

## GOALS, OBJECTIVES AND POLICIES

### CONSERVATION ELEMENT

**Goal:** To conserve, protect, and appropriately manage the natural resources of Wakulla County in order to ensure the highest environmental quality possible and to promote stewardship of these resources for the existing and future residents and visitors of the County.

#### Air Quality Objectives and Policies

**Objective 1.0:** Meet or exceed the minimum air quality levels established by the Florida Department of Environmental Protection.

**Policy 1.1:** Industrial uses shall be located where they minimize the impact on current air quality.

**Policy 1.2:** If air quality levels fall below State standards, the County will develop a plan to re-attain the air quality standards.

#### Surface Water Objectives and Policies

**Objective 2.0:** Protect surface water quality to ensure that water quality is not allowed to degrade below present conditions, including that of Wakulla Springs, St. Marks Springs, Spring Creek Springs, and the sections of the St. Marks, Wakulla, Sopchoppy and Ochlockonee Rivers and Apalachee Bay that have been declared by Department of Environmental Protection as Outstanding Florida Waters.

**Policy 2.1:** Riverine floodways shall be specifically identified as conservation land use designation on the Future Land Use Map, and riverine and coastal floodplains shall be shown on the Future Land Use Map Series. Revisions to the Land Development Code will be considered for the implementation of additional control requirements. The following standards shall apply within floodway and floodplain areas:

- (1) Floodways-
  - (a) "Floodways" shall mean those portions of the floodplain where, during periods of (25-year/24-hour duration) flood, the water flow in the same general direction of the normal stream or river flow during non-flood periods.
  - (b) Density shall be provided in the applicable land use in the Future Land Use Element.
  - (c) No structures shall be permitted within the floodways of rivers and streams except for docks, boathouses and other structures which, due to their purpose, must be located adjacent to water.
  - (d) The existing shoreline or riverbank shall not be graded or destroyed and no existing

vegetation shall be removed except as needed to construct boathouses, docks or other structures which, due to their purpose, must be located adjacent to water. Construction of utility transmission lines shall be permitted. This standard shall apply to all areas within the floodway.

- (e) No filling shall be permitted, except as otherwise provided in this Element.
  - (f) Docks will only be allowed as accessory uses. Performance standards for intensity use will be contained within the land development regulations.
- (2) Floodplains [1% annual chance floodplain (100-year floodplain) as identified on the FEMA/FIRM maps]
- (a) The existing shoreline or riverbank shall not be graded or destroyed and no existing vegetation shall be removed except as needed to construct boathouses, docks or structures which, due to their purpose, must be located adjacent to the water. Construction of utility transmission lines shall be permitted.
  - (b) Neither excavation nor filling may be done in a wetland or water body, except as otherwise provided for in this Element.
  - (c) "*Floodplains*" shall have the same meaning as that contained in Rule 95-5.003, F.A.C.

**Policy 2.2:** The County shall inspect and monitor on a regular basis at least annually all wastewater treatment facilities larger than two-thousand (2,000) gallons to ensure compliance with effluent standards.

**Policy 2.3:** The County shall not allow any stormwater discharge to flow into a wetland, river, spring, spring run, or other body of water, or into a freshwater fishery, bay, lake or other marine habitat or sinkhole or other karst feature connected to the aquifer without sufficient prior treatment to protect the receiving waters from degradation consistent with the below applicable State water quality standards including State anti-degradation standards.

- (1) Pretreatment shall be consistent with the requirements of Rule 62-25, F.A.C and requirements established by the Northwest Florida Water Management District.
- (2) Stormwater treatment shall consist of vegetated off-line retention systems, whenever soil and geologic conditions allow. When other treatment practices must be used, a combination of best management practices, especially vegetative practices, shall be incorporated into the stormwater management system.
- (3) The County shall also protect the natural function of all surface waters, active sinkholes (a hollow in a limestone region that communicates with a cavern or passage to the aquifer system), wetlands, beaches, dunes, natural freshwater or saltwater bodies, perennial streams, and each of the four outstanding water ways, except for the springs, sink holes, and karst features designated

in Policy 13.1 below, for which different buffers shall apply, through land development regulations which shall provide that proposed site plans and planned unit developments shall be submitted for review by FDEP to determine if there are impacts from the development on the natural function of surface waters and the aforementioned natural features. Where adverse impacts are identified, uses and the related disturbed areas on the site shall be arranged to minimize such impacts.

- (4) Development may be allowed within the 1% annual chance floodplain (100-year floodplain) where the applicant can show through accepted engineering practices that such development will not adversely impact the natural functions, water quality, or water quantity of the affected floodplain. Post-development runoff rates shall not exceed pre-development discharge rates. Any development within the 1% annual chance floodplain (100-year floodplain), as identified on the FEMA/FIRM Community Panels for Wakulla County, shall avoid mass clearing or grading, shall utilize native vegetation, allow for the maximum amount of open space, and promote erosion prevention practices to control sediment transfer from a development site to the 1% annual chance floodplains (100-year floodplains).

**Policy 2.3.1:** The harvesting of trees shall be pursuant to "Silviculture Best Management Practices 2007," Florida Department of Agriculture and Consumer Services, Chapters 373 and 403, F.S., and Rule 62-25, F.A.C., and shall apply to intermittent or perennial streams.

**Policy 2.4:** The existing Land Development Codes shall provide the minimum development standards and shall be reviewed periodically for consistency with the Plan. The County shall adopt and implement a comprehensive stormwater management ordinance establishing the following:

- (a) Streambank and shoreline buffer zones, as provided in Policy 2.1 and 2.3. above, adjacent to surface water bodies which provide filtration of stormwater runoff to provide natural stormwater treatment and management;
- (b) General design and construction standards for on-site stormwater management systems for new development to ensure that post-development runoff rates, volumes, and pollution loads do not exceed pre-development conditions. These standards should be consistent with or exceed FDEP and other applicable requirements;
- (c) "Silviculture Best Management Practices 2007," (Florida Department of Agriculture and Consumer Services, Chapters 373 and 403, F.S., and Rule 62-25, F.A.C.), for agriculture and silvicultural land uses as adopted by state and federal Departments of Agriculture and currently in use, to reduce pesticide and fertilizer runoff and soil erosion, to protect the waters and floodplains in the County;
- (d) Provisions to assure that all stormwater management systems within the County are maintained and operated properly in agreement with State and local requirements. The County shall not accept dedication of stormwater management systems for perpetual maintenance unless they serve public property;

- (e) Provisions that necessary stormwater permits be obtained prior to issuance of building permits.
- (f) Provisions that protect the natural stormwater treatment and management benefits provided by wetland plants and other vegetation and that limits clearing of such vegetation. The Land Development Codes shall assure that stormwater conveyance systems are not enlarged or de-vegetated without appropriate state permits.
- (g) Special design and performance criteria for stormwater systems constructed in high recharge, or karst topographic areas (which may be patterned after those developed by the SWFWMD and SJRWMD).

**Policy 2.5:** The County shall not allow the removal of surface water from the County by any entity without the consent of the County by a minimum 4/5 vote of the Board of County Commissioners.

**Policy 2.6:** The County shall require review of proposed site plans and planned unit developments and the evaluation of the effects of land development activities on the natural functions of fresh water fisheries, bays, lakes, springs, spring runs, karst features connected to the aquifer, beaches, shores and marine habitats, floodways and wetlands. Where adverse impacts are noted, uses and disturbed areas on the site shall be arranged so as to minimize impact on such areas. Site plan review shall be required for any development directly contiguous to or involving disturbance of floodways, wetlands, a freshwater or saltwater body, beach, dune, springs, spring runs or karst features connected to the aquifer.

**Policy 2.7:** The County shall seek grant funding to complete a comprehensive stormwater master plan for the Crawfordville area to improve the water quality and reduce the amount of on-site treatment areas.

### **Floodplains**

**Objective 3:** To protect the natural functions of the 1% annual chance floodplain (100-year floodplain), to the extent that flood-carrying and flood storage capacity are maintained.

**Policy 3.1:** The County shall control density, setbacks and design of development within the National Flood Insurance Program, Federal Emergency Management Agency (FEMA), current Flood Insurance Rate Maps (FIRMs), which indicate the 1% annual chance floodplain (100-year floodplain), which is sufficient to protect the flood carrying and flood storage capacity as set forth in the objective. The County shall review development proposals according to FEMA standards.

### **Wetlands**

**Objective 4.0:** To ensure protection of native vegetation, water quality and water flow in wetlands which shall be consistent with the purpose and intent of the Goals, Objectives and Policies of the Plan. Commercial or industrial uses shall not be allowed in wetland areas except as provided in Policy 4.1(5) below.

**Policy 4.1:** The County shall coordinate with the Florida Department of Environmental Protection, Northwest

Florida Water Management District, Apalachee Regional Planning Council, and Army Corps of Engineers to improve compliance with Federal and state dredge and fill permitting process.

### **GROUNDWATER OBJECTIVES AND POLICIES**

**Objective 5.0:** To ensure that the quality of Wakulla County's groundwater resources are maintained at or above state standards through the establishment of the following policies. If an area falls below state standards, the County shall develop a plan to re-attain state standards.

**Policy 5.1:** The County hereby adopts the Department of Environmental Protection's water quality standards and shall coordinate with Department of Environmental Protection and Northwest Florida Water Management District, to monitor groundwater quality and levels.

**Policy 5.2:** A wellhead protection ordinance shall be established by the County that is consistent with FLUE Policy 1.6 for existing and future public drinking water facilities.

**Policy 5.3:** The County, in cooperation with Northwest Florida Water Management District, shall properly seal inactive drainage wells.

**Policy 5.4:** The County shall protect water quality through the regulation of activities known to adversely affect the quality and quantity of identified water sources such as storage and handling of hazardous and toxic materials without secondary containment, continuation of abandoned wells, and operation of un-permitted landfills. Water sources to be protected shall include existing identified cones of influence, water recharge areas and water-wells. The County will also prohibit discharges of pollutants, as defined by the Department of Environmental Protection, into sinkholes.

**Policy 5.5:** The County will provide its citizens with information on the types of materials which are defined by the state or federal government as hazardous or toxic waste and information on the proper disposal of these materials and other solid waste.

**Policy 5.6:** Development proposals within high aquifer recharge areas shall be required to meet additional criteria, pursuant to Florida's Department of Environmental Protection stormwater criteria based on the aquifer recharge maps prepared by the North West Florida Water Management District.

**Policy 5.7:** The County shall maintain maps of aquifer vulnerability and utilize the vulnerability maps in project evaluations.

### **WATER CONSERVATION OBJECTIVES AND POLICIES**

**Objective 6.0:** To regulate the existing and projected allowable water quality and quantity, including natural water flows to receiving estuarine bodies, such that no net quantity increase or quality decrease will be allowed through mandated project review criteria in the land development codes.

**Policy 6.1:** The County shall coordinate with the Northwest Florida Water Management District to conduct water conservation programs, including, but not limited to, assistance in the distribution of water conservation information to residents and businesses within the County and evaluation of proposed development to identify water conservation techniques.

**Policy 6.2:** In reviewing proposed development, involving sites larger than ten (10) acres, the County shall require all potential commercial and industrial water users to develop a wastewater reuse plan with assistance from the Northwest Florida Water Management District, except when those potential users are to be connected to a central sewer system which provides for reuse.

**Policy 6.3:** The County shall not allow the removal of groundwater from the County by any entity without the consent of the County by a minimum 4/5 vote of the Board of County Commissioners.

**Policy 6.4:** The water conservation plan shall be coordinated with the Northwest Florida Water Management District and shall incorporate the district's plans for emergency conservation of water bodies.

**Policy 6.5:** The use of landscaping best management practices as stated in the Florida Friendly Best Management Practices for Protection of Water Resources by the Green (Florida Department of Environmental Protection, 2008) is encouraged. Incentives for its use are included in the future land use element of this Plan.

**Policy 6.6:** All golf course siting, design, construction, and management shall implement the prevention, management, and monitoring practices, detailed in the golf course siting, design, and management chapter of the *Protecting Florida's Springs Manual – Land Use Planning Strategies and Best Management Practices* (Florida Department of Community Affairs and the Florida Department of Environmental Protection, November 2001). These practices are derived from the Audubon International Signature program.

**Policy 6.7:** The County shall prepare and adopt a Water Management Conservation Plan, which will include retention of groundwater to protect the coastal bays and springsheds, and assure emergency water conservation in the case of ground water contamination and a wastewater reuse plan.

## **SOIL EROSION OBJECTIVES AND POLICIES**

**Objective 7.0:** To provide for a mandatory project review process that will disallow development on soils with severe limitations when the only recourse would be to remove the existing soils and backfill the site to accomplish a development proposal and to identify and decrease by ten (10) percent soil erosion losses over the next five and ten-year planning periods. Severely limited soils shall be identified pursuant to U.S. Department of Agriculture Soil Conservation Service Standards.

**Policy 7.1:** The County shall develop and implement a stream and bank stabilization program to minimize erosion caused by human activity along the rivers and streams.

**Policy 7.2:** To minimize soil erosion, a review of topographic, hydrologic, and vegetative cover conditions shall be required as part of the site plan review process. Development will be limited in areas where disturbance of the topographic, hydrologic, or vegetative cover conditions would result in erosion.

**Policy 7.3:** The County shall coordinate with the U.S. Soil Conservation Service and other government agencies in those activities directed at minimizing soil erosion and that aid in the protection of the natural function of soils.

**Policy 7.4:** The County shall establish boat speed zones where boats are creating significant erosion of shorelines.

### **MINERAL RESOURCES OBJECTIVES AND POLICIES**

**Objective 8.0:** To provide that mining activities be regulated so that they do not adversely affect the quality of air, groundwater, surface water, wildlife, or cause significant topsoil loss.

**Policy 8.1:** A mining operation water use plan shall be prepared and approved before new mining operations are permitted.

**Policy 8.2:** Buffers shall be established and maintained between mining activities and adjacent existing and future uses to achieve an aesthetically pleasing landscape compatible with those land uses.

**Policy 8.3:** Mineral extraction operations shall identify expansion areas within property under the same ownership and control and to restrict non-extraction related uses of such expansion areas.

**Policy 8.4:** Any mining operation, including but not limited to those mining operations which meet the definition of a development-of-regional-impact under the state guidelines and standards which are listed in Chapter 28, Florida Administrative Code, shall be required to submit a reclamation plan for review and approval prior to receiving final development approval through the County's mandatory development review process. The purpose of the reclamation plan is to conserve and replace topsoil, control erosion, restore natural wetland function to the greatest extent possible, protect and restore habitat corridors, and return the site to a usable state within a reasonable timeframe. Intergovernmental coordination will apply when reclamation plans are reviewed.

### **FLORA, FAUNA AND WILDLIFE OBJECTIVES AND POLICIES**

**Objective 9.0:** To conserve and protect the wetland, upland, wildlife and aquatic habitats that support endangered or threatened species, fisheries, species of special concern and preserve and protect the biodiversity and ecological value of the County's natural resources.

**Policy 9.1:** The County shall assist the Florida Fish and Wildlife Conservation Commission to develop and maintain a comprehensive inventory of ecological communities which shall include species, populations, habitat

conditions, occurrences and disturbances; for use in regulatory, zoning and land use decisions; and that may recommend acquisition through Florida Forever and Save Our Rivers programs for the most vulnerable communities and coordinate protection of these communities in accordance with applicable state agencies.

**Policy 9.2:** The County shall protect threatened, endangered, or locally significant ecological communities by requiring lower intensity of use and lower residential density and clustering of dwelling units away from sensitive portions of the ecological communities and by requiring project design to prohibit the fragmentation of large areas of locally significant environmental communities.

**Policy 9.3:** The County shall assist in the application of, and the compliance with, all state and federal regulations which pertain to endangered species. This will be accomplished by, but not limited to, providing information to appropriate federal and state agencies of known violations and by providing information on regulations to residents and businesses in the County.

**Policy 9.4:** The County shall consult with the Florida Fish and Wildlife Conservation Commission prior to the issuance of development permits for development of land that could result in an adverse impact to any endangered or threatened species.

**Policy 9.5:** The County shall protect endangered and threatened species and their habitats by the use of conservation easements and land development codes which shall provide that where proposed developments involve areas identified as habitats for threatened and endangered species, uses and disturbed areas on the site shall be arranged so as to minimize impact on such areas. All developments or uses that result in disturbance to habitats for threatened and endangered species and species of special concern shall require site plan review. Habitat areas shall be separated from disturbed areas by a natural thirty-five (35) foot wide undeveloped buffer protected as a conservation easement, or other similar restrictions. Cluster development or PUD provisions shall be required to ensure that development can take place without disturbing habitat areas. (See Future Land Use Policy 4.1) Cluster/PUD development provisions shall be required where twenty (20) percent or more of the project area is made up of habitat for threatened or endangered species.

**Policy 9.6:** The County shall coordinate with the Florida Department of Environmental Protection and Florida Fish and Wildlife Conservation Commission in developing an education program to promote the preservation of endangered and threatened species.

**Policy 9.7:** In coordination with FDEP, the County shall complete the mapping of vegetative communities within the County GIS and to provide a referral resource for development review process. To the maximum extent possible, existing sources of data will be used, including that of the Florida Natural Areas Inventory (FNAI) and Florida Geographic Data Library.

**Policy 9.8:** The County shall propose interlocal agreements with adjoining counties and with the cities in the County to coordinate the identification of unique vegetative communities located within more than one jurisdiction and to refer for review and comment land development proposals affecting such unique vegetative communities.



**Policy 9.9:** The County shall increase protection measures for gopher tortoises and other species by requiring a natural features inventory and gopher tortoise survey if the natural features inventory indicates a possibility for existence prior to the issuance of a development order, PUD, plat and commercial site plans.

**Policy 9.10:** The County shall consider the development and implementation of a tree ordinance for all residential and commercial developments.

### **PUBLIC CONSERVATION LANDS OBJECTIVES AND POLICIES**

**Objective 10.0:** To evaluate the effects which adjacent developments have on the public conservation areas as reflected on the Future Land Use Map Series and to coordinate with federal and state land management agencies to review development proposals adjacent to federal and state conservation lands and to acquire property needed for buffering for the mitigation of negative effects.

**Policy 10.1:** The Planning Department shall review developments that are adjacent to the Apalachicola National Forest, in coordination with the U.S. Forest Service, for possible adverse effects to the forest, the canoe trails contained therein, and to potential right-of-way trails for recreational purposes. A copy of each such development proposal will be submitted to the U.S. Forest Service prior to review by the County's Technical Review Committee and the U.S. Forest Service will be invited, in writing, to address any concerns to the Technical Review Committee, the Planning Commission and/or to the Board of County Commissioners.

**Policy 10.2:** The Planning Department shall review developments that are proposed adjacent to the St. Marks National Wildlife Refuge, state recreation areas, and state parks in coordination with the appropriate federal or state agencies, being either the U. S. Fish and Wildlife Service or Florida's Division of Forestry and Department of Environmental Protection, for possible adverse effects on these areas and to potential rights-of-way for recreational trail purposes. Copies of such development proposals will be submitted to the aforementioned appropriate agencies prior to review by the County's Technical Review Committee, and those agencies will be invited, in writing, to address any concerns to the Technical Review Committee, the Planning Commission, and/or the Board of County Commissioners.

**Policy 10.3:** The County shall protect public parks, historic sites, recreation areas and wildlife refuges, by land development codes that allow only compatible land uses to lessen any adverse effects from incompatible land uses and by development restrictions on private lands in areas designated as conservation areas on the Future Land Use Map, as explained in Policy 5.2 of the Future Land Use Element of this Plan.

**Policy 10.4:** The County shall coordinate with the Department of Environmental Protection to identify land adjacent to land designated for the Rails-to-Trails program suitable for additional acquisition.

### **HAZARDOUS WASTE OBJECTIVES AND POLICIES**

**Objective 11.0:** The County is developing a hazardous waste management program for the proper storage, recycling, collection and disposal of hazardous waste. In the interim, except for small quantity generators and conditionally exempt small quantity generators as identified by the Department of Environmental Protection Rules 62-730 and 62-731, F.A.C., hazardous waste storage and disposal shall be allowed only at designated

collection centers or the County Landfill, under the direct supervision of the Solid Waste Director or his designee.

**Policy 11.1:** The County shall develop an emergency response plan to handle accidents involving hazardous wastes. In the interim, the Emergency Management Director and Solid Waste Director shall be responsible for responding to and coordinating actions for any incidents involving hazardous wastes.

**Policy 11.2:** The County shall continue to promote the recycling of hazardous waste.

**Policy 11.3:** The County shall continue to promote the Amnesty Days Program.

**Policy 11.4:** The County shall implement an employee training program to properly identify and inspect wastes before they enter the landfill.

**Policy 11.5:** The County, in cooperation with Department of Environmental Protection and the Apalachee Regional Planning Council, shall design a transfer/storage facility and collection network.

**Policy 11.6:** The County shall seek funding from the Department of Environmental Protection's local Hazardous Waste Collection grants program to manage hazardous wastes.

**Policy 11.7:** The County will review the waste generation and management techniques of twenty (20) percent of the small quantity hazardous waste generators on the County master list annually.

**Policy 11.8:** The County shall require adequate hazardous waste storage or disposal facilities located within the County concurrent with the approval of any development that generates hazardous wastes.

**Policy 11.9:** The County shall not accept for disposal or indefinite storage any hazardous waste from any other county, state or nation.

### **Wakulla Springs Special Planning Area**

**Objective 12.0:** To develop solutions to restore the health of Wakulla Springs by reducing pollutants in the groundwater.

**Policy 12.1:** The County shall adopt in the Land Development Regulations a mapped Primary Spring Protection Zone (PSPZ) for Wakulla Springs based on the Florida Aquifer Vulnerability Assessment (FAVA) and in consideration of the Wakulla Aquifer Vulnerability Assessment and the Leon County Aquifer Vulnerability Assessment. Land development regulations shall be adopted to establish additional requirements and regulations within the PSPZ to minimize the adverse impacts of development on groundwater recharge quality and quantity. At a minimum, Wakulla County shall consider and address the items below:

(1) The preferred method of wastewater treatment in the PSPZ shall be connection to sewer facilities designed to achieve Advanced Wastewater Treatment standards. Land development regulations shall be amended to include enhanced requirements for new development and redevelopment to connect to Advanced Wastewater

Treatment facilities. The costs of required sewer connections in the PSPZ shall be borne in part or in whole by the developer.

(2) When connection to sewer facilities designed to achieve Advanced Wastewater Treatment standards is not available, new development and redevelopment in the PSPZ shall use Performance Based On-Site Treatment Disposal Systems (OSTDS) that are engineered to remove the nutrients affecting the PSPZ. Existing traditional OSTDS shall be upgraded to Performance Based OSTDS when the traditional OSTDS fails, as defined in the Florida Administrative Code. A process providing alternatives to upgrading to a Performance Based OSTDS at the time of traditional OSTDS failure may be developed for low-income households. To ensure that all existing traditional OSTDS and new Performance Based OSTDS function effectively, local government shall work with regional partners to evaluate and otherwise designate a Responsible Management Entity and supporting fee structure.

(3) New development and redevelopment in the PSPZ shall use a Low Impact Development approach, in addition to conventional water quality treatment infrastructure required outside the PSPZ, to minimize adverse impacts of development on water quality and Wakulla Springs. Land development regulations shall specify the mechanism for implementing the Low Impact Development planning and design approach. Standards shall be adopted in the Land Development Regulations to include use of Low Impact Development techniques for new residential subdivisions in the PSPZ that have both a density of up to two (2) units per acre and exceed a total of five (5) lots.

(4) Establish a transfer of development units system within the PSPZ to foster growth in the Crawfordville Community, increase the feasibility of providing centralized sewer service, and protect Wakulla Springs. The transfer of development units system shall be based on the policies below:

(A) The Rural and Urban Future Land Use Map categories inside the PSPZ shall be designated as the sending areas to transfer dwelling units out of. Expansion of the Rural or Urban Future Land Use Map categories shall only be allowed in the PSPZ in areas with existing development where infill development activities are desired by the County.

(B) Areas inside the Crawfordville Community, where connection to sewer facilities designed to achieve Wastewater Treatment standards is available and required, shall be designated to receive dwelling units.

(C) No Future Land Use Map amendments in the PSPZ to a Future Land Use designation that permits residential density greater than one (1) unit per two (2) acres with connection to central water service or one (1) unit per five (5) acres without shall be allowed unless the property included in the amendment is served by central sewer, or unless such service shall be guaranteed, through an enforceable development agreement pursuant to Chapter 163, Florida Statutes, to be in place concurrently with the proposed development.

(D) No Future Land Use Map amendments in the PSPZ shall be permitted that would result in a net increase in residential density above two (2) units per acre.

(5) Restrict fertilizer content and application rates and incorporate the principles of the Florida Yards and Neighborhoods Program.

(6) Protection of environmentally sensitive areas and features within the PSPZ shall be a priority for local government environmental land acquisition.

(7) Regulate the placement of underground storage tanks and restrict land uses which use, produce, or generate as a waste any listed Resource Conservation and Recovery Act (RCRA) material or EPA priority pollutant.

**Policy 12.2:** By 2012, the County shall consider additional springshed protection efforts such as expanding the Wakulla Springs Special Planning Area or creating a Spring Creek Special Planning Area.

**Objective 13:** Protect Karst Features within the County through the use of design standards and buffers.

**Policy 13.1:** Development shall meet the following design standards:

- 1) Except as otherwise provided, development shall be buffered from the following karst features as shown below

<b>Feature</b>	<b>Minimum buffer (feet)</b>
1 <sup>st</sup> & 2 <sup>nd</sup> Magnitude Springs	300
Spring runs	150
Smaller Springs	100
Sinkholes, with a direct connection to the aquifer	100
Other karst features with a direct connection to the aquifer (swallet or stream to sink)	100

- 2) The buffer shall be measured from the rim of the sinkhole or karst feature; ordinary high water line for fresh water springs and spring runs; or mean high water line for tidally connected springs and spring runs;
- 3) The buffer required in (1.) above shall retain all natural vegetation within the buffer area, except for minimal removal to allow uses such as docks or boardwalks for which mitigation is required.
- 4) Activities involving the restoration of the natural function and appearance of karst features are not to be considered development for the purpose of this policy. Best Management Practices and design standards for karst feature restoration shall be incorporated in the Land Development Code.
- 5) Non-residential development shall use joint or shared access and shared parking to the maximum extent feasible in order to minimize impervious surfaces. Any parking lots with more than 50 spaces shall be designed with a minimum of twenty (20) percent of the parking spaces in pervious area;
- 6) Design of parking lots, sidewalks, buildings, and other impervious surfaces shall minimize connections between impervious surfaces, through techniques such as:
- Directing flows from roof drains to vegetated areas or rain barrels or cisterns for reuse;
  - Directing flows from paved areas to vegetated areas;
- Locating impervious surfaces so that they drain to vegetated buffers or natural areas; and

(c) Breaking up flow directions from large paved surfaces.

7) Porous pavement materials, pervious concrete, and pervious asphalt may be used to minimize the amount of impervious surface within new development and redevelopment.

8) Definitions:

- (a) **Spring:** A point where underground water emerges onto the Earth's surface. For this reason the County does not consider a karst window to be a spring.
- (b) **1<sup>st</sup> magnitude spring** – A spring category based on the volume of flow per unit of time greater than 100 cubic feet per second or 64.6 million gallons per day.
- (c) **2<sup>nd</sup> magnitude spring** – A spring category based on the volume of flow per unit of time from 10 to 100 cubic feet per second or 6.46 to 64.6 million gallons per day.
- (d) **Smaller spring-** A spring with a volume of flow smaller than 6.46 million gallons per day.
- (e) **Spring run-** A body of flowing water that originates from a karst spring whose primary (> 50 %) source of water is from a spring, springs, or spring group.

NOTE: For example, the Wakulla River, where the predominate source of water is from Wakulla Springs, is a spring run. However, further downstream, where surface water tributaries and drainage, contribute 50 % or greater of the flow, the Wakulla River is no longer considered a spring run. A detailed hydrogeologic study may be necessary to identify boundaries of a spring run vs. river or stream.

- (f) **Sinkhole** – A land-form created by subsidence of soil, sediment or rock as underlying strata are dissolved by ground water.

NOTE: sinkholes may be directly (karst window) or indirectly connected to the aquifer or disconnected by the presence of a confining layer of soil or rock (clay) that no longer allows water to permeate below this layer. The latter may be expressed as a relic sinkhole or lake, depression in the land surface, or loose soils in the subsurface.

- (g) **Swallet or swallow hole** – A place where water disappears underground in a limestone region. A swallow hole generally implies water loss in a closed depression or sinkhole, whereas a swallet may refer to water loss from a disappearing stream or streambed, even though there is no depression.
- (h) **Karst features:** A term describing landforms that have been modified by dissolution of soluble rock (limestone or dolostone). These include springs, spring runs, sink holes, and swallets or swallow holes.
- (i) **Recharge Area-** The area where water predominantly flows downward through the unsaturated zone to become groundwater.

(source: Univ. Of Nebraska-School of Natural Resources.)

### **Energy Conservation**

**Objective 14.0:** Reduce greenhouse emissions and energy resources within the County.

**Policy 14.1:** The County shall incorporate energy conservation strategies into the Land Development Code.

**Policy 14.2:** The County shall strive to educate citizens about energy conservation practices.

**Policy 14.3:** The County shall ensure that all new public buildings are energy efficient.