between activity centers within the Gainesville Urban Area and high density residential areas. Wide use of public

transportation to activity centers shall be encouraged by expanding bus routes and locating public transit stops at urban residential areas and urban activity centers. The provisions of this policy shall be implemented consistent with the objectives and policies of the Transportation Mobility Element.

Policy 5.1.4 Governmental agencies shall identify active energy conservation programs and major energy users and shall encourage use and expansion of such programs.

Policy 5.1.5 Alachua County should support the efforts of private individuals and organizations in their attempt to reduce the County's dependency on conventional sources of energy.

Policy 5.1.6 Recognizing that efficiency of transportation systems is a major factor in achieving energy conservation, the County shall utilize transportation planning and design efforts, consistent with the provisions of the Transportation Mobility Element, which improve traffic flow and reduce congestion.

OBJECTIVE 5.2 - OPEN SPACE

To permanently preserve public Open Space within developments within Alachua County that protects natural resources, provides recreation, and augments the community network of bicycle and pedestrian infrastructure.

Policy 5.2.1 Open Space shall be provided on at least ten percent of every development, except as specified in Policy 5.2.5.

Policy 5.2.2 Open space is not intended to diminish other conservation requirements in this Element. The open space requirement in Policy 5.2.1 shall be fulfilled first with any of the conservation areas listed in Policy 3.1.1 followed by any significant habitat, if such exist on the site. All Conservation Areas or significant habitat within Open Space shall be maintained and remain undeveloped in perpetuity using a legal instrument that runs with the land and sets forth conditions and restrictions on use. The ULDC shall provide alternative options for protection of conservation resources based on quality, size, connectivity, and any other specified criteria. The boundaries of all Open Space shall be clearly delineated on plans, including recorded plats, and marked in the field to distinguish Open Space from developed areas.

Policy 5.2.3 After the requirements of 5.2.2 have been met, additional Open Space shall be one piece of contiguous land, at the periphery of the development to allow for connection to adjacent open space, with limited exceptions as defined in the land development code. The Open Space shall be located to best meet the following goals:

(a) Augment required conservation areas

(b) Provide accessible open space in the form of community gardens, community fields, greens, and pocket parks

(c) Promote greater accessibility, resource protection, and connectivity by being contiguous or linked through multiuse paths to greenways, trails, public parks, and Open Space on adjoining parcels.

Policy 5.2.4 Open space in clustered rural residential subdivisions and Planned Developments with Transfers of Development Rights (PD-TDR) shall be preserved in accordance with policies under Objective 6.2 of the Future Land Use Element.

Policy 5.2.5 After meeting the requirements of Policy 5.2.2, the following types of development are not required to provide additional Open Space:

(a) Nonresidential Development
(b) Family Homestead Subdivisions
(c) Rural Agriculture Unpaved Subdivisions
(d) Towers, major utilities, and outdoor recreation

Developments not required to provide additional open space shall still provide pedestrian and bicycle connections between designated greenways when applicable.

OBJECTIVE 5.3 - SCENIC QUALITY

Protect the natural resources and scenic quality of the community to preserve and cultivate a unique sense of place while maintaining economic well-being.

Policy 5.3.1 Alachua County shall develop standards and incentives to protect, maintain, enhance, and improve the landscape and built environment.

Policy 5.3.2 Infrastructure and utility structures, such as communication towers, personal wireless service facilities, radio and television antennas, water and sewer, and energy generation and distribution facilities shall be designed and located to minimize adverse visual impacts on the landscape and avian mortality. Public utilities shall be located underground to the maximum extent possible. The County shall coordinate with local municipalities and public utilities to implement this policy.

Policy 5.3.3 All forms of outdoor advertising shall be designed and located to minimize adverse impacts on the visual quality of the built and natural environments.

Policy 5.3.4 Landscaping of highways and community gateways shall incorporate native vegetation and reflect themes of local history and culture. Tree preservation and planting of low-maintenance native vegetation should be pursued along public rights-of-way throughout the County, with special focus on entranceway corridors.

(a) The County shall promote and protect the visual characteristics of canopy roads through tree planting programs and tree maintenance practices, in cooperation with other agencies and private landowners.

(b) The County shall promote and protect the visual characteristics of wildflower areas through planting programs and maintenance practices, in cooperation with other agencies and private landowners.

Policy 5.3.5 The County shall recognize and participate in voluntary programs for the beautification of public roadways, such as:

(a) I-75, through participation on the I-75 Corridor Council.

(b) FDOT Florida Scenic highways, such as the citizen-initiated designation of a portion of SR 441 and spur road system.

(c) The Transportation map series shall depict the FDOT designation of a portion of SR 441 in Alachua County and related county roads as the Scenic 441 Old Florida Heritage Highway.

(d) Alachua County shall participate in the preservation and protection of the natural and cultural resources of the Scenic 441 Old Florida Heritage Highway by

supporting the concepts described in the Scenic 441 Vision Statement, and by providing appropriate resources and support to the Corridor Management Council for implementation of the Corridor Management Plan.

(e) Gateway streets in conjunction with the City of Gainesville and other participating municipalities.

Policy 5.3.6 The County shall enhance the value and beauty of bicycle and pedestrian routes by locating them to take advantage of scenic resources while maintaining the ecological integrity of other conservation and preservation areas.

Policy 5.3.7 The County shall require that adverse impacts of outdoor lighting be minimized in order to preserve the ambiance and quality of the nighttime sky and reduce energy consumption while allowing for public safety and security.

(a) The following conservation principles shall be required:

(1) Minimize offsite lighting impacts, including glare, light trespass, and light pollution.

(2) Use lighting at the appropriate intensity, direction, and times, to ensure light is not overused or impacting areas where it is not intended.

(3) Maximize energy and cost efficiency.

(b) The County shall adopt land development regulations for a comprehensive set of outdoor lighting design standards based on conservation principles.

(c) Land development regulations shall address the outdoor lighting of roadways, parking lots, advertisements, commercial, industrial, residential, municipal and recreational activities.

(d) Current and planned municipal outdoor street lighting shall be evaluated and, where practicable, revised for consistency with conservation principles.

(e) The County shall seek the involvement of all of the local municipalities.

Policy 5.3.8 Development shall avoid and minimize adverse environmental and visual impacts through innovative planning, design, and management practices in the context of the natural features of the landscape, such as topography, vegetative edges, and soil types. Built and natural features shall be harmonized to the greatest extent practicable.

Policy 5.3.9 Alachua County shall identify and protect the scenic quality of the community through special area plans and a Community and Neighborhood Planning Program. Such plans shall include:

(a) Identification of scenic resources, such as viewsheds and scenic corridors, which exhibit unique scenic, historic, architectural, and/or cultural qualities due to tree canopy, substantial wooded fringes, lakes, ponds, streams, wetlands, rocky outcrops, scenic vistas, wildlife populations, wildflowers and/or other appropriate features.

(b) Identification of measures to preserve and enhance the visual, cultural and environmental quality of scenic resources, including development standards and incentives that may include:

(1) Requirements that site plans and planning efforts address preservation and enhancement of the scenic beauty and visual heritage of the community through measures such as:

a. Locating development in consideration of significant public viewsheds, e.g. off of hilltops and visually sensitive horizon lines.

b. The siting, form, scale, and profile of multi-family and non-residential buildings to blend with and preserve the character of the community and natural landscape.

c. Use of materials and methods of construction that are specific to the region, exhibiting a continuity of history and culture and compatibility with the climate to encourage the development of local character and community identity.

(2) Standards for scenic corridors, including:

a. Setbacks, limitations on removal of existing vegetation, additional restrictions on erection of signs for development adjacent to adopted scenic corridors, and modifications to scenic corridors, so as not to disrupt the canopy vegetation or the historical or natural character of the corridor.

b. Development and implementation of management plans to maintain each scenic corridor according to its unique attributes.

c. Minimizing traffic impacts and the limiting driveway access to the scenic corridor.

d. Prohibiting land use and zoning changes which change the character of designated scenic corridors.

e. Scenic easements as a means of protecting scenic corridors in collaboration with landowners.

(c) Provisions for adoption in land development regulations of specific, objective design standards for development on lands within the scope of each special area plan.

OBJECTIVE 5.4 - VEGETATION MANAGEMENT

Require and encourage public and private land clearing and landscaping practices that conserve, appropriately use, and protect native vegetation, including forests.

Policy 5.4.1 Landscaping shall be compatible with the natural environment. Existing on-site vegetation shall be incorporated into landscape plans to the maximum extent practicable, according to the following priorities:

(a) First, keep and enhance existing native vegetation onsite and intact as elements of the landscape design.

(b) If priority #1 is not practicable, onsite native species shall be transplanted to another location onsite.

(c) If priority #2 is not practicable, plant native species to simulate lost native habitat.

(d) If priority #3 is not practicable, then the new landscape design shall incorporate the use of plants that have similar texture, form, water requirements, and growth habits as the surrounding native vegetation.

Policy 5.4.2 New development shall conserve existing trees and native vegetation by use of sound arboricultural and horticultural practices that provide for the protection and long-term survival of the vegetation, as part of an overall strategy to achieve landscape, habitat preservation, and open space requirements. Conservation may entail grading restrictions, vegetation clustering, protective buffers, and density and intensity limitations, consideration of alternative layouts of permitted uses, and similar techniques that provide for the long-term survival of vegetation.

Policy 5.4.3 The County shall protect trees according to a species specific hierarchy. Trees shall receive priority for protection based on species, in conjunction with other features including size, age, condition, historic association, and uniqueness. Removal or damage of champion trees shall be prohibited, and removal or damage of designated specimen trees shall be avoided, or mitigated if removal or damage cannot be avoided. Specific protections shall be provided in the land development regulations.

Policy 5.4.4 The County shall incorporate native vegetation into the landscaping and provide for continued maintenance of County-owned buildings and grounds.

Policy 5.4.5 The County shall promote the conservation of native vegetation removed during land-clearing and use of this resource for transplanting and revegetation.

Policy 5.4.6 The County shall require the use of xeriscape–principles in the landscaping of new development projects to conserve water. The use of non-invasive alternatives to lawn grass as ground cover shall be encouraged.

Policy 5.4.7 The County shall develop a program to utilize xeriscape principles in conjunction with native plants and trees in public rights-of-way and other public lands, whenever practical, thereby conserving water, improving habitat for urban wildlife, conserving North Central Florida vegetation, and improving the county's aesthetic appeal and environmental quality.

Policy 5.4.8 Cypress mulch and mulch derived from other native wetland species shall be prohibited in County projects. The County shall discourage in private developments the use of mulch derived from native wetland species (e.g. cypress), and shall identify and encourage through education and incentives the use of alternatives to such mulches.

Policy 5.4.9 In all new private development, redevelopment, and public projects, the County shall prohibit the planting of invasive plant species. Sods shall be certified free of noxious weeds by the Florida Department of Agriculture and Consumer Services, Division of Plant Industry.

Policy 5.4.10 As part of the development review process, the County shall require new developments and redevelopments to submit and implement a plan for the removal and continued management of invasive species that have been identified within the development site.

Policy 5.4.11 The County shall develop and implement a plan for removal and continued management of invasive species on County-owned or controlled lands and shall incorporate them into the management plans of preservation areas.

Policy 5.4.12 The County shall continue to assist the Florida Department of Agriculture and Consumer Services, the Water Management Districts and the Florida Department of Environmental Protection in controlling invasive plant species.

Policy 5.4.13 The County shall accommodate the use of prescribed burning as a tool to promote ecosystem health and wildfire prevention.

OBJECTIVE 5.5 - AGRICULTURAL AND SILVICULTURAL PRACTICES

The County shall encourage the retention of agricultural and silvicultural operations that are conducted in accordance with best management practices.

Policy 5.5.1 The most recent federal, state, and water management district BMPs shall be required, as applicable, to all agricultural and silvicultural activities, including but not limited to the following:

(a) Silviculture Best Management Practices, published by the Florida Department of Agriculture and Consumer Services (FDACS), 2000.

(b) BMPs for Agrichemical Handling and Farm Equipment Maintenance, published by FDACS and FDEP, 1998.

(c) Water Quality BMPs for Cow/Calf Operations, published by the Florida Cattlemen's Association, 1999.

(d) Protecting Natural Wetlands: A Guide to Stormwater BMPs, published by the U.S. EPA, 1996.

Policy 5.5.2 Where the use of BMPs is required, property owners shall identify and verify to the County the use of the most recent applicable best management practices.

Policy 5.5.3 The County shall cooperate with agricultural and silvicultural operations, as well as the appropriate federal, state, and regional agencies, to address weaknesses in the implementation and effectiveness of BMPs related to issues such as water quality and habitat protection. The County shall participate in State Division of Forestry compliance audits and coordinate site inspections to address natural resource concerns.

Policy 5.5.4 County policies and regulations should be reviewed for guidance with respect to agricultural and silvicultural practices. Federal, state, water management district, and county resource quality standards shall be maintained.

Policy 5.5.5 The County shall encourage and recognize those operations which receive industry certification of forest management practices, including the following:

(a) Forest Stewardship Council (FSC).

(b) American Forest and Paper Association's Sustainable Forestry Initiative (SFI).

(c) American Forest Foundation's American Tree Farm System.

(d) Green Tag Forestry.

(e) Forest Stewardship Program (FSP).

Policy 5.5.6 The land development regulations shall be reviewed for the inclusion of incentives to encourage voluntary participation in certification programs whose standards meet or exceed best management practices.

Policy 5.5.7 The County shall seek funds for pilot projects in agricultural and silvicultural areas that demonstrate the use of conservation practices.

Policy 5.5.8 The County shall work with agricultural and silvicultural land owners and operators, the U.F. Agricultural Extension Office, the Florida Division of Forestry, the Florida Farm Bureau, and other appropriate entities to develop conservation management plans for lands that contain conservation areas.

Policy 5.5.9 Agricultural and silvicultural lands which have value for historic or natural resources conservation, recreation, or open space purposes shall be identified and, based upon willing landowner participation, may be included as part of the County's land conservation program.

OBJECTIVE 5.6 - WILDFIRE MITIGATION

Protect life, property, and the economy by eliminating or minimizing the present and future vulnerability to wildfire hazards.

Policy 5.6.1 Areas of wildfire hazard within Alachua County shall be mapped and ranked using features such as plant community type and development stage, canopy cover, hydrography, soils, slope, aspect, and elevation. The initial mapping shall be based on the Fire Risk Assessment Model contracted by the Florida Division of Forestry for completion in 2002. Mapping shall be reviewed annually and, as necessary, updated in response to changing fuel conditions.

Policy 5.6.2 The County shall educate the public, especially those at high risk from wildfires, and make them aware of proactive steps that they can take to mitigate wildfire damage.

Policy 5.6.3 The County shall advance the directives and policies of local emergency management operational plans and the Alachua County Local Mitigation Strategy.

Policy 5.6.4 The County shall implement a Firewise Medal Community Program that involves community fire preparation, evaluation and awards for program involvement. The County shall seek recognition of this program by the state Firewise Communities Recognition Program.

Policy 5.6.5 Alachua County shall carefully consider all land uses in areas at risk from wildfire and restrict or prohibit certain land uses as necessary to assure public health, safety, and welfare and the protection of property. Land uses and specific development plans for which adequate wildfire mitigation cannot be provided, or that would preclude or severely limit the use of wildfire mitigation or natural resource management options such as prescribed fire, shall not be authorized in severe wildfire hazard areas.

Policy 5.6.6 Development in wildfire hazard areas shall comply with the following minimum standards:

(a) All new development shall complete and implement a wildfire mitigation plan specific to that development, subject to review and approval by the Alachua County Fire Rescue Department, which shall be incorporated as part of the development plan approved for that development.

(1) The mitigation plan shall include project and parcel design features, such as defensible project perimeters, interior project fuel breaks, individual site

defensible space, landscaping guidelines and plant material suggestions, and the placement of structures.

(2) The mitigation plan shall include provisions for periodic inspection by the County to verify construction, implementation, and maintenance of the wildfire mitigation features in accordance with the plan. The inspection period may range from once a year to once every three years depending upon the site conditions.

(3) The wildfire mitigation plan requirements shall be implemented for the entire life cycle of all developments requiring plans.

(b) Structures shall be designed to minimize the potential for loss of life and property from wildfires, through requirements for outdoor sprinkler systems, fire-resistant building materials or treatments, landscaping with appropriate vegetation species, and site design practices.

(c) Water storage facilities, accessible by standard fire-fighting equipment, shall be provided, dedicated, or identified for fighting wildfires. Where public supply is available, fire hydrants of sufficient pressure shall be required.

(d) Streets, roads, driveways, bridges, culverts, and cul-de-sacs shall be designed to assure access by firefighting equipment, providing for weight class, cornering, turnaround and overhead clearance.

Policy 5.6.7 The County shall pursue available funding for community/volunteer service programs for fuel management on lands owned or managed by Alachua County.

Policy 5.6.8 The County shall implement a fuels management program that consists of the following:

(a) Practices such as prescribed burning, mechanical fuel reduction, and thinning, as necessary and appropriate to reduce wildfire hazards consistent with natural resources protection.

(b) Increased public awareness of the benefits of prescribed burning and the inevitability of resulting smoke.

(c) Acknowledgment by occupants in areas where prescribed burning is appropriate that they have been informed that prescribed burning may be used to manage wildfire hazards and that smoke will be present.

(d) Special focus on the wild land-urban interface as an area exposed to wildfire hazard.

OBJECTIVE 5.7 - HAZARDOUS MATERIALS

Act to reduce the risks associated with hazardous materials and encourage the reduction of hazardous waste generation. Protect and enhance the quality and safety of the environment by requiring that disposal methods for hazardous waste and handling and storage methods for hazardous materials are properly designed, operated, and monitored.

Policy 5.7.1 Land use policies, engineering practices, Federal and State financial incentives, and regulatory and non-regulatory programs shall be utilized to prevent or reduce community and environmental exposure to hazardous materials.

Policy 5.7.2 The County has enacted and shall enforce a comprehensive hazardous materials ordinance to reduce risks associated with the handling, storage, transportation, and disposal of hazardous materials.

Policy 5.7.3 The management of hazardous materials shall be assessed by surveying hazardous material handlers, identifying abandoned dump sites, and evaluating operating procedures at solid waste systems.

Policy 5.7.4 The County shall coordinate with adjacent local governments, and State and Federal agencies to insure adequate regulation and management of hazardous materials.

Policy 5.7.5 Large and small quantity generators of hazardous wastes shall be encouraged to reduce wastes, where feasible, by on-site treatment, waste recycling, change in production methods, and substitution of raw materials. It is not the intent of this policy to require hazardous material facilities to become Treatment, Storage, and Disposal (TSD) facilities.

Policy 5.7.6 As part of its overall hazardous materials management programs, the County shall conduct periodic inspections and environmental audits of commercial and industrial facilities that handle or store hazardous materials to ensure that management practices and engineering controls are compatible with environmental conditions and development regulations.

Policy 5.7.7 The health and safety of citizens and protection of the environment are primary concerns for determining locations for hazardous materials facilities. As such, appropriate locations for commercial and industrial facilities that handle or store hazardous materials which present a significant threat to the health and safety of the public shall consider the following criteria:

(a) Access to major transportation routes and potential impact of transportation-related accidents on heavily populated areas;

(b) Proper staff training and equipment and response times for emergency medical and fire protective services;

(c) Safe distance from schools, hospitals, residential neighborhoods, or other sensitive existing and future land uses;

(d) Compatibility of the proposed use with respect to the nature of hazardous materials stored or utilized in adjacent land uses;

(e) Drainage patterns and basin characteristics;

(f) Location of sinkholes, potable water supply wells, and other conduits for potential migration of contaminants;

(g) Existence of wetlands and other ground water recharge areas;

(h) Soil characteristics;

(i) Existence of streamcourse-related floodplains, wild-life habitats, or other unique ecological features; and

(j) Climatic conditions, including prevailing winds.

Compliance standards outlining the circumstances for implementation of this policy, including extent of risk and types and quantities of hazardous materials, shall be set forth in the development regulations.

Policy 5.7.8 Any hazardous waste treatment, storage, transfer, and collection site, as well as facilities storing or utilizing significant amounts of radioactive materials, shall be permitted only upon demonstration that the facility shall meet all applicable federal, state, and local regulations and that the facility shall not endanger public health and safety or have significant impacts on the environment. All publicly and privately operated landfills and solid waste disposal sites, including construction and demolition landfills, shall be regulated, inspected, and monitored, consistent with FDEP regulations and applicable county regulations consistent with Objective 1.4 and accompanying policies contained in the Solid Waste Element of the Alachua County Comprehensive Plan, in order to evaluate and minimize the impact of such landfills on the environment and the public health and safety, particularly in areas of the county where the Floridan Aquifer is shown as high vulnerability on the Alachua County Floridan Aquifer High Recharge Area map. The County's development regulations shall define the circumstances, if any, in which construction and demolition debris landfills will be permitted in areas where the Floridan Aquifer is shown as high vulnerability.

Policy 5.7.9 The use of land, water or air for uncontrolled disposal of any waste shall be prohibited. This policy does not preclude the proper use of manure, mulching of yard waste, composting, or regulated use of septic sludge for land application.

Policy 5.7.10 The use of tires, plastics or plastic derived materials as a fuel source or as feedstock for a waste to energy facility is prohibited. Exceptions to this policy may be allowed for research and development activities by special exception when approved by the Board of County Commissioners. Additional standards including limitations on scale and environmental and safety standards shall be included in the Unified Land Development Code for such research and development activities.

6.0 LAND CONSERVATION PROGRAM

OBJECTIVE 6.1 - PROGRAM OVERVIEW

Establish and maintain a land conservation program for the purchase, preservation, and management of natural areas and open space to complement the regulatory approaches identified in other sections of this element.

Policy 6.1.1 A land conservation master plan shall be developed to detail the vision, goals, and organizational framework for a county-wide system of natural areas and trails for wildlife and people.

Policy 6.1.2 The land conservation master plan shall identify the components of the land conservation program, including but not limited to:

(a) The Alachua County Forever program.

(b) Open space and greenways programs.

(c) Coordination with other land acquisition and management programs.

(d) Private donations and dedications.

(e) Regulatory mechanisms.

(f) Taxation policies, such as agricultural and conservation assessments.

(g) Purchase of agricultural conservation easements and purchase of development rights for agricultural areas.

Policy 6.1.3 The County shall coordinate the efforts of various components of the land conservation program in order to maximize opportunities to acquire lands for appropriate conservation and recreation purposes.

OBJECTIVE 6.2 - ALACHUA COUNTY FOREVER

Implement the Alachua County Forever program.

Policy 6.2.1 The County shall establish and maintain the Alachua County Forever program to acquire and manage environmentally significant lands for the protection of water resources, wildlife habitat, and natural areas suitable for resource-based recreation.

Policy 6.2.2 Alachua County Forever shall be funded for a minimum of 20 years, as approved by voter referendum on November 7, 2000.

Policy 6.2.3 The emphasis of Alachua County Forever shall be to increase the acreage of environmentally significant lands managed in perpetuity for conservation purposes.

Policy 6.2.4 Lands shall be selected for acquisition under the Alachua County Forever program based on an evaluation of environmental, social, and management criteria as adopted by the Alachua County Board of County Commissioners.

Policy 6.2.5 During the acquisition of environmentally significant lands, the County shall give priority to acquiring the optimal acreage needed to maintain the integrity of the natural plant communities or ecological units involved.

Policy 6.2.6 All acquisitions under the Alachua County Forever program shall be based on voluntary participation by a willing property owner.

Policy 6.2.7 Resource-based recreation may be considered on and adjacent to land acquired through Alachua County Forever provided the associated activities do not have significant adverse impacts on the ecological integrity or ecological or historical values of the resources in these areas.

OBJECTIVE 6.3 - ECOLOGICALLY FUNCTIONAL LINKAGES

Develop a linked network of protected natural areas and open space that can be managed to support the protection, enhancement and restoration of functional and connected natural systems while providing unique opportunities for recreation, and economic development.

Policy 6.3.1 The County shall prioritize maintenance of ecologically functional linkages between ecological corridor core areas as shown on the Critical Ecological Corridors Map through various programs and activities, including:

(a) Implementation of development review

(b) Special area planning for Strategic Ecosystems

(c) Land acquisition programs and associated management plans

(d) Transfer of Development Rights program (see Future Land Use Element Section 9.0)

(e) Intergovernmental coordination efforts with municipalities, adjacent counties, regional entities, state and federal agencies

(f) Outreach programs to promote the value of conserving linked ecosystems/corridors and support tax incentives that promote the preservation of mapped ecological core areas.

Policy 6.3.2 Where necessary to connect publicly owned recreation and conservation lands to develop the greenways system, the County shall encourage public acquisition of land and other means of voluntary landowner participation.

Policy 6.3.3 To protect sensitive ecosystems and habitat corridors, the County shall locate and design public access in an environmentally sensitive manner, including limiting or prohibiting public access where necessary to protect such resources.

Policy 6.3.4 The County shall coordinate with local municipalities in order to include appropriate incorporated properties as part of the greenways system.

OBJECTIVE 6.4 - OTHER ACQUISITION PROGRAMS

Coordinate with other programs for the acquisition and management of natural areas and open space for recreational, open space and conservation purposes.

Policy 6.4.1 The County shall seek to maximize the effectiveness of local revenue sources by using them to leverage funds available from federal, state, municipal, private non-profit, and Water Management District programs, such as Florida Forever, Florida Communities Trust (FCT), Conservation and Recreation Lands (CARL), and Save-Our-Rivers (SOR).

Policy 6.4.2 The County shall provide support, in the form of information, coordination, assistance in obtaining grants, and other support activities to organizations and agencies that acquire and protect natural areas and open space for conservation, open space, and recreational purposes.

Policy 6.4.3 The County shall pursue Florida Communities Trust funds, and support the municipalities in submitting applications, for acquisition projects that maximize environmental and social considerations, including but not limited to:

(a) Preserving natural communities or listed species habitat.

(b) Restoring or enhancing degraded natural areas.

(c) Protecting or enhancing water quality.

(d) Enhancing greenways or recreational trails.

(e) Providing appropriate access to natural areas, including water bodies.

(f) Directing development to urban infill, redevelopment, or downtown revitalization areas.

(g) Preserving historical, cultural or archaeological features.

OBJECTIVE 6.5 - ACQUISITION TOOLBOX

Encourage the use of multiple, diverse land acquisition strategies.

Policy 6.5.1 The County shall use and promote a variety of tools for acquiring and protecting natural areas and open space. Acquisition tools shall include, at a minimum, fee simple purchase, conservation easements, conservation trusts, land donations and dedications, transfer or purchase of development rights, long-term leases, and tax incentives.

Policy 6.5.2 These tools shall be used in the most cost effective manner that ensures long-term protection of natural areas and open space.

Policy 6.5.3 The County shall proactively seek private land donations and dedications, and shall establish guidelines for accepting them.

Policy 6.5.4 The County shall discuss with landowners the alternatives for protecting environmentally significant lands which have qualified for acquisition by federal, state, regional, or local land management agencies, in an effort to discourage more intense land uses.

Policy 6.5.5 The County shall provide educational programs on the benefits of incentives available for private donation or protection of environmentally significant lands. The County shall inform the public of state and federal cost sharing available for conservation.

Policy 6.5.6 The County shall encourage private land owners to utilize multiple-use management techniques to provide both economic (e.g., silviculture) and ecological (e.g., provision of wildlife habitat) benefits and shall develop a technical assistance manual addressing such techniques.

OBJECTIVE 6.6 – MANAGEMENT

Improve the environmental stewardship of all preservation, conservation and recreation areas within Alachua County.

Policy 6.6.1 The County shall provide public education on the benefits of natural systems functions to decrease the effects of human intrusion into areas designated for limited public access.

Policy 6.6.2 The County shall take an active role in the development of management plans for preservation, conservation and recreation areas in Alachua County that are not owned by the County.

Policy 6.6.3 The County shall continue to manage natural resources in County- owned preservation areas in cooperation with the U.S. Fish and Wildlife Service, Florida Fish and Wildlife Conservation Commission, the Florida Department of Environmental Protection, the Suwannee River and St. Johns River Water Management Districts, the Florida Department of Agriculture and Consumer Services, local municipalities, and other agencies, as appropriate.

Policy 6.6.4 Within one year of acquisition, the County shall develop site specific management plans for all preservation, conservation and recreation lands owned, leased or purchased by the County. The County shall review these plans periodically, at least every three years, to ensure compliance with conservation objectives.

Policy 6.6.5 The County shall restore and enhance degraded natural areas on County-owned preservation, conservation and recreation lands, including removal of invasive non-native plants and animals, reforestation, re-establishment of burn regimes for fire-adapted ecosystems, and restoration of shorelines and natural hydrology, as needed.

Policy 6.6.6 The County shall manage and maintain County-owned preservation, conservation and recreation areas to ensure the ongoing conservation of desirable plants and animals and their associated ecosystems, and to control the invasion and spread of undesirable non-native plants and animals.

Policy 6.6.7 Management techniques such as prescribed burning and mechanical removal shall be used in County-owned preservation, conservation and recreation areas where necessary and appropriate for ecological reasons or fuel reduction.

Policy 6.6.8 Where consistent with natural resources protection, the County may provide public access to preservation and conservation areas, including water bodies. A hierarchy will be established to determine the appropriate type of access, with special attention given to environmentally sensitive design, location and construction.

Policy 6.6.9 Multiple use opportunities, including resource-based recreation, shall be considered in County-owned preservation and conservation areas where consistent with conservation of wildlife habitat, watershed protection, erosion control, maintenance or enhancement of water quality, and aquifer recharge protection.

Policy 6.6.10 The County shall manage, and support stewardship strategies that maximize biodiversity at the species, natural community, and landscape levels.

Policy 6.6.11 The County shall provide continued funding for ongoing operation and maintenance costs associated with County-owned lands.

7.0 GREENWAYS MASTER PLAN

OBJECTIVE 7.1 - Greenways Master Plan

Develop a linked greenway system that provides unique opportunities for recreation, multi-modal transportation, and economic development.

Policy 7.1.1 The County Commission shall adopt a Greenways Master Plan that functionally integrates the County's bicycle/pedestrian infrastructure, conservation lands, parks, and Open Spaces. The Greenways Master Plan is intended to guide and prioritize future Open Space designations, construction of bicycle/pedestrian facilities, and public land acquisitions needed to complete the Plan, consistent with respective program policies.

Policy 7.1.2 The County shall strive to coordinate the Greenways Master Plan with public parks, conservation lands, and bicycle/pedestrian infrastructure within the County's municipalities.

Policy 7.1.3 The County shall locate and design Greenways Master Plan infrastructure so as to protect sensitive ecosystems or natural features.

Policy 7.1.4 The County shall seek grant funds from established federal and state greenways funding programs for construction and maintenance.

Policy 7.1.5 The County shall approve a master management plan for the Greenways Master Plan, and specific plans for lands acquired, preserved, or otherwise included in the greenways plan. The management plans shall address natural resources protection, public access, recreation, education, and opportunities for economic development that is complementary to maintaining the system. The management plans shall identify anticipated costs and departments responsible for implementation of the plans.

Policy 7.1.6 The County shall develop a strategy for identifying and providing for publicly accessible open spaces of native flora and fauna in or near neighborhood settings. Resource-based recreation such as picnicking and hiking shall be encouraged.

Policy 7.1.7 The County shall coordinate with local municipalities in order to include appropriate incorporated properties as part of the greenways plan.

CONSERVATION AND OPEN SPACE ELEMENT DEFINITIONS

Adverse Impact (upon a natural resource): Direct contamination, alteration, or destruction, or that which contributes to the contamination, alteration, or destruction of a natural resource, or portion thereof, to the degree that its environmental benefits are or will be eliminated, reduced or impaired.

Agriculture: The use of land predominantly for the cultivation of crops and livestock including: cropland, pastureland, orchards, vineyards, nurseries, ornamental horticulture areas, groves, confined feeding operations, specialty farms, and silviculture.

Ambient: Circulating or surrounding.

Aquifer: A geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs. (See Floridian Aquifer System; Intermediate Aquifer System; and Surficial Aquifer System.)

Aquifer Recharge: The replenishment of groundwater in an aquifer occurring primarily as result of infiltration of rainfall, and secondarily by the movement of water from adjacent aquifers or surface water bodies.

Area of Special Flood Hazard: Any locality that, because of topography, soil limitations or geographic location, is subject to periodic or occasional inundation.

Assimilative Capacity: The greatest amount of a pollutant loading that a water or wetland can receive without violating state water quality standards.

Best Management Practices (BMPs): A series of guidelines or minimum standards adopted for area wide application, typically associated with agricultural, silvicultural, golf course, and similar operations, designed primarily to prevent soil erosion and water pollution, and to protect certain wildlife habitat values in riparian and wetland areas.

Bikeway: Any road, path, or way which in some manner is specifically designated as being open to bicycle travel regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes. This includes bike lanes, wide curb lanes, sidewalks, and local streets.

Biodiversity (Biological diversity): The variety, distribution and abundance of living organisms in an ecosystem. Maintaining biodiversity is believed to promote stability, sustainability and resilience of ecosystems.

Bioretention: Filtering stormwater runoff through a terrestrial aerobic (upland) plant/soil/microbe complex to remove pollutants through a variety of physical, chemical, and biological processes.

Bona Fide Agricultural Purposes: Good faith commercial agricultural use of the land, provided the land is classified for assessment purposes by the property appraiser as agricultural to pursuant to Chapter 193, Florida Statutes. In determining whether the use of the land for agricultural purposes is bona fide, the following factors may be taken into consideration:

(1) The length of time the land has been so utilized;
(2) Whether the use has been continuous;
(3) The purchase price paid;
(4) Size, as it relates to specific agricultural use;

(5) Whether an indicated effort has been made to care sufficiently and adequately for the land in accordance with accepted commercial agricultural practices, including, without limitation, fertilizing, liming, tilling, mowing, reforesting, and other accepted agricultural practices;
(6) Whether such land is under lease and, if so, the effective length, terms, and conditions of the lease; and
(7) Such other factors as may from time to time become applicable.

Borrow Activities: See Excavation.

Buffer: An area of planted or natural vegetation or open space maintained for various purposes, including reduction of erosion and siltation along surface waters and wetlands, reduction of poaching and wind erosion along roads and field edges, and provision of wildlife travel corridors and habitat.

Champion Trees: Those trees that have been identified by the Florida Division of Forestry as being the largest of their species within the State of Florida or by the American Forestry Association as the largest of their species in the United States. The current list of champion trees in Gainesville and Alachua County is on file in the office of codes enforcement. This list is subject to revision and will be updated yearly.

Class I Waters: Potable water supplies as classified and specified in Chapter 62-302, Florida Administrative Code.

Class II Waters: Shellfish propagation or harvesting water as classified and specified in Chapter 62-302, Florida Administrative Code.

Class III Waters: Waters deemed suitable for recreation, propagation and protection of fish and wildlife as classified and specified in Chapter 62-302, Florida Administrative Code.

Class IV Waters: Agricultural water supplies as classified and specified in Chapter 62-302, Florida Administrative Code.

Clustering: The grouping together of structures and infrastructure on a portion of a development site.

Common Area: Any part of a development designed and intended to be used in common by the owners, residents or tenants of the development.

Common Open Space: All open space, natural areas and recreational areas which are part of a common area.

Compensating Storage: Physical replacement of natural flood water storage volumes that would be displaced in areas of special flood hazard due to development. The volume of compensating storage shall be calculated assuming normal wet season ground water levels.

Cone of Depression: A description phrase relating to the events that occur in an aquifer when withdrawal of well water exceeds recharge.

Confined Aquifer: An aquifer that is bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself.

Confining Layer: A rock or soil bed that lies above or below an aquifer and that allows very little water to flow through the other layers.

Connected Wetland: A vegetative community which is part of a flowing water system or a runoff system where waters flow through during times of heavy rainfall.

Conservation Area/Land: In the land use category context, this term encompasses conservation areas and refers to identified natural resource areas on privately owned lands in Alachua County.

Conserve /Conservation: The prudent use of natural resources commensurate with environmental functions.

Creation: A type of mitigation in which persistent wetlands are created through the engineered conversion of non-wetland areas.

Criteria Pollutants: Air pollutants for which National Ambient Air Quality Standards exist. The United States Environmental Protection Agency has set National Air Quality Standards for the following six air pollutants: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide.

Critical: Of special importance, requiring high-priority treatment, usually applied to resource areas of special importance due to their usefulness, hazard, or pending impact from alteration.

Critical Habitat (also called essential habitat): The specific areas that contain biological or physical features upon which a listed species depends. These include recently documented feeding, breeding, nesting, or repetitive use areas.

Depression Basins: Natural depression watershed areas which have no positive outfall for surface water runoff except by infiltration as evapotranspiration.

Detention: The collection and temporary storage of stormwater in such a manner as to provide for treatment through physical, chemical or biological processes with subsequent gradual release of stormwater.

Development Activity: Any dredging, filling, excavation, construction of new structures, expansion of existing structures ,installation of utilities, roads, personal wireless service facilities, stormwater management systems, septic tanks, bulk heading, land clearing, tree cutting, mechanized vegetation removal and the disposal of solid or liquid waste.

Documented [adapted from 9J-2.041]: The existence of a scientifically credible occurrence record for a listed species, including surveys, scientific publications, or other information from a developer or landowner, local, regional, state or federal agencies.

Drainage Basin: A subdivision of a watershed.

Ecological Integrity: The condition of an ecosystem having the biotic communities and physical environment with structure, composition, and natural processes that is resilient, self-sustaining, and able to accommodate stress and change. Its key ecosystem processes, such as nutrient cycles, succession, water levels and flow patterns, and the dynamics of sediment erosion and deposition, are functioning properly within the natural range of variability.

Ecological Value: The value of functions performed by uplands, wetlands, and other surface water3 to the abundance, diversity, and habitats of fish, wildlife, and listed species. These functions include, but are not limited to, providing cover and refuge; breeding, nesting, denning, and nursery areas; corridors for wildlife movement; food chain support; and natural water storage, natural flow attenuation, and water quality improvement, which enhances fish, wildlife, and listed species utilization.

Ecosystem: A community of all plants and animals and their physical environment, functioning together as an interdependent unit.

Ecosystem Management: The conservation, restoration or enhancement of, and planning for the maintenance of, parts or whole natural systems inter-related or associated with particular resources.

Ecosystem management is an approach to natural resources that integrates ecological, economic, and social principles to manage biological and physical systems in a manner that safeguards the ecological sustainability, natural diversity, and productivity of the landscape. Examples of ecosystem management practices include: using fire to restore longleaf pine forests, leaving buffer zones to protect water quality, and using harvesting techniques that enhance forest productivity and provide critical wildlife habitat.

Endangered species: Species in danger of extinction if the deleterious factors affecting their populations continue to operate. These are forms whose numbers have already declined to such a critically low level or whose habitats have been so seriously reduced or degraded that without active assistance, their survival in Florida is questionable.

Enhancement: A type of mitigation in which there is an engineered increase in one or more values of all or a portion of an existing wetland, surface water, or upland.

Environmentally Sensitive Areas: Areas where natural resource values or hazards play a primary role in land suitability and capability. These include areas with special natural resource characteristics which may be described as fragile and subject to harm with a minimal amount of alteration.

Environmentally Significant Lands: Lands containing natural resources and open space that Alachua County acquires for resource protection and the provision of appropriate resource-based recreation.

Environmental Quality: The character or degree of excellence or degradation in the total essential natural resources of the area as measured by the findings and standards of the physical, natural, and social sciences, the arts and technology, and the quantitative guidelines of federal, state and county governments.

Environmental Stewardship: Care and supervision of natural resources common to all citizens.

EPA Identified Toxic Pollutants: The 188 toxic air pollutants listed in the 1990 amendments to the Federal Clean Air Act that the United States Environmental Protection Agency is required to control.

Excavation: The removal and transport of earth materials (sometimes referred to as "borrow" activities). This definition excludes commercial mining operations (such as limerock and sand mining operations), excavation associated with construction of storm water management facilities, excavation activities governed by the Alachua County Subdivision Regulations, and excavation associated with sod farming and removal activities, and tree farming activities.

Extraction: The removal of soil, sand, mineral, etc. from the earth through mining or excavation (borrow) activities.

Fill: Raising the surface level of the land with suitable soil material.

Flatwood: Broad, nearly level, low ridges of dominantly poorly drained soils characteristically vegetated with open woods of pine and saw palmetto.

Flood or Flooding: The inundation of land by the overflow of a stream basin or depression basin, the accumulation of runoff, or the rise of ground water.

Flood plain: Any land area susceptible to being inundated by water from a storm of a specified frequency of occurrence.

Flood plain, 100-year: Areas subject to inundation by a flood having a one-percent (1%) probability of occurrence in any given year. The 100-year flood elevation is the highest elevation of flood waters during the 100-year storm event and is calculated or estimated from the best available information.

Floodway: The channel of a river, stream, or other watercourse and ~~of~~ the adjacent land areas that must be reserved in order to discharge the 100-year flood without cumulatively increasing the 100-year flood elevation more than a designated height.

Floridan Aquifer System: The thick carbonate sequence which includes all or part of the Paleocene to early Miocene Series and functions regionally as a water-yielding hydraulic unit. Where overlaid by either the intermediate aquifer system or the intermediate confining unit, the Floridan contains water under confined conditions. Where overlaid directly by the surficial aquifer system, the Floridan may or may not contain water under confined conditions, depending on the extent of low permeability materials in the surficial aquifer system. Where the carbonate rocks crop out, the Floridan generally contains water under unconfined conditions near the top of the aquifer system; but, because of vertical variations in permeability, deeper zones may contain water under confined conditions. The Floridan aquifer system is present throughout the County in the deepest part of the active ground water flow system. The top of the aquifer system generally coincides with the absence of significant thicknesses of clastics from the section and with the top of the vertically persistent permeable carbonate section. For the most part, the top of the aquifer system coincides with the top of the Suwannee Limestone, where present, or the top of the Ocala Group. Where these are missing, the Avon Park Limestone or permeable carbonate beds of the Hawthorn Formation form the top of the aquifer system. The base of the aquifer system coincides with the appearance of the regionally persistent sequence of anhydrite beds that lie near the top of the Cedar Keys Limestone.

Florida Scenic Highways Program: Grass-roots effort to heighten awareness of our State's historical and intrinsic resources - cultural, historic, archaeological, recreational, natural and scenic - which collectively, enhance the overall traveling experience. Program participation provides benefits to the community, such as resource preservation, enhancement and protection, as well as community recognition and promotion of tourism and economic development. The program is a partnership between Florida Department of Transportation, Federal Highway Administration, Florida citizen groups, businesses, and local governments.

Fragmentation: The loss of connections between natural areas, or the breaking up of habitat into isolated areas.

Functional Connectedness: The characteristic of a natural community that has connections to other natural areas. Wild plants and animals typically require avenues for dispersal to different feeding and breeding sites in order to survive.

Geologic Features: A prominent or conspicuous characteristic of earth materials in the landscape. In Alachua County, prominent geologic features include sinkholes, caves, stream bluffs, escarpments, outcroppings, and springs.

Geophysical: Of or pertaining to the physical properties of earth materials and their chemical composition and transformations.

Glare: The sensation produced by a bright source within the visual field that is sufficiently brighter than the level to which the eyes are adapted to cause annoyance, discomfort, or loss in visual performance and visibility; blinding light. The magnitude of glare depends on such factors as the size, position, brightness of the source, and on the brightness level to which the eyes are adapted.

Green Infrastructure: An interconnected network of green space that conserves natural ecosystem values and functions and provides associated benefits to human populations.

Green Roof: A roof of a building that is partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane. It may also include additional layers such as a root barrier and drainage and irrigation systems (also see Energy Element Definitions).

Greenway: A corridor of protected open space that is managed for conservation, recreation purposes. Greenways follow natural land or water features or abandoned railroad corridors or canals, and link natural reserves, parks, cultural and historic sites.

Groundwater: Water occurring beneath the surface of the ground, whether or not flowing through known or definite channels.

Habitat: The natural abode of a plant or animal that contains the arrangement of food, water, cover and space required to meet the biological needs of a given species. Different species have different requirements, and these requirements vary over the course of a year.

Habitat Corridors: A naturally-vegetated transportation route for plants and animals that connects larger natural areas. Wild plants and animals typically require avenues for dispersal to different feeding and breeding sites in order to survive.

Habitat Diversity: The variety of habitat features and types in a specific area. Habitat diversity takes many forms: the variety of plants and animals on a site; structural diversity or the vertical arrangement of vegetation from canopy to forest floor; horizontal diversity or the distribution of habitat types across the landscape; and temporal diversity or habitat changes over time. Generally, areas with substantial habitat diversity will support more wildlife species than areas with less habitat diversity.

High Aquifer Recharge Areas: Areas where stream-to-sink surface water basins occur, and areas where the Floridan aquifer system is designated as high vulnerability or vulnerable on the Alachua County Floridan Aquifer High Recharge Area map.

Human-related Resources: Resources or products that are associated with human interaction with the environment, including energy, open space, scenic quality, landscaping/vegetation management, agricultural and silvicultural resources, wildfire hazards, and hazardous materials.

Hydro geologic: Of or pertaining to the interrelationship of earth materials and processes with water. The movement patterns and chemistry of groundwater are heavily dependent on geology of the area.

Hydro period: Period of time and frequency in which soils, water bodies, and sites are wet.

I-75 Corridor Council: Intergovernmental work group that provides guidance to the Florida Department of Transportation on the highway beautification and tourism promotion project established in 1996 for the portion of I-75 that extends from the Georgia state line to Florida's Turnpike in Wildwood.

Impervious Surface: Land surfaces which do not allow, or minimally allow, the penetration of water; included as examples are building roofs and typical continuous concrete and asphalt pavements.

Important Agricultural Areas: The important farmlands that are identified by the U.S. Natural Resources Conservation Service. These include prime and unique farmlands, and additional farmland of statewide and local importance as described in 7 Code of Federal Regulations 657.

Indicator (Key) Species: An organism that occurs only in areas with specific environmental conditions.

Indicators: Quantitative information, or data, tracked over time, designed to provide a comprehensive assessment of trends in community conditions (i.e. environmental quality) to support planning and management decisions affecting the County's future.

Injection Well: A well into which fluids are drained, either by gravity flow or under pressure. The terms deep well and shallow well injection has no real significance relative to the actual depth of a well. Specific depths should be stated. Deep well injection does not include the return of groundwater used for heat exchange, or the injection of non-contact cooling water from residential and commercial heat pumps, to the aquifer.

Intermediate Aquifer System: All rocks that lie between the overlying surficial aquifer system and the underlying Floridan aquifer system. These rocks in general consist of fine-grained clastic deposits interlayered with carbonate strata belonging to all or parts of the Miocene and younger Series. In places, poorly-water-yielding to non-water-yielding strata mainly occur; there the term "intermediate confining unit" applies. In other places, one or more low- to moderate-yielding aquifers may be interlayered with relative impermeable confining beds; there the term "intermediate aquifer system" applies. The aquifers within this system contain water under confined conditions. The top of the intermediate aquifer system or the intermediate confining unit coincides with the base of the surficial aquifer system. The base of the intermediate aquifer is the top of the vertically persistent permeable carbonate section that comprises the Floridan aquifer system, or, in other words, that place in the section where clastic layers of significant thickness are absent and permeable carbonate rocks are dominant. Where the upper layers of the persistent carbonate section are of low permeability, they are part of either the intermediate aquifer system or intermediate confining unit, as applicable to the area.

Invasive Species: Imported plant species that are widespread in Florida and have the established potential to invade and disrupt native plant communities; are localized but have a rapidly expanding population or have shown a potential to invade and disrupt native vegetation in other areas or other countries with climates similar to Florida.

Isolated Wetland: Any wetland without a direct hydrologic connection to a lake, stream, estuary or marine water.

Karst Topography: The relief of an area underlain by limestone that dissolves in differing degrees, thus forming numerous depressions or small basins.

Land Application: The act of disposing of sewage effluent and/or sludge on the earth's surface. There are three primary types of land application: (1) overland flow, which includes depository sludge in landfills, (2) rapid rate infiltration, such as in percolation ponds, and (3) slow rate infiltration such as spray irrigation.

Landscape: A geographical mosaic composed of interacting ecosystems resulting from the influence of geological, topographical, soil, climatic, biotic and human interactions in a given area.

Light Pollution: Any adverse effect of manmade light.

Light Trespass: Light falling where it is not wanted or needed, typically across property boundaries.

Listed Species: Those species of plants and animals listed as endangered, threatened, rare, or species of special concern by an official state or federal plant or wildlife agency, or the Florida Natural Areas Inventory (FNAI, includes species ranked as S1, S2, or S3). These species are targeted for protection for a number of reasons, e.g. they are in imminent danger of extinction, are rapidly declining in number or habitat, or have an inherent vulnerability to habitat modification, environmental alteration, or human disturbance which puts them at risk of extinction.

Littoral Zone: In reference to stormwater management systems, that portion which is designed to contain rooted aquatic plants.

Low Impact Design (LID): See Stormwater Management Element definitions.

Management Plan: A plan prepared to address preservation/restoration and management of natural resources. The plan consists of a set of documents, including maps, that describes and depicts the location of areas and natural resources to be preserved, including any protective buffers. The plan identifies specific implementation activities, schedules, and assignments of responsibilities.

Mineral Resource Areas: Areas of active or proposed resource extraction activity and areas containing known valuable mineral resource deposits.

Minimal Impact Activities: Activities that will have no significant adverse impact on the resource. Such activities may include installation of navigational aids marked consistent with the requirements of Section 327.40, Florida Statutes; construction and maintenance of public or private nature trails not more than ten (10) feet in width; installation of docks not in excess of one thousand (1,000) square feet in size, subject to performance standards, and other similar activities.

Minimum Flows and Levels or MFLs: are the minimum water levels and/or flows adopted by the water management district governing boards to prevent significant harm to the water resources or ecology of an area resulting from water withdrawals permitted by the districts.

Mining: The extraction of natural deposits from the earth which are regulated by the State of Florida under Part II of Chapter 211 and Chapter 378, Florida Statutes, and by Alachua County Ordinance 68.

Mitigation: An action or series of actions that offsets adverse environmental impacts. Mitigation may consist of any one or a combination of monetary compensation, or acquisition, restoration, enhancement, or preservation of wetlands, other surface waters or uplands.

Mounding: Filling the area of the absorption field of a septic tank with suitable soil material to raise it above the water table to meet state and local regulations.

Multiple-use Forestry: Managing a forested area to simultaneously provide more than one of the following resource objectives: fish and wildlife, wood products, recreation, aesthetics, grazing, watershed protection, and historic or scientific values.

Multiple use opportunities: The coordinated management of a natural area to simultaneously provide more than one of the following resource objectives: conservation of fish and wildlife, habitat, natural communities, or other ecological values, watershed protection, sustainable agricultural and silvicultural activities, preservation of scenic quality, open space, or historic resources, provision of resource-based recreation, educational, and scientific activities, and environmental stewardship.

Native Species: Plants and animals that, based on current knowledge, are known to have been present regionally before the time of documented European contact (~1500 A.D.).

Natural Ecological Communities: An assemblage of native plants and animals that is: (1) repeatable in general terms under similar physical conditions over the landscape, (2) capable of self-maintenance, (3) recognizable as being distinct from adjoining communities, and (4) has not been significantly altered by previous manmade activities. A community can usually be recognized by a few key species of plants. A natural ecological community is one that is important as a reserve of biological diversity.

Natural Resources: Alachua County's biological, physical, geological and hydrological components of the environment.

Non-native Species: Plants and animals that are not native regionally.

Non-point Source Pollution: Contamination arising from the discharge of wastes to water bodies or to the atmosphere from dispersed sources.

Non-profit conservation organization: Any private organization, existing under the provisions of Section 501 (c)(3) of the Internal Revenue Code, which has among its principal goals the conservation of natural resources or protection of the environment.

Onsite sewage treatment and disposal system: a system that contains a standard, subsurface, filled, or mound drainfield system; an aerobic treatment unit; a graywater system tank; a laundry wastewater system tank; a septic tank; a grease interceptor; a pump tank; a solids or effluent pump; a waterless, incinerating, or organic waste-composting toilet; or a sanitary pit privy that is installed or proposed to be installed beyond the building sewer on land of the owner or on other land to which the owner has the legal right to install a system. The term includes any item placed within, or intended to be used in conjunction with, the system. This term does not include package sewage treatment facilities and other treatment works regulated under Chapter 403, F.S.

Open Space: Any natural, recreational, or common open areas, either publicly or privately owned, set aside, dedicated, designated, or reserved for the private use or enjoyment of owners or occupants of land adjoining such open space, or for the public at large.

Outstanding Florida Waters (OFWs): Surface waters that have been determined to be worthy of special protection as identified in Section 62-302.700, Florida Administrative Code. In Alachua County, these surface waters include Lochloosa Lake (including Little Lochloosa Lake, Lochloosa Lake Right Arm, and Lochloosa Creek upstream to County Road 20A); Orange Lake up to the U.S. Highway 301 bridge, the River Styx up to Camps Canal, and Cross Creek; and the Santa Fe River System (consisting of the Santa Fe River, Lake Santa Fe, Little Lake Santa Fe, Santa Fe Swamp, Olustee Creek, and the Ichetucknee River south of S.R. 27, but excluding all other tributaries). Also included are waters within state parks and preserves, such as Devil's Millhopper State Geological Site, the Marjorie Kinnan Rawlings State Historic Site, O'Leno State Park, Paynes Prairie Preserve State Park, River Rise Preserve State Park, and San Felasco Hammock Preserve State Park.

Overriding Public Interest: Actions required by local, regional, state, or federal government, necessary for the promotion of public safety, health or general welfare, such as clean-up of a spill of hazardous material, removal of exotic species, or fighting wildfires.

Percolation: The downward movement of water through the soil or geologic features.

Performance-based treatment system: a specialized onsite sewage treatment and disposal system designed by a professional engineer with a background in wastewater engineering, licensed in the state of Florida, using appropriate application of sound engineering principles to achieve specified levels of CBOD5 (carbonaceous biochemical oxygen demand),TSS (total suspended solids), TN (total nitrogen), TP (total phosphorus), and fecal coliform found in domestic sewage waste, to a specific and measurable established performance standard. This term also includes innovative systems.

Permeability: The quality of the soil that enables water to move downward through the profile. Permeability is measured as the number of inches per hour that water moves downward through the saturated soil.

Personal Wireless Service Facility (PWSF): Facility for the provision of personal wireless services, as defined by Section 704 of the Telecommunications Act of 1996. A PWSF is any facility for the transmission and/or reception of personal wireless services, which may consist of an antenna array, transmission cables, equipment shelter or building, access road, mount, and a guy system.

Point Source Pollution: Contamination arising from direct discharge of wastes to water bodies or to the atmosphere through a pipe, ditch, channel, or other concentrated means.

Pollution: The presence in the outdoor atmosphere, ground or water, of any substances, contaminants, noise or man-made or human-induced alteration of the chemical, physical, biological, or radiological integrity of air, soil, or water, in quantities or at levels that are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property, or that does or may unreasonably interfere with the enjoyment of life or property.

Ponding: Standing water on soils in closed depressions.

Prescribed Burn: The controlled application of fire to naturally occurring vegetative fuels, under specified environmental conditions and following appropriate precautionary measures, to achieve specific objectives, such as ecosystem restoration, brush control or reduction of fuel hazards.

Preservation: In the mitigation context, this term refers to the protection of wetlands, surface waters, or uplands from adverse impacts by placing a conservation easement or other comparable land use restriction over the property or by donation of fee simple interest in the property.

Preservation Area/Land: An environmental land use category that consists of publicly owned lands which are intended for use as natural reserves or managed conservation lands for the preservation of natural resources. Preservation areas include lands owned in fee simple or less-than-fee simple title.

Preserve/Preservation: To maintain areas in their natural state in perpetuity; the perpetual maintenance of areas in their natural state.

Productivity (soil): The capacity of a soil for producing a specified plant or sequence of plants under specified management.

Public Access: The ability of the public to physically reach, enter or use recreation sites.

Public Facilities: Major capital improvements owned, operated, or maintained by a governmental entity on behalf of the public, including, but not limited to, government buildings, transportation, sanitary sewer, solid waste, stormwater, potable water, educational, parks and recreational, and health systems and facilities.

Public Water Supply Well: A system for the provision of piped water to the public for human consumption which serves at least fifteen (15) service connections used year-round or regularly serves at least twenty-five (25) individuals daily at least sixty (60) days out of the year.

Rain garden: A planted depression that allows rainwater runoff from impervious areas like roofs, driveways, walkways, and compacted lawn areas the opportunity to be absorbed. This reduces rain runoff by allowing stormwater to soak into the ground (as opposed to flowing into storm drains and surface waters which can cause erosion, flooding, water pollution, and diminished ground water recharge

Rapid Infiltration Basins (RIBs): An artificial impoundment similar to a holding pond for which the design and operation provides for fluid losses through percolation/seepage in addition to evaporative losses, and includes also called a “percolation pond”.

Rare species: Species which, although not presently endangered or threatened as defined, are potentially at risk because they are found only within a restricted geographic area or habitat in the State, or are sparsely distributed over a wider range.

Rarity: The characteristic of a natural community or organism that is imperiled at the state, regional, or local level.

Reclamation: The filling, backfilling, restructuring, reshaping, and/or revegetation within and around a land excavation or filling area to a safe and aesthetic condition.

Recreation Facility: A component of a recreation site used by the public such as a trail, court, athletic field, or swimming pool.

Relief: The elevations of inequalities of a land surface, considered collectively.

Remove or Removal: The actual physical removal of a tree or plant or the effective removal through damaging, poisoning or other direct or indirect action resulting in or likely to result in, the death or a tree or plant.

Resilient landscaping: landscaping practices that do not include the application of fertilizer and permanent irrigation and are more resilient to extreme weather conditions.

Resource-based recreation: Recreational activities that are essentially dependent upon the natural, scenic, or historic resources of the area provided the associated activities do not have significant adverse impacts on the ecological integrity or ecological or historical values of the resources in these areas.

Restoration: A type of mitigation in which wetlands, surface waters, or uplands are returned from a disturbed or altered condition to a previously existing natural condition to the maximum extent possible.

Retention: The prevention of the discharge of a given volume of stormwater runoff by complete on-site storage.

Reuse: The planned activity or activities that are intended for the land excavation or filling area and/or abutting land after the excavation or filling ceases and reclamation is completed.

Runoff: The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called groundwater runoff or seepage flow from groundwater.

Scenic Corridor: A visual opening along a traveled route, such as a road, waterway, bike path, or pedestrian trail, that allows either glimpses or extended views of built or natural resources having historical or cultural significance or scenic beauty.

Scenic Resources: Shared images of what is special or unique about the County's landscape.

Scenic Road: Any presently existing or future public roadway in the county system having historical or cultural significance or natural beauty as designated pursuant to the Alachua County Scenic Roads Ordinance.

Secondary Treatment: The second step in wastewater processing whereby most of the organic material in sewage areas are broken down to simpler, inorganic molecules. The biological demands of sewage, such as the heavy use of oxygen, are reduced at this step. This kind of treatment is commonly the last step in sewage treatment plants.

Seepage: The movement of water through the soil.

Septic System: An onsite sewage treatment and disposal system that consists of a watertight septic tank that receives wastewater from the home plumbing system. The tank is followed by an underground drainfield consisting of a network of perforated pipe or chambers for distributing partially treated water from the septic tank to the soil for final treatment and disposal.

Septic Tank: A watertight receptacle constructed to promote separation of solid and liquid components of wastewater to provide limited digestion of organic matter, to store solids, and to allow clarified liquid to discharge for further treatment and disposal in a soil absorption system.

Sheet Flow: The pattern of water movement where large quantities of water move in broad-spread, shallow layers across the ground's surface. This is typical in wetlands, marshes, grasslands, pine flatwoods, and prairies such as Payne's Prairie and the Everglades.

Significant Adverse Impact (upon a natural resource): Direct contamination, alteration, or destruction, or that which contributes to the contamination, alteration, or destruction of a natural resource, or portion thereof, to the degree that its environmental benefits are or will be eliminated, reduced or impaired, such that the activity will cause long term negative impacts on the natural resource.

Significant Geologic Features: Geologic features such as sinkholes, springs, caves, stream bluffs, escarpments, outcroppings, and other karst features.

Significant Habitat: Contiguous stands of natural upland plant communities which have been documented to support, and which have the potential to maintain, healthy and diverse populations of plants or wildlife.

Silviculture: The art and science of producing and tending a forest by manipulating its establishment, composition and growth to best fulfill the objectives of the owner. This may, or may not, include timber production.

Sinkhole: A funnel-shaped depression in the land surface, generally in a limestone region, caused by solution processes and often resulting in connection(s) with subterranean passages and groundwater systems.

Sky Glow: The brightening of the night sky that result from the scattering of artificial visible radiation from the constituents of the atmosphere.

Slough: A broad, slightly depress ional, poorly defined drainage way.

Soil: A natural three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief over periods of time.

Source Separation: The separation of the components of solid waste (glass, metal, paper, chemicals, plastic, kitchen wastes, etc.) at the source of generation before disposal to allow for alternative waste management practices such as reuse, recycling, and energy recovery.

Species of special concern - Species that do not clearly fit into the endangered, threatened or rare categories, yet warrant special attention. Included in this category are: (1) species that, although they are perhaps presently relatively abundant and widespread in the State, are especially vulnerable to certain types of exploitation or environmental changes and have experienced long-term population declines; and (2) species whose status in Florida has a potential impact on endangered or threatened populations in the same or other species outside the State.

Specimen Tree: A tree which has been identified by the County to be of notable interest or high value because of its age, size, species, condition, historic association, or uniqueness.

State Water Quality Standards: Numerical and narrative standards that limit the amount of pollutants that are allowed in waters of the state, as defined by Chapter 62-302, Florida Administrative Code.

Steep Slope: Any topography having a slope of greater than or equal to 5%.

Stormwater: The flow of water which results from, and which occurs immediately following a rainfall event.

Strategic Ecosystem: Sites that are identified in the KBN/Golder Associates report, "Alachua County Ecological Inventory Project" (1996).

Stream Basins: Watershed areas which drain surface water runoff via streams and channels, both natural and manmade.

Stream Crossing: Transportation and utility crossings of stream basins.

Stream-to-sink Aquifer Recharge Basins: A drainage basin typified by streams discharging into sinkholes and other karst features.

Structure: Anything constructed or erected, the use of which requires permanent location on the ground or attachment to something having a permanent location on the ground as well as a mobile home.

Surface Waters: Rivers, streams, creeks, springs, lakes, ponds, intermittent water courses and associated wetlands that hold or transport water on the ground surface.

Surficial Aquifer System: The permeable hydro geologic unit contiguous with land surface that is comprised principally of unconsolidated to poorly indurate clastic deposits. It also includes well-inundated carbonate rocks, other than those of the Floridan aquifer system where the Floridan is at or near land surface. Rocks making up the surficial aquifer system belong to all or part of the upper Miocene to Holocene Series. It contains the water table and water within it is under mainly unconfined conditions; but beds of low permeability may cause semi-confined or locally confined conditions to prevail in its deeper parts. The lower limit of the surficial aquifer system coincides with the top of laterally extensive and vertically persistent beds of much lower permeability. Within the surficial aquifer system, one or more aquifers may be designated based on lateral or vertical variations in water-bearing properties.

Tertiary Treatment: The third and usually most expensive in a series of processes whereby pollutants such as phosphorous or nitrogen compounds are removed from wastewater. Most sewage treatment plants are only capable of secondary treatment of wastewater.

Threatened Species: Species that are likely to become endangered in the State within the foreseeable future if current trends continue. This category includes: (1) species in which most or all populations are decreasing because of overexploitation, habitat loss, or other factors; (2) species whose populations have already been heavily depleted by deleterious conditions and which, while not actually endangered, are nevertheless in a critical state; and (3) species which may still be relatively abundant, but are being subjected to serious adverse pressures throughout their range.

Total Maximum Daily Load (TMDL): determined by the Florida Department of Environmental Protection and adopted by the Environmental Regulatory Commission (ERC) to establish the maximum amount of a

pollutant that a water body can assimilate without causing exceedances of state water quality standards.

Toxic Air Pollutants: Also known as hazardous air pollutants, toxic air pollutants are generally defined as those pollutants that are known or suspected to cause serious health problems.

Unconfined Aquifer: An aquifer that has no impermeable layer between the zone of saturation and water table.

Upland Communities: Those non-wetland, non-aquatic areas not subject to regular flooding. These include but are not limited to: scrub, sandhill, xeric hammock, upland pine forest, upland mixed forest, mesic hammock, slope forest, mesic flatwoods and scrubby flatwoods. For this Element, communities that do not consistently meet legal criteria for protection as a wetland have also been included. These are floodplain forest, baygall, wet flatwoods, and hydric hammocks.

Vertical Drainage: The characteristic of porous soils and rocks whereby water pools only temporarily and cannot form perennial streams on the earth's surface; instead, water fl/ws straight down through soils and rock to an underlying aquifer.

Viewshed: A generally recognizable, noteworthy view that is characteristic of the visual appeal of Alachua County, such as the view of Paynes Prairie.

Wastewater: The combination of liquid and water-carried pollutants from residences, commercial buildings, industrial plants, and institutions together with any ground water, surface runoff or leachate that may be present.

Water Dependent Facilities: Facilities such as boat ramps, parks, beaches, stream crossings, and other similar facilities which require close proximity to surface waters.

Water Management District: Any flood control, resource management, or water management district operating under the authority of Chapter 373, Florida Statutes. Unless otherwise stated, water management district shall refer to either or both, the St. Johns River Water Management District or the Suwannee River Water Management District.

Watershed: The land area which contributes to the flow of water into a receiving body of water.

Water table: That surface in an unconfined water body at which the pressure is atmospheric. It is defined by the levels at which water stands in wells that penetrate the water body just far enough to hold standing water.

Wellfield Protection Areas: Identified areas surrounding public water supply wellfields which, because of low potentiometric surface of water yielding aquifer units resulting from pumping large amounts of water from these units, are considered critical aquifer recharge areas with significant risk of contamination of public water supply from overlying land uses within the area.

Wetlands: Those areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and, under normal conditions 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.

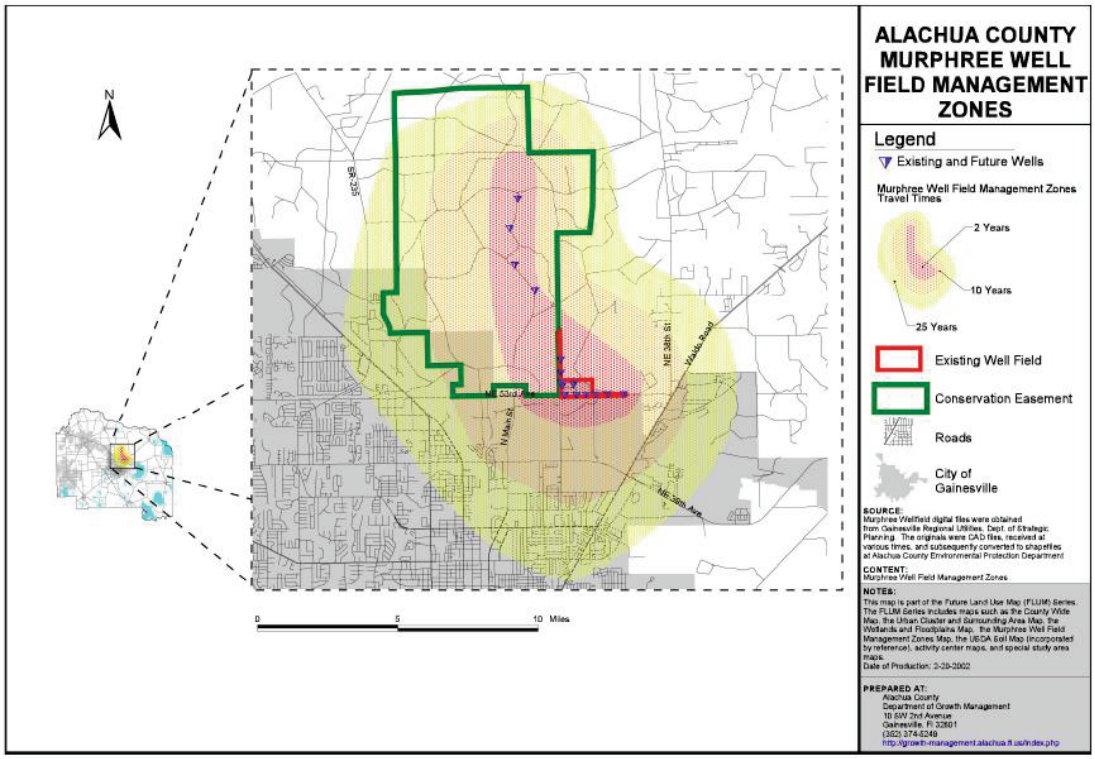
Wildfire: An uncontrolled fire, burning vegetation, structures, or other improvements.

Xeriscape Landscaping: Landscape methods that conserve water and protect the environment through the use of native, drought-tolerant plants and planting techniques. The St. Johns River Water Management District provides seven xeriscape principles which may be referenced at: http://sjr.state.fl.us/index8.html.

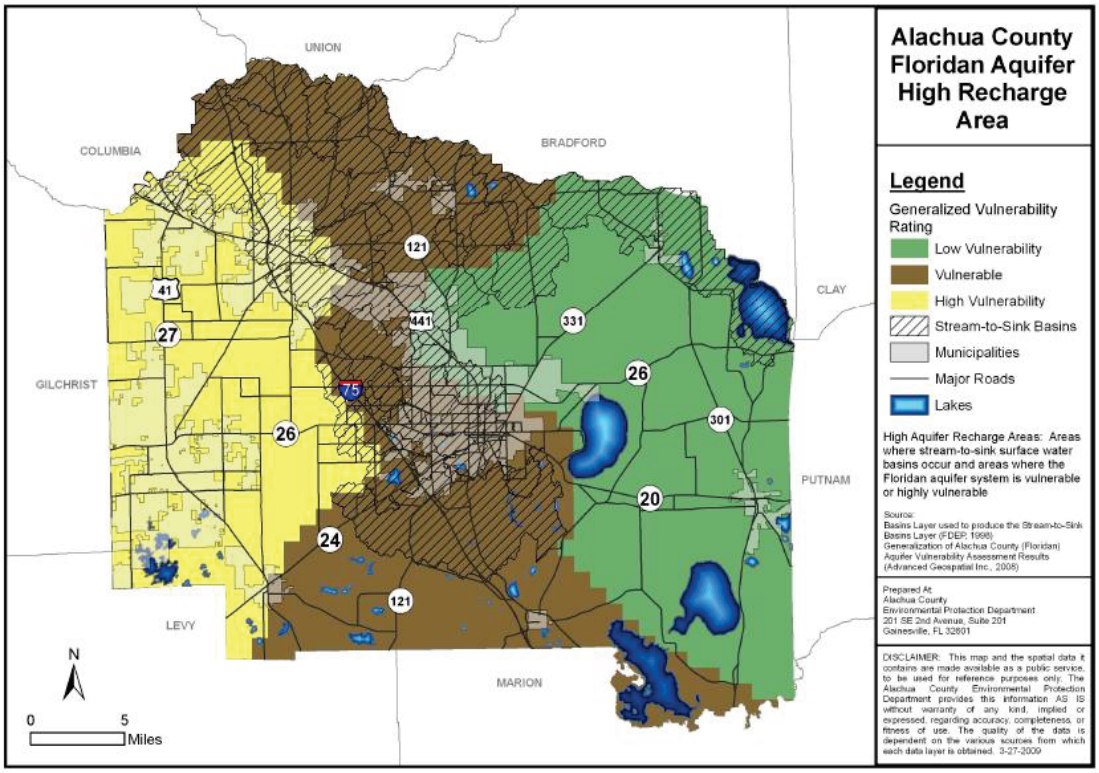
Adopted Maps – Conservation and Open Space Element

1. Murphree Well Field Management Zones (part of Future Land Use Map Series)
2. Alachua County Floridan Aquifer High Recharge Area
3. USDA Soils Map (Adopted by Reference) (part of Future Land Use Map Series)
4. Strategic Ecosystems, Alachua County, Florida (part of Future Land Use Map Series)
5. Critical Ecological Corridors
6. Devil's, Hornsby, and Poe Springs Conceptual Priority Focus Areas (PFA)
7. Alachua County Greenways and Blueways

Map 1. Murphree Wellfield Management Zones



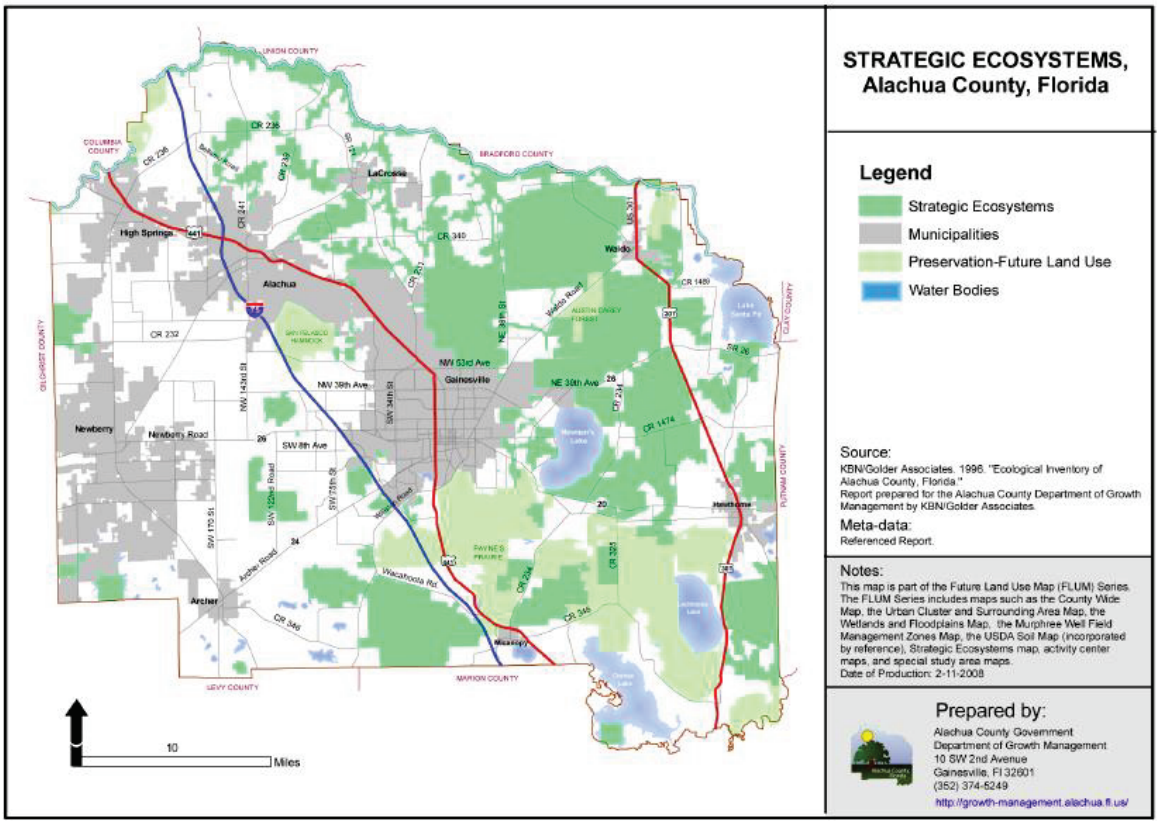
Map 2. Floridan Aquifer High Recharge Area



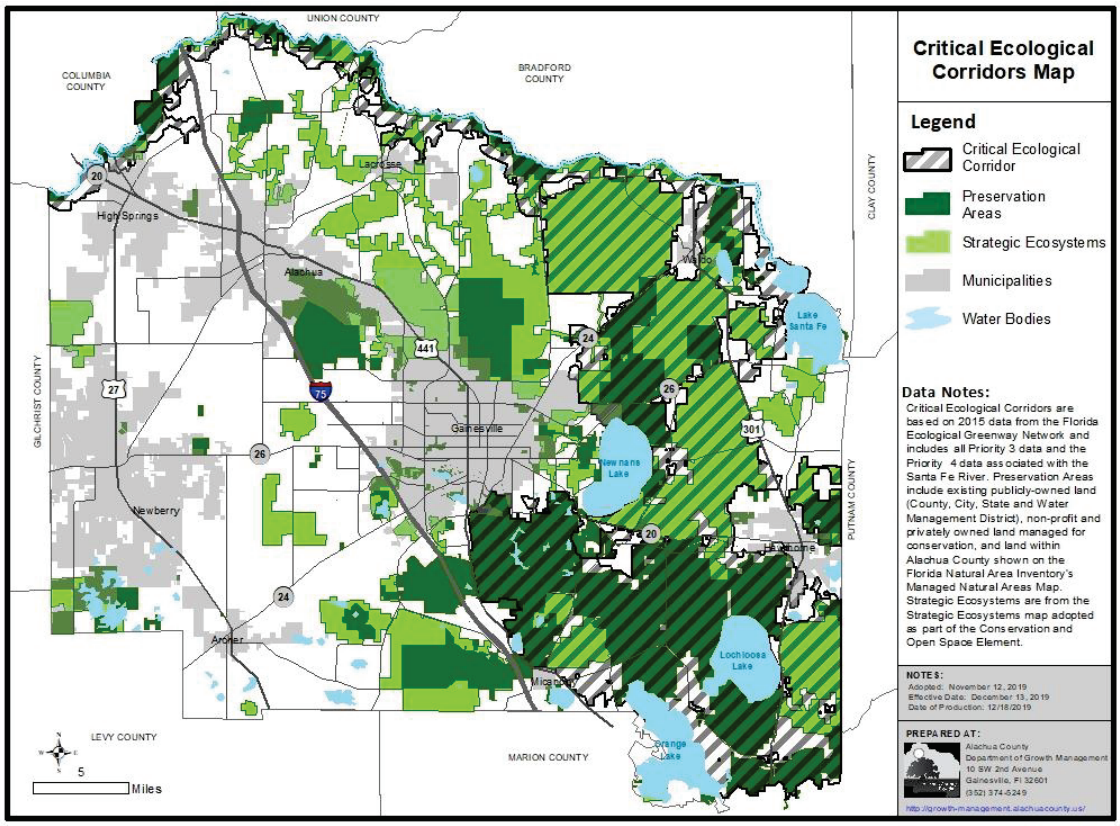
Map 3.USDA Soils Map (adopted by reference)

Available online at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

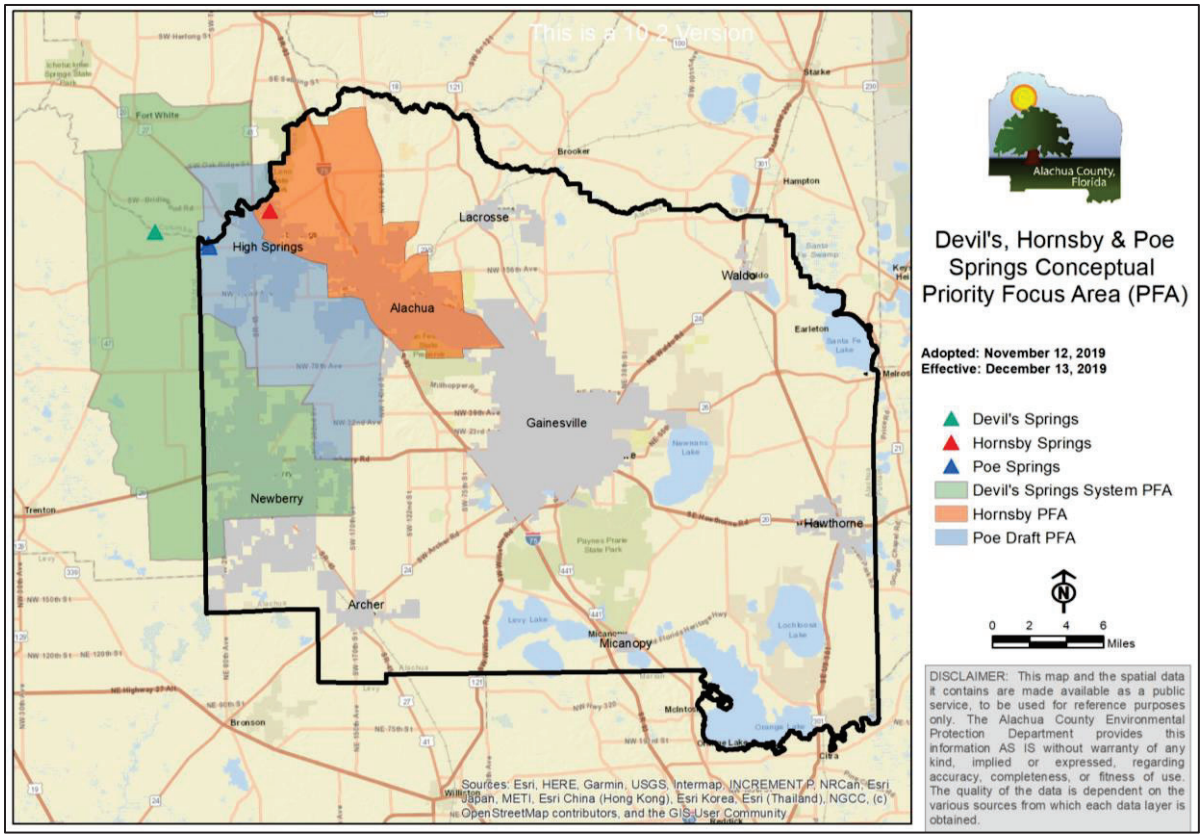
Map 4. Strategic Ecosystems



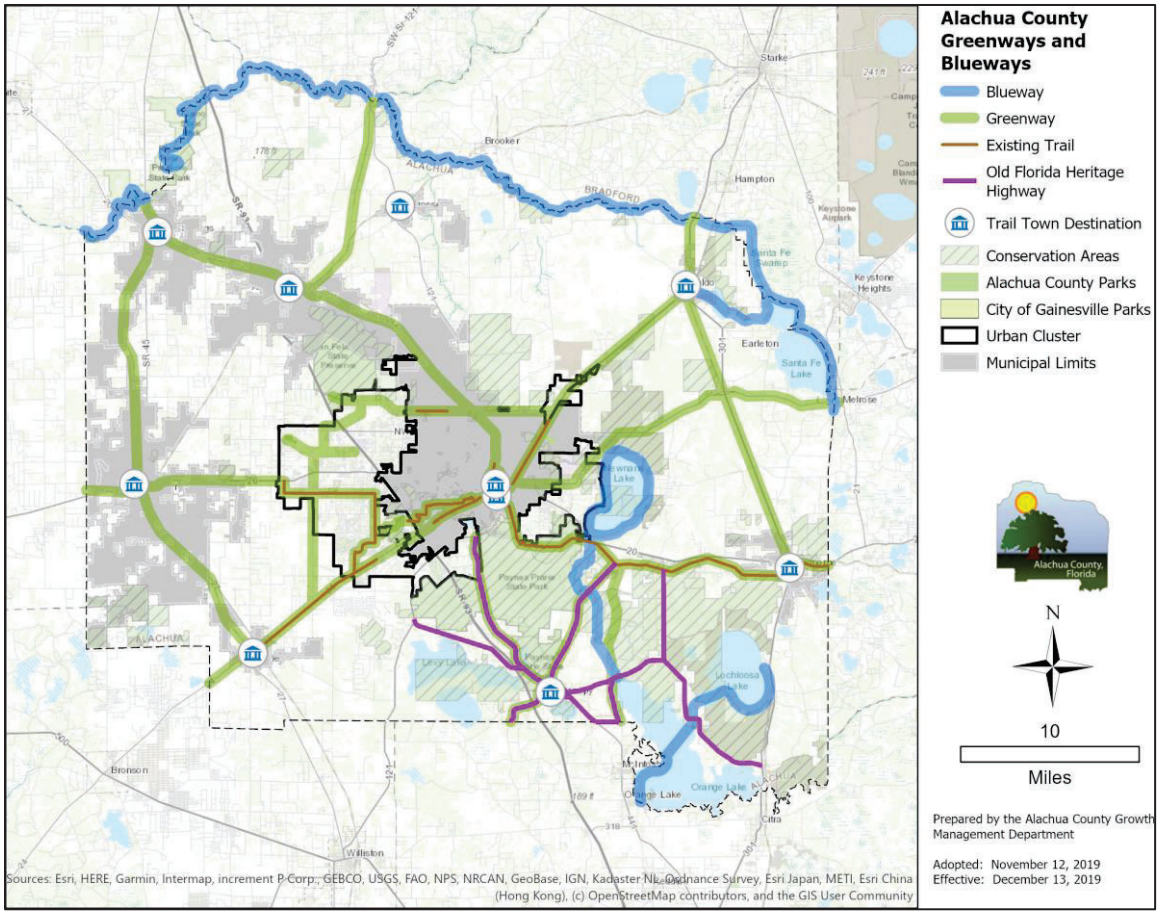
Map 5. Critical Ecological Corridors



Map 6. Devil's, Hornsby, and Poe Springs Conceptual Priority Focus Areas (PFA)



Map 7. Alachua County Greenways and Blueways



Environment, Climate, Energy Element

Synopsis: Natural Resources include the soil, water, plants, animals, land, air, energy, climate, wildlife habitat, invasive species and pests, and watersheds within the region. These principles apply to the comprehensive plan's Solid Waste, Potable Water, Sanitary Sewer, Stormwater, Conservation and Open Space, Environmental Protection, and Energy elements. This overview serves for all the following audit sections.

Within the context and management of natural resources, best practices for equity vary according to discipline and focus. Three types of considerations guide best practices related to equity. The first hub of practices is related to the material distribution of resources, hazards, and natural industry across a region. Historically, pollutants, waste, and environmentally damaging industries have been situated in or near low-income communities and communities of color. Distributive or material justice ensures that these communities do not bear a disproportionate burden of the region's industrial environmental costs thereby incurring negative effects to individual and communal health impacts and quality of life.

Procedural justice refers to the decision-making power and access that communities have related to the process and plans for natural resource management. Best practices related to equity ensure that diverse, historically situated communities can participate in planning, development, and implementation of natural resource management development and planning. Finally, best practices in natural resource management ought to incorporate and utilize cultural and historic bases of knowledge that are produced and retained within local, cultural, and historically marginalized communities that have often been left out of scientific discussions of climate change, climate consequences, and sustainable management of natural resources.

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1. Does the plan mention environmental justice?
    a. [Internal] [Yes Specifically] The comp plan mentions and defines environmental justice. The term can be found in the Conservation and Open Space Element (COSE) and throughout the Future Land Use Element. The definition is located in the Future Land Use Element.

    [**Open Space Element**: Policy 2.2.7][**Land Use Element**: Principal 1, Policy 4.2.1, Policy 4.4.1; Policy 7.1.2(c); Policy 7.1.17]
    b. [EAB]

2. Does the plan mention environmental protection, (air quality, noise mitigation, surface, and stormwater quality) in geographic areas that are underserved, or that have particular needs?
    a. [Internal] [Yes, generally] Staff found that the specific term "underserved" is not used in the Conservation and Open Space element. While the Comp plan does have policies regarding the environmental protection topics listed above, many of those policies are countywide broad-based best practices that are not targeted to any specific populations.

Additionally, staff used data and maps to locate all occurrences of the environmental protection issues throughout the county independent of community demographics. So, if there was an occurrence, then that data was recorded. In the ULDC, this data helped inform an area where special requirements and more restrictive policies would be needed, for example the special requirements of well construction in the Fairbanks area.
[ULDC Article XI, Sec. 406.68(b)]

Staff recognizes the importance of these issues as it relates to vulnerable populations, communities, and their unique identities and needs. Thus, a multi-departmental effort is in progress for the Climate Action Plan (CAP-Led by Stephen Hofstetter and the Environmental Protection Division team) which, after its completion, will get integrated into the Evaluation and Appraisal Review of our Comprehensive Plan where appropriate. In the CAP plan, there will be more information regarding the above issues incorporating community/population demographics data. The direction we're moving with our Climate Action Plan is identifying those underserved and special needs geographical areas.

b. [EAB]

3. Does the plan identify natural hazards?
    a. [Internal] [Yes, specifically] Staff highlighted the Comp plan and Climate Action Plan's identification of various potential hazards, including soil, groundwater, flooding, and hazardous materials concerns. Additionally, the County has an established Hazardous Materials Management Code in place to address such issues effectively.
    [COSE: Policy 2.1.1(a)(h)(i); Policy 4.6.2]
    b. [EAB]

4. Does the plan talk about ensuring equitable protection from those hazards?
    a. [Internal] [Yes, generally] Staff noted that the COSE section of the Comp plan primarily emphasizes the protection of natural resources based on the function (e.g., water quality, flood storage, wildlife habitat) and quality of those resources, rather than focusing on the hazards to individuals. Other sections of the plan address these hazards as they pertain to infrastructure and population protection. Staff noted that there may be room for policy as it

relates to inequity and where populations are living in relation to floodplains and low-lying wet areas.

b. [EAB]

5. Does the plan identify human-caused hazards, such as industrial pollution, nuclear radiation, toxic wastes, dam failures, and transportation or industrial accidents that result in explosions, fires, or chemical spill?
    a. Does the plan talk about ensuring equitable protection from those hazards?
    b. Does the plan talk about ensuring equitable protection from the above impacts?
        i. [Internal] Staff acknowledged that this question primarily pertains to emergency management. However, In the Comprehensive plan, hazardous materials are addressed in terms of where they should not be located within the county based on environmental concerns and the health and safety of citizens. The county has a hazardous materials management code and a hazardous material program to ensure proper handling and disposal by organizations, businesses, companies, and individuals. The Hazardous Materials Code mandates appropriate practices, and the accompanying program requires a prompt 24-hour response to hazardous releases resulting from incidents such as car accidents, explosions, or fires.
        ii. Regarding (b), staff discussed the inactive landfills that are dispersed across all four sides of the county. The Environmental Protection Division (EPD) is actively monitoring these land fills and recognizes concerns related to their location in proximity to residential areas. [COSE 4.5.2; Policy 5.7.1; Policy 5.7.10; Policy4.5.5(g)(1-6); Policy 5.7.1; Policy 5.7.7]
        iii. [EAB]
6. Does the community have a separate hazard mitigation plan?
    a. [Internal] [Yes, Specifically] The County has an existing and approved Local Mitigation Strategy Plan.
    [COSE 5.6.3, Intergovernmental Coordination Element Policy 1.1.9, Stormwater Element Policy 7.1.1, Capital Improvement Element Policy 1.5.2(2); Policy 1.6.7]
    b. [EAB]

7. Does the plan promote internal energy efficiency among county vehicle fleets? Does the plan promote the transition to energy efficient and clean energy vehicles
    a. [Internal] [Yes Specifically] As it relates to County vehicles, the energy element of the Comp plan has policy regarding the use of alternative fuel sources such as biofuel, methane, electric and/or solar in government fleets. The County also promotes internal energy efficiency by maintaining a fleet of newer vehicles. Newer vehicles are more fuel efficient, have lower emission rates, burn cleaner, and get more miles to the gallon compared to vehicles from 20-30 years prior. Alachua County has implemented a policy to reduce idling time for all County vehicles, further minimizing fuel consumption and emissions.
    The Comp plan also promotes the transition to energy efficient and clean energy vehicles for the public by supporting the infrastructure needed by these vehicles. This policy can be found in the Transportation element where a minimum provision of Level 2 charging stations (240V) to new multifamily and TND/TOD developments is required/mandated.
    [Energy: Policy 4.1.2; Transportation Element 1.4.1]
    b. [EAB]

8. Does the plan make recommendations about providing residents or businesses with options for renewable energy?
    a. [Internal] [Yes specifically] Staff highlighted several policies within the COSE that pertains to the provision of renewable energy. Additionally, within the Energy Element, there were several relating policies including a goal and priority focused on promoting and investing in renewable energy production that are public/citizen focused.
    [COSE policy 5.1.1; 5.1.5;][Energy Objective 6.1: Policy 6.1.2; Objective 6.2, Policy 6.2.1, Policy 6.2.2; Objective 8.1, Policy 8.1.1-8.1.3]
    b. [EAB]

9. **What are the impacts the plan identifies as being most of concern to this community?**
    - ☐ Water supply, both in terms of quality and quantity
    - ☐ Habitat loss for animal and plant species
    - ☐ Change in lake levels

- Rising temperatures
- Impact on agriculture
- Flooding, Invasive Species, other
    i. [Internal] Staff noted that the public often raises concerns about water (loss and quality) followed in no particular order by Habitat Loss, Impact on Agriculture, and Flooding/Invasive Species. As to being the most concerning to this community, it would be ill-advised to impose a one-size-fits-all priority on the residents of Alachua County. Priorities can differ for individuals and communities alike based on a number of factors such as geographical location and personal values. Therefore, generalizing all areas of the unincorporated area into a single universal major priority is not a discussion grounded in principals of equity, as it does not address the unique needs, challenges, and perspectives of the diverse communities within the county. There does, however, seem to be a strong consensus regarding water throughout all corners of the unincorporated area and as a result, can be seen throughout the Conservation and Open Space element and addressed in the Climate Action Plan (along with the other concerns listed).
    ii. [EAB]

Alachua County, Florida

2021 Local Mitigation Strategy

Alachua County Emergency Management

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Table of Contents

List of Figures

List of Tables

Executive Summary

Alachua County is vulnerable to a variety of hazards that present threats to its communities, businesses and environment. These hazards could be natural, societal or technological and may have significant adverse human, environmental or economic impacts on the community. The Alachua County Local Mitigation Strategy (LMS) establishes a framework to lessen the vulnerability of Alachua County and its municipalities to these hazards. The LMS addresses projects, policies and programs to reduce the County's vulnerability to the impacts of disasters before and after they happen. The LMS also outlines actions that are initiated post-disaster to prevent recurring losses from future disasters.

Alachua County Emergency Management (ACEM) is one of many Emergency Management Agencies that conduct multi-hazard mitigation planning. ACEM serves as a liaison for all participating jurisdictions to monitor, coordinate, update and maintain this all-hazard mitigation document in an effort to develop a disaster-resilient and sustainable community. Formal local mitigation planning began in 1998 and is continuing with this 2021 revision.

Introduction

I. Mitigation Framework

The Disaster Mitigation Act of 2000 (Public Law 106-390), which amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act, provides the legal basis for FEMA mitigation planning requirements. State, local and tribal governments must comply with these requirements to qualify for mitigation grant assistance.

The Disaster Mitigation Act of 2000 emphasizes the need for close coordination of state, local, and tribal mitigation planning efforts to implement mitigation activities and projects. Mitigation plans are to be based upon a Hazard, Risk and Vulnerability Assessment.

II. LMS Work Group Mission Statement

The Alachua County Local Mitigation Strategy Work Group is committed to implementing effective mitigation strategies to significantly reduce or eliminate loss of life, damage to property, the environment or the local economy due to a natural, societal or technological disaster. These strategies will be expressed in a comprehensive Local Mitigation Strategy (LMS) Plan, to be adopted by Alachua County, participating municipalities, and agencies or institutions. The Local Mitigation Strategy Work Group will rely upon information and resource sharing and the integration of activities among all jurisdictions within Alachua County to develop a coordinated all-hazards interdisciplinary and intergovernmental approach to hazard mitigation.

III. Mitigation Strategy Goals and Objectives

The goals of the Alachua County Local Mitigation Strategy Work Group as defined in the 2015 version of the Local Mitigation Strategy still fit the goals and priorities of the Work Group in 2021. They have not been significantly revised, but have had minor revisions such as the inclusion of droughts.

Goal 1 – Establish an ongoing Local Hazard Mitigation Strategy Planning Process as part of a comprehensive community-based emergency management program to protect public health, life safety, economic vitality, the environment and property through inter-agency cooperation.

Objective 1.1: Seek participation and LMS Plan adoption by every eligible Local Mitigation Strategy Work Group member agency or jurisdiction.

Objective 1.2: Provide the adopted LMS Plan to the State Hazard Mitigation Office and Federal Emergency Management Agency for review and acceptance.

Objective 1.3: Identify and prioritize projects in the LMS Plan so that participating jurisdictions qualify for hazard mitigation funding and disaster assistance.

Objective 1.4: Provide a process for implementation, ongoing maintenance and periodic updates of the LMS Plan, including the Project Priorities lists and Critical Facilities Inventory.

Objective 1.5: Encourage local jurisdictions to participate in the Community Rating System, National Flood Insurance Program (NFIP).

Objective 1.6: Foster inter-agency coordination, collaboration, and regional mitigation and prevention activities through open lines of communication, education for elected officials and agency staff, joint-planning efforts, and consistency between various agency emergency preparedness plans, comprehensive plans and other such planning documents.

Goal 2 – Promote disaster resilience for individuals, communities and businesses through greater self-reliance and public-private partnerships.

Objective 2.1: Foster partnerships with local businesses and Chambers of Commerce to educate the business community and build resilient, disaster-resistant communities

Objective 2.2: Support member agencies of the LMS Work Group in their efforts to increase public awareness and emergency preparedness.

Goal 3 – Engage in hazard mitigation project planning and implementation to protect public health and safety, economic vitality, property, natural and cultural resources, critical facilities and governmental buildings and facilities.

Objective 3.1: Identify, secure and allocate appropriate resources for the mitigation of natural, societal and technological hazards.

Objective 3.2: Develop hazard mitigation proposals for construction and planning projects to protect the county from the effects of civil disturbance, terrorist acts, hazardous materials, wildland and urban fire, high winds, storms, drought, flooding and other hazards.

Objective 3.3: Actively pursue all available funding sources for identified hazard mitigation projects in order to implement these projects and reduce community vulnerability.

Goal 4 – Integrate hazard-mitigation planning into the local Comprehensive Plans and land-use decision-making processes of all jurisdictions in Alachua County.

Objective 4.1: Consider natural and man-made hazards during the land use decision-making process.

Objective 4.2: Provide for mitigation of identified hazards during the development review process.

Objective 4.3: Include hazard mitigation requirements into development approvals and development orders.

Planning Process

The Alachua County Local Mitigation Strategy was significantly revised in 2009 by a multi-jurisdiction, multi-agency work group coordinated by Alachua County Emergency Management. It was significantly updated in 2015, and this 2021 update to the LMS represents another substantial update and review of mitigation efforts in Alachua County. This update was developed by Alachua County Emergency Management and coordinated with the entire 2021 LMS Work Group. Engagement from the LMS Work Group and the public was invited at the beginning of the drafting process for the 2021 version of the LMS. A review of requirements for the LMS was conducted and updates were solicited from the LMS Work Group in July of 2020. All local partners provided updates or feedback for their relative sections of the document, and edits were made by Alachua County Emergency Management in August of 2020. The document was then distributed to the Work Group, and the public was invited to provide feedback. A planning meeting was held on September 8th, 2020 with those groups for final review of the document. Alachua County Emergency Management finalized revisions and submitted the draft local mitigation strategy to the Florida Division of Emergency Management for their review on September 14th, 2020.

The membership of the 2021 LMS Work Group and participating organizations are listed in Attachment A: LMS Work Group Members, Organizations and Roles. LMS Work Group members are kept informed of Work Group meetings, revisions to the LMS, information concerning mitigation, notices of funding availability and similar information through direct contact either in person or by telephone and email. New stakeholders are invited to join the LMS Work Group as they are identified.

Public comment on the revised LMS was solicited using press releases via the Alachua County Communications Office and social media. All meetings of the LMS Work Group are open to the public. No feedback was provided by the public. Any feedback received would have been evaluated by the Working Group before potential incorporation.

Plan Evaluation and Maintenance

Alachua County Emergency Management is responsible for the development, monitoring, evaluation, review, maintenance and update of the Alachua County Local Mitigation Strategy. A current copy of the LMS is available for public review and comment at any time upon request. Generally the LMS is reviewed, evaluated and updated in three timeframes: the required five-year update, an annual review and progress report and as needed to address the impacts or consequences of an incident. New mitigation project proposals are solicited annually.

Any changes to the Alachua County LMS that may be outside of the five-year update are coordinated with, reviewed, and approved by the LMS Work Group as the representatives of the member local governments and other stakeholders.

The Alachua County Local Mitigation Strategy Coordinator is a designated staff from Alachua County Emergency Management who monitors all mitigation activities related to the LMS Working Group daily. This includes monitoring changes with mitigation programs, distribution of mitigation notices, receipt of project updates from member organizations, and other associated tasks.

I. 5-Year Revisions

The Alachua County LMS will be evaluated, reviewed and updated on a 5-year basis as required by Title 44, Part 201 of the Code of Federal Regulations. This process officially begins upon notification of expiration of the document, typically 18 months before expiration. However, efforts may begin unofficially before that time. During the 5-year update the LMS will be reviewed and evaluated to determine changes in local conditions that may affect mitigation strategies, changes in review criteria or statutory requirements that require action, and needed adjustments to the goals of the LMS. The five-year update is developed by Alachua County Emergency Management and coordinated with the LMS Work Group. Substantive changes to the LMS are ultimately ratified by the governing bodies of the local governments and the appropriate representatives of other participating entities.

II. Annual Revisions

An annual review of the LMS is conducted to support NFIP Community Rating System requirements and to complete reporting processes to the Florida Division of Emergency Management. This annual report is generated by Alachua County Emergency Management and summarizes the progress towards meeting the goals of the LMS, addition of new mitigation projects, evaluation of mitigation efforts, and other mitigation activities which have occurred in the previous year. Each participating entity is asked to summarize their mitigation activities. This review also identifies needed modifications to keep the LMS current and necessary changes will be made.

Typically new mitigation project proposals are solicited from the members of the LMS Work Group annually. The mitigation projects are then reviewed and ranked by the Ranking Task Force. An amended Project List is then approved by the LMS Work Group, typically at the first meeting of the calendar year when Work Group officers are selected for the coming year. Projects are removed from the list as they are completed or found to be not applicable by the Ranking Task Force during an annual review.

III. Post-Incident Revisions

The LMS will be amended and updated as needed to appropriately respond to the consequences of a disaster or incident that may present opportunities for mitigation activities, the potential consequences of an identified hazard, or to further the hazard mitigation efforts of Alachua County, its municipalities, and other stakeholders. During post-incident damage assessments and recovery activities, potential hazard mitigation opportunities will be identified and hazard mitigation projects will be developed by the LMS Work Group for their respective jurisdictions. If the extent of the incident is such that the Post Disaster Redevelopment Plan is activated, hazard mitigation projects will be developed and vetted as a cooperative effort of the LMS Work Group and the Redevelopment Task Force.

The effectiveness of projects are evaluated and assessed when incidents occur which test the projects.

IV. Public Participation

The general public is encouraged to engage the LMS planning process in particular and hazard awareness and mitigation in general at any time. As noted in the Mitigation Strategy section of

this document, all levels of government attempt to engage the public in disaster awareness, preparation, and mitigation efforts throughout the year on a nearly continuous basis. For example, Alachua County publishes press releases regarding Working Group meetings and activities.

Attachment J: Public Invitation for Planning is an example of the press releases distributed to inform the public about local mitigation efforts.

V. Recent Development and Growth

Priorities and projects in the LMS will be revised to reflect changes in development. Since 2015, limited growth has occurred which would impact the vulnerability of the County. This is in part due to stringent development codes including updates to the countywide storm water management requirements.

The most significant areas of growth have occurred in unincorporated Alachua County just West of Gainesville where residential communities have developed. The City of Hawthorne has annexed 1300 acres for industrial development which may increase their susceptibility to hazardous materials incidents in the future, but no development permits have been issued on those properties to date. Additionally, the City of Newberry has seen some commercial and industrial growth, which could increase vulnerability to hazardous material incidents in the future. However, they have reduced their vulnerability to power outages and flooding through installation of stand-by generators.

Besides for minor residential growth, no significant changes have happened throughout the rest of the County.

Hazard, Risk and Vulnerability Assessment

The following hazard analysis (Table 1) is used to determine the hazards that pose threats to Alachua County, and is developed from historical data. The Likely Frequency of Occurrence is defined as, in increasing frequency: < (less than) 100 years, <10 years, <2 years, and Annual. The Vulnerability Impacts are defined as, in increasing severity: Low, Moderate, High, Extensive, and Catastrophic.

There have been no significant, regularly occurring hazards for Alachua County which have been omitted. Omitted hazards include: erosion, winter storms, seismic incidents and tsunami incidents. These hazards have been omitted as they do not affect Alachua County. Erosion is not a concern as the geography and ecosystems of the county do not contribute to erosion. The climate of the county prevents winter storms. The location of the county does not contribute to a vulnerability to seismic incidents or tsunamis. Mitigation of these hazards would not likely pass cost-benefit analyses, and will not be a focus of the Local Mitigation Working Group.

This hazard, risk and vulnerability assessment speaks to all jurisdictions in Alachua County.

The 2010 Alachua County Post-Disaster Redevelopment Plan can be consulted for additional information regarding potential impacts to Alachua County.

Hazard Vulnerability Category	Likely Frequency of Occurrence	Population Impact	Property Impact	Environment Impact	Government Operations Impact
Wind from Tropical Cyclone	Annual	High	Moderate	Moderate	Moderate
Flooding	<2 years	High	Extensive	Moderate	High
Hazardous Material Spill	<2 years	Extensive	Extensive	High	High
Nuclear Reactor Incident	<100 years	Low	Low	Low	Low
Civil Disturbance	<2 years	Moderate	Low	Low	Moderate
Mass Migration	<100 years	Moderate	Low	Low	Moderate
Coastal Oil Spill	N/A	N/A	N/A	N/A	N/A
Wildland Fire	<2 years	High	High	Extensive	High
Terrorism	<100 years	High	High	Moderate	High
Exotic Pest and Disease	<2 years	Low	Moderate	High	Low
Disease and Pandemic Outbreak	<50 years	High	Low	Low	High
Critical Infrastructure Disruption	<10 years	Moderate	High	Moderate	Moderate

Hazard Vulnerability Category	Likely Frequency of Occurrence	Population Impact	Property Impact	Environment Impact	Government Operations Impact
Special Event	Annual	Extensive	Moderate	Moderate	Moderate
Major Transportation Incident	<2 Years	High	Moderate	High	Moderate
Drought	<10 years	Low	Moderate	Moderate	Low
Geological Incident	<100 years	Low	Low	Low	Low
Extreme Heat	<10 years	Moderate	Low	Moderate	Low
Freezing Temperature	<100 years	Low	Moderate	Moderate	Low
Severe Weather	Annual	Moderate	Moderate	Moderate	Low

Table 1: Alachua County Hazard Vulnerability Impact Summary

I. Wind from Tropical Cyclone (Hurricane, Tropical Storm)

A. General Description:

A tropical cyclone is a rotating, organized system of clouds and thunderstorms that originates over tropical or subtropical waters and has a closed low-level circulation. Tropical cyclones are classified as follows:

- **Potential Tropical Cyclone:** A term used to describe a disturbance that is not yet a tropical cyclone, but which poses the threat of bringing tropical storm or hurricane conditions to land areas within 48 hours
- **Tropical Depression:** A tropical cyclone with maximum sustained winds of 38 mph (33 knots) or less
- **Tropical Storm:** A tropical cyclone with maximum sustained winds of 39 to 73 mph (34 to 63 knots)
- **Hurricane:** A tropical cyclone with maximum sustained winds of 74 mph (64 knots) or higher
- **Major Hurricane:** A tropical cyclone with maximum sustained winds of 111 mph (96 knots) or higher, corresponding to a Category 3, 4, or 5 on the Saffir-Simpson Hurricane Wind Scale[1].

B. Location and Extent:

Alachua County is located approximately sixty miles from both the Atlantic Ocean and the Gulf of Mexico. Therefore, the entire County is subject to the effects of tropical cyclones. The extent varies by tropical cyclone, with some events producing just tropical storm force winds. There is potential for category 5 hurricane force winds in Alachua County, albeit that has never occurred. Any winds typically have occurred over the course of 24-48 hours.

[1] National Oceanic and Atmospheric Administration (NOAA), *Saffir-Simpson Hurricane Wind Scale*.

C. Impact and Vulnerability:

Damages related to tropical cyclones vary widely from minor vegetative damage up to instances causing widespread power outages, blocked roadways and severely damaged or destroyed buildings. Non-retrofitted structures and older structures are the most vulnerable. This hazard can threaten life safety and public health through physical injury, generation of secondary hazards such as debris, damage to facilities resulting in exposure to the elements, can damage critical facilities, disrupt infrastructure such as power or water, halt the local economy, and result in long term tax impacts from residents who do not return following an event or loss of business. This is the same for all non-retrofitted or modern structures across Alachua County, in every jurisdiction.

D. Previous Occurrences:

Hurricane winds and other hazards associated with strong tropical systems have reached Alachua County. The storm of record for the County is the Storm of 1896, which was a strong Category 3 storm when it passed through the northwest portion of the County. Tropical cyclones have caused both wind and water damage. Since the Storm of 1896, Alachua County has felt the tropical storm force or greater wind and/or rain impacts of multiple tropical cyclones in recent history, including:

- **2004**: Hurricane Frances
- **2004**: Hurricane Jeanne
- **2012**: Tropical Storm Debbie
- **2013**: Tropical Storm Andrea
- **2016**: Hurricane Hermine
- **2016**: Hurricane Matthew
- **2017**: Hurricane Irma

II. Flooding

A. General Description:

A flood is defined as an overflow of water that submerges land which is usually dry. Floodplain is an area of land adjacent to a river or stream that stretches from the banks of its channels to the base of the enclosing valley walls that experiences flooding during periods of high discharge.

B. Location and Extent:

There are areas of the county which are part of river watersheds that are vulnerable to flooding from rising water. These areas include the extreme southeast portion of the county along the shores of Newnans, Orange and Lochloosa Lakes; portions of Gainesville along Hogtown Creek; and the Santa Fe River floodplain.

Alachua County also has areas of floodplain that are associated with closed basins that have no outfall to other external bodies of water such as a stream or river. In these closed basins, the primary cause of flooding is direct rainfall rather than riverine flooding.

A large percentage of the eastern half of Alachua County lies in the 100-year floodplain. However, much of this area is agricultural or silvicultural, or is publicly owned and contains limited structural development. Currently, the population concentrations and developed areas in eastern Alachua County are generally associated with the communities of Cross Creek, Island Grove, Hawthorne, Melrose, Waldo, and the eastern section of Gainesville.

There are also areas in Gainesville which are prone to flooding. These areas are identified within: Attachment F: Gainesville FIRM Zones, Attachment G: Gainesville Additional Flood Hazard Areas and Attachment H: Gainesville Hurricane Irma Flood Locations.

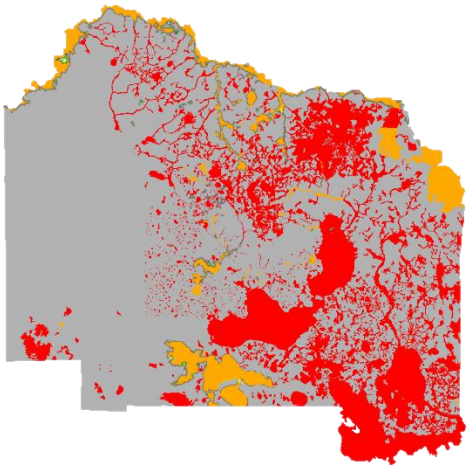

Figure 1: Floodplains in Alachua County[2]

The other primary flooding threat involves storm water runoff that occurs in many locations. Runoff can be exacerbated by an increase in impervious surfaces associated with development in areas subject to flooding.

Paynes Prairie is a large protected natural floodplain in the County. It acts as a buffer against flooding.

C. Impact and Vulnerability:

Minor flooding may only impact agricultural and silvicultural production within Alachua County and structures in highly flood prone areas. Moderate to heavy flooding may result in blocked or damaged roadways, damaged power lines, damage to homes and significant agricultural or silvicultural losses. These events can threaten life safety and public health through drowning, generation of secondary hazards such as hidden debris, facilitation of mold growth in buildings, can block access to or damage critical facilities, disrupt infrastructure such as roads or power, may restrict access to businesses, and result in long term tax impacts from loss or closure of business. Buildings and structures in flood prone areas highlighted in Figure 1 are the most vulnerable. Potential impacts are the same across the zones highlighted in Figure 1. High Springs, Alachua, LaCrosse, Waldo, Hawthorne and Micanopy are within the highlighted zones.

1. Repetitive Loss Properties

There are currently eight identified repetitive flood loss properties in Alachua County. These residential properties are in or near the communities of Gainesville, High Springs and Micanopy. Annually, as part of the Community Rating System recertification process, these property owners are sent information about the NFIP.

[2] FEMA, *FEMA Zones-2018.*

The City of Gainesville has a property considered to be repetitive loss in the Sugarfoot area. The other 7 properties are within unincorporated Alachua County.

D. Previous Occurrences:

While minor flooding is a regular occurrence in Alachua County, there are periods of higher flooding often associated with tropical cyclones. Previous occurrences of moderate to heavy flooding include:

- **2004**: Flooding associated with Hurricane Frances
- **2004**: Flooding associated with Hurricane Jeanne
- **2012**: Santa Fe River flooding associated with Tropical Storm Debbie
- **2017**: Santa Fe River flooding associated with Hurricane Irma
- **2017:** Paynes Prairie flooding associated with Hurricane Irma

Additional discussion concerning historic flooding within Alachua County and Gainesville are within the document "Flood Hazard and Remediation in Alachua County" which is available from the City of Gainesville.

III. Hazardous Material Incident

A. General Description:

A hazardous material incident is the release of a single substance or a combination of substances that have the potential to produce serious health, fire, or explosive hazards. Hazardous materials incidents are common in Alachua County because industry, business, government and private citizens use them on a daily basis.

B. Location and Extent:

The entirety of Alachua County is at risk from hazardous material incidents. Risk areas along major roadways, railroads, fixed facilities and pipelines cover a majority of the County. Fixed facilities are located throughout the county. Surface transportation incidents may occur on major roadways such as I-75, US 27, US 41, US 301, US 441, SR 20, SR 24 and SR 26. Railways are located in eastern, western and northern portions of the County. Additionally, several large natural gas pipelines run through the county as part of an interstate pipeline system.

As a major research institution, the University of Florida has numerous facilities containing hazardous materials, although many in small quantities. Robust laboratory safety, biological safety, radiation safety and hazardous materials management programs are in place to mitigate risks. Efforts include a standardized chemical inventory, waste disposal services, chemical hygiene planning, and conformity with state and federal requirements. UF's Environmental Health and Safety department employs Gator TRACS (Tool for Risk Assessment and Compliance & Safety) to manage safety and compliance of laboratory programs through documenting risk assessments, maintaining plans, monitoring training, and performing lab inspections.

C. Impact and Vulnerability:

Minor hazardous material incidents may cause only onsite impacts to involved individuals. Incidents involving stronger agents or those that may be readily carried by weather conditions may be capable of causing significant medical impacts to affected populations, cause damage to the environment, result in suspension of operations at critical facilities for a period of time, may

injure critical workers, and could result in individuals moving away from an area. Areas around facilities and transportation routes are the most vulnerable.

D. Previous Occurrences:

Minor occurrences such as diesel spills or minor pipeline leaks happen regularly within the County. There are no well-documented instances of higher risk events on record.

IV. Nuclear Reactor Incident

A. General Description:

Nuclear reactor incidents occur when an event surpasses the defense-in-depth measures taken at a site which may result in the release of radiological effluents into the environment from a nuclear reactor. These incidents are primarily of concern when offsite radiation dosages would surpass the levels detailed in the Protective Action Guidelines.

B. Location and Extent:

The University of Florida maintains a training reactor on campus. The reactor is located centrally in the County within Gainesville. Due to the low levels of material used at this site and the design of the reactor, the threat is limited to the building in which it operates[3].

There are no Emergency Planning Zones from commercial reactors which overlap Alachua County.

C. Impact and Vulnerability:

A nuclear reactor incident within Alachua County is extremely unlikely. Any incidents would result in the shutdown of a single facility and would result in extremely low exposures to on-site operators. There are no additional life safety, health, critical facility, infrastructure, or economical threats.

D. Previous Occurrences:

There are no previous occurrences of nuclear reactor incidents in Alachua County.

V. Civil Disturbance

A. General Description:

Civil disturbance is activity such as a demonstration, riot, or strike that disrupts a community and requires intervention to maintain public safety[4].

B. Location and Extent:

Portions of Alachua County, especially the urban areas and the University of Florida campus area, are potentially vulnerable to civil disturbance.

C. Impact and Vulnerability:

These incidents may result in damage to government or personal property, injuries to the public or government personnel, critical facilities as well as damage to businesses. All areas of the County could be affected.

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[3] University of Florida, *Emergency Plan – University of Florida Training Reactor*
[4] FEMA, *Acronyms, Abbreviations and Terms Glossary*

D. Previous Occurrences:

In 2017 the University of Florida hosted a controversial speaker from the National Policy Institute, which required extensive planning to minimize the threat of a civil disturbance. Alachua County declared a Local State of Emergency (LSE) in anticipation of this event. Additionally, the University of Florida has also hosted presidential candidates and other political figures.

The Dove World Outreach Center Qur'an-burning Controversy occurred from 2010 – 2011 in Alachua County. This event sparked violence and civil unrest globally.

VI. Wildland Fire (Brush fire, Wildfire and Forest Fire)

A. General Description:

Wildland fires are fires that occur on wildland that are not meeting management objectives and therefore require a suppression response to avoid damage to natural areas or property, and threats to life safety.

B. Location and Extent:

The most at-risk portions of Alachua County are the urban interface (where community development meets wildland), and rural areas where wildland fuels are present. It should also be noted that significant fuels exist in each jurisdiction past the urban interface. This denotes a significant area of the County, impacting all jurisdictions. There are few exceptions such as developed retail or healthcare areas along Archer Road in Gainesville. Wildfires may spread over large swaths of land rapidly, and may last for days or even weeks. However, wildfires in Alachua County are typically well controlled.

C. Impact and Vulnerability:

In addition to the potential for structural damage, wildland fires can also cause significant losses and destruction for timber interests in Alachua County. Those homes along the wildland-urban interface and agricultural interests are the most vulnerable. Individuals may receive acute or chronic injuries, and critical facilities may be damaged. All jurisdictions in Alachua County are vulnerable to wildfires and would experience similar impacts.

D. Previous Occurrences:

Wildfires are a somewhat common occurrence in Alachua County. Appendix C: Alachua County Wildfire Statistics, 2009 – 2019 contains information on previous occurrences of wildfires within the County.

VII. Terrorism

A. General Description:

Terrorism, including cyber terrorism, is a violent or dangerous act done to coerce any segment of the general populations (i.e., government or civilian population) for political or social objectives.

B. Location and Extent:

The potential for terrorism exists in Alachua County due to the presence of potential targets such as an international university and events which draw large numbers of people and high profile speakers and visitors. Transportation and commercial infrastructure, cultural, academic, research,

and athletic facilities are also potential targets for terrorist attacks with the intent of causing extensive, if not catastrophic, levels of property and environmental damage, injury and loss of life.

C. Impact and Vulnerability:

Impacts to local population, critical facilities, infrastructure and property resulting from terrorism can range from disruptions in service up to high-impact, high damage events. Cyber-attacks, vehicles, ballistics, explosives and other hazardous materials may be used to perpetuate an attack. Public spaces, government buildings and critical facilities are the most likely to be targeted.

D. Previous Occurrences:

There are no well documented previous occurrences of terrorism within Alachua County.

VIII. Exotic Pest and Disease

A. General Description:

Exotic pests and animal disease events are incidents associated with the spread of any insect, animal or pathogen that could pose an economic or health threat to human or animal populations, and/or the environment.

B. Location and Extent:

Exotic pests and diseases such as Mediterranean fruit flies, citrus canker, and the Southern Pine Beetle (SPB) may affect many parts of Florida. Biological hazards are a pervasive threat to the agricultural community and interests throughout the geographical area of Alachua County. These incidents may occur over a period of months, and may have far reaching impacts.

C. Impact and Vulnerability:

Damages from pests and diseases can vary widely, but cause the most concern towards environmental and agricultural damages which would be the most vulnerable to such an incident. It is difficult to predict how extensive damages may be, or what may be affected. These incidents could affect gardens, parks, nature preserves, the economy, and many other aspects depending on species. Effects would be similar across the entirety of Alachua County, in all jurisdictions.

D. Previous Occurrences:

The SPB is one insect that has specifically adversely affected Alachua County. Florida suffered an unprecedented outbreak of SPB in 2001, which was especially severe in North Central Florida. In addition, Aedes aegypti (Yellow Fever Mosquito) is capable of carrying diseases such as the Zika Virus or West Nile. Three individuals contracted Zika in 2016.

IX. Disease and Pandemic Outbreak

A. General Description

A disease outbreak is the occurrence of disease cases in excess of normal expectancy. Disease outbreaks are usually caused by an infection, transmitted through person-to-person contact,

animal-to-person contact, or from the environment or other media[5]. A pandemic is the worldwide spread of a new disease[6].

B. Location and Extent:

The entire population of Alachua County may be vulnerable to disease and pandemic outbreaks, especially the population center in and surrounding the City of Gainesville. Areas with higher concentrations and traffic of individuals such as airports and bus stations can act as vectors. Disease and pandemic incidents may occur over the course of weeks, months, and potentially even years.

C. Impact and Vulnerability:

Disease and pandemic outbreaks may cause higher loads upon the healthcare system, supply shortages, widespread loss of income, government and business closures, staffing issues in all industries as well as have psychological impacts upon the public. This hazard directly targets members of the population, the most vulnerable groups vary between diseases. The entire population which is impacted by a disease or pandemic would experience similar impacts and vulnerability across Alachua County.

D. Previous Occurrences:

The COVID-19 pandemic which began in 2020 highlights the impacts a global pandemic can have on Alachua County. Other incidents include the 1918 Spanish Influenza pandemic as well as the 2009 H1N1 pandemic.

X. Critical Infrastructure Vulnerability

A. General Description:

A critical infrastructure vulnerability is the failure or interruption of systems which support the overall function of society. These events may be caused by intentional acts, weather events or be the result of aging infrastructure.

B. Location and Extent:

Disruptions in critical infrastructure and technology have the potential to impact all portions of Alachua County, including all geographic areas, populations, and businesses within the County.

C. Impact and Vulnerability:

Disruptions may include, but are not limited to cyber-attacks, telecommunications failures, utility outages and pipeline disruptions. Telecommunications failures could lead to a reduction or complete termination of some public and private functions, including emergency services. Utility outages disproportionately impact the County's most vulnerable residents, as they are most reliant on electricity to power medical equipment and maintain a reasonable indoor ambient temperature to avoid the exacerbation of pre-existing medical conditions. In addition, critical facilities could have their functions reduced. Businesses could lose income and taxes would be affected.

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[5] World Health Organization, *Disease Outbreaks*

[6] World Health Organization, *What is a pandemic?*

D. Previous Occurrences:

Critical infrastructure disruption occurs regularly within the county. Minor weather events, accidents and maintenance can result in the temporary loss of systems. Past critical infrastructure disruptions of significant impact have followed tropical cyclone events detailed earlier in this document.

XI. Special Event

A. General Description:

Special events are designated events that may be the target of criminal activity as a result of national significance and high visibility.

B. Location and Extent:

Several special events are held throughout the year at the University of Florida (UF), and throughout the County. Gator Nationals is a National Hot Rod Association (NHRA) drag racing event which occurs in the Northeast area of the County. There are also numerous cultural events that occur in the various municipalities throughout the year.

C. Impact and Vulnerability:

Due to large crowds associated with these events and potential accidents, local traffic infrastructure can become congested or damaged. Healthcare providers may see higher numbers of patients. Law Enforcement, Fire Rescue and other public safety organizations may have staffing shortages.

D. Previous Occurrences:

Special events are held throughout the year in Alachua County and are considered a regular occurrence.

XII. Major Transportation Incident

A. General Description:

Major transportation incidents occur when public transportation such as highways, railroads and airports are significantly impacted by an unexpected event. These types of incidents typically occur due to operator error, mechanical failure or infrastructure collapse.

B. Location and Extent:

Highways across the county are a concern with Interstate-75 running through the center. Railroads run in the eastern and northwestern portions of the county. Gainesville Regional Airport is located centrally to the County.

C. Impact and Vulnerability:

Major transportation incidents can result in damage to property, loss of infrastructure, multitudes of injuries and mass casualty events. Sources of public transit and immediate nearby areas are vulnerable.

D. Previous Occurrences:

Alachua County regularly experiences transportation incidents along Interstate-75. The only event recorded in Alachua County which qualifies as a major transportation incident is the Interstate 75

Incident which occurred on January 29th, 2012. This incident occurred in Paynes Prairie, involving 24 vehicles across 6 crashes. This incident resulted in 11 fatalities and 46 known injuries[7].

XIII. Drought

Drought is an incident where prolonged shortages in water supply begin to adversely impact local jurisdictions, residents or the environment. A drought may occur across the entirety of the County; and may occur over the course of weeks, months, and potentially even years.

Some specific impacts seen during a drought may include reduced agricultural production, reduced quantities of local flora and fauna, a potential increase in the occurrence of sinkholes, and a potential increase in the occurrences of wildfires. In extreme cases this may lead to water use restrictions and water emergencies. Natural ecosystems and agricultural interests would be the most vulnerable during this type of incident. Individuals with interests in unincorporated Alachua County, Waldo, Micanopy, Archer, Newberry, High Springs, Alachua, and LaCrosse would be the most impacted. Some specific examples of potentially impacted entities include: The Newberry Watermelon Festival, the Alachua County Farmer's Market, the Waldo Farmer's Market, Poe Springs Park, and Paynes Prairie Preserve State Park.

There are no well-documented occurrences of drought within Alachua County that would fall within the scope of this LMS.

XIV. Mass Migration

Mass migration occurs when a migration of undocumented aliens that is of such magnitude and duration that it poses a threat to the national security of the United States, as determined by the President[8]. It is not anticipated in Alachua County. If it did occur, the situation would be addressed in cooperation with State and Federal agencies. The migration could occur at any area in the county, and vulnerability would be generated in the public safety and humanitarian response to the incident, which would strain resources. This has not previously occurred in the County.

XV. Coastal Oil Spill

Coastal oil spills occur when oil is released into the environment along a coast line. Alachua County is located approximately 50 miles from the nearest coast and is therefore not susceptible to coastal oil spills. No portion of the county is vulnerable to coastal oil spills and one has never impacted the County.

XVI. Severe Weather

Severe Weather incidents occur when weather patterns create hazardous conditions such as high winds, lightning, hail, and tornadoes which may create significant local impacts. These incidents may create impacts across the entire county, typically over a short period of time such as a few hours.

These incidents may damage personal property, down trees across infrastructure, damage power lines, destroy homes in some cases, hail may damage crops, and other impacts. Residents living in

[7] DHSMV – FHP, *Interstate 75 Incident Agency Response AAR*

[8] FDEM, *Enhanced State Hazard Mitigation Plan*

weaker structures or those with reliance upon electricity are especially vulnerable to these incidents. Concentrations of mobile home parks exist around the outskirts of Gainesville and may be more vulnerable. However, all jurisdictions are vulnerable to this event because of the presence of older homes, mobile homes, suspended power lines, and other vulnerable structures throughout Alachua County.

These incidents occur annually inside of the County, most often with limited impacts. Previous occurrences of this hazard can be found in Attachment I: Severe Weather Occurrences (2015 – 2020).

XVII. Extreme Heat

Extreme Heat incidents occur when outside temperatures exceed those typically experienced within a region, and may strain or surpass climate control capabilities commonly available. These incidents may occur across the entire county over a few hours, days, and potentially even weeks. These incidents may lead to heat related health impacts, most notably in lower income households with weaker climate control capacities. Additionally, these incidents may impact power transmission systems and can potentially result in brownouts and power outages. As noted previously, at-risk individuals, especially those in lower income households, are the most vulnerable to this hazard. There are no well documented instances of extreme heat incidents within Alachua County.

XVIII. Geological Incident

Geological incidents occur when significant shifts in the ground occur which generate hazardous conditions. The primary threat for Alachua County would be from sinkholes. A sinkhole being, in Alachua County, a significant recession of the ground caused by the collapse of topsoil over an area where lower layers of soil have been weakened or removed by natural processes.

These incidents could occur across the entire county, and may occur slowly or suddenly. Impacts range from negligible to permanent depending on the circumstances of the incident and impacted area. For example, the opening of a small sinkhole in unincorporated Alachua County may have no impact, while the opening of a large sinkhole in a residential neighborhood in Gainesville may displace residents from their homes and destroy property. Further, the opening of a sinkhole could destroy private businesses, hazardous facilities, critical infrastructure, or public safety related buildings and temporarily impact local capabilities. The areas of High Springs, Alachua, LaCrosse, North Gainesville, Waldo, Hawthorne, and Micanopy are near areas of higher vulnerability to sinkholes[9].

Small sinkholes occur periodically within Alachua County. A large sinkhole opened in Gainesville during late 2020, there are no other well-documented instances of recent geological incidents in Alachua County which would fall within the scope of this LMS.

XIX. Freezing Temperature

Freezing Temperature incidents may occur with a significant decrease in outside temperatures below 32 degrees Fahrenheit. These incidents surpass local redundancies to these conditions, may

[9] FDEP, *Subsidence Incidents Reports Database*

occur across the entire county, and are most likely to occur over the course of a few hours. Alone, these impacts are most likely to impact low-income households or the homeless through various health impacts. These incidents may result in power losses, health impacts from traffic accidents, and heightened casualty rates when combined with other weather such as freezing rain. In those complex cases various infrastructure such as power lines, those using motor vehicles, and the electrically dependent become the most vulnerable. There have been no previous freezing temperature incidents in Alachua County.

Mitigation Strategy

Code of Federal Regulations Title 44 Section 201.6 requires the county local mitigation strategy to "analyze a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure."

The following summary outlines actions that have been and could be conducted to reduce the community's vulnerability to the identified hazards that are relevant to LMS activities in Alachua County: inland flooding, wind events, and wildfire. Many of the identified mitigation strategies and actions concern the protection of critical facilities or natural resources from natural or manmade hazards. The remaining identified hazards do not readily lend themselves to mitigation activities or have high enough of a local impact to be considered in this Local Mitigation Strategy. Those hazards are: hazardous material incident, nuclear reactor incident, civil disturbance, terrorism, exotic pest/disease, disease/pandemic outbreak, critical infrastructure disruption, special event, freezing temperatures, severe weather, geologic incidents, extreme heat, and major transportation incident. The LMS Work Group can act accordingly when a practical, achievable activity is identified to mitigate one of these hazards.

The 2010 Alachua County Post-Disaster Redevelopment Plan can be consulted for additional strategies that may be applied following an event.

I. Wind Protection

The retrofit of critical structures for wind protection has been an on-going process. Several critical facilities have been retrofitted for wind protection such as fire stations, Alachua County Fire Rescue Headquarters, the Alachua County Sheriff's Office Administration Building, the Martin Luther King Junior Multipurpose Center as well as the Department of Health Main Site.

The protection of new buildings and existing buildings from wind damage is being accomplished through implementation of building code requirements. Buildings must be designed and constructed to comply with wind load specifications. Doing so reduces the effects of wind hazards on the buildings in the community, makes for less damage to structures and displacement of the population during wind events. Alachua County Public School District facilities will be constructed according to Enhanced Hurricane Protection Area (EHPA) standards, as appropriate.

II. Wildfire

Current wildfire mitigation efforts in Alachua County are primarily a public outreach/education program of Florida Forest Service through their statewide wildfire mitigation efforts. Additional efforts in wildfire fuel management are undertaken by the Florida Forest Service, Florida State Parks/Department of Environmental Protection, St. Johns River Water Management District, Florida Fish and Wildlife Conservation Commission, Alachua Conservation Trust, Alachua County Parks and Conservation Lands, and the University of Florida. In addition, local agencies participate in the development of the Alachua County Community Wildfire Protection Plan.

III. Flooding and Storm Water Management

Recognizing the significance of the flooding and the need to protect natural water bodies, Alachua County included specific guidelines in the 2001-2020 Comprehensive Plan (adopted 2005) to

better manage storm water. Those guidelines resulted in the implementation of a Storm Water Management Program (SMP).

Two main requirements of the SMP are listed in the Comp Plan 1) the SMP must have a Dedicated Funding Source; 2) the SMP must be comprehensive and address all of the County's storm water management issues. Provisions for a Dedicated Funding Source are a critical element to the success of the SMP. Therefore, one of the main goals of the SMP is to specify the funding source, initiate its operation and insure that it is dedicated to the goals of the program.

The development of a comprehensive storm water management plan sets in place a system that will address all aspects of storm water management within the county. A major goal of the SMP is to comprehensively address necessary capital improvements and continued maintenance and administration of the program. Capital improvements will correct existing deficiencies in flooding and water quality. Maintenance will be bolstered to ensure existing and new systems perform as designed. Administration of the program is necessary for leadership, coordination and direction of the program. These three elements of the program form a comprehensive approach to proactive management of storm water.

A key component of developing an effective SMP is preparing a Storm Water Master Plan. Master planning provides an opportunity to assess the state of storm water management on a County-wide basis for unincorporated areas. The focus of the plan will be to identify management needs and costs to address flooding problems, water quality deficiencies, maintenance of drainage systems, and compliance with regulatory requirements. Costs associated with meeting the goals of a comprehensive program will be refined to allow the most appropriate funding options to be evaluated. When these flood abatement projects are refined and funding sources are identified, the projects would then be included in the Alachua County Comprehensive Plan Five-Year Schedule of Capital Improvements when the timing is appropriate.

The County and the City of Gainesville coordinate with the Suwannee River and the St. Johns River Water Management Districts and FEMA to identify and delineate flood risk areas through the Risk Mapping and Assessment Planning process (RiskMAP). The Alachua County and the City of Gainesville share ongoing studies and plans to refine FEMA flood maps. The County and the City of Gainesville conduct and coordinate special flooding studies as well to improve the management of water quantity or water quality. One of the joint County and City of Gainesville programs to help promote water quality is the Clean Water Partnership as part of the National Pollutant Discharge Elimination System (NPDES) permit.

In addition, the City of Gainesville has several Watershed Master Plans (WMP) including flood studies that show areas of potential flooding. Since 1988 the City of Gainesville has an active Storm Water Maintenance Utility (SMU) that actively funds drainage Capital Improvement Projects (CIP) and minor projects in areas that have been identified as either active drainage deficits or to mitigate potential drainage shortcomings. These projects improve drainage and mitigate flooding during smaller storm events as well as larger “100 year” storms. Watershed Master Plans are also being updated throughout the City of Gainesville, starting with Hogtown Creek, which covers over 21 square miles within the municipal limits. The updated Hogtown WMP also included revised Hydrologic and Hydraulic modeling and will revise the Flood Hazard Areas with current data. Using modeled results coupled with data from past storm events will allow for

targeted identification of potential flood risks outside of the current FEMA FIRM maps, and appropriate projects to mitigate future flood damage.

Additional possible mitigation activities concerning flooding within Alachua County and Gainesville are within the document "Flood Hazard and Remediation in Alachua County" which is available from the City of Gainesville.

Emergency services activities in response to flooding include warnings, provision of sand bags and other activities performed by local agencies in accordance with the Alachua County Flood Warning and Response Standard Operating Procedures.

IV. Education and Outreach

Various public information programs at the local, regional, state, and national level have been initiated to inform the community of the various hazards that they may face and options for preparing for and mitigating against the effects of these hazards. Examples of these programs are structural fire prevention programs; wildfire mitigation programs such as *Firewise Communities, the Ready, Set, Go!* Program, and the *Fire Adapted Communities* program; hurricane awareness programs; water conservation programs; and hazardous materials awareness programs.

The jurisdictions in Alachua County take advantage of local special events throughout the year to distribute hazard awareness, mitigation, and preparedness materials. Local jurisdictions also use social media and web sites to promote public awareness of hazard mitigation and preparedness activities.

The afore mentioned NPDES permit Clean Water Partnership between the County, City of Gainesville and FDOT, conducts continual water quality outreach including several items that help improve awareness of citizen actions that can improve water quality. Public outreach programs promote the use of xeriscape, reporting illegal dumping, picking up pet waste and disposing of it in solid waste containers, and facilitate proper function of natural and municipal storm water systems. This includes nutrient reduction, such as fertilizer and pet waste, as well as physical impairments like yard waste.

The County and City of Gainesville are also active in CRS outreach, and are currently developing a unified Plan for Public Information which will cover key FEMA flood related topics within projects that are targeted toward specific audiences within the communities. Topics include preventative measures and structural improvements including promoting flood insurance, health and safety during and after floods, and recovery of flood damaged property. Both the University of Florida and Santa Fe College have experts in many fields of study and can potentially provide analysis when needed or requested on hazards.

V. Mitigation Projects and Initiatives

Specific mitigation projects are listed in Attachment D, Priority Ranked Projects. The list of Priority Ranked Projects is for the purpose of determining which projects would be funded should post-disaster hazard mitigation funding become available. This list reflects mitigation projects targeted to the hazards most likely to affect Alachua County as noted in the hazards analysis.

New mitigation proposals will be solicited from the LMS Work Group and other entities at least annually, with an emphasis placed on new and existing buildings and infrastructure. The proposals

will be reviewed and prioritized by the Project Ranking Task Force using the procedures and criteria listed on Attachment C: Project Score Guide. They will then be considered for inclusion by the LMS Work Group.

VI. Regulatory Information and Framework

Section 201.6 (c)(3) of 44 CFR requires that the local mitigation strategy plan "…shall include a mitigation strategy that provides the county-wide blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs, and resources, and its ability to expand on and improve these existing tools. The hazard mitigation strategy shall include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards."

Alachua County LMS Work Group has developed goals with the intent of reducing the County's vulnerability to identified hazards discussed in the Hazards Analysis. Other planning documents and regulatory frameworks created at the local, regional, and state levels of government also help support an overall hazard mitigation strategy. The comprehensive plans, master plans, land development regulations, codes and ordinances of the political entities in Alachua County would be amended under the provisions of Florida Statutes to incorporate hazard mitigation goals and activities.

A. Comprehensive Plans, Development Regulations and Building Codes.

The comprehensive plans and development regulations adopted and implemented by Alachua County and its municipalities are designed to reduce the effects of natural hazards on new buildings, existing buildings in some cases, and infrastructure. For example, the potential for flooding of structures has been reduced in that through its Comprehensive Plan policies. Alachua County does not allow the creation of new building parcels in wetlands or floodplains and requires that wetlands and floodplains be set aside in permanent conservation/preservation areas prior to final development approval. Alachua County development regulations also require that non-conforming buildings other than single-family dwellings that have suffered substantial damage in excess of two-thirds of their fair market value be restored in conformity with applicable regulations. Single family dwellings cannot be structurally altered in excess of fifty percent of the fair market value unless done so in compliance with current regulations.

Alachua County and the City of Gainesville require a minimum of one foot freeboard from a known base flood elevation for structures built in a flood zone on parcels of record that preceded the current land development regulations. Alachua County adopted a floodplain management ordinance and began participating in the NFIP in 1982. Alachua County's floodplain regulations have been modified to be consistent with the Florida Building Code and the State's model ordinance which satisfies the regulatory requirements of the NFIP. Floodplain management is achieved primarily by ensuring the application of the Flood Hazard Reduction Standards set forth in Chapter 406, Article 7 of the Alachua County Unified Land Development Code (ULDC). The Ordinance and the ULDC meets the requirements of the NFIP Program for community participation as set forth in Title 44 Code of Federal Regulations, Sections 59 and 60.

Alachua County's Unified Land Development Code requires new developments to apply for a Letter of Map Revisions (LOMR) due to fill before final project plats are recorded. The LOMR

process then removes the burden from individual homeowners of having to apply for a LOMA (Letter of Map Amendment) for their particular parcel. This process also establishes the base flood elevations for structures to be built above in these areas thereby reducing the potential for structural flooding.

All jurisdictions in Alachua County are required to comply with and do enforce at least the minimum requirements of the Florida Building Code regarding building within flood hazard areas. Alachua County Growth Management currently provides building plan review and inspection services for the municipalities of Archer, Hawthorne, Lacrosse, and Micanopy. The remaining municipalities of City of Alachua, Gainesville, High Springs, Newberry, and Waldo oversee building code compliance in their jurisdictions.

The following is a summary of the comprehensive plan and land development code provisions of Alachua County, the municipalities in Alachua County and the activities of the Alachua County Library and Public School Districts. The following sections describe their activities as participating entities in the Alachua County LMS that are relevant to hazard avoidance or mitigation, floodplain regulation, or the LMS.

B. Alachua County

Alachua County's Comprehensive Plan contains a general strategy to minimize the conversion of land from rural to urban uses by incorporating hazard-resilient land planning into the land use decision-making process [Future Land Use Element (FLUE) General Strategy 1]; provides for clustering in rural subdivisions to avoid natural hazards [FLUE]; provisions to include hazard mitigation into storm water management system design, public education about floodplain protection, avoidance of actions that would change or obstruct floodways [Storm water Element Obj 7.1 and policies]; provisions for mapping of flood and fire prone areas [Conservation and Open Space Element (COSE) Policy 2.1.1]; provisions for public education concerning flood and fire hazard mitigation [COSE Policy 2.2.2]; provisions to maintain the natural function of flood plains and flood ways [COSE Obj 4.8 and Policies]; provisions for wildfire hazard mitigation [COSE 5.6.2, 5.6.4]; provisions to implement hazard mitigation plans such as the Local Mitigation Strategy (LMS) [Intergovernmental Coordination Element (ICE) Policy 1.1.9]; provisions for capital improvement projects for public facilities that mitigate hazards as ranked in the LMS Project List [CIE Policy 1.5.2]; provisions for the protection of natural drainage features through floodplain management [Storm water Element Goal 1]; establishes levels of service that require all new building lots to include adequate buildable area above the 100-year floodplain and all new habitable structures must be constructed outside the floodplain and prohibits adverse impacts to the 100-year floodplain [Storm water Element Policy 3.1.1]; designation of wetlands, surface waters and floodplains as conservation areas [COSE Policy 3.1.1]; provisions for the protection of the natural functions of floodplains and floodways and other areas of 100-year flood elevation [COSE Obj 4.8 and policies]; provisions that floodplains be designated as open space in development plans [COSE Obj 5.2 and policies].

The Alachua County Unified Land Development Code provides for the protection and maintenance of the natural functions of floodplains, floodways, and all other natural areas having hydrological characteristics of the one hundred (100)-year flood elevation, establishes minimum requirements to safeguard the public health, safety, and general welfare, and minimizes public and private

losses due to flooding through regulation of development in flood hazard areas [ULDC Chapter 406, Article VII]; recommends the inclusion of Firewise design principles in landscape plans [ULDC Chapter 407, Article IV].

The above policies are reviewed and updated during Comprehensive Plan updates whenever necessary to ensure continued compliance with NFIP requirements.

Alachua County revised the Alachua County Comprehensive Plan in 2019, pursuant to Rule Chapter 73C-49, Florida Administrative Code, and according to the 7 year schedule mandated by State law. A few examples of how the Alachua County Comprehensive Plan has incorporated and furthered the goals of the Alachua County Local Mitigation Strategy recently are measures such as a requirement for Alachua County to develop watershed management plans (Conservation and Open Space Policy 4.6.13), requirements protecting wetlands and associated buffers by regulating significant alterations to those areas (Conservation and Open Space Policy 4.7.7), the encouragement of the use of permeable hardscapes (Potable Water Policy 8.1.8), and policies reducing speeds on County roads which may reduce the likelihood of mass transportation incidents (Transportation and Mobility Policy 1.8.5). These additions and revisions to the Alachua County Comprehensive Plan demonstrate progress in local hazard mitigation efforts. F.S. 163.3184A also provides a basis for on-going Plan amendments.

C. City of Alachua

The City of Alachua's Comprehensive Plan establishes goals, objectives, and policies to reduce the impact of development upon flood prone areas. Policy 1.12.e of the Conservation & Open Space Element (COSE) states that the City shall protect the natural function of flood plains, and that flood plain regulations shall be based upon the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM.) Policy 1.12.f of the COSE states that the City shall work with FEMA, the Suwannee River Water Management District (SRWMD), the Florida Department of Environmental Protection (DEP), and Alachua County to regulate development within special flood hazard areas susceptible to the one percent annual chance flood. Additionally, this policy states the City will require development to occupy only the non-floodplain portion of a site when feasible; preserve the natural function of the floodplain; require the minimum Finished Floor Elevation (FFE) to be at least one foot above the established Base Flood Elevation (BFE); and prohibit the storage of hazardous materials or waste within the floodplain.

Section 6.9.4 of the City's Land Development Regulations (LDRs) provides for the regulation of structures built within flood prone areas. Flood prone areas are mapped and referenced to the Flood Insurance Rate Map, as may be amended from time to time, and all supporting data and revisions. The City's floodplain management standards were updated in 2018 to incorporate a model ordinance developed by the Florida Department of Emergency Management (FDEM). FDEM and the Federal Emergency Management Agency (FEMA) worked together to develop the FDEM model floodplain ordinance, which has been recognized by FEMA as meeting the requirements of the NFIP. Adoption of these standards in 2018 ensures the City remains compliant with NFIP requirements.

Section 6.9.4 requires new construction or substantial improvements to be constructed using methods and practices that minimize flood damage. The City's LDRs require structures to be built

outside of flood prone areas when other alternatives for the location of the structure exist on the site. When no other alternatives exist, any structure built within the 100-year floodplain must be elevated a minimum of one foot above the BFE. When a structure is proposed in a flood prone area and the BFE is undetermined, the City's LDRs require the structure to be elevated 5 feet above the highest adjacent natural grade.

Any encroachments, including fill, new construction, or substantial improvements in a flood prone area must be certified by a professional engineer demonstrating that the encroachments shall not result in an increase in flood levels during the occurrence of the base flood discharge.

The above policies will be reviewed and amended during Comprehensive Plan updates and implemented through the LDRs, if necessary, to ensure continued compliance with NFIP requirements.

The Conservation & Open Space Element (COSE) and Future Land Use Element (FLUE) of the Comprehensive Plan require development plans to consider any limitations of on-site soils (Objective 1.5, COSE, Policy 5.1.b, FLUE), geologic features (Objective 1.7, COSE), wetlands (Objective 1.10), and flood plains (Policies 1.12.d - 1.12.f). Development plans must address limitations of soil types that may be presented by the construction methods to be utilized by a proposed development (Policy 1.5.a, COSE). The Comprehensive Plan requires any geologic features, such as sinkholes, to be identified, protected, and conserved to preserve their natural functions (Objective 1.7, COSE). New development is required by the Comprehensive Plan to provide minimum buffers from wetlands and water bodies to ensure potential hazards are mitigated and to maintain the natural function of such features (Policies 1.10.g, 1.10.h, and 1.12.g, COSE).

These goals, objectives, and policies are reviewed and updated as needed. Updates occur no less than as part of the evaluation and appraisal of the Comprehensive Plan as mandated by Florida Statutes. The most recent evaluation and appraisal of the Comprehensive Plan occurred in 2019 and 2020, with the amendments implementing the evaluation and appraisal updates to the Comprehensive Plan being adopted in July 2020. These revisions further the goals of the Alachua County Local Mitigation Strategy.

D. City of Archer

Archer's Comprehensive Plan provides for the restriction of development in areas subject to flooding and the regulation of flood prone areas to maintain the flood storage and flood carrying capacity of floodplains. Flood prone areas are mapped and referenced to the Flood Insurance Rate Map. Plan policies require coordination with the Suwannee River Water Management District on all proposed development in the basins of all priority water bodies. The plan establishes level of service standards for storm water management systems for pre- and post-development runoff and design storm events. Plan policies require residential construction to be elevated 1 foot above the 100-year storm elevation. Code provisions include requirements that uses vulnerable to floods be protected from flooding, regulate activities that would change or diminish the flood storage capacity of function of floodplains and floodways, and provisions for compliance with the NFIP.

The above policies will be reviewed and updated during Comprehensive Plan updates, if necessary, to ensure continued compliance with NFIP requirements.

E. City of Gainesville

The City of Gainesville's Comprehensive Plan provides for the protection of wetlands and wetland function through avoidance, minimization, mitigation of detrimental impacts, property protection activities, emergency services activities, and public information activities. [COSE Obj 1.1, Policy 1.1.1]; require buffers and setbacks from creeks, lakes and wetlands [COSE Policy 1.1.2]; provide for coordination with various entities to develop basin storm water management plans [COSE Policy 1.1.5]; provides for the preservation of wetland function and acreage in designated basins [COSE Obj 2.1, Policy 2.1.1]; adopts the 100-year critical duration storm event as the storm water management Level of Service Standard [SME policy 1.1.1]; provides for specific basin storm water management projects – Depot Avenue, Sweetwater Branch, Hatchet Creek-Lake Forest Creek, NW 22nd Street, SW 35th Terrace [SME Policy 1.2.2]; the provisions of adequate storm water management systems to meet projected needs by maintaining or reducing the elevation of the 10-year flood channel and the 100-year floodplain as established by the most recent FIRM or local study using FEMA-approved methods [SME Obj 1.3 and associated policies]; provides for maintenance of the storm water management systems to reduce or eliminate structural flooding, street flooding, enhance water quality, and to enhance environmental quality.

The City of Gainesville's Code provides specific implementation of the Comprehensive Plan objectives and policies. The City's code establishes a floodplain management district for the purposes of preventing or minimizing future flood damage; managing activities or development which may increase flood damage or erosion potential; managing the alteration of flood hazard areas, watercourses, and shorelines to minimize the impact of development on the natural and beneficial functions of floodplains; minimizing damage to public and private facilities and utilities; maintaining a stable tax base by providing for the sound use and development of flood hazard areas; minimizing the need for future expenditure of public funds for flood control projects and response to and recovery from flood events; and meeting the requirements of the NFIP for community participation.

The above policies will be updated during Comprehensive Plan updates, if necessary, to ensure continued compliance with NFIP requirements.

F. City of Hawthorne

The City of Hawthorne significantly amended its land development code in 2012 to comply with the provisions of the NFIP Program for community participation as set forth in Title 44 Code of Federal Regulations, Sections 59 and 60. Among other things these amendments provided for adoption of flood hazard maps for the community, provide for procedures and criteria for development in flood hazard areas, and adopt local administrative amendments to the Florida Building Code.

The above policies will be updated during Comprehensive Plan updates, if necessary, to ensure continued compliance with NFIP requirements.

G. City of High Springs

The High Springs Comprehensive Plan provides for the elevation of structure one foot above the 100-year flood elevation, restrict development within flood prone areas, require regulation of development at and below the riverine 100-year flood elevation, the preservation of the flood

storage capacity and natural functions of the floodplains and floodways, mapping of flood prone areas, and participation in the NFIP. City Code contains provisions to prevent or limit activities that will alter floodplains such that the capacity of those floodplains is diminished or the areal extent of the floodplain. Code provides for avoidance and minimization of impacts to floodplains and floodways. Requirements that new construction or substantial improvements to structures be built one foot above the base flood elevation.

The above policies will be updated during Comprehensive Plan updates, if necessary, to ensure continued compliance with NFIP requirements.

H. Town of LaCrosse

Comprehensive Plan provisions to participate in the NFIP and require that construction be done outside of flood prone areas. For parcels of record that are all floodplain then buildings must be built two feet above grade. Require maintenance of floodplain function such as flood storage capacity. The plan establishes level of service standards for storm water management systems for pre and post-development runoff and design storm events. Plan policies require residential construction to be elevated 1 foot above the 100-year storm elevation. Floodplain areas are mapped, referenced to FIRM.

The above policies will be updated during Comprehensive Plan updates, if necessary, to ensure continued compliance with NFIP requirements.

I. Town of Micanopy

Comprehensive Plan policies to require residential landowners whose property lies within the 100-year floodplain to construct outside the floodplain, maintain a floodplain ordinance to reduce floodplain uses to agricultural, forest, and wildlife management and such other uses that are not likely to be severely disrupted by flooding, and participation in the NFIP along with regulation of development and the installation of utilities in flood hazard areas in conformance with NFIP requirements. Plan provisions for transferring development rights from wetlands and flood plains to upland areas. Requirements to elevate buildings 1-foot above 100-year flood elevations. Plan policies to protect the natural function of floodplains, recognizing the role of flood patterns in maintaining water quality and quantity. Flood plain regulations are to be based on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM).

The above policies will be updated during Comprehensive Plan updates, if necessary, to ensure continued compliance with NFIP requirements.

J. City of Newberry

Newberry's Comprehensive Plan provides for the location of development outside of floodplains and wetlands, establishes storm water management standards for quantity and quality, prohibits the alteration or interruption of natural drainage flow, the preservation of floodplain and wetland function, clustering of development onto the non-flood prone areas of parcels or the elevation of structures if an entire parcel is flood prone. Newberry's Land Development Code [Flood Management Ordinance]provides for the use of appropriate construction practices in order to prevent or minimize future flood damage; the management of activities or other development which may increase flood damage or erosion potential; limitations on the alteration of flood hazard areas, watercourses, and shorelines to minimize the impact of development on the natural

and beneficial functions of the floodplain; minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events; and meet the requirements of the NFIP for community participation.

The above policies will be updated during Comprehensive Plan updates, if necessary, to ensure continued compliance with NFIP requirements.

K. City of Waldo

Plan provisions to require clustering of buildings outside of floodplain, provisions to participate in the NFIP, and require that construction be done outside of flood prone areas. For parcels of record that are all floodplain then buildings must be built two feet above adjacent grade. Prohibits structures in wetlands except for water dependent uses [docks, etc.]. Plan policies require coordination with the Suwannee River Water Management District on all proposed development in the basins of all priority water bodies. The plan establishes level of service standards for storm water management systems for pre- and post-development runoff and design storm events.

The above policies will be reviewed and amendments considered by City Council during Comprehensive Plan updates, if necessary, to ensure continued compliance with NFIP requirements.

L. Alachua County Library District

The Alachua County Library District has no authority or responsibility for land use decisions. The Library District buildings and facilities are located within municipal boundaries or urbanized areas in the case of unincorporated Alachua County locations. These facilities are located upon small parcels of land, typically with significant parcel coverage by buildings and impervious surfaces.

M. Alachua County Public School District

The school Board of Alachua County and Alachua County have structured an inter-local agreement that provides for coordination of land use and school capacity. Along with this agreement the Alachua County Comprehensive Plan contains a Public School Facilities Element which generally provides for the accommodation of anticipated public school enrollment. Objective 3.6 of this Element provides for development standards for schools and school sites. Policy 3.6.1 provides specific requirements for school site development, one of which is consistency with the applicable policies of the Conservation and Open Space Element [COSE] of the Alachua County Comprehensive Plan. As noted above the requirements of the COSE provide for storm water management and floodplain function in particular.

VII. Local Incorporation and Integration

Alachua County provides building permitting services [plan review, permitting, and inspection] for the municipalities of Hawthorne, Micanopy, Lacrosse and Archer. Through this process the provisions of the Florida Building code [such as those concerning flood abatement, or structural flood proofing] are enforced. Taken on the whole, all of these requirements when implemented will help advance the goals of the LMS and ensure continued compliance with the NFIP.

Local government comprehensive plans are required to be periodically reviewed and assessed. Section 163.3191, FS requires that every seven years local governments review their comprehensive plans to determine if they adequately reflect state requirements and are

"encouraged to comprehensively evaluate and, as necessary, update comprehensive plans to reflect changes in local conditions". This evaluation and appraisal process affords all local governments in Alachua County the means to incorporate current hazard mitigation strategies and activities into their local community planning efforts. Beyond the evaluation and appraisal process, local governments can amend their comprehensive plans as needed to reflect and react to changing conditions within their jurisdictions. Specific mitigation projects that involved capital expenditures and that are funded in whole or part by local governments in Alachua County have typically been incorporated into the local government's Capital Improvements Plan as part of their adopted comprehensive plan and capital projects programs.

It is through the above processes that each jurisdiction will improve their policies and programs to be in-line with the Alachua County Local Mitigation Strategy.

The documents and activities noted below provide support to and furtherance of the 2021 Alachua County Local Mitigation Strategy. These documents are consulted during revisions, and also consider the Local Mitigation Strategy during their revisions:

A. Community Development:

- Alachua County Comprehensive Plan (County)
- Municipal Comprehensive Plans (Cities)
- University of Florida Master Plan
- Alachua County Comprehensive Emergency Management Plan (County/Cities)
- Unified Land Development Regulations (County and Cities)
- Debris Management Plan (County and Cities)
- National Flood Insurance Program (County-wide)
- Community Rating System (County and Gainesville)

B. Protecting Public Health and Safety:

- Florida Statute Chapter 252 (County)
- Floodplain Ordinance (Cities and County)
- Adopted Comprehensive Plans (Cities and County)
- Dept. of Environmental Protection Regulations (Cities and County)
- County and City Debris Management Plan
- Alachua County Emergency Management Hurricane Standard Operating Procedure (County-wide)
- Alachua County Emergency Management EOC Activation SOP (County)
- UF Natural Disaster Plan (UF)
- Disaster Housing Plan (Cities and County)
- Solid Waste Plans and Regulations (Cities and County)
- Fire Prevention Codes and Regulations (County-Wide)
- Florida Building Code (Cities and County)
- Community Health Improvement Plan
- Alachua County Flood Warning and Response SOP

C. Building and Retrofitting to Minimize Potential Property Damage:

- Alachua County Unified Land Development Code

- Post Disaster Redevelopment Plan (County-wide)
- County Floodplain Ordinance
- Florida Building Code (county-wide)
- University of Florida Design and Construction Standards

D. Fostering Economic Activities within the County:

- Alachua County Comprehensive Plan, Economic Development Element

E. Educating to Promote Community Awareness:

- Florida Statute Chapter 252 [county-wide]
- Hazard Awareness and public outreach activities (County-wide)

F. Protecting Natural Resources and the Environment:

- Alachua County Floodplain Management Ordinance
- Alachua County Comprehensive Plan Conservation and Open Space Element
- Hazardous Materials Cost Recovery Ordinance (County-wide)
- Watershed Management Plans (City of Gainesville)

G. Managing Storm Water to Protect Community Resources:

- Alachua County Water Quality Ordinance
- Alachua County storm water Management Plan
- St. Johns River Water Management District Regulations (all jurisdictions southeastern Alachua County)
- Suwannee River Water Management Regulations (all jurisdictions northern and western Alachua County)

H. Coordinating Local and State Government Activities During a Disaster:

- Statewide Mutual Aid Agreement, FL Statute 252, Chapter 23
- Alachua County Comprehensive Emergency Management Plan
- Emergency Support Functions SOP

Appendix A: Local Mitigation Strategy Adoption Documentation

Appendix B: NFIP Enrollees & CRS

NFIP #	Community Name	Joined NFIP	Current FIRM Date
120001	Alachua County - CRS Class 5	09/28/1984	06/16/2006
120664	City of Alachua	06/09/1994	11/2/2018
120670	City of Archer	06/09/1994	06/16/2006
125107	City of Gainesville - CRS Class 7	10/01/1971	11/2/2018
120682	City of Hawthorne	07/29/2010	06/16/2006
120669	City of High Springs	03/24/1994	06/16/2006
120679	City of Newberry	02/03/2000	06/16/2006
120003	City of Waldo	11/04/1988	11/2/2018
120626	Town of LaCrosse	12/13/2011	06/16/2006
120344	Town of Micanopy	06/16/2006	06/16/2006

Table 2: National Flood Insurance Program Enrollees and FIRM Dates[10]

The NFIP Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote the awareness of flood insurance. As a class 5 community, policy holders in unincorporated Alachua County qualify for up to a 25% premium discount. As noted in the adopted Alachua County Local Mitigation Strategy, Alachua County's Comprehensive Plan and Unified Land Development Code regulate and restrict development in floodplains. As a class 7 community, policy holders in the incorporated limits of the City of Gainesville qualify for up to a 15% premium discount.

[10] FEMA, *Community Status Book*

Appendix C: Alachua County Wildfire Statistics, 2009 - 2019

Cause	Number	Percentage	Acres	Percentage
Campfire	18	3.38	136.2	1.58
Children	10	1.88	17.8	0.21
Debris Burn*	0	0	0.0	0
Debris Burn--Auth--Broadcast/Acreage	15	2.81	123.3	1.43
Debris Burn--Auth--Piles	15	2.81	96.0	1.11
Debris Burn--Auth--Yard Trash	15	2.81	48.0	0.56
Debris Burn--Nonauth--Broadcast/Acreage	9	1.69	22.8	0.26
Debris Burn--Nonauth--Piles	34	6.38	103.2	1.20
Debris Burn--Nonauth--Yard Trash	60	11.26	305.3	3.54
Equipment use*	0	0	0.0	0
Equipment--Agriculture	11	2.06	21.1	0.24
Equipment--Logging	1	0.19	1.0	0.01
Equipment--Recreation	6	1.13	99.5	1.15
Equipment--Transportation	10	1.88	8.7	0.10
Incendiary	39	7.32	545.3	6.32
Lightning	106	19.89	1,215.2	14.08
Miscellaneous --Breakout	5	0.94	110.8	1.28
Miscellaneous --Electric Fence	0	0	0.0	0
Miscellaneous --Fireworks	2	0.38	9.5	0.11
Miscellaneous --Power Lines	29	5.44	48.5	0.56
Miscellaneous --Structure	4	0.75	3.1	0.04
Miscellaneous--Other	17	3.19	39.1	0.45
Railroad	2	0.38	36.0	0.42
Smoking	1	0.19	0.1	0.00
Unknown	124	23.26	5,639.8	65.35
Total	533		8,630.3	

Table 3: Alachua County Wildfire Statistics[11]

[11] Florida Forest Service, *Community Wildfire Protection Plan*

Attachment A: LMS Work Group Members, Organizations & Roles

Jurisdiction	Agency	Title	Representative	Role
*Alachua County	Public Works	Civil Engineer	Lalit Lalwani	Chair / P.C.
*City of Gainesville	Fire Rescue	District Chief, Emergency Manager	David McIntire	Vice Chair
*Alachua County	Emergency Management	Acting Director	Jen Grice	Member
*Alachua County	Emergency Management	Program Coordinator	Brady Nettina	Member
*Alachua County	Emergency Management	Program Coordinator	Dalton Herding	Coordinator
*Alachua County	Growth Management	Senior Planner	Kathleen Pagan	Primary Contact
Alachua Conservation Trust	Alachua Conservation Trust	Santa Fe River Basin Project Coordinator	Melissa Hill	Member
Alachua County Library District	Director's Office	Director	Shaney Livingston	Primary Contact
Alachua County Library District	Facilities and Safety	Administrator	Larry Jones	Member
Alachua County Library District	Automated Services	Administrator	Christopher Cochran	Member
*City of Alachua	Finance and Administrative Services	Director	Rob Bonetti	Primary Contact
*City of Archer	City Manager's Office	City Manager	Charles Hammond	Member
*City of Gainesville	Gainesville Regional Utilities		Harry Flanigan	Primary Contact
*City of Gainesville	Gainesville Regional Utilities		James Lennon	Member
*City of Gainesville	Gainesville Regional Utilities		Fernando Martins	Member
*City of Gainesville	Public Works	Storm Water Services Supervisor	Alice Rankeillor	Primary Contact
*City of Hawthorne	Office of the City Manager	City Manager	Ellen Vause	Primary Contact
*City of High Springs	City Manager's Office	City Manager	Joel DeCoursey	Member
*City of High Springs	High Springs Fire Rescue	Fire Chief, Emergency Coordinator	Bruce Gillingham	Primary Contact
*City of Newberry	Planning & Economic Development	Principal Planner	Wendy Kinser-Maxwell	Primary Contact
*City of Newberry	Finance and Administration	Director	Dallas Lee	Member

Jurisdiction	Agency	Title	Representative	Role
*City of Newberry	Newberry Fire Department	Fire Chief	Ben Buckner	Member
Florida Division of Emergency Management	Bureau of Recovery	Recovery Regional Coordinator	Pamela Bergstrom	Member
Florida Forest Service	Waccasassa Forestry Center	Wildfire Mitigation Specialist	Ludie Bond	Member
Saint John's Water Management District		Senior Regulatory Scientist	Susan Davis	Member
*Santa Fe College	Safety and Risk Management	Safety Coordinator	Marian Nesbitt	Primary Contact
School Board of Alachua County	Safety and Security	District Chief	Casey Hamilton	Member
Suwannee Water Management District	Resource Management Division	Director	Warren Zwanka	Member
*Town of LaCrosse	Mayor's Office	Mayor	Dianne Dubberly	Primary Contact
*Town of Micanopy	Town Administrator's Office	Town Administrator	Debbie Gonano	Primary Contact
*Town of Waldo	City Manager's Office	City Manager	Kim Worley	Primary Contact
*University of Florida	Emergency Management	Director	Kenneth Allen	Primary Contact
*University of Florida	Utilities and Energy Services Division		Elizabeth McAlister	Member
*University of Florida	Facilities Services		Jennifer Meisenhelder	Member
*University of Florida	P.K. Younge	School Safety Administrator	Bob Toporek	Member
*University of Florida	Florida Institute for Built Environment Resilience	Associate Professor	Jason Von Meding	Member

Table 4: LMS Member and Organization Roster

*2021 Agencies Seeking Adoption

Attachment B: Project Ranking Task Force Procedures

1. Purpose and Authority
   1.1. These procedures describe the process for submission, ranking and adoption of projects for the Alachua County Local Mitigation Strategy (LMS).
   1.2. Authority for the procedures is derived from approval of the Alachua County Local Mitigation Strategy Work Group and Rule 9G-22.005(6)-(7), Florida Administrative Code.
   1.3. The purpose of the procedures is to create and maintain both a ranked and an unranked project list. The ranked list, referred to as the LMS Project Ranking List, will be employed to set the order of priority for projects.
2. Project Ranking Task Force
   2.1. The Project Ranking Task Force is a permanent Task Force of the Local Mitigation Strategy Work Group. The Task Force is established by Article III.B.ii of the *Bylaws of the Alachua County Local Mitigation Strategy Work Group*.
   2.2. Task Force members will be appointed annually by the Work Group. Task Force Members are not required to be voting members of the Work Group.
   2.3. Task Force members will be responsible for meeting and electing a Chair and Vice-Chair.
   2.4. A minimum of three (3) appointed Task Force members is required in order to conduct a Project Ranking Task Force meeting.
3. LMS Project Ranking List
   3.1. The purpose of the *LMS Project Ranking List* is to comply with Rule 9G-22.005(7), Florida Administrative Code by maintaining a list of approved projects in order of priority. The priority will be employed to determine distribution of funding under mitigation grant programs such as the Hazard Mitigation Grant Program.
   3.2. Project Application Submission
      3.2.1. Jurisdictions participating in the Alachua County LMS may submit projects for inclusion on the Project Ranking List. Project proposals must be submitted by March 15th of each year or an alternate date determined by the Work Group.
      3.2.2. For a project to be considered, a completed *Mitigation Project Proposal* must be submitted either electronically or hard copy by the appropriate deadline to the Alachua County Division of Emergency Management. Copies of the project application and instructions are available from the Division.
      3.2.3. Following an incident which impacts Alachua County, such as hurricane, the Work Group may instruct the Task Force to meet, accept and rank new projects. The Work Group will be responsible for setting project application and ranking deadlines should this occur.
   3.3. Project Ranking
      3.3.1. The Task Force will meet within thirty (30) calendar days following the project application deadline to validate and rank all submitted projects.
      3.3.2. Alachua County Division of Emergency Management will email each jurisdiction's voting member the Task Force validated score for all projects submitted by the member's jurisdiction.
   3.4. Appeals of Task Force Validated Scores by a Jurisdiction
      3.4.1. Following notification in Section 3.3.2, a jurisdiction's voting member may appeal a Task Force validated score within thirty (30) calendar days. The appeal must be in writing, e-mail or hard copy, to the Alachua County Division of Emergency Management.

3.4.2. All appealed projects will be removed from the Task Force recommended ranked list and the Alachua County Division of Emergency Management will notify all Task Force members of the appeal.

3.4.3. The Task Force will meet within thirty (30) calendar days following the appeals date deadline in Section 3.4.1 to re-evaluate all appealed projects.

3.4.4. Jurisdictions may make a presentation and submit additional, relevant information to the Task Force regarding each appealed project.

3.4.5. Alachua County Division of Emergency Management will e-mail each jurisdiction's voting member the Task Force validated score for all re-evaluated projects submitted by the member's jurisdiction.

3.4.6. The validated scores of all appealed projects will be placed on the ranked list unless a jurisdiction's voting member disagrees with the re-evaluated score.

3.4.7. Jurisdictions not satisfied with the re-evaluated project score validated by the Task Force may appeal to the Work Group for final resolution.

3.5. Approval by Alachua County Local Mitigation Strategy Work Group

3.5.1. The Work Group must vote to approve and accept or reject the ranked list of validated scores recommended by the Task Force.

3.5.2. If approved and accepted by the Work Group, the list will become the *LMS Project Ranking List*.

3.6. Maintenance and Publication

3.6.1. Alachua County Division of Emergency Management will be responsible for clerical maintenance of the Project Ranking List.

3.6.2. Publication and distribution of the Project Ranking List as directed by the Work Group will be the responsibility of the Alachua County Division of Emergency Management.

4. LMS Initiative List

4.1. The purpose of the *LMS Initiative List* is to maintain an unranked list of mitigation projects.

4.2. The list will denote each project submitted by jurisdictions participating in the LMS. Jurisdictions will appear alphabetically on the list. The list will **not** be employed to determine distribution of funding under mitigation grant programs.

4.3. Project Application Submission

4.3.1. Projects submitted for the Ranking List will automatically be included on the Initiative List.

4.3.2. Jurisdictions participating in the LMS may submit projects for inclusion on the Initiative List that are not submitted for the Ranking List.

4.3.3. For a project to be included on the Initiative List, a completed *Score Guide Cover Page* must be submitted either electronically or hard copy to the Alachua County Division of Emergency Management. Copies of the *Score Guide* and instructions are available from the Division. The jurisdiction should indicate on *the Score Guide Cover Page* that the project is for inclusion solely on the Initiative List.

4.3.4. Jurisdictions participating in the LMS may submit or remove projects for the Initiative List year round.

4.4. Maintenance and Publication

4.4.1. Alachua County Division of Emergency Management will be responsible for clerical maintenance of the Initiative List.

4.4.2. Publication and distribution of the Initiative List as directed by the Work Group will be the responsibility of the Alachua County Division of Emergency Management.

4.4.3. Alachua County Division of Emergency Management will e-mail an updated version of the Initiative List to voting members of all jurisdictions participating in the LMS within ten (10) working days of a project being added or removed from the list.

5. Public Record

5.1. The *LMS Project Ranking List* and *LMS Initiative list* will be considered public records. Jurisdictions should exercise appropriate judgment when naming project proposals since project titles will be included on both lists.

5.2. Jurisdictions will be considered custodian of their submitted project proposals, not Alachua County Division of Emergency Management or Alachua County LMS Work Group.

5.3. Some project proposals may be exempt from public release based upon the provisions of Section 119.071, Florida Statutes. Jurisdictions are responsible for documenting projects that qualify for exemption from public by completing LMS Exemption Form A or B and note "Exempt" on the *Score Guide.*

Attachment C: Project Score Guide

Alachua County Local Mitigation Strategy

Score Guide / Cover Page

Jurisdiction/Agency:

Date of submittal:

Project Contact:

Contact Address:

Telephone: **Fax:** **E-mail:**

Project Name:

Project Description: (include a brief project overview):

_____

Project Estimated Cost:

Project Estimated Completion Timeframe:

If project is exempt from the Public Record Act, provide Florida Statute and statement from legal representative documenting exemption. Exempt: Yes/No

This project submitted for:

__ LMS Project Ranking List* (score required)

__ LMS Initiative List (score not required)

* If project listed on LMS Project Ranking List, the project will also be listed on the LMS Initiative list in alphabetical order.

_____

_____

_____

Proposed Project Type:

Please indicate the type of project proposed in accordance to the four tier approach of the LMS Workgroup.

☐ Life Safety

☐ Critical Operations and Infrastructure

☐ Economic Vitality

☐ Preparedness Planning and Studies

When scoring projects, assign a score to the nearest quarter point (0.25) within the Decision Factor score range, unless the Decision Factor requires a whole number score.

1. Jurisdictional Benefits:

This **decision factor** evaluates the extent of the jurisdictional benefits of the proposed mitigation project.

Score	Description of the Decision Factor	Applicant Score	Committee Validation
3	Project will benefit a multi-jurisdictional area.		
2	Project will benefit a single jurisdiction.		
1	Project will benefit less than 100% of a jurisdiction (i.e., neighborhood)		

2. Estimate of Population Benefited:

This **decision factor** evaluates the benefit to human health and safety derived from implementation of the project. The beneficial effects of the proposed project may affect more than the population of the sponsoring entity.

Score	Description of the Decision Factor	Applicant Score	Committee Validation
5	This project would benefit the health and safety of at least 200,000 people by directly reducing personal injury and/or risk of illness.		
4	This project would benefit the health and safety of between 100,000 to 199,999 people by directly reducing personal injury and/or risk of illness.		
3	This project would benefit the health and safety of 5,001 to 99,999 people by directly reducing personal injury and/or risk of illness.		
2	This project would benefit the health and safety of up to 5,000 people by directly reducing personal injury and/or risk of illness.		

Score	Description of the Decision Factor	Applicant Score	Committee Validation
0	This project has no direct benefit to the health and safety of the population.		

3. Environmental and Human Health Impact

This **decision factor** is designed to account for potential short or long term environmental impact or human health hazards that may occur as a result of implementation of the project.

Score	Description of the Decision Factor	Applicant Score	Committee Validation
2	The project will demonstrably improve environmental and/or human health conditions		
1	The project offers minimal improvement potential to the environment or human health.		
0	Risk to human health and/or the environment are undeterminable.		
-1	The project creates a situation that is a detriment to human health or has short or long-term negative environmental impacts.		

4. Consistency with other Plans and Programs:

This **decision factor** is used to consider the level of consistency that the mitigation project has with other current plans and programs that have been approved, accepted or utilized by the community to be affected or benefited by the project. The premise here is that proposed project proposal should be ranked higher if they are consistent with and further these other plans and programs, rather than if they are inconsistent or in conflict with the goals and objectives of generally accepted guiding principles.

The following types of plans, policies and programs to be considered under this decision factor are the following:

- The goals and objectives of the Alachua County Local Mitigation Strategy (LMS)
- Entities adopted Comprehensive Plan, or other guiding plan or document.
- Special Area Plans or Conservation Management Plans
- The jurisdiction's Comprehensive Emergency Management Plan and or the Alachua County Comprehensive Emergency Management Plan (CEMP).
- Any applicable land development code or zoning ordinance.
- Any applicable environmental resource preservation or protection plan, policy or ordinance
- Any other applicable local, state building code or federal law, regulation or plan.

Score	Description of the Decision Factor	Applicant Score	Committee Validation
4	The project or activity is incorporated into at least three of the documents listed, or judged to be highly consistent with all.		
3	The project or activity is incorporated into at least two of the documents listed.		
2	The project or activity is incorporated into at least one of the documents listed.		
1	The project or activity is consistent with other standards deemed acceptable however not specifically listed above.		
-1	Project or activity is inconsistent with [conflicts with] adopted comprehensive plan or land development code.		
-2	Project or activity is inconsistent with [conflicts with] a Special Area Plan or a Conservation Management Plan.		

5. Community Exposure:

The proposed project mitigates a frequently occurring hazard or problem or a hazard to which a community is particularly vulnerable. The scoring factor is based upon combinations of high, medium and low levels of exposure and frequency.

Score	Description of the Decision Factor	Applicant Score	Committee Validation
5.0	High Exposure and High Frequency		
4.5	High Exposure and Medium Frequency		
4.0	High exposure and Low Frequency		
3.5	Medium Exposure and High Frequency		
3.0	Medium Exposure and Medium Frequency		
2.5	Medium Exposure and Low Frequency		
2.0	Low Exposure and High Frequency		
1.5	Low Exposure and Medium Frequency		

Score	Description of the Decision Factor	Applicant Score	Committee Validation
1.0	Low Exposure and Low Frequency		

6. Supports Natural Resources, Critical Infrastructure, Critical Services or Key Resources:

This **decision factor** evaluates how the project will support public or private critical infrastructure, services, or man-made or natural resources that provide a hazard mitigation function. The critical infrastructure, service, or resource must provide some capacity for or type of hazard mitigation such as the enhancement of storm water systems [man-made resource] or the restoration of floodplains [natural resource] to attenuate flooding potential.

Score	Description of the Decision Factor	Applicant Score	Committee Validation
5	The project will ensure continuity of operations of critical infrastructure or services.		
3	The project will support infrastructure, resources that provide hazard mitigation functions or services with history of loss or damage.		
1	The project will support infrastructure, or resources that provide hazard mitigation functions or services without history of loss or damage.		
0	The project's operation would have no impact community infrastructure or services if disrupted.		

7. The Probability of Receiving Funding for Implementation:

This **decision factor** considers the likelihood that a project will be adequately funded for its implementation or completion as proposed The underlying assumption is that one of the fundamental purposes of the Alachua County LMS is to secure funding for meritorious project proposals which otherwise may not be funded in a timely manner. Please list the likely funding sources for the proposed project:

Score	Description of the Decision Factor	Applicant Score	Committee Validation
4	The only potential funding sources for this project are readily available through mitigation or emergency preparedness funding sources.		

Score	Description of the Decision Factor	Applicant Score	Committee Validation
3	The only potential funding sources are other state or federal grants or similar funding sources.		
2	Funding may be accomplished through matching local jurisdiction dollars with funds from budgeting, capital improvement, or a mixture of other funding sources.		
1	Funding may be obtained through available locally controlled budget sources.		

8. The Feasibility of Implementation:

This **decision factor** considers the feasibility of implementation of the project from an administrative or managerial perspective. At a minimum, the following external factors are to be evaluated for each proposed project:

- The time involved to complete a project, including planning and engineering studies, environmental assessments and ecological surveys.
- The type, number and time needed to secure permits and approvals.
- If the project proposal would require a referendum vote by the general public.
- If the project proposal would require a public hearing and/or specific commission/council approval.

Score	Description of the Decision Factor	Applicant Score	Committee Validation
4	The project would be relatively easy to complete or implement within one year.		
3	The project is not anticipated to be difficult to implement; no external factors affect the proposed project or would only have a minimal influence on the implementation process.		
2	The project may be somewhat difficult to implement because one identified external factor will impede the implementation process.		
1	The project may be fairly difficult to implement because two external factors will impede the implementation process.		
0	The project may be difficult to implement because three or more external factors will impede the implementation process.		

9. Community Rating System:

This **decision factor** takes into a proposed project's positive affect upon Community Rating System (CRS) flood-related activities. These activities would enhance public safety, reduce damages to property and public infrastructure, avoid economic disruption and losses, reduce human suffering and protect the environment.

- Project supports public information activities.
- Project supports mapping (i.e. GIS) and regulations.
- Project supports flood damage reduction activities.
- Project supports flood preparedness activities.

Score	Description of the Decision Factor	Applicant Score	Committee Validation
4	The project supports all four elements of CRS flood-related activities.		
3	The project supports three elements of CRS flood-related activities.		
2	The project supports two elements of CRS flood-related activities.		
1	The project supports one element of CRS flood-related activities.		
0	The project has no component applicable to the CRS.		

10. Repetitive Loss Mitigation:

This **decision factor** rates how the project would mitigate Severe Repetitive Loss (RL) properties which are structures flooded two or more times in a ten-year period.

Score	Description of the Decision Factor	Applicant Score	Committee Validation
4	Project protects 50% or more of RL structures		
2	Project protects less than 50% of RL structures.		
0	Project does not protect a RL structures		

11. Preliminary Estimated Benefit /Cost Ratio:

This **decision factor** considers the preliminary estimated benefit to cost ratio (BCR) of implementing the project. Please show the calculations used to derive the BCR and list all assumptions. A more detailed Benefit/Cost Ratio analysis using FEMA- approved methods and formulae will be required to support the proposed mitigation project for any funding application

and prior to initiation of any project. Planning projects do not require the support of a Benefit/Cost analysis and will be assigned a score of 2 for purposes of project ranking.

Score	Description of the Decision Factor	Applicant Score	Committee Validation
2	The project demonstrates a BCR > 1 indicating that the expected benefit is more than the costs associated with the project. Planning projects will be assigned a score of 2.		
-2	The project demonstrates a BCR < 1 indicated that the expected benefit is equal to or less than the costs associated with the project.		
0	The cost benefit ratio cannot be determined.		

12. Other Benefits:

This **decision factor** credits the project for benefits relating to proactive mitigation activities. Scoring for this decision factor will be determined by the LMS Project Ranking TF based on responses given in the "Project Description Form."

Score	Description of the Decision Factor	Committee Validation
1.5	Project provides multi-hazard risk reduction (i.e. wind, flood, fire, etc.)	
1.5	Project provides another benefit not addressed. Please justify	

13. LMS Priority:

This **decision factor** will be used only when the scores of projects result in a tie. Projects supporting life/safety considerations shall be ranked above non-life safety projects. The Project Ranking TF will determine the final ranking of tied projects by a vote of the Task Force. The TF will provide a summary of the reasoning behind the final project ranking. All applicants **must** answer the following question:

Does the project support Life Safety considerations?

☐ Yes ☐ No

Alachua County Local Mitigation Strategy Workgroup Project Description Form

Jurisdiction/Agency:

Proposed Project Name (brief description)

Please present a brief description of your project that includes:

A. Justification of self-evaluation scores of the Decision Factors.
B. Components of your project that warrant special attention.
C. Any other pertinent information that can be used in ranking the proposed project.

Provide an overall description of your proposed project including your goals to be accomplished by the project and the objectives to be completed as intermediate steps towards the goal(s).

1. Provide information on the jurisdiction's population that will potentially benefit from your project such as demographics and an estimated number of people. Indicate if the project would provide multi-jurisdictional benefits.

2. Describe how the project will directly influence the health and safety of the population of Alachua County or a portion thereof.

3. Provide an explanation of how the project will directly affect the environment and human health. Include possible risks or adverse effects that may be associated with implementation or completion of the proposed project.

4. Provide documentation explaining the consistency of your project with the plans and programs of the applicable jurisdiction including an explanation of consistency with the adopted Alachua County Comprehensive Plans, Special Area Plans, Conservation Management Plans, or other applicable plans, policies, and/or guiding principles.

5. Assess the relative exposure to an identified hazard of your community and the frequency with which this hazard occurs.

6. Illustrate how your project will affect essential or non-essential services or infrastructure necessary to support life (power, water, sewer, gas, medical care); provide for safety and security (law enforcement, fire, telecommunications); minimize adverse impacts to the economy(fueling facility, food retail outlet); protect cultural resources (artifacts, historical buildings); protect natural resources and/or their functions (floodplains, flood attenuation, water quality); or promote educational programs.

7. Present the likelihood that your project proposal would receive funding for implementation from HMGP or another funding source. Indicate if the project is eligible for short-term, long-term, or capital improvement grants.

8. Present an explanation of the feasibility of implementing your project including, but not limited to supplying information on the complexity of implementation and a timeframe for completion.

9. Describe how your project is complementary to one or more of the components or activities of the Community Rating System (CRS).

10. Describe how your project would mitigate Repetitive Loss properties identified by FEMA or known to a jurisdiction.

11. Illustrate how your project considers the Benefit to Cost Ratio (BCR) of providing quantitative and qualitative benefits for health, safety and valuable resource protection at may be realized by implementing the initiative. Determine the Preliminary Estimated BCR using the sum of the net benefits of the project divided by the total cost to complete or implement the project. Provide the assumptions and data utilized in the analysis. Be aware that the FEMA approved software and Benefit Cost Ratio procedures must be used to support your project before it will be eligible for State or Federal funding.

12. Provide a description of other benefits or proactive mitigation activities that would be provided by the proposed project.

Alachua County Local Mitigation Strategy Work Group Validation Worksheet

Sponsor/Agency Contact:

_____

Project Proposal Name (or brief description) _____

Date Scoring validated by LMS Committee: _____ Project Confidential: Y / N

Applicant Scores	Determining Factors	Committee Validation
	1. Jurisdictional Benefits	
	2. Population Benefited	
	3. Environmental and Human Health Impact	
	4. Consistency with other Plans and Programs	
	5. Community Exposure	
	6. Supports Natural Resources, Critical Infrastructure and Services, or Key Resources	
	7. Probability of Receiving Funding for Implementation	
	8. Feasibility of Implementation	
	9. Community Rating System	
	10. Repetitive Loss Mitigation	
	11. Preliminary Estimated Benefit Cost Ratio	
	12. Other Benefits	
	13. LMS Priority Ranking	

Total Applicant Score:

Total Validated Score:

Authorized LMS Officials:

(1) _____

Ranking TF Chair Signature:

(2) _____

LMS Work Group Chair Signature:

Attachment D: Priority Ranked Projects

Jurisdiction/Agency	Project Description	Estimated Cost	Potential Funding Sources	Estimated Time to Complete	Score
City of Gainesville Public Works	FL Park Berm	$1,250,000	1, 2, 3	2 Years	29.25
City of Gainesville Public Works	Airport Runway Creek Stabilization	$1,000,000	1, 3	2 Years	29.25
City of Gainesville Public Works	Mason Manor Flood Wall	$250,000	1, 2, 3	1 Year	27.75
City of Waldo Manager's Office	Mobile Generators	$75,000	1, 2	3 Months	27.00
Town of LaCrosse Mayor's Office	FD Generator	$33,150	1, 2	3 Months	26.50
Alachua County Public Works	OakCrest Eagle Pt Chelsea Lane Basin Expansion	$950,000	1, 2, 3	2 Years	26.50
City of Waldo Manager's Office	WW Lift Stn Generators	$300,000	1, 2	3 Months	26.00
Santa Fe College Safety and Risk Management	Building U Generator	$149,600	1, 2	3 Months	25.50
City of Gainesville Public Works	Clear Lake Buy Out	$60,000	1, 2, 3	3 Months	25.00
Alachua County Public Works	Sunningdale Pump Station	$640,000	1, 2, 3	3 Months	24.75
Gainesville Regional Utilities	Possum Creek Manhole Imp	$50,000	1, 2, 3	3 Months	24.75
Alachua County Public Works	OakCrest Eagle Pt Chelsea Ln Acquisition	$950,000	1, 2, 3	3 Months	24.50
Gainesville Regional Utilities	Hogtown Creek Crossing 3	$550,000	1, 2	1 Year	24.50
Gainesville Regional Utilities	Mssngr Cable NE 8th Ave Duval	$133,206	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable SW Williston Rd	$27,000	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable SW 2 Ave NW 8 Ave NW 34 St NW 23 St Golf view	$162,546	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable SW 91 St, 8 Ave & 24 Ave	$37,044	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable SE 39 Terrace south of Hawthorne Rd	$18,522	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Forest Ridge	$205,200	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Brywood	$96,000	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Meadows	$14,400	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Coclough Hills	$75,600	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Kirkwood	$160,800	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Sbrbn Heights 546	$148,800	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Sbrbn Hts 1037	$156,000	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Glen Springs Rd	$60,000	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable NW 34 St- NW 39 Ave and NW 13 Ave. Circuit 542	$105,000	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable NW 39th Av Circuit 542	$112,200	1, 2	3 Months	24.50

Jurisdiction/Agency	Project Description	Estimated Cost	Potential Funding Sources	Estimated Time to Complete	Score
Gainesville Regional Utilities	Mssngr Cable NW 16-8 Av NW 23-34 St Circt 211&216	$125,400	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable NW 43-38 ST NW 16 Av Circt 541	$160,200	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable NW 34 St to NW 38 St off NW 16 Blvd	$109,545	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable West Hills and University Acres	$207,801	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable NW 43 St to 34 St and NW 8 Ave to NW 16th Ave	$328,635	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable NW 8 Ave from NW 13 St to NW 23 St	$25,977	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable North of NW 23 Ave btwn NW 71 St & 62 Trrc	$88,719	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable W Univ Av & NW 8 Av - NW 34 St & NW 35 Trrc	$64,800	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable NW 6 St & NW 13 St and NW 30 Ave & NW 39 Ave	$102,900	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Clear Lake	$135,822	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Buckingham & Sunningdale	$96,207	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable NE 9 St E Univ. Ave. to NE 10 Ave	$168,477	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Taps to south off SW 24 Ave Tower Rd to SW 84 St	$77,922	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable SW 63 Blvd & SW 75 St & Archer Rd & SW 49 Place	$101,340	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable NW 77 St north of Millhopper Rd.	$13,377	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Northwood	$121,407	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Fletcher's Mill	$123,687	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Broadmoor Area	$51,693	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable SW 35 Drive S Williston Rd fuse pole P37960	$54,528	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Durant Estates	$17,493	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Creekside Mall	$49,122	1, 2	3 Months	24.50
Gainesville Regional Utilities	Mssngr Cable Robin Lane off NW 39 Ave & area	$79,983	1, 2	3 Months	24.50
City of Newberry Planning & Economic Development	Generator of City Hall Central Command	$46,000	1, 2	3 Months	24.00
Alachua County Public Works	SE 15th St.	$30,000		1 Year	24.00
Alachua County Public Works	Hills Santa Fe Emer Accs	$150,000	1, 2	1 Year	23.50
City of Newberry Planning & Economic Development	Diesel Tank for ENSC Shelter Generator	$19,000	1, 2	1 Year	23.50
Alachua County Public Works	Robin Ln Full Optn	$1,400,000		1 Year	23.00
Alachua County Public Works	Hills of Santa Fe Full Prjct	$1,350,000		1 Year	23.00

Jurisdiction/Agency	Project Description	Estimated Cost	Potential Funding Sources	Estimated Time to Complete	Score
Gainesville Regional Utilities	FL Park Berm Sewer Relocation	$1,150,000	1, 2, 3	1 Year	22.00
Alachua County Public Works	SE 27th St.	$70,000		3 Months	22.75
City of Gainesville Public Works	Featherwood Pump Station	$45,000	1, 2, 3	3 Months	22.00
Alachua County Public Works	Sunningdale Acquisition	$710,000		3 Months	21.25
City of Hawthorne Manager's Office	Lake Breeze Buyout	$540,000	1, 2, 3	3 Months	21.00
Gainesville Regional Utilities	Backyard Sewer Relocation	$425,000	1, 2, 3	3 Months	20.50
Alachua County Public Works	Heatherwood Basin Ex	$560,000	1, 2, 3	1 Year	20.50
Alachua County Public Works	SW 12 Av Acquisition	$560,000	1, 3	3 Months	20.00
Alachua County Public Works	Robin Ln Grav Otfll	$60,000	1, 2, 3	3 Months	19.75
Alachua County Public Works	Robin Ln Acquisition	$600,000	1, 3	3 Months	19.50
Alachua County Public Works	Hills of Santa Fe Acquisition Only	$500,000	1, 3	3 Months	18.50
Alachua County Public Works	Ruslewood Acquisition	$660,000	1, 3	3 Months	18.50
Alachua County Public Works	SE 35th St.	$80,000	1, 2, 3	3 Months	18.00
Alachua County Public Works	Pine Hills Pump Station	$500,000	1, 2	3 Months	18.00
Alachua County Public Works	Emerald Woods Acquisition	$800,000	1, 3	3 Months	17.25
UF Facilities Services	Lake Alice Overflow Control	$950,000	1, 2, 3	3 Years	16.50
UF Athletic Association	UF Golf Course Electrical	$40,000	1, 2	1 Year	15.00
UF Athletic Association	UF Golf Course Bunkers	$200,000	1, 2	1 Year	8.00
City of Gainesville Public Works	MLK Shelter Generator	$125,000	1, 2	1 Year	Not Scored
City of Gainesville Public Works	GFR Administration Building Generator	$150,000	1, 2	1 Year	Not Scored
City of Gainesville Public Works	Anglewood Levee Improvements	$1,000,000	2	2 Years	Not Scored

Table 5: Project Priority List

Funding Sources:
Most probable funding sources – 1. Hazard Mitigation Grant Program, 2. Pre-Disaster Mitigation, 3. Flood Mitigation Assistance grant programs.

Projects are the responsibility of the Jurisdiction/Agency they fall under. Primary Contacts are responsible for the projects of each jurisdiction/agency, and are identified in Attachment A: LMS Work Group Members, Organizations & Roles.

Attachment E: Critical Facilities List

This section exempt from public records under: 119.071(3)(a), F.S., 119.071(2)(d), F.S., 252.34, F.S., and 395.1056, F.S.

Table 6: Critical Facilities List

Attachment F: Gainesville FIRM Zones

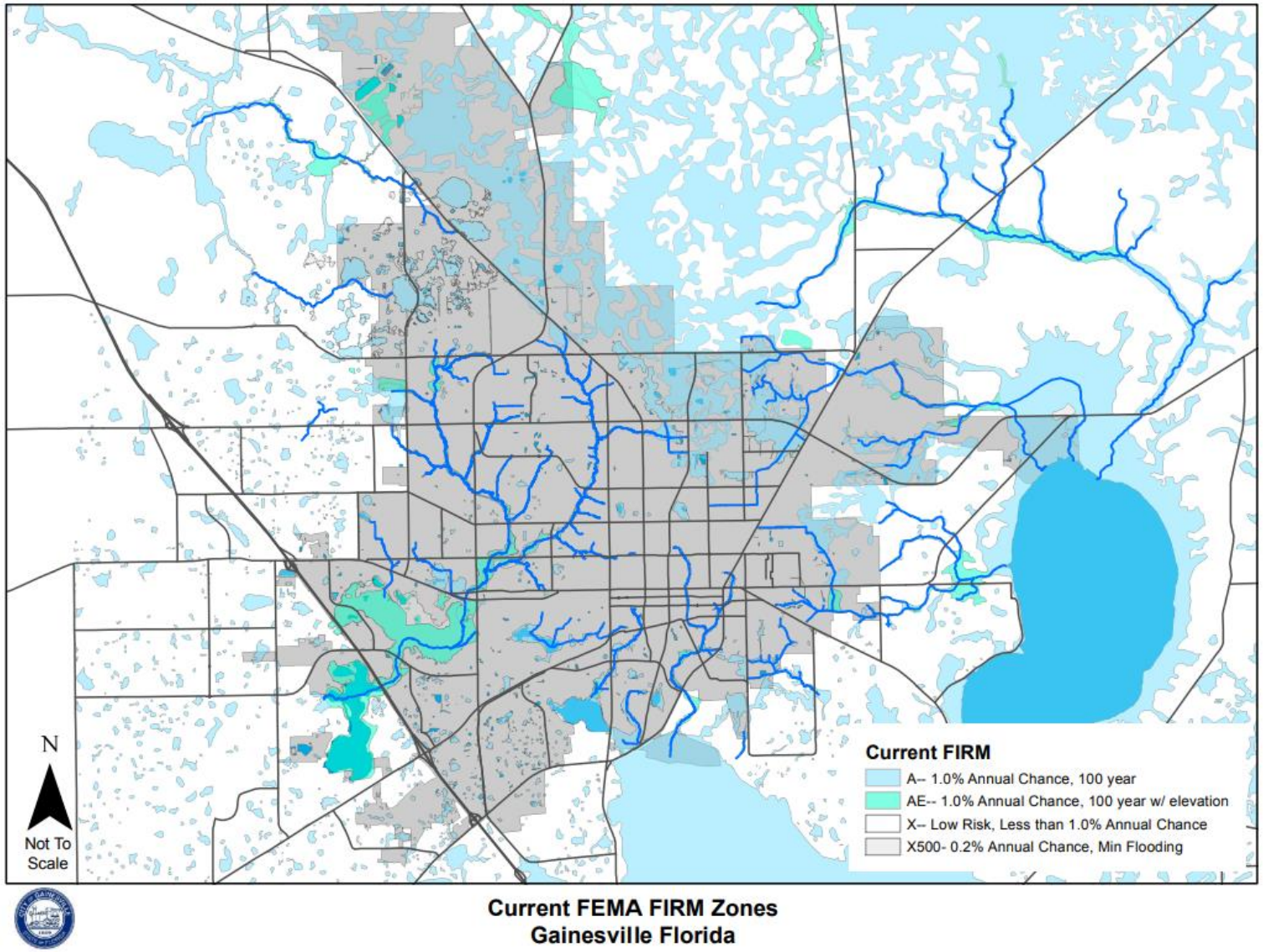


Figure 2: Gainesville FIRM Zones

Attachment G: Gainesville Additional Flood Hazard Areas

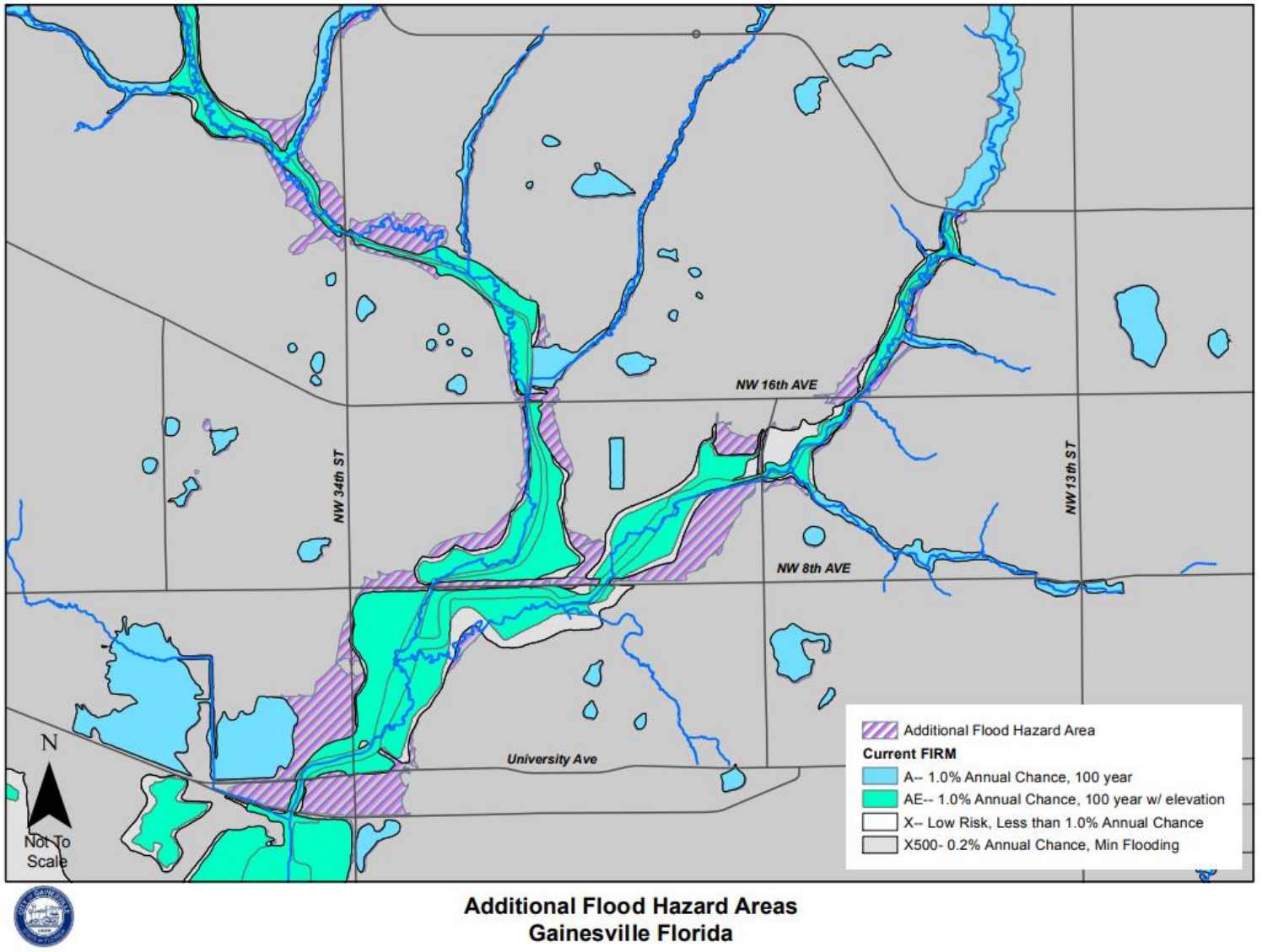


Figure 3: Gainesville Additional Flood Hazard Areas

Attachment H: Gainesville Hurricane Irma Flood Locations

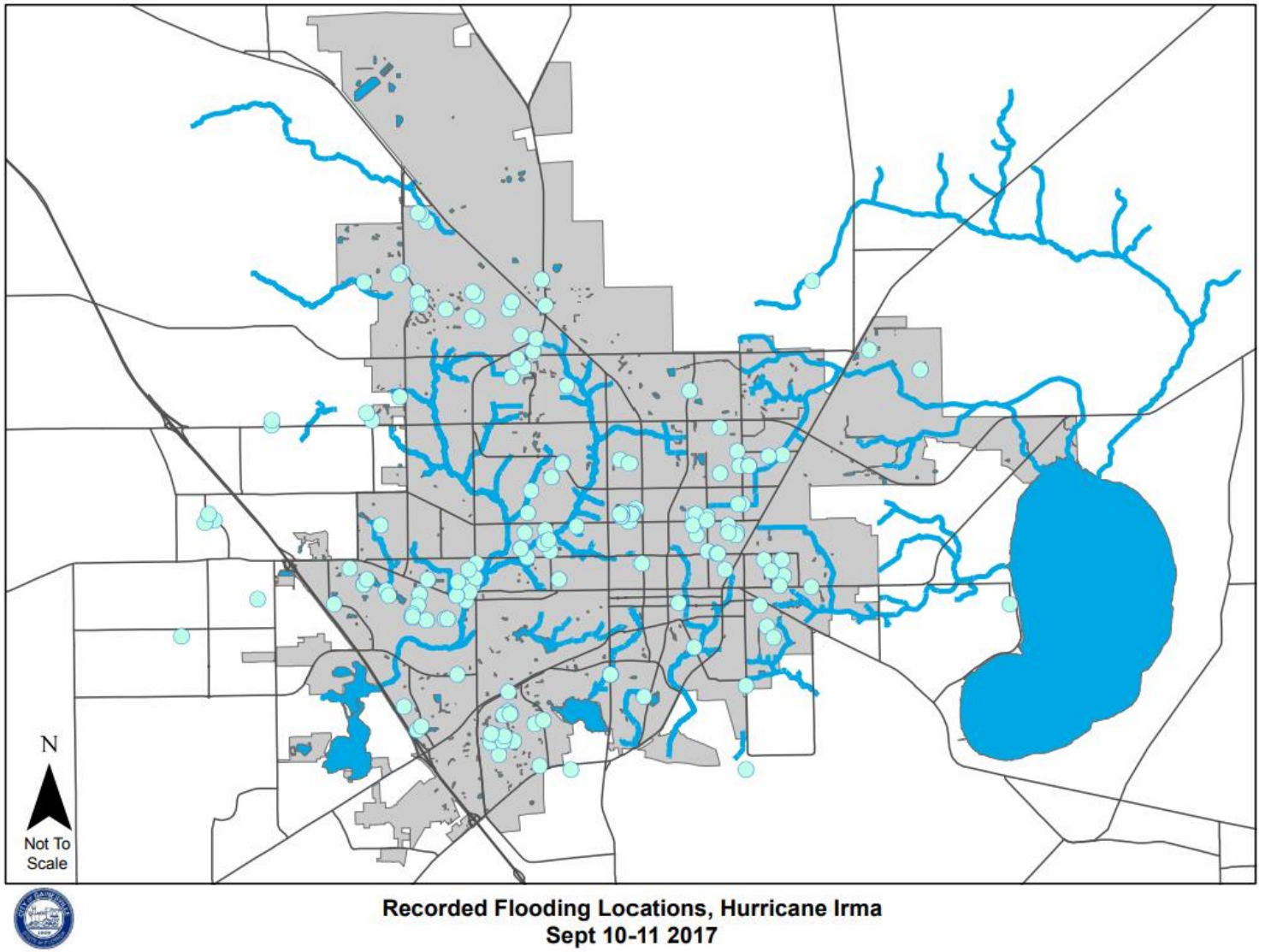


Figure 4: Gainesville Hurricane Irma Flood Location

Attachment I: Severe Weather Occurrences (2015 – 2020)

The below table details different severe weather occurrences, as defined in Severe Weather, for Alachua County from 1/1/2015 – 12/31/2020. Data was acquired from the NOAA Storm Events Database.

Location	Date	Time	Type
DAYVILLE	2/26/2015	2:10	Thunderstorm Wind
CAMPVILLE	4/19/2015	14:20	Thunderstorm Wind
PHIFER	5/31/2015	17:00	Thunderstorm Wind
HIGH SPGS	5/31/2015	17:35	Thunderstorm Wind
HIGH SPGS	5/31/2015	17:35	Thunderstorm Wind
PHIFER	6/1/2015	16:01	Hail
HAGUE	6/1/2015	16:02	Hail
NEWBERRY	6/1/2015	16:14	Hail
PHIFER	6/24/2015	14:39	Thunderstorm Wind
GAINESVILLE NORTH	6/30/2015	20:03	Thunderstorm Wind
GAINESVILLE WEST	7/2/2015	11:49	Thunderstorm Wind
GAINESVILLE WEST	7/2/2015	11:55	Thunderstorm Wind
GAINESVILLE EAST	7/5/2015	14:37	Thunderstorm Wind
GAINESVILLE EAST	7/5/2015	14:48	Thunderstorm Wind
GAINESVILLE EAST	7/5/2015	14:50	Thunderstorm Wind
GAINESVILLE EAST	7/5/2015	14:50	Thunderstorm Wind
HAWTHORNE	7/5/2015	14:54	Thunderstorm Wind
GAINESVILLE EAST	7/17/2015	15:45	Thunderstorm Wind
HIGH SPGS	7/20/2015	13:35	Thunderstorm Wind
DAYVILLE	8/3/2015	18:10	Thunderstorm Wind
ARREDONDA	8/3/2015	18:20	Thunderstorm Wind
EVINSTON	8/13/2015	14:20	Thunderstorm Wind
BLAND	8/13/2015	16:00	Thunderstorm Wind
HIGH SPGS	8/13/2015	16:18	Thunderstorm Wind
PHIFER	8/17/2015	14:30	Thunderstorm Wind
HIGH SPGS	9/12/2015	11:50	Thunderstorm Wind
PHIFER	9/12/2015	12:10	Thunderstorm Wind
GAINESVILLE NORTH	9/12/2015	12:10	Thunderstorm Wind
ALACHUA (ZONE)	1/23/2016	18:00	Strong Wind
MICANOPY	3/24/2016	21:25	Thunderstorm Wind
EAST ALACHUA	3/24/2016	21:32	Thunderstorm Wind
PHIFER	3/24/2016	21:45	Thunderstorm Wind
PHIFER	5/13/2016	16:30	Thunderstorm Wind
GAINESVILLE WEST	5/13/2016	16:35	Thunderstorm Wind
HAWTHORNE	5/13/2016	17:10	Thunderstorm Wind
PEACH ORCHARD	5/17/2016	14:35	Thunderstorm Wind
DAYVILLE	5/17/2016	14:55	Thunderstorm Wind
PHIFER	5/17/2016	16:10	Thunderstorm Wind

Location	Date	Time	Type
GAINESVILLE WEST	5/20/2016	11:25	Tornado
HAGUE	5/31/2016	17:22	Thunderstorm Wind
HAGUE	5/31/2016	17:42	Thunderstorm Wind
DAYVILLE	6/1/2016	17:45	Thunderstorm Wind
WALDO	6/10/2016	17:35	Thunderstorm Wind
ARREDONDA	6/10/2016	18:15	Thunderstorm Wind
ARREDONDA	6/10/2016	18:15	Thunderstorm Wind
GAINESVILLE NORTH	6/10/2016	18:15	Thunderstorm Wind
HIGH SPGS	7/14/2016	12:45	Lightning
NEWBERRY	7/15/2016	14:05	Thunderstorm Wind
NEWBERRY	7/15/2016	14:30	Thunderstorm Wind
DAYVILLE	7/15/2016	15:10	Thunderstorm Wind
WALDO	7/15/2016	15:12	Hail
BLAND	7/16/2016	14:55	Thunderstorm Wind
DAYVILLE	7/23/2016	20:15	Thunderstorm Wind
PHIFER	7/23/2016	20:30	Thunderstorm Wind
SPRING HILL	7/23/2016	20:55	Thunderstorm Wind
WALDO	1/22/2017	18:55	Thunderstorm Wind
CLARK	2/7/2017	21:00	Thunderstorm Wind
CLARK	2/7/2017	21:18	Thunderstorm Wind
HAGUE	2/7/2017	21:46	Thunderstorm Wind
WALDO	2/7/2017	22:20	Thunderstorm Wind
ARCHER	4/4/2017	7:45	Thunderstorm Wind
GAINESVILLE NORTH	4/4/2017	7:45	Thunderstorm Wind
NEWBERRY	5/30/2017	16:05	Thunderstorm Wind
GAINESVILLE WEST	7/20/2017	18:50	Thunderstorm Wind
FAIRBANKS	7/20/2017	18:52	Thunderstorm Wind
FAIRBANKS	7/20/2017	18:55	Thunderstorm Wind
GAINESVILLE NORTH	8/9/2017	15:00	Thunderstorm Wind
GAINESVILLE	8/9/2017	15:05	Thunderstorm Wind
ARCHER	9/1/2017	11:11	Thunderstorm Wind
ARREDONDA	9/15/2017	17:46	Thunderstorm Wind
NEWBERRY	3/19/2018	5:30	Thunderstorm Wind
ARCHER	3/19/2018	5:40	Thunderstorm Wind
ARREDONDA	3/19/2018	6:00	Thunderstorm Wind
ARREDONDA	5/15/2018	13:20	Thunderstorm Wind
BLAND	6/3/2018	17:20	Thunderstorm Wind
ARREDONDA	6/3/2018	17:24	Lightning
ARREDONDA	6/3/2018	17:24	Lightning
MICANOPY	6/3/2018	17:25	Thunderstorm Wind
GAINESVILLE WEST	6/3/2018	17:42	Thunderstorm Wind
GAINESVILLE NORTH	6/3/2018	17:42	Thunderstorm Wind

Location	Date	Time	Type
GAINESVILLE	6/3/2018	17:45	Thunderstorm Wind
GAINESVILLE	6/3/2018	17:48	Thunderstorm Wind
DAYVILLE	6/4/2018	14:31	Thunderstorm Wind
HAGUE	6/4/2018	14:48	Thunderstorm Wind
HAINESWORTH	6/4/2018	14:51	Thunderstorm Wind
ALACHUA	6/28/2018	17:30	Thunderstorm Wind
ARREDONDA	7/16/2018	11:48	Thunderstorm Wind
PHIFER	7/22/2018	12:15	Thunderstorm Wind
PHIFER	7/22/2018	12:30	Thunderstorm Wind
ARREDONDA	8/16/2018	15:12	Thunderstorm Wind
DAYVILLE	8/16/2018	16:19	Thunderstorm Wind
DAYVILLE	8/17/2018	14:58	Thunderstorm Wind
ARREDONDA	8/17/2018	15:26	Thunderstorm Wind
ARCHER	8/30/2018	13:35	Thunderstorm Wind
HAWTHORNE	1/4/2019	14:38	Thunderstorm Wind
HAWTHORNE	1/4/2019	14:38	Thunderstorm Wind
PHIFER	3/1/2019	15:00	Thunderstorm Wind
(GNV)GAINESVILLE ARP	3/2/2019	14:51	Thunderstorm Wind
ARCHER FLYING TEN AR	4/19/2019	10:10	Thunderstorm Wind
DAYVILLE	4/19/2019	10:30	Thunderstorm Wind
PHIFER	4/19/2019	10:30	Thunderstorm Wind
DAYVILLE	4/19/2019	10:50	Thunderstorm Wind
DAYVILLE	4/19/2019	10:50	Thunderstorm Wind
HIGH SPGS	7/3/2019	17:01	Thunderstorm Wind
NEWBERRY	7/4/2019	16:40	Thunderstorm Wind
PHIFER	7/19/2019	13:40	Thunderstorm Wind
PHIFER	7/19/2019	13:50	Thunderstorm Wind
MICANOPY	12/14/2019	3:46	Thunderstorm Wind
KIRKWOOD	12/14/2019	3:50	Thunderstorm Wind
KIRKWOOD	12/14/2019	3:53	Tornado
ROCHELLE	12/14/2019	3:55	Thunderstorm Wind
WESTERN ALACHUA	2/6/2020	10:33	High Wind
EASTERN ALACHUA	2/6/2020	12:30	High Wind
CLARK	2/6/2020	21:20	Thunderstorm Wind
GAINESVILLE WEST	2/6/2020	21:50	Thunderstorm Wind
ARCHER FLYING TEN AR	7/15/2020	19:35	Thunderstorm Wind
BLAND	9/10/2020	14:13	Thunderstorm Wind

Table 7: Severe Weather Occurrences (2015 – 2020)

Attachment J: Public Invitation for Planning

Alachua County Emergency Management coordinates with the Alachua County Communications Office to publish press releases. These press releases typically invite public participation in Alachua County Local Mitigation Strategy Working Group Meetings, but were also leveraged during the planning process for this document.

The below image is pulled from the Alachua County Communications Archive.

Alachua County Emergency Management Invites Public Participation in Mitigation Planning

Published on 9/2/2020
Last updated: 9/2/2020 11:30 AM

Alachua County Emergency Management invites residents to attend the Alachua County Local Mitigation Strategy (LMS) Working Group meeting on September 8, 2020, from 8 a.m. to noon. This meeting will give another opportunity for the public to provide feedback on the 2020 revisions to the Local Mitigation Strategy. The meeting will be held virtually. Those interested in attending must register online.

The most recent draft can be requested from Alachua County Emergency Management by sending an email to acem@alachuacounty.us.

The Alachua County LMS Working Group is responsible for maintaining the Alachua County Local Mitigation Strategy. This document is intended to guide efforts to protect life, property, and the environment from natural or technological hazards.

Membership in the LMS Working Group is open to all jurisdictions, County government, private organizations, civic organizations, trade and commercial support groups, property owners' associations, authorized tribal organizations, state agencies, regional planning councils, independent special districts, and non-profit organizations.

For more information, contact Alachua County Emergency Management at 352-264-6500 or acem@alachuacounty.us.

Figure 5: Public Invitation for Planning

Attachment K: 2015 Completed, Deleted, Deferred List

The following table represents the mitigation projects from the previously approved Local Mitigation Strategy (2015). This list identifies which items have been completed, deleted, or deferred as of the current LMS update (2021). If the item has been deferred, an explanation of why no changes were made is included.

Jurisdiction/Agency	Project	Status	Comments
City of Newberry	Fire Station Hardening	Complete	N/A
Town of Micanopy	Fire Station Hardening	Deferred	Under evaluation and review
Alachua County Public Works	Red Lobster/NFRMC Flood Abatement	Deleted	Local measures taken
City of Gainesville	Hydraulic Hydrologic Model	Deleted	Does not qualify for independent funding
City of Gainesville	Wildfire Mitigation Program	Deleted	Local measures taken
Alachua County Public Works	Robin Lane Flood Abatement	Deferred	Moved down in priority
Alachua County Public Works	Hills of Santa Fe Flood Abatement	Deferred	Moved down in priority
Alachua County Public Works	Oak Crest Flood Abatement	Deferred	Moved down in priority
Alachua County Public Works	SW/NW 91ST Street Flood Abatement	Deleted	Local measures taken
Alachua County Library District	High Springs Stormwater Management	Deferred	Under evaluation and review

Table 8: 2015 Mitigation Initiatives

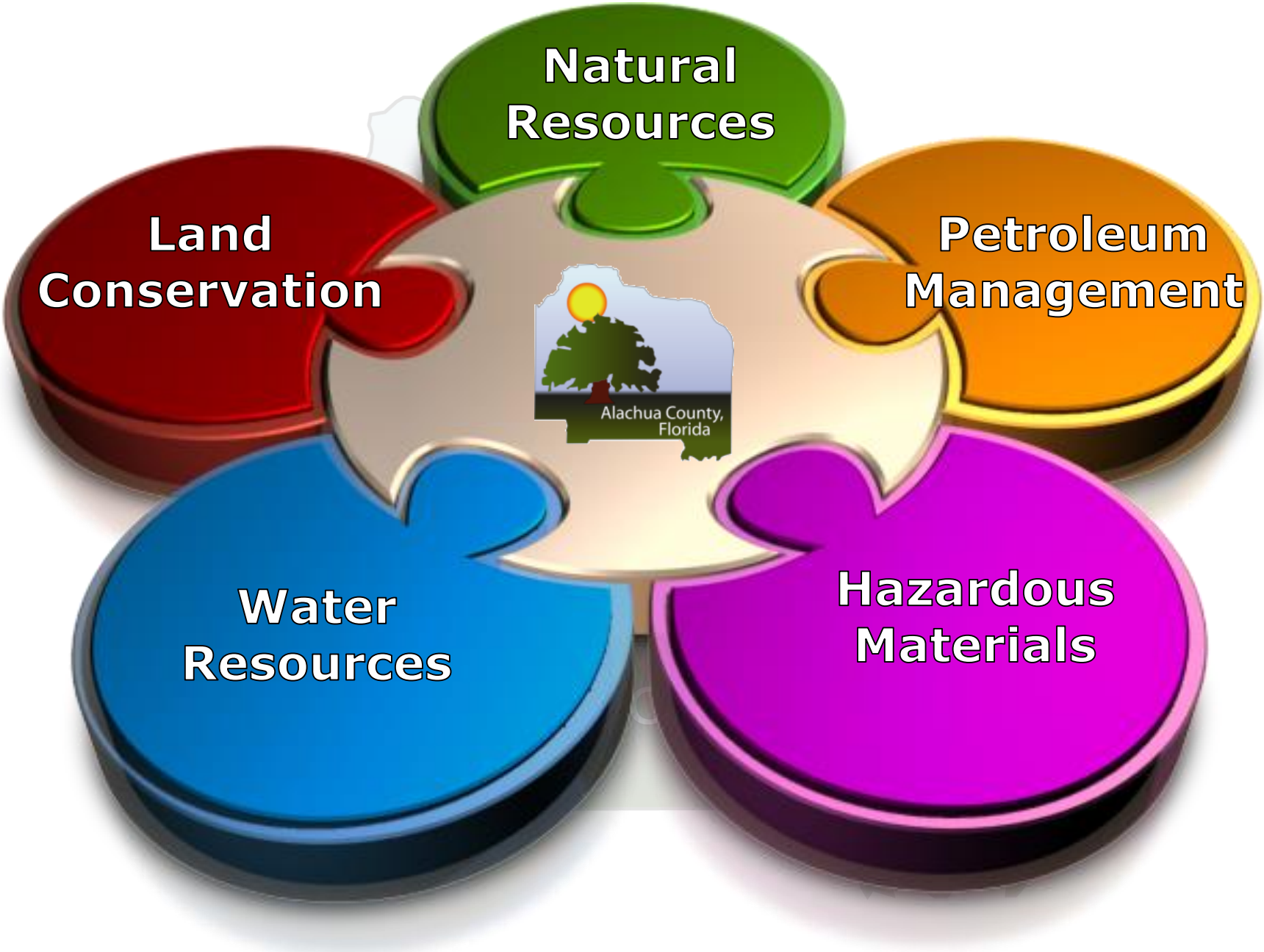
Alachua County Environmental Protection Department

Stephen Hofstetter, Director

October 17, 2024

Mission Statement

To support a community ethic of environmental resiliency and responsible environmental stewardship of the water, air, and living resources in Alachua County.

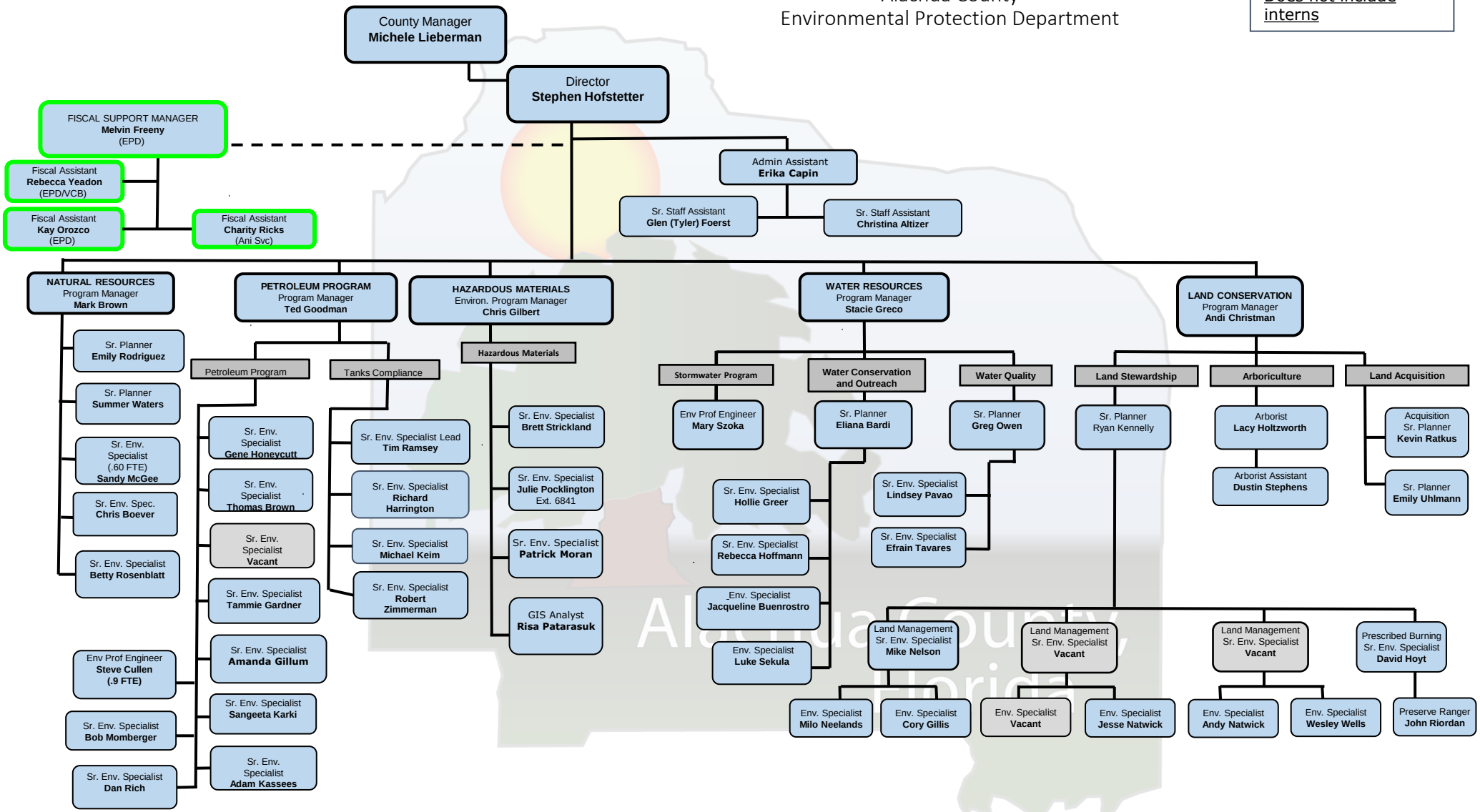

Natural Resources
Land Conservation
Petroleum Management
Alachua County, Florida
Water Resources
Hazardous Materials

Citizen Advisory Boards

- Environmental Protection Advisory Board (EPAC)
  - 11 Member (and 1 alternate)
- Land Conservation Board (LCB)
  - 12 members
- Citizen Climate Advisory Committee (CCAC)
  - 9 members

FTE= 54.5
Includes vacant positions
Does not include interns

FY 24
Alachua County
Environmental Protection Department

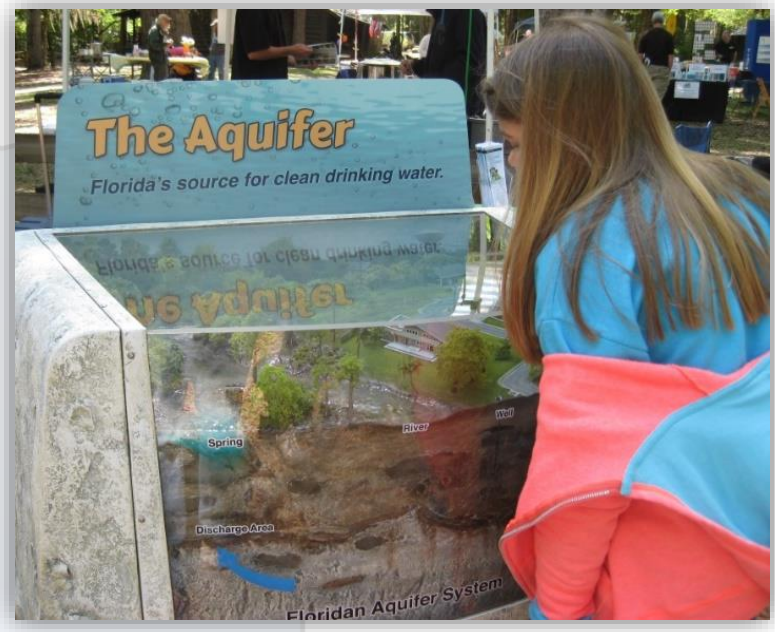


Water Resources Division

- Water quality monitoring
- Complaints/illegal discharge response
- Outreach
- Water conservation
  - Irrigation
- Stormwater water quality
- Largely funded through grants and contracts

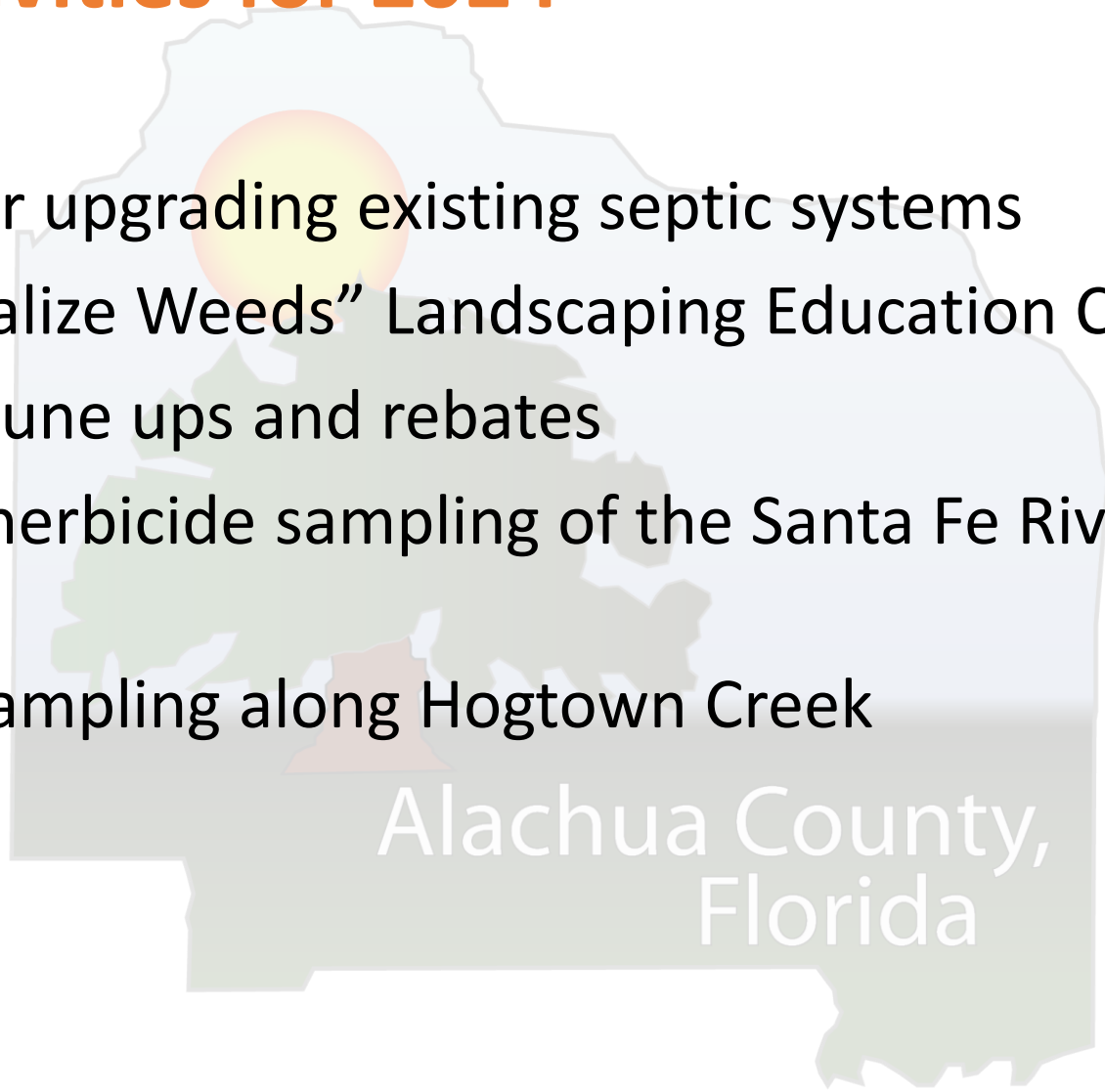
Education and Outreach (typical annual metrics)

- Interactive presentations in schools
  - 110 events to reach ~2,800
- Public events
  - 51 events to reach ~112,000
- MyYardourWater.org and AlachuaCountyWater.org websites
  - ~25,000 visits



New Activities for 2024

- Rebates for upgrading existing septic systems
- “Decriminalize Weeds” Landscaping Education Campaign
- Irrigation tune ups and rebates
- Pesticide/herbicide sampling of the Santa Fe River and springs
- Nutrient sampling along Hogtown Creek

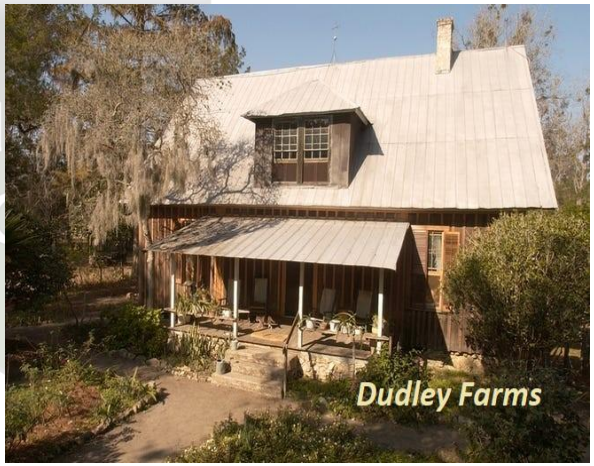


Protecting the Natural Resources of Alachua County

- Public Inquiries
- Review applications for building activities
- Development project reviews - zoning, design plans, construction inspections and long-term compliance.
- Enforcement & Compliance
- Environmental Planning
- Multi-Agency & Municipality Collaboration

What are Alachua County's natural resources?

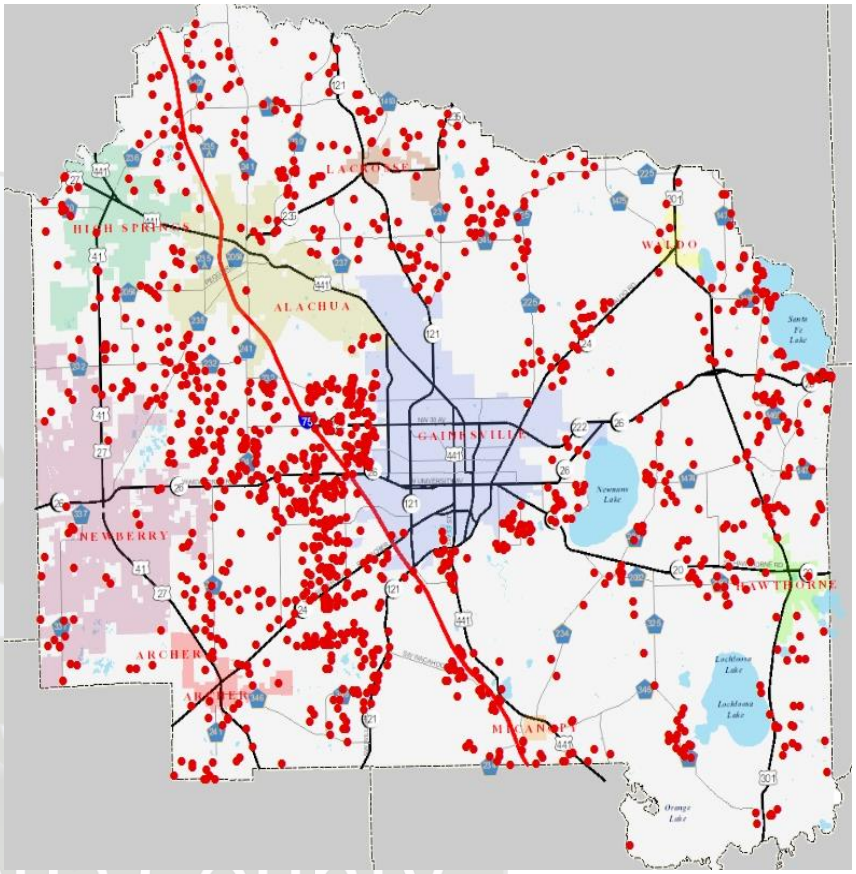
What are Alachua County's historical resources?



Natural Resources Division

2023 – Inquiries, Site Evaluations, Permit Application Reviews

- **774** inquiries
- **621** site evaluations
- **1369** building permits
- **79** development projects
- **42** projects in municipalities
- **18** enforcement cases



Building permit sites in unincorporated Alachua County with natural resources issues (red dots).

Natural Resources Division

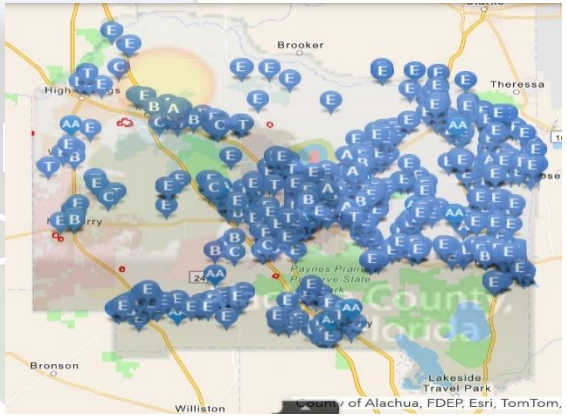
Additional Activities FY24 & FY25:

- Evaluation - Comp Plan Update
- Climate Vulnerability Analysis
- Conduct Environmental Resource Assessments (ERA'S) - County-Sponsored Project Sites:
  - *Cuscowilla Fire Station*
  - *Alachua Conservation (Office & Facilities Compound)*
  - *Archer Braid Trail – Kanapaha*
  - *Disaster Debris Management Site*
- Outreach
  - Environmental Protection Advisory Committee
  - World Wetlands Day
  - Art Contest
  - School & Camp Presentations

Hazardous Materials Management

Facility Inspections

- 1190 regulated facilities
- 400 inspections per year
- Compliance assistance
- Complaint investigations and response
- Enforcement of County, State & Federal regulations



Protecting people, property and the environment

Hazardous Materials 24/7 Emergency Response to all Hazardous Materials Releases, Spills and Fires

Monitor Remediation of 64 Contaminated Sites and 1 Superfund site

Pollution Prevention Division – Storage Tanks Compliance

- **State-funded petroleum storage tank compliance inspection program.**
- **Prevent groundwater contamination.**
- **Sixteen-county service area managed by Alachua County.**
- **1,815 registered petroleum storage tank facilities.**
- **4 inspectors conduct 555 routine compliance inspections annually.**
- **Installation, closure, discharge, and complaint inspections.**
- **Funds 5 local jobs with a $506,849 budget.**

***1 gallon** of gasoline can contaminate **1,000,000** gallons of water*

Desired Outcome: Clean Water

Pollution Prevention Division – Storage Tanks Compliance
16-County Service Area

Pollution Prevention Division - Petroleum Cleanup

- **State-funded cleanup of petroleum hydrocarbon contaminated sites.**
- **Performance-based contract with FDEP.**
- **Clean up petroleum-impacted soil & groundwater.**
- **Seven-county service area managed by ACEPD.**
- **Technical and financial oversight of environmental contractors.**
- **324 petroleum contaminated sites.**
- **Average cost of clean-up is ~ $400,000 per site.**
- **Funds 11 local jobs with a $954,394 budget.**

Desired Outcome: Clean Water

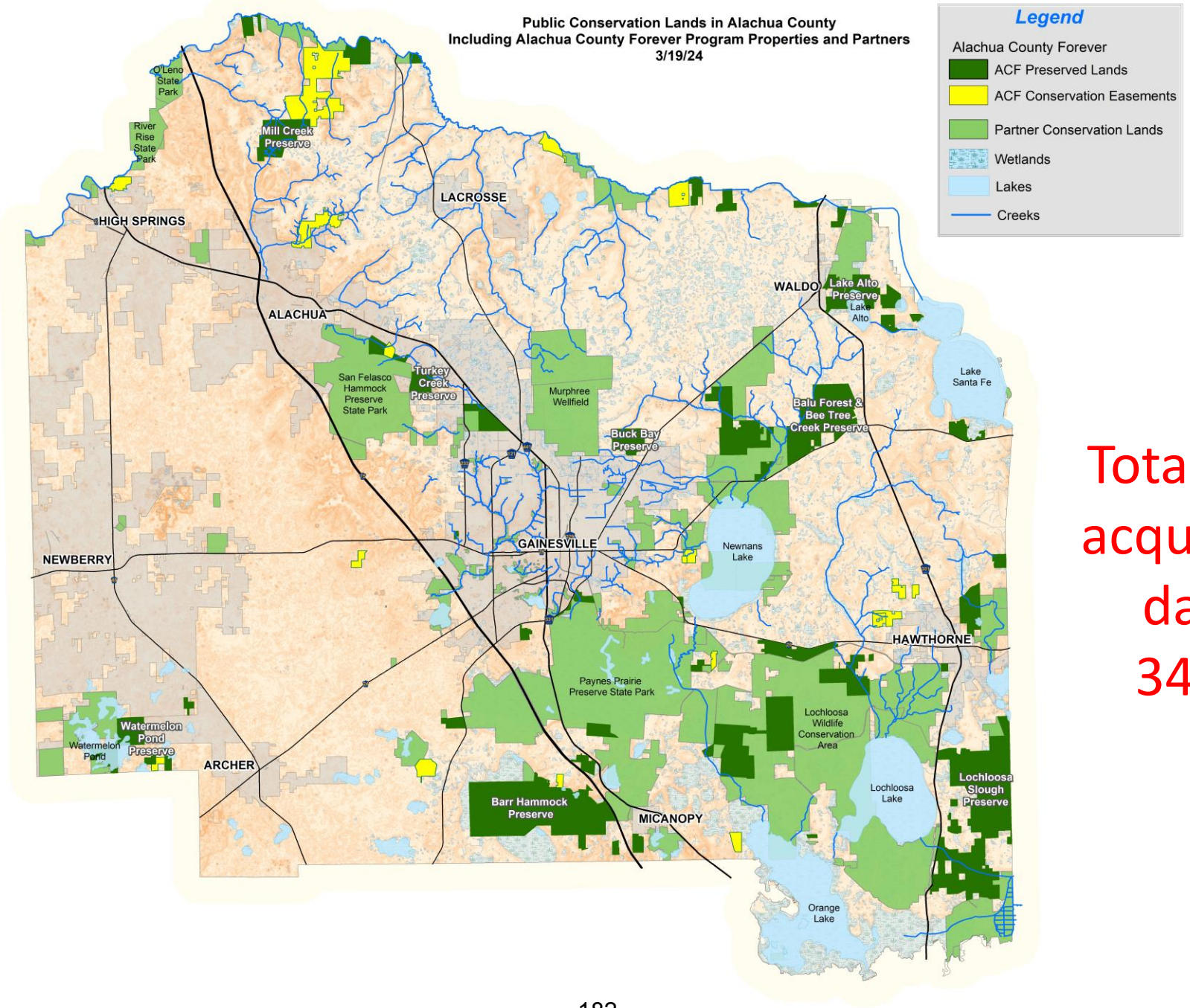
Pollution Prevention Division – Petroleum Cleanup
7-County Service Area

Alachua County Forever: The Land Conservation and Management Program:

24 years and over 34,000 acres protected

Andi Christman
Land Conservation and Management Program

CONSERVATION SUCCESSES

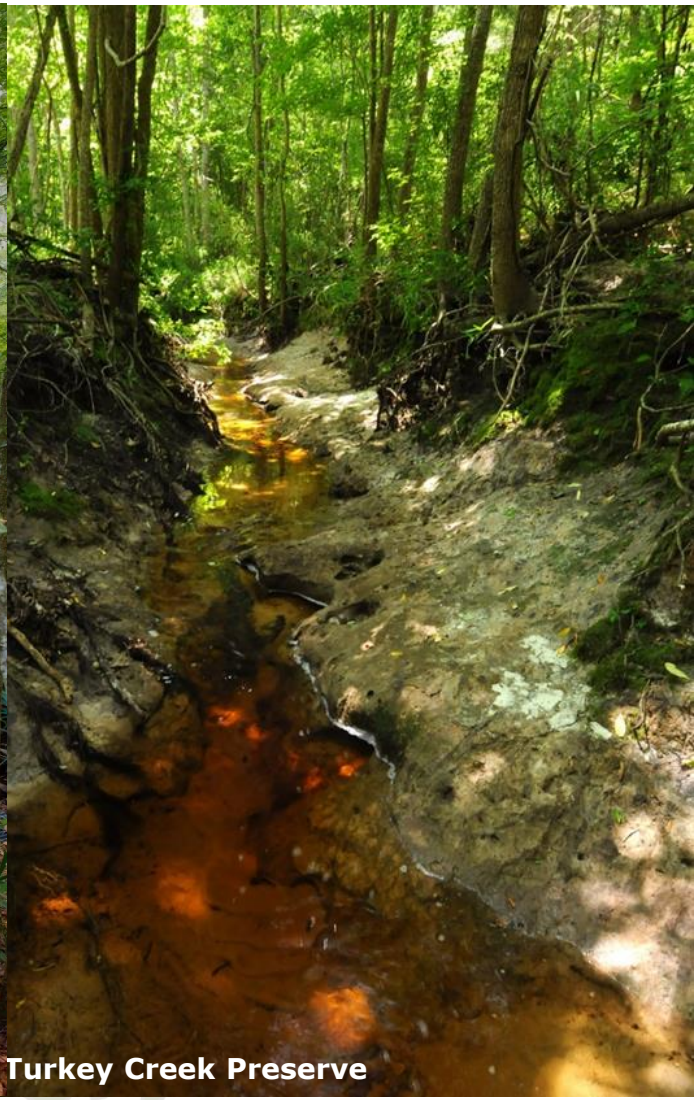


Total Acres acquired to date = 34,317


Longleaf Flatwoods Preserve
© alison blakeslee


Barr Hammock Preserve


Mill Creek Preserve


Turkey Creek Preserve

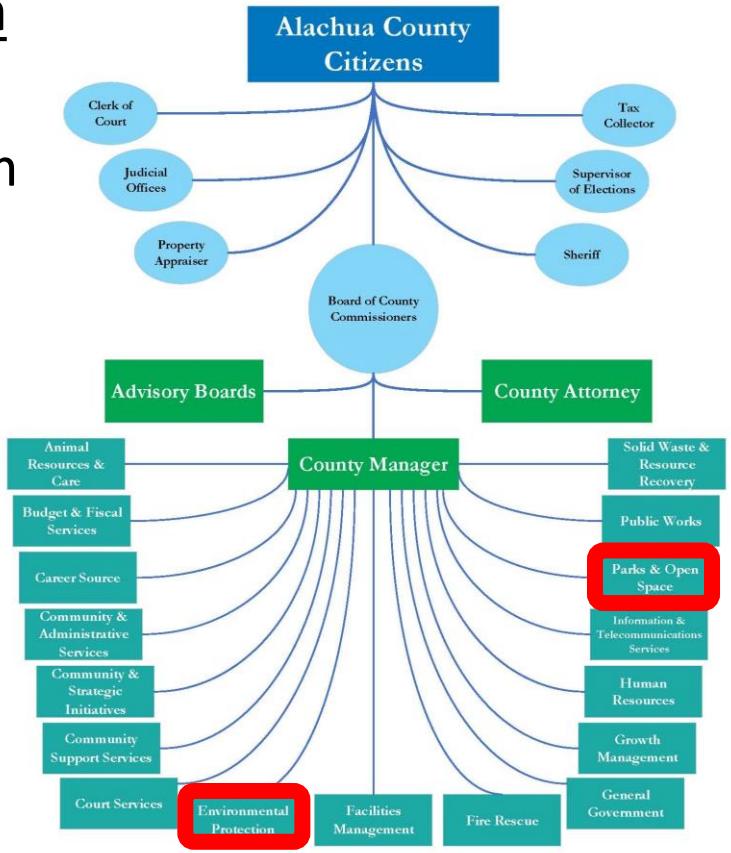
Funded by Four Voter-Supported Initiatives

Alachua County Forever	Wild Spaces Public Places 1	Wild Spaces Public Places 2	Wild Spaces Public Places 3
Approved in 2000	Approved in 2008	Approved in 2016	Approved in 2022
$29 million	~$15 million	~$90 million	~$150 million**
20-year Property tax	2- year ½ cent sales tax	8-year* ½ cent sales tax	10-year ½ cent sales tax***

2023-2032 WSPP SURTAX FUNDS SUPPORTING CONSERVATION LANDS & ACTIVE PARKS

Environmental Protection

- Alachua County Forever Land Acquisition Program
- County Nature Preserves



Parks and Open Space

- County Active Parks

A CORRIDOR-BASED STRATEGY

Santa Fe River Corridor

- Santa Fe River
- Hornsby Springshed

Florida Wildlife Corridor

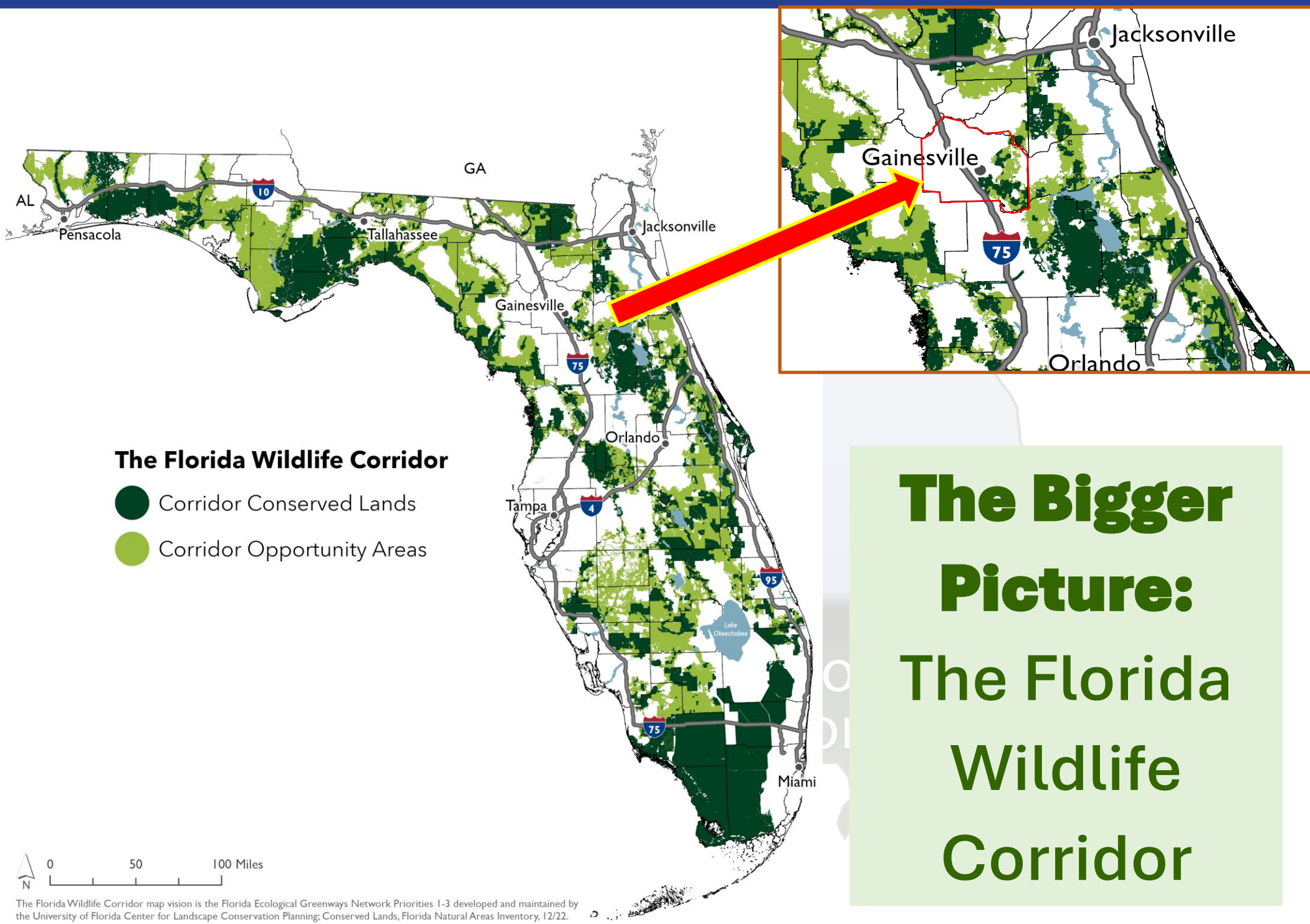
- Lakes Santa Fe and Alto
- Austin Cary Flatwoods
- Lochloosa Creek & Slough

Southern Corridor

- Barr Hammock
- Watermelon Pond

Agriculture Protection Program

- Strengthening all Corridors
- Water Quality & Recharge
- Local Food Production



The Florida Wildlife Corridor map vision is the Florida Ecological Greenways Network Priorities 1-3 developed and maintained by the University of Florida Center for Landscape Conservation Planning; Conserved Lands, Florida Natural Areas Inventory, 12/22. Map by Archbold Biological Station, A. Meeks, 4/23

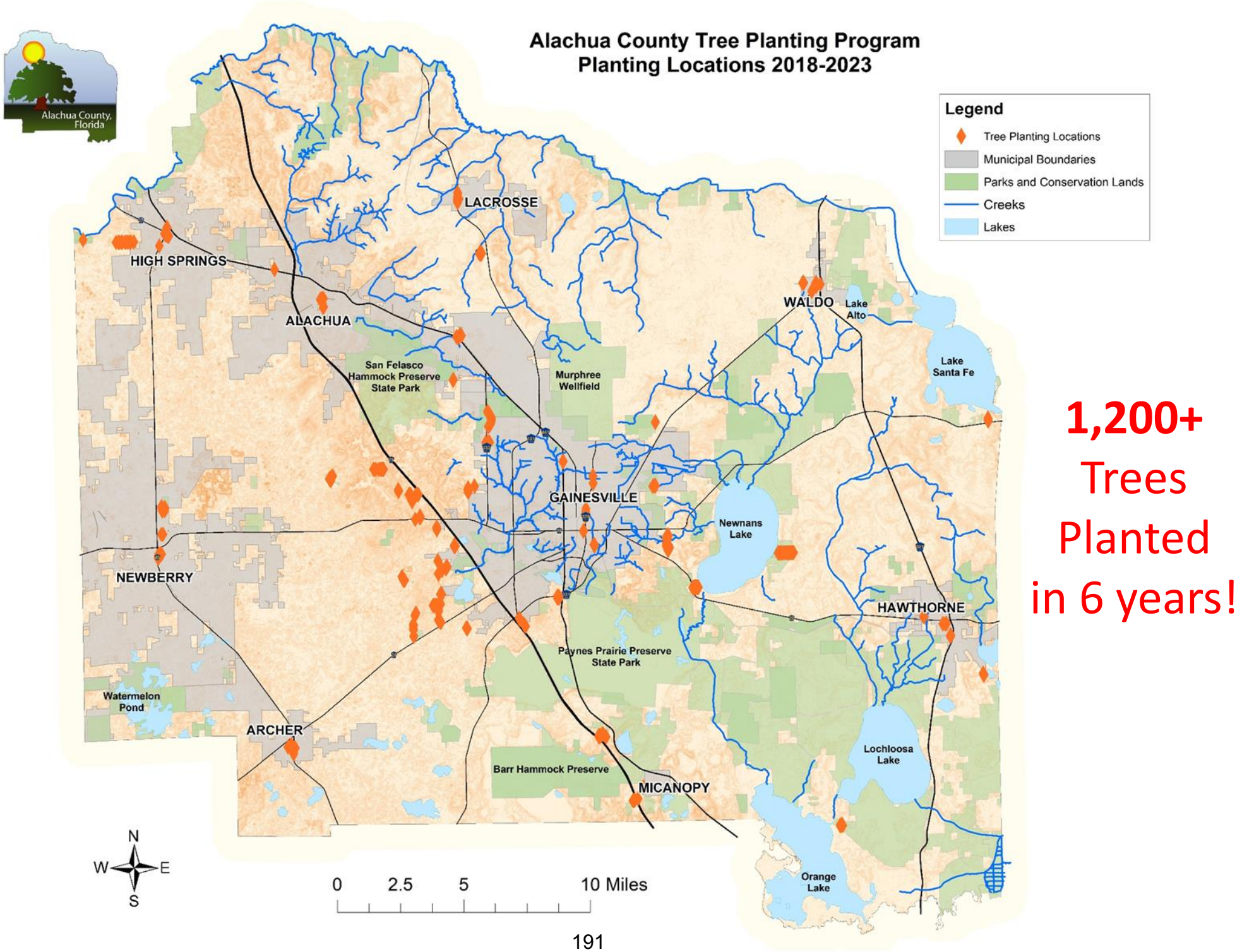
The Bigger Picture: The Florida Wildlife Corridor

PRESERVE OPERATIONS/STEWARDSHIP

- **22 Distinct Preserves Managed by Staff** = 24,022 acres
- **Lands Managed by Partners** = 4,545 acres
- **15 Conservation Easements Managed/Monitored** = 5,331 acres
- **22 ACF-acquired Properties with Public Access** (County and Partners)
- **13 Public Trailheads & 58 miles of Public Trails** (on County Preserves)
- **1,200+ Acres Prescribe Burned Annually**
- **3,000+ Acres Invasive Plant Management Annually**

Tree Planting Program

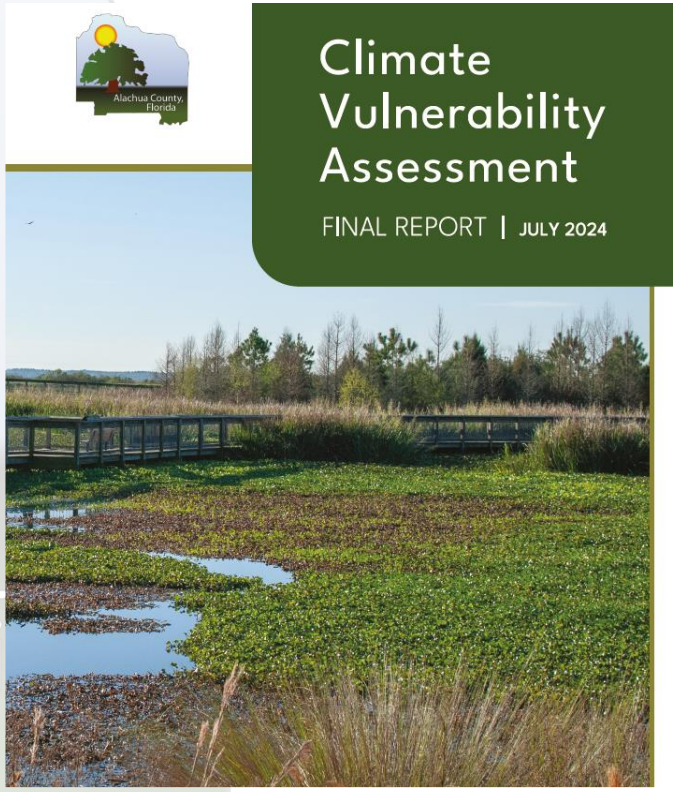
- Funded through the Tree Mitigation fund
- Inventory/confirmation of planting sites
- Tree establishment and care for 3 years
- Technical assistance to partners and sponsors
- Outreach and volunteer engagement



1,200+
Trees
Planted
in 6 years!

Climate Action Planning

- Climate Vulnerability Assessment and associated Reports are available on the County website:



- https://alachuacounty.us/Depts/epd/Pages/Climate-Initiatives.aspx
- Click on ‘Climate Initiatives’


ALACHUA COUNTY
Alachua County, Florida
SAVE THE DATE
CLIMATE SUMMIT
NOVEMBER 16
BLOUNT CENTER
401 NW 6TH ST, GAINESVILLE, FL 32601

Climate Action Plan Outline

Major Chapters

1. Energy Efficiency
2. Land Use and Transportation
3. Natural Resources
4. Water
5. Waste
6. Flooding
7. Climate Migration
8. Mental Health
9. Food Security

Climate Action Plan Outline

Themes

1. Equity
2. Baseline and Targets
3. Past and Current Efforts
4. Future Strategies and Action Items

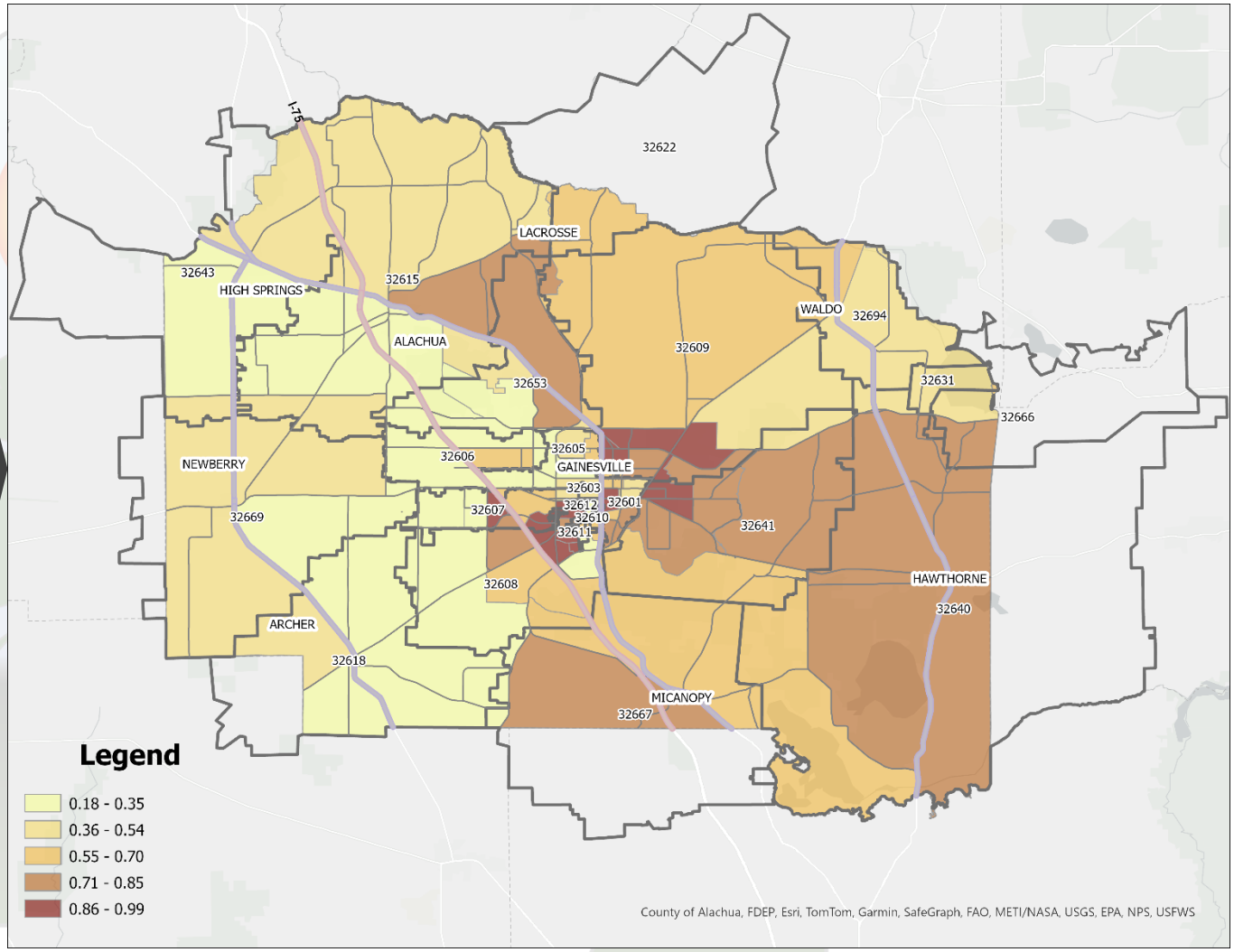
Alachua County, Florida

Climate Action Plan Timeline

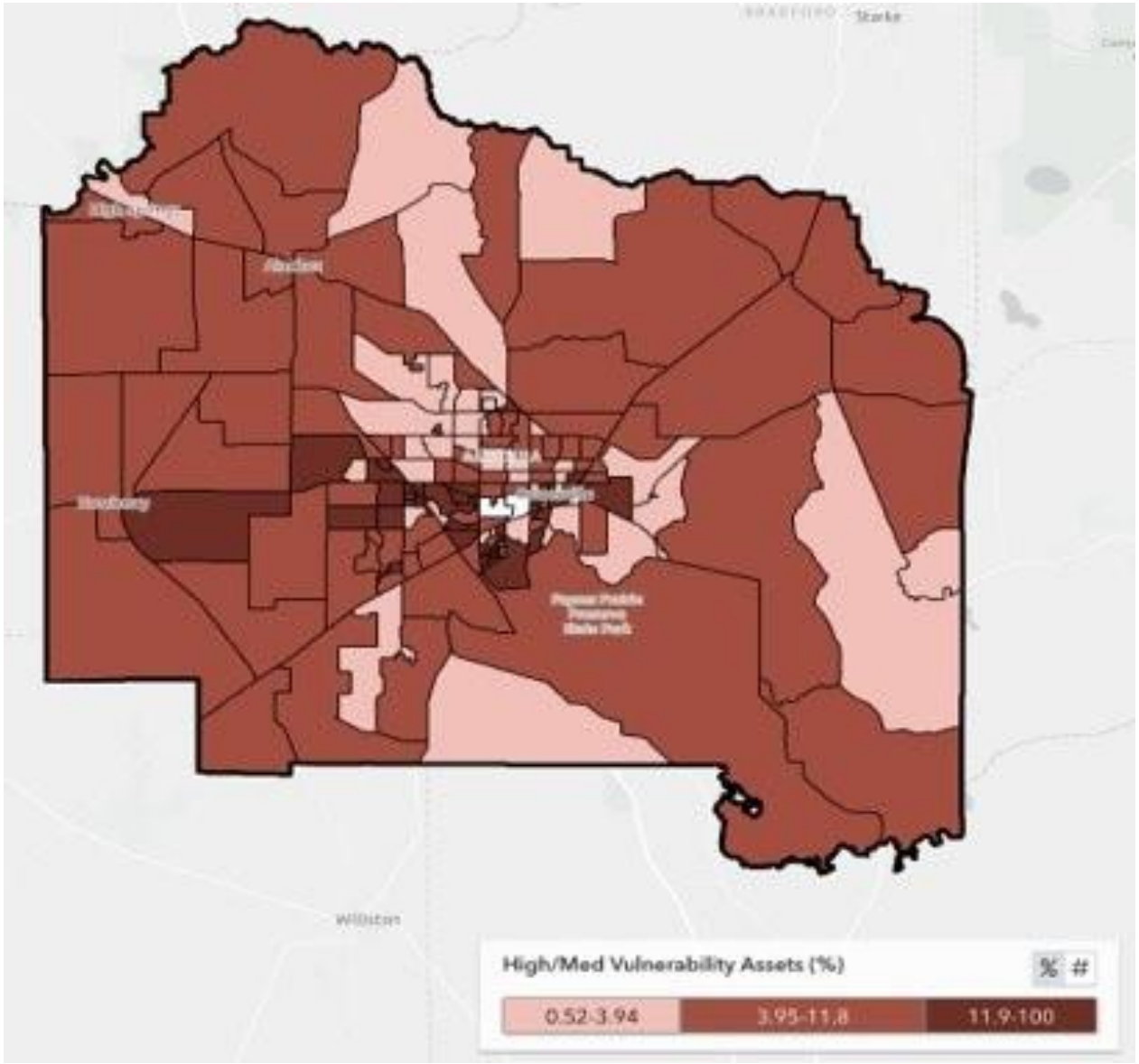
- Alachua County EPD will hire Resiliency/Climate Position fall of 2024
- Stakeholder feedback will be received at the Climate Summit
- Ongoing Surveys
- Draft CAP will be released late 2024/early 2025
- Dashboard to be released with draft CAP

Climate Action Plan – Energy Burden

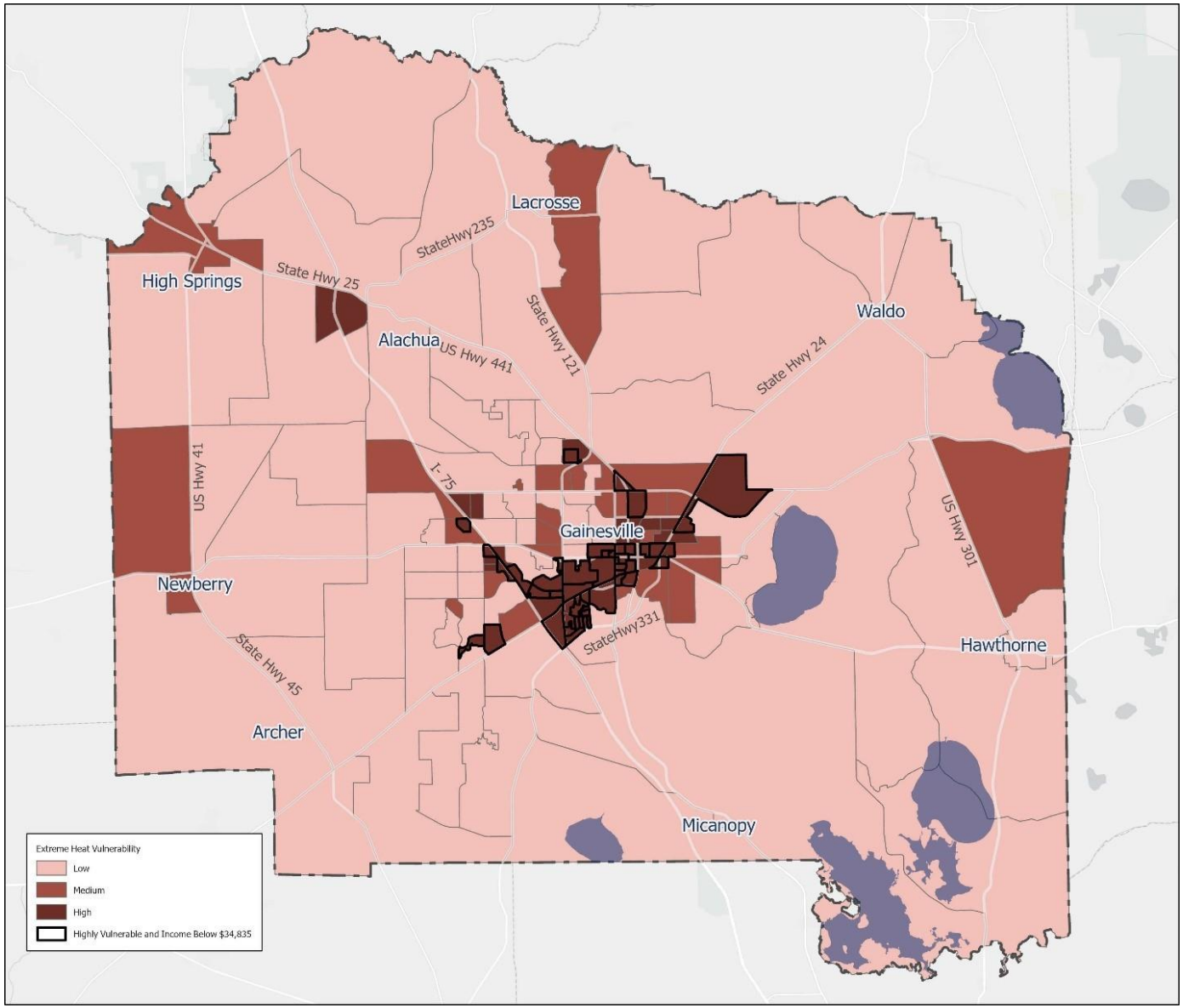
Based on census blocks



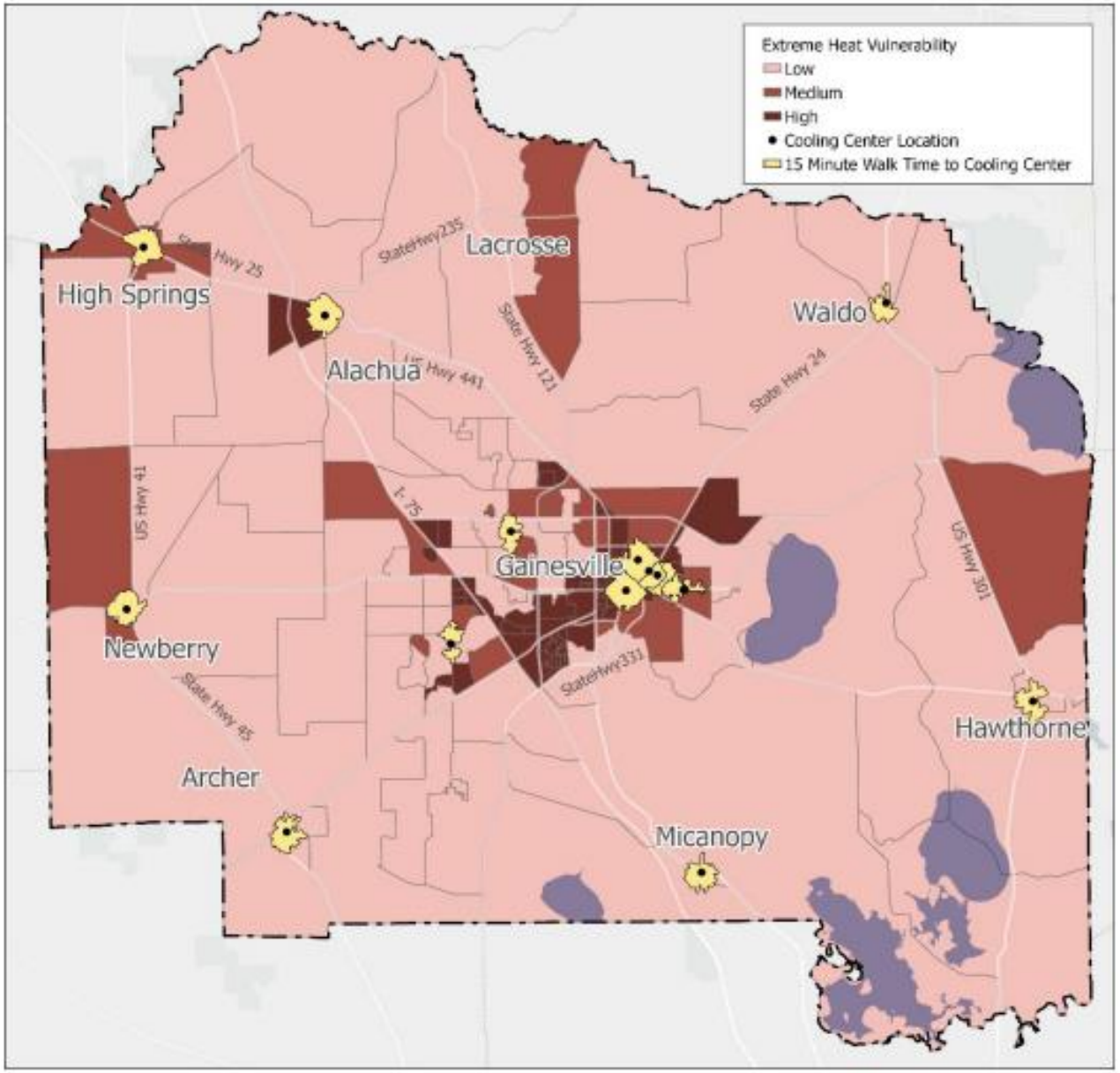
Climate Action Plan – Vulnerability to Flooding



Climate Action Plan – Vulnerability to Extreme Heat



Climate Action Plan – Vulnerability to Extreme Heat




Thank you!
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Equity Advisory Board
Annual Work Plan and Accomplishments Report: 2024

Chair: Ronald Rawls

Board Liaison: Gina Peebles

Brief History of Board: The Equity Advisory Board was established by Resolution 20-105 on September 22, 2020.

Responsibilities and Duties:
The Equity Advisory Board (EAB) assists the Alachua County Board of County Commissioners to:

1. establish an annual work program for the Equity Advisory Board
2. assist and advise the County on equity action plans.
3. collaborate with Alachua County Staff Core Team on citizen participatory research related to organization and departmental equity plans and processes.
4. assist the County in reviewing policies, programs, and services for racial and gender bias, and make recommendations to the County on means for eliminating such bias.
5. engage with other County committees, relevant stakeholders, agencies, non-profits, and communities related to equity.
6. ensure that input from neighborhoods and communities that are most impacted or disadvantaged by racial and social inequity is included in the development of policy recommendations and the design and delivery of County programs and services.

Accomplishments:

- Held meetings on Jan. 11, Feb. 15, Mar. 21, Apr. 18, May 16, Jun. 20, Jul. 18, Aug. 15, and Sep. 19, 2024.
- Received presentations from: Community and Strategic Initiatives; Public Works, Growth Management, Solid Waste, and Codes Administration; Community & Administrative Services; and Fire Rescue.
- Developed the Equity Audit Tool and evaluated the Housing Element of the Comp Plan.
- Presented the EAB's first workplan to the Board of County Commissioners on May 14, 2024.

Goals:

- Receive presentations from Environmental Protection; Equal Opportunity; Human Resources; and Communications.
- Fill full and two alternate member vacancies.
- Review and provide feedback for Inclusionary Housing policies.