

CONSERVATION ELEMENT

The purpose of the Conservation Element is to provide a guide for the conservation of the natural resources of the Town of Greenwood. These resources include water, air, minerals, soils and foodplains, and the habitats of threatened and endangered species. The Conservation Element identifies the major threats to these water resources and suggests strategies for protecting water quality.

The Element also examines the need to conserve environmentally sensitive lands, including the habitats of threatened and endangered species.

DATA AND ANALYSIS:

Map FLUM-2 shows the location and extent of wetlands within the Town of Greenwood. There are no significant wetlands and no surface water bodies within the Town. Those wetlands that do exist are isolated depressional wetlands that have been severely impacted by long term agricultural activities. Long term agricultural activities have degraded or eliminated native species habitat.

Table FLUE-1 shows that over 65% of the lands within the Town are classified as agricultural. The dominant agricultural activities are silviculture and pasture. These areas result in significant amounts of open space, which the Town hopes to preserve as these agricultural classified lands are converted to more intensive land uses. The Town will accomplish this goal through lot size requirements within the land development regulations and by requiring clustering of future residential development.

The Town relies on the Florida Aquifer for its potable water supply. According to the *2005 District Water Management Plan*, developed by the Northwest Florida Water Management District, the Town is not within an area of concern and there is sufficient ground water available through the 2025 planning horizon.

In terms of protecting water quality, the Town has enacted a Wellfield Protection Ordinance which regulates construction and land uses within the vicinity of the Town's water supply wells. The Wellfield Protection Ordinance consists of two zones requiring different levels of protection. The Wellfield Protection Zones are illustrated on map FLUM-7.

The Primary Protection Zone covers all lands within a 500 foot radius from the wells. Within the Primary Protection Zone the following uses are prohibited:

- a. Sanitary landfills.
- b. Use, handling, production or storage of hazardous substances.
- c. Feedlots or other concentrations of animals.
- d. Wastewater treatment plants, percolation ponds, spoil deposits and similar facilities.
- e. Septic Tanks.

The Secondary Protection Zone covers all lands within a 1000 foot radius from the wells. Within the Secondary Protection Zone the following uses are prohibited:

- a. Sanitary landfills.
- b. Use, handling, production or storage of hazardous substances.
- c. Feedlots or other concentrations of animals.
- d. Wastewater treatment plants, percolation ponds, spoil deposits and similar facilities.

In order to alleviate contamination from Surface Water runoff, the Town requires that all new development include surface water management systems that retain stormwater on-site such that post development volume, rate and loading are less than or equal to pre-development conditions.

Goals, Policies and Objectives:

GOAL – The Town of Greenwood shall conserve its natural resources to maintain the health, safety, and welfare of the public and to maintain its attractiveness for future development.

WATER RESOURCES

Objective 1 – Analysis shows that water bodies in the surrounding County show signs of degradation due to various pollutants. In order to control this trend, the Town shall prevent degradation of surface water quality below water quality classifications designated by Federal and State agencies including, but not limited to the Department of Environmental Protection, by regulating stormwater discharge and other pollution sources through site plan review.

Policy 1.1 – The land development regulations use Department of Environmental Protection, Northwest Florida Water Management District and Department of Health and Rehabilitative Services guidelines to develop minimum setbacks from surface water and wetlands for all new developments,

Policy 1.2 – Runoff from streets and parking areas will be carefully controlled to prevent flooding in adjacent areas. New development shall comply with the stormwater level of service standards established in Policy 1.2.1 of the Infrastructure Element.

Policy 1.3 – Through the land development regulations, the Town shall protect flood storage and conveyance functions of the 100 year floodplain and property within flood prone areas. Development in these areas shall be elevated above the base flood elevation.

Policy 1.4 – The land development regulations shall establish a maximum residential density based on HRS standards for undeveloped land having severe septic tank soil suitability ratings and where sewer lines are not available. All new development shall require performance based septic systems which produce a treatment standard of 10 milligrams per liter of nitrogen. This requirement does not apply to single-family homes constructed on parcels in existence as of January 1, 2008. Upon Jackson County adopting comprehensive plan provisions for performance based septic systems, the Town shall review the data and analysis

supporting those amendments, and to the extent applicable within the Town, amend this policy with provisions identical to the County's during its next available amendment cycle.

Policy 1.5 – The land development regulations include a flood damage prevention ordinance.

Policy 1.6 – Development standards and protection from contamination by septic tanks are included in the land development regulations.

Policy 1.7 – “Floodplain” shall be defined as the 100-year floodplains shown on the current Flood Insurance Rate maps (FIRM) published by the Federal Emergency Management Agency (FEMA).

Policy 1.8 – Development on sites which include areas within the 100-year floodplain shall be required to be located outside of the floodplain.

Policy 1.10 – Subdivisions shall be required to include a buildable area outside of the floodplain on each lot.

Policy 1.11 – Fill within floodplains shall be limited to the minimum which is necessary for development and access.

Policy 1.12 – Compensating storage shall be required for any fill placed within floodplains, in order to maintain the flood storage and conveyance capacity of floodplains, where the density or intensity of land use is greater than one (1) dwelling unit per five (5) acres.

Policy 1.13 – Fill shall be placed and designed so as to minimize interference with natural water flows.

Policy 1.14 – Non-residential development, other than recreation, water-dependent uses, and water-related uses, shall be prohibited in floodplains. The storage, use, transfer, and disposal of hazardous materials and hazardous waste shall be prohibited. Any such uses which are in existence at the effective date of the Plan are non-conforming uses and shall not be re-established if discontinued, and shall not be expanded.

Policy 1.15 – For all 100-year floodplains development shall be limited to one (1) dwelling unit per acre. Within the Residential, Mixed Use-Urban Development, Mixed Use-Rural Development, Residential-Suburban, and Residential-Urban categories the maximum density shall be two (2) dwelling units per acre within undeveloped portions of these floodplains, unless more restrictive densities or intensities were established on the Future Land Use Map at the time of plan adoption.

Policy 1.16 – The floodplains map in the Future Land Use Map series shall be construed to include all floodplains shown on the current FEMA Flood Insurance Rate Maps.

Policy 1.17 – A buffer of native vegetation shall be required adjacent to all wetlands. This buffer requirement shall be construed to apply to those wetlands which are Florida Department of Environmental Protection jurisdictional, isolated wetlands, lakes and ponds of five acres or more in area; wetlands which are assigned State Element ranks of S1 or S2 by the Florida Natural Areas Inventory, and wetlands which provide significant habitat for plant or animal species which are listed as endangered, threatened, or species of special concern by the Florida Game and Freshwater Fish Commission or Florida Department of Agriculture and Consumer Services. This buffer consist of preserved or planted native vegetation, including canopy, understory, and ground cover. Vegetation may be removed adjacent to lakes and ponds for a width not to exceed 15 feet on any one residential lot, provided that the buffer width is increased elsewhere on the lot to provide for an equal buffer area. Otherwise, no development or clearing shall be permitted in these buffers, except for trimming or clearing to construct elevated walkways and piers which are not more than six (6) feet in width. Nuisance vegetation is defined as species which are not native to Jackson County as determined by the Urban Forester, and species which are determined by the Urban Forester to be thorny or poisonous. Nuisance vegetation may be removed from the required buffer area, provided that it is replaced by native vegetation equivalent in density to the plants, shrubs, and trees that were removed.

Policy 1.19 – Septic tanks and drainfields which would serve development on lots or parcels adjacent to surface waters (including wetlands) shall be placed on the portion of the lot or parcel which is farthest from the boundary of the surface water, provided that the application of these requirements is consistent with state regulations.

Objective 2 – Groundwater quality shall be maintained so as to meet state groundwater quality standards. Recharge to aquifers shall be maintained so that post-development recharge volumes are at least equal to pre-development recharge volumes. Development within natural drainage features shall not decrease the flood storage capacity of these drainage features or increase flood levels or velocities for all floods that are equal to or less than the 100-year flood.

Policy 2.1 – The Primary Protection Zone covers all lands within a 500 foot radius from the wells. Within the Primary Protection Zone the following uses are prohibited:

- a. Sanitary landfills
- b. Use, handling, production or storage of hazardous substances.
- c. Feedlots or other concentrations of animals.
- d. Wastewater treatment plants, percolation ponds, spoil deposits and similar facilities.

- e. Septic tanks.

Policy 2.2 – The Secondary Protection Zone covers all lands within a 1000 foot radius from the wells. Within the Secondary Protection Zone the following uses are prohibited:

- a. Sanitary landfills.
- b. Use, handling, production or storage of hazardous substances.
- c. Feedlots or other concentrations of animals.
- d. Wastewater treatment plants, percolation ponds, spoil deposits and similar facilities.

Policy 2.3 – Developments existing on the effective date of this Plan shall not be required to meet this Well Protection Zone standard for any well replacements or new wells on the same lot or parcel which they occupied on the date of the adoption of said remedial amendment, provided that no contiguous land has since been acquired which would enable this standard to be met.

Policy 2.4 – The Town will Use the Soil Conservation Service’s program of public education to address the proper use of agricultural chemicals. The program should also address remedial measures for contaminated wells.

Policy 2.5 – Require that landscaping for new development and redevelopment include native and/or drought-tolerant vegetation in order to conserve water resources. A fifteen foot buffer of native vegetation shall be required to all wetlands. This buffer shall be constured to apply to those wetlands which are Florida Department of Environmental Protection jurisdictional, isolated wetlands, lakes and ponds; wetlands which are assigned State Element ranks of SI or S2 by the Florida Natural Areas Inventory, and wetlands which provide significant habitat for plant or animal species which are listed as endangered, threatened, or species of special concern by the Florida Fish and Wildlife Conservation Commission or Florida Department of Agriculture and Consumer Services. This buffer consist of preserved or planted native vegetation, including canopy, understory, and ground cover. Vegetation may be removed adjacent to lakes and ponds for a width not to exceed 15 feet on any one residential lot, provided that the buffer width is increased elsewhere on the lot to provide for an equal buffer area. Otherwise, no development or clearing shall be permitted in these buffers, except for trimming or clearing to construct elevated walkways and piers which are not more than six (6) feet in width. Nuisance vegetation is defined as species which are not native to Jackson County as determined by the urban Forester, and species which are determined by the Urban Forester to be thorny or poisonous. Nuisance vegetation may be removed from the required buffer area, provided that it is replaced by native vegetation equivalent in density to the plants, shrubs, and trees that were removed.

Policy 2.6 – Adopt procedures for emergency water conservation that are consistent with the Northwest Florida Water Management District’s Water

Shortage Plan. Development within 100 feet of karst features with direct connection to the aquifer shall be prohibited. Passive recreation uses including trails and boardwalks, observation areas and other passive uses for enhancement or preservation of the area are allowed within the 100 foot buffer.

Policy 2.7 – The generation, use, storage, transfer, or disposal of hazardous materials and hazardous wastes shall be prohibited within areas determined to be “High Recharge Potential” by the NEWMD. “Hazardous waste” shall be defined in terms of 40 Code of Federal Regulations Part 261, as modified by Rule 17-730.030, Florida Administrative Code, concerning the definition and identification of hazardous waste. “Hazardous materials” shall be defined as those additional priority pollutants, volatile organics, and trace metals referenced in the Clean Water Act administered by the U.S. Environmental Protection Agency (as may be amended from time to time).

Policy 2.8 – All new proposals for public wastewater facilities shall require a feasibility study for reuse of wastewater. The Town shall require re-use of wastewater where feasible.

Policy 2.9 – Within areas shown as “High Recharge Potential” or “Moderate Recharge Potential” maximum impervious areas, minimum retention requirements for stormwater, or a combination thereof shall be enforced so that post-development runoff volumes from development sites do not exceed pre-development runoff volumes. Within these recharge areas, stormwater runoff from development sites sanitary sewer effluent shall be treated so that state groundwater quality standards are not violated.

Policy 2.10 – Lots for which septic tanks are the intended method of sewage disposal shall not be created unless the size and configuration of the lot would allow for the permitting of a septic tank system, consistent with state regulations.

FLORA AND FAUNA

Objective 3 – The Town land development regulations protect plant and animal species, with particular emphasis on species that have been designated as threatened and endangered by the Florida Game and Freshwater Fish Commission, Florida Department of Agriculture and Consumer Services, and the U.S. Fish and Wildlife Service. In addition, such land development regulations shall also protect native vegetative communities and wildlife habitat. The Florida Natural Areas Inventory (FNAI) shall be used as the guide in identifying endangered or threatened species habitats and unique natural areas. Viable populations of plant and animal species listed by state or federal agencies as endangered, threatened, and special concern species shall be maintained, and the habitat needed to maintain these populations shall be protected accordingly.

Policy 3.1 – The Town shall require setbacks, through the land development regulations, for all sites surrounding wetlands and caves that provide habitat for threatened or endangered species.

Policy 3.2 – Establish a program to identify and recommend acquisition of environmentally endangered lands (caves, wetlands, floodplains) by appropriate state or other agencies.

Policy 3.3 – Adopt wetland resource permitting guidelines consistent with existing state regulations for establishing wetland boundaries, establishing protective boundaries and mitigation measures, and defining permissible activities within wetland areas in the land development regulations.

Policy 3.4 – Work with established public education programs that require private land owners to use best management practices to protect the habitat of threatened and endangered species.

Policy 3.5 – The Town will conserve native vegetative communities by allowing only minimal vegetation clearing prior to approval of development for construction. Clearing of natural communities rated as S1, S2, or S3 shall be limited to the minimal amount of clearing required to accommodate a proposed development on its proposed site. Clearing of any individual plant species that is listed as endangered or threatened by the State of Florida or the United States government shall be prohibited, except as provided in Policy 3.12 or by law, whichever is more restrictive. Clearing for uses other than legitimate agricultural and silvicultural uses shall be defined to be clearing as an adjunct to construction, and shall be subject to provisions that apply to development.

Policy 3.6 – Require that cluster development protect or replace a designated minimum of all onsite, native vegetative communities and wildlife habitats consistent with Policies 3.10 through 3.17 below.

Policy 3.7 – Consult the Florida Game and Freshwater Fish Commission prior to the approval of any development over 50 acres that may adversely impact species which are listed as endangered species, threatened species, or species of special concern. New developments shall be made to inventory threatened and endangered species and species of special concern and provide for habitat protection and a management plan to ensure the development has mitigated any impacts, consistent with Policies 3.9 through 3.17 below.

Policy 3.8 – The Town shall promote the designation and protection of natural reservations designated within the Town, through cooperation with the federal government, the State’s CARL program, and the Water Management District’s Save Our Rivers and SWIM Program, and designation of such areas on the Future Land Use Map as Conservation.

Policy 3.9 – The Town’s vegetation and wildlife identification program shall be designed to conserve, appropriately use or protect unique vegetative communities.

Policy 3.10 – A professionally conducted survey of native vegetative communities shall be required for any development which exceeds 50 acres in area. This survey shall be conducted by an ecologist, biologist, or similar professional, and shall include an inventory of wildlife, as well as state and federally listed endangered and threatened plant and animal species, and species of special concern. Site surveys shall address the following: (a) The size and distribution of the native habitat; (b) Wildlife and listed species populations within the proposed development site; (c) The feasibility of and viability of on-site protection and management; (d) Whether the proposed development site includes a wildlife corridor and the feasibility of maintaining the wildlife corridor; (e) The appropriateness of mitigating the impacts of development by the relocation of listed species to an acceptable off-site location, in the event that on-site protection is shown to be ineffective.

Policy 3.11 – A professionally-prepared protection and management plan shall be required, for development sites which are subject to Policy 3.10, and shall be attached as a condition of the development order and permit. Protection of viable populations of state and federally listed endangered and threatened species and species of special concern found on the site, shall be required as part of the overall development plan which is approved as part of the development order. Development shall be clustered on the least environmentally sensitive portion of the site, with the remainder of the site to be permanently protected as undisturbed and unaltered open space to protect the native habitat.

Policy 3.12 – For any development which exceeds 50 acres in area, upland habitat shall be preserved in accordance with the following guidelines:

- (a) Eighty percent (80%) of the area occupied by natural communities which are listed S1 or S2 in the Florida Natural Areas Inventory shall be preserved on the site. Whether these habitat types exist on a

particular development site shall be determined through the survey required by Policy 3.10 above. Additional urban land uses shall be prohibited within these habitat types beyond those urban areas which were shown on the Future Land Use Map at the time of plan adoption.

- (b) Fifty percent (50%) of the area occupied by native plant communities which are rated S3 by the Florida Natural Areas Inventory shall be preserved on the site. Whether these habitat types do exist on the particular development site shall be determined through the survey required by Policy 3.10 above.

Policy 3.13 – Protected areas of native habitat shall include the preservation of ground cover, understory and canopy.

Policy 3.14 – Areas of native habitat which are protected pursuant to Policies 3.10 through 3.13 shall be permanently protected in their undisturbed and unaltered state as a condition of the development order, except for necessary ingress and egress, passive recreation, walkways, boardwalks, and hunting and fishing. Conservation easements that meet the requirements of Section 704.06, Florida Statutes, platted conservation tracts or easements, or restrictive covenants running with the land and enforceable by the residents of the development, shall be established for all protected areas. A certain percentage of protected habitat areas may be located on individual lots, provided that these areas are protected by platted easements and restrictive covenants.

Policy 3.15 – Areas of native habitat which are protected pursuant to Policies 3.10 through 3.14 above shall be located so as to preserve viable plant communities and wildlife populations to the maximum extent possible on site, including endangered and threatened species, and species of special concern.

Policy 3.16 – Areas of native habitat which are protected pursuant to Policies 3.10 through 3.15 above shall be interconnected with other existing areas of native vegetation and wildlife habitat to the maximum extent possible. During the land use planning and development review process, the effects of development on wildlife habitat and the protection of wildlife corridors shall be evaluated. To prevent fragmentation of wildlife corridors, the preservation of wildlife corridors within developments shall be required, in order to connect areas of wildlife habitat which are to be protected. For development which occurs in the vicinity of state or federal park or conservation lands, protected areas of native habitat shall be located adjacent to these state or federal lands, in order to form continuous areas of protected habitat.

Policy 3.17 – Upland and wetland/aquatic habitat shall be connected wherever possible, to create a mosaic of upland and wetland/aquatic habitat.

AIR QUALITY

Objective 4 – The Town of Greenwood shall meet or exceed ambient air quality standards set by the Department of Environmental Protection through the management of new development and related transportation improvements.

Policy 4.1 – Reduce the potential for vehicular emissions by:

- 1) Encouraging planned developments and multiple use of commercial centers, and
- 2) Requiring vegetative buffers between new transportation arterials and new residential developments.

Policy 4.2 – A system of performance standards will be established to ensure that new growth conforms with the objective of maintaining clean air in the Town.

SOIL EROSION

Objective 5 – The Highly Erodible Land Inventory compiled by the Soil Conservation Service identifies areas of soil erosion problems in the County by farm. In order to conserve this valuable resource, the Town will cooperate with the Jackson County Soil and Water Conservation District to prevent soil erosion resulting from agriculture, roadway construction, and land development.

Policy 5.1 – The Town will cooperate with the U.S. Soil Conservation Service in providing technical assistance to land owners in the Town to minimize soil erosion.

COMMERCIAL USES OF NATURAL RESOURCES

Objective 6 – The Town land development regulations protect plant and animal species, with particular emphasis on species that have been designated as threatened and endangered by the Florida Game and Freshwater Fish Commission, Florida Department of Agriculture and Consumer Services, and the U.S. Fish and Wildlife Service. In addition, such land development regulations also protect Native vegetative communities and wildlife habitat. The Florida Natural Areas Inventory (FNAI) shall be used as the guide in identifying endangered or threatened species habitat and unique natural areas.

Policy 6.1 – The Town will continue to support existing programs regarding soil conservation measures for agricultural and forested lands throughout the Town.

Policy 6.2 – Mining shall be prohibited.

Policy 6.3 – “Mining” shall have the same definition in this plan as “resource extraction” in Section 378.403, Florida Statutes (1991).

HAZARDOUS WASTE

Objective 7 – Analysis shows that Jackson County has experienced certain problems with the unauthorized and improper disposal of hazardous wastes. In order to alleviate any future problems, the Town shall actively support the County’s Hazardous Waste Management Program providing for the proper storage, recycling, collection, transportation, and disposal of hazardous waste for solid waste management.

Policy 7.1 – The Town will conduct a study of waste sites in the Town to ascertain if areas of hazardous waste pollution exist and, if so, coordinate with DEP to effect a clean up.

Policy 7.2 – The Town will continue to identify small-industrial hazardous waste generators.

Policy 7.3 – Prior to site plan approval of any activity [sic] that stores, uses or produces toxic matter, the responsible party shall develop an emergency response system addressing accidents involving hazardous waste; ensure that location of the site will not degrade quality of groundwater or surface water or other natural features; ensure DEP standards for transfer and storage of hazardous waste are implemented; and coordinate with State, regional and county officials to demonstrate that compliance with the above requirements will satisfy all regulations and policies.

CONSERVATION AND RECREATION LANDS

Objective 8 – In order to conserve unique and sensitive lands, the Town of Greenwood land development regulations ensure the protection of environmentally sensitive areas during the site plan review process.

Policy 8.1 – Land development regulations include special development standards for areas containing wetlands that limit development to low-density and conservation uses.

Policy 8.2 – The following definitions and criteria shall apply to wetlands:

- a) “Wetlands” shall be defined as those areas that are under state jurisdiction pursuant to state regulations, and those areas that are non-jurisdictional which are wetlands according to the wetlands definition adopted by the U.S. Army Corps of Engineers.
- b) Soils present in wetlands are generally 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.

- c) Wetlands shall generally include swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, wet meadows, riverine swamps and marshes, hydric seepage slopes, and other similar areas. Wetlands do not include longleaf or slash pine flatwoods with an understory dominated by saw palmetto; and
- d) The delineation of actual wetlands boundaries shall be made based on any professionally accepted methodology consistent with the type of wetland being delineated, and shall be consistent with any unified statewide methodology for the delineation of wetlands ratified by the Florida Legislature.

Policy 8.3 – A professionally conducted survey of development sites shall be required, prior to the approval of development orders on sites which include wetlands, to determine the extent of both state jurisdictional and non-jurisdictional wetlands. Representatives from the Florida Department of Environmental Protection and the U.S. Army Corp of Engineers shall be contacted for assistance in identifying the location of wetlands.

Policy 8.4 – With the exception of development for passive recreation and water-dependent uses, non-residential development shall be prohibited in wetlands.

Policy 8.5 – Development on property which includes wetlands shall be clustered on upland areas, previously disturbed areas, or the least environmentally sensitive areas of the property.

Policy 8.6 – Subdivision of property which includes wetlands shall be required to include sufficient upland areas for development of each lot.

Policy 8.7 – Removal of vegetation in wetlands shall be limited to the minimum which is necessary for development.

Policy 8.8 – Access roads and driveways in wetlands, shall be designed to minimize disturbance to natural water flows, hydroperiods, and other wetland functions, and shall be located in previously disturbed areas or the least environmentally sensitive area of the property.

Policy 8.9 – Fill in wetlands shall be limited to the minimum which is necessary for access and development; as an alternative, structures shall be elevated on pilings.

Policy 8.12 – Within wetlands which are not located in the Conservation category on the Future Land Use Map (i.e., non-state jurisdictional wetlands), the only development permitted shall be: 1) residential land uses at a gross density of not more than one (1) dwelling unit per five (5) gross acres; and 2) nonresidential

development that will not cover more than ten percent (10%) of the area of the wetland as it existed at the date of adoption of this Plan.