

EVALUATION AND APPRAISAL REPORT
E. CONSERVATION ELEMENT

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Prepared September, 1998, by the Putnam County Planning, Zoning and Building Department
Updated June, 1999, by the Northeast Florida Regional Planning Council

I. General Status of the Conservation Element

Below is an analysis of the Conservation Element. The analysis is divided into four parts. Part A is an assessment of the background document on which the adopted portion of the element is based. Part B identifies recommended changes to the goals, objectives and policies based on the assessment of the background document and any changes to growth management laws and rules. Please note, further assessment of the objectives and policies is the subject of Section II of this document which includes additional recommendations for amendments to the objectives and policies and provides an assessment of the plan at the date of the EAR. Part C is an assessment of adopted figures, such as maps and lists, which includes a recommendation regarding whether to retain, delete or amend them. Part D is an assessment of adopted tables which includes a recommendation regarding whether to retain, delete or amend them.

The assessments in Parts A through D include where appropriate the following:

- < summary statements regarding the data and analysis at time of plan adoption
- < identification of changes in conditions described in the element since plan adoption including current conditions
- < provision of a new existing land use map
- < provision of a new table of existing land uses
- < provision of a new existing traffic circulation map
- < a summary of the condition and quality of all natural resources
- < identification of changes made to the element since adoption of the plan including background information, map changes and amendments to adopted maps and text (see Appendix 1)
- < identification of problems specifically listed in Rule 9J-5.0053(6)(a)4.a.-o.(each element will not include all items listed in a.-o., see Appendix 2)
- < identification of other unanticipated and unforeseen problems and opportunities and their impact on the comprehensive plan
- < statements regarding the effect on the comprehensive plan of changes to the State Comprehensive Plan, Strategic Regional Policy Plan, Rule 9J-5, F.A.C., and Chapter 163, Part II, F.S.
- < identification of any needed actions to address the issues raised in this section including

provision of new, revised, minimum 5-year and minimum 10 year time frames and population projections; updated population projections; new and revised goals, objectives, and policies; revised future conditions maps; new capital improvements element; new monitoring and evaluation procedures; and studies to be completed

A. BACKGROUND DOCUMENT

Overview - This section provides a basic description of what is included in the element and also provides for some details on some of the more important environmental features in the County.

Recommendation - *If it is our intent to provide an element overview, then it should be included in all elements. It should also be reviewed to see if it needs to be updated. As there are no other elements that contain an overview, the title of the section should either be revised to "Summary" to match other elements, combined with the introduction, or deleted.*

Section I. Introduction - This section provides an intent statement for the element. Information in this section has not been updated since 1991.

Recommendation - *Provide updated information, and include some statements regarding how the following document is set up.*

Section II. Inventory of Natural Resources - This section is divided into eight subsections - Surface Water Resources; Groundwater Resources; Wetlands; Floodplains; Fisheries, Wildlife, Marine Habitat; Air; Areas Known to Experience Soil Erosion, and Known Sources of Commercially Valuable Minerals. Only subsection E. Fisheries, Wildlife, Marine Habitat has been updated. A subsection E.2.c. "Additional Study Required" was added to support an amendment to Policy E.1.4.1 adopted by Ordinance 93-19. The subsection describes the vegetative communities that will be studied by the County to determine whether or not certain areas are appropriate for redesignation as Conservation by amending the Future Land Use Map.

While the much of the basic information contained within the section has remained the same, there are much better maps of the described natural resources and habitats available. For example Figure E-1 in this element shows aquifer recharge areas, and Figure D-7, in the Infrastructure Element is an updated map showing aquifer recharge areas. Updated information is also available regarding water quality, water usage, impact to wetlands, air quality, and location of wildlife species such as eagles and black bears. In general development has occurred in areas designated for development on the future land use map with little impact to environmentally sensitive areas.

Recommendation - *Replace all maps where more recent and accurate maps have been compiled. Update the information on water quality, water usage, impact to wetlands, air quality, and location of wildlife species such as eagles and black bears. After reviewing updated information, make appropriate changes to the background document. Include updated background information from the Environmental Lands Assessment.*

Section III. Existing Recreational, Commercial or Conservation Uses of Identified Resources - This section references material provided in the previous section and adds very little new information. The section has not been updated since 1991. Two mining operations in the County have expanded since 1991, RGC Mineral Sands and Florida Rock.

Recommendation - Cover the use of the resources in the previous section. Add information about the expanded mining operations.

Section IV. Management of Hazardous Waste - This section is divided into two subsections - Hazardous Waste Generators and Disposal Facilities. A list of large quantity generators of hazardous wastes is provided. The small quantity generators are discussed, but a list is not provided. An estimate of hazardous waste generated per year through the year 2000 is provided. Disposal facilities within the County are identified. One hazardous waste contamination site, located near Hollister was on the EPA Superfund Sites list. This section has not been updated since the 1991. There is updated information available regarding generators of hazardous wastes and disposal sites.

Recommendation - Update information regarding the major hazardous waste generators, as well as the projections for total hazardous waste generation for the County. Update the information regarding disposal facilities in the County. Add a section which references the programs such, as the Clean Vessel Act Program, administered by DEP which would assist with the County's efforts to prohibit the dumping of raw sewage.

B. GOALS, OBJECTIVES AND POLICIES

Ordinance 93-19, adopted pursuant to a compliance agreement with DCA to bring the plan into compliance with growth management laws and rules, amended the following policies:

Policy E.1.2.5 - revised the conditions for the provision of a vegetated upland buffer for waterfront development

Policy E.1.2.8 - revised to provide the proper source for determining the maintenance of water quality standards for agricultural runoff.

Policy E.1.2.17 - revised to provide proper reference to Flood Insurance Rate Maps and flood hazard areas and to provide better defined protection methods for flood hazard areas.

Policy E.1.2.18 - added to provide better defined protection methods for wetlands and water bodies.

Policy E.1.3.5 - revised to require the County to inform the proper agencies of violations to ensure that agriculture and silviculture follow Best Management Practices, and further defines what is to be considered a Best Management Practice.

Policy E.1.3.6 - revised to provide for protection of environmentally sensitive areas and native vegetative communities to include a set aside of 25% for developments in excess of 50 acres.

Policy E.1.3.7 - revised to ensure that any development on parcels adjacent to the Ocala National Forest, Wildlife Management Areas, State or Private Preserves, or other State or

Federal natural resources areas is compatible.

Policy E.1.4.1 - revised to have the County secure the most recent maps and inventories of a specific list of environmental lands, and adopt appropriate map amendments based on the input of environmental agencies regarding resource areas that are of state, regional or local significance.

Policy E.1.4.2 - revised to require development in proximity to endangered or threatened species to comply with the management criteria of the US Fish and Wildlife Service and the Florida Game and Freshwater Fish Commission.

Ordinance 98-2 amended the following policies:

Policy E.1.3.6 revised to adjust percentages of required set aside of natural vegetation to better preserve greater quantities of environmentally sensitive lands and promote development in areas where it is best suited. These changes have not been found in compliance by DCA.

Policy E.1.4.1 revised to change the dates to submit map amendments designating appropriate areas as conservation.

Policy E.1.4.4 revised and E.1.4.5. deleted to provide better coordination in the development of manatee protection regulations with DEP.

In the adopted plan there is a reference to an ordinance in brackets after each objective and policy amended since plan adoption. On July 10, 1997, the Northeast Florida Regional Planning Council adopted their Strategic Regional Policy Plan (SRPP) to replace the Comprehensive Regional Policy Plan (CRPP).

Recommendation - All proposed amendments to the goals, objectives and policies of Putnam County's plan must be reviewed for consistency with the SRPP, and the State Plan. This will take place as the amendments to implement the findings in this report are prepared for public hearings. Delete all references to the CRPP.

C. Adopted Figures (Maps) - There are no adopted figures in the Element.

D. Adopted Tables - There are no adopted tables in the Element

II. Achievement of Conservation Objectives

Section 9J-5.0053(6)(a)3 of the Florida Administrative Code (F.A.C.) requires the County to complete an analysis to determine whether or not the objectives adopted in the County's Comprehensive Plan were achieved between December 1991 and June 1999. Below is an analysis of the Future Land Use objectives. Under each objective is a statement indicating what measure should be used to determine whether or not the objective has been achieved, a status statement regarding what has been done to

meet the objective, and a recommendation to retain, amend or delete the objective. Following the analysis of the objective, each policy under the objective is analyzed. The analysis includes a recommendation to retain, amend or delete the policy, and statements regarding how the policy has been implemented.

Section 9J-5.0053(6)(a)5. F.A.C., requires the County's Evaluation and Appraisal Report to include a description of unanticipated and unforeseen problems and opportunities which have occurred since plan adoption, and a description of their impact on the plan. The County is faced with a basic problem in achieving the objectives of the Plan. There has been a general lack of funds available to hire the necessary staff and/or equipment required to fully implement the policies to achieve the objectives.

GOAL E.1 [9J-5.013(2)(a)]: Conserve and protect the natural resources of Putnam County and maintain an acceptable quality of life for its citizens.

Objective E.1.1 [9J-5.013(2)(b)1]: Upon Plan adoption, the air quality in Putnam County shall be maintained with no further degradation.

Measure: Reported violations of state and federal air quality standards within County

Status: We have not been informed of any violations of the state and federal air quality standards since adoption to the Comprehensive Plan.

Recommendation: Amend Objective E.1.1 to delete "upon plan adoption".

Policy E.1.1.1 [9J-5.013(2)(c)]: Future industry locating in the County shall, as a minimum standard, be required to meet the air quality standards established by state and federal agencies as a condition of continued operation or development approval.

Retain Policy E.1.1.1. No exceptions have been granted. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.1.2 [9J-5.013(2)(c)]: Developments of Regional Impact, future power generation projects, future major transportation projects, future commercial centers and future industry shall be required to conduct assessments of their impacts on air quality and shall be required to meet the air quality standards established by state and federal agencies as a condition of approving a development order.

Amend Policy E.1.1.2 to delete the requirement to conduct assessments of impacts on air quality as this should be required as needed by state and federal agencies. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.1.3 [9J-5.013(2)(c)]: The County shall reduce the potential for mobile emissions by:

- A. Requiring mixed use DRI's and developments to link the uses with bike and pedestrian paths.
- B. Promoting bike and pedestrian paths.
- C. Requiring efficient on-site circulation movement within new developments.
- D. Promoting mixed-use communities within new development which combine living/shopping/working in close proximity.

Retain Policy E.1.1.3. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

New Policy E.1.1.4. Add policy that reads: AThe County will work with Federal, State, and local agencies to ensure that when lead paint is removed from structures it is done in ways that protect the health of Putnam County=s residents and water quality. @.

Objective E.1.2 [9J-5.013(2)(b)2]: Upon plan adoption, the County shall implement the following policies that are to conserve, appropriately use and protect the quality and quantity of current and projected water sources and waters that flow into estuarine waters.

Measure: *Quantity of water used per capita. Reports of water quality problems.*

Status: *Obtain and review an updated water needs and sources report from the SJRWMD and SRWMD. Obtain data from the water management districts regarding reports of water shortages. Water quality in the East Palatka area is not good. County is proceeding with construction of a water treatment plant. The County's development review procedures address this objective. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this objective.*

Recommendation: *Amend Objective E.1.2 to delete "upon plan adoption".*

Policy E.1.2.1 [9J-5.013(2)(c)6]: The County shall prohibit the dumping of raw sewage from live-aboard vessels, recreational vehicles, passenger trains and other mobile facilities situated in or transiting through the County. Furthermore, the County shall require sewage pumpout facilities in the design of all new or redeveloped marinas.

Amend Policy E.1.2.1. The SJRWMD supports the County=s efforts to eliminate the dumping of raw sewage. DOH also supports the County=s efforts in this policy and finds the policy feasible. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy. A policy statement will be added that indicates and encourages cooperation with the FDEP who administers a Clean Vessel Act Program which may assist in the County=s efforts in implementing this policy.

Policy E.1.2.2 [9J-5.013(2)(c)6]: The County shall adopt state standards of Chapter 17-61,

FAC, for all underground storage tanks and attached piping located within waterfront marinas and shall participate in on-going inspections of these facilities.

Amend Policy E.1.2.2 to change reference to Chapter 17-61 to Chapter 62-761 and add Aand above ground@ after all underground, per DOH recommendations. DOH has a contract with DEP for the inspection and regulation of gas tanks and piping systems on all tanks greater than 550 gallons. Putnam County should work with DOH to develop an Aexempt status@ ordinance for the regulation of smaller tanks. The County should pursue an ordinance requiring permitting for inspecting the installation of underground and aboveground petroleum storage tank systems for compliance with building setbacks, fire suppression systems, electrical systems, etc. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy. May need to enter a formal agreement with the Department of Environmental Protection for inspection of underground storage tanks and piping within marinas.

Policy E.1.2.3 [9 J-5.013(2)(c)6]: The County shall annually monitor FDER's routine inspection schedules for all package treatment plants as a means to further these facilities' continued meeting water quality standards for discharge.

Amend Policy E.1.2.3 to change reference to DER to DEP. . The Public Works department states that the County does not presently monitor or review DEP=s routine inspections of package treatment plants. In addition they stated that if the county were to monitor their reviews it would be a duplication in effort which would provide no additional benefit. PER DOH recommendation the County will change this policy to reflect that the DOH shall annually monitor the DEPs routine inspections.

Policy E.1.2.4 [9J-5.013(2)(c)6]: New waterfront development shall be designed so that stormwater runoff and erosion are retained on-site or are channeled so as to not degrade ambient water quality of adjacent waters.

Retain Policy E.1.2.4. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.2.5 [Rev. 93-19; 9J-5.013(2)(c)3,6; identical to Policy A.1.4.12]: The County shall adopt and enforce regulations that require the preservation or restoration of a vegetated upland buffer or filter for any waterfront development. The buffer strip shall provide for sheet flow of the surface runoff, and shall be a minimum of 50 feet in width, except as provided below. Development and land use activities excepted below in Sections B through G shall be allowed only when permitted by the land use designation; site characteristics are such that impacts cannot be avoided; the impacts are limited to the minimum necessary to allow the permitted use of the property; and the site development or use is in compliance with HRS, DEP, WMD, and COE regulations for permitting and mitigation.

A. It is certified that either the existing condition or a buffer has been established which meets the USDA SCS specifications in the Code 393 Field Office Technical Guide, Florida Supplement dated January, 1988, for a minimum design width of:

1. 15 feet in areas of less than four and one-half percent slope where the vegetation is ground cover species or mixed woody (trees and shrubs) and ground cover species.
2. 25 feet in areas of four and one-half percent or greater slope where the vegetation is ground cover species or mixed woody (trees and shrubs) and ground cover species.
3. 30 feet in areas of less than four and one-half percent slope where the vegetation is only woody species (trees and shrubs).
4. 50 feet in areas of four and one-half percent or greater slope where the vegetation is only woody species (trees and shrubs).

B. Resource-based recreational facilities such as trails, boardwalks, piers, and boat ramps.

C. Water dependent components of commercial development such as port facilities, marinas, fish camps, and commercial fishing and shellfishing operations.

D. General Agriculture shall follow BMPs as provided in Policies A.1.4.9 and E.1.3.5 and E.1.2.8.

E. Silviculture shall follow the most recent editions of the best management practices and management guideline manuals of the Florida Department of Agriculture and Consumer Services, Division of Forestry, as provided in Policy A.1.4.9 and identical Policy E.1.3.5.

F. Mining activities shall be located a minimum of 500 feet from a water body as currently required by Section 24-5 of the County Zoning Ordinance 88-1, as amended by Ordinance 91-31.

G. Essential public services.

Amend Policy E.1.2.5. based on recommendations from the SJRWMD revise the 15-foot buffer requirement in A.1 to an average minimum of 25 feet around a wetland per District-Rule. F.A.C. 40-C-4. Based on SJRWMD recommendation the County will revise the exception criteria based upon slope considering options which include eliminating the exception criteria based on slope and add language that will not allow land use changes, unless sites are shown to have sufficient buildable area to maintain required buffers. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.2.6 [9J-5.013(2)(c)3,6]: Residents of waterfront developments shall be made

aware, through public education, of the various techniques available to protect water quality including maintenance of vegetated upland buffers, maintenance of littoral zones rather than use of bulkheads, maintenance of septic tanks, and controlled application of pesticides and fertilizers.

Retain Policy E.1.2.6. This information is not available at the Planning Department. SJRWMD currently has no publications that would meet this need but will alert the County and provide such publications if in the future the District publishes documents on these issues. The Putnam County Administration Office does not provide any public education on this matter. The Putnam County Health Department provides the public information in their permitting process and when complaints are received, however, no other forms of public education are provided. The County Cooperative Extension Office does not provide public education on this matter either.

Policy E.1.2.7 [9J-5.013(2)(c)6]: Minimum lake levels as established by the St. Johns River and Suwannee River Water Management Districts shall not be exceeded by surface water withdrawals as controlled by the County Concurrency Management System.

Amend Policy E.1.2.7.,. to reflect that the water management districts have sole charge for granting water use withdrawals within the County, and that the County will seek to coordinate with the Districts on areas where levels have been set and cooperate with the Districts on identifying alternative sources for problem areas, before granting land use changes. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.2.8 [Rev. 93-19; 9J-5.013(2)(c)6]: Agricultural runoff shall meet State Water Quality Standards to maintain ambient water quality in accordance with the requirements of Rule 17-302.55, FAC, and shall meet the Best Management Practices (BMPs), as provided on Pages 7-6 through 7-13 of the "Florida Non-Point Source Management Plan, Volume Two", May 1989, DER.

Retain Policy E.1.2.8. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.2.9 [9J-5.013(2)(c)3,6]: The County shall adopt and enforce regulations that require that new roads and driveways be designed so that stormwater runoff is retained on-site or is channeled so as to control erosion and maintain ambient water quality in accordance with the requirements of Rule 17-302.55, FAC, which otherwise can adversely affect adjacent surface water bodies and wetlands.

Retain Policy E.1.2.9. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy. According to the Public Works Department this policy is addressed to a point by Ordinance 83-19 at driveways by requiring culverts and metered end sections where appropriate and

for roadways.

Policy E.1.2.10 [9J-5.013(2)(c)3,6]: The County shall recommend to the SJRWMD and the SRWMD that those water bodies identified as having water quality problems be included in the SWIM program for further analysis to determine pollution sources and feasible techniques to upgrade water quality.

Retain Policy E.1.2.10. , . The County has communicated with SJRWMD to gain a better understanding of water bodies with water quality problems within the County. The SJRWMD has recognized the Lower St. Johns River Basin is designated a SWIM water body.

Policy E.1.2.11 [9J-5.013(2)(c)6]: The County shall continue to enforce its Ordinance prohibiting additional sewage wastewater effluent discharges into the St. Johns River.

Amend Policy E.1.2.11 to make a proper reference to the land development code. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.2.12 [9J-5.013(2)(c)1,4]: Water conservation measures shall be promoted for all water users including domestic, public, institutional, industrial, and agricultural. The County shall make available at County Offices water conservation materials published by the FDER, FDNR, SJRWMD and SRWMD.

Water conservation measures endorsed by the County include the plugging of unused artesian wells, landscape vegetation watering restrictions during periods of drought, and the physical restrictions and water-saving devices as shall be required by updated building and energy codes that are required when upgrading residential, commercial or industrial plumbing systems.

Emergency water conservation measures enacted by the SJRWMD and endorsed by the County include the "Water Shortage Rule" (Chapter 40C-21, FAC) and the "Water Conservation Rule" (Chapter 40C-2, FAC).

Amend Policy E.1.2.12 to clarify the County's role in the water conservation program, and to delete references to DNR and DER and replace with DEP. None of this information is made available at the Planning Department. . The County=s Administration department found this statement to be sufficient and said that this policy deals with information in the public info racks. The Public Works Department says that the County encourages he plugging of unused artesian wells, has enacted watering restrictions in times of drought and encourages water conservation. The County's building codes and development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.2.13 [9J-5.013(2)(c)1]: Recharge functions in Prime Groundwater Recharge Areas to the Floridan Aquifer as defined by the SJRWMD and SRWMD shall be protected in subdivision and zoning codes through the establishment of criteria including retention of runoff and maximum permitted coverage of impervious surfaces per lot.

Amend Policy E.1.2.13. Readdress this policy relative to changes made in D.1.5.5. After consultation with the water management districts, replace references to the APrime Groundwater Recharge areas@ with Aareas of High Recharge Potential to the Floridan Aquifer.@ Revise policy to reflect that areas of High Recharge Potential to the Floridan Aquifer quantify the amount of recharge expected to occur over the course of a year in a given area. The District recommends utilizing the areas marked as having recharge greater than 8 inches a year and above and discharge zones (where the water table is very close to the surface), for the purpose of protection intended in this policy. This policy will be revised to identify areas of High Recharge Potential to the Floridan Aquifer as having a recharge greater than 8 inches a year. Water quality and water quality protection in discharge zones is adequately addressed throughout the plan in policies such as; E.1.2.17, E.1.2.9, E.1.2.11, D.1.6.1, D.1.6.4, D.1.6.5, D.1.6.6, and D.1.6.7. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.2.14 [9J-5.013(2)(c)1]: Groundwater quality within Prime Groundwater Recharge Areas to the Floridan Aquifer as defined by the SJRWMD and SRWMD shall be protected through prohibition of possible polluting land uses such as: landfills, hazardous waste sites, and auto salvage and junkyards; along with limitations for siting septic tanks and underground tanks which store hazardous or potentially polluting substances through the implementation of Land Development Regulations.

Amend Policy E.1.2.14. after consultation with the SJRWMD, to replace references to the APrime Groundwater Recharge areas@ with Aareas of High Recharge Potential to the Floridan Aquifer.@ Revise policy to reflect that areas of High Recharge Potential to the Floridan Aquifer quantify the amount of recharge expected to occur over the course of a year in a given area. The District recommends utilizing the areas marked as having recharge greater than 8 inches a year and above and discharge zones (where the water table is very close to the surface), for the purpose of protection intended in this policy. This policy will be revised to identify areas of High Recharge Potential to the Floridan Aquifer as having a recharge greater than 8 inches a year. Water quality and water quality protection in discharge zones is adequately addressed throughout the plan in policies such as; E.1.2.17, E.1.2.9, E.1.2.11, D.1.6.1, D.1.6.4, D.1.6.5, D.1.6.6, and D.1.6.7. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.2.15 [9J-5.013(2)(c)1]: Public water wellheads shall be protected from adverse impacts of development by requiring a minimum 200-foot Reasonable Fixed Radius Zone of non-polluting land uses around each wellhead as described in the SJRWMD publication, SJ91-SP9, "Guide to Groundwater Protection in Florida", Volume II, January, 1991, pages 62-63; or greater, where required by Chapter 17-555.312, FS.

Non-polluting land uses shall include Recreational and Conservation land uses, low and medium density residential land uses and commercial land uses that do not, in their operations, produce, store, use nor sell toxic materials as defined in SARA Title III

(Consolidated List of Hazardous Materials).

Any nonconforming land use located within 200 feet of a well serving the public will not be permitted to expand or be improved.

Should later calculations of zones of influence or zones of contribution by the Water Management District find that cones of influence for wells within the County are greater or less than 200 feet, the Plan shall be amended through procedures identified in Chapter 163, FS, to reserve land use in an amount appropriate to adequate protection.

Amend Policy E.1.2.15 (see also D.1.7.1). to establish correct wellhead protection zones based on recommendations received from the SJRWMD. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.2.16 [9J-5.013(2)(c)1,10]: No facilities that use, handle, generate, transport, or dispose of hazardous waste shall be permitted within public wellfield cones of influence.

Amend Policy E.1.2.16. to use proper terms in regard to the protection zone needed, and clarify how existing uses will be treated. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.2.17 [Rev. 93-19; 9J-5.013(2)(c)6; identical to Policy A.1.1.1]: Putnam County shall use the latest version of the Flood Insurance Rate Maps provided by FEMA to determine the location of areas of special flood hazard which include the 100-year floodplain and floodways within the 100-year floodplain. The County shall provide specifications for regulating development and land use activities within these areas in its Land Development Regulations. The specifications will include the following which will be in effect upon Plan adoption:

A. Development and land use activities listed below shall be allowed in areas of special flood hazard and are subject to meeting the requirements provided in Sections B and C below.

1. New residential development shall be limited to the lowest density of the future land use category in which the property is located except for lots existing on December 19, 1991 at 5:00 p.m. which cannot meet this requirement. These lots will be considered lots of record and may be developed with one residence.

2. The following may be permitted in land use categories that allow such non-residential development or land use activity:

a. Resource-based recreational facilities such as trails, boardwalks, piers, and boat ramps.

- b. Water dependent components of commercial development such as port facilities, marinas, fish camps, and commercial fishing and shellfishing operations.
- c. General Agriculture shall protect wetlands and water bodies by following BMPs as provided in Policies A.1.4.9 and E.1.3.5 and E.1.2.8.
- d. Silviculture shall follow the most recent editions of the best management practices and management guideline manuals of the Florida Department of Agriculture and Consumer Services, Division of Forestry as provided in Policy A.1.4.9 and identical Policy E.1.3.5.
- e. Mining activities shall be located a minimum of 500 feet from a water body as currently required by Section 24-5 of the County Zoning Ordinance 88-1, as amended by Ordinance 91-31.
- f. Essential public services.

3. The following uses shall be prohibited in areas of special flood hazard:

- a. Land uses requiring the storage, disposal, generation or use of hazardous waste.
- b. Landfills
- c. Underground storage of toxic materials
- d. Auto salvage yards
- e. Junkyards

B. The County will incorporate the existing Flood Control Ordinance 87-1 into the Land Development Regulations which includes the following requirements in compliance with FEMA regulations:

- 1. Residential structures in all areas of special flood hazard must be elevated one (1) foot above the base flood elevation.
- 2. Non-residential structures in all areas of special flood hazard must either be elevated one (1) foot above the base flood elevation or flood-proofed as certified by a registered professional engineer or architect.
- 3. New construction, fill, and other improvements are prohibited in the floodway unless

certification (with supporting technical data) by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels of the base flood discharge.

C. Development in areas of special flood hazard shall comply with the following:

1. Applications for subdivision approval shall include a soils map indicating the location on the property of soil types identified by U.S. Soil Conservation Service descriptions and a map showing any portions of the property located in areas of special flood hazard as currently required by Ordinance 83-9, County Subdivision Regulations.
2. Development proposals for sites larger than 5 acres or greater than 50 lots shall provide base flood elevation data as currently required by federal regulations and County Flood Control Ordinance 87-1.
3. Dredging and filling of lands within floodplains shall not be permitted to adversely impact upon the natural functions of the 100-year floodplain, and shall be carried out, only in strict accordance with state or federal permits.
4. All proposed development shall be located or clustered on the portions of the site outside areas of special flood hazard wherever possible.
5. No hazardous waste shall be generated, stored, or disposed of within the 100-year floodplain.
6. Use of septic tanks in the 10-year floodplain and floodways will be restricted by the County Health Department in compliance with Section 10D-6.0471, FAC.

Amend Policy E.1.2.17 (identical to Policy A.1.1.1) to delete references to existing County Ordinances and replace with reference to land development code. Pursuant to the County Ordinances cited in the policy, and state laws, this policy is implemented through the development review process. Replace A10D-6.0471" reference with ADOH On Site Sewage Treatment and Disposal System Standards@ in E.1.2.17.C.6. After consultation with the SJRWMD, add language to discourage changing the future land use designation in the floodplain, unless it can be demonstrated that such changes will not reduce the water resource-related benefits provided by the floodplain, and encourage clustering on upland portions of properties, outside of areas in the 100-year floodplain, and direct more intense uses away from flood prone areas. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.2.18 [New 93-19; 9J-5.013(2)(c)6, identical to Policy A.1.4.13]: Subsequent to Plan adoption development in and adjacent to wetland and water bodies shall be subject to the following:

- A. All applicable state and federal regulations for permitting and mitigation must be met

prior to the County issuing any construction permits. This will be enforced through the site plan review process required by Policy A.1.1.2.

B. The County through its subdivision regulations shall require all new lots to have adequate area to meet the 20 foot wetland buffer requirements of Policy D.1.6.4 and the water body buffer requirements of Policy A.1.4.12 and identical Policy E.1.2.5. In addition if the new lot will be serviced by an onsite septic system it must comply with the following:

1. The usable land requirements and wetland and water body setbacks of Chapter 10D-6 of the Florida Administrative Code must be met.
2. If the new lot is within 500 feet of the mean or ordinary high water line of a water body, it must have 100 feet of frontage along the water body; and when developed, the septic system must meet the special design standards currently provided in Ordinance 87-5 which will be incorporated into the land development regulations and the system must be set back 100 feet from the mean or ordinary high water line.

C. The County shall ensure the protection of wetlands by requiring structures and other site improvements to be located outside of wetlands and the 20 foot buffer required by Policy D.1.6.4. except as provided below. All exceptions are applicable only when the land use designation on the property permits the development or land use activity listed below; site characteristics are such that wetland impacts cannot be avoided; the impacts are limited to the minimum necessary to allow the permitted use of the property; and the site development or use complies with HRS, DEP, WMD, and COE regulations for permitting and mitigation.

1. Residential lots of record existing on or before the adoption of the comprehensive plan on December 19, 1991 at 5:00 p.m. which do not contain sufficient uplands to permit development of a residence without encroaching into wetlands, may be developed with one residential dwelling.
2. Resource-based recreational facilities such as trails, boardwalks, piers, and boat ramps.
3. Water dependent components of commercial development such as port facilities, marinas, fish camps, and commercial fishing and shellfishing operations.
4. General Agriculture shall maintain the natural hydrology and function of wetland areas in accord with the most recent version of USDA SCS guidelines established in the 1985 Food Securities Act and amended in 1990; and by following BMPs as provided in Policies A.1.4.9 and E.1.3.5 and E.1.2.8.
5. Silviculture shall follow the most recent editions of the best management practices and management guideline manuals of the Florida Department of Agriculture and Consumer Services, Division of Forestry as provided in Policy A.1.4.9 and identical

Policy E.1.3.5.

6. Mining activities shall be located a minimum of 500 feet from a water body as currently required by Section 24-5 of the County Zoning Ordinance 88-1, as amended by Ordinance 91-31.

7. Essential public services.

D. Transfer of density from wetlands to the upland portion of a site shall be permitted through approval of appropriate Planned Unit Development (PUD) Zoning applications and by establishing flexibility in the lot area requirements in the various zoning districts established in the Land Development Regulations. The wetland area will be included in calculating the gross density applicable to a property.

E. Wetland and water body protection shall be considered when the County evaluates variance requests for setback modifications that would move development away from wetlands and water bodies.

F. Development in the area adjacent to water bodies shall be limited according to vegetated buffer and use restrictions of Policy A.1.4.12 and the 50 foot building setback required by Policy A.1.4.17. Development in water bodies shall be allowed only for uses permitted by DEP and COE.

Amend Policy E.1.2.18 (identical to Policy A.1.4.13.C),, after consultation with the water management districts, change the 20-foot buffer to an average minimum of 25 feet around a wetland per District-Rule. F.A.C. 40-C-4. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Objective E.1.3 [9J-5.013(2)(b)3]: Upon plan adoption, the County shall implement the following policies that are to conserve, appropriately use, and protect minerals, soils, and native vegetation communities including forests.

Measure: *Assess policies*

Status: *Policies are evaluated below.*

Recommendation: *Amend Objective E.1.3 to delete "upon plan adoption".*

Policy E.1.3.1 [9J-5.013(2)(c)2]: Existing working mining sites and sites with potential for future mineral extraction shall be identified and land uses that diminish the long-term economic viability of the mineral resources shall be prohibited within or adjacent to these sites through the control of development densities within the Future Land Use Element and Future Land Use Map.

Amend Policy E.1.3.1. to make it clear the economic viability of mines will be considered in any land

use actions adjacent to or within existing mine sites. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.3.2 [9J-5.013(2)(c)2]: The County shall annually review mining operation progress with DNR and other federal and state agencies to ensure that lands disrupted by mining operations are restored to aesthetically pleasing and physically useful condition at the completion of such operations through enforcement of Reclamation Rules 16C-37 and 16C-39, FAC.

Amend Policy E.1.3.2. to correct DER reference to DEP. May need to enter an interlocal agreement with DEP for annual review of mining operation progress for compliance with reclamation rules 16C-37 and 16C-39.

Policy E.1.3.3 [9J-5.013(2)(c)6]: Existing agricultural areas shall be protected from premature conversion to non-agricultural uses through maintenance of densities as identified on the Future Land Use Map.

Amend Policy E.1.3.3 to make it clear protection of agricultural areas will be considered in any land use actions in proximity to an existing agricultural area. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.3.4 [9J-5.013(2)(c)6]: Developers shall be required to apply erosion control practices to reduce soil erosion from wind and water during and after construction activities. Controls shall be specified in Land Development Regulations and shall include such techniques as spreading hay or other mulch materials over potential erosion areas, lining drainage swales with sand, sod or burlap, spraying non-polluting binding materials over the site, etc.

Amend Policy E.1.3.4. to be identical to Policy A.1.4.8 (this may require amending both policies). The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.3.5 [Rev. 93-19; 9J-5.013(2)(c)6, identical to Policy A.1.4.9]: The County shall inform the Division of Forestry, the Department of Environmental Protection and the Agricultural Soil and Water Conservation District of violations to ensure that agriculture (row crops, ranching, etc.) and silviculture follow Best Management Practices (BMPs), as contained in the following:

A. Pages 7-6 through 7-13 of the "Florida Non-Point Source Management Plan, Volume Two", May 1989, DER, applicable to general agriculture.

B. "Silviculture Best Management Practices Manual", (Revised May 1990, Florida Department of Agriculture and Consumer Services, Division of Forestry); and "Management Guidelines for Forested Wetlands in Florida" (December 1988, Florida Department of

Agriculture and Consumer Services, Division of Forestry and Florida Forestry Association), applicable to silviculture. Upon implementation by the Department of Agriculture and Consumer Services, silviculture shall follow BMPs provided in the 1993 revision of "Silviculture Best Management Practices Manual" which will replace the May 1990 revision of the same document and will also replace "Management Guidelines for Forested Wetlands in Florida" (December 1988, Florida Department of Agriculture and Consumer Services, Division of Forestry and Florida Forestry Association).

Amend Policy E.1.3.5. (identical to Policy A.1.4.9.) to reference only the 1993 document in section B.

Policy E.1.3.6 [Rev. 93-19; 9J-5.013(2)(c)3, 6]: The County shall protect environmentally sensitive areas and native vegetative communities as follows:

A. The County shall require new development, as defined in Section 380.04, FS, on sites of 50 acres or more to preserve a minimum of 25 percent of the existing native vegetation on the site. If review of County, WMD, and GFWFC maps indicates the site contains environmentally sensitive areas listed in Policies A.1.9.3.A.11 and E.1.4.1, the County, through the site plan review process, will request input from other appropriate agencies regarding additional development limitations and proper preservation, restoration, and/or management considerations.

B. In the process of reviewing site plans, the County shall assess the compatibility of land use activities and development on parcels adjacent to the Ocala National Forest, Wildlife Management Areas, State or Private Preserves, or other State and Federal natural resource areas.

C. The County shall maintain and distribute a recommended native plant listing and other educational materials available from the Florida Game and Fresh Water Fish Commission, Water Management District, Florida Department of Agriculture (Division of Forestry) and other state or federal agencies to increase public awareness of the need to utilize native plant species in the developed landscape and eliminate exotic nuisance plants from existing developed areas.

D. Vegetative buffers and landscaping required by Comprehensive Plan policies and/or the implementing land development regulations shall utilize native plant species.

Amend Policy E.1.3.6. As Ord. 98-2, found not to be in compliance by DCA, did not change the policy. The County has contracted with NEFRPC and is conducting an Environmental Lands Assessment for the County. This Assessment will be completed by, and included in, the EAR based amendments. The policy will be changed as needed based on the findings of the Environmental Lands Assessment. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy. Need to maintain and distribute a recommended native plant listing and other educational materials available from the FGFWFC, Water Management Districts, Division of Forestry, and other

state or federal agencies to increase public awareness of the need to utilize native plant species in the developed landscape and eliminate exotic nuisance plants from existing developed areas. The Planning Department does not have this information. Obtain a statement from the Agricultural Extension Office regarding the availability of the information. The County's Administration department found this policy to be sufficient and said that this policy deals with information in the public info racks.

Policy E.1.3.7 [Rev. 93-19; 9J-5.013(2)(c)3, 6]: In the process of reviewing land use actions including comprehensive plan amendments and rezonings, the County shall assess the compatibility of future land use activities and development on parcels adjacent to the Ocala National Forest, Wildlife Management Areas, State or Private Preserves, or other State and Federal natural resource areas.

Retain Policy E.1.3.7. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.3.8 [9J-5.013(2)(c)7]: The County shall ensure that land uses adjacent to recreational sites are compatible with the recreation land use.

Amend Policy E.1.3.8 to make it clear any land use actions adjacent to recreational sites will consider impacts to recreational sites. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.3.9 [9J-5.013(2)(c)8]: The County shall negotiate interlocal agreements with adjacent local jurisdictions and state/federal agencies to conserve and protect unique vegetative communities that are located within and extend beyond the immediate County line.

Retain Policy E.1.3.9. Areas need to be identified. Need to pursue interlocal agreements with affected adjacent local governments and other agencies.

Add Policy E.1.3.10 : Putnam County shall coordinate with the North Florida Prescribed Burn Council and other appropriate entities including the U.S. Forest Service, the Florida Division of Forestry, the St. Johns River Water Management District, and the Nature Conservancy, in promoting prescribed burns on public lands. Promotional efforts shall include developing a public education program for local governments and the public to inform them about the importance of conducting periodic prescribed burns. Educational brochures shall be made available to the public at City Halls, the County Courthouse, Agricultural Extension offices etc., and periodic public workshops and seminars shall be held prior to each burning season.

The above policy is being added pursuant to comments in the EAR from DEP

Objective E.1.4 [9J-5.013(2)(b)4]: Upon plan adoption, the County shall implement the following

policies that are to conserve, appropriately use and protect marine and wildlife habitat.

Measure: *Assess policies*

Status: *Policies are evaluated below.*

Recommendation: *Retain Objective E.1.4.*

Policy E.1.4.1 [Rev. 93-19; Rev. 98-2; 9J-5.013(2)(c)3, 6, & 9]: The County shall request that the U.S. Fish and Wildlife Service, Game and Fresh Water Fish Commission, the Department of Environmental Protection, Department of Agriculture and Consumer Services and the St. Johns River and Suwannee River Water Management Districts provide their most recent inventories and maps of environmentally sensitive lands, including, at a minimum, wetlands, floodplains, high recharge areas, sites containing listed species, sandhill upland lakes, spring-run streams, scrub uplands, xeric hammock, slope forests, seepage streams, natural, and old growth longleaf pine communities. In addition, the County will ask the agencies to identify which of these areas are of statewide, regional or local significance, which environmentally sensitive lands cannot be restored after development and what basis is used for their determination. Based on the information provided, the County will submit map amendments to designate appropriate areas as Conservation under the following schedule:

-Most significant, from a size standpoint, environmentally sensitive areas during 1998 and the rest of the environmentally sensitive areas during 1999.

Delete Policy E.1.4.1. The County has entered into a contract with the NEFRPC to address this policy. The Environmental Lands Assessment conducted by the NEFRPC will be conducted simultaneously with the preparation of this EAR. The results from this Assessment will be included in the EAR amendments including any recommended additions or changes to the Future Land Use Map. After including results from the Environmental Lands Assessment in the EAR Amendments, this policy will be deleted.

Policy E.1.4.2 [Rev. 93-19; 9J-5.013(2)(c)5,6]: Future development in the vicinity of known sites in Putnam County containing plant or animal species listed by the U.S. Fish and Wildlife Service, FGFWFC, DEP, or the Florida Department of Agriculture as endangered, threatened or as species of special concern, shall comply with the management criteria of the U.S. Fish, Wildlife Service and the Florida Game and Fresh Water Fish Commission.

Amend Policy E.1.4.2. to clearly state development review in the vicinity of the sites identified in the policy will involve the listed agencies. The County's development review procedures address this policy. Remove Aand@ after U.S. Fish and add Aand the DEP@ after Fresh Water Fish Commission. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy.

Policy E.1.4.3 [9J-5.013(2)(c)3,5,6,9]: The County shall request technical assistance from State agencies to study the feasibility of designating viable wildlife corridors in the County including a corridor between Rice Creek Swamp and the Ocala National Forest. Once identified, the County shall work with environmental groups and the DNR to acquire corridor

properties as conservation designated land.

Amend Policy E.1.4.3. to correct reference to DNR to DEP, and expand the list of protection measures to include more than the acquisition as the sole means for establishing a viable corridor. Incorporate lands identified in the Environmental Lands Assessment as properties designated as conservation land. Technical assistance has not been requested, study not completed, and the County is not working towards acquisition

Policy E.1.4.4: [Rev. 98-2] The County shall request technical assistance from the Department of Environmental Protection as their schedule permits to develop a manatee protection plan which shall include marina and boat ramp locational criteria for inclusion in the Land Development Regulations. An interim Manatee Protection Plan will be adopted along with the submission of the Evaluation and Appraisal Report for the County.

Retain Policy E.1.4.4. Need to request technical assistance by letter to DEP and proceed with an interim protection plan. DEP recommendations for voluntary retrofitting of stormwater outfalls with grates in order to prevent manatees from becoming trapped within the outfall pipes should be included in the Manatee Protection Plan.

Policy E.1.4.5: [deleted 98-2]

Objective E.1.5 [9J-5.013(2)(b)2]: Upon plan adoption, the County shall implement the following policies and continue to require that large and small quantity generators of hazardous waste shall properly dispose of their waste in accordance with federal and state law.

Measure: *Assess policies and number of reported violations of state and federal law in the County.*

Status: *Policies assessed below. Need to obtain information regarding reported violations of federal and state law.*

Recommendation: *Amend Objective E.1.5 to delete "upon plan adoption". Add a policy to address additional methods to increase education for hazard waste disposal.*

Policy E.1.5.1 [9J-5.013(2)(c)10]: Commercial generators of hazardous waste (as defined by the Department of Environmental Regulation) shall have on-site facilities to contain and store hazardous waste in a safe manner prior to disposal by a certified handler.

Amend Policy E.1.5.1 to correct reference to DER to DEP. The County's development review procedures address this policy. The draft land development code, to be adopted prior to EAR amendments, includes sections which implement this policy. . According to the Solid Waste Department commercial generators of hazardous waste are regulated by the Public Safety Department.

Policy E.1.5.2 [9J-5.013(2)(c)10]: County residents and small quantity generators of hazardous waste shall be informed in accordance with Sections 403.7234 and 703.7225(16), FS, and through distribution of public education materials of hazardous waste disposal

locations and proper methods of disposal.

Retain Policy E.1.5.2. Need to distribute public education materials providing hazardous waste disposal locations and proper methods of disposal. . The Solid Waste Department sponsors a Haz-Mat Roundup once per year for homeowners and small quantity generators where Household Hazardous Waste (HHW) is collected, packaged and disposed of by a certified handler. This program is advertised by fliers, radio and newspaper promotions. The County=s Administration department found this policy to be sufficient and said that this policy deals with information in the public info racks.

Policy E.1.5.3 [9J-5.013(2)(c)10]: Landfills shall be monitored by the County to eliminate the illegal disposal of hazardous waste.

Retain Policy E.1.5.3. According to the Solid Waste Department all loads entering the landfill for disposal are checked by landfill employees for illegal disposal of unacceptable waste, including hazardous waste. If HHW is found in a load, the HHW is segregated and taken to the HHW storage site until disposed of by a certified hauler during a Haz-Mat event. These checks, the Haz-Mat Roundups and approved Operations Plan/Specific Permit Conditions in the Landfill Operating Permit No. SC54-270643 help keep hazardous waste from being disposed illegally.

Policy E.1.5.4 [9J-5.013(2)(c)10]: The County shall develop an ordinance to be enacted at the same time as the Land Development Regulations which will require the proper disposal of hazardous waste including used automobile and truck tires and batteries as well as household hazardous waste so as to halt illegal dumping or other disposal, and protect the natural resources of the county.

Amend Policy E.1.5.4, per Solid Waste Department input, to add Awhich would support Florida Administrative Code rule 62-701 and State issued Landfill Operating Permit No. SC54-270643 prohibiting landfilling of waste tires and batteries@ after AThe County shall develop an ordinance.@ . The County Codes Enforcement Office reports that illegal dumping is currently subject to the Sheriff=s Office enforcement of littering laws; Codes Enforcement Office enforcement of the Standard Housing Code care of premises; and if large quantities of waste are involved, County enforcement of zoning violations and state enforcement of unpermitted landfills