

**2004 EVALUATION AND APPRAISAL
REPORT
SUFFICIENCY RESPONSE**

LEE COUNTY COMPREHENSIVE PLAN

THE LEE PLAN

**Lee County Board of County Commissioners Sponsored Evaluation
and Staff Analysis**

BoCC Adoption Document

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INTRODUCTION

This document has been compiled to respond to the various issues that the Florida Department of Community Affairs (DCA) have raised in the December 20, 2004, 90-Day Sufficiency Review of the Lee County transmitted Evaluation and Appraisal Report (EAR) of the County's comprehensive Plan, The Lee Plan. The Department's sufficiency letter was organized around issues such as population growth, changes in land area, location of existing development in relation to future anticipated plan, the extent of vacant and developable land, the financial feasibility of providing infrastructure to meet anticipated growth, changes to Chapter 163 and Rule 9J-5, transportation, the Density Reduction/Groundwater Resource land use category, and Hurricane Evacuation/Shelters. This report is organized to respond to the DCA Recommendations concerning these issues. This report also includes, when applicable, a summary of the January 20th, 2005 meeting between Lee County Staff and DCA. This Summary was produced by DCA staff.

POPULATION GROWTH

DCA Comment:

The County did not conduct a sufficient assessment of the changes in population that took place during the planning timeframe. The historical account of the changes in population that took place as well as the County's current population is not documented in the report. The information the County provided focused on the difference between the population projections made by the University of Florida for the County at the time of the previous EAR and the updated projections the University has just made in 2004 for years 2005, 2010, and 2015. The reported (sic) concluded that due to the difference in updated projections, the County should revise the plan to incorporate the new projections. While the incorporation of the new population projections for the County into the comprehensive plan is the proper thing to do, the County also needs to assess the changes in population that occurred between 1990 and 2000, and disaggregate the growth into the Planning Communities to identify the relative growth trends. It is on the basis on (sic) this type of information that land use allocations in the various planning communities could be made.

DCA Recommendation:

Include, in the EAR an analysis of the changes in population that occurred in the County during the planning timeframe, and distribute the population growth among the various Planning Communities, so as to identify the trend in population growth in each Community that will guide future land use decisions. The projected population of the County should also be distributed among the various Planning areas based on the observed trend in population growth.

January 20th, 2005 Meeting Summary:

The County will respond to this issue along the lines explained in the sufficiency report.

Lee County Response:

The response to Population Growth, Location of Existing Development in Relation to Future Anticipated Plan, and The extent of Vacant and Developable Land have been addressed together and follow the last of these comments. Since these issues are closely related this was done to reduce redundant analysis.

LOCATION OF EXISTING DEVELOPMENT IN RELATION TO FUTURE ANTICIPATED PLAN

DCA Comment:

Lee County's EAR did not address this subject.

DCA Recommendation:

Please provide an assessment of the location of existing development in relation to the amount of, and pattern of development as anticipated in the plan or as amended by the most recent EAR update amendments.

January 20th, 2005 Meeting Summary:

Some maps were already included in the EAR for these areas. However, more information will be provided and the maps will be fully discussed. The characteristics of these areas and their suitability for various development forms will be discussed as well as the amount of vacant, developable land in each land use category for each Planning Community.

Lee County Response:

The response to Population Growth, Location of Existing Development in Relation to Future Anticipated Plan, and The extent of Vacant and Developable Land have been addressed together and follow the last of these comments. Since these issues are closely related this was done to reduce redundant analysis.

THE EXTENT OF VACANT AND DEVELOPABLE LAND

DCA Comment:

Lee County's EAR did not address this subject.

DCA Recommendation:

Please provide an assessment of the extent and location of vacant and developable land in the County for each land use category using maps and tables, if necessary to convey the information. This type of analysis is critical to understanding the future land needs of the County, as well as the availability of land to support the anticipated growth of the County.

January 20th, 2005 Meeting Summary:

See previous section Meeting Summary.

Lee County Response:

The following response addresses the issues of Population Growth, Location of Existing Development in Relation to Future Anticipated Plan, and The extent of Vacant and Developable Land. Since these issues are closely related this was done to reduce redundant analysis.

Population Estimates

The population estimates for all of Lee County increased from 371,727 on April 1 1994 to 549,442 on April 1, 2005. The unincorporated (based on the 1994 city limits) population increased 109,750 during the same period of time. On April 1, 1994 the unincorporated Lee County population was 231,813 (including Bonita Springs and Fort Myers Beach which had not incorporated at that time). The population for the same geographic area was 341,563 on April 1, 2005. The population increase for the currently unincorporated areas of Lee County increased from 201,133 to 292,414 or an increase of 89,484 persons.

This was an increase of 45% and an annual growth rate of 4%. The 1994 EAR addendum includes the population projections published in the 1996 Florida Population Studies produced by the Bureau of Economic and Business Research (BEBR). These population projections forecast a 3.3% annual growth rate for Lee County through the year 2020. The 2005 estimate from the 1996 BEBR projection fell short of the BEBR estimate for April 1, 2005 by 82,142 persons. The estimates from the 1996 BEBR publication also forecast a 2015 projection for Lee County that is only 7,000 persons greater than the 2005 BEBR estimate of population for Lee County. It is evident from this review that the population projections used for the basis of the Lee County Comprehensive Plan are not appropriate and need to be revised. The 2005 Florida Population Studies Report projects a 2020 population 64,000 higher than the projections currently used by the Lee Plan. It is noted that this report includes a 2005 projection that is 12,000 less than the estimate for 2005. Historically, Lee County has included a 25% population buffer to the anticipated growth in population. This flexibility has been demonstrated to be critical in the process of disseminating the BEBR projections between the 22 planning communities.

Changes in Population Projection Assumptions

Planning staff, in conjunction with the Lee County Metropolitan Planning Organization (MPO), undertook an interim update to the Traffic Analysis Zonal (TAZ) data in 1999 to generate revised data for the transportation model. To maintain consistency with the Lee Plan, the decision was made to utilize the Planning Community allocations as control totals for the TAZ data. Since the Planning Community allocations are acreage based and the TAZ data is unit based, an evaluation of the assumptions used to convert acreages to units and population was included in this process. As the figures from the 2000 Census were released, the newly available data was evaluated and used in the update for the TAZ projections. The review of this data compared to the assumptions used in the allocation process revealed a number of discrepancies in the original allocation data.

The methodology used for the allocation process identified that it was essential to recognize different occupancy rates for the various areas of the county. It was noted that the coastal areas of the county had a lower percentage of units being held for year round residents than the more centrally located areas. Due to inconsistencies in the 1970 data, the analysis used in the allocation process only compared occupancy data from the 1980 and 1990 Census. The 1980 and 1990 census tracts were aggregated to conform to the planning community geography and attempts to add the 1970 geography into the process proved infeasible. Occupancy rates were assigned for each planning community based on averages of the census tract information. The TAZ data review committee had a higher confidence level with the new assumptions for occupancy rates that were based on 3 sets of census data. Adding the 2000 census data allowed the review to recognize trends in the data that were considered when the occupancy rates were established for each community.

The persons per household (PPH) assumptions were also reviewed and revised during the TAZ process. These assumptions had not been updated since the 1994 EAR review. That study was also a collaborative effort between Lee County planning staff and the MPO staff. This study set a countywide assumption and was based on census data from 1960 through 1990. The result of this study was a PPH that reduced each year from 2.35 in 1990 to 2.09 by the year 2020. The new analysis of PPH that included 2000 census data revealed that the downward trend in household size anticipated by the MPO staff in the 1993 study had leveled off and a more realistic countywide household size figure of 2.3 was established for the year 2020. The methodology still assumes a decrease from 2.31 in 2000 to 2.3 in 2020. Another change established during the TAZ update was to recognize that household sizes also varied between areas of the county. Using 2000 Census data, formulas were developed to calculate a planning community PPH for each community while still maintaining a countywide PPH of 2.3. Previously, the 2.09 figure was used to

project population for all of the planning communities. Since the incorporated areas of the county are not regulated by the Lee Plan, the populations of the cities are not included in the bulk of this review. Therefore, the average PPH reported in this report will not match the established countywide assumption.

Lee Plan Map 16 designates 22 "Planning Communities" for the purpose of allocating growth throughout the unincorporated areas of the county. Three of the communities are intended to mirror city boundaries (Bonita Springs, Fort Myers Beach, and Sanibel) and two are intended to reflect city boundaries and existing enclaves (Cape Coral and Fort Myers). Allocations for these communities are either 0 or reduced to reflect only the areas within the county jurisdiction. The allocations are for the year 2020 and do not include interim year projections. Therefore, there are no 2005 projections available to compare the growth distribution since the last EAR. It is possible to review the 2020 projections and determine which areas were anticipated to grow faster than the county average and which were anticipated to grow more slowly. The dissemination of population by Planning Community for 2020 shows 5 communities that were anticipated grow faster than the average growth rate of 3.3% per year. The five communities identified are Captiva, Gateway/Airport, Lehigh Acres, Southeast Lee County, and Estero. This comparison is somewhat irrelevant since it does not account for the amount of existing development in 1994 and the amount of available land remaining for development. An example of this condition would be to compare 3 communities Estero, San Carlos Park, and Iona/McGregor. These communities are estimated to have similar 2020 populations of 31,349, 34,093 and 35,285. These communities had populations in 1994 of 5,698, 18,092, and 20,048 and 2005 population estimates of 22,044, 25,412, and 30,210. Without forecasts from the previous EAR for the year 2005, it is not possible to determine if the past 11 years of growth of these communities was anticipated. A review of the total increase in population indicates that the four largest increases in population occurred in the communities of Lehigh Acres (20,042), Estero (16,346), South Fort Myers (12,033), and Iona/McGregor (10,162). This comparison should also consider the size of each of these communities. The Lehigh Planning Community is 95 square miles and the South Fort Myers Planning Community is 23 square miles. The Daniels Parkway Community which grew by 5,646 people is only 13 square miles. Factoring in community size, the conclusion can be made that the Daniels Parkway community a greater amount of development than any of the above mentioned planning communities. The Daniels Parkway community grew by an estimated 5,646 people and encompasses only 13 square miles. Therefore, this community added 434 people per square mile and the Lehigh Acres community only added 211 people per square mile. The smallest population growth occurred in the communities of Captiva, Southeast Lee County, Boca Grande, and Alva. These four communities are all more remote (Captiva and Boca Grand are barrier islands) and lower density (Alva and Southeast Lee County contain large areas designated 1 unit per 10 acres) areas of the county. See Appendix A *Population Changes Between 1994 and 2005*". A review of persons per developed residential acreage indicates that the persons per acre based on net residential acres developed has marginally increased. In 1994 the population density in Lee County was 5.97 person per acre and in 2005 it has risen to 6.07 persons per acre. The amount of land developed per Lee County resident has also remained the same since the 1994 EAR. In 1994 there was .27 acres of developed land per resident and in 2005 there is still .27 acres of developed land per resident.

Developed lands in the Urban and Non Urban Areas of the County

Population growth between 1994 and 2005 continued to with the same distribution between urban and non-urban areas of the county. In 1994, 70% of the residential development had occurred in the areas designated as a *Future Urban Area* on the Lee Plan Future Land Use Map and 30% had occurred in areas designated as a *Non-Urban*. The 70/30 split is still the residential development pattern in 2005. The percent of residential development in the urban area varies by planning community. See Appendix A *Development Patterns Between 1994 and 2005*". The more rural areas like Alva have a lower percent of

residential development in an urban category while an area like South Fort Myers has 100% of the residential development occurring in urban area. However, the ratio between urban and non urban development is fairly consistent over time within each of the planning communities. A few exceptions are the communities of Daniels Parkway, Gateway/Airport, and Estero. The Daniels Parkway and Gateway/Airport communities had most of the new residential development occurring in the urban areas. In fact the Gateway/Airport community added no new residential in the non-urban area. The percent of residential in the urban area increased by 18% in the Gateway/Airport community and 9% in the Daniels Parkway community. The Estero community had a shift in the opposite direction. In 1994 there was no residential development in the non-urban area of that community and in 2005 there are 485 acres of residential in the Rural land use category. This is equivalent to 19% of all residential development in the planning community. It should be noted that the Brooks development was approved using the Planned Development District Option (since removed from the plan) in 1996. This option allowed the developer to attain higher densities than allowed in the Rural land use category. A second project also in the Estero community utilized the PDDO process prior to its elimination from the plan. This project has since been purchased by the state for conservation purposes. A review of the data for all development types in Lee County shows the same development patterns. In 1994, 76% of all development had occurred in the urban areas of Lee County. In 2005, 76% of all developed land was still in the urban areas of the county.

Vacant/Undeveloped Land

In 1994 it was estimated that there was 222,911 acres of land not developed for residential, commercial, industrial, or institutional uses (302,399 acres when wetlands are included). In 2005 this has been reduced to 197,049 acres (276,537 acres when wetlands are included). In 1994 the majority of the non-developed land (73%) was in the non-urban designated areas of the county. In 2005 this split had increased so that 77% of the undeveloped area of the county was designated in a non-urban category. The percent of vacant land in the urban areas of the county by planning community has also remained constant since the 1994 EAR. The largest shift occurred in the communities of Iona/McGregor and Daniels Parkway. Both of these communities went from having half of the non-developed land in the urban area down to only 40% of the vacant land in the urban areas. See Appendix A *Development Patterns Between 1994 and 2005*.

One clear conclusion that can be made from reviewing the available data is that by 2005, no planning community has exceeded the population growth anticipated by 2020. See Appendix A *Summary of Acreage Allocations and Residential Projections*. Given the discrepancy between the BEBR projections used in formulating the current plan allocations and the estimate by BEBR for 2005, it can be concluded that all of the planning communities have experienced more growth than was anticipated by 2005. The MPO is in the process of updating the TAZ data for the transportation model. Lee County should update the Planning Community Allocations to reflect changes in population projections, changing conditions in development patterns, and changes in population projection assumptions.

The development patterns over the past 11 years show that Lee County has remained consistent in its growth patterns. Growth has occurred in both the urban and non-urban areas of the county and density of the developments has not intensified nor diminished.

CHANGES IN LAND AREA

DCA Comment:

This topic is not directly addressed in the EAR. While the appendix includes a list of annexation, no analysis is included discussing the implication of those annexations and recent incorporations on the County's land allocations, development potentials, and the ability to provide public facilities and services.

DCA Recommendation:

Revise the report to provide an assessment of the changes in land area and discuss the implication of those annexations and recent incorporations on the County's land allocations, development potentials, and the ability to provide public facilities and services.

January 20th, 2005 Meeting Summary:

The County will discuss this issue with particular emphasis on the shrinking unincorporated jurisdictional boundary due to annexation and also stressing the cumulative impact of annexation on the County's planning efforts. For example, the loss of suitable land for development to annexation will be discussed including a brief characterization of the recently annexed areas; all of this information is intended to enable the County to identify the parts of the County to which its future planning strategy and focus will be directed. Also analyze the annexations with respect to major County issues, particularly, urban sprawl and natural resource protection. Maps showing the annexation areas as well as the amount of land in each area will be provided.

Lee County Response:

Within the political boundaries of Lee County there are five municipalities. They are: the City of Fort Myers; the City of Cape Coral; the City of Sanibel; the Town of Fort Myers Beach; and, the City of Bonita Springs. The latter municipality, Bonita Springs, incorporated subsequent to the 1994 Lee Plan EAR. Planning's data indicates that since 1994 the Cities have annexed or are proposing to annex approximately 14,952 acres of unincorporated Lee County. This is in addition to the original land area of the newest city of some 21,994 acres. This equates to a total of 39,946 acres of land which are no longer under the County's land use jurisdiction since the last Evaluation and Appraisal Report.

The majority of these lands have been developed or designated for land uses that are for the most part similar to the county's designation. The major difference is an increase in the developed or allowable density, and in some instances intensity. The two areas that have deviated the most from the County's allowable density and intensity are the City of Fort Myers a n n e x a t i o n of the Arborwood Development of Regional Impact and the proposed City of Cape Cora l s annexation of the Zemel property.

A table and a map depicting the land area of municipal annexations from 1994 to present has been included as Appendix B of this document. Both the table and map include areas that have been annexed and areas proposed for annexation.

Fort Myers - Arborwood DRI

The Arborwood DRI is a mixed use development consisting of: 6500 housing units; 170,000 square feet of commercial (including office space); and, 36 holes of golf. The project contains some 2,534 acres. The original Lee Plan designations for this property was New Community, Airport Commerce, now known as Tradeport, Rural and Wetlands. Exact acreage for each of these land use designations has not been determined. Estimates by Planning Staff indicate 206 acres of New Community, 1,002 acres of Tradeport, 939 acres of Rural, and 404 acres of Wetlands. Under the Lee Plan this would have allowed a maximum of approximately 2,095 dwelling units.

Retail commercial, office and various light industrial uses have been greatly reduced. Retail commercial development in the New Community portion is difficult to determine. The New Community designation was originally assigned to the land that was part of the Gateway DRI. This area of Gateway was designated for a shopping center, elementary school, and an undetermined amount of residential

development. Under the Lee Plan, the Tradeport area was intended for developments consisting of light manufacturing or assembly, warehousing, and distribution facilities; offices; research and development activities; ground transportation and airport-related terminals or transfer facilities; and, hotels/motels, meeting facilities. Retail commercial development in the Tradeport area would have been allowed 1,000 square feet per acre, allowing approximately 1,002,000 square feet. Many of these uses have been lost with the approval of the Arborwood DRI. This loss of diverse uses will have a negative affect on the County's ability to expand its economic base and attract new, higher paying jobs to the area.

To address these concerns in the future, County and the City staff have been negotiating a revised Urban Reserve area. Staff has agreed to an Urban Reserve Area bounded by Daniels Parkway to the south, the existing developed portion of the Gateway DRI to the east, the existing City border to the northeast, and Interstate 75 north to the Caloosahatchee River. This proposal will be brought to the elected officials in the near future.

Cape Coral - Zemel Property

The Zemel Family Trust, through their court appointed Trustee, has petitioned the City of Cape Coral to annex four separate areas of land. The property lies to the north of the current City boundary in the area known locally as the Yucca Pen or Charlotte Harbor Flatwoods. The four petitions represent over 2,500 acres of land.

Future Land Use History

The current Lee Plan designation for these properties is a combination of Open Lands on the upland portions of the property and Wetlands. These designations limit the development potential of the property to agriculture, mineral extraction, and low density residential development. The categories do not allow for commercial development.

The original 1984 Lee Plan designated this area of the County as Open Lands, with a maximum residential density of one dwelling unit per acre. As part of the 1990 Stipulated Settlement Agreement between Lee County and the Florida Department of Community Affairs, this area was placed into the newly created Density Reduction/Groundwater Resource future land use category. The Zemel Family Trust objected to the designation and challenged the amendment in court as a constitutional taking of their property rights. The case lingered in the courts for seven years. During that time, the future land use designation of this area of the County was changed into a new Open Lands category. The new Open Lands category allowed a maximum density of one dwelling unit per five acres. The ultimate resolution from the courts resulted in an award of one dollar (\$1.00) in damages for a temporary taking and reimbursement of attorney's fees. This future land use designation remains on the subject property's uplands.

The designation of non-urban lands on the County's Future Land Use map is an important part of the County's overall long range plan. The County, through the Lee Plan, recognizes that not all of the lands within the County should be urbanized. Non-urban lands provide many important functions that compliment the urbanized areas of Lee County. Non-urban lands help define and separate urban areas. These lands help maintain clean air and water. They provide important wildlife habitat and recreational opportunities. These lands provide a sense of place, green vistas, and relief from the urban environment. They act as green areas that separate urban areas from each other, defining individual urban areas and preventing urban sprawl. They also provide a lifestyle alternative for those who choose to live in a more rural setting, away from the urban atmosphere. These lands can also serve an important economic function in accommodating mining and agricultural activities away from heavily populated areas.

Conservation and Acquisition

The Charlotte Harbor Flatwoods is the largest remaining tract of intact pine flatwoods in southwest Florida. Many rare plants and animals have been documented to use this habitat. The Florida Department of Environmental Protection (DEP), through the Florida Forever acquisition program, has identified the Charlotte Harbor Flatwoods for acquisition. The Charlotte Harbor Flatwoods project will protect these flatwoods and connect the Charlotte Harbor State Buffer Preserve with the Babcock-Webb Wildlife Management Area, helping to protect both of these managed areas and the waters of the Aquatic Preserve. According to the DEP web site, the total project area is 23,762 acres. The state has purchased 14,380 acres at a cost of \$36,287,279. The DEP web site contains a map that shows the acquisition area. That map indicates that the majority of the proposed annexation areas are located within the essential parcel(s) remaining@area. Portions of Area 2 (the western portion of section 5 and the 20 acre connecting property in section 6) are excluded from the essential remaining areas.

In addition to the state land purchases, the County has made a substantial investment in the purchase of conservation lands in this area of the county. Through the Conservation 2020 Program the County has purchased four parcels comprising a total of 202.43 acres at a cost of \$746,500.

Urbanization of these proposed annexation areas will result in the loss of significant amounts of functional open space. These green spaces are important to maintaining a balance between urban development and environmental sustainability.

Annexation Concerns

The City of Cape Coral is, in area, the second largest city in the state of Florida, with Jacksonville being the largest. Planning staff questions the need to add another 2,500 acres to the City's jurisdiction. The act of annexing a parcel into a municipal boundary does not in itself constitute justification for the conversion of the property to urban uses. The desire of a property owner to increase the density and intensity of their land holdings is not a reason to add property to a city's jurisdiction. Consideration must be given to sound planning principles and practices.

In the City of Cape Coral Planning Division Case Reports, planning staff indicates that the current property owner does not intend to develop the property. It is their intent to sell the property to development interests after it is annexed into the City. The reports indicate that the majority of these unplatted, undeveloped lands represent a great asset for the City, giving the City some long needed opportunities for large scale non-residential development.@ However, the conversion of these properties to an urban designation does not automatically bring commercial and industrial uses to an area. The property must be soundly designed and the needed infrastructure must be in place in order to attract the desired end users. Without a mechanism to assure the proper infrastructure these annexed lands will simply sit vacant with an urban designation. If residential uses are included as part of the mixed-use designation the residential component will likely be developed sooner than any employment activity given the extremely hot residential real estate market that exists in Lee County. Opportunities for the City's desired commercial and industrial uses would not be assured. Subsequent owners of this land would argue that the City need alternative residential development, such as gated upscale communities, to offset the existing platted residential lands.

Like other large pre-platted communities, the City of Cape Coral is experiencing difficulty in providing areas to serve as employment centers. The City clearly recognizes the need to diversify from the predominantly single family platted environment. Unfortunately, these residential lots have been marketed and sold to individuals throughout the country and the world and the aggregation of these lots for

commercial and industrial uses is difficult to achieve. As Cape Coral matures, incentives will have to be developed that will allow the redevelopment of these residential lots into retail and employment centers that are spread throughout the City. In effect, utilizing this greenfield development pattern will act as a disincentive to correcting the problems caused by the overabundance of platted residential lots.

The City is looking toward these annexations as an opportunity to provide large scale non-residential and mixed use developments without having to resolve the difficulties of lot aggregation. This approach will lead to the creation of employment centers on the edge of the City, far removed from existing infrastructure. These properties are not currently serviced by mass transit, water, sewer, electricity, or cable. The expansion of utilities in Cape Coral is moving from the more developed southeast and southwest towards the northern less developed areas. The proposed annexations are located far to the north of any existing utilities. These areas cannot develop in this manner without the full range of urban services. Annexation of these areas is at best premature.

Transportation Issues

This scenario is not part of the Metropolitan Planning Organization's long range transportation plan. The urbanization of these areas as employment centers will require major revisions to the long range transportation plan. Currently there are no capacity adding projects programmed for either the northern links of Burnt Store Road and U.S. 41.

In order to evaluate possible transportation impacts for the annexation areas, Lee County staff generated a conservative development scenario. This scenario assumed that commercial and service employment would account for 70 % of the employment in these areas and that industrial employment would account for the remaining 30 % of the employment in these areas. The scenario also generated employment exclusively from the upland portions of the sites utilizing a relatively low Floor Area Ratio of 0.2. Lee County Department of Transportation staff incorporated these generated figures into a FSUTMS model run. This model run provided that the scenario would cause the Level of Service to fail on several roadways, such as Burnt Store Road and Durden Parkway. The traffic generated from the scenario would also exacerbate a projected Year 2020 failing condition on U.S. 41 north of Del Prado Boulevard.

Proximity to a single collector or arterial roadway is not sufficient access for development of a commercial or employment center. The large amount of traffic generated by this kind of use should have access to several major roadways.

Enclaves, Pockets or Fingers

Chapter 171 of the Florida Statutes, **Municipal Annexation or Contraction**, establishes the regulations for municipal annexations. One of the requirements is that an annexation must be **Acompact**. That statute states that: "Compactness means concentration of a piece of property in a single area and precludes any action which would create enclaves, pockets, or finger areas in serpentine patterns. Any annexation proceeding in any county in the state shall be designed in such a manner as to ensure that the area will be reasonably compact." The statute goes on to define an enclave as: **A(a) Any unincorporated improved or developed area that is enclosed within and bounded on all sides by a single municipality; or (b) Any unincorporated improved or developed area that is enclosed within and bounded by a single municipality and a natural or manmade obstacle that allows the passage of vehicular traffic to that unincorporated area only through the municipality.** There are no definitions for pockets or fingers in the statute.

If an annexation is not contiguous and compact its validity can be challenged in circuit court by an affected party. The area between Area 3 and Area 5 is a long finger or pocket that will be left under the County's

jurisdiction. There is also a finger or pocket left between Area 3 and Area 4. The county could challenge these annexations as not meeting the definition of compact.

There is also a good argument that the annexation of the Area 2, the parcel bordering 41, will violate the statutory requirement that the annexed area be "reasonably compact." The annexation will not result in an enclave as defined in the statute. However, it will result in a large area of unincorporated land that is only accessible through the City or Charlotte county. Arguably, this is a large prohibited "pocket." It presents the same problems for the County as it would if the area was surrounded by the city. It could, in fact, present even worse problems, since it could require one to leave the County completely in order to access the resulting pocket of unincorporated area.

Surface and Sub-Surface Water Issues

These parcels are located in the Gator Slough watershed and their flowways may provide the primary conveyance of surface water flow from the State preserve lands to the channelized portions of the Gator Slough watershed.

Based on the South Florida Water Management District's Lower West Coast Potentiometric Mapping Project geologic cross-sections for that area, the aquifers potentially receiving recharge on the Zemel parcels are the Water Table aquifer and the Lower Tamiami aquifer.

Channelization for drainage on these parcels likely will disrupt the surface water flowways' surface water conveyance functions and lower the groundwater levels partially dewatering and eliminating recharge to the Water Table aquifer and decreasing recharge to the Tamiami Limestone units.

Salt water intrusion currently is limited by a series of surface water control structures (weirs) located along Burnt Store Road, alteration of surface water flows and/or groundwater levels will affect the hydraulic equilibrium of the groundwater fresh water/salt water interface potentially resulting in a landward migration.

The surface water and groundwater resource issues are complicated, the site conditions are not well defined and further evaluation should be made prior to supporting any decision. At first look, these parcels appear to be better suited for State or County acquisition to supplement the adjoining State preserve lands than for industrial/urban development.

Presently Lee County is near completion of the Northwest Lee County Surface Water Management Plan. The draft documents and hydrologic modeling documents will be made available for staff review around the end of January 2005. Preliminary hydrologic modeling of existing conditions shows flooding on some areas along Burnt Store Road. Historical flooding on Burnt Store Road has been used to verify the validity of the model. Future condition modeling based on very low-density development and agricultural zoning is being performed at this time. Further, the draft water management plan does not take into consideration any other proposed land use or zoning. The scope of work of the study area does not evaluate the impacts due to commercial or industrial land use. Therefore, an accurate determination of hydrological impacts of the proposed land use cannot be determined at this time. Further, based on the information provided, a number of flowways have been identified on annexation sites or within close proximity to these sites. The proposed changes in land use will likely displace the existing flowways in this region.

Comprehensive Plan Amendments

If some or all of these annexations are approved by the City, a comprehensive plan amendment to designate allowable density and intensity of uses will need to be processed. The City Planning staff will prepare their staff analyses and public hearings will be held before the City's Local Planning agency. The City Council will then hold a Transmittal Hearing. The amendments will then be sent to the state land planning agency, Florida Department of Community Affairs (DCA), for review and the issuance of an Objections, Recommendations and Comments (ORC) Report.

The DCA has adopted an Urban Sprawl Rule. This rule defined urban sprawl and provides a list of primary indicators of this discouraged land use pattern. This list of indicators is used in the review of comprehensive plan amendments in order to discourage the proliferation of urban sprawl. Planning Staff believes that these annexations have a great potential of meeting the definition of urban sprawl. Lee County will be asked by the DCA to comment on any proposed amendment. The County and the DCA will look to the provisions of the urban sprawl rule when reviewing these City plan amendments and make the appropriate comments.

Following the issuance of the ORC, the City will have 60 days to respond to any objections and adopt or not adopt the amendments. The state will then review the adopted amendments and issue a notice of intent to find the amendments in compliance or not in compliance with the applicable statutes and rules. If the County still has objections, it can petition for an administrative hearing on the amendments.

Negotiations Between City and County Staff

City and County staff have had several meetings on these annexations. The first meeting was in August of 2004 when City staff first informed the County of this proposal. The second meeting was in November of 2004 where City staff presented their reasons for the annexations. The City sees these areas as important land to meet their future commercial and light industrial needs. County staff conveyed their concerns with location, open space, wetland impacts, surface water, sub-surface water, urban development issues, and habitat. City staff reviewed those concerns and scheduled a nother meeting in December of 2004 to discuss possible ways to mitigate the County concerns. Nothing definitive was proposed, however, the concept of allowing development in certain areas and conserving the more environmentally sensitive areas was explored. This development scenario would include protection of wetlands, increased wetland buffers, increased open space requirements, and increased architectural and design requirements. It was agreed that additional discussions were warranted.

City staff has discussed these concepts with the applicants representatives. It was agreed that appropriate consideration must be given to these important conservation lands via a comprehensive environmental assessment prior to consideration for annexation. The property owners' representatives are conducting such an assessment. County Environmental Staff and the property owners representatives have viewed the property from the air and further negotiations are planned. The City has agreed to formulate the necessary comprehensive planning goals, objectives and policies and allow the County to review them prior to annexing any of these lands.

Conclusions

The Lee Plan has sufficient Objectives and policies to address coordination of annexations. Interlocal agreements, however, are not binding and can be withdrawn or simply not entered into. Annexation has and will continue to change lands identified as non-urban by the Lee Plan to urban designations. Amending Lee Plan policies will not address this issue. There are three courses of action. The first is to

enter into serious agreements with the municipalities interested in annexations. History, however, has shown that this may not address the issue.

In order to further this issue the Regional Planning Council (RPC), under contract with Lee County, is meeting with the Cities (individually) to determine what they think are the compelling issues for annexation, public service delivery, and urban service boundaries. This in turn will be compared to the County issue list. RPC staff have met with Bonita Springs, are trying to get a date set for Cape Coral, and are meeting with the other Lee County cities after that. The RPC is to have a report draft and a framework interlocal by the end of October. The Mayor's Caucus Oct 6-7 in Sarasota is a broader viewpoint of this overall issue.

The second possibility is to amend the Lee County Charter to require the County's consent on any voluntary annexations. In November of 2000 Pinellas County adopted a Charter Amendment that established limits on the voluntary annexation of land outside of identified planning areas. This turned out to be a partial solution as it does not regulate annexations of areas without registered voters. In that situation, the consent of the owners of more than 50% of the property to be annexed can approve the annexation.

The third solution is completely out of the County's control. This would take amendments to Chapter 171 giving counties more control over annexations in general. Various proposals have been offered by both sides of the issue. The most recent version of Senate Bill 452 addresses some of these issues in a county friendly way. The Bill did not get to the Senate floor this session.

The Lee Plan Planning Community Map and Table 1(b) Planning Community Year 2020 Allocation Table should be amended to reflect the changing municipal boundaries.

THE FINANCIAL FEASIBILITY OF PROVIDING INFRASTRUCTURE TO MEET ANTICIPATED GROWTH

DCA Comment:

Lee County's EAR did not address this subject.

DCA Recommendation:

Provide an assessment of the financial feasibility of implementing the comprehensive plan and of providing needed infrastructure to achieve and maintain the adopted level of service standards. For those capital facilities that are subject to concurrency, indicate whether the adopted level of service standards have been met or not, throughout the planning timeframe and also indicate how the County's ability to fund various facility improvements for water, sewer, roads, recreation facilities, and drainage are directly related to meeting of the adopted LOS standards. The analysis should also project the County's infrastructure needs for the new planning timeframe.

January 20th, 2005 Meeting Summary:

Regarding how to address the matter of the financial feasibility of implementing the plan, a copy of the County's Annual Concurrency Report was provided to DCA at the meeting for review in order to determine if the type of information contained therein will be adequate to address this issue. If DCA staff agrees, the County will summarize the information from these reports, draw relevant conclusions from them regarding the success of providing needed infrastructure to achieve and maintain the adopted level of service standards throughout the evaluation period, including the correcting of backlogged facilities.

Lee County Response:

Lee County is a Charter County. As such it has all the general powers, duties and responsibilities described in Chapter 125 Florida Statutes, and elsewhere in Florida Statutes. It also has the capacity of reforming its governance structure through charter amendments, affirmed by a majority of the voting electorate. Consequently, the Lee County Board of County Commissioners has considerable flexibility in its abilities to raise revenues for its own infrastructure to manage growth. The capacity for ensuring the Comprehensive Plan is financially feasible is described below.

1. Capital Infrastructure.

Concurrency relates to six county programs. The concurrency nature of these programs requires that facilities be improved concurrent with growth, or growth be managed to be concurrent with the rate and location of the improvements of the programs below. Lee County's fiscal structure is such that it is able to be generally capable of raising revenues to make the improvements with the rate of growth. Location of facilities, however, often requires permits from other agencies, and some delay has occurred in construction. That is an issue that, through affecting costs, has created issues, but does not affect the basic fiscal soundness of the Lee County program.

a. *Transportation.* Lee County Board of County Commissioners has several revenue sources available for funding transportation improvements. These are expended through the County Public Works Agency (Department of Transportation); the County Transit Department; and the County Airport Authority (which is the Board of County Commissioners).

Road related revenues constitute the greatest portion of these revenues. For roads, the Board receives shared gas tax revenues from state government, has enacted the maximum optional local gas tax, and has enacted impact fees. Certain developments also have transportation requirements to meet, and through these efforts the County local and collector transportation system has some expansions.

Transit constitutes a large component of the transportation program of Lee County. Its revenue sources comes from State and Federal grants, farebox revenues, contracts, and an operating subsidy from the Lee County Board of County Commissioners.

Bicycle and Pedestrian facilities are funded through the various county revenue sources, and also requirements for new development are described through the County Land Development Code.

Aviation. Lee County runs Page Field and Southwest Florida International Airport as an enterprise program. As such, it accesses Federal and State grants, operates the airport with contracts from aviation firms, and also leases airport lands to commercial operations. The various revenue sources and their expenditures and forecasts are contained in the long range plan developed and updated through the MPO process. The long range plan is accessed through this web site: http://www.swfrpc.org/2020_Transportation_Plan.htm

b. *Stormwater.* The Board of County Commissioners has several revenue sources for funding stormwater improvements. These revenues fund improvements that are carried out by the County Public Works Agency (Division of Natural Resources). Additional improvements are carried out by private entities normally associated with land development requirements overseen by the County Department of Community Development. The Board enters into contractual arrangements with independent water entities (such as the South Florida Water Management District) as one revenue source, has the ability to establish

dependent taxing units for stormwater management and has, and funds a level of core flood protection through its core level of service millage for the unincorporated areas of the County. The Board is currently evaluating the establishment of a stormwater utility dependent special district which would receive most of its funding through property tax levies. The capacity of property tax levies are described below. The County stormwater quality laboratory is largely funded through general County revenues and through contracts with a number of public and private entities.

c. *Water service.* The Lee County water utility is an enterprise program of the Board of County Commissioners, contained within the Public Works Agency as a Division of Utilities. It is funded through

fees and whatever grants received from the Federal, State, or Water Management District sources. It has been acquiring distressed systems and rehabilitating them, while retrofitting water source areas to reduce impacts on the environment. A vigorous water conservation program has been reducing the demand for capital facilities. The largest problem facing the County water system is the nature of municipal annexations, when service area upon which the County has bonded improvements becomes annexed by a city without any particular justification other than to maximize municipal revenues at the expense of County compact provision of service.

d. *Sewer service.* The Lee County sewer utility is an enterprise program of the Board of County Commissioners, contained within the Public Works Agency as a Division of Utilities. It is funded through fees and whatever grants received from the Federal and State sources. The sewer service largely matches but does not reach the extent of water service, given the extensive commitment made to septic tank systems in much of the service areas the Board has taken over. However, as is the case in water, the County has been acquiring distressed systems and rehabilitating them as part of its public health and water quality improvement initiative. Similar to the problem of water service, the County has difficulty when annexations move into bond supported service areas.

e. *Solid Waste.* The Lee County solid waste system is a division within the County Public Works Agency. It operates a recycling operation (under private management contract), an incinerator, a yard/vegetation composting program, and a sanitary landfill (the latter in conjunction with Hendry County Board of County Commissioners, in Hendry County). It also operates the household hazardous waste collection and storage program. This is a fee supported program, but also receives grants from Federal or State sources. Revenues also come from the incinerator, which generates electricity which is sold to the Florida electrical energy grid system.

f. *Parks and Recreation.* The Lee County Parks and Recreation Department is funded through a number of sources, including impact fees, property taxes, grants, and fees. The capital improvement program is largely funded by impact fees. The operation and maintenance program is largely funded by millage. Specific recreational initiatives and educational programs are funded largely by fees.

g. *Other non concurrency items.* The Board of County Commissioners maintains a capital improvement millage for non-growth/impact fee public infrastructure. This fee covers public building construction, reconstruction, for services such as human services, health department, emergency services, economic development, animal control, administrative services, and so forth, all of which have other revenue components. Separate from that millage is the millage for the public library system, which provides for construction and operation of the County library system, which also has other revenue sources.

2. Regulatory Infrastructure

Regulatory infrastructure is the term being used to summarize the staffing activities needed to manage growth, as opposed to the capital infrastructure, operation, and maintenance described above. For those functions performed for just the unincorporated areas, the County has a core level of service millage, and a variety of fee and license structures, that support such operations. For those functions performed countywide, the County has a countywide millage, and the variety of fee and license structures employed elsewhere.

a. *Land Use Element.* The land use element of the Comprehensive plan is maintained by the County Department of Community Development. That Department is largely funded through fees, but is supplemented by the Core Level of Service Millage, as needed, for the non-fee supported aspects of the Department (such as update of the Comprehensive Plan.)

b. *Conservation/Coastal Zone element.* This element is maintained through the operations of the Department of Community Development, the Division of Natural Resources (Public Works), and the Parks and Recreation Department, all of which have had their fiscal sources described elsewhere. This function is supported in part through a special millage for Conservation 2020, a land acquisition program whose mission is to preserve, conserve, and restore environmentally sensitive lands throughout the County. Currently rated at 0.5 mills, the program is annually reviewed and renewed.

c. *Affordable Housing.* This term describes a bundle of services that focus on support systems for the economically disadvantaged component of the population. This program is maintained through the Department of Community Development and the Department of Human Services. It is funded through various State and Federal grants programs, as well the Core Level of Service millage. There is a special fund established, a seed fund, to sponsor innovative approaches to the provision of affordable housing.

d. *Intergovernmental coordination.* A large component of the work program implementing The Lee Plan involves coordination with other public entities. The largest part of such coordination is through Ch. 163.01 Interlocal Agreements, which guide certain funding and planning functions. Capital work actions are funded as noted above for the particular program area, and planning activities are commonly funded out of the Core Level of Service millage.

3. Property and other unused funding capacity.

Simply said, the Board of County Commissioners has not tapped out its fiscal sources. Optional gas taxes have been maximized, and a limited selection of licensing fees have been adopted to capacity. However, property taxes are not at constitutional millages (an approximate 8 mills are not levied in excess of \$400 million of potential receipts) nor is the optional one cent sales tax levied. Impact fees are periodically evaluated and if adjustments are needed, they are implemented. Service fees are similarly periodically evaluated.

Fiscal management by the County is sound. Both Moody and Standard and Poors gives the County complimentary reviews on our bond issues. The Board has a capacity to undertake large and complex capital works, which this year is shown through a major expansion of its international airport, the reconstruction of the Sanibel Causeway, as well as a host of sophisticated smaller scale construction and reconstruction efforts. From the neighborhood park, to the roadway arterial, to the complexity of electrical cogeneration from refuse disposal, the Lee County Board of County Commissioners demonstrates the capacity and will to make its Comprehensive Plan financially feasible.

CHANGES TO CHAPTER 163 AND RULE 9J-5, FAC SINCE LAST EAR

DCA Comment:

The report did not identify the changes to the (sic) Chapter 163 and Rule 9J-5, FAC that took place since the previous EAR and indicate whether or not the County has addressed or still needs to address those changes. The report simply states that, ~~the~~ County has either complied with all legislative changes that have occurred, or is in the process of making changes in accordance with latest legislative requirements. Based on this response it is difficult to assess the extent to which the County has complied with all the changes that occurred since the previous EAR. If the changes have been addressed, the EAR should indicate where and when it (sic) they were addressed.

DCA Recommendation:

Revise the Report to identify each change that has occurred to the law since the previous EAR, and indicate the extent to which the change has been addressed in the comprehensive plan. The EAR should also identify the changes that have not been addressed and indicate how they will be addressed.

Lee County Response:

Staff reviewed all legislative changes to Chapter 163 and Rule 9J-5 that have occurred since the preparation of the last EAR in 1994. Appendix C provides a matrix with staff's response to Lee Plan compliance with each statutory change that is applicable to the Lee Plan. Staff believes that the plan is in compliance with all of the changes that are required to have been made at this time. Staff is aware that there are some requirements, such as the water supply plan, that have not yet been addressed. Staff intends to address those items within the required time frame.

MAJOR ISSUE #1: TRANSPORTATION

January 20th, 2005 Meeting Summary:

The transportation issue will be addressed along the lines recommended in the sufficiency report. Relevant information from the County's Concurrency Report will be utilized to the extent applicable. With respect to the Alternative Concurrency Approach presented in the EAR, as we expressed earlier, the Department looks favorably to it provided it includes commitments demonstrating the following: 1) the participation of all affected entities (municipalities as well as the State FDOT); 2) a financially feasible plan (to the extent meaningfully (sic) possible); and 3) stopping control mechanisms if funding streams fail to materialize and commitments are not met by affected entities. DCA staff will coordinate with Rob Mcgee in the Tallahassee FDOT office, and the District's FDOT office regarding this matter and inform the County.

With respect to the projection of future needs for all public facilities, we all agreed that it should be provided for the short range of five years, and the long range of ten years (i.e., it does not have to be up to 2030, the new MPO and land planning horizon).

1. Level of Service Standards

DCA Comment:

With respect to level of service standards, the Report provides a county-wide summary of the traffic volume on the County's roadways in 1996, 1999, and 2002, indicating any surplus capacity that existed. However, providing a countywide summary of traffic conditions does not address the major issue of how well the level of service standards have been maintained on the County's road network as identified on the

Future Transportation Map. Furthermore, the evaluation does not identify the roadway segments on which problems exist, or existed and analyze why. In addition, the evaluation does not address how land use approvals have been linked to, and coordinated with transportation planning and the type of land use adjustments that would be needed in order to maintain or achieve better coordination between the future land uses pattern of the County and transportation planning. It is also not clear in the report the extent to which the goals, objectives and policies in the plan that specifically relate to the maintenance of the adopted level of service standards have been effective in helping the County achieve and maintain adopted LOS standards during the evaluation period.

DCA Recommendation:

Revise the report to:

1) identify the roadways on which level of service problems exist, or existed and provide an analysis discussing why there were problems and how they might better be dealt with in the future;

Lee County Response to DCA Recommendation 1.(1):

Lee County DOT was under the impression that DCA was looking for more of a summary of conditions in the new EAR process rather than a link-by-link level of service comparison. However, we have attached the relevant pages from our 1997, 2000 and 2005 Concurrency Management Reports in Appendix D that show the level of service calculations for all of the major road segments (Attachments A, B, and C). As noted in the adopted Lee County EAR, there have been changes over time that make direct comparisons a little difficult, such as the method for calculating service volumes (capacities) and a change in the reported value from peak season, peak hour, two-way volumes to peak season, peak hour, peak direction volumes. It is also important to note that each concurrency report identifies multiple level of service calculations for each road segment. In the case of the 1997 and 2000 reports, two volumes are reported. The first is identified as the **Existing** condition, which was based on the converted traffic count plus the traffic from approved but not yet c.o.-d building permits. The second is a **Forecast** volume, which adds the traffic from approved but not yet built local development orders. The methodology had changed somewhat in the most recent report, which was adopted in June, 2005 (the 2003 report was referenced in the EAR, because that was the most recent report at the time the EAR was developed). The latest report includes three volumes: the **Existing** condition is actually the converted traffic count, the **Estimated** volume for the next year adds the traffic from projects with approved building permits, and the **Forecast** volume adds the traffic from projects with approved but not yet built local development orders.

As noted in Policy 22.3.3 of the Lee Plan, the ability to issue a concurrency certificate is based on the **Existing** condition reported in the Concurrency Management Report. The **Forecast** volumes are just used as a tool to anticipate improvement programming needs. Attached as part of Appendix D is Table T-1 that identifies those road segments that exceeded their adopted level of service standard based on **Existing** conditions in each of the three reporting years.

As evident from Table T-1, most of the level of service issues identified in the past have been are are being addressed with programmed improvements, either directly to the impacted facility or to parallel roads. The two road segments common to all three reports are on Estero Boulevard south of the bridge and on McGregor Boulevard (a state road) south of Colonial Boulevard. Both are identified as **Constrained** roads, which means they won't be widened due to aesthetic, environmental, historic, or right-of-way constraints. Estero Boulevard is unique, because it is the central artery on a barrier island, through the Town of Fort Myers Beach. Options are very limited because the right-of-way is very limited and parallel improvements aren't possible, but the Town and County are jointly funding a feasibility study to look at the possibility of creating a dedicated transit/trolley lane on the road. Some people have also pushed for

another bridge to the island from Coconut Road, but that is not currently part of the Lee County MPO's long range plan, and such a bridge would be of questionable feasibility due to construction costs and environmental permitting hurdles where it would cross Estero Bay (designated an Outstanding Florida Waterway). State policy also discourages new bridges to barrier islands.

McGregor Boulevard also cannot be widened, in this case because it is lined with historic trees protected under state law. Left turn lanes were added several years ago through much of the problem section, but not much more can be done. The Florida DOT has budgeted funds to design a turn lane extension at the Colonial Boulevard intersection, where much of the back-up originates, and the City of Fort Myers is planning on undertaking the work, which should provide some relief. A 6-lane improvement to Summerlin Road from Cypress Lake Drive to Boy Scout Road is also programmed for construction by the County in FY 2006/07, which would hopefully have the effect of drawing some of the traffic off of McGregor Boulevard.

Much of I-75 through Lee County, from the Collier County line to SR 80 (Palm Beach Boulevard) is identified as exceeding its adopted level of service standard in the 2000 and 2005 reports. This is in part because, as an FHHS roadway, the state sets the level of service standard, and sets it much higher than most Lee County roads, at level of service C. While conditions have worsened on the interstate from 2000 to 2005, relief is on the way, both in the form of state and locally-programmed parallel improvements on both sides of the interstate as well as direct 6-laning by the FDOT on the interstate. The state has funding committed in its work program to 6-lane I-75 from the Collier County line to Daniels Parkway in FY 07-08, and from Daniels Parkway to SR 80 (Palm Beach Boulevard) in FY 09-10. The status of all of the parallel improvements was outlined in detail on pages 12 and 13 of Lee County's initial EAR submittal.

DCA Recommendation: *Revise the report to:*

2) provide an assessment of how land use approvals have been coordinated with transportation planning and the type of adjustments that will be done to achieve better coordination; and

Lee County Response to DCA Recommendation 1.(2):

Lee County has established regulations and processes that coordinate land use approvals with the transportation plans of the County and the Lee County Metropolitan Planning Organization's Long Range Transportation Plan. The Lee Plan contains numerous Goals, Objectives, and Policies that address this issue. Staff provides the following discussion that demonstrates that this concept is already incorporated into the Lee Plan and the County's Land Development Code.

Goal 37 and subsequent Objectives and Policies: establish general level of service standards for State and County Road; establish a Policy that Lee County will maintain its traffic monitoring (count) program on State and County arterials and collectors; and, establish a methodology to calculate levels of service, service volumes, and volume-to-capacity ratios. Objective 37.2 and subsequent Policies set forth the concept of Constrained Roads and set a maximum volume-to capacity ratio. Objective 37.3 and subsequent Policies establishes a transportation concurrency management system consistent with the requirements of Chapter 163.3180, F.S., and Rule 9J-5.0055, F.A.C.

Goal 36 and subsequent Objectives and Policies require that the County review the adopted Transportation map series at least every two years. The County routinely updates these maps as part of the regular amendment cycles on an as needed basis. Land use projections, based on Lee Plan allowable residential densities and non-residential intensities of use, are incorporated in the modeling effort that is utilized to generate the MPO's Financially Feasible Long Range Transportation Plan. In other words, the Lee County

2020 Long Range Transportation plan is based upon the level of traffic that is reasonably expected to be generated by the various land use categories and associated developments. The MPO continuing planning process assures that land use is coordinated with the County's transportation planning process.

The Lee Plan also includes a Policy, Policy 38.2.2, that in part provides that **A**No development order or development permit, as defined in Section 163.3164, F.S., will be granted if the approval will result in a needed facility not being available concurrent with the impacts of the development. Goal 39 provides that the County will **A**maintain clear, concise, and enforceable development regulations that fully address on-site and off-site development impacts and protect and preserve public transportation facilities. Policy 39.1.1 requires new development to **A**fund all private access and intersection work and mitigate all site-related impacts on the public road system; this mitigation is not eligible for credit against impact fees.

The Capital Improvements Elements provides a Goal, Objective, and Policies that ensure coordination of land uses with transportation plans. Goal 95 seeks to provide public facilities (such as roads) and services in Lee County **A**adequate to serve the needs of both existing and future development. Policy 95.1.1 is the policy that governs the development of the County's Capital Improvements Program (CIP), priorities for the CIP, and the effect of the CIP. Planning staff is included in the review of the annual development of the CIP. The County has not identified any needed modifications to this policy.

The County also requires detailed project analysis at several stages of project development. For example, Lee Plan Standard 11.3 provides that **A**A traffic impact statement (TIS) must be submitted to and accepted by the County DOT for specified developments. This standard provides that a TIS is required for Developments of Regional Impact (D.R.I.s), Planned Developments, and developments requiring a county development order, as specified in the Land Development Code. Staff has not identified any needed modifications to existing Lee Plan or LDC provisions.

DCA Recommendation:

Revise the report to:

3) identify, and analyze the effectiveness of the specific goals, objectives and policies in the Transportation, Future Land Use, and Capital Improvements Elements that pertain to coordination of land use with transportation planning, and achieving and maintaining the adopted LOS standards. With respect to the FIHS roadways, provide an assessment of the extent to which the parallel reliever roads that the County has constructed have reduced traffic on the FIHS.

Lee County Response to DCA Recommendation 1.(3):

Lee County, in the previous section of this report, identified the specific goals, objectives, and policies that pertain to coordination of land use with transportation planning. Lee County believes that these existing regulations are effective in providing this coordination function. The proof has been in the yearly Concurrency Management Reports. The expected failures are small in number and are the subject of planned alternatives and/or improvements. Lee County believes that the Long Range Transportation Planning process, as established, provides sufficient coordination. In addition, privately initiated plan amendments must include a review of their proposed project's traffic impacts vis a vi the long range financially feasible transportation plan.

Regarding the request in the last sentence, Lee County outlined in detail the status of the various parallel road improvements in our initial EAR submittal (pages 12 and 13). As noted then, only a few segments have actually been completed, some so recently that they are not yet reflected in the County's annual traffic count program. Therefore, a detailed assessment of their effect as far as reducing traffic on the FIHS (I-75)

is not yet possible. However, the 4-lane segment of Three Oaks Parkway from the Bonita Springs City Limit to Corkscrew Road, which has been in place since 2003, had a 2004 traffic count of 12,500 cars per day (annual average). The four-lane segment of Ben Hill Griffin Parkway from Corkscrew Road to Alico Road, which has been in place since 1997 and also serves as the primary access to Florida Gulf Coast University, had a 2004 traffic count of 10,200/8,200. A recently-completed extension of that roadway from Alico Road to Daniels Parkway was experiencing counts as high as 15,000 cars a day within 2 weeks of opening. Although that segment will ultimately serve as the primary entrance to the Southwest Florida International Airport, the airport entrance has not yet been opened, so all the traffic so far could be viewed as drivers seeking an alternative to I-75. As more segments of these parallel corridors are completed, the longer lengths would be expected make them more attractive to drivers currently using I-75.

2. Bike and Pedestrian Facilities

DCA Comment:

The EAR does not provide an assessment of the success of the County's bike/pedestrian programs and whether any changes are needed in order to achieve the intended purpose. Furthermore, it is not clear in the report, if bike/pedestrian links have been contemplated between the land uses cited in Policy 24.4.2, and also where these facilities have been constructed to provide greater interrelationship and connection between uses. In addition, no information is provided in the report to allow the assessment of the progress in implementing Map 3D, and the policies cited in the report pertaining to bikes and pedestrian facilities. This type of assessment is particularly important considering the function of bike/pedestrian paths to general transportation network of the County.

DCA Recommendation:

Provide an assessment of the success and failure of the County's bike/pedestrian programs and the extent to which they have helped provide alternative transportation pathways that have relieved traffic on the major roadways and promoted communication between land uses. Based on this assessment, recommend appropriate changes, or reprioritization of programs, to better achieve objectives.

Lee County Response:

As noted in the initial EAR submittal and per Policy 25.4.4, Lee County has a four-pronged approach to providing additional bicycle/pedestrian facilities: (1) providing such facilities where feasible when constructing new or expanded State and County roadways; (2) requiring developers to provide such facilities internal to their developments and along their roadway frontage when reflected on Map 3D; (3) pursuing state and federal grant applications; and (4) annual County funding of improvements through the Transportation Capital Improvement Program (CIP). We also previously noted that the County's Parks and Recreation Department has started a greenway trails program, which will include additional facilities away from road rights-of-way.

The previous EAR submittal explained that Map 3D identifies the desire for bicycle/pedestrian improvements to some 150 major road segments (arterials and major collectors). The map forms the basis for a priority list for spending the County's annual funding, which utilizes a combination of local option gas taxes and road impact fees and now totals over \$2 million a year. The priority list is developed by the Bicycle Pedestrian Advisory Committee (BPAC) and is often expanded to include local road needs based on citizen requests.

DCA's concern seems to be determining whether the County's program since 1997 has been successful. The policies in the Lee Plan don't specify that the County should build a certain number of facilities each

year. To address the concern, Table T-2 of Appendix D identifies the list of facilities built since 1997. Based on the table, Lee County and FDOT have built or caused to be built (through State/County projects or developer commitments) an additional 284 facility miles since 1997. This effort increased the total inventory of County-maintained bike-ped facilities to 501 miles and of State-maintained bike-ped facilities in unincorporated Lee County to 179 miles. These totals do not include State highways in incorporated areas or City-maintained facilities.

In terms of DCA's concern about the interconnection of the uses cited in Policy 25.4.2 (not 24.4.2), the criteria used by BPAC to prioritize bike/ped projects reflects the latent demand from pedestrian generators such as residential, schools, shopping centers, libraries, post offices and parks. BPAC considers the location of these uses when ranking requests from citizens and along arterials and major collectors that do not have existing facilities.

As an indication of progress, of the approximately 665 total facility miles of bike/ped facilities identified in Map 3D along County-maintained roads (existing and planned), 180 existed before 1997 (27%), 153 new miles have been added since 1997 (23%), and 105 miles are currently programmed for construction (16%) by FY 2008/2009. In other words, 39% of the planned needs just on County-maintained roads will have been added in the 12 year period from 1997 to 2009. That leaves only 34% to be addressed in the remaining 11 year period from 2009 to the plan horizon year of 2020. For the State roads in unincorporated Lee County, approximately 171 total facility miles of bike/ped facilities have been identified on Map 3D. Approximately 42 miles were existing before 1997 (25%), 25 new miles have been added since 1997 (15%), and 39 miles are currently programmed for construction (23%). Again, a significant portion of the planned need has been or will be provided over the 12 year period from 1997 to 2009, in this case 38%. That leaves only another 38% of the planned needs to be addressed in the final 11 years of the plan horizon.

Clearly, significant progress has been made in terms of adding bicycle/pedestrian facilities to County and State roadways. As indicated in our initial EAR submittal, we do not believe any changes to our comprehensive plan are necessary to address this issue, and we do not feel we need to make any programmatic changes or reprioritize programs to achieve the objectives of the plan.

3. Service Roads

DCA Comment:

Service roads are a functional part of the County's roadway network; yet, no assessment of the progress made in the County during the evaluation period to provide service roads for the major arterial and collector roads in the County including US 41, Colonial Boulevard, Daniels Parkway, and Metro Parkway have been provided.

DCA Recommendation:

Revise the report to include an assessment of the condition and availability of service roads in the County. The assessment should document the progress made since the previous EAR relative to the objective targets in the comprehensive plan, and where necessary include recommendations for amendments that would facilitate progress.

Lee County Response:

Lee County DOT is willing to provide a quantification of how many miles of service roads have been built since 1997, but questions the benefit of that effort. Pages 17 and 18 of the initial EAR submittal identify

the comprehensive plan policies that relate to the provision of service roads, and they indicate a desire to develop a system of service roads along identified arterials and collectors as specified on the Access Road Location Map. However, they don't specify a time frame for completing such a system or establish a standard to build so many miles a year. As explained in the EAR, the service roads are required of new development as it builds, which is logical since the need for service roads doesn't really occur until you have development fronting the identified arterials and collectors. Lee County doesn't control the rate of development along the identified arterials and collectors, so it cannot control the rate at which the service road system is established. Therefore, the measure of how many miles of service roads have been built since 1997 is irrelevant; it should be enough to simply know that as development occurs, the service road system will be established.

To respond to the DCA request, a total of 13.2 miles of functional service roads have been added since 1997 along US 41, Daniels Parkway and Metro Parkway, as identified in Table T-3 of Appendix D. As stated in the initial EAR submittal, we do not feel any comprehensive plan amendments are necessary in regard to this issue. Colonial Boulevard is in the City of Fort Myers, which has the responsibility of requiring service roads for adjacent development, and that service road system is nearly complete.

4. Transit Level of Service

DCA Comment:

Although this section is titled "Transit LOS Standards" no information on the transit LOS, as well as an assessment of how well they are being achieved have been provided. It is difficult to judge from the EAR the extent of progress made in providing public transit in the County and its contribution towards achieving the County's overall transportation strategy. Also, the extent to which the land use pattern of the County supports the transit system is not assessed.

DCA Recommendation:

Revise the report to assess the extent to which the transit LOS standards have been achieved, indicating the condition at the time of the previous EAR and the condition at the present time so as to establish the trend. The extent to which objective targets established in the plan have been achieved should also be documented. Also, identify the major attractors and/or generators of transit in the County and the additional strategies, if necessary, including land use adjustments, to be undertaken to support the transit system.

Lee County Response:

In 2001 Lee County completed a Transit Capacity and Quality of Service report to measure transit availability and quality of service from the passenger point of view. The report contains quantitative calculations for the capacity of bus service in the county as well as transit stops, stations, and terminals. However, the transit profession does not have a unified, generally accepted method of compiling and reporting quality of service, in contrast to something like the uniform highway capacity manual guidelines that are used to measure roadway levels of service. A second Quality of Service report is planned for September, 2006, and Lee Tran staff will be collecting data in accordance with the procedures in the report. Until that is done, a trend in the quality of the provision of service can not be established. The Quality of Service report identifies major attractors and transit generators, which will be reviewed and modified in the 2006 update.

Objective 28.1 in the Lee Plan calls for the County maintaining efforts to increase public transit ridership sufficient to achieve 1.3 passenger trips per revenue mile. In FY 03/04 the trips per mile equaled 0.9, an

increase from previous years. The County has met most of policies within this objective and continues working towards meeting every policy listed.

Objective 28.22 states that large new developments need to provide convenient access to mass transit. Transit staff has the opportunity to review large development plans and has been successful in requiring additional transit-related amenities to be included in the proposals, however, the focus has only been within the County's existing transit service area and some developments have been approved outside that area.

Objective 28.3 states the County will maintain public transit service that offers reliability, accessibility, safety, convenience, affordable prices, and efficiency. While meeting most but not all of the policies in this objective, the public transit service has been maintained. Efforts continue to make the service more convenient and efficient.

In accordance with Objective 28.4, the County has coordinated mass transit efforts with the state, regional and local governmental agencies as well as other special groups. Three major transit corridors have been identified and initial work has begun to maintain them for future, enhanced transit service, per Objective 28.5. The County has updated the Transit Development Plan on an annual basis as described in Objective 29.1, and many of the goals and initiatives in the plan are implemented.

MAJOR ISSUE # 3: INTERGOVERNMENTAL COORDINATION:

DCA Comment:

The subject of intergovernmental coordination was identified as a major issue by the County. The EAR narrated the meetings that the County's staff regularly participates in with the MPO, the Water Management District, and the Environmental Science Department of the County. The Report also discusses the annexation activities of the municipalities. However, no assessment of the effectiveness of the existing intergovernmental coordination mechanisms of the plan today in comparison to their effectiveness at the time of the previous EAR has been provided. Essentially, the Report does not document the coordination mechanisms that have worked well during the past years and those that have not worked in order to identify areas in need of improvement.

DCA Recommendation:

1. Revise the report to assess the effectiveness of the existing intergovernmental coordination mechanisms.

Lee County Response:

There are many avenues of intergovernmental coordination being utilized on a regular basis, keeping lines of communication open between different departments within Lee County, surrounding counties, and the various municipalities within Lee County. Most are as simple as meetings, either informal or regularly scheduled, some are more complex processes such as entering into an Inter-Local Agreement. The most effective mechanisms in coordinating efforts have proven to be the grass roots meetings dealing with specific issues. Goal 152 and the subsequent Policies and Objectives promote open lines of communications through the use of various committees, regularly scheduled meetings, and informal contact.

Goal 152: To coordinate the plans and policies of Lee County, its municipalities, and adjacent local governments so as to guide, manage, and regulate urban growth in a compatible fashion.

As was stated in the initial report, regular meetings take place with all levels of surrounding governmental entities, an example being the Metropolitan Planning Organization during the Technical Advisory Committee meetings. While transportation issues are the primary reason for these meetings, this is a broad topic and sub-issues are brought up on a regular basis for further discussion. Policies regarding growth management strategies are points of discussion as they will inherently impact the transportation network in this region.

Policy 152.1.6: The County will coordinate transportation planning and road improvements with other jurisdictions through the means described under Goal 42 of this Plan.

In addition to Goals, Policies, and Objectives actual planned developments and the impacts they will impose to a wide variety of public services are open to discussion during these meetings. As should be easily understood, the relationships that exist between public services such as transportation, water and sewer, public safety, and public accessibility are interdependent. At any of the public or less formal meetings held between governmental entities, the discussion of addressing a particular problem requires a considerable amount of dialogue concerning all facets of growth with the end result being a corrective action being agreed upon and taken. The examples of these successful efforts is virtually limitless as can be seen from the initial Report submitted to DCA; bi-weekly staff meetings with the Division of Environmental Sciences (ES), ES attending monthly staff meeting with the South Florida Water Management District (SFWMD), meetings between County departments during the development order and zoning review process when the cross-over of responsibilities comes into play are all illustrations of an effective tool in place to address a common issue.

Policy 152.1.5: The County will protect natural resources systems that cross governmental boundaries through the means described under Goal 112 of this plan.

Policy 152.1.7: The County will continue to pursue efforts to implement a plan for surface water management with the surrounding affected counties and affected municipalities within Lee County.

Policy 152.1.8: The principles and guidelines to be used in the planning, siting and location of new schools have been established under Goal 66: Education.

It is a natural progression of responding to a specific issue (problem) to discuss its causes and possible solutions that meet all of the parties involved collective needs. This has been a successful formula in addressing issues that will impact either all or parts of Lee County. Every effort should be made to support and participate in the grass roots efforts of identifying, discussing, and addressing issues, in this manner, before they become problems.

DCA Recommendation:

2. Document the mechanisms that have worked and the ones that have not worked, in order to identify areas in need of improvement.

Lee County Response:

However, not all mechanisms have had as successful track-record as those listed above. The use of the inter-local agreement has had their share of failures. As a mechanism to ensure cooperative efforts, when all parties are not in agreement, it has done more to create points of contention rather than unifying efforts between jurisdictions.

Policy 152.1.4: The County will strive to negotiate inter-local agreements with all incorporated municipalities to resolve planning issues relating to areas outside the cities=limits which they would like to

target for annexation. An Urban Reserve@boundaries adopted in such agreements will be designated on the future land use map.

The primary drawback of the inter-local agreement is during time, the effort to come to a common assessment is lost, priorities will change and inter-local agreements are not a binding contract. They can be withdrawn, ignored if it does not promote the current endeavor, or simply not entered into from the beginning. As a mechanism for ensuring intergovernmental coordination, it lacks the ability to obligate separate jurisdictions to work together over a long duration when they do not share common goals.

The voluntary annexation of property into one of the five existing municipal governments in hopes of gaining greater densities to work with is of primary concern to the County. The municipalities recognize the opportunity to both expand their borders and increase their tax base and the private sector has a readily available tool to side step County land use designations if they do not like the build-able densities they offer. As was presented in the initial Report submitted to DCA, there is no mechanism in place that could force conformity between separate governmental entities facing different objectives. To respond to this, there are three courses of action: (1) enter into serious agreements with the municipalities interested in annexations; history however, has shown that this may not address the issue, (2) amend the Lee County Charter to require the County's consent on any voluntary or involuntary annexations, or (3) make the amendments to Chapter 171 giving counties more control over annexations in general.

A fourth (4) alternative, which does not provide any additional legal influence to an inter-local agreement, would be a requirement that the inter-local agreement process not stop with the creation of a document that is simply referenced. An effort needs to be made to recognize the implied importance of these documents.

The need to provide a maintenance program that identifies the life-span of an inter-local agreement, the ability to query for, research, and reference an inter-local agreement. Also, the forethought to revisit an inter-local agreement to ensure its significance over time needs to be addressed. These can be done, but it requires some entity accept responsibility for these actions to be taken.

MAJOR ISSUE #4: DENSITY REDUCTION/GROUNDWATER RESOURCES:

DCA Comment:

The effectiveness of the land use designation known as the Density Reduction/Groundwater Resource (DRGR) was identified as one of the major issues in Lee County to be evaluated. As a category, it allows residential use at one unit per 10 acres and a variety of other uses, including mining and private recreation uses. According to the report, the category was created for two reasons: 1) to put a cap on density in order to reduce the carrying capacity of the County's Future Land Use Map; and 2) to protect the County's underground water system. The report concludes that the two purposes were achieved since there have been very few developments within the DRGR since its creation. The County has not provided a sufficient evaluation of this land use category considering its importance to the County.

According to the report, mining had the most impact on the DRGR, yet the extent to which mining has affected other resources within the DRGR are not addressed. The impact of mining is presented based on the number of development orders (D.O.) issued. This is insufficient because it does not accurately account for the impact of mining in terms of the amount of land involved in each DO, the cumulative impact of the mined areas, the characteristic of the mined areas, and the location of mining activities in the DRGR. In the absence of this type of assessment it is difficult to account for the impact mining and other activities in the DRGR have had since the previous EAR.

The EAR also stated that the evaluation of the allowed uses within the DRGR would take place following the completion of a study of the DRGR that has been commissioned by the County. Deferring the evaluation of the DRGR to a future study is insufficient because the County is required to use the EAR process to evaluate the changing conditions of the major issues (i.e., the trend) since the past EAR, and to evaluate the extent to which objective measures and benchmarks established in pertinent objectives and policies of the plan relating to the major issues have been achieved.

Although the historical reasons for creating the DRGR were 1) to put a cap on density in order to reduce the carrying capacity of the County's Future Land Use Map; and 2) to protect the County's underground water system, the importance of the DRGR goes beyond just those two purposes, to include the protection of natural resources in general, in fact resource protection is another major issue identified by the County and should be evaluated in relation to the DRGR. For example, the DRGR is home to various plant communities and wildlife including the endangered Florida Panthers, in view of this several objectives that pertain to the land area of the DRGR and the ecological system that make up the DRGR should have been evaluated to establish the extent to which they have been achieved, or failed to be achieved utilizing the most recent and best available data. These objectives include Objective 77.1, relating to the implementation of natural resource protection programs to ensure the long-term protection of the uplands and wetland habitats; Objective 77.2 regarding the protection of plant communities; Objective 77.3 regarding the maintenance and enhancement of the diversity of the County's ecological systems, and Objective 77.4 regarding the protection of threatened and endangered species.

DCA Recommendation:

Include in the EAR, a thorough assessment of the DRGR relative to the impact of human activities on the systems and functions embraced by the DRGR designation. The assessment should document the change in condition since the previous EAR, and the extent to which all objectives in the plan pertaining to the systems and related functions of the DRGR have been achieved, including the evaluation of the objectives cited above. The analysis and assessment should utilize the most recent and best available information and should provide maps of the mined areas, the number of acres mined since the last EAR, and cumulative impact of mining and other activities on the resources of the DRGR area.

January 20th, 2005 Meeting Summary:

The County wants the study that is currently being conducted (due in March 2005) to be completed so as to provide the County with a better understanding of the underground hydrology and with that information, the County Staff will be in a better position to evaluate the allowable land uses and the effectiveness of DRGR policies and regulations. The Department agrees with the County in this regard. It is the Department's hope that the revision to the EAR could be completed within six months and that will provide the County with sufficient time to use the information from the DRGR study.

In addition; the County will assess the impact of development activities on the habitat and species of the DRGR in order to evaluate the achievement of the objectives of the plan cited in the Department's sufficiency letter of December 20, 2004, relating to this subject. The Department agrees that the evaluation of habitat and species protection will not be limited to the DRGR alone but shall include other areas of the County.

Lee County Response:

The Groundwater Resource and Mining Study has been completed, in draft. Preliminary indications are that the land management strategies associated with the DRGR designation have been successful in maintaining groundwater resources. The overall study did identify other areas of groundwater resource

importance that have stressed situations, and the report, which will be included in the background information of the EAR, may lead to policy recommendations to address such areas. The report does provide recommendations for management of existing and future mined lands for enhanced water resources.

It should be noted that there are two DRGR designated areas in the County. The northeastern area is within the Babcock Ranch, and the County has offered to purchase that part as a preserve area. No other land use changes have been proposed by the County for this area.

The southeastern portion of the DRGR is under significant development pressure. Upon completion of the peer review, the Board will examine management alternatives that maintain the groundwater resources, and these may lead to policy recommendations or land use changes as part of the EAR based amendments.

The Lee Plan has two goals related to habitat and species. Goal 104.1, and 107. Goal area 104.1 addresses environmentally critical areas, and goal 107 addresses Resource Protection.

At the time of the last EAR and major Plan update, Lee County was engaged in the creation and expansion of the Corkscrew Regional Ecosystem Land and Water Trust. This two county program resulted in the purchase of in excess of 24,000 acres in the two counties, which when combined with the Audubon Corkscrew Sanctuary and the Southern CREW expansion of the SFWMD, resulted in 40,000 acres of preserve.

Various State land acquisition programs have been valuable for habitat preservation. Both Charlotte Harbor and Estero Bay Parks came into being during this period, drawing upon previous state holdings and acquisition efforts from the State, the County, and private conservation efforts. The result has been that the greatest part of the County's Bay shorelines are in states of preserve or conservation, protecting estuarine and marine species as well as shoreline ecotones critical to avian species.

Beginning in 1996, Lee County initiated the Conservation 2020 program, which is discussed elsewhere in the EAR. This program, funded at 2 mill, is currently raising approximately \$24 million, annually, which is devoted to the acquisition of environmentally sensitive resource lands. To date, over 12,000 acres of targeted habitat have been acquired.

The Lee Plan also identifies through policies specific species of concern: Loggerhead Turtles, Southern Bald Eagle, West Indian Manatee, Gopher Tortoise, Red Cockaded Woodpecker, Florida Panther, and the Black Bear. Specific county activities have been undertaken for protection of these species as follows:

Sea Turtles: In general, sea turtle lighting standards are reviewed through the development order process. Environmental Science (ES) enforcement staff conduct lighting inspections with special emphasis during the nesting season. ES staff also sends out reminder letters and information about subduing lights during sea turtle nesting season prior to the start of each nesting season. Data provided through Turtle Time indicates that management has stabilized turtle nesting through 2001, after which declines were noted in 2002-3 and an upsurge in nests but not in hatchlings in 2004. No loss is due to loss of habitat, but reasons are not known.

Bald Eagle: ES staff continues to work with developers, single family home owners, and ETAC to protect active eagle's nests through timing of building and establishment of protection zones. There are 12 adopted

and 3 pending eagle management plans within planned developments. The number of bald eagle nesting territories has increased, and there continues to be successful fledging of young.

West Indian Manatee: ES staff coordinates review of planned developments and development orders proposing new docks, boat ramps, and marinas with Lee County Division of Natural Resources to insure the projects are consistent with the BOCC approved manatee protection plan. (2004) Trend lines show stable but hints of decline in populations. However, beginning in 2000 water management practices for Lake Okeechobee resulted in unusual dry season discharges, wiping out salt water grasses, followed by droughts with no discharge, wiping out freshwater grasses. This management regime resulted in the loss of forage habitat the length of the Caloosahatchee from S-79 westward to Shell Point Village. We do not know what this means to present and future manatee mortality.

Gopher Tortoise: Gopher tortoises within development sites are either protected through the preservation of burrows or the excavation of burrows to move tortoises to onsite preserve areas when an Incidental Take Permit is issued. Some offsite relocation has occurred when large numbers of tortoises were located on a development site that did not have an open space or preservation requirement. Conservation 2020 parcels have been used for tortoise relocation. However, there is need to evaluate the potential of systematically establishing conservation biology populations of gopher tortoises within county managed preserves. These could be established or enhanced through relocating tortoises from development sites. This would create long-term viable populations of gopher tortoises within Lee County instead of small isolated populations within developments.

Red-Cockaded Woodpeckers: Development sites are surveyed for the presence of RCW's and appropriate preserves established when active RCW cavity trees are located. For example, an extensive preserve was established with the Heron's Glen DRI that provides contiguous, managed RCW habitat.

Woodstork: Development sites are surveyed for the presence of foraging, roosting, and nesting woodstorks. No woodstork rookeries have been located within development sites. When woodstorks are observed foraging on a proposed development site, then a woodstork management plan must be established for the site which may include the preservation of existing wetlands, the creation of wetlands onsite, and/or the creation of littoral shelves designed to provide foraging areas during the dry season.

Panther & Bear: As development has moved east closer to bear and panther areas, ES staff have been insuring that habitat is preserved in a manner that allows movement of bears and panther including requiring wildlife underpasses within developments. Also, some developments have been required to provide educational information regarding living with bears and panthers, and have been required to provide bear proof dumpsters to deter bear foraging. Most mitigation for impacts to panther and bear habitat is provided through the purchasing of land in Hendry County per FWC and USFWS direction.

In addition to the systematic survey for turtle nesting and the species listed above, Lee County is fortunate to have an annual survey for croaking amphibians through Frogwatch, which for the last five years has been surveying the same Acut routes@during the same time of year. Additionally, SWFlorida Audubon has undertaken an annual bird survey during the same time each year. Each survey distinguishes between types of amphibians or birds. Both surveys show ups and downs, but Frogwatch indicates classes of amphibians have declined to levels of no detection, which is consistent with worldwide trends hypothetized to atmospheric conditions of global warming. Generally, outside of the previous comment, areas with maintained or restored habitat see improvements, and areas with urbanization see declines.

Lee County has a draft plan Bthe Lee County Master Mitigation PlanCthat provides a systematic assessment of habitat, water quality, rehydration, and wetland preservation needs. The Plan, the result of a multidisciplinary and multiagency task team through the SWFRPC undertaken at the request of Lee County, is shown on the Lee County website. It includes no new policy but does provide for redirection of public investment dollars and identifies over 300 sites where restoration, mitigation, and preservation can be pursued. The plan also contains improved management proposals between agencies that have management objectives, and management auditing towards those objectives as key components. The Master Mitigation Plan is referenced elsewhere in the EAR.

MAJOR ISSUE #7: HURRICANE EVACUATION/SHELTER

DCA Comment: *The EAR did not evaluate the accomplishment of the objectives and policies in the plan pertaining to this issue. While it appears that there are problems associated with maintenance and reduction of clearance time, it is unclear if the situation has gotten better or worse during the evaluation period. It is also not clear in the Report whether the land use activities in the County have resulted in increased population concentration in the coastal high hazard area. Similarly, the County is not supposed to subsidize private development in the coastal high hazard area; however, the extent to which relevant objectives and policies pertaining to this purpose has been achieved is not addressed in the Report.*

DCA Recommendation:

1. Revise the report to provide an assessment of the extent to which the objectives in the plan pertaining to hurricane evacuation have been achieved. Specifically, document clearly if clearance time has been maintained or reduced, and also show how the actions to be taken during the coming planning period will ensure that clearance time is maintained.

January 20th, 2005 Meeting Summary:

The Public Safety director agrees to further address the extent to which certain listed policies in the plan were implemented and the objectives relative to hurricane evacuation/shelter have been met during the planning timeframe. The lessons learned and experience offered to us as a result of Hurricane Charley will also be discussed. Recommendations for additional planning guidelines, if necessary, will also be offered.

Lee County Response:

The Table below compares the current evacuation times from 2001 Southwest Florida Hurricane Evacuation Study Update with evacuation times published in the 1995 Southwest Florida Hurricane Evacuation Study Update. The figures represent the data in hours (to the nearest half hour) by category storm and track direction. Exiting and paralleling evacuation times were not computed in the 1995 Study update.

Lee County Hurricane Evacuation Times

| Hazard Response Scenario-Landfalling | Estimated Time to Evacuate-1998 | Estimated Time to Evacuate B 2001 | Estimated Time to Evacuate - 2005 |
|---------------------------------------|---------------------------------|-----------------------------------|-----------------------------------|
| Category 1 | 8.5 B 11.5 Hours | 10.5 B 15 Hours | 11.7 B 17 Hours |
| Category 2 | 13.5 B 17 Hours | 13.5 B 17 Hours | 13.0 B 17 Hours |
| Category 3 | 21 B 25 Hours | 21 B 25 Hours | 19.5 B 23 Hours |
| Category 4/5 | 23.5 B 28 Hours | 24.5 B 29 Hours | 23.0 B 26.5 Hours |
| Hazard Response Scenario-Exiting | Not Determined in 1998 | | |
| Category 1 | | | |
| Category 2 | -- | 6 B 10 Hours | 9.5 B 14 Hours |
| Category 3 | -- | 11 -14 Hours | 10.5 B 14.5 Hours |
| Category 4/5 | -- | 14 B 17.5 Hours | 13 B 18 Hours |
| Hazard Response Scenario-Parallelling | Not Determined in 1998 | | |
| Category 1 | -- | 9 B 14.5 Hours | 10.5 B 14.5 Hours |
| Category 2 | -- | 11 B 14 Hours | 11 B 14 Hours |
| Category 3 | -- | 18 B 21 Hours | 18 B 21 Hours |
| Category 4/5 | -- | 21 B 24 Hours | 21 B 24.5 Hours |

Source: Southwest Florida Hurricane Evacuation Study Updates, 1995 and 2001

Objective 109.1 of the Lee Plan provides that by 2010 the clearance time portion of evacuation time will not exceed 18 hours. When comparing the data between study updates, while hurricane evacuation times increase for the Category 1 landfalling storms they are still below the 18 hour Lee Plan threshold. Category 2 storm evacuation times remain relatively the same regardless of track direction and remain below the Lee Plan threshold as well. Category 3 storm evacuation times are still above the 18 hour Lee Plan standard but show a decrease for landfalling category three storms and remain relatively stable for the other track directions.

Overall clearance time has remained below the Lee Plan 18 hour threshold, with the exception of Category 3 storm evacuation times. There are currently several roadway improvement projects underway in Lee County. Sections of Sate Road 78 are being widened in both the eastern and western portions of the county. The four-laning of Burnt Store Road has been programmed for construction in the next six to ten year period. A corridor study is also planned for the extension of Del Prado Boulevard to an interchange at I-75. In addition, as stated in the Evaluation and Appraisal Report, planned improvements to State Road 80, Daniels Road, U.S. 41, and Bonita Beach Road could also maintain and improve future clearance times.

Objective 109.1 and the associated policies specify provisions for evacuation capabilities. Lee Plan Policy 109.1.1 requires that the County assess the impact of all new residential development on the evacuation network and evacuation times and requires mitigation. Policy 109.1.1 is reproduced below.

POLICY 109.1.1: *The county will assess the impact of all new residential development upon the projected hurricane evacuation network and upon projected hurricane evacuation times, and will require mitigation either through*

structural (on-site, off-site shelter) provisions or through non-structural methods or techniques. (Amended by Ordinance No. 00-22)

Chapter 2, Section 2-482 of the Land Development Code furthers the intent of Policy 109.1.1 by addressing the impacts of residential development on shelter availability and evacuation capability and requiring mitigation for shelter deficit and effects on evacuation times. This section applies to new development required to obtain a development order and all new residential development located in a land falling category 1, 2, or 3 storm surge as well as developments of regional impact.

The section provides the methods for calculating shelter impacts and evacuation impacts per unit for each development. Residential development under this article includes assisted living facilities, dwelling units, mobile homes, RV developments, hotels and motels, and specific health care facilities and social services facilities. Mitigation must be approved prior to the issuance of a development order and the payment in lieu option must be paid prior to the issuance of a building permit.

Shelter impact options include land donation, the use of a private structure, a payment in lieu of donation or use, and/or on-site shelter. All structures and land donations must be located outside of the coastal high hazard area. Certain health care facilities must be located outside of the CHHA as well and those located within a Category 2 or 3 landfalling storm surge must construct shelter space (meeting construction standards) for the residents of the facility.

Evacuation impact options include roadway elevation improvements for roadways within a development or for offsite roads to be used by the subdivision. Options also include evacuation sufficiency improvements which include providing funds that improve the ability to provide information to evacuees or improving the existing warning system during an evacuation. In addition, vertical evacuation is an option provided that the structure is elevated above a Category 3 landfalling storm surge and can withstand winds of at least 110 miles per hour located outside of the coastal high hazard area.

This Chapter also provides options that address both shelter and evacuation impacts that involve the construction of a safe room within a residential building located outside of the coastal high hazard area. Another potential option involves constructing residential units above the category 3 landfalling storm surge level outside of the coastal high hazard area as well.

Goal 110, Hazard Mitigation, and associated Policies 110.1.3 and 110.1.4 specify provisions for continuing information to residents in developments of 50 or more units concerning evacuation and shelters and developments of 100 or more units are required to formulate an emergency hurricane preparedness plan. Policies 110.1.3 and 110.1.4 are reproduced below:

***POLICY 110.1.3:** By 1995, all new residential development of more than 50 units will be required to provide continuing information to residents concerning hurricane evacuation and shelters, through the establishment of a homeowners' or residents' association. (Amended by Ordinance No. 94-30, 00-22)*

***POLICY 110.1.4:** By 1995, all new residential development of more than 100 units will be required to formulate an emergency hurricane preparedness plan; this plan is subject to the approval of the Lee County Division of Public Safety. (Amended by Ordinance No. 94-30, 00-22)*

Chapter 10, Section 10-154 of the Land Development Code furthers the intent of the policies by requiring an emergency preparedness plan prior to final development order approval for hospitals, nursing homes, assisted living facilities, developmentally disabled projects, marinas, multi-slip docking facilities, and residential development of 50 or more units. Lee County achieves the intent of the policies listed above

and therefore both policies should be updated through the EAR based amendments to state that the policies will be maintained.

In conclusion, the objectives and policies in the plan have been achieved through Land Development Code requirements assessing new residential development and through programmed road improvements. Programmed road improvements and ongoing review of shelter and evacuation impacts for each new residential development will further the evacuation clearance policies of the plan and ensure that clearance time is maintained.

DCA Recommendation:

2. Assess the extent to which the objectives and policies in the plan pertaining to the directing of population concentrations away from the coastal high hazard area has been achieved.

Goal 105, Protection of Life and Property in Coastal High Hazard Areas, and its associated policies focus on the protection of life and property from natural disasters in several ways. Objective 105.1 limits densities on barrier islands in order to meet evacuation standards, does not permit new development that requires seawalls, and considers the reduction of development of allowable densities in the coastal high hazard area.

***OBJECTIVE 105.1: DEVELOPMENT IN COASTAL HIGH HAZARD AREAS.** Development seaward of the 1991 Coastal Construction Control Line will require applicable State of Florida approval; new development on barrier islands will be limited to densities that meet required evacuation standards; new development requiring seawalls for protection from coastal erosion will not be permitted; and allowable densities for undeveloped areas within coastal high hazard areas will be considered for reduction. (Amended by Ordinance No. 92-35, 93-25, 94-30, 00-22)*

Policy 105.1.2 prohibits rezoning to higher densities on islands if the capacity of evacuation routes would be exceeded.

***POLICY 105.1.2:** Rezoning to allow higher densities will not be permitted on barrier and coastal islands if the capacity of critical evacuation routes would thereby be exceeded (see Objective 109.1). (Amended by Ordinance No. 92-35, 00-22)*

Policy 105.1.4 provides that land use designations within coastal high hazards areas will be considered for reduced densities in order to limit the population exposed to coastal flooding. Lee County is currently in the process of adopting an amendment to this policy to specify that rezonings within the coastal high hazard areas will be considered for reduced densities as well.

***POLICY 105.1.4:** Through the Lee Plan amendment process, land use designations of undeveloped areas within coastal high hazard areas will be considered for reduced density categories (or assignment of minimum allowable densities where density ranges are permitted) in order to limit the future population exposed to coastal flooding. (Amended by Ordinance No. 92-35, 94-30, 00-22)*

Two measures can be used to evaluate the effectiveness of development regulations reducing development density in coastal high hazard areas are the amount of acreage preserved in open space and the acreage maintained in low density categories. Lee County preserves open space through county or publicly owned preserves, parks/recreational areas, public ownership of undeveloped land, Conservation 2020 land purchases, and open space through development regulations that encourage land to be set aside as open space. The Lee Plan maintains the following non-urban future land use classifications that are considered low density: Rural, Outer Island, Rural Community Preserve, Open Lands, Density Reduction/Groundwater Resource, Coastal Rural, and Wetland Areas. The first three density

classifications limit the maximum density to one dwelling unit per acre. The remaining classifications limit the maximum density from one dwelling unit per five acres through one dwelling unit per twenty acres respective.

The Lee Plan also maintains the Conservation Lands future land use category. This category includes wetlands and uplands that are used for long range conservation purposes. To date over half of the lands designated as Conservation Lands in the County are within the coastal high hazard area.

The Table shown below compares the amount of acreage in open space between the years 2000 and 2005 in the County's regulatory floodplain as defined by FEMA. The comparison shows a significant increase in land preserved in open space therefore reducing the amount acreage available for development in the coastal high hazard area.

Comparison of Open Space Preservation Acreage in Regulatory Floodplain

| Type Open Space | Acres in Regulatory Floodplain B 2000 | Acres In Regulatory Floodplain B 2005 |
|-----------------------------|---------------------------------------|---------------------------------------|
| Preserved Open Space | 21,152 | 24,305 |
| Conservation 2020 Purchases | 1,804 | 6,268 |
| Open Space In Development | 402 | 1447.5 |
| Total | 23,358 | 32,021 |

Source: Lee County Property Appraisers File

The following Tables list the amount of acreage existing in the low density future land use categories noted above in the various flood insurance rate map (FIRM) zones within the regulatory floodplain between the years 2000 and 2005. When subtracting out the acreage in open space preservation, we see a reduction in the amount of A Zone acreage in low density by 5,330 acres while acreage levels in the AE and V zones remained relatively stable between the two time periods. Acreage in open space also increased by 8,663, resulting in a net gain of acreage unavailable for higher density development.

Low Density Categories in Regulatory Floodplain, By FIRM Zone - 2000

| FIRM Zone | One Unit Per Acre | One Unit/10 to 20 Acres | Totals |
|-----------------|-------------------|-------------------------|---------------|
| A | 15,206 | 29,255 | 44,461 |
| AE | 4,448 | 3,315 | 7,763 |
| V | 226 | 5,745 | 5,951 |
| Less Open Space | | | 23,358 |
| Total | | | 34,817 |

Source: Lee County Property Appraisers File

Low Density Categories in Regulatory Floodplain, By FIRM Zone - 2005

| FIRM Zone | One Unit Per Acre | One Unit/10 to 20 Acres | Totals |
|-----------------|-------------------|-------------------------|--------|
| A | 10,488 | 28,643 | 39,131 |
| AE | 4,912 | 3,849 | 8,721 |
| V | 217 | 5,769 | 5,986 |
| Less Open Space | | | 32,021 |
| Total | | | 21,817 |

Source: Lee County Property Appraisers File

Policy 110.1.2 of the Lee Plan also provides a means to minimize and direct population concentrations away from the coastal high hazard area by prohibiting new development or expansions of mobile home or RV development on barrier islands or in V flood zones. Policy 110.1.2 is reproduced below:

POLICY 110.1.2: *The county will not permit new or expanded mobile home or recreational vehicle development on barrier islands or in V-Zones as defined by the Federal Emergency Management Agency. (Amended by Ordinance No. 94-30, 00-22)*

Existing and proposed regulations, current future land use densities, programs such as Conservation 2020 land purchases, and the Conservation Lands future land use category are reducing the amount of developable acreage in the coastal high hazard area. Lee County will continue to achieve directing population concentrations away from the coastal high hazard area through the implementation of Lee Plan policy and through the reduction of land available for development in the coastal high hazard area.

DCA Recommendation:

3. *Assess the extent to which the objectives and policies in the plan pertaining to the subsidization of development in the coastal high hazard area has been achieved.*

Goal 106 of the plan endorses a program to limit public expenditures in Coastal High Hazard Areas through reduced density in exposed coastal high hazard areas, adequate planning for development exposed to hurricane forces, and mitigating future disaster potential through appropriate planning instruments and development regulations. Goal 106 and its subsequent objective and policies are reproduced below:

GOAL 106: LIMITATION OF PUBLIC EXPENDITURES IN COASTAL HIGH HAZARD AREAS. *To restrict public expenditures in areas particularly subject to repeated destruction by hurricanes, except to maintain required service levels, to protect existing residents, and to provide for recreation and open space uses. (Amended by Ordinance No. 94-30)*

OBJECTIVE 106.1: COASTAL HIGH HAZARD AREA EXPENDITURES. *Public expenditures in areas particularly subject to repeated destruction by hurricanes will be limited to necessary repairs, public safety needs, services to existing residents, and recreation and open space uses. (Amended by Ordinance No. 94-30, 00-22)*

POLICY 106.1.1: *All further public expenditures made for new facilities on undeveloped barrier islands or within V zones will require a finding by the county commission that such expenditures are necessary to maintain required service levels, to protect existing residents, or to provide for recreation and open space needs. (Amended by Ordinance No. 00-22)*

POLICY 106.1.2: *No new causeways (public or private) will be constructed to any islands. (Amended by Ordinance No. 00-22)*

POLICY 106.1.3: *No new bridges will be constructed to undeveloped barrier islands except where needed to achieve evacuation clearance time objectives on adjoining islands connected by existing bridges. In such a case, this plan will*

be amended to insure that the ultimate development of all areas served by the new bridge is limited to levels which can safely be served by the new and existing bridges. (Amended by Ordinance No. 00-22)

POLICY 106.1.4: *When state funding is required for the relocation or replacement of infrastructure currently within the Coastal Building Zone, the capacity of the replacement structure will be limited to maintaining required service levels, protecting existing residents, and providing for recreation and open space needs. (Added by Ordinance No. 94-30, Amended by Ordinance No. 00-22)*

Coastal High Hazard public expenditures have been limited to beach nourishment projects, improvements to parks to reduce exotic species, Conservation 20/20 purchases, road maintenance projects, storm water improvement projects and emergency expenditures following Tropical Storm Gabrielle and Hurricane Charley to clear and remove debris and restore or repair infrastructure (roads, water, sewer and electricity). No new causeways have been constructed to any islands, and improvements to the Sanibel Causeway meet the goal of improving evacuation clearance times on an island connected by existing bridges.

Lessons Learned From Hurricane Charley with Lee Plan Implications

Hurricane Evacuation: Behavioral research conducted following the 2004 Hurricane Season (Jay Baker, Florida State University, and Mason-Dixon Polling and Research, Inc.) indicates that Lee County residents have a poor understanding of hurricane hazards, inadequately plan for them and/or respond poorly to evacuation directives. Additional research conducted by Lee County Emergency Management at hurricane seminars during 2005 confirms these findings. Evacuation orders were either not received or understood. People who knew they were ordered to evacuate did not, thinking they were safe despite living on barrier islands or low lying coastal areas. Although those who did not evacuate say they may in the future, equal numbers say they would do the same as they did during Hurricane Charley. These findings point to a need to redefine the community's hurricane preparedness and public information programs both before and during the hurricane threat. This includes better ways to reach the growing non-English speaking communities.

Hurricane Shelter: People that did evacuate chose not to go to public shelters. Only about one in ten used public shelters. This usage rate is similar to that experienced during Hurricane Georges in 1998, the last time Lee County officials ordered residents to evacuate from a hurricane threat. The historical evidence points toward changing the basis for in-county and on-site shelter demand in the Lee Plan from the current 21% level to a lower service level. Moreover, efforts should continue to work with manufactured housing communities to retrofit suitable community centers that would serve as temporary hurricane shelter for this vulnerable segment of our community.

County schools used as hurricane shelters lacked on-site emergency power backup. Although many are configured for emergency power and are outfitted with emergency power hookups, portable generators could not be found following the storm. Also, these shelters lack power backup for sanitation capabilities. The current capital improvement program for funding hurricane shelter development does not fund these emergency power components. All shelters need backup generators on site and a priority plan for power use.

Development Regulations

Hurricane Charley continued a disturbing trend seen with previous storms impacting our area: that Southwest Florida cannot depend upon long advance forecast notices. While current development regulations are maintaining density levels, consideration should be given to requiring Coastal High Hazard Area developments working within already approved development levels to prepare refuge space on site while still contributing to current program of sheltering off site. This would require modifying the Lee

Plan which does not allow sheltering in exposed coastal areas and current land development regulations. A more thorough evaluation of this proposal by Planning staff and Public Safety staff will be necessary.

Post Disaster Recovery/Redevelopment

The number of repetitive loss properties (those receiving two or more flood losses within the last ten years over a specified dollar amount) in Lee County tripled following Hurricane Charley. In areas where we see such increases or in areas that have been severely devastated, consider establishing a multi agency team within the Recovery Task Force to undertake changes to plats or multiple parcel sites to provide for a better community reconstruction strategy, rather than just issuing emergency permits. Along with this would be an assessment of the buildout population in the Coastal High Hazard Area and determine how it can be reduced. Entertaining these options may also see the need to incorporate criteria into funding programs available for land acquisition to purchase lands that reduce density in high hazard areas (including shorefront). Such a course of action would require a change to the Lee Plan and the County's current Post Disaster Ordinance.

The County's largest public expenditure following Hurricane Charley was debris removal and disposal. Much of this was due to the proliferation of brittle, exotic plant species in Coastal High Hazard area breaking and blowing down in high wind conditions. Eradication of these fragile dangerous exotics and planting native born plants would reduce future public expenditures in this category. This would require amendments to land development regulations to implement this. Additionally, consideration should be given to evaluating current code enforcement ordinances to determine the feasibility of implementing removing deadfalls on private property. This would mitigate fire potential following major hurricanes and improve the County's ability to recover costs from state and federal disaster funding.

Alternatives for short and long term temporary housing resources proved problematic after Hurricane Charley. This will continue to be an issue given the current growth rate and continuing rise in housing costs. The County should develop a temporary housing plan that identifies locally who will be responsible for plan development and administration, refining the processes/procedures for allowing temporary placement of travel trailers as a housing resource, revising the current emergency permitting process for placing travel trailers to expedite speedy setup and delivery, identify and maintain inventory of local rental resources, emergency shelter sites and mobile home group sites, and establish a program to administer a temporary roofing program

Other Considerations:

Capital Improvements: Current and future essential county facilities should be shuttered and flood proofed to assure continued government operations. Emergency power capability should also be part of this program to avoid dependence on outside supplies for this resource.

Logistics: The County needs to update the Logistics section of its comprehensive emergency management plan to identify or procure more resources to operate County staging areas designated for incoming resources, to operate points of distribution sites, identify staffing pattern to open and operate points of distribution sites, and develop an emergency fuel plan for response assets.

MAJOR ISSUE #9: WATER QUALITY

DCA Comment:

Water quality was identified as one of the major issues; however, the extent to which the quality of water, air and other resources in the County has changes since the previous EAR is not documented in the Report.

DCA Recommendation:

Revise the report to include an analysis of the changing condition of the water, air and other natural resources in the County since the previous EAR utilizing the most recent and best available data. The Report should document the extent to which pertinent objectives and policies in the plan been (sic) achieved during the planning timeframe.

January 20th, 2005 Meeting Summary:

The County agrees that water quality information are available in the County and that summary tables shall be prepared and analyzed to establish observed trends. The extent to which objectives and policies in the plan have been achieved relative to this issue shall also be discussed indicating areas of weaknesses and successes and recommending future actions, if necessary.

Lee County Response:

The following provides a general description of water quality trends in Lee County and its association with the objectives and policies outlined in the Lee Plan.

According to the Monitoring Report Summary provided in Appendix E, annual average concentrations of several indicator pollutants have improved over the period of record. This may be attributed to land use conversions, installation of Best Management Practices, active maintenance of the stormwater system, preservation and restoration of natural flow-ways, acquisition and restoration of environmentally sensitive lands and pollution prevention, all of which are addressed in the Lee Plan. However, there are several verified impaired waterbodies within Lee County that will be further addressed in FDEPs Total Maximum Daily Load (TMDL) Program through the implementation of Basin Management Action Plans (BMAP). The County supports this important initiative and recognizes its role in meeting applicable state and federal water quality standards to maintain the function of our natural waterbodies.

Lee County has been taking monthly grab samples in most of its creeks, streams, and rivers and testing them for several parameters. Many have a period of record dating back to 1989. Of particular concern are the nutrient and metal levels in stormwater runoff. It is commonly understood that management or treatment for these indicator pollutants will result in the removal of many others. Although average annual concentrations appear to be reduced, further investigation is needed to pinpoint areas that are not meeting water quality standards. Accordingly, Lee County, along with FDEP and SFWMD will be ramping up their monitoring activity.

Although Lee County has adopted many significant elements to the Lee Plan that address water quality it can take years to see the results in the form of a trend. Besides the time it takes to develop objectives and policies into rulemaking and implementation, a trend analysis takes a great amount of data collection over time to provide conclusive results especially with the high variability in rainfall distribution in any given year. Therefore, a review of the effectiveness of the objectives and policies in the Lee Plan implemented within the last 10 years to the overall health of our waterbodies is somewhat misleading. A better approach

would be to compare how activities identified in the Lee Plan are meeting the objectives of the State's TMDL program and to look for opportunities for refinement or improvement of both.

The Lee Plan addresses water quality in several objectives and policies throughout the document, most notably under Goal 16: Private Recreational Facilities in the DRGR, Goal 60: Coordinated Surface Water Management and Land Use Planning on a Watershed Basis, Goal 61: Protection of Water Resources, Goal 107: Resource Protection, Goal 108 Estuarine Water Quality, and Goal 115: Water Quality and Wastewater.

The development of private recreational facilities in the DRGR has not yet occurred and therefore makes an evaluation of the effectiveness of the objectives and policies within Goal 16 impossible. However, we expect very desirable results once implemented as a good portion is directed towards pollutant source control through the implementation of site specific BMPs for golf courses. In addition, an exhaustive monitoring program is set up to determine the effectiveness of the installed BMPs in removing pollutants of concern. This information will be very valuable in estimating loading from this prevalent land use in Lee County and determining load allocation for TMDL compliance. Opportunities for improvement would be to add this criteria to other land uses in the DRGR. The SFWMD is in the rulemaking process for adopting similar basin specific regulations for all stormwater permitting in our area.

Lee County is in the process of updating its surface water management master planning effort. More focus is being placed on water quality issues and identifying problem areas and methods for improvement. Meeting state and federal water quality criteria will be the desirable level of service and will be achieved through BMAP implementation for listed impaired waterbodies. In addition, adequate provisions will be made to maintain good water quality in those watersheds that are not impaired. A significant undertaking under Goal 60 is the recent addition of Objective 60.5: Incorporation of Green Infrastructure into the Surface Water Management System. The preservation, restoration and creation of natural flow-ways are encouraged under this section to take advantage of the numerous water quality benefits achieved. This will assist Lee County in reducing overall pollutant loading to the receiving ecosystem. To date, staff has been successful in preserving several critical flow-ways as part of recent development proposals. In addition, there are efforts underway to reestablish flow-ways on lands acquired through the Conserv 2020 program.

Goal 61 further emphasizes the importance of natural system functions in meeting stormwater quality objectives. This section also addresses the importance of surfacewater storage, retention and detention for groundwater recharge, wetland hydroperiod and water quality benefits. Considering this section includes general surface water management standards, modification of water quality components should be considered in future amendment cycles once the provisions of TMDLs are established and on-going studies addressing the effectiveness of BMPs in removing pollutants of concern are completed. Although the long-term trend analysis indicates the annual average concentrations are being reduced, there is considerable debate as to whether current design standards are adequate in meeting non-degradation to our natural systems.

Goal 107 includes the need to protect and maintain healthy wetland systems. Wetland systems are important for their natural storage functions and water quality benefits through filtration and absorption of pollutants. Certainly, Lee County's proactive efforts in acquiring and preserving significant wetland systems has avoided potentially significant increases in pollutant loading due to other intensive land use types.

To meet Goal 108, Estuarine Water Quality, Lee County is engaged in a multi-agency effort to establish baseline water quality and performance indicators/ measures for a healthy ecosystem. Much of this work has been channeled through the Charlotte Harbor National Estuary Program and the Southwest Florida Feasibility Study (SWFFS) as part of the Comprehensive Everglades Restoration Project. In addition, Lee County has independently confronted the red algae / red tide issues and its effects on our local economy. This is being supported by a phased study with Dr Brand and Dr Lapointe and a significant lobby effort in Tallahassee, Jacksonville and DC. From our standpoint conditions are getting worse. Frequency and duration of harmful algae blooms appears to be on the rise. Recent draft documents from the SWFFS indicates 90% of the nutrient loading to the Caloosahatchee originates east of S-79, which for the most part is outside Lee County and includes runoff from the Caloosahatchee Basin and releases from Lake Okeechobee. Lee County understands its obligation to contribute its responsible share to the overall clean up. An engaged County Commission and general public, backed by science, has requested the SFWMD and US Army Corps of Engineers to do the same.

Goal 115, Water Quality and Wastewater is primarily covered under Lee County's NPDES permitting for both point and non-point sources, well program, and Lee County Utilities regulatory compliance. Since the last amendment cycle, Lee County's NPDES program has expanded to cover construction inspections for sediment and erosion control resulting in significant reductions in sediment loading. In addition, they have initiated alternative maintenance practices such as the use of flocc-blocks in reducing sediment loading during routine ditch cleaning. For more detail, Lee County's NPDES MS4 permit can be reviewed on our website: <http://lee-county.com/npdes/>. The county is currently in the process of updating the wellfield protection zone model and map and continues its well plugging program with available funds.

Air Quality in Lee County

Lee County is currently classified as an attainment area for air quality by the FDEP, meaning the County is in compliance with air quality standards. The monitoring performed by Lee County is related to atmospheric deposition and the data is in the first year of collection. Appendix F provides this year's values for Ammonia, Nitrates, Ortho-Phosphate, Sulfates and rainfall. Future monitoring will provide seasonal comparative values. The materials deposited from the atmosphere are of great import to local governments due to their assimilation into local water bodies and the resultant impact on water quality. The County has achieved the intent of Goal 118 of the plan which requires maintaining the best possible air quality meeting state and federal air quality standards and will continue to monitor and evaluate air quality.

MAJOR ISSUE #12: ITEM C: AFFORDABLE HOUSING

DCA Comment:

Affordable housing was identified as one of the major issues. On this issue the report states that as the County has grown larger, so has the demand for affordable housing. No information is provided on the existing condition of affordable housing (i.e., the size of the demand and supply at the time of this EAR) in comparison to the condition at the time of the previous EAR.

DCA Recommendation:

Include in the EAR an adequate assessment of affordable housing. The assessment should document the existing condition in terms of demand and supply and compare it to the condition at the time of the previous EAR in order to document the trend and evaluate the extent to which the objective benchmarks established in the comprehensive plan was achieved during the planning timeframe.

January 20th, 2005 Meeting Summary:

The County staff indicated that in order to properly address this issue, a housing needs assessment would have to be prepared, but there is not enough time to conduct one now. After much discussion, the Department agrees that, considering the shortness of time to complete the revised EAR, an abbreviated version of a housing needs assessment would be accepted for the EAR and upon which recommendations for revisions to the plan, if necessary, would be formulated. The evaluation of this issue must compare the situation of affordable housing in the County today with the situation at the time of the previous EAR using all relevant information, short of a recent full blown housing needs assessment, and documenting achievements made and the shortcomings that impeded the accomplishment of the County's objectives and policies relative to affordable housing. The County agrees to include the full housing needs assessment with the EAR-based amendment and to revise the plan based on the results of the assessment.

Lee County Response:

See Appendix G for an assessment of affordable housing.