The 2060 Plan Executive Summary

And…
Implementing the
East Central Florida 2060 Plan

I. PURPOSE - USING THE 2060 PLAN

Based upon a convincing body of evidence in Chapters 1 through 11 of this plan, it is evident that development decisions made by individual communities can have impacts far beyond their political boundaries.

The goals and policies within this Strategic Regional Policy Plan (East Central Florida 2060 Plan) are intended to inform and guide local decision making in a manner that leads toward the implementation of the Central Florida Regional Vision. If these recommended goals and policies are used to inform local comprehensive plans, land development regulations, Developments of Regional Impact, major capital improvement projects, and transportation improvements, the region will alter its past sprawling development patterns, change attitudes, encourage coordination, and promote sustainability.

A. 2060 Plan: Coordination with Local Communities

While the end goal of the 2060 Plan is to assure the implementation of the Regional Vision, it can only be achieved by working collaboratively and across jurisdictional boundaries. There are six (6) counties and sixty-eight (68) cities in the East Central Florida Region. While many communities have already taken great strides to implement the Regional Vision, we must continue to work together to measure, monitor, improve, and review the progress we have made. The policy plan performance standards incorporated into each Chapter element will help us to monitor our progress.

In addition, our region must continue to educate leaders, build relationships, and test new and potentially unexpected partnerships. The Regional Planning Council will continue to place an emphasis on improving intergovernmental relations and maximizing citizen involvement. We will continue to provide a forum for public, private, and civic organizations to come together, interact, share ideas, and discuss relevant disciplines such as the environment, transportation, land-use, economic development, housing, education, health, safety, and many others.

B. 2060 Plan: Creativity

This policy plan is intentionally broad for the purpose of offering flexibility. How a community chooses to implement this plan is ultimately up to them. That said, the policies are further intended to foster creativity and non-conventional thought processes.

This policy plan is not intended to prescribe a rigid rule structure that can become outdated or otherwise hamper truly imaginative concepts. Our Region needs to truly plan for great places and communities absent political agendas, bureaucratic rule-making, and archaic institutional controls.

Source: http://jayderagon.com/blog/wpcontent/uploads/2007/10/creativity_cme-function_6x4.png

II. POTENTIAL BENEFITS OF THE EAST CENTRAL FLORIDA 2060 PLAN (Polk County is included for modeling purposes)

By the year 2060, it is expected that East Central Florida's population (including Polk County) will more than double to over seven million residents, even with current slower growth rates. How we choose to accommodate this growth will define our region. The development decisions we make today will shape this outcome.

A. Choices

We have choices about how, where, and in what form our region will grow.

- We can continue our current unsustainable sprawling pattern of development, which will cause us to consume land at a rapid pace, encroach on critical environmental resources, lose the distinctiveness of our communities, weaken our economy, and paralyze our residents and business communities with continually congested roadways…or

- We can boldly choose a different approach where we conserve our environment, strengthen our urban centers, diversify our economy, build great places, and provide a variety of choices for how we live, work, travel, raise our families, and enjoy our free time.

B. Modeling The Choices

The East Central Florida Regional Planning Council engaged Dr. Paul Zwick, Director of the University of Florida Geo Plan Center and Professor of City and Regional Planning, to model two future development scenarios. Dr. Zwick used the University of Florida LUCIS (Land Use Conflict Identification Strategy) model that is programmed to follow prescribed assumptions. The population assumptions for the two models are given in Appendix B, Figures 3 – 10 and both scenarios allocate the same 2060 regional population of 7,097,140. That projected population was determined by Dr. Zwick based upon the University of Florida's Bureau of Economic and Business Research (BEBR).

1. 'Trend' 2060 Outcomes

The 'Trend' 2060 map (Figure 1) was modeled by extrapolating current development patterns and densities to the year 2060. It is clear that this map represents a less than desirable and consumptive outcome that promotes sprawl and the consequences associated with it including irreversible damage to our environment and economy. The most notable 'Trend' outcome is that we would urbanize an additional 2,205 square miles to accommodate a 2060 seven-county population of approximately 7.1 million. This represents 1.41 million acres of new development.

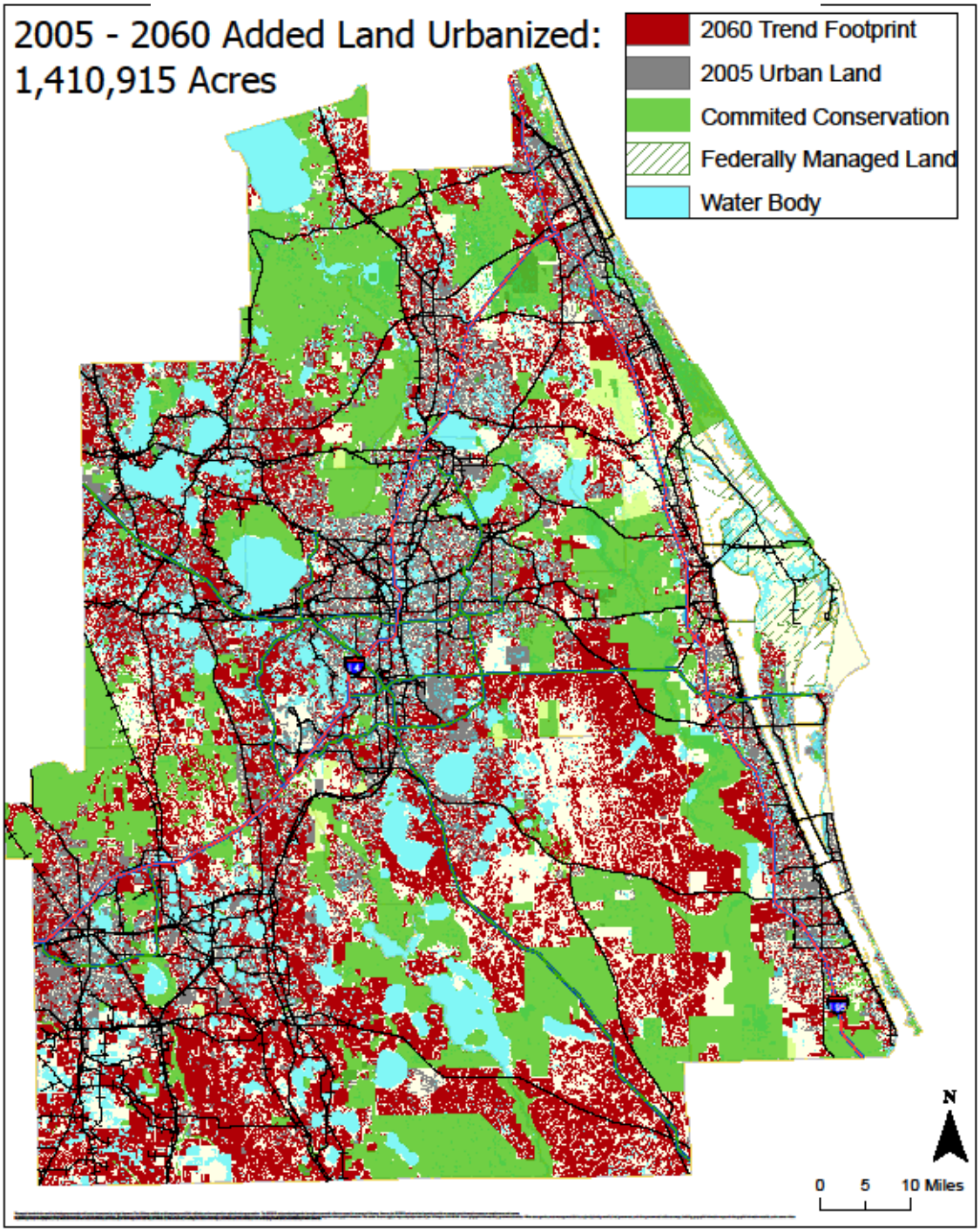
2. ECFRPC 2060 Plan Outcomes

It is clear that the 'Trend' outcome is avoidable if the East Central Florida Regional Planning Council's 2060 Plan (Figure 2.) is locally implemented. The 2060 Plan used the LUCIS model to attempt to avoid development of the most critical ecosystems, promoted denser growth in transit planned corridors, and redeveloped existing urban centers. The 2060 Plan easily accommodates the 7.1 million regional 2060 projected population with only 386 square miles of additional urban development between 2005 and 2060. This represents 247,000 acres or roughly one-sixth of the land consumed by the 'Trend'.

During the 2006 Regional Visioning process, Professor Jonathan Barnett of the University of Pennsylvania Department of City and Regional Planning estimated the cost of new infrastructure to be $90,000 per acre of urbanized area. This would include such costs as water, sewer, gas, electric, phone, cable, storm water drains and detention, streets, sidewalks, and lighting.

Using that $90,000 per acre estimate, the ECFRPC 2060 Plan would save the region approximately $105 billion in unnecessary capital infrastructure costs and would eliminate the permanent cost of maintenance that would be borne in perpetuity by Central Florida taxpayers.

FIGURE 1. TREND 2060



Model Results: Trend 2060

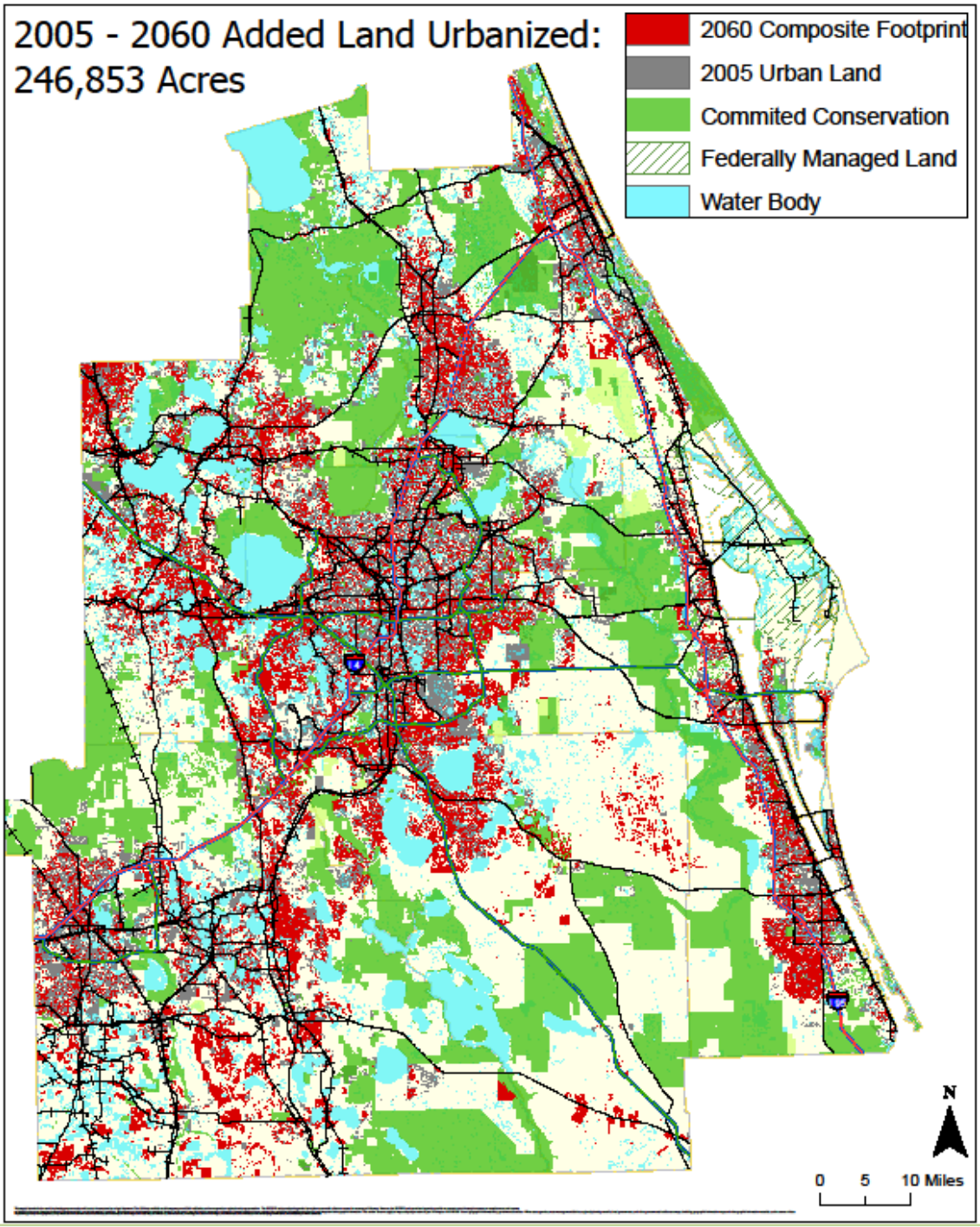
{Current Development Patterns and Densities Extrapolated to 2060}

Additional Land Urbanized from 2005 to 2060 – 1,410,915 Acres (2,205 square miles)

Total Urbanized – 3,086,435 (4,822 square miles)

Projected 2060 Population – 7,097,140 (includes Polk County)

FIGURE 2. EAST CENTRAL FLORIDA REGIONAL PLANNING COUNCIL 2060 PLAN



Model Results: ECFRPC 2060 Plan

{Preservation of Critical Ecosystems, More Redevelopment in Existing Urban Areas, Denser Development With Mixed Uses Along Planned Transit Corridors, Compact, Walkable Centers}

Additional Land Urbanized from 2005 to 2060 – 246,853 Acres (386 square miles)

Total Urbanized – 1,922,373 (3,003 square miles)

Projected 2060 Population – 7,097,140 (includes Polk County)

III. STATUTORY BASIS FOR STRATEGIC REGIONAL POLICY PLANS

Florida Regional Planning Councils are required to adopt Strategic Regional Policy Plans (SRPP) and assess and update them every five years (F.S. 186.507 and 186.508).

The ECFRPC's most recent SRPP was adopted in July 1998. Discussion of a major update began in April 2006 at an ECFRPC retreat at Stetson University in Celebration, Florida. It was decided that the regional visioning exercise should precede the actual SRPP update. The regional visioning exercise was an 18 month process to be done in partnership with the Florida Departments of Community Affairs and Transportation, the four Metropolitan Planning Organizations that represent our region, the Central Florida RPC and MPO, and *myregion.org*.

The regional visioning process began in May 2006 and was completed in August 2007 (see Chapter 1). Work began immediately to update the 1998 SRPP with the formation of eight stakeholder advisory groups (Sounding Boards) for each of the policy chapters.

Initial Sounding Board meetings commenced in January 2008, and were completed in October 2009. In total over 280 stakeholder members were involved in policy development, review, and consensus building. Their names are listed at the end of each policy chapter.

The following is a brief summary of each of chapters 1-11.

IV. CHAPTER SUMMARIES

Chapter 1- Regional Vision to Policy Plan [Optional chapter, no policies]

The regional visioning process is outlined as the precursor to the SRPP update. The process included over 150 informational public presentations to more than 17,000 citizens and 30 workshops with over 3,000 additional attendees who directly participated in "development dot" games, alternative build-out scenarios, and discussion about the future of the region and its development patterns. The outcomes of four alternative future land use scenarios is discussed and so is their impacts on traffic, environment, community design, and quality of life.

The problems of the current low density, auto oriented sprawl development patterns are described and the negative impacts are quantified, setting the stage for intense research into the various policy chapters. The opportunity to change our development patterns before more significant environmental damage is done presents itself as the hoped-for outcome, and is drawn by an artist in a rendition of the Central Florida 2050 Regional Vision, which was endorsed and or adopted by representatives of all 93 communities that participated in the visioning process. The Regional Vision was also endorsed and/or adopted by the ECFRPC and all of its nine partners as previously described.

The chapter concludes with a look at emerging regional and national development and lifestyle trends.

Chapter 2- Demographics [Required research, no policies]

East Central Florida has had significant population growth from just 411,458 people in 1950 (including Polk County) to 3,643,816 in 2007. But after the huge boom years of 2000-2006 when the region added approximately 600,000 new residents growth slowed in 2007 and out migration began to exceed new in migration. With job losses in construction and other retrenching industries, population growth stalled and then reversed, showing a net regional population loss of 18,562 (out-migration versus in-migration) from 2008-2009.

Projected growth rates have dropped significantly. New 2060 population regional estimates done by University of Florida's Dr. Paul Zwick (see Figure 4, this chapter) project a 20<u>60</u> regional population (including Polk County) of 7,097,140. This number is <u>lower</u> than the 20<u>50</u> projection of 7,123,769 made by the University of Florida Bureau of Economics and Business and Research (BEBR) in 2006.

More than half of the region's urban population is in unincorporated areas, reinforcing the picture of sprawling low density residential development out into the hinterlands and away from the urban centers. The largest county population is Orange with 1,086,480 people in 2009, and the smallest is Osceola with 270,618 in 2009.

Florida state law instructs Planners to use BEBR population projections but they are obviously more flawed the farther into the future they go. Most notably, BEBR cannot anticipate build out and population spill over into adjacent jurisdictions. Seminole County will be the first to build out and ECFRPC future computer models demonstrate that Seminole's future population will be less than projected by 2060, and spill over may be significant into Volusia County.

Chapter 3 Natural Resources [Required chapter]

Three hundred ninety four square miles of sensitive ecosystems (habitat) have been destroyed in the East Central Florida Region (including Polk County). This is significant, but it is also significant that collectively in 2005 there were 2,144 square miles of committed conservation in the region (including Polk Co.). This is almost the same as the total amount of urbanized land (2,577 square miles) in 2005.

Florida Regional Planning Councils are required by statute and administrative code to "identify and protect natural resources of regional significance (NRORS)" which are generally defined by the state, but final determination is left up to RPCs to make by their maps and policies. This is tricky and potentially controversial.

For this policy plan update, a series of Geographic Information (GIS) datasets (maps) were informed by best available state scale maps that have been thoroughly vetted at many levels. State scale maps such as those developed by the University of Florida Geo Plan Center's Critical Lands

and Waters Inventory Project (CLIP), Water Management Districts, and Department of Environmental Protection can be accurate or inaccurate at the regional level and certainly at the parcel level. For this reason the state limits regional planning commissions to a regional scale map of 1:100,000.

Taking our cue from this, RPC staff and stakeholder groups chose to define specific natural resource data sets and then to establish policies for the fair usage of those maps.

These are some of the most important policies for the use of these maps:

- RPC natural resource maps are identification tools to help guide natural resource policies, and are not considered regulatory instruments.
- The identification of certain natural resource areas as regional significant in NRORS data sets and maps should not preclude development, but rather identify potentially valuable natural resources for protection.
- Natural resource policies take priority over NRORS datasets and maps.
- Natural resources datasets and maps are descriptive, not determinative of NRORS.
- Objective on-site field verification of natural resources takes precedence over NRORS datasets and maps when evaluating their regional significance.

The expectation and hope is that by identifying regional scale natural resources, future incremental proposed land use changes will have to be filtered by these policies and maps so that corridors of habitat connectivity will ultimately be preserved, even as development continues. This can be done many ways such as the purchase of development rights, conservation easements, conservation style development, transfer of development rights from sensitive ecosystem "sending areas" to higher density "receiving areas", payments for ecosystem services, and - most effectively of all - by increasing densities in more compact urban centers so as to reduce further sprawl and leave in place more of the natural rural landscape.

Natural Resources Conclusion

1. The combined inventory of natural land and water assets in the region serves as the foundation for many economic opportunities and holds the potential to become a cornerstone economic engine.

2. The Central Florida Region must identify and protect its fragile ecosystems. A stronger regional approach is imperative to safeguard our regionally significant areas, not just as individual stretches of land and water, but as a tightly knit and linked mosaic.

3. Regional support and creative partnerships at the local, state, and federal levels will be necessary to preserve the integrity of these extraordinary ecosystems. Developing and advancing that strategy is the ongoing purpose of these Council policies.

"Natural Resources of Regional Significance" (NRORS)

Florida Administrative Code 27E-5.003 (10) states that Regional Planning Councils, through their Strategic Regional Policy Plans, must "identify and protect natural resources of regional significance."

According to F.A.C 27 E-5.002 (4), "Natural Resource of Regional Significance" (NRORS) is a "natural resource or system of interrelated natural resources, that due to its function, size, rarity or endangerment retains or provides benefit of regional significance to the natural or human environment, regardless of ownership."

The NRORS definition applies generally, but the RPC makes the determination specifically about which natural resources are regionally significant and should be protected.

Ideally, the regional planning council's NRORS policies will become the model for natural resource protection planning by their adoption into each of 74 jurisdiction's local comprehensive plans.

Dataset Background

The Century Commission for a Sustainable Florida (CCFSFL) was created by the legislature in 2005 to recommend policies that will assure Florida's development over the next 100 years in a sustainable balance between man-made environment and retained or restored natural areas.

In August 2008 the Century Commission completed and published its Critical Lands and Waters Identification Project (CLIP). The research and staff work was principally performed by Dr. Tom Hoctor of the University of Florida Geo Plan Center in Gainesville. The CLIP study produced a series of state and regional scale natural resource Geographic Information System (GIS) data layers.

These CLIP layers were specifically intended to help both the state's environmental land acquisition programs (such as Florida Forever) and Regional Planning Councils answer two questions:

- Which natural resource lands are most deserving of protection?
- How do we identify such lands?

Since regional planning councils must use their discretion in determining and mapping what they consider to be natural resources of regional significance, the CLIP layers were used to inform that effort. These data have been derived from well-vetted scientific peer review as part of the CLIP process by a Technical Advisory Group (TAG). The TAG was made up of representatives from the Florida State University's Florida Natural Area Inventory, the University of Florida Geo Plan Center, Florida and US Fish and Wildlife Services, and many others.

Since CLIP maps are current and vetted consistent with statewide environmental datasets, their usage by the ECFRPC for its 2009 NRORS update is defensible and desirable. However, CLIP maps and NRORS datasets are not intended to and should not be used as a blanket map series to

regulate or forbid development. They are intended to inform development and promote sustainable development design.

To help the ECFRPC determine what natural resources are regionally significant in 2009, citizen input was solicited, and as a result the ECFRPC created a 75-member Natural Resources Sounding Board. This group of conservationists, biologists, environmental land acquisition specialists, land use attorneys, farmers, ranchers, planners, and consultants have an interest in providing a balance of natural resource identification and protection. The policies and maps adopted by the ECFRPC will hopefully guide the region toward sustainability.

The Sounding Board met twice in 2008 and by consensus agreed upon a series of natural resource GIS data layers to signify the Natural Resources of Regional Significance. These NRORS GIS layers are listed in the following section. These datasets may be updated at the dataset developing agency's discretion. To obtain the most current dataset being used in the NRORS Datasets, contact the East Central Florida Regional Planning Council.

Overarching Goals for Regional Natural Resource Protection comes from F.A.C. 27E-5.003(10):

a. Regional Planning Councils must identify (in their Strategic Regional Policy Plan) Natural Resources of Regional Significance and promote the protection of these resources.
b. Ideally, the regional planning council's policies will become the model for local natural resource protection planning.
c. Regional Significance means evaluation of natural resources in the context of their functional relationship to each other.

Definition of NRORS - For the purposes of the ECFRPC 2009 Strategic Regional Policy Plan, "Significant Regional [Natural] Resource or Facility" means a resource identified by the ECFRPC Council as being of regional importance and meeting the following criteria:

a. A resource that due to its uniqueness, functions, benefit, service delivery area, or importance is identified as being of regional concern (F.A.C. 27E-5.002 (7)(a)).
b. A functionally intact ecosystem that depends upon connectivity over statewide or regional landscapes to maintain long term, viable and diverse populations of plant and wildlife communities.

Natural Resource Maps and Data Sets

a. NRORS datasets and maps are identification tools to help guide natural resource policies, and are not considered regulatory instruments.
b. The identification of certain natural resource areas as regionally significant in NRORS datasets and maps should not preclude development, but rather identify potentially valuable natural resources for protection.

c. NRORS is a series of datasets and maps; layers can be added over time after proper public notice and comment.
d. By statute NRORS maps scale = 1:100,000 (F.A.C. 27E-5.004)
e. Natural Resource policies take priority over NRORS datasets and maps.
f. NRORS datasets and maps are descriptive, not determinative of NRORS.
g. NRORS must be evaluated in context to the regional landscape.
h. NRORS datasets and maps represent indicators of where regionally significant natural resources may exist, in addition to identifying regional connectivity of natural resource corridors.
i. Objective, on-site, field verification of natural resources takes precedence over NRORS datasets and maps when evaluating their individual significance.

The following GIS Data Sets/Layers represent potential Natural Resources of Regional Significance to be governed by the Natural Resources Goals and Policies

a. Regional Committed Conservation (ECFRPC - 2007, Figure 3)
b. Mitigation Banks (ECFRPC – 2007, Figure 4)
c. Hydrography (USGS – 2006, Figure 5)
d. Hydrographic Flowlines (USGS – 1999, Figure 6)
e. Wetlands (NWI - 1998 and FLUCCS – 2004, Figures 7 & 8)
f. Bald Eagles Nests (FWC - 2008 , Figure 9)
g. Biodiversity Hot Spots Priority One, 8 - 13 Species (CLIPv1.0 – 2008, Figure 10)
h. Ecological Greenways Network - Priorities One and Two (FDEP Reprioritization Layer – 2005, Figure 11)
i. 100 year Floodplain - Q3 and DFIRM (FEMA – 2007, Figure 12)
j. Ground Water Recharge Areas (SJRWMD - 2005, SFWMD - 2008, SWFWMD – 2002, Figure 13)
k. Spring Sheds (SJRWMD – 2008, Figure 14)
l. FNAI Rare Species Habitat Conservation Priorities 1-3 (FNAI/CLIP v1.0 – 2008, Figure 15)

Chapter 4 Economic Development [Required chapter]

Economic Development for the ECFRPC region means diversifying the economic base to include more high paying educational, research, professional, medical, industrial, and technical jobs. This will augment the tourism industry, which has been dominant the past 30 years but is now mature and facing more competition than ever before.

The ECFRPC took a big first step in economic development planning with the submission of the Comprehensive Economic Development Strategy (CEDS) to the United States Department of Commerce Economic Development Administration in September 2007. The CEDS was approved in early 2008, which means that projects that are listed as vital to the region's economy get

preferential treatment by EDA for federal funding. These projects can range from business incubators to transportation improvements in selected business corridors, to ending the sprawl patterns that are choking the local economy. Early CEDS success stories include:

- Brevard County's $500,000 from EDA and $250,000 from the state for the workforce retraining to reduce worker loss from the ending of the Space Shuttle program.
- Titusville's notification their $2 million grant for airport improvements will be approved.

The chapter includes data from the "Policy Insight Regional Economic Model"™, which shows the rise and fall of local industries, which are more dominant or less dominant. There is a breakdown on the economy of each of the region's six counties.

The region has long benefitted from low unemployment rates but the recent national recession has put us into the real estate "boom-bust" cycle, with unemployment in our region higher than the national average, housing starts way down, a glut of unsold homes and a backlog of approved development projects that would take many years to build out. Housing prices that rose too fast have fallen back 40-50%, making housing more affordable but also trapping many homeowners in homes that are worth less than they owe on the mortgage. Clearly this next economic recovery must be driven by a broader base than the previous tourism and residential building markets.

To assure a successful economic recovery, East Central Florida must work harder on the following:

- Achieve further economic diversification.
- Stop sprawling and adopt alternative land development patterns. This will reduce infrastructure costs and increase efficiencies offering a competitive advantage to other regions.
- Embrace transit oriented development around commuter rail stops to stimulate new compact urban real estate development.
- Increase investment in value added industries (industries that use a large percentage of their intermediate inputs from the region).
- Implement a better and more efficient public transportation plan.

A comparison of the ECFRPC region with other region's that have recently implemented rail transit shows our economy to be smaller and weaker. It appears there is a link between low density auto-oriented sprawl and a stifled economy, as business is attracted to regions with better transportation systems. This is a great opportunity for the ECFRPC to capitalize on the recently approved and funded SunRail commuter rail line to become the economic heart of the region by encouraging higher density more compact economic and living centers along the rail line.

Chapter 5 Transportation [Required chapter]

Traffic congestion and delay are significant problems in the East Central Florida Region. From 1982-2005 the Orlando metro area ranked seventh worst nationally for large cities in delay per traveler with an annual delay of 36 hours per traveler.

This is caused primarily by two factors:

1. Our low density auto-oriented sprawling development patterns that force us to drive everywhere for almost every human need.
2. Our disconnected local street network, which prevents cross connections between neighborhoods, thus forcing local trips onto the collectors, arterials and even interstates. This overloads theses roads and results in them being widened with more signalized intersections, which causes more delay and makes problems worse.

We have come to a point where many of our road corridors cannot be widened further. We have diminished the quality of life as people frantically try to move about on a congested road system. The Orlando metro area was named the number one most dangerous large city in America for pedestrian deaths, with 214 pedestrians killed in 2007-08 by a 2009 study titled "Dangerous by Design". Many much larger cities such as New York have a fraction of our pedestrian deaths.

Something is clearly wrong with our transportation system.

FDOT used computer modeling to project future delay and congestion on our roads, and found that if we continue our current low density auto oriented sprawl development patterns by 2050 the region's major roads will be severely congested. This will further erode the quality of life and make it more difficult for us to compete in the world economic marketplace.

The conclusions are:

- Our region should evaluate major transportation improvements by measuring the overall goals of a complimentary land use and transportation system, including its impacts on quality of life for residents and potential for economic development.
- To balance our regional transportation system there must be consideration for land use reform, infrastructure reinvestment, and transit.

<u>If</u> we can shift from being an auto-centric region to one with a balanced transportation system that values accessibility, safety, community design, economic development, and quality of life more than vehicle speed then we could someday be a 21st century "winner" region like Portland (Oregon), Arlington (Virginia), and Charlotte (North Carolina). They are using superb transportation systems to stimulate their economies, provide accessibility, reduce sprawl, and improve the quality of life.

The good news is that MetroPlan Orlando, Lake Sumter, and Volusia Metropolitan Planning Organizations recently selected a 2030-35 Long Range Transportation Plan (LRTP) future transportation system with more emphasis on a balanced multi modal transportation system that will

consider the benefits of both transit and a more compact, mixed-use development pattern. This is a good first step, but more needs to be done.

Rail transit is an important new transportation "mode". With the advent of the 61 mile SunRail commuter rail, which passed the Florida legislature and has local, state, and federal funding earmarked, the region is on the cusp of transitioning to a "multi-modal" transportation system. Service will begin from DeLand to Orlando in 2013. This will be a big part of our regional transportation success story if the region embraces mixed uses (residential, commercial and office) and higher densities along transit corridors and within walking distance of commuter rail stops.

Florida Regional Planning Councils are authorized to recommend minimum densities in planned transit corridors and the ECFRPC has done so, in Figure 24, Chapter 5.

Several case studies are examined to see what happened when rail transit was properly integrated into a growing metropolitan area. Charlotte NC, Arlington VA, and Portland OR all benefitted from a transportation standpoint but also from a quality of life and economic development standpoint when rail transit corridors became the focus of new high density mixed use Transit Oriented Development (TOD). These three cities should be the models for East Central Florida's metro areas that may become rail transit served.

Chapter 6 Emergency Preparedness [Required chapter]

East Central Florida is subject to natural disasters such as wildfires, floods, tornadoes and hurricanes. Manmade hazards that the region is susceptible to include: hazardous materials spills, and transportation accidents like train derailments, rocket launches, airliner crashes, and ship collisions. Because Orlando and East Central Florida attractions and beaches are a premier world travel destination and tourism center, they are also a prominent terrorism target, another potential disaster. Emergency managers plan for the aftermath of all kinds of disasters and their remediation.

The state and the region have therefore embraced the "all hazards" approach to emergency preparedness. This type of planning combines partnerships to increase cooperation and efficiencies. Knowing how to evacuate for a hurricane is similar to but not identical to evacuating for a hazardous material spill or terrorist attack.

The East Central Florida Regional Planning Council plays a significant role in planning for disasters. The ECFRPC commonly utilizes federal and state funds for disaster preparedness and response planning, training, and exercises.

Current projects and programs include:

- Hazardous materials users inventory under EPCRA (Local Emergency Planning Committee-LEPC)
- Hazardous materials handling, spill response and cleanup (HMEP)
- Anti-terrorism planning (Regional Domestic Security Task Force- RDSTF)

- Terrorist response capability (Urban Area Security Initiative-UASI)
- Disaster response preparation
- Regional evacuation study and hurricane preparation plans (HB 7121, state program)

This emergency preparedness work is done in collaboration with local fire departments, local sheriff's departments, local county and state emergency managers, the Florida Department of Law Enforcement, and the federal Department of Homeland Security.

Chapter 7 Affordable Housing [Required chapter]

The Federal Housing Act of 1949 called for "a decent home in a suitable living environment" for all Americans. East Central Florida has a variety of housing types, including single family detached homes, single family attached (townhouse), duplex, triplex, multi family rentals, condominiums, mobile homes, RV parks, and time shares.

East Central Florida has historically had affordable housing. But the housing boom of 2000-06 caused an unprecedented rise in housing prices, inverted affordability and made East Central Florida's housing more expensive than the national average. By 2007 the median price of a home in the Orlando region was $264,436. The oversupply of housing, the overextension of credit, and the unsustainable amount of "flipping" all conspired to collapse the housing market in 2007 such that by 2009 the average price for a home in the Orlando region had dropped to $123,000.

With home prices declining and with a huge glut of unsold housing units (more than 25,000 in the region) it might seem that there is no longer a need for affordable housing in the East Central Florida Region- but that would not be true.

The East Central Florida Region is still predominantly a service and tourism based economy, with wages that are below the national average. Many workers cannot afford the average priced home and still need below market rate housing.

The Florida administrative code defines affordable housing to mean "a situation where monthly rents or monthly mortgage payments for housing, including taxes, insurance and utilities do not exceed 30% of the gross annual income [of the development's] very low, low, and moderate income employee households."

- Very low income means at or below 50% of median adjusted gross household income
- Low income means above 50% of median adjusted gross household income but at or below 80% of median adjusted gross household income
- Moderate (work force) means above 80% but at or below 120% of median adjusted gross household income

Households that spend in excess of 30% of their gross household income on housing are considered "cost burdened". According to the Shimberg Center for Housing Studies at the University of Florida, the following percentage of households are cost burdened:

- Brevard County- 24%
- Lake County- 23%
- Orange County- 30%
- Osceola County- 31%
- Seminole County- 25%
- Volusia County- 28%

Some of the barriers to affordable housing can include:

- Unfunded mandates that increase cost of construction
- Condo conversion
- Cost of commuting
- Exclusionary zoning
- Development fees
- Costly masonry subdivision walls (mandated in Orange County)

There are a variety of affordable housing programs that can help reduce financing costs for affordable housing, some of which are the SHIP, SAIL, HAP, HOME and HOPE VI programs. Our region has had success in developing affordable housing projects in Sanford, Winter Park, and Orlando using these programs. But these programs alone cannot create the number of affordable housing units needed now and in the future.

Other new strategies will be needed to make more, distributed, affordable housing available. Some of these strategies include:

- Land Trusts
- Linkage Fees
- Development Fees
- Accessory Dwelling Units
- Cottage Housing
- Inclusionary Zoning
- Multi-Family Housing
- Manufactured Housing, Modular Housing and Mobile Homes
- Housing for Special Needs
- Non-Profit Organizations

An alternative tool that jurisdictions within the Central Florida region might consider using is the 'The Housing + Transportation Affordability Index developed by the Center for Neighborhood Technology (CNT). It says a neighborhood is affordable when housing and transportation cost combined consume no more than 45% of the average family's income.

Chapter 8 Energy and Climate Change [New chapter authorized by HB 697 FL Legislature, 2008]

Historical records show the average temperature of the Earth has risen by approximately .74 degrees Celsius over the past 100 years and the rate has been considerably more rapid since the 1970's. Only a few degrees of warming can disrupt climate patterns and contribute to rising sea levels.

Sea levels have increased approximately eight inches over the last century. Average sea level could rise an additional four feet by the end of the 21st century depending on the speed and extent of glacial melting. This change potentially brings with it a long list of regional impacts to ecological systems, agriculture, public health, infrastructure, and commerce.

Significant population and infrastructure investment are located along East Central Florida's coastline in Volusia and Brevard Counties. If sea levels continue to rise as they currently are, eventually decisions will have to be made to relocate away from coastal flooding. Building seawalls is not the answer for most of the coast, because one cannot wall the beaches, and seawalls cause scour that creates greater damage around them. If sea levels rise as a result of climate change, then there will be inland migration of people and salt water.

Communities need to plan for such a possibility by examining their most vulnerable low lying areas and also looking to establish safe "retreat" sites for managed withdrawal in the event such long term plans are necessary.

Climate change is also likely to have impacts on:

Water Availability. Higher average temperatures may increase evaporation and transpiration rates, produce more frequent droughts, and could permanently affect drinking water supplies, water levels in rivers and lakes, and soil moisture conditions. In addition, sea level rise is likely to force salt water further into the regions fresh water supplies.

Natural Disasters. Direct threats to public safety and potential damage to public and private property from wind, flooding, or extreme temperature events are significant risks for communities to assess.

Agriculture and Food Security. The combination of changes in water availability and changes in average temperatures are likely to impact agricultural production. Strengthening and diversifying local food systems will help to reduce food security risks associated with climate change.

Public Health. The impact of climate change on public health is also of concern especially for those with ailments, such as asthma, that are sensitive to temperature and humidity.

Infrastructure. Decreasing groundwater and stream flow levels could alter public and private water supplies. More frequent and more extreme storm events may overwhelm storm water conveyance and storage systems. This may in turn affect the structural integrity and maintenance costs for roads, bridges, sewer systems, and pipelines.

Natural Resources and Ecological Systems. Disruptions to certain processes such as flowering and pollination are seasonally timed, and ecological systems are typically sensitive to shifts in such processes and patterns. While some species may adapt by migration, abrupt climate changes may threaten many others.

Economy. Tourism and recreation-oriented businesses are likely to be affected and coastal real estate values and coastal economies in general will be increasingly vulnerable to damage from rising sea levels and increased storm surges.

Proper community design can reduce energy consumption. Some basic principles should be followed:

Reuse of existing buildings. It can take 25 to 60 years to recover the energy used in demolition and new building construction.

Energy-efficient construction practices.

Energy-efficient lighting and appliances.

Promoting "renewable ready" buildings and sites, by including features that support energy efficient transportation choices, such as bicycle and pedestrian accommodations, and well-designed transit stops. Site design should support the inclusion of green spaces, green roofs and the installation of trees as a method to combat increasing temperatures and reduce urban heat island effects.

Reduction in required parking. There are both immediate and long-term community costs and environmental impacts including heat island effects, storm water runoff, surface water pollution, construction costs, and maintenance costs. Regulatory approaches that include shared parking and maximum parking requirements should be considered.

Florida has opportunities to generate renewable energy, most notably solar, and bio-fuels. Locally placed modern solar farms can be an efficient and cost effective way to generate electricity and are now becoming cost competitive with conventional (coal, gas, oil) electrical generation.

Chapter 9 Water [Optional chapter, relates to Natural Resources of Regional Significance]

Water has emerged as one of the premier issues related to continued growth of the East Central Florida Region.

Our surface water resources are world class ecosystems like the Indian River Lagoon, the St. John's River, and over 100 miles of world class Atlantic Ocean beaches. They provide a large part of the tourist draw that drives the local economy.

With the abundant and free Floridan aquifer beneath our feet it was once thought that the region was water rich to provide for all consumption. But now, with year-round lawn watering restrictions, recent droughts, warnings of no new water consumptive use permits after 2013, and a war of words and court actions over the use of surface water, the region must use its water wisely. This is a critical issue because Central Florida is one of the highest per capita water using regions in the USA. The current regional average is 157 gallons per person per day for public water supply. More than 60% of that figure is estimated to be used for lawn irrigation.

After significant research and discussion by experts and interested parties, this plan strongly recommends conservation first, and then development of new water resources. If the region would establish a 90 gallon per person per day target for potable water consumption and achieve it, then there are already adequate developed water resources to meet population projections for decades to come. Places like New York City have employed such conservation measures (30 years ago) and have conserved their water to the extent that they did not need to build expensive new water infrastructure.

Suggestions are made to help reduce water consumption, including the use of Water Wise appliances and using drought tolerant native Florida landscape material.

Chapter 10 Community Design [Optional chapter, relates to HB 697]

Classic historic communities like Savannah Georgia, and Charleston SC have enjoyed 400 years of reinvestment, preservation and improvement. The reason is their beautiful original community design, which we can learn from.

East Central Florida is the poster child for auto oriented urban sprawl, punctuated by its subdivision walls that isolate neighborhoods and its disconnected street network that causes congestion on collector and arterial streets. These two design parameters would have been prohibited under the 1573 Spanish Laws of the Indies, which had 14 city planning principles that produced St. Augustine, Pensacola, and hundreds of other small towns that copied this formula.

The beginning point was always the main square, with streets running in a grid pattern from its four corners and then repeating this pattern as the city grew. This provides local recreation and public gathering places and a sense of calm within urban neighborhoods. Our region has some fine old neighborhoods like Lake Eola heights, Winter Park, College Park, downtown DeLand, Mt. Dora, Old Cocoa, and historic Kissimmee. All of these cities were built before current planning and zoning regulation, which are giving us bad design that "meets code" but is not beautiful, nor functional.

We need to study our classic communities to see how they mixed uses in compact centers with parks and squares, and grid-street networks that still work today. Proper design improves quality of life, live-ability, reduces auto trips, increases pedestrian activity and exercise, promotes public health, and can be integrated with public buildings like schools to create great endearing places like Charleston and Savannah.

A history of community design and many pages of suggestions of how to design communities according to Smart Growth principles are provided within the chapter and in the Appendix.

Chapter 11 Agriculture [Optional chapter, relates to Natural Resources of Regional Significance]

Agriculture and tourism are the two largest industries in Florida, but agriculture has been shrinking in Central Florida. Severe frosts in the 1980s killed many citrus trees and began the conversion of citrus land to development.

From 1977 to 2007 the number of citrus farms in the region shrank from 3,280 to 1,254. Acreage in citrus farms went from 243,267 acres in 1977 to 27,830 in 2007. Despite the significant population growth and conversion of 40% of the region's agricultural lands to development, agriculture may now be more important than ever to central Florida. The cost of importing agricultural products, food security, and the demand for fresh local and organic foods mean there is strong demand for agriculture to remain a major industry.

Niche markets in dairy, wines, certain fruits and vegetables, floriculture, landscape materials, and cattle are still productive and viable. But the outward sprawl of development has fragmented many of the region's farming areas and put pressure on farmers to sell. The collapse of the housing market and the huge glut of preapproved projects may have some farmers looking at staying in agriculture, since there is less need for major new development projects- those that are already approved would satisfy demand for many years to come.

Agriculture can also be part of good urban design, using such concepts as edible landscapes in public parks, community gardens, and regional food cooperatives. Other programs such as the purchase of development rights, community supported agriculture, and Rural Land Stewardship may all play a part in sustaining agriculture in the region.

Agricultural lands often do double duty as habitat, groundwater water recharge areas, and air and water purifiers. We take these "ecosystem services" for granted, but they are not free. Perhaps one day farmers will be compensated by "green payments" from urban areas for providing these ecosystem services. Such payments would allow them to continue farming with all of its uncertainties and hazards of drought, frost, floods blights, insect infestations, fertilizer and fuel costs, and foreign competition.

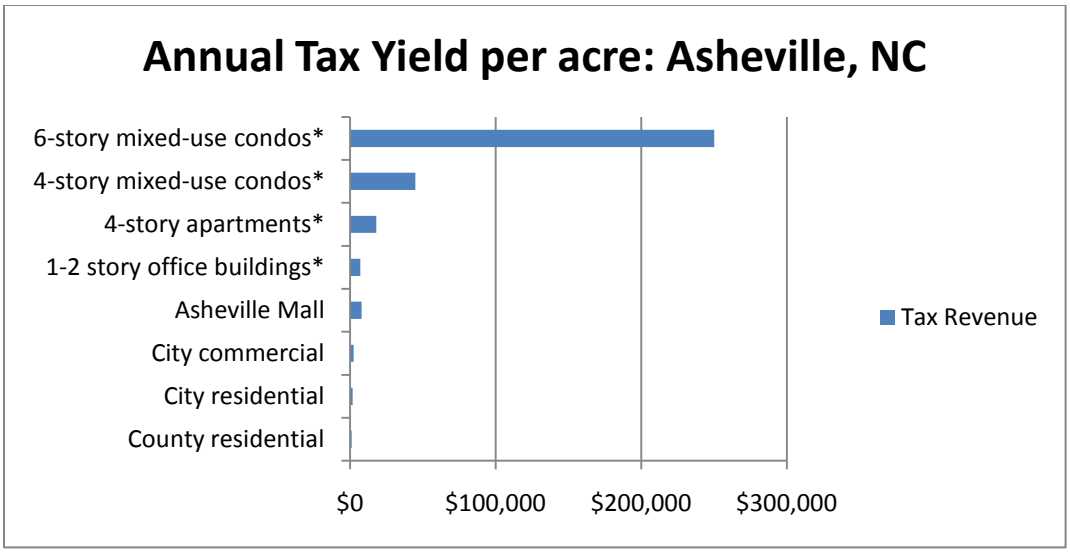
V. SAFETY/FISCAL BENEFITS OF ECF 2060 PLAN

For municipalities and counties, property tax revenue is fundamental to government operations. Lower property assessments due to falling real estate prices and slower population growth rates have reduced regional revenues while infrastructure and service costs continue to rise. As such, the importance of understanding what building types in what locations yield the most revenue is crucial for governments to understand. This knowledge will not only to help direct policy and help build place, but also fund essential services.

The Public Interest Projects, a for profit business and real estate development firm located in Asheville, North Carolina, came up with a new methodology to help governments understand the difference in property tax yield by comparing tax revenues on a per acre basis generated by a range of building types in different locations. The results from Asheville, North Carolina and Sarasota, Florida clearly show a much greater revenue return from urban centered, mixed use properties than single-use suburban development. By calculating revenue on a per acre basis, an apples-to-apples comparison of revenue returns is revealed.

In Sarasota, Florida the research found that 3.4 acres of mixed-use downtown development yielded 8.3 times more annual county property taxes and accumulated revenues (830 percent greater) than a comparable 30.6 acre, 357-unit apartment project. From a cost perspective, the public infrastructure installation costs of the downtown development were paid off in three years and totaled just 57 percent of the suburban apartment project's public costs, which will take 42 years to pay off.

In Asheville, North Carolina, a suburban mall built along a big box and commercial corridor, produces taxes of $7,995 per acre for the county, while two to four-story apartment buildings downtown generate twice as much as the mall ($18,109), and three-to-four-story mixed-use buildings containing condo units generate $44,887. The biggest generator of revenue in downtown Asheville is a six story mixed-use/condo building producing taxes in excess of $250,000 per acre. The analysis also revealed higher returns generated by mixed-use development's property tax revenue when compared to sales tax revenue created by big box stores like Wal-Mart. In Asheville, after taking into account the state's portion of the sales tax and adding the remaining money to the per acre property tax, Wal-Mart generates about $51,000 per acre, making it competitive with three to four-story mixed-use/condo developments closer to the city center.



Source: *Joe Minicozzi, Public Interest Projects*

Other studies help to cross examine the data and benefits surrounding mixed-use projects. Typical of single family development is the reliance on a cul-de-sac street network. Recently, the state of Virginia became the first state to significantly limit cul-de-sacs from development. Cities like Portland, Oregon, Austin, Texas and Charlotte, North Carolina have taken similar actions. From a transportation perspective, cul-de-sacs discourage walking and bicycling leading to an auto-dependent population. From a services perspective cul-de-sacs make it harder and more expensive for governments to render certain services, forcing them to travel further distances. When examining the effect of the disconnected street network on land-use and transportation, it is apparent that the disconnected network forces more drivers onto arterial roads to make local trips, which leads to gridlock and widening the arterial, costing more tax payer money.

Another study completed by the American Society of Civil Engineers compared travel demand in a conventional, disconnected suburban pattern to a traditional or grid network neighborhood. Evaluating vehicular capacity, travel speeds, impacts of travel times and delays, and other factors, the study found that the "traditional (grid) pattern allows traffic to be dispersed among a dense network of local streets, whereas the status-quo (disconnected) pattern relies on a sparse network of major arterials." This results in a travel demand on the status-quo pattern of 75 percent more on arterials and 80 percent more on collector streets that the traditional grid development.

Research conducted in Charlotte, North Carolina's Department of Transportation studied the effect of connectivity on fire station service areas and capital facilities planning. The findings showed that as street connectivity increased, the number of households served by each fire station increased as well, reaching numbers between 20,800 to 25,900 compared to less-connected service areas serving only 5,700 to 7,300 households. The fiscal impacts on a per capita annual basis of less-connected network was $586 to $740, compared to just $159 to $206 in the more-connected transportation areas. Furthermore, since an ordinance was adopted limiting cul-de-sacs, response times have decreased to less than 5 minutes, reversing the trend caused by the disconnected network of increasing response times.

A 2008 study by the University of Connecticut's Center for Transportation and Urban Planning undertook a public health and safety approach to understand the potential benefits of a connected grid street network. The study investigated the relationship between connectivity, network configuration, density, severe vehicle crashes, and mode choice of 24 California cities, classifying them as "safe cities" and "less-safe cities" (severe/fatal crash rates one-third of state average and close to state average respectively). In general, "Safe-cities" were established prior to 1950, had a higher population density and enjoyed a larger walking/biking/transit mode share. Even in the "safe-cities," areas that developed with a street grid, like in the pre-1940's section of Davis, California the walking/biking/transit mode share was 59 percent compared to the post-1980's disconnected network development pattern, where the mode share was only 14 percent.

VI. HOW DO WE IMPLEMENT THE 2060 PLAN?

Our six (6) counties and sixty-eight (68) cities are sovereign local land use jurisdictions. Their comprehensive plans mandated by the State of Florida are supposed to comport with the adopted Strategic Regional Policy Plan. If each of these seventy-four (74) communities planning staffs will examine the following policies and recommend to their elected officials how they can move in a positive direction to comport with this ECFRPC 2060 Plan policies, by 2060 the East Central Florida Region should look more like Figure 2 (page 5) and not like the 'Trend' (Figure 1, page 4).

VII. ECFRPC PLANNING ASSISTANCE TO IMPLEMENT THE 2060 PLAN

The ECFRPC provides technical assistance to the public, private, and institutional sectors in a six-county (6) area to address regional scale issues.

A. Community and Regional Visioning

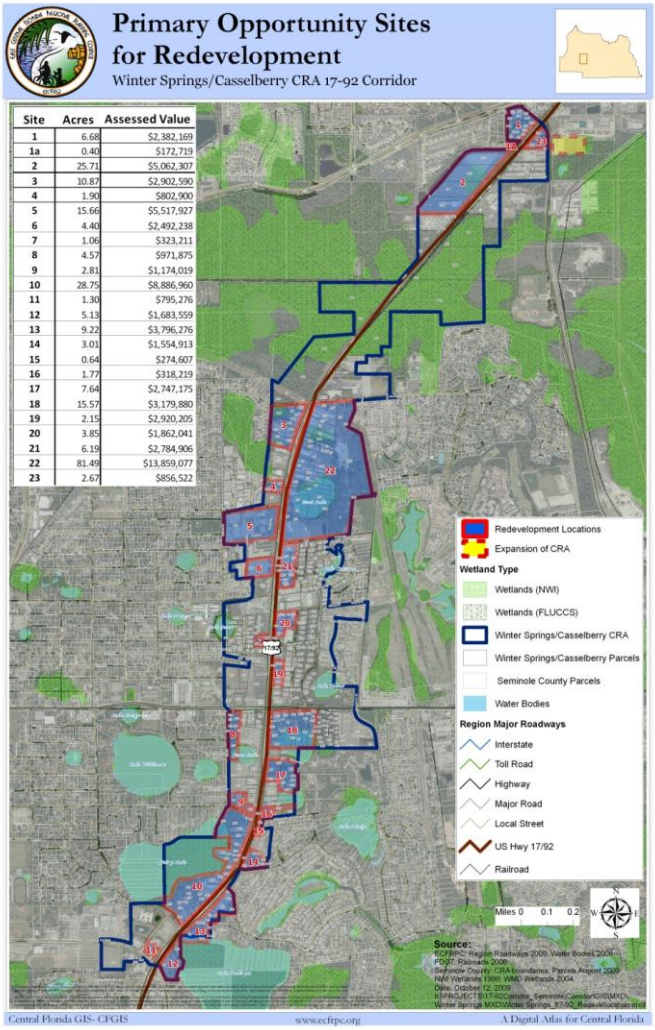
The ECFRPC lead the City of Cape Canaveral on a seven (7) month, "Envision Cape Canaveral" Visioning process and related land use planning assistance. This visioning project guided the City in their effort to identify redevelopment opportunities, plan a downtown core, and determine the ideal architectural form conceptualized through citizen engagement. Assessment tools include visual preference surveys, which help citizens to conceptualize how their community will look at build out.

City of Cape Canaveral entrance feature and redevelopment illustration by Urban Design Solutions, Inc. (www.urbds.com) developed from the results of the Cape Canaveral Vision Project.

City of Cape Canaveral Opportunity Site 11, Above right is current site photo and below right is desirable outcome

B. Corridor Redevelopment Opportunity Analysis

Seminole County restructured their entire comprehensive plan to comport with the principles of the 2050 Regional Vision, and has also engaged with the ECFRPC to conduct a 17-92 Corridor analysis (in partnership with Seminole County, Sanford, and Winter Springs). ECFRPC staff reports identify potentially underutilized parcels and explore land readjustment opportunities in order to revitalize the study area's local economy. Aligning transportation and land use is essential to the success of corridors. The 17-92 corridor will be a transit oriented development that "feeds" SunRail in Maitland, Altamonte, Longwood, and Sanford.



Site	Acres	Assessed Value
1	6.68	$2,382,169
1a	0.40	$172,719
2	25.71	$5,062,307
3	10.87	$2,902,590
4	1.90	$802,900
5	15.66	$5,517,927
6	4.40	$2,492,238
7	1.06	$323,211
8	4.57	$971,875
9	2.81	$1,174,019
10	28.75	$8,886,960
11	1.30	$795,276
12	5.13	$1,683,559
13	9.22	$3,796,276
14	3.01	$1,554,913
15	0.64	$274,607
16	1.77	$318,219
17	7.64	$2,747,175
18	15.57	$3,179,880
19	2.15	$2,920,205
20	3.85	$1,862,041
21	6.19	$2,784,906
22	81.49	$13,859,077
23	2.67	$856,522

Winter Springs, Windshield Survey Category 4

Lake Mary, Windshield Survey - Category 3

VIII. CONSISTENCY WITH THE FLORIDA STATE COMPREHENSIVE PLAN

Florida Statutes, Chapter 187, State Comprehensive Plan, provides "long-range policy guidance for the orderly social, economic, and physical growth of the state". Accordingly, Florida Administrative Code 27E-5: RULES OF PRACTICE AND PROCEDURE PERTAINING TO STRATEGIC REGIONAL POLICY PLANS states that the "goals and policies included in a Strategic Regional Policy Plan shall be consistent with and further the State Comprehensive Plan". The ECFRPC staff has reviewed the State Comprehensive Plan in detail and hereby asserts that the following compilation of all goals and policies located within this updated policy plan are both consistent with and further the State plan.

IX. DISPUTE RESOLUTION PROGRAM

Chapter 29F-3 – Regional Dispute Resolution Process

Florida Statutes sections 186.502 and 186.509 direct Regional Planning Councils to create and make available a regional dispute resolution process (RDRP). The purpose of the RDPR is to reconcile differences between or among local governments, regional agencies, and private interests on planning and growth management issues. The voluntary RDRP process for the East Central Florida Region is adopted as Rule 29F-3 of the *Florida Administrative Code*.

The RDRP's intent is to provide a flexible process that will: clearly identify and resolve problems as early as possible; utilize the procedures in a low-to-high cost sequence; allow flexibility in the order in which the procedures are used; provide for the appropriate involvement of affected and responsible parties; and provide as much process certainty as possible (29F-3.101(2)).

The East Central Florida Regional Planning Council has a conflict resolution process and has access to other resources that can be utilized to address conflicts and resolve disputes.

X. INTERGOVERNMENTAL COORDINATION

Intergovernmental Coordination and Review (ICAR) - Pursuant to Florida Statutes, Chapter 186.502(4) one of the ECFRPC functions is to "coordinate intergovernmental solutions to growth-related problems on greater-than-local issues, provide technical assistance to local governments, and meet other needs of the communities." The Council also assists federal and State agencies as well as local governments by coordinating and conducting reviews of projects seeking federal assistance through the Intergovernmental Coordination and Review Process. In an effort to **reduce duplication and conflict with other area programs,** the proposals are reviewed to mitigate potential diverse impacts to other entities. The determination and the comments are compiled at the State Clearing House and reviewed by the funding agencies.

XI. SUMMARY OF ALL EAST CENTRAL FLORIDA 2060 GOALS AND POLICIES

CHAPTER 3: NATURAL RESOURCES	
F.A.C. 27E.5.003(10)	Regional Planning Councils must <u>identify</u> (in their Strategic Regional Policy Plan) Natural Resources Of Regional Significance (NRORS) <u>and promote the protection of these resources.</u> "Significant Regional [Natural] Resource or Facility" means a resource identified by the ECFRPC as being of regional importance and meeting the following criteria: a. A resource that due to its uniqueness, functions, benefit, service delivery area, or importance is identified as being of regional concern (F.A.C. 27E-5.002(7)(a)). b. A functionally intact ecosystem that depends upon connectivity over statewide or regional landscapes to maintain long term, viable and diverse populations of plant and wildlife communities. By statute NRORS maps scale = 1:100,000 (F.A.C. 27E-5.004).
Goal	The regional planning council's policies should become the model for local natural resource protection planning.
Policy	
Policy 3.1	<u>Natural Resources of Regional Significance (NRORS)</u> Policy 3.1.1 NRORS datasets and maps are identification tools to help guide natural resource policies, and are not considered regulatory instruments. Policy 3.1.2 The identification of certain natural resource areas as regionally significant in NRORS datasets and maps should not preclude development, but rather identify potentially valuable natural

resources for protection.

Policy 3.1.3 NRORS is a series of datasets and maps; layers can be added over time after proper public notice and comment.

Policy 3.1.4 Natural Resource policies take priority over NRORS datasets and maps.

Policy 3.1.5 NRORS datasets and maps are descriptive and not determinative.

Policy 3.1.6 NRORS must be evaluated in context to the regional landscape.

Policy 3.1.7 NRORS datasets and maps represent indicators of where regionally significant natural resources may exist, in addition to identifying regional connectivity of natural resource corridors.

Policy 3.1.8 Objective, on-site, field verification of natural resources takes precedence over NRORS datasets and maps when evaluating their individual significance.

Policy 3.1.9 The following GIS Data Sets/Layers geographically describe Natural Resources of Regional Significance to be governed by the Natural Resources Goals and Policies, which include field verification to determine the actual NRORS extent:

a. Regional Committed Conservation (ECFRPC - 2007, Figure 3)
b. Mitigation Banks (ECFRPC – 2007, Figure 4)
c. Hydrography (USGS – 2006, Figure 5)
d. Hydrographic Flowlines (USGS – 1999, Figure 6)
e. Wetlands (NWI - 1998 and FLUCCS – 2004, Figures 7 & 8)
f. Bald Eagles Nests (FWC - 2008 , Figure 9)
g. Biodiversity Hot Spots Priority One, 8 - 13 Species (CLIPv1.0 – 2008, Figure 10)
h. Ecological Greenways Network - Priorities One and Two (FDEP Reprioritization Layer – 2005, Figure 11)
i. 100 year Floodplain - Q3 and DFIRM (FEMA – 2007, Figure 12)
j. Ground Water Recharge Areas (SJRWMD - 2005, SFWMD - 2008, SWFWMD – 2002, Figure 13)
k. Spring Sheds (SJRWMD – 2008, Figure 14)
l. FNAI Rare Species Habitat Conservation Priorities 1-3 (FNAI/CLIP v1.0 – 2008, Figure 15)

Policy 3.2 Prevent the incremental severing of regional ecosystems and ecological corridors by identifying and protecting natural resources of regional significance.

Policy 3.3 Promote innovative design for development in harmony with natural resources.

Policy 3.4	Promote compact form and the aggregation of developments to conserve corridors containing natural resources of regional significance.
Policy 3.5	Dredge and fill activities should be minimized to ensure the least possible adverse environmental, social, and economic impacts to the region's estuaries.
Policy 3.6	Development and redevelopment for higher densities should be discouraged in Coastal High Hazard Areas, defined as the Category 1 storm surge area.
Policy 3.7	Development causing the destruction of natural protective features such as beaches, dune systems, wetlands, and barrier islands should be discouraged.
Policy 3.8	To prevent adverse effects in Storm Surge Areas for Category 1-5 Hurricanes, planning for natural and geologic hazards and sea level rise should be incorporated in any development or redevelopment efforts and comprehensive plan amendments.
Policy 3.9	Development should avoid or properly mitigate adverse impacts to listed species.
Policy 3.10	Wildlife management and conservation areas should be protected from encroachment.
Policy 3.11	Native vegetative and aquatic communities should be protected to the maximum extent possible.
Policy 3.12	Support Best Management Practices (BMP's), such as wildlife underpasses, that protect ecological corridors when development and infrastructure improvements occur.
Policy 3.13	Establish buffer zones landward of regionally significant wetlands and surface waters in order to protect surface water quality and quantity and to provide habitat for aquatic, semi-aquatic, or water dependent terrestrial wildlife.
Policy 3.14	Local governments and agencies within the Wekiva River Protection Area and Wekiva River Study Area should ensure that land use and development plans comply with the Wekiva Parkway and Protection Act (State Statute 369.314-369.324), the Wekiva River Protection Act (State Statute 369.301-369.309), and the associated regulatory measures of state and regional agencies.
Policy 3.15	Local governments within the Green Swamp Area of Critical State Concern (GSACSC) should ensure that land use and development plans comply with the GSACSC Principles for Guiding Development per F.A.C. s. 28-26.003.
Policy 3.16	The function of significant wetlands or wetland habitat should not be degraded if identified as a NRORS.

Policy 3.17	Adequate upland buffers surrounding preserved wetlands should be provided based on scientific evaluation of site specific conditions.
Policy 3.18	Development in the 100 year floodplain should be discouraged.

CHAPTER 4: ECONOMIC DEVELOPMENT

Goal	Coordinate with economic development agencies, local governments, and educational institutions to implement the region's Comprehensive Economic Development Strategy (CEDS).
	Smart Growth and Sustainability
Policy 4.1	Promote integrated land use and multi-modal transportation strategies that support diverse economic centers.
Policy 4.2	Discourage new development from locating in flood prone and hurricane surge areas to prevent adverse economic impacts.
Policy 4.3	Support emerging economic centers that are located in the most appropriate areas, such as along transit corridors or in existing or planned employment centers.
Policy 4.4	Support green energy research and development.
Policy 4.5	Support and promote natural resource protection as a component of the region's economy.
Policy 4.6	Promote and preserve agriculture as a viable land use and integral economic industry.
Policy 4.7	Support events that market the cultural identity of the region.
Policy 4.8	Promote and preserve the region's rich cultural, historic, and archaeological resources.
	Attraction, Retention, and Expansion
Policy 4.9	Support efforts to retain and maximize traditional industry sectors (See Chapter 4).

Policy 4.10	Promote the development and attraction of high-wage, value-added, and export-oriented technology and manufacturing industries.
Policy 4.11	Support efforts to move towards a greater share of high technology and science-based economy.
Policy 4.12	Support the attraction, retention, and development of rising economic clusters and new business.
Policy 4.13	Support efforts that connect regional airports, rail systems, and seaports to gain a competitive advantage in the global marketplace.
Education and Workforce Training	
Policy 4.14	Support improvements to the elementary, secondary, and post-secondary educational systems in order to develop a competitive workforce.
Policy 4.15	Support workforce training and transition programs in the region.
Intergovernmental Coordination	
Policy 4.16	Help communities identify vacant or underutilized sites and facilities for adaptive reuse.
Policy 4.17	Support the implementation of the Comprehensive Economic Development Strategy (CEDS) and other state and federal plans that are consistent with the region's economic policies.
Housing Affordability and Proximity to Jobs	
Policy 4.18	Support efforts that integrate mixed-income housing into existing, expanding, and emerging job centers.

CHAPTER 5: TRANSPORTATION	
Goal	Develop a balanced multi-modal transportation network that connects compact centers of development with mixed use transit-served corridors.
Policy 5.1	Encourage an interconnected street network for all future local roads.
Policy 5.2	Encourage the prohibition of cul-de-sacs unless a natural barrier exists that cannot be crossed.
Policy 5.3	Promote a multi-modal transportation system that provides for the safe, efficient, and cost effective movement of people and goods.
Policy 5.4	Support passenger rail transit (i.e. light rail, commuter rail, street-car, and high-speed rail) in select corridors to connect population centers.
Policy 5.5	Recommend minimum densities and mixed uses within walking distance of rail stops and along transit-served corridors (See Chapter 5, Figure 24).
Policy 5.6	Include bicycle and pedestrian accommodations on roadways, utility easements where feasible, and mass transit stations.
Policy 5.7	Plan for multi-modal connections from airports and seaports to job and tourist centers.
Policy 5.8	Establish a goal-based measurement system for new transportation options. Goals should be based on accessibility, cost, user benefits, environmental impacts, and social equity. a. Make accessibility more important than mobility by creating a "scorecard" of public policy objectives to grade transportation projects according to overall impacts and benefits.

Policy 5.9	Promote compact, mixed-use development that reduces vehicle miles traveled.
Policy 5.10	Encourage public buildings (i.e. schools, post office, church, city hall) to locate in urban centers that become the 'heart' of the community.
Policy 5.11	Encourage transit-oriented and transit-ready developments proximate to transit stations.
Policy 5.12	Multi-modal design options should take precedence over the expansion of existing roads or the construction of new roads where feasible.
Policy 5.13	In transit served corridors, as transit is introduced, move toward reducing off street parking requirements, consider parking maximums, encourage shared parking, and consider placing retail on the ground floor of parking structures where feasible.
Policy 5.14	Ensure that the transportation network, especially public transportation, supports the emergency evacuation needs of the region.
Policy 5.15	Support the development of an interconnected regional trail system.
Policy 5.16	Include Safe Routes to School guidelines and *'Complete Street'* strategies in local comprehensive plans, school designs, transportation improvements, and land use planning.
Policy 5.17	Encourage the removal of requirements for walls around residential neighborhoods along streets where children walk to school.
Policy 5.18	Promote transportation systems and technologies that minimize impacts to air and water quality.
Policy 5.19	Ensure that transportation facilities and ancillary development are located and designed in a manner that prevents habitat fragmentation and protects the functional integrity of ecosystems and corridors for wildlife movement.
Policy 5.20	Accept some congestion in urban centers as a sign of a healthy community rather than using road speed and capacity as the primary indicators of the road's health.
Policy 5.21	Build new arterial roads and widen existing roads only when clearly in conformance with other policy objectives of accessibility.
Policy 5.22	Promote transportation services aimed to increase the mobility of elderly and disabled persons.

Policy 5.23	Encourage transit ready design elements, such as right-of-way acquisition, consistent with local and regional transportation plans to optimize network connectivity and efficiency.
Policy 5.24	Encourage the development of sidewalks to establish greater connectivity.
Policy 5.25	Non-urban arterial roads should be protected by access management policies that limit curb cuts to preserve their capacity.

CHAPTER 6: EMERGENCY PREPAREDNESS

Goal	Prepare communities to effectively respond to disasters by implementing an all-hazards approach to emergency preparedness planning and coordination at the regional level.
	Hazardous Materials
Policy 6.1	Support the preparation and implementation of hazardous material programs that are protective of public safety, public health, and the environment.
Policy 6.2	Support public education, awareness, and outreach initiatives that identify and promote hazardous materials programs and facilities.
	Homeland and Domestic Security
Policy 6.3	Plan for and support domestic security initiatives in the East Central Florida region.
	Smart Growth
Policy 6.4	Discourage development from locating in areas prone to flood and wildfire.
Policy 6.5	Support local government efforts related to managed relocation.
Policy 6.6	Support compact development patterns that provide for the most efficient evacuation times.
Policy 6.7	Encourage connected street networks to provide access and mobility during emergencies for the efficient distribution of emergency supplies.
	Shelters and Evacuation Routes
Policy 6.8	Emergency preparedness planning should consider and address statewide, regional, and local pre-disaster evacuation and post-disaster response and recovery.

Policy 6.9	Support that shelter space needs are met including numbers, capacity, and proximity to high risk areas.
Intergovernmental Coordination	
Policy 6.10	Through the LEPC, assist local jurisdictions and agencies to implement industry disaster preparedness plans and programs
Policy 6.11	Coordinate public and private partnerships to promote the region's emergency preparedness programs and capabilities, such as the East Central Florida Post-Disaster Economic Redevelopment Plan (PDERP).
Policy 6.12	Support emergency planning agencies input into the local and regional government decision-making process.

CHAPTER 7: AFFORDABLE HOUSING	
Goal	Assure that an adequate supply of safe, sanitary, and affordable housing is equitably distributed throughout the region.
Policy 7.1	Incorporate affordable housing into existing or planned neighborhoods. 7.1.1 Consider allowing accessory dwelling units by right in appropriate residential neighborhoods. 7.1.2 Promote development strategies that offer a long-term affordability and a range of housing choices available to all income levels. Such strategies could include land trusts, linkage fees, development fee waivers, cottage housing, and inclusionary zoning (see Section VIII). 7.1.2 Multi-family senior housing should be allowed in residential neighborhoods.
Policy 7.2	Provide incentives for affordable housing in urban centers and along transit-served corridors within one-quarter mile of transit-served corridors.
Policy 7.3	Help local governments to identify regulations that may be barriers to building and leasing affordable housing.
Policy 7.4	When attempting to evaluate affordable housing need, consider using the cost of housing plus transportation as a determinant such that when housing and transportation costs combined exceed 45% of gross monthly income, a household is considered to be cost burdened.
Policy 7.5	Utilize the comprehensive plan and Development of Regional Impact (DRI) review process as an opportunity to promote mixed-income housing that is equitably distributed and inclusionary.
Policy 7.6	Encourage flexible dwelling unit square footage allowances in zoning codes.

CHAPTER 8: ENERGY AND CLIMATE CHANGE	
Goal	Reduce the consumption of energy and prepare the region for impacts of climate change.
Vulnerability and Assessment	
Policy 8.1	Support research that determines if, when, and where selected coastal communities should be either relocated or protected.
Policy 8.2	Support studies and partnerships with research organizations and universities that explore the impacts of energy use and climate change and develop best management practices.
Policy 8.3	Encourage coastal communities to evaluate their food sources and assess the vulnerability of food supplies to sea level rise.
Policy 8.4	Promote assessments of carbon emissions, local energy resources, and potential impacts and risks associated with climate change.
Adaptation and Planning	
Policy 8.5	Encourage communities to identify coastal land uses and critical facilities that may be impacted by sea level rise.
Policy 8.6	Promote mixed uses in existing communities to reduce vehicle miles traveled and energy use, and thus reduce the region's energy consumption.
Policy 8.7	Encourage land use patterns and multi-modal transportation systems that promote energy efficiency.
Policy 8.8	Encourage interlocal agreements between adjacent government jurisdictions that address energy efficient land use decisions.
Policy 8.9	Promote the development of renewable energy industries and the use of renewable energy sources.

Policy 8.10	Encourage the development of multi-jurisdictional air quality/transportation studies in order to determine the long-term impacts of automobile generated pollution and monitor the efforts made to avoid non-attainment status.
Policy 8.11	Support multi-jurisdictional climate action plans that promote energy efficient development practices and reduce energy consumption throughout the region.
Policy 8.12	Encourage research, development, and implementation of recycling, resource recovery, energy recovery, and other methods of using garbage, sewage, hazardous waste, and other waste.
Policy 8.13	Promote the co-location of new or expanding utilities in existing corridors and rights-of-way.

CHAPTER 9: WATER	
Goal	To protect, conserve, and enhance the quantity and quality of the region's sustainable water resources.
Goal	To attain a reduction in potable water consumption from a regional average of 157 gals/person/day in 2005 to 90 gals/person/day by 2025.
Policy 9.1	Prior to the expansion and future distribution of water supplies, local governments, water managers and providers should first encourage the implementation of water conservation measures. (See pages 24 – 25)
Policy 9.2	Protect groundwater recharge areas. 9.2.1 Use compact development designs that protect significant natural pervious open space / recharge areas. 9.2.2 Promote the increased use of pervious surface materials. 9.2.3 Encourage projects that address increased aquifer recharge. 9.2.4 Encourage the use of sanitary sewer or performance based septic systems in areas identified as high vulnerability in Florida Aquifer Vulnerability Assessment data.
Policy 9.3	Promote the use of Best Available Control Technologies and/or Best Management Practices to minimize runoff impacts on receiving waters. Examples include, but are not limited to, cisterns, on-site water storage for reuse, and regional stormwater and offsite master retention areas.
Policy 9.4	Promote the incorporation of nonstructural methods of stormwater management.

	9.4.1 Establish and protect naturally vegetated buffer zones adjacent to water bodies. 9.4.2 Utilize wetlands in the design of stormwater management systems to provide a natural filtering of pollutants. 9.4.3 Encourage the use of rain gardens, swales, and pervious pavements.
Policy 9.5	Protect hydrologic ecosystems. 9.5.1 Discourage new groundwater withdrawals that would increase salt water intrusion. 9.5.2 Discourage the discharge of reverse osmosis brine into estuarine environments. 9.5.3 Promote restoration of historic hydrologic regimes with the objective of improving natural water storage. 9.5.4 Promote the protection and restoration of springs.
Policy 9.6	Avoid point and non-point discharges that may harm hydrologically dependent resources.
Policy 9.7	Encourage the development of sustainable alternative water supplies.
Policy 9.8	Support the development of alternative methods of wastewater treatment, disposal, and reuse to reduce degradation of water sources.
Policy 9.9	To increase the reuse of non-potable water to offset demands on potable water supply, local governments should: 9.9.1 Use reuse water for irrigation and other non-potable needs in place of potable water when it is available. 9.9.2 Consider installation of dual water distribution lines in new developments that will initially use the existing water source until the reuse source is available. 9.9.3 Consider connection of new development or substantial redevelopment to a reuse system. 9.9.4 Consider installation of meters for individual connection to the reuse system. 9.9.5 Enter partnerships with wastewater utilities to retrofit existing development with connections to a reuse system.

CHAPTER 10: COMMUNITY DESIGN	
Goal	Improve and enhance the region's development character by assuring a high standard of design in all development.
Policy 10.1	Development should avoid negative impacts to Natural Resources of Regional Significance as identified by the ECFRPC Natural Resources of Regional Significance data layers and policies (see Chapter 3).
Policy 10.2	When new development is proposed, preserve natural features such as topography, wetlands, floodplains, native plant communities, and wildlife habitat to the maximum extent possible.
Policy 10.3	Development should enhance natural features, vistas, and view sheds.
Policy 10.4	Every community should have a main public open space for congregating.
Policy 10.5	Build new centers and rebuild existing urban centers in the most appropriate locations that can reasonably provide urban services and multi-modal transportation.
Policy 10.6	Encourage an interconnected network of streets. 10.6.1 Encourage the prohibition of new dead end streets (cul-de-sacs) unless absolutely necessary because of topographic features or Natural Resources of Regional Significance. 10.6.2 Use public squares with streets emanating in all directions from the four corners as a desirable way to achieve common public space and an interconnected street network.

Policy 10.7	Design for transit. 10.7.1 Consider establishing minimum densities for planned "Transit Corridors" to incentivize Transit Oriented Development. 10.7.2 Transit corridors should provide for a mixture of commercial, office, institutional, and residential uses in multi-story buildings to create a walkable pedestrian environment.
Policy 10.8	Buildings should be designed to be durable, useful, energy efficient, and beautiful. 10.8.1 Every community should have architecture and streetscape standards. 10.8.2 Public buildings should set the community tone for beauty and architecture. 10.8.3 There should be a variety of architectural styles, with compatible elements.
Policy 10.9	Promote and implement Safe Routes to School Programs and guidelines in comprehensive plans and transportation and school planning. 10.9.1 Schools should be sited as community anchors, located within walking distance of their students and co-located with other public facilities where possible. 10.9.2 Avoid prescribing minimum acreage requirements for new school sites. 10.9.3 Renovation of existing structures for schools should take precedence over new construction where feasible.
Policy 10.10	Downtowns and village centers should include certain common elements of great sustainable communities (see Chapter 10).
Policy 10.11	Parks and open space should be liberally distributed throughout the community and connected by a system of walking and bicycling accommodations.
Policy 10.12	Communities should strive to retain their history through reinvestment and restoration of historic structures and to reuse them through time as the centerpiece of their community.
Policy 10.13	New development should include smaller block sizes to accommodate pedestrians and to maximize opportunities for economic investment.
Policy 10.14	Vacant or underutilized retail sites should be seen as opportunity sites for assembly and redevelopment as mixed use (retail, office, and residential) centers, especially along corridors currently served by transit or planned to be served by transit.

Policy 10.15	Encourage schools to integrate into the surrounding neighborhoods by removing physical barriers (i.e. walls), engaging in and hosting shared community activities, and collocating with parks and other public facilities.

CHAPTER 11: AGRICULTURE	
Goal	Promote a regional agricultural system that results in gains to the local economy, greater food security, preservation of rural heritage, and improved land stewardship and agricultural practices.
Policy 11.1	Protect and conserve lands for long-term agricultural use.
Policy 11.2	Promote agriculture as a viable land use and encourage the protection of farming operations.
Policy 11.3	Conserve and promote the integrity of the region's rural character.
Policy 11.4	Encourage best management agricultural practices that reduce impacts to the function and value of natural systems.
Policy 11.5	Recognize agribusiness as an economic asset to the region and a major sector of the region's economic base.
Policy 11.6	Promote incentives that enhance agricultural working lands.
Policy 11.7	Support the development of alternative agricultural products in the region to help diversify the economic base.
Policy 11.8	Encourage the utilization of reclaimed storm water for irrigation of appropriate crops.
Policy 11.9	Promote direct sales to consumers including the emerging agricultural cottage industry, farm stands, farmers markets, and community supported agriculture.
Policy 11.10	Encourage local governments, public institutions (i.e. schools, prisons, youth centers, senior centers, summer camp programs, etc.), and businesses to support local agricultural purchases and on-site farm and garden operations.

Policy 11.11	Encourage community agricultural assessments.
Policy 11.12	Encourage local food systems by implementing community gardens, urban agricultural activities, and edible landscapes.
Policy 11.13	Encourage the development of local processing facilities for agricultural products.