



seven 50  
counties years

Southeast Florida Prosperity Plan

The Seven50 Plan for Prosperity is a dynamic, living document available online at [seven50report.org](http://seven50report.org).

seven 50  
counties years



Southeast Florida Prosperity Plan

Better Region. Better Life.



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**Note:** Quotes from people who participated in the public process appear in these bubbles.

Thousands of comments were submitted through surveys, meeting notes & online input.



Gulf of Mexico



MONROE

MIAMI-DADE

Biscayne Bay

Key Largo

Everglades City

Naples

Planting

M...

K...

Homestead

Coral Gables

Princeton

Coral Ridge

Fort Lauderdale

Fort Lauderdale

Fort Lauderdale

Fort Lauderdale

Fort Lauderdale

Fort Lauderdale

Fort Lauderdale

Fort Lauderdale

Fort Lauderdale

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0

Tampa

St. Petersburg

Orlando

Lakeland

Winter Haven

Fort Myers

INDIAN RIVER

Lake Okechobee

ST. LUCIE

MARTIN

PALM BEACH

BROWARD

West Palm Beach

Fort Lauderdale

Miami

Atlantic Ocean

# BETTER REGION, BETTER LIFE

## A SUMMARY OF THE PLAN

A robust economy, a solid and growing job base, and a more adaptable and competitive region and state: this is our responsibility. Seven50 (seven counties, 50 years) is a process that **allows local leaders** to imagine and decide how best to accomplish this. Seven50 provides a framework that provides the seven counties of southeast Florida the ability to focus on major issues that go beyond city limits, county lines, state limits and national borders. These issues include: economic development, transportation, education, food supply, energy, leadership, climate resilience and more.

As a **PROCESS**, Seven50 strives to establish a culture of communication and cooperation. It provides a neutral forum for collaborative regional thinking and leadership from both the public and private sectors.

As a **TOOL**, Seven50 serves as the basis to create a healthy and competitive environment for businesses in the region and to provide certainty for the future.

As a **VISION**, Seven50 identifies trends to allow local governments and businesses to be better prepared and more competitive. It enables a pro-active approach towards change; particularly the kind of change that aims at protecting a community's unique scale and character, and preserves and improves the quality of life.

As a **GOAL**, Seven50 seeks to protect, restore, and enhance Southeast Florida and ensure it remains a thriving paradise for generations to come.

### AN UNPRECEDENTED PARTNERSHIP

On June 16, 2009, the U.S. Department of Housing and Urban Development (U.S. HUD), the U.S. Department of Transportation (U.S. DOT) and the U.S. Environmental Protection Agency (U.S. EPA) announced a new partnership to coordinate federal housing, environmental protection, and transportation planning and investment. The goal was to better align national funding programs and to promote the creation of comprehensive investment plans for strengthening the economy and environment of our Nation's regions. Funding was authorized by Congress in 2009 for this initiative and was provided through HUD's Sustainable Communities office.

The South Florida Regional Planning Council, in partnership with the Treasure Coast Regional Planning Council and more than 200 public, private, civic stakeholders, and supportive organizations from Southeast Florida, competed for, and were successfully awarded a Sustainable Communities Regional Planning Grant, in the regional plan development category (Category 1). This grant was designated to fund Seven50.



## WHY A SHARED REGIONAL VISION?

The Southeast Florida Region is facing many challenges: aging infrastructure, unbalanced mobility, increasing congestion, increasing housing costs, economic pressures on agricultural lands, environmental challenges and the impacts of climate change. These challenges add to the pressure of relatively limited diversity of industries, lower-than average educational attainment for the middle class, and growing income gaps.

As many efforts are underway to address most of these issues independently, a larger-scale effort is needed to tackle more regional issues such as transportation, environmental health and climate resilience. Many of our region's multi-jurisdictional alliances have resulted in significant progress and have become nationally recognized efforts. But we're still a disconnected region in many ways. Many initiatives are duplicative, contradictory, uncoordinated, made harder by the difficulties of sharing resources and strengths, or made less effective by a lack of a common vision.

As megaregions emerge at the national scale, their goal is to become stronger, more efficient, and as a result, out compete others. Up-and-coming global megaregions join the already established ones in the contest for prosperity. In an era of limited financial resources, tremendous technological advances, rapidly changing trends and uncertain climate impacts, its evident that many of the challenges and opportunities that the Southeast Florida Region faces will require a unified vision and collective action to accomplish. With population anticipated to increase from 6.2 million to 9.3 million over the next 50 years we'll need to plan together.

The region is faced with a choice:

- a) Confront the future as an "Accidental Region." One that experiences its future by default without coordination or an understanding of how each local decision impacts the whole; or
- b) Join forces and create strategic alliances to embrace the future as a "Competitive Region." One where its constituents can choose to discuss the future together, investing time and energy to explore the consequences of different decisions before committing to them.

## A CONTINUING EFFORT

Seven50 is the result of an outgoing, innovative, and expansive effort to engage everyone. The goal is to make sure that all voices are heard and recorded, to reach out to experts as well as those who traditionally do not participate in planning processes, and to reach all age groups, nationalities and interest groups.

The Prosperity Plan is not the end of the conversation about the future of the region. The priorities of the plan are the region's consensus issues, and the toolbox provides a kind of work plan, but conversation must continue. The conversation is the important part.

**"Simply having  
the conversation  
changes the trend."**

**Dr. Robert Burchell  
Rutgers University**

# THE PURPOSES OF PLANNING

## FROM THE DIRECTORS' DESKS

The problems and opportunities related to population growth and economic development often transcend local boundaries and the ability of individual local governments to effectively respond to them. Regional planning councils have a duty and unique ability to provide advanced notice of these regional issues and opportunities through their long-range strategic planning efforts. Councils also provide a regional forum to promote communication among local governments for solving their common problems and seizing shared opportunities.

The Seven50 effort offers a data-driven vision that identifies opportunities for regional planning and collaboration that can be carried forward when one or more local governments and/or private entities decide that it is in their best interest to do so. Future trends potentially affecting the region are also identified. This report is intended as a resource document to assist local governments in determining if they are positioned to take advantage of these trends in their efforts to strengthen and protect the economy, natural environment, and unique character of their individual communities.

Seven50 does not merely present a vision of the future for the regional planning councils to consider. It is suggested and intended as a business plan for guiding future investments and actions in the region, developed by and for the region, its local governments, and the private sector. It is intended to provide guidance for all those who are active participants in shaping its future, and for all those who have a role to play in gracefully accommodating the next three million people expected to call this region their home in the next 50 years.

Seven50 should be recognized by local governments as one of the means to influence state and federal policy for the benefit of the region. Strategies are identified under which state and federal rules, regulations, policies, programs, and funding streams can be adjusted and better aligned to support local needs and preserve the unique character of all our communities, whether rural, suburban, or urban.

Seven50 is intended to be a direction-setting document. Its data and assessment of existing and future trends and scenarios are intended to serve as an early warning system, enabling the region and its local governments to better position themselves over the long run to protect and improve their unique characteristics and quality of life. ***How local governments respond to and use this information in their decision-making process is up to them.*** The vision, goals, planning strategies, and ideas outlined in the Seven50 Prosperity Plan are not intended to be a mandate or dictum to local governments, special districts, or citizens in the region. They will be implemented only to the extent local governments are willing to do so and sufficient financial resources are available.

The ideas, strategies and scenarios contained in the Seven50 Prosperity Plan should be reasonably applied where they are economically and environmentally feasible. They should not be contrary to the public interest, and should be consistent with the protection of private property rights. Seven50 does not create new regulatory authority or authorize the adoption of new organizations, rules, criteria or standards. Any standards or strategies included in the Seven50 are to be used for planning purposes only and not for permitting or regulatory purposes.

Lastly, all goals, ideas and planning strategies that utilize directive verbs such as should, shall, and will, should not be interpreted to override the decision-making and fiscal prerogatives of local government. All references to the "Region" in goals, ideas, strategies and background analyses should be taken to mean the region as a whole. It is implicit that all regional goals, strategies, and ideas suggesting shortened review processes, pre-approval, regulatory relief, simplified tax systems, changes to federal funding formulae for returning additional state tax dollars, or other incentives suggested to encourage a more competitive and self-sufficient region, will be carried out within the limits of state and federal law.

-Michael Busha, AICP, Treasure Coast Regional Planning Council  
& Jim Murley, AICP, South Florida Regional Planning Council

# DIFFERENT, YET CONNECTED

The seven counties that make up the Southeast Florida region – Monroe, Miami-Dade, Broward, Palm Beach, Martin, St. Lucie and Indian River - are at a critical stage in history. Growing faster than in the past and increasingly diversifying, the Southeast Florida Region faces growing demands for infrastructure, water and energy. Our local governments strive to attract and retain high-wage jobs and innovative industry clusters, preserve and enhance natural resources, respond to fast-changing trends, and prepare for the needs of tomorrow's knowledge-based economy. At the same time, a fast-moving international market is driving other counties, regions, states and even countries to join forces to better respond and prosper in this new global economy.

Though diverse, the seven counties have much in common: a shared history; a unique and linked environment and watershed; a common trade basin; a shared transportation system; and recreational, social and cultural activities that result in an economic interdependence with the potential to become one of the strongest and most resilient regions in the nation.

## LOCATION

Our region is a center for international trade. Our geographic position is extraordinary, making us a national gateway, providing business and cultural bonds between the United States, Central and South America, and the Caribbean and their emerging markets. We are strategically positioned to profit from the expansion of the Panama Canal, and to increase trade and relationships with Asian, African and European markets.

## TRADE & TOURISM

Southeast Florida is a national leader in trade and tourism, ranking 1<sup>st</sup> in international air cargo (Miami International Airport), 1<sup>st</sup> in home-port cruise passengers, 3<sup>rd</sup> in international visitors, 5<sup>th</sup> in air passengers, 6<sup>th</sup> in waterborne container traffic, and 8<sup>th</sup> in value of exports, being the only region where export values are higher than import values.

## ENVIRONMENT

Our natural resources are unparalleled. Bound and constrained by incredible natural systems – the Everglades and the Atlantic Ocean – we are home to over 250 miles of pristine beaches, expansive natural systems and national parks, magnificent weather, and some of the world's most diverse ecosystems.

## CHARACTER

Over 120 cities, towns and villages of unique character, scale, intensity, lifestyle and rich history seamlessly connected, provide one of the most varied urban environments in the country.

## AGRICULTURE

We are the largest producer of citrus in the United States, growing 80% of the citrus consumed nationally. We are the country's 2<sup>nd</sup> largest producer of winter vegetables.

## PATTERN OF GROWTH

Our region is laid out in a unique, linear pattern that allows for a fairly simple, yet highly effective multimodal transportation network.

## POPULATION

The population of Southeast Florida is larger than that of 35 states, making our region the 6<sup>th</sup> largest metropolitan area of the United States.

## CULTURE

Southeast Florida is an extremely eclectic region, reflected not only in the many languages spoken, but the arts and social activities that are further supported by a strong tourism industry.

## DIVERSITY

Our region is the 17<sup>th</sup> most diverse region in the nation (out of 150), providing a competitive edge and global interaction.

# THE PLAN: REGIONAL PRIORITIES

Six workgroups were tasked with focusing on consensus issues to be tackled both in the short and long term. These consensus issues impact the livability of the region as a whole. They present common objectives that everyone, whether from the private, public or civic realm, can work together on to improve the region. These issues comprise the Regional Priorities of the plan. This report discusses these Regional Priorities.

## GROWING THE ECONOMY

- 1 Strengthen Southeast Florida's role as a global hub for trade, visitors, talent & investment
- 2 Create & expand strong regional innovation clusters
- 3 Develop & retain a highly skilled, diverse, globally fluent workforce
- 4 Promote an entrepreneurial culture that fosters new business opportunities
- 5 Plan for the impact of climate change & sea level rise on private & public investment in the form of rising insurance rates & costs of new resilient infrastructure
- 6 Enhance Southeast Florida's quality of life to attract & retain a diverse mix of families, workers, visitors, retirees & businesses
- 7 Develop & maintain globally competitive infrastructure & economic development sites that support the region's economic vision
- 8 Improve coordination & collaboration to help Southeast Florida compete globally as a leading region
- 9 Position Southeast Florida to attract national & international events

## THE LIVABLE REGION

- 1 Integrate land use & transportation planning to provide more transportation choices & increase opportunities
- 2 Enhance physical infrastructure to increase economic competitiveness & growth
- 3 Provide more housing & workplace choices in response to emerging trends
- 4 Integrate land use & transportation planning; plan more transit-oriented development areas to support transit
- 5 Improve coordination & collaboration among all levels of government & the private sector
- 6 Protect & enhance the unique character of all communities & ensure protection of private property rights
- 7 Explore sustainable transportation funding with alternative ways to finance improved mobility
- 8 Leverage our natural assets to connect the region

**CELEBRATING ARTS  
& CULTURE**

- 1 Embrace great design as a core Seven50 planning principle & policy
- 2 Connect with local arts & culture to create communities with a distinctive sense of place
- 3 Invest strategically in the creative arts
- 4 Recognize that culture is a significant driver for economic competitiveness & quality of life

- 5 Add the “A”(rts) to STEM to produce the competitive workforce of tomorrow
- 6 Develop regional cultural assets according to a hub & spoke strategy
- 7 Empower the region’s arts leadership to implement the arts objective of the Seven50 plan
- 8 Promote sustainable development that emphasizes the region’s natural, historic, & cultural assets & preserves sense of place

**VALUING THE  
ENVIRONMENT**

- 1 Ensure the future supply & quality of water to meet the region’s economic, environmental & quality of life goals
- 2 Redevelopment opportunities should be prioritized over new development
- 3 Enhance independence, quality, access & security of the region’s food supply
- 4 Ensure that development in coastal areas is resilient & sustainable

- 5 Mitigate damage & assure proper freshwater flows to the St. Lucie & Lake Worth estuaries, Indian River Lagoon, Lake Okeechobee, the Everglades & Florida Bay
- 6 Ensure future growth & development decisions strengthen agricultural opportunities & meet natural resource & ecosystem restoration goals
- 7 Support Everglades restoration

**CLIMATE & ENERGY  
RESILIENCE**

- 1 Ensure water supply: identify & prioritize at-risk natural resources & infrastructure & minimize saltwater intrusion
- 2 Engage & educate the public to create new policy regarding climate change issues
- 3 Utilize adaptive planning for natural systems
- 4 Infrastructure, utilities, transportation choices & the built environment should reflect goals for conservation, energy efficiency & sustainable infrastructure

- 5 Value & enhance agricultural assets
- 6 Ensure a sustainable, consistent, independent & cost effective energy supply & delivery system throughout the region
- 7 Prioritize storm preparedness, risk reduction & emergency management
- 8 Focus on the region’s barrier islands: they host unique destinations & also provide frontline barriers for the mainland

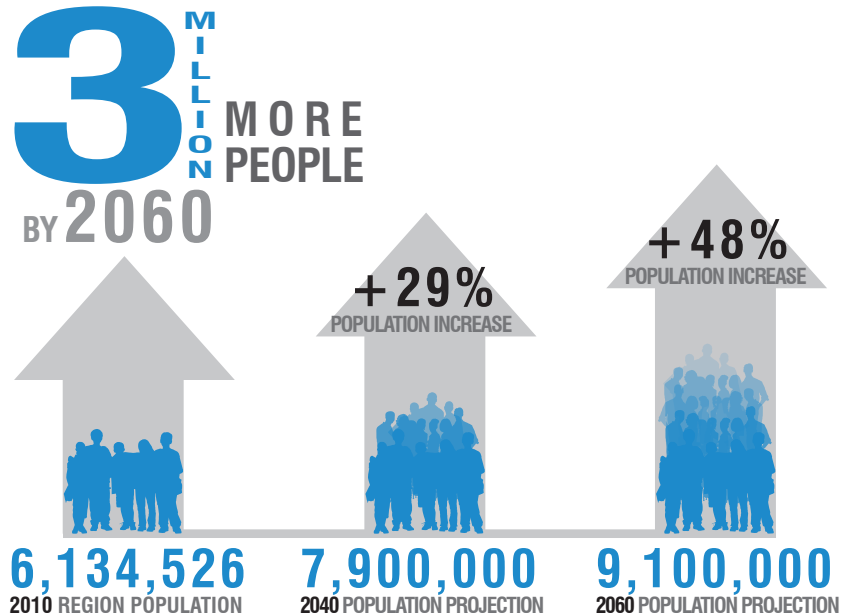
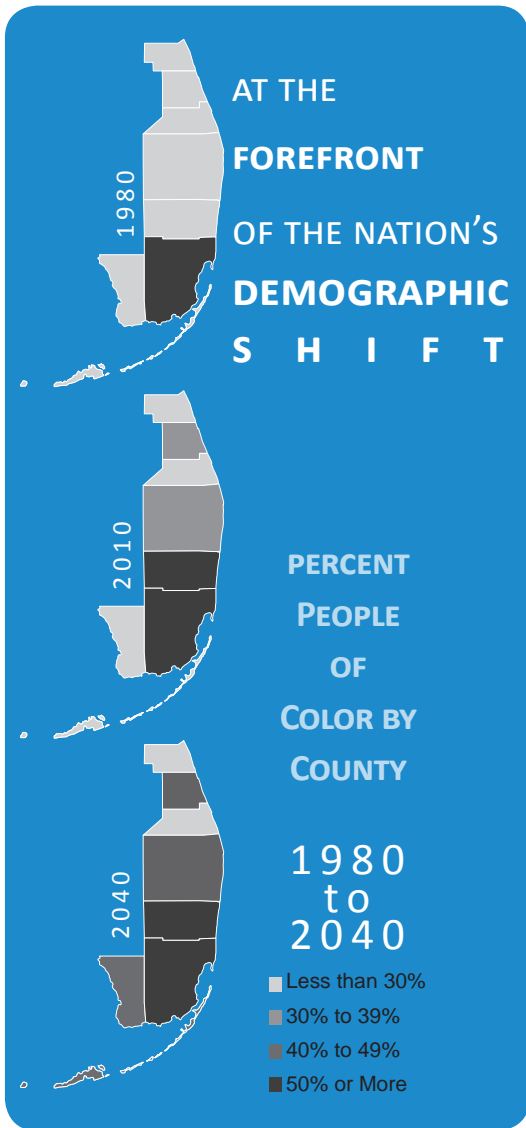
**INCLUSIVE  
REGIONAL  
LEADERSHIP**

- 1 Continue the discussion on creating regional leadership organizations focused on resolving major regional issues
- 2 Regional leadership organizations should be politically independent

- 3 Regional leadership organizations should advocate with one voice for the region
- 4 Establish regional coalitions to address regional issues.

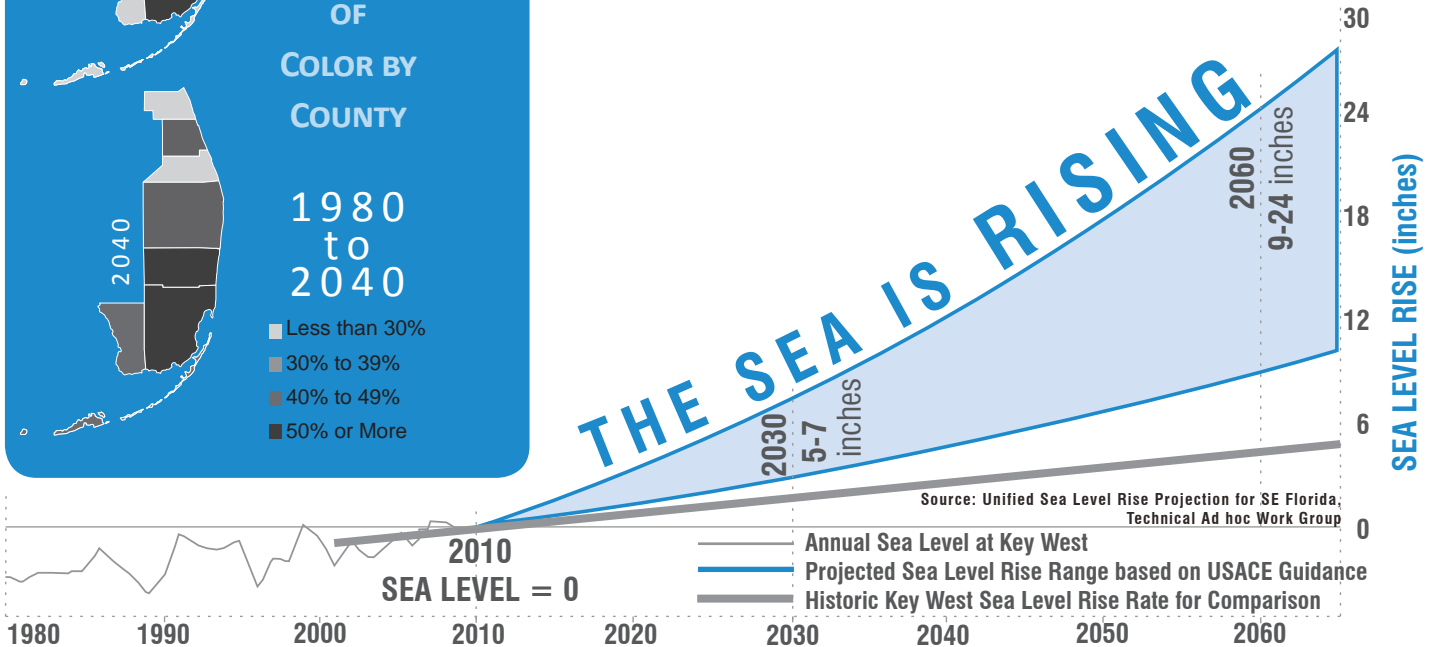
# AT A GLANCE: TODAY

Our seven-county region is faced with a variety of challenges and opportunities. Here is information on where the region is today and a few trends and future impacts if these trends continue.



PLAN SUMMARY

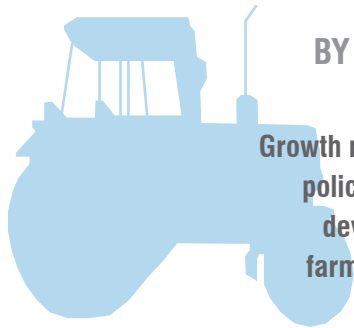
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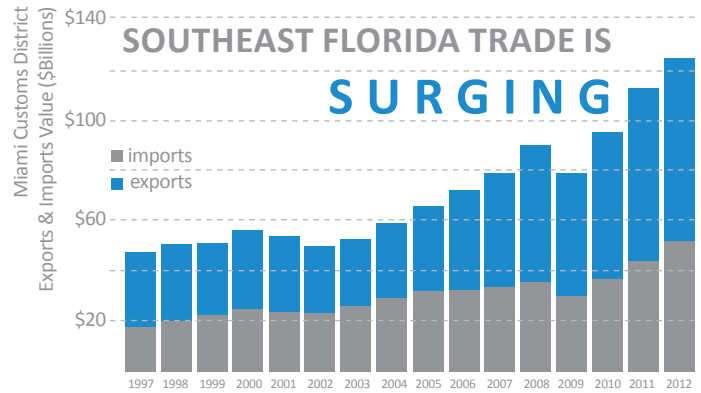
FUTURE TREND:

**250+** SQUARE MILES

of additional farmland developed  
BY **2060**



Growth management policies hold, but development in farmlands is still significant

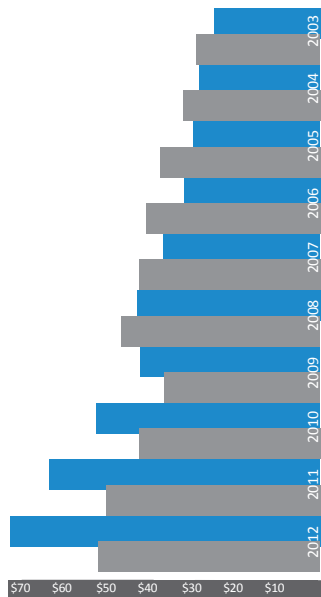


Southeast Florida **NATIONAL LEADER** in Trade & Tourism

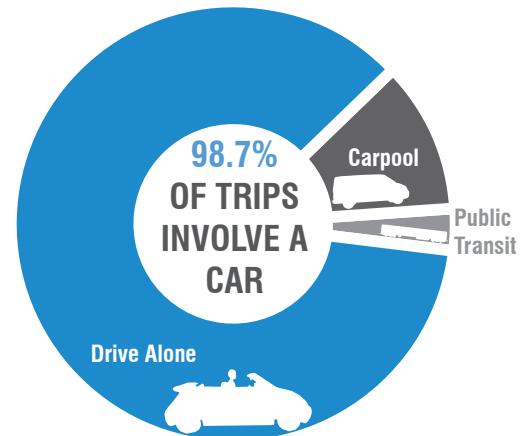
**1<sup>st</sup>** INTERNATIONAL AIR CARGO TONNAGE & HOME PORT CRUISE PASSENGERS



**3<sup>rd</sup>** international visitors  
**5<sup>th</sup>** air passengers  
**6<sup>th</sup>** waterborne containers  
**8<sup>th</sup>** value of exports



AIR & SEA CARGO TRADE  
**GROWING**



Air - Total Trade  
 Ports - Total Trade

Source: Fair Housing and Equity Assessment (FHEA)

# AT A GLANCE: TOMORROW

According to the “Region in Motion” Scenario, described in more detail in the “Preferred Scenario” portion of this report, our region will seek to accomplish the following over what the “Trend” scenario would create.

over **200** <sup>SQ</sup> MILES  
of farmland  
**SAVED**



COMPARED TO  
THE CURRENT  
TREND WE  
WILL HAVE...

+65%

HOUSEHOLDS  
WITHIN  
1 MILE OF  
TRANSIT,  
SCHOOLS,  
PARKS

+20%

MULTI-  
FAMILY  
HOMES

+15%

REGIONAL  
MIGRATION  
TOWARD  
URBAN  
COUNTIES

+8%

CREATIVE  
CLASS IN  
WORKFORCE



**3x** more

INVESTMENT  
IN CLIMATE RESILIENCE



**+1.54%**  
ARTISTS  
IN  
WORKPLACE



**\$2.3** BILLION  
**\$** **SAVED**  
ON NEW ROADS



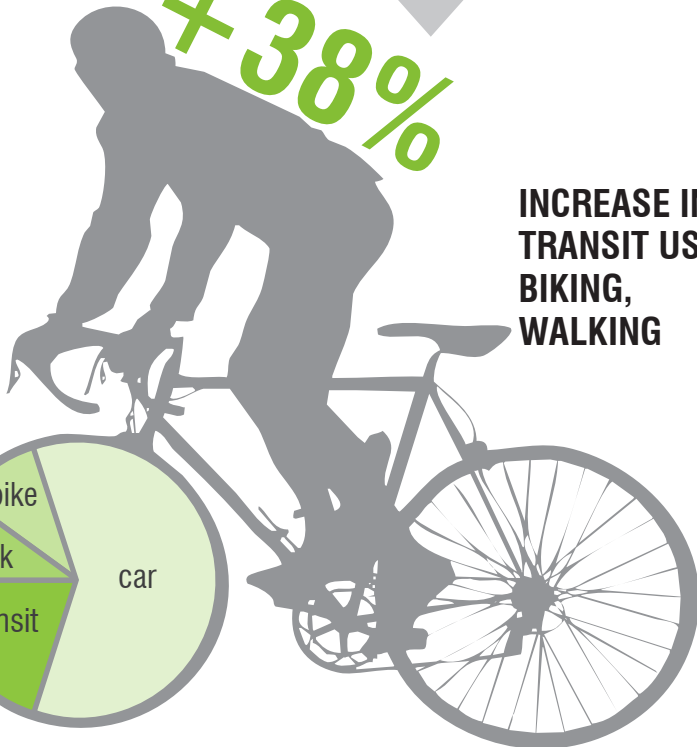
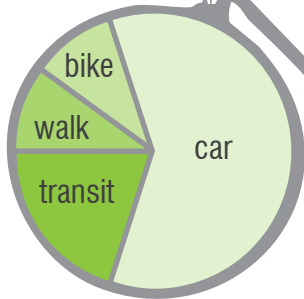
HEALTH/  
OBESITY  
RATE  
**-11.5%**

SPENT ON  
HOUSING +  
TRANSPORTATION  
**-17%**  
per  
household

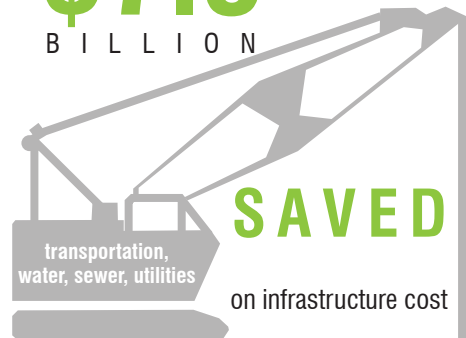
LESS  
EMISSIONS/  
POLLUTION  
with  
2.2 MILLION  
LESS  
TRIPS  
**-60%**

**+38%**

INCREASE IN  
TRANSIT USE,  
BIKING,  
WALKING



**\$7.3**  
BILLION



**SAVED**

transportation,  
water, sewer, utilities

on infrastructure cost

# SEVEN50 DIFFERENCE SUMMARY: TODAY

**SEVEN-COUNTY  
REGIONAL  
TRANSPORTATION  
MODEL & PASSENGER  
RAIL ACCORD**

**FOCUSED ON  
BALANCED MOBILITY,  
INCLUDING  
WALKABILITY AS A  
NEW REGIONAL GOAL**

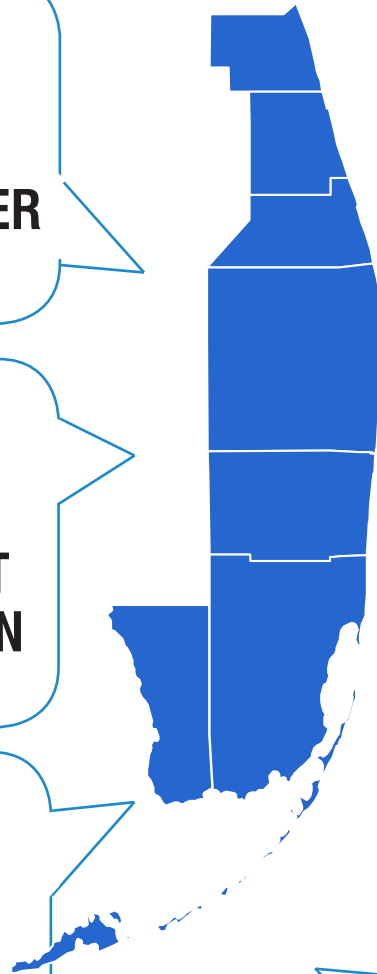
**INITIATED  
PARTNERSHIP  
BETWEEN THE  
CLIMATE COMPACT  
AND THE NORTHERN  
COUNTIES**

**LAUNCHED AN  
ONGOING REGIONAL  
CONVERSATION ON  
THE FUTURE**

**CREATION OF A  
SEVEN COUNTY  
REGIONAL DATA  
WAREHOUSE**

**FORMULATED  
A SEVEN COUNTY  
AGREEMENT ON  
FIBER OPTICS**

**FOCUSED ON GLOBAL  
COMPETITIVENESS AS  
A CENTRAL THEME FOR  
THE SEVEN COUNTIES**



# SEVEN50 DIFFERENCE SUMMARY: TOMORROW



SEE PAGE 306 FOR MORE INFORMATION ON THE SEVEN50 DIFFERENCE: TOMORROW

# SEVEN50 DIFFERENCE: TODAY

THE “SEVEN50 DIFFERENCE” IS ALREADY EVIDENT

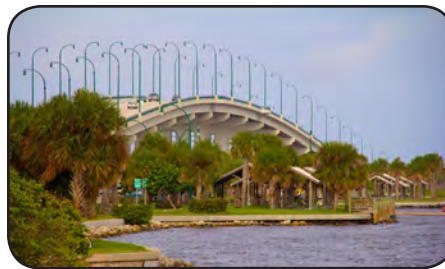
## SEVEN-COUNTY REGIONAL TRANSPORTATION MODEL & PASSENGER RAIL ACCORD



A seven-county transportation model was developed as part of Seven50. This common platform allows for a conversation about mobility across jurisdictional boundaries. This model looks beyond the 2040 time frame to 2060.

Transportation partners convened in November 2012 in Minneapolis through the Southeast Florida Regional Partnership and the Sustainable Communities Initiative Leadership Academy to discuss the South Florida East Coast Corridor (SFECC) Study. The convening led to execution of the Minneapolis Accord, which identifies roles and responsibilities to advance regional passenger service on the FEC Rail Corridor in Southeast Florida. Transportation partners included FDOT; SEFTC; the SFRTA; the Miami-Dade, Broward, and Palm Beach MPOs; the SFRPC; and the TCRPC. The next phase for the SFECC Study, now called the Tri-Rail Coastal Link Study, is project development.

## INITIATED PARTNERSHIP BETWEEN THE CLIMATE COMPACT AND THE NORTHERN COUNTIES

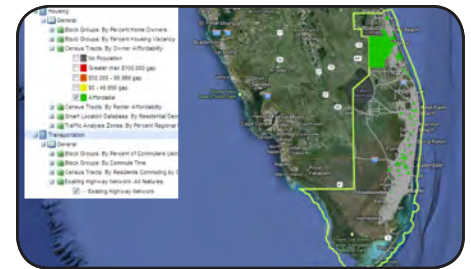


Southeast Florida is on the front line of climate change. It is a region built on the coast, with many significant public and private investments located on low-lying barrier islands, unprotected shorelines and western Everglades edge.

Responding to the threat of sea level rise and more frequent stronger storms, the counties of Monroe, Miami-Dade, Broward and Palm Beach signed the Southeast Florida Regional Compact pledging to coordinate efforts to reduce greenhouse gas emissions and create climate adaptation strategies.

Martin, Indian River and St. Lucie Counties have now been mapped to identify vulnerable areas for inundation. The counties are now encouraged to work together to create a Northern Climate Compact through Seven50. A unified region, we have enhanced our ability to address the potential impacts of sea level rise.

## CREATION OF A SEVEN COUNTY REGIONAL DATA WAREHOUSE



The Seven50 Data Warehouse is the most comprehensive data base ever provided to all counties in the region. It provides a “one-stop shop” for data that will be useful in conducting the business in the region and identifying potential economic development opportunities. Better data should lead to better decisions.

The Data Warehouse is available to any user and provides geographic information for all seven counties. Data layers include land uses, traffic analyses, modeling efforts from partner organizations, sea level rise, population forecasts, census data, parks and recreational assets, first priority climate change adaptation areas, commute times, housing and transportation costs and a number of others.

The Data Warehouse allows users to work with Geographic Information Systems data without requiring the purchase of proprietary software.

## FOCUSED ON BALANCED MOBILITY, INCLUDING WALKABILITY AS A NEW REGIONAL GOAL



The region is making major transit investments, including regional passenger train lines, extension of commuter lines, local circulators, Bus Rapid Transit, and new routes for local buses. The goal is to provide options: multiple ways of getting around in addition to the car. However, all trips begin and end on foot. Creating an environment in which people can walk from their homes to transit, and from transit to where they work, along safe, comfortable and interesting streets is of strategic importance. This will require complete, multi-modal streets with plenty of shade, but also complete communities and opportunities for citizens to meet their daily needs close to home.

There are many plans throughout the region to improve walkability in areas that are currently compact, urban, walkable and often historic. Seven50 creates a regional walkability vision to supplement those local plans.

## LAUNCHED AN ONGOING REGIONAL CONVERSATION ON THE FUTURE

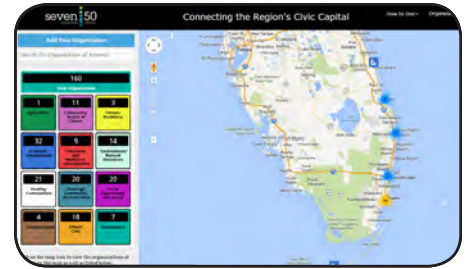


Seven50 has hosted a multi-year, regional conversation about the future, highlighting the latest thinking in economic development, land use planning, transportation and climate change adaptation.

A diversity of opinions was heard at each of the Seven50 events — from young people with “a new American Dream” involving walkable, social, transit-connected places, to residents who want to preserve the unique character and scale that makes their community unique.

“The conversation itself changes the trend,” pointed out Dr. Robert Burchell, Director of the Center for Urban Policy Research at Rutgers University, author of 25 books on planning practice. The conversation itself will improve lives in the region. Seven50 has changed the culture and established the framework for regional discussion, coordination and cooperation.

## ADDITIONAL ACHIEVEMENTS



### Fiber Optic agreement with FEC and seven county resolution

This Seven50 project will ensure the region has sufficient fiber optic capacity to grow the health care, bio/medical science, and transportation logistic sectors of our economy and will put the region in a better position to compete with the rest of the country and world.

### Seven 50 Regional Vision

We'll compete as a region globally. The Seven50 Regional Plan puts each municipality in a stronger position to get a solid return on its federal and state tax dollar investment. It remains a local choice about whether to accept federal and state assistance for specific projects and initiatives.

### Civic Assets Google Based Map

The Civic Assets Map is a compendium of organizations and assets that can be searched by location and topic.



# **PUBLIC ENGAGEMENT**

**Guiding Livability Principles**

**Public Engagement Summary**

**Workgroups Summary**

**Scenarios: Alternative Futures**

**Comparing Scenarios**

**Preferred Scenario: Better Region. Better Life**



# GUIDING LIVABILITY PRINCIPLES

## A STARTING POINT FOR DISCUSSION

The Southeast Florida Regional Partnership adopted seven Livability Principles.

The livability principles have been used as a guide throughout the Seven50 process to improve the quality of life for the entire region.

The outreach discussions started with these seven principles.

### PROVIDE MORE TRANSPORTATION CHOICES



Source: Wikimedia Commons

Tri-Rail serves Southeast Florida Commuters

Cars remain the dominant mode of personal transportation in Southeast Florida, and the freedom they provide cannot yet be replaced by other forms of travel. But an over-reliance on cars leads to traffic jams, a costly dependence on petroleum products, lower air quality, health problems due to inactivity, valuable time wasted driving, and greenhouse gas emissions. Reliance on driving can also be confining for the elderly, the young, and those with physical disabilities.

A more balanced approach to transportation includes maintaining the region's highways while upgrading rail and bus facilities to provide more choice. A more balanced approach also means investment in our pedestrian and bicycling networks. Streets should provide for cars while still being safe, comfortable and interesting to the pedestrian. In select areas, development patterns for new construction and redevelopment should shift from auto-only to a more balanced walkable urban transportation environment, recognizing that pedestrians in Southeast Florida benefit from ample shade.



## PROMOTE AFFORDABLE HOUSING



Affordable housing in Homestead built as a complete community with a Civic building for a farmer's market

To meet the needs of Southeast Florida's growing population, communities throughout the region that choose to remain competitive and accommodate the needs of fast-changing demographics need to ensure that they provide the right mix of larger homes, smaller homes, homes in mixed-use buildings and multi-family homes. Communities should expand locations and increase the number of energy-efficient housing choices for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation.

Singles, the young, the elderly, tourists, seasonal residents, second-home buyers, and multi-generational households all have housing needs that do not fit well into a typical suburban subdivision. Housing affordability can be improved through development that offers a variety of housing types and tenure options and improved access to public transportation.

## ENHANCE ECONOMIC COMPETITIVENESS



The skyline of Brickell and Downtown Miami

Economic development means building a solid foundation for investment that involves a better quality of life, better education, and improved infrastructure. Southeast Florida seeks to position itself as a globally competitive super region that is one of the world's best places to live, learn, visit, work and do business.

The region's overall economic competitiveness can improve with cooperation between neighborhoods, municipalities, counties, and subregions that comprise the Seven50 region, as well as coordination with state agencies like the Florida Department of Economic Opportunity and federal agencies like Economic Development Administration and the US Department of Housing and Urban Development.

## SUPPORT EXISTING COMMUNITIES



New isn't everything. The history of settlement in Florida goes back five centuries

Seven50 is a voluntary process whose central objective is to find solutions that will improve both the overall quality of life in Southeast Florida and the quality of life in each community in the region. Local and county participation in Seven50 initiatives is strictly voluntary. No local governing body will be required – legally or otherwise – to implement any Seven50 proposals that its citizens deem to be a poor fit for their community.

Seven50 is about understanding trends and seeing the big picture, and its work can provide local communities with access to the kinds of data and support that they and their taxpayers might be unable to achieve independently. Seven50 should help target funding toward existing communities—through strategies like transit-oriented, mixed-use development and land recycling—to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.

## COORDINATE POLICIES & LEVERAGE INVESTMENT



Coral Gables City Hall

Seven50 supports the interests of Southeast Florida taxpayers by helping to coordinate policies that achieve shared goals between numerous local governments. In this role, Seven50's planning initiatives can achieve significant cost savings: inter-governmental coordination is an important factor in reducing government waste and avoiding the unnecessary duplication of programs and services.

By providing a forum for municipalities to express their regional planning priorities, Seven50 can also facilitate the leveraging of region-wide investments into benefits for individual communities. Since many funding opportunities are competitive at both the state and national levels, the ability of Southeast Florida to speak with one voice – as one of the nation's largest metropolitan regions – will greatly enhance its ability to attain the necessary funding to proceed with key infrastructure and economic development projects that will benefit the entire region.

I like where we're headed as a region. Life has improved in the 40 years I've lived in Florida.



## VALUE COMMUNITIES & NEIGHBORHOODS

## ENHANCE COMMUNITY RESILIENCE TO CLIMATE CHANGE



Artsouth in Homestead, FL



Proximity to water is one of Southeast Florida's most important assets

Stability over time has been a major source of Southeast Florida's wealth and strength, and the region's established communities and longtime residents provide the social and cultural framework of a healthy future. Therefore, it is important that we not only take steps to accommodate the economic, environmental, and cultural changes that are occurring as we go forward, but that we also invest in the kinds of priorities – such as tax relief, affordable housing, and better transportation options – that will allow residents and taxpayers to continue to live, contribute to, and have a voice in the Southeast Florida communities they have built.

Handling change is an important part of regional planning; equally important is valuing what already works, identifying and preserving its essentials, and listening to the wisdom of the people who achieve this success on a daily basis.

Southeast Florida is an inherently coastal and subtropical community. Our economy is largely driven by beach-going tourists, prime oceanfront real estate, and maritime trade; the region's agricultural economy is founded on the crops that thrive in a warm, humid climate. But as sea levels rise, and as tropical storms become both more violent and more frequent, the Seven50 region must prepare to face climate change in a way that preserves our investment in this location. Low elevations and the exposure of some of our most valuable real estate to the forces of nature will be increasing challenges in the face of climate change.

The entire region will pay a high economic price if steps are not taken to preserve the value of our ocean-oriented community, along with steps to protect our neighborhoods and environment from the damage that could be wrought by rising sea levels and violent weather. After every major storm, new challenges appear and new solutions are sought. We should draw on the work being done in other regions like the post-Sandy HUD Task Force to find local solutions for climate resilience.

Want to try the data wa

<http://seven50>



# PUBLIC ENGAGEMENT SUMMARY

## AN EXTENSIVE PUBLIC PLANNING EFFORT FOR SOUTHEAST FLORIDA

From the town of Sebastian in Indian River County to Key West in Monroe County, the Southeast Florida region is over 300 miles from end to end. In population, the seven counties of Southeast Florida constitute the fifth largest region in the nation. We have more people than 34 states. We have more people than most countries. In socioeconomic and racial diversity the region ranks 17<sup>th</sup> out of 150 of the nation's largest metropolitan regions. A place as large and diverse as Southeast Florida presents a number of challenges when it comes to planning; our region is really many regions.

The northern counties of Southeast Florida are characterized by vast agricultural areas, a pristine natural environment, and a large numbers of retirees. The southern counties are busy metropolitan areas with young urban professionals and new arrivals moving in every day from all over the world. Nowhere else is like the Florida Keys, both in terms of its stunning natural environment and its celebrated, laid-back lifestyle. Cross-regional dialogue requires both clear communication and a commitment to understanding. We must recognize our differences while at the same time welcoming the opportunity to work together on shared issues.

The planning process for Seven50 was a full community effort that involved civic and community leaders, local and national experts, and a wide cross-section of the public. A transparent process, open communication, and intense public outreach were a priority from

the start of Seven50. Additionally, a conscious effort to include those who don't traditionally participate in planing processes was central to the public outreach.

The team used the latest technology available to broadcast and document every event and to share with the region every idea presented during project summits, workshops and community meetings. In this way, the Seven50 events engaged the entire region.

Summits held at the approximate midpoint of the region attracted hundreds of participants to listen to national experts in the field of planning. Seven work group sessions held on-site in each county, a kind of "Seven50 Traveling Roadshow" focused on defining local aspirations. Special stakeholder meetings were held simultaneously to these events to consider specific issues with local experts. Multiple gatherings of different scales and formats allowed a wide variety of participation. The events also helped the project team to plan for the region as a whole while learning about local differences and priorities. The public process to develop Seven50 was the largest of its kind conducted in the region.

A timeline of major planning milestones in Southeast Florida and a description of the major public events and public participation tools are detailed on the following pages. A detailed report of the public process is available as a supplementary report at [www.seven50](http://www.seven50).

# SEVEN50 TIMELINE

MARTIN COUNTY  
ROADSHOW  
OCTOBER 24

## SOUTH FLORIDA REGIONAL RESOURCE CENTER ESTABLISHED

JANUARY 2004

SFRPC, TCRPC, COLLINS CENTER FOR PUBLIC POLICY & FAU'S CENTER FOR URBAN & ENVIRONMENTAL SOLUTIONS COLLABORATE TO EXAMINE TRENDS AFFECTING THE SEVEN-COUNTY SOUTHEAST FLORIDA REGION & DEVELOP REGIONAL INDICATORS & MEASURES.

## HUD & EPA LAUNCH GRANT

JUNE 2009

HUD & THE EPA COLLABORATE TO ESTABLISH A GRANT SUPPORTING REGIONS WORKING TO CREATE "REGIONAL PLANS FOR SUSTAINABLE DEVELOPMENT"

## OPENING SUMMIT

JUNE 27, DELRAY BEACH

THE OPENING SUMMIT LAUNCHES SEVEN50. PRESENTERS LOOK AT THE PAST 50 YEARS TO SHOW JUST HOW MUCH CAN CHANGE IN 50 YEARS

## EASTWARD HO!

ADOPTED JULY 1996

## EXECUTIVE COMMITTEE & PROJECT MANAGEMENT FORMED

NOVEMBER 2010

## HUD APPLICATION SUBMITTED

AUGUST

1960

1980

2000

2010

2011

2012

## EVERGLADES FOREVER ACT

1994

## JOINT REGIONAL PLANNING COUNCIL MEETING (SOUTHEAST FLORIDA 2060)

JANUARY & APRIL 2008

ESTABLISHED OUTLINE FOR WORKING TOGETHER ON A LONG-RANGE STRATEGIC REGIONAL PLAN FOR SEVEN-COUNTY SOUTHEAST FLORIDA REGION & DEFINE AREAS OF SHARED REGIONAL CHALLENGES & OPPORTUNITIES.

## SOUTHEAST FLORIDA REGIONAL PARTNERSHIP SELECTED FOR GRANT

OCTOBER

## CONSULTANT TEAM SELECTED, HEADED BY DOVER, KOHL & PARTNERS

OCTOBER

## MONROE COUNTY ROADSHOW

OCTOBER 11

## INDIAN RIVER ROADSHOW

OCTOBER 25

## CLIMATE COMPACT

RATIFIED BY 4 COUNTIES JANUARY 2010

## REGIONAL PARTNERSHIP FORMED

FEBRUARY

SFRPC & TCRPC INITIATE MEMORANDUM OF UNDERSTANDING WITH OVER 200 ORGANIZATIONS, CREATING THE SOUTHEAST FLORIDA REGIONAL PARTNERSHIP

## BROWARD ROADSHOW

OCTOBER 26

## HANDS-ON WORKSHOPS

APRIL 10  
MIAMI DADE, BROWARD,  
PALM BEACH, ST. LUCIE

ST. LUCIE  
ROADSHOW  
NOVEMBER 14

MIAMI-DADE  
ROADSHOW  
NOVEMBER 15

PALM BEACH  
ROADSHOW  
NOVEMBER 16

**JOHN D &  
CATHERINE T  
MACARTHUR  
FOUNDATION**  
FUNDS AWARDED TO  
THE FLORIDA HOUSING  
COALITION – 2013

SECOND SUMMIT  
RECEPTION  
JANUARY 23  
FREEDOM TOWER

## SECOND SUMMIT

**A LOOK AHEAD: TREND  
& OPPORTUNITIES**

JANUARY 24, MIAMI  
THE TREND SCENARIOS & POSSIBLE FUTURE  
HEADLINES ARE PRESENTED

## THIRD SUMMIT

**THE FUTURE IN FOCUS**

JUNE 21-23, WEST PALM BEACH

ALTERNATIVE SCENARIOS PRESENTED.  
THE PUBLIC BEGINS TO CHOOSE ITS  
FUTURE USING THE ONLINE MODELER

STAKEHOLDER  
MEETINGS  
TOTAL 60+

## TRAVELING WORKSHOPS

SUMMER & FALL

CLIMATE CHANGE RESILIENCE IN  
THE FLORIDA KEYS

PARK(ING) DAY WITH FLORIDA  
ATLANTIC UNIVERSITY

HAITIAN AMERICAN  
PROFESSIONALS COALITION  
(HAPC) SUMMIT

LEAN IN: NEW LEADERS EVENT

## COALITION BUILDING & IMPLEMENTATION PLANNING

FALL

## CLOSING SUMMIT

JANUARY 15, FORT LAUDERDALE

PROSPERITY PLAN PRESENTED



2013

2014

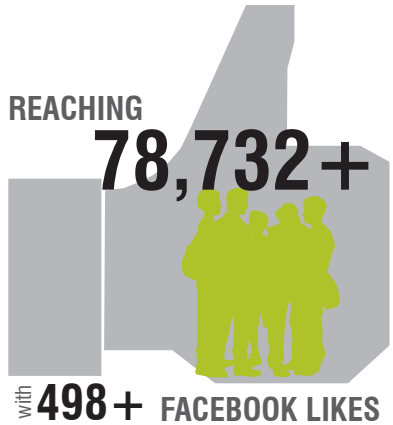
2020

2040

2060

# PUBLIC OUTREACH

103,509,585+ TRACKABLE MEDIA IMPRESSIONS



A PROCESS  
THAT REACHED  
MORE THAN

**1 MILLION**



Source: ROAR Media (as of 12-1-13)

**2,245+**

SURVEY PARTICIPANTS

**1,367,131+**

WEBSITE VIEWS

**1,874+**

PUBLIC EVENT PARTICIPANTS





# REGIONAL SUMMITS

## OPENING SUMMIT

JUNE 27, 2012



Summit Delegates convene for an initial meeting of the workgroups.

The Opening Summit, held at the Old School Square Cultural Arts Center in Delray Beach, officially launched the Seven50 planning process. Over 600 summit delegates attended. Presenters included the Mayor of Delray Beach, Nelson S. “Woodie” McDuffie; the Mayor of the City of Greenacres, Samuel J. Ferreri; team leaders Victor Dover of Dover, Kohl & Partners and Marcela Cambolor-Cutsaimanis; Allison DeFoor, “Everglades Czar” under Governor Jeb Bush; Dr. Robert Burchell, Rutgers University on global competition; and Bill Spikowski on successful regional plans elsewhere in the nation. Keynote Speaker Neal Peirce, the foremost writer on metropolitan regions, presenting a talk entitled, “Regions Will Define the Future.”

Polling, goal-setting exercises, map exercises and conversations around multiple tables between the public and plan authors set the course for the project.

## SECOND SUMMIT: A LOOK AHEAD

JANUARY 24, 2013



Victor Dover and Summit Delegates draw on a giant map of the region as a whole.

The Second Summit, held at Miami-Dade College in Downtown Miami, looked ahead at what the region could look like in 50 years if current trends continue. Over 550 people attended, including many of the college’s students.

The Trend scenario described a future with three million more people who will have less access than current residents to transit, parks and schools. Inundation and storm surge maps showed how jobs and homes would be dislocated by rising seas and more intense storms. Economists described how the boom/bust economy would continue without greater job diversification.

Andrés Duany of Duany Plater-Zyberk presented the region’s economic assets. Shelley Poticha, HUD’s Director of Sustainable Housing and Communities, spoke on the importance of thinking like a region in order to improve our global importance. Panels on transportation, education, and climate change discussed future strategies.

Throughout the day a live mapping session was held in which planners spoke with delegates to draw their ideas for the region on a map that spanned over 40 feet.

## THIRD SUMMIT: THE FUTURE IN FOCUS

JUNE 21 - 23, 2013



Jason King invites the Summit's participants to "choose their future" using an online scenario modeler.

The Third Summit included over 400 people during a three-day event held at the Palm Beach County Convention Center in West Palm Beach. The summit kicked off with an Executive Committee meeting to clarify misunderstandings about the project caused by a divisive national election in which Florida was a battleground state. Members of the public learned that the plan was both non-partisan and a work-in-progress in which their input was valued.

The second and third days explored themes covering a wide range of the issues facing Southeast Florida including the future of energy, agriculture, education, science and math education and high-tech industry. The Summit's Keynote Speaker, Tom Murphy, former Mayor of Pittsburgh, discussed the importance of a region's quality of life in attracting investment.

Jason King of Dover, Kohl & Partners presented three different future scenarios that could "bend the trend" to improve the future of the region. The scenarios were outputs from a computer model created by the multi-disciplinary consultant team and based on the preferences expressed by the public at previous events on how to grow and invest in the region. Voting on the scenarios began online.

## CLOSING SUMMIT

JANUARY 15, 2014



A hope for a brighter future.

The Closing Summit, held at the Broward Convention Center, marked the end of a public process that involved hundreds of people working in person, side-by-side with planners and decision-makers. However, it also marked the beginning of a collaboration that will continue to focus on the region's issues in order to achieve the prosperous and sustainable future we all envision.

## EXECUTIVE COMMITTEE MEETINGS INVOLVED FROM THE START & FOR THE DURATION

The project's 32 person Executive Committee took a lead role at each of the Summits and held bi-monthly meetings. Committee members represented a variety of backgrounds from private-sector organizations like the Urban Land Institute to the Vice President of a major university; from a Department of Transportation District Secretary to a senior staff member of the Everglades Law Center. Many wrote essays contained in this report. For a list of the public sector and private sector representatives from each of the seven counties that constituted the committee see:

<http://seven50.org/overview/executive-committee/>

# PUBLIC WORKSHOPS

## WORKGROUP ROADSHOWS

OCTOBER - NOVEMBER 2012



Martin County Roadshow - Education, Workforce & Economic Development Workgroup



Palm Beach Roadshow - Inclusive Regional Leadership & Opportunity Workgroup

The Workgroup Roadshows were a highly engaging, interactive series of day-long workgroup meetings with community leaders, activists, stakeholders and residents in each of the seven counties. Over 250 people attended these events. The roadshows were designed to gather public input needed for the development of Seven50 scenarios and the Prosperity Plan. The “big ideas” presented by the workgroups during the Opening Summit were tailored to the needs and concerns of each of the individual county.

Monroe County described how they will see a disproportionate effect of climate change and will need the assistance of other counties in order to maintain their existing utilities and US 1. The Keys are an economic and recreational benefit to the entire region.

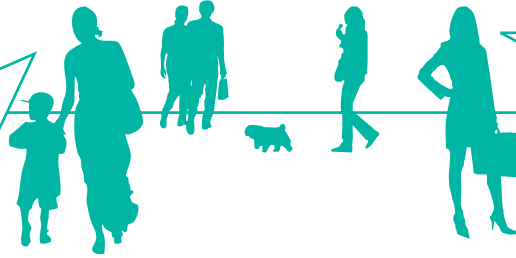
Miami-Dade and Broward counties are near build-out and look to infill development and densification around more transit stops to accommodate new residents without a decrease in the quality of life. Workgroups described how new residents in urban

centers will help the cities of the region become cultural and arts centers as well as places of increased economic opportunity. Workgroups voiced their concerns that the remaining agricultural land in Miami-Dade is threatened by highway expansion.

Martin, St. Lucie and Indian River county residents expressed a desire to protect and enhance existing centers while preserving property rights, open space and agricultural areas. One regional problem in need of a regional solution is the water flushed from Lake Okeechobee east along the St. Lucie River which pollutes fragile coastal estuaries.

The discussion in each workgroup was led by a member of either the consultant team or one of the regional planning councils. Each of the workgroups, in each county, presented ideas which became the first priorities listed in the “Tomorrow” section of this Prosperity Plan.

Encourage local entrepreneurs and small businesses.



The future depends on what we do today. I think the issues that bring us all together are jobs and the environment.

## HANDS-ON WORKGROUP WORKSHOP

APRIL 10, 2013



Participants evaluate the draft alternative scenario

On April 10, 2013 over 100 people attended hands-on workshops that occurred simultaneously and interactively at four locations throughout the region: Miami, Fort Lauderdale, West Palm Beach and Fort Pierce. In addition to the in-person attendees, many others participated online.

The workshop began with an overview of the work developed on draft scenarios based on the trend scenario and the information gathered during the Workgroup Roadshows. Draft maps were given to participants and they were asked to analyze an emerging scenario that focused mixed-use development around existing and proposed transit throughout the region. Based on the exercises and comments received, the scenario was broken into three alternative scenarios.

## TRAVELING WORKSHOPS

SUMMER & FALL 2013



The project team meets with the Nature Conservancy and Sustainability Managers in the Keys.

In the summer and fall of 2013 the project team continued stakeholder meetings with a variety of local, state, and federal agencies; local non-profit organizations; business leaders; utility providers; environmental organizations; port and airport directors; local neighborhood organizations; minority advocacy groups and various others. At the same time, workshops were held in Monroe County to consider climate change resilience strategies; in North Miami to engage the Caribbean community during a Haitian American Professionals Coalition (HAPC) Summit; and in South Miami for the *Lean In: New Leaders* event, which focused on the Millennial Generation.

# INPUT GATHERING & PUBLIC PARTICIPATION TOOLS

## WORD CLOUDS



Word cloud for "What is the greatest threat to the region?"

Over twenty word clouds were generated during public meetings. Participants were asked questions at the beginning of the meeting; they would write their response on a card, and the results were tallied and reported back to the group during the meeting. Word clouds are visual depictions of the responses. The more frequently a response was repeated, the larger it appears.

<http://seven50.org/one-word-cloud/>

<http://seven50.org/seven50-work-group-road-show-recap/>

## KEYPAD & ONLINE POLLING

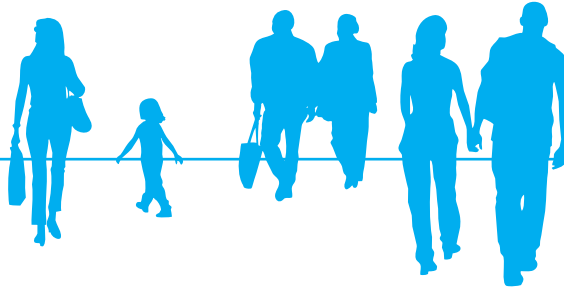


Live results of keypad polling was displayed during presentations.

Wireless keypads were given to participants at the beginning of many public meetings. Participants were asked a series of questions throughout the presentations and were prompted to answer the questions by selecting one of the keys on their keypad. Results were presented immediately as part of the presentations. The real-time results allowed the Seven50 team and participants to immediately gauge the audience and its many viewpoints about the future of the region.

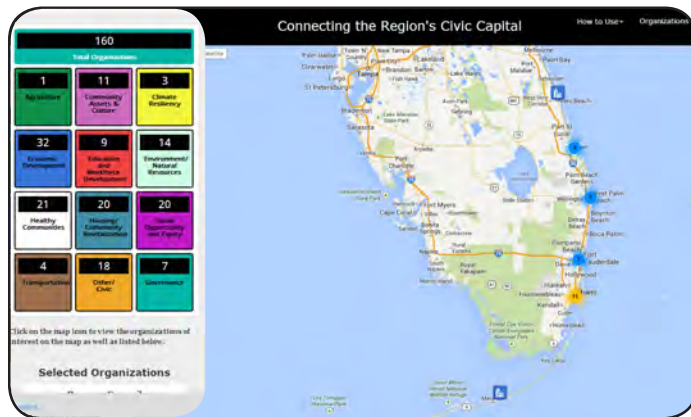
The discussion continued online with virtual forums, which included on-line polls that allowed a broader range of the community to participate than those who were able to attend the live events.

Our region's issues are more important than national politics. I don't understand why what's going on in Washington is dividing us.



We should become a national leader in hurricane protection and coastal restoration BEFORE the next big storm happens.

## INTERACTIVE ASSET MAPPING



Economic Development Resources

The Community Asset Map is a clearinghouse that provides a way to map and connect the region's civic and nonprofit leadership organizations and networks (often called non-governmental organizations or NGOs) within a geographic or topic area. As new resources become available, the platform can be expanded to add additional fields for the region's public agencies and its institutes and facilities.

The assets map covers a wide variety of topics including agriculture, climate resilience, community assets and culture, economic development, education and workforce development, environment/natural resources, healthy communities, housing, social opportunity, transportation, and other faith-based, young professional organizations, or civic clubs.

<http://seven50.org/plan/seven50-leadership-assets-map/>

## ONLINE SCENARIO MODELER



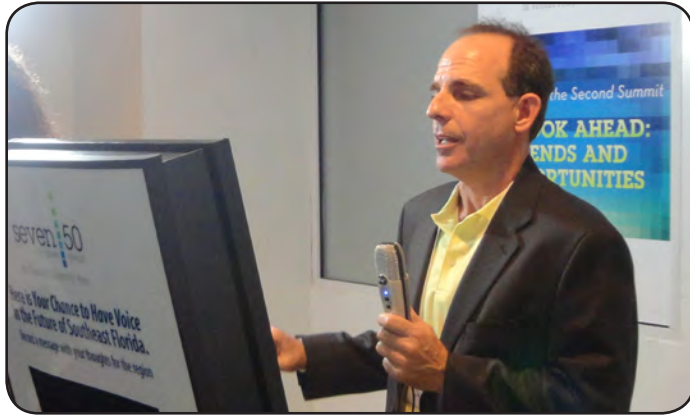
Online Scenario Modeler Opening Page

The Seven50 Online Scenario Modeler allows the public to explore different scenarios for growth and development in the seven counties of Southeast Florida for the next fifty years and beyond. The public was encouraged to explore the various options, communicate their priorities for the future, and determine what broad policy decisions should be encouraged to lead to their preferred scenario for the future.

<http://seven50.org/modeler/>



## VIDEO KIOSKS



Summit delegates recorded several dozen videos.

Delegates at the initial summits were invited to create short videos about their vision for the future. Delegates were asked, “What is your vision of the long-term future of Southeast Florida. Why is it important to you?”

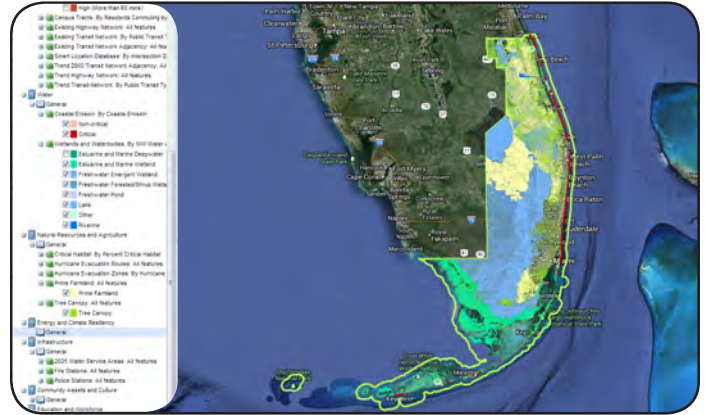
Opening Summit delegate videos can be viewed at:  
<http://seven50.org/opening-summit-delegate-videos/>

Second Summit delegate videos can be viewed at:  
<http://seven50.org/second-summit-delegate-videos/>

I wish there was a trusted and reliable place to go to get information I need about the region.



## DATA WAREHOUSE



Water systems and farmland displayed in the Data Warehouse

The Data Warehouse, Seven50’s online mapping and analysis tool, makes all of the team’s Geographic Information Systems (GIS) data available in a format that doesn’t require proprietary software.

The tool is quite an accomplishment for the region. The Data Warehouse offers the first unified parcel-level land-use database for all seven counties and 120 cities.

Go to <http://seven50.sparcdata.com> to start exploring the region.



When will the job market recover? Very few employers are hiring. I have a job but a lot of people I know do not.



Why can't I get an FHA loan to buy a condominium in Miami Beach? Without one my family and I can't live in the city.

## PUBLICLY BROADCAST & INTERACTIVE MEETINGS



Online call-in event



Each of the public meetings throughout the Seven50 process were live broadcast via the web so people who were unable to attend were able to hear the conversation. This included the four summits, seven roadshows, April 10 workshop and all of the executive committee meetings. Participants in the web broadcast meetings were able to ask questions and be a part of the conversation.

## SOCIAL MEDIA



Facebook Page

Facebook and Twitter were used throughout the process to keep the conversation going both during and between public events.

-  <https://www.facebook.com/Seven50Plan>
-  @seven50plan or #seven50

# WORKGROUPS SUMMARY

Seven50 was specifically devised to promote a unified dialogue. To address issues comprehensively, understanding the many layers of complexity and linkages between issues affecting the region, six work groups were established. Related matters were addressed concurrently within each work group, and a continuous loop for feedback between work groups was established.



## EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

High unemployment and an over-reliance on industries that are tied to the region's population growth have created an economy overly influenced by migration trends and swings in consumer confidence and spending.

The region must seize the once-in-a-generation opportunity to expand its role as a global hub for trade, travel, and investment following the widening of the Panama Canal in 2014. At the same time, it is essential that the region undertake efforts through a coordinated regional economic strategy to diversify and strengthen its economic base. Existing businesses must be able to expand while creating an environment where new businesses are created and nurtured to achieve economic growth.

There is a widening gap between the skills and education of residents, especially those with lower incomes, and the skills and education required to access today's jobs. We must help the region's workers obtain the education and skills required for the current market as well as *new economy* job sectors.



## DEVELOPMENT PATTERNS: HOUSING, TRANSPORTATION & HEALTHY COMMUNITIES

Development patterns have a major impact on the way we live, our quality of life, and our health. The overall health and wellness of communities throughout Southeast Florida are affected by the available housing stock, the cost of living, transportation options, and access to adequate healthcare to reduce preventable diseases.

With an estimated additional 3 million new residents and 1.3 million new homes, and the impacts of rising seas, we must evaluate the way we have previously developed and determine the best way to accommodate new housing stock and employment areas.

A lack of affordable housing makes home ownership unattainable for much of the workforce with low or moderate incomes. Many residents live in auto-oriented communities that are remote from existing job centers resulting in a lack of economic integration and high housing/transportation costs.

The region's airports and seaports provide an economic development advantage because of easy access to global markets. Investments are being made to better leverage these assets.



## COMMUNITY ASSETS & CULTURE

Southeast Florida's diverse arts and cultural resources are one of its most valuable assets. Those resources are thriving thanks to a growing population from all parts of the world attracted by the region's climate, location, world class seaports and airports, and multi-cultural diversity. The result is a dynamic cultural arts community that distinguishes the region as an exciting place to live, work, and locate a business.

The region's cultural richness and diversity serves as a major economic engine, both in terms of dollars spent in the region and employment opportunity and as a global draw for today's talented workforce and those companies that employ them. The region's arts and cultural events also provide a way to express, learn about, and spotlight the diverse cultures that make up the region and help revitalize distressed neighborhoods and create civic connections and pride in place. Embracing and helping grow the region's arts and cultural assets are key to ensuring a distinctive and globally competitive Southeast Florida.



## ENVIRONMENT, NATURAL RESOURCES & AGRICULTURE

The natural environment is a key driver of population growth and tourism in Southeast Florida. The Atlantic Ocean, Florida Bay, Florida Keys, Biscayne Bay, beaches, coral reefs, Lake Okeechobee, Indian River Lagoon, aquifers, and the Everglades are among the region's greatest natural and economic assets. However, they have been diminished by encroaching development and environmental contamination due to population growth and man-made alterations to natural drainage systems has lead to declining water quality, loss of habitat, and impaired ecosystem function. Addressing them must be a priority at all scales. Complete solutions are only possible at the regional scale using a system wide approach such as the Comprehensive Everglades Restoration Plan.

Protecting the region's food and energy security with a viable agricultural economy is vital. This could include connecting local growers with consumers and the marketplace to facilitate agriculture's role in the production of food and renewable energy sources. Stronger efforts on the part of the scientific community for new and disease resistant crop options need to be encouraged and supported with adequate resources. Our region's farmers must be economically resilient when it comes to facing the cyclical pressures of development.



## CLIMATE & ENERGY RESILIENCE

The projected impacts of climate change are acutely relevant to our region which is bordered to the west by a low-lying fresh water environment unlike anywhere else in the world, and to the east and by hurricane-prone Atlantic ocean coastline. Sea level rise, which is already evident in some areas, will impact the region's ecosystems and way of life.

The region's approach to climate change should include two parallel approaches – **mitigation** and **adaptation**. The region can do its part to reduce greenhouse gas emissions, recognizing that the region, by itself, cannot resolve that global problem; and adapting to the impacts of climate change.

Strategies should build on the work of the Southeast Florida Regional Climate Change Compact and other best practices and science. Strategies should focus on prudent steps to address the threats of inundation throughout the Southeast Florida region.

According to the Census Bureau, about 40% of the US population (123 million people) live in shoreline communities. A total retreat from the coast is not an option. The strategies we adopt may be valuable to the entire nation.



## INCLUSIVE REGIONAL LEADERSHIP & OPPORTUNITY

Globally competitive, opportunity-rich, and sustainable regions require, well-informed, focused, and unified leadership that speaks with a single, clear voice. Effective regional leadership must draw from the public, private, and civic sectors; include diverse voices representing the region's multitude of ages, ethnicity, races, and socioeconomic groups; and pay particular attention to those voices that traditionally have not been represented in regional processes.

The relative "newness" of the Southeast Florida region as an integrated economy, combined with the diversity and transitory nature of the region's population, make identifying, developing, and retaining leaders a particular concern compared to more mature regions. Seven50 incorporates a range of educational and collaborative strategies to create a vital network of regional leaders and champions who can guide the region through the choices of today to set the stage for the future. Seven50 will create more opportunities for involvement of leaders who have been underrepresented in the past. As other regions have experienced, this civic capacity may be the single most lasting impact of this visioning process.

# SCENARIOS: ALTERNATIVE FUTURES

Choose your future. A computer model was created to model various possible futures for the region. The complete scenario report is available at [seven50.org](http://seven50.org). What follows is a brief summary.

In the next 50 years, Southeast Florida is expected to increase its population by over 50 percent (roughly 3 million more people, 1.3 million more homes, and 2.1 million more jobs).

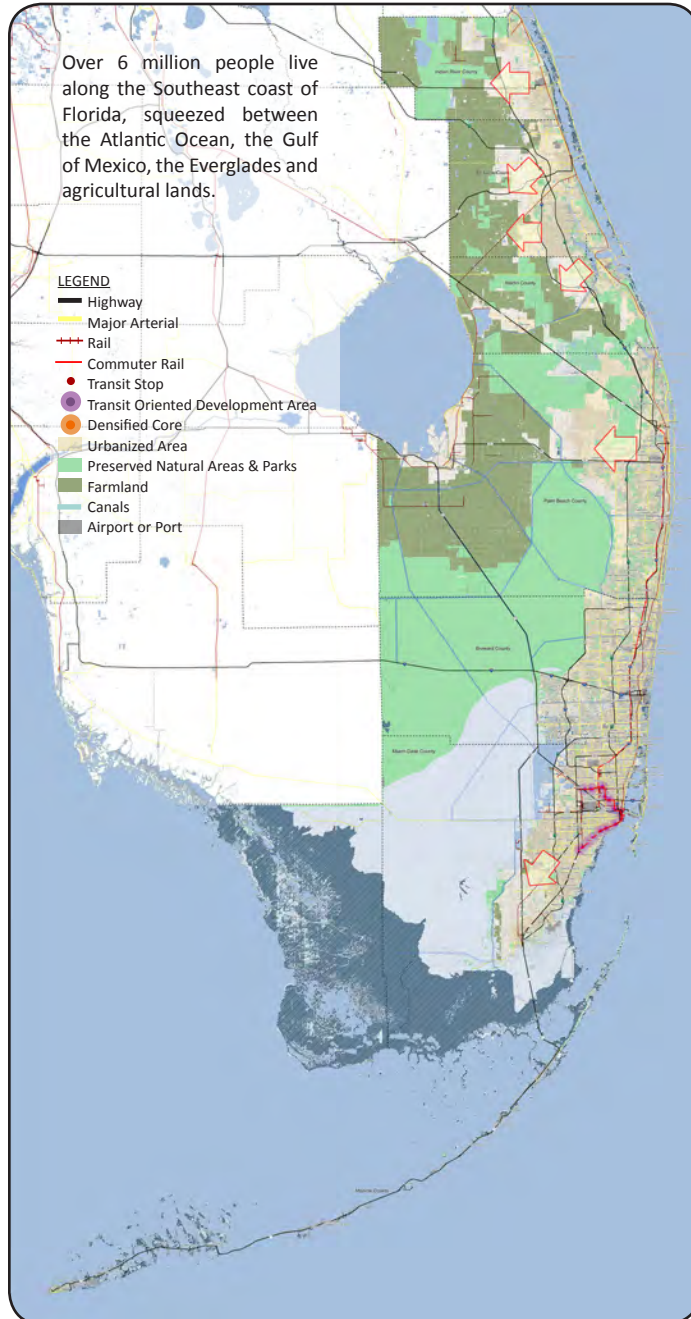
Multiple scenarios of development were explored to see how these new people could be accommodated within the diverse region of Southeast Florida. Important questions must be answered to keep the region relevant and prosperous to maintain the current quality of life:

- How do we keep the region moving and avoid high commute times and increased congestion?
- In addition to the jobs in tourism, construction/real estate, and agriculture, how do we compete as a region in such a way that attracts talent and insures high-paying, secure employment?

In the southern counties of Miami-Dade, Broward and Palm Beach the housing demand for future generations is showing a changing preference from single-family auto-centric units to multi-family, transit-oriented units around vibrant centers. In the northern counties of Martin, St. Lucie and Indian River there is a commitment to protecting a suburban lifestyle while enhancing walkable, sociable, “main street” places. While different, these goals can be complimentary.

Southeast Florida’s natural assets make it a place people from all over the world want to live, work and enjoy. How will a 50% population increase affect our environment? As a region prized for its shore and unique environmental asset of the Everglades, how shall we adapt to climate change and sea level rise?

## TREND: STAY THE COURSE



The Southeast Florida Region continues developing along its current trend with no major changes in regional growth, transportation, environmental, social, and/or economic policies.

New development is pushed to the edges of metropolitan areas, causing widespread loss of farmland and environmentally sensitive lands, particularly in the northern counties. Development is largely automobile-dependent, resulting in further strains on the suburban road networks and creating routine traffic jams during peak hours. New highways are built, and existing ones are expanded at great expense. The expanded capacity however, is overwhelmed with traffic from new development spawned by these new roadways.

Meanwhile, demographic changes demand more pedestrian-friendly urban environments, yet constrained supplies of walkable areas causes the prices in these places to rise, putting them out of reach of large portions of the population. Energy and transportation costs also continue to rise, putting a strain on household budgets, especially throughout the automobile-dependent suburban stretches of the region. Current efforts to expand transportation options along key corridors such as US-1 and the Tri-Rail line continue; yet new development along these corridors remains badly connected to other walkable areas and existing downtowns. The limited amount of transit-served areas creates development at these locations to often take the form of high-rise buildings without many middle densities to make the transition to existing single-family neighborhoods.

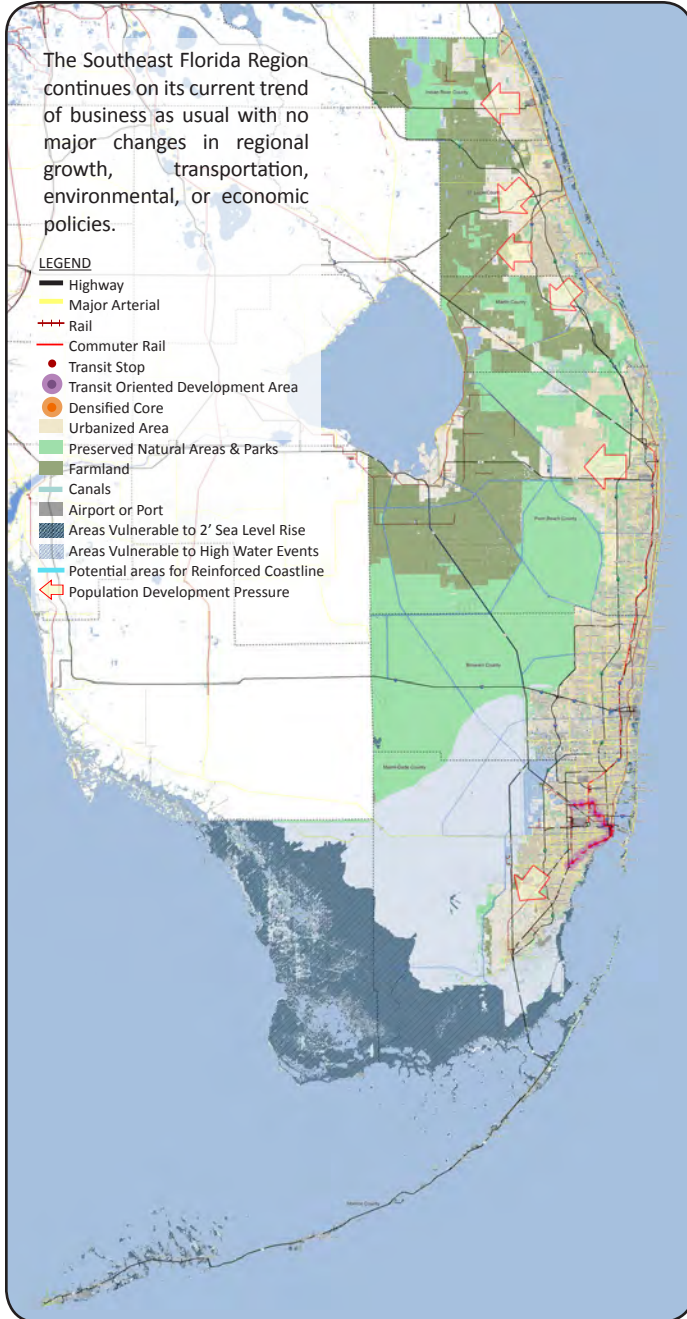
Sea-level rise gradually affects more and more of the region, causing widespread flooding in low-lying areas. Many areas are unable to afford necessary investments in storm-water infrastructure and shoreline protection measures to protect key areas from the effects of sea-level rise. Slowly people will migrate away from vulnerable areas as they are forced to deal with the effects of sea-level rise more often. Salt water intrusion causes extensive damage to the environment, as well as decreased access to fresh water.

## TREND: STAY THE COURSE

The Southeast Florida Region continues on its current trend of business as usual with no major changes in regional growth, transportation, environmental, or economic policies.

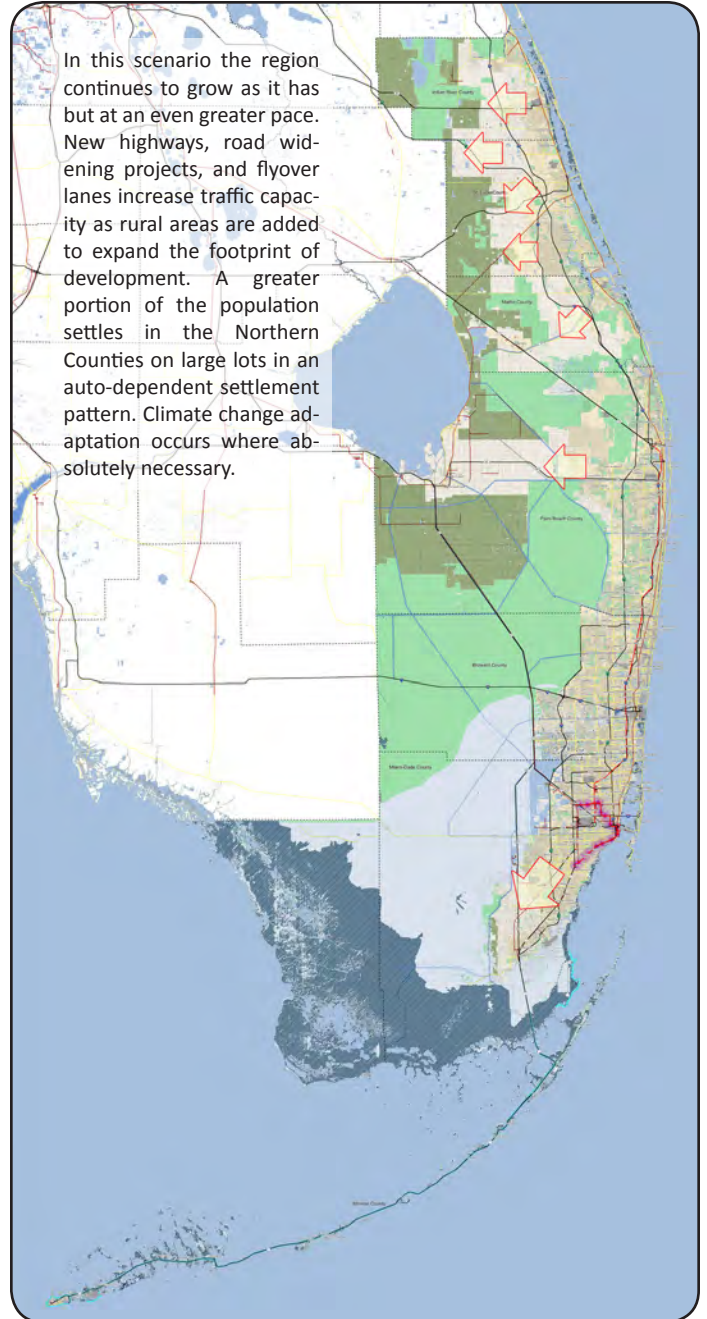
### LEGEND

- Highway
- Major Arterial
- Rail
- Commuter Rail
- Transit Stop
- Transit Oriented Development Area
- Densified Core
- Urbanized Area
- Preserved Natural Areas & Parks
- Farmland
- Canals
- Airport or Port
- Areas Vulnerable to 2' Sea Level Rise
- Areas Vulnerable to High Water Events
- Potential areas for Reinforced Coastline
- Population Development Pressure



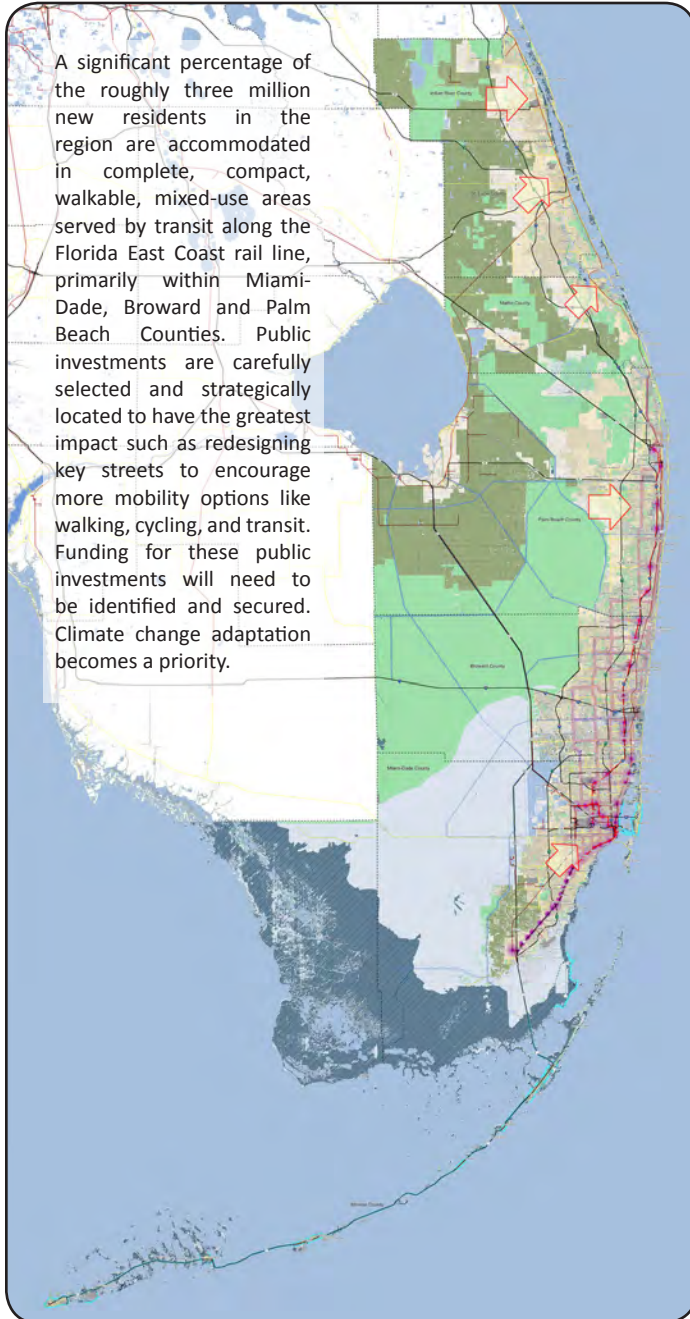
## PLAN 1: SUBURBAN EXPANSION

In this scenario the region continues to grow as it has but at an even greater pace. New highways, road widening projects, and flyover lanes increase traffic capacity as rural areas are added to expand the footprint of development. A greater portion of the population settles in the Northern Counties on large lots in an auto-dependent settlement pattern. Climate change adaptation occurs where absolutely necessary.



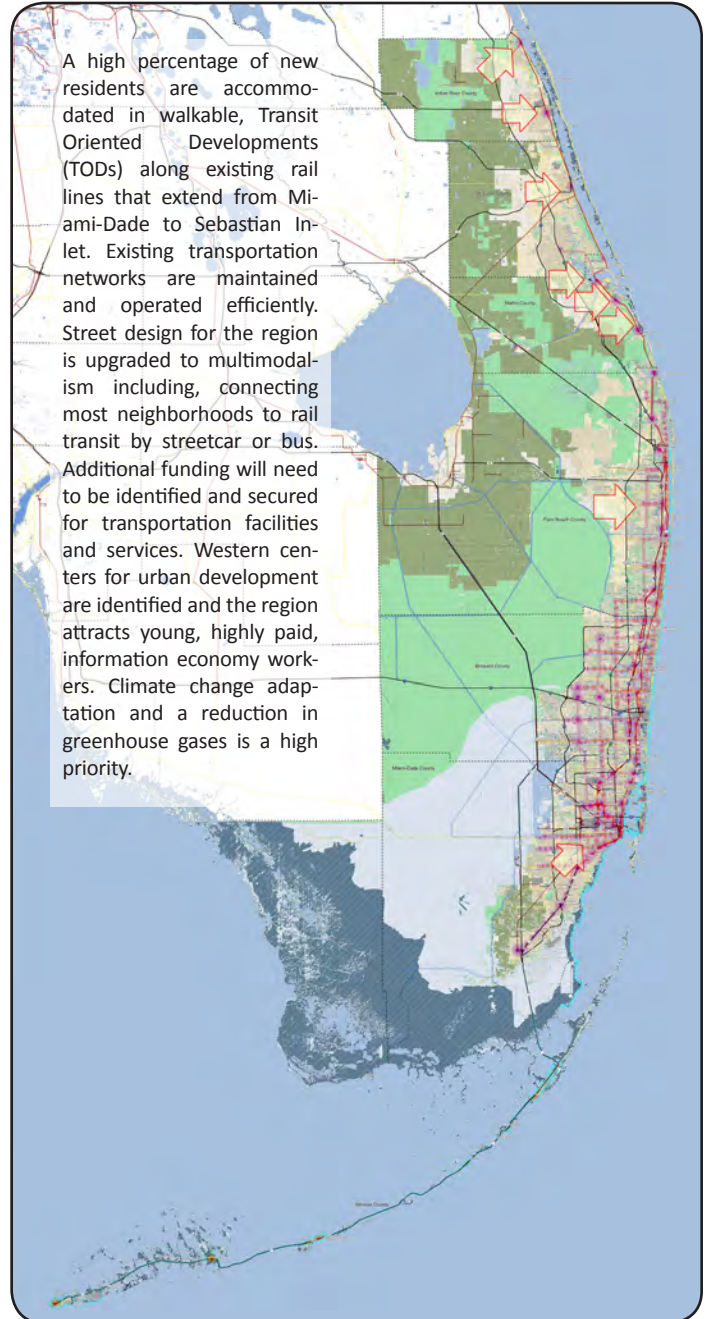
## PLAN 2: STRATEGIC UPGRADES

A significant percentage of the roughly three million new residents in the region are accommodated in complete, compact, walkable, mixed-use areas served by transit along the Florida East Coast rail line, primarily within Miami-Dade, Broward and Palm Beach Counties. Public investments are carefully selected and strategically located to have the greatest impact such as redesigning key streets to encourage more mobility options like walking, cycling, and transit. Funding for these public investments will need to be identified and secured. Climate change adaptation becomes a priority.






















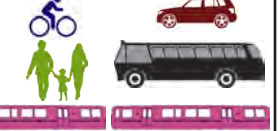












## PLAN 3: REGION IN MOTION

A high percentage of new residents are accommodated in walkable, Transit Oriented Developments (TODs) along existing rail lines that extend from Miami-Dade to Sebastian Inlet. Existing transportation networks are maintained and operated efficiently. Street design for the region is upgraded to multimodalism including, connecting most neighborhoods to rail transit by streetcar or bus. Additional funding will need to be identified and secured for transportation facilities and services. Western centers for urban development are identified and the region attracts young, highly paid, information economy workers. Climate change adaptation and a reduction in greenhouse gases is a high priority.



# COMPARING SCENARIOS

## A SNAPSHOT OF THE DIFFERENCES BETWEEN THE SCENARIOS

	Trend: Staying the Course	Plan 1: Suburban Expansion	Plan 2: Strategic Upgrades	Plan 3: Region in Motion
Farmland Consumption	 <b>250+ Sq. Miles</b>	 <b>480+ Sq. Miles</b>	 <b>150 Sq. Miles</b>	 <b>60 Sq. Miles</b>
Infrastructure Cost (Transportation, Water, Sewer, Utilities)	 <b>\$31.3 Billion</b>	 <b>\$38.1 Billion</b>	 <b>\$26.4 Billion</b>	 <b>\$24 Billion</b>
Single Family Homes vs. Condos, Apartments & Townhomes	 <b>85%</b>  <b>15%</b>	 <b>90%</b>  <b>10%</b>	 <b>75%</b>  <b>25%</b>	 <b>65%</b>  <b>35%</b>
Transportation Choices				
Walkable Communities (Walk to Work, School, Stores, Transit, Parks)				
Average Housing + Transportation % income per Household	 <b>60%</b>	 <b>50%</b>	 <b>45%</b>	 <b>43%</b>
Climate Resilience Investment	 <b>\$</b>	 <b>\$</b>	 <b>\$ \$</b>	 <b>\$ \$ \$</b>



		Trend: Staying the Course	Plan 1: Suburban Expansion	Plan 2: Strategic Upgrades	Plan 3: Region in Motion
Transit Investment		Low to Moderate	Low	Moderate	High
Mode Share	Car	98%	98%	75%	60%
	Transit	1%	1%	15%	20%
	Bike	0.5%	0.5%	8%	10%
	Walk	0.5%	0.5%	2%	10%
Vehicle Emissions/ Pollution		9.6 Million trips emissions <100%	8 Million trips emissions <150%	7.8 Million trips emissions >20%	7.4 Million trips emissions >40%
% households within 1 mile of	Transit	70%	35%	65%	75%
	Schools	40%	50%	70%	75%
	Parks	25%	35%	75%	90%
Health/Obesity Rate (24% today)		28.5%	33%	20%	17%
Artists in Workplace (1.5% today)		1.8%	1.0%	2.75%	3.34%
Creative Class in Workforce (24% in 2000)		27%	21%	30%	35%
Regional Migration		Follow Historic Pattern (Toward Urban Counties)	7.5% increase (Toward Rural Counties)	Follow Historic Pattern (Toward Urban Counties)	15% increase (Toward Urban Counties)
Migration within County		Toward Both New & Existing Areas	Primarily Toward New Areas	Toward More Resilient Areas	Toward More Resilient Areas
New Roads		10,362 Linear Miles \$10.3 Billion	9,085 Linear Miles \$9.1 Billion	8,408 Linear Miles \$8.4 Billion	8,012 Linear Miles \$8 Billion
New Infrastructure		2.1 Million Linear Feet \$21 Billion	1.9 Million Linear Feet \$19 Billion	1.8 Million Linear Feet \$18 Billion	1.6 Million Linear Feet \$16 Billion

Here is a summary table comparing some of the indicators measured.

# PREFERRED SCENARIO

## BETTER REGION. BETTER LIFE.

The Online Scenario Modeler gave the region the ability to explore and vote on their preferred future scenario. In four months of voting mid-June through mid-October of 2013 the site was visited by over 100 people a week. Thousands got a chance to comment and weigh in on the scenarios throughout the scenario modeling process.

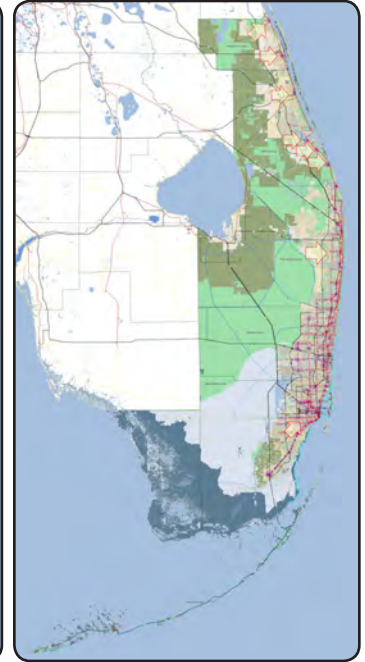
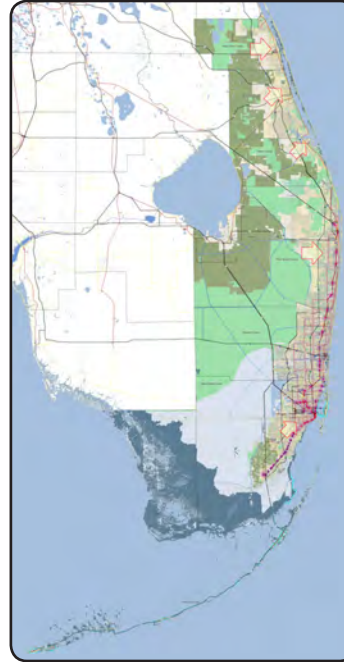
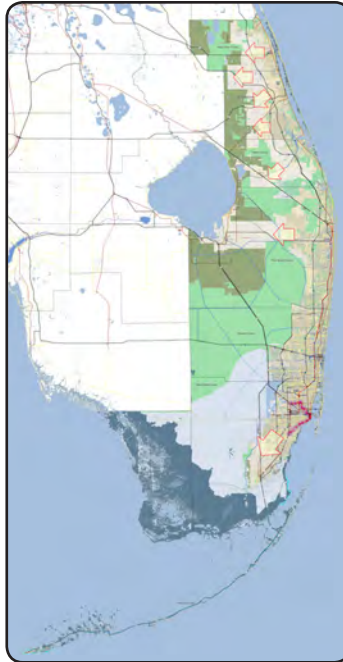
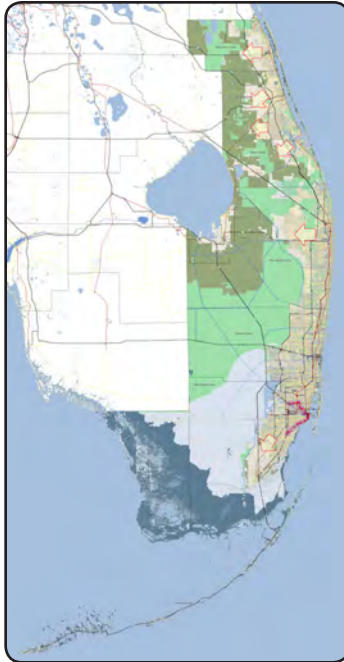


**TREND: STAY THE  
COURSE**

**SUBURBAN EXPANSION**

**STRATEGIC UPGRADES**

**REGION IN MOTION**



**4%**

**19%**

**4%**

**73%**

## PREFERRED SCENARIO: REGION IN MOTION

A significant percentage of the roughly 3 million new residents by 2060 are accommodated in walkable, transit oriented development centers along existing rail lines such as the FEC and CSX lines which extend from south of Miami to Sebastian and beyond. Neighborhoods and communities are better connected to rail transit by streetcar or bus. Public streets are upgraded to provide a balance between all users of the rights of way: cars, buses, transit, cyclists, and pedestrians. Diverse transportation options keep the growing region in motion.

At the new walkable centers a range of building types and densities are developed to avoid monotonous places with one building type and an overwhelming scale. A diversity of housing also allows a variety of people in different stages of their lives to live together, generating more complete, stable, and active communities. The region begins to attract more young, highly paid, information-economy workers who seek walkable urban environments.

Climate change adaptation becomes a high priority and not just along the coast. Sea's rise effect on regional drainage becomes a priority. Numerous areas along the coast are protected against some effects of sea level rise with increased investments including stormwater system enhancement, back-flow preventers, increased natural and constructed coastal defences, and other investments. Current Everglades restoration projects are completed and regional and state cooperation bolster the efforts to help mitigate the effects of saltwater intrusion into the water supply for additional years.

### Region in Motion Metric Summary

#### Transit Investment:

High transit investment: North/South Major TODs along FEC line and CSX line (heavy rail/premium transit), East/West Minor TODs along inter-county transit lines (streetcars, bus rapid transit).

#### Percentage of Trips By Transportation Option (Mode Share):

Car (60%), Transit (20%), Bike (10%), Walk (10%)

#### Distance To Transit:

75% of households will live within walking distance (1 mile) of transit.

**Distance To Schools:** 75% of households will live within walking distance (1 mile) of a public school.

#### Distance To Parks:

90% of households will live within walking distance (1 mile) of a park.

#### Vehicle Emissions/Pollution:

7.4 million vehicular trips contribute to air pollution yet fossil fuel emissions are *reduced* by 40% of today.

#### Transportation Costs:

Total percent of Household Income Spent on Transportation Costs: 10%

#### Housing Costs:

Total percent of Household Income Spent on Housing Costs: 33%

#### Health/Obesity Rates:

The rate of obesity is 17%, less than many regions around the US and in Florida. Transportation choices & walkable areas help avoid the rate increase.

#### Artists in the Workplace:

An increase in artistic employment from 1.5% to 3.34%, establishing Southeast Florida as a creative enclave comparable to New York, Portland, and Boston.

#### Creative Class In The Workforce:

The creative class makes up 35% of the total working population, bringing the region average up to the top 50 of the US. Other regions within the top 50 include Washington D.C., Atlanta, New York, Los Angeles, and Chicago.

#### Migration:

More people will choose to live in the southern counties than is currently projected under the trend scenario due to multimodal transportation and redevelopment investments in the southern counties of Miami-Dade, Broward and Palm Beach.

#### Farmland

190 square miles of farmland protected over the trend scenario. The majority of the farmland protected is in the northern counties of St. Lucie, Martin, and Indian River.

#### New Roads & Infrastructure to Build & Maintain:

7.3 billion in public investment is saved on new roads and utilities over the trend scenario.



# THE REGION TODAY

A Diverse Region

The Seven Counties

Population Growth

Demographics

Education, Workforce & Economic  
Development

Development Patterns: Housing,  
Transportation & Healthy Communities

Community Assets & Culture

Environment, Natural Resources &  
Agriculture

Climate & Energy Resilience

Inclusive Regional Leadership &  
Opportunity

# A DIVERSE REGION

## IDENTIFYING & PROTECTING INDIVIDUAL CHARACTERISTICS



### INDIAN RIVER, MARTIN & ST. LUCIE COUNTIES

 **553,822 households**  
 **226,429 employed**

### PALM BEACH COUNTY

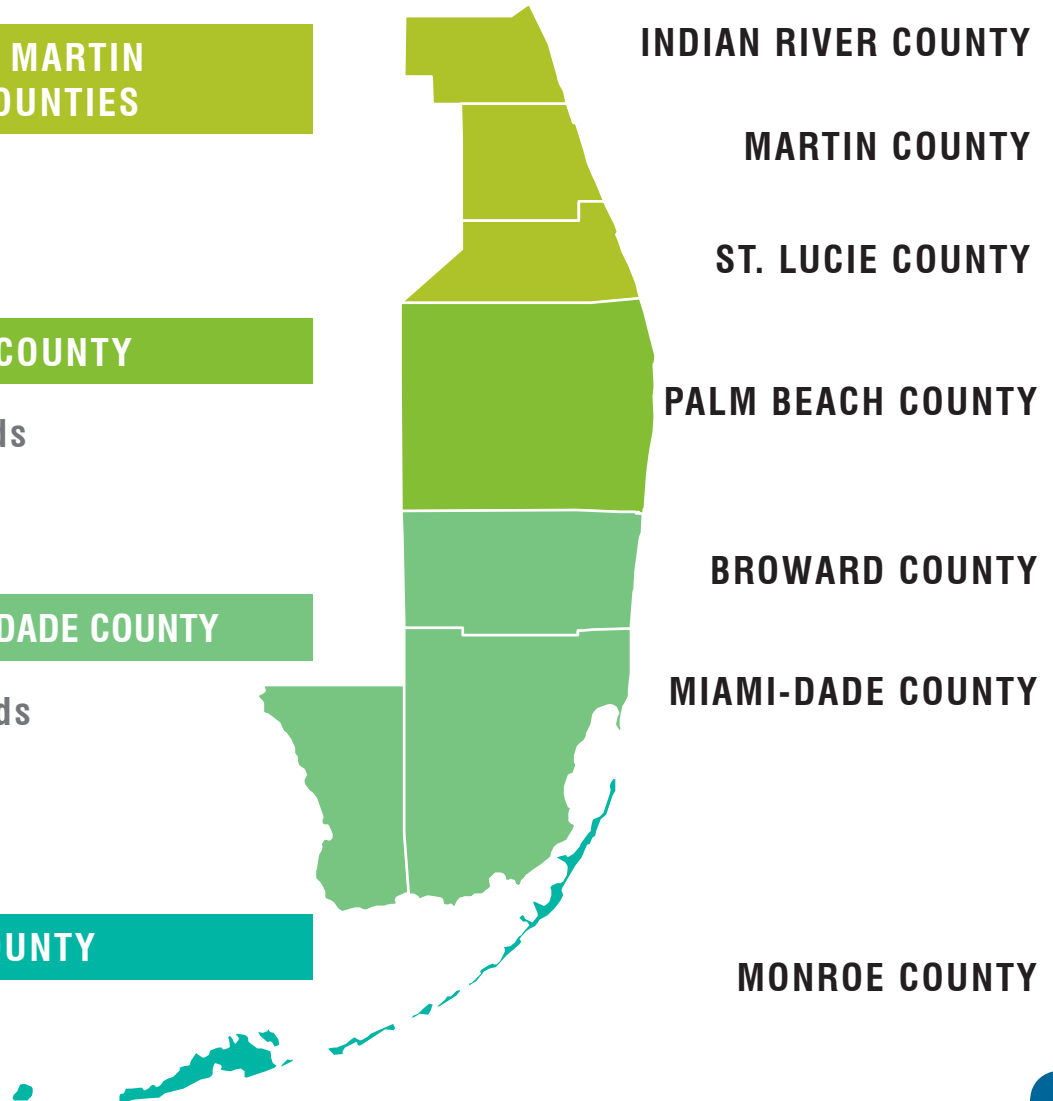
 **1,302,033 households**  
 **638,085 employed**

### BROWARD & MIAMI-DADE COUNTY

 **4,208,876 households**  
 **2,119,883 employed**

### MONROE COUNTY

 **69,795 households**  
 **49,591 employed**



# THE SEVEN COUNTIES

UNIQUE ROLES. UNIQUE CHARACTER.

The southern counties of Miami-Dade, Broward, and Palm Beach are primarily done building new roads. A focus on infill and redevelopment of underutilized areas is being undertaken.

The northern counties of Martin, St. Lucie, and Indian River have strong priorities to protect environmental and agricultural assets from other types of development.

Monroe County is a fragile ecosystem, especially as the threat of rising waters looms, but is an engine within the region with a strong tourist based economy.

## MONROE COUNTY



Duval Street in Key West

Monroe County was founded in 1823 and named after President James Monroe who served from 1817 to 1825. **Key West**, the county seat, has a storied history and is the southernmost point of the continental United States. In 2010 the county and its incorporated municipalities had a population of 73,090 people. Monroe County is over 3,700 square miles, mostly water (73%), and is made up of the Florida Keys and portions of Everglades National Park, Big Cypress National Reserve, and the Florida Keys National Marine Sanctuary. More than 99% of the county's population lives on the Florida Keys, which at over 220 miles in length and spanned by over 40 bridges are at no point more than four miles from the water.

Architecture and cultural history are what attract people here - we should invest in those.

I'm concerned about our drinking water.



## MIAMI-DADE COUNTY

## BROWARD COUNTY



Art Deco buildings in Miami Beach



Fort Lauderdale is the seat of Broward County, and its largest city.

Miami-Dade County was created in 1836 under the Territorial Act of the United States. It was named after Major Francis Dade, a soldier who was killed in the Second Seminole War. The County is home to 35 incorporated cities, including the City of **Miami**, which is the county seat and its largest city. In 2010 Miami-Dade County had a population of 2,496,435 people, making it the most populous county in Florida and the eighth-most populous in the United States. The county has 1,898 square miles of land, including 84 miles of coastline, 22 miles of beaches, and 67 miles of inland waterways. Miami has the largest population of new arrivals to the US. Miami is the only metropolitan area in the Country that borders two national parks: Biscayne National Park and Everglades National Park.

Broward County was named after Napoleon Bonaparte Broward, the Governor of Florida from 1905 to 1909. The County was created in 1915 out of parts of Dade and Palm Beach Counties. The City of **Fort Lauderdale** is the county seat, and the county has a total of 31 incorporated communities. In 2010 the County had a population of 1,748,066 people, making it the second-most populous county in Florida. Broward County has 1,209 square miles of land, with 24 miles of ocean coastline. Fort Lauderdale is sometimes called the “Venice of America” for its extensive system of inland waterways.

We need professional jobs,  
not just building houses and  
picking oranges.

We need ecotourism and  
tech-jobs. Let's be the  
"technology coast."

Fund arts education.  
Provide arts in the  
community at the  
neighborhood level and  
mentor young artists.



## PALM BEACH COUNTY

## MARTIN COUNTY



Houses on Charleston Place, Palm Beach County



Neighborhoods along the Atlantic Coast

Palm Beach County was created in 1909 and named after its first settled community, Palm Beach. The county is in the geographic center of the Southeast Florida coast and attracts large numbers of tourists and second-home-owners every year. The largest city is **West Palm Beach**, which is also the county seat. The county has 38 incorporated municipalities and a 2010 population of 1,320,134 people. Palm Beach County has 1,969 square miles of land and 45 miles of Atlantic coastline, making it the second largest county in Florida by land area. It includes the Everglades Agricultural Area which at over 700,000 acres is the largest continuous agricultural land mass in the region. Palm Beach is also one of the wealthiest counties in Florida.

Martin County was founded in 1925 and named for John W. Martin, Governor of Florida from 1925 to 1929. The City of **Stuart** is the county seat and the County is home to three other incorporated towns. In 2010 the County had a population of 146,318 people. Martin County has 543 square miles of land with 22 miles of beaches. Canals in Martin County cross from Lake Okeechobee to the Atlantic Ocean which have challenged the county's ability to protect its estuaries and nearshore ocean habitats. Known for its "good nature" the county includes the Hobe Sound National Wildlife Refuge, Savannas Preserve State Park, Possum Long Nature Center, St. Lucie Inlet Preserve State Park, and Jonathan Dickinson State Park.



Safeguard our county's height restrictions. Four stories is appropriate and desirable for Martin County.



Property rights protection is my primary concern.



I am concerned about development pressure pushing up from the south.



## ST. LUCIE COUNTY



Ft. Pierce, St. Lucie County

## INDIAN RIVER COUNTY



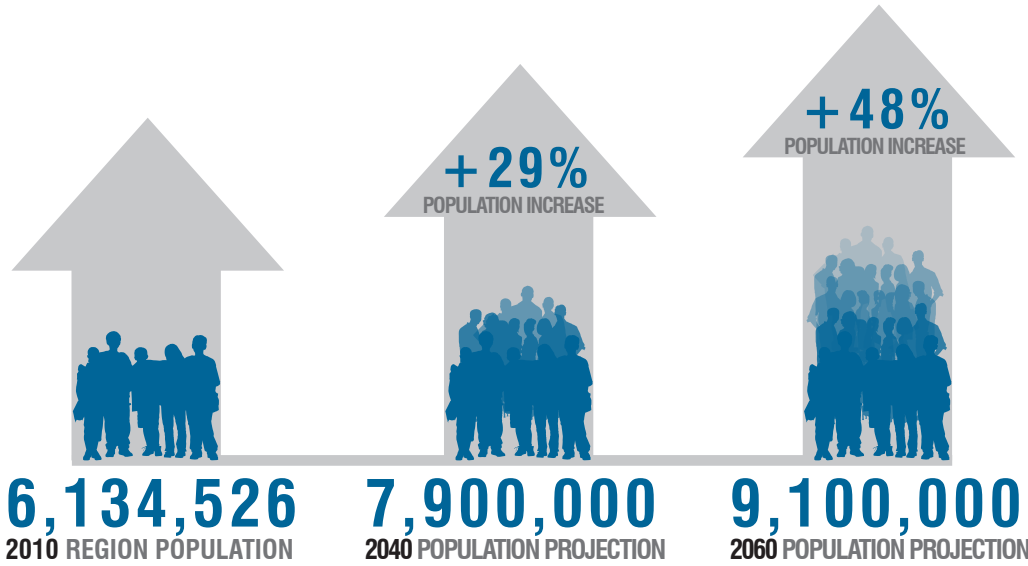
Windsor, Indian River County

The County was named after the Spanish began construction of a fort on December 13, on the feast day of the Roman Catholic Saint Lucia, sometime around 1560. Incorporated municipalities include **Fort Pierce**, the county seat, and Port St. Lucie, the fourth most populated city in the region. In 2010 the County was home to 277,789 people. St. Lucie County has 572 square miles of land with 21 miles of beaches and over 10,000 acres of parks and preserves. St. Lucie County hosts the spring training home of the New York Mets and by percentage is the fastest growing county in the region.

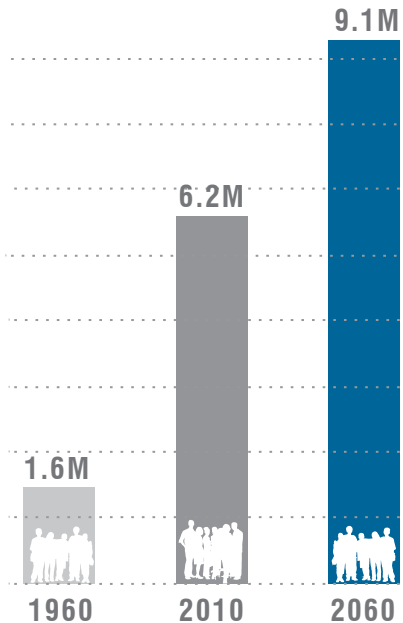
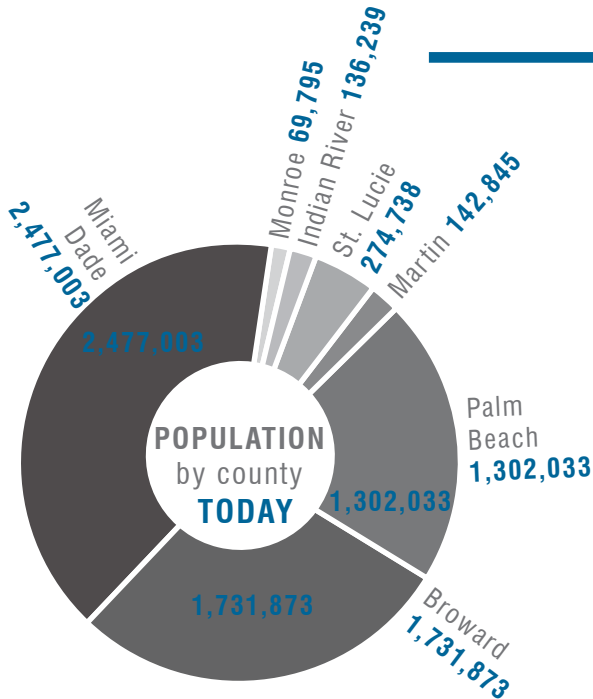
Named for the Indian River Lagoon in 1925 the County had been part of the Spanish colony of East Florida since 1821 and home to early fishing colonies like Sebastian. **Vero Beach** is the county seat; other incorporated municipalities include Fellsmere, Indian River Shores, Orchid, and Sebastian. In 2010 the county was home to 138,028 people and is one of the least developed and densely populated county in the region. The county has 503 square miles of land with over 23 miles of coastline and a barrier islands system running the entire length of the County. Indian River County still produces its share of the famed Indian River Citrus. Pelican Island National Wildlife Refuge established in 1903 was the Country's first wildlife refuge. Ninety percent of the population is situated within ten miles of the Atlantic Coast.

# POPULATION GROWTH

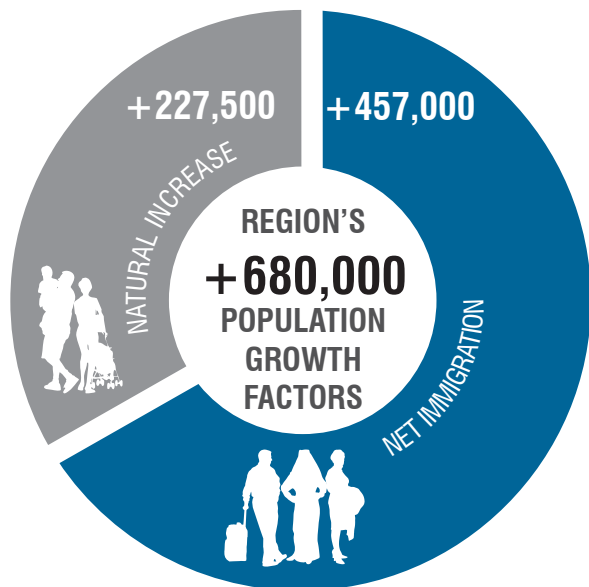
WE'RE GROWING FAST, CHANGING RAPIDLY



**3** MILLION  
MORE  
PEOPLE BY  
**2060**



If you remember Southeast Florida in 1960 you've seen a lot of change. In large part because there are four times as many people ... and counting.



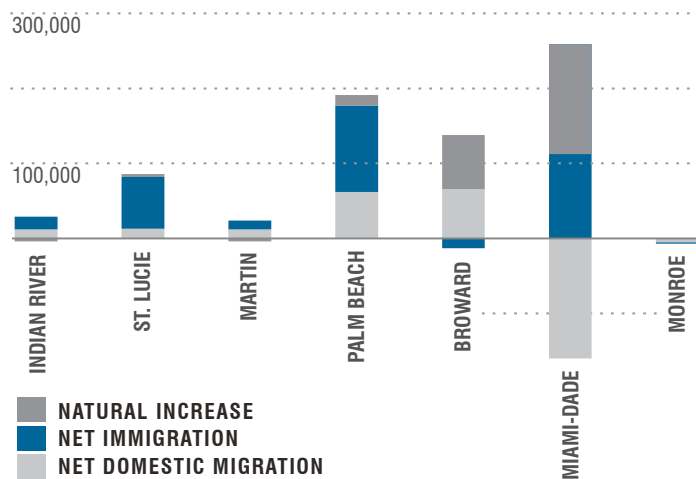
## POPULATION GROWTH 2000 TO 2010

### Population Growth & Distribution

Of the 680,000+ people that were added to the region between the 2000 Census, and the 2010 Census the majority were new immigrants. Natural increase resulting from new births amounted to less than half the total of immigration.

Historically, the highest concentration of the region's population has been in Miami-Dade County, which accounts for 40 percent of the region's population. North of Miami-Dade—Broward, Palm Beach, Martin, St. Lucie and Indian River—the population progressively decreases northward, however, by percentage, St. Lucie County is the fastest growing county in the region. In terms of urban density, Miami-Dade County has the highest density, while Monroe, Martin, and Indian River counties have the lowest.

The population distribution follows migration patterns. Miami-Dade County is the entry point for most new immigrant arrivals, who often have networks of friends and relatives in the greater Miami area.



## COMPONENTS OF CHANGE ANALYSIS

### Components of Change Analysis

Three factors affect growth in the region:

1. *Domestic Migration* – how many new residents come to the region from rest of Florida or from other states; how many are lost from the region to the rest of Florida or other states.
2. *Immigration* – how many come to the region from out of country or are foreign born; how many are lost from the region to foreign countries.
3. *Natural Increase* – how many grow in the region due to births; how many are lost due to deaths.

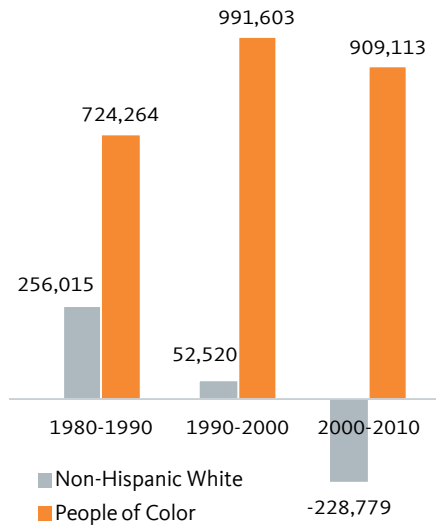
Notably, the percentage of population that was foreign-born in Southeast Florida is exceptionally high. In 2010, Miami-Dade was the only county in the United States whose population was more than 50 percent foreign born. Demographers have noted that what is occurring today in Southeast Florida is a microcosm of the migration trends that will characterize regions throughout the United States over the next several decades.

Another important factor in the Seven50 region's demographic profile is its pattern of age distribution. The region's 17 percent of residents over the age of 65 is high compared to the national average, but consistent with the state of Florida overall.

# DEMOGRAPHICS

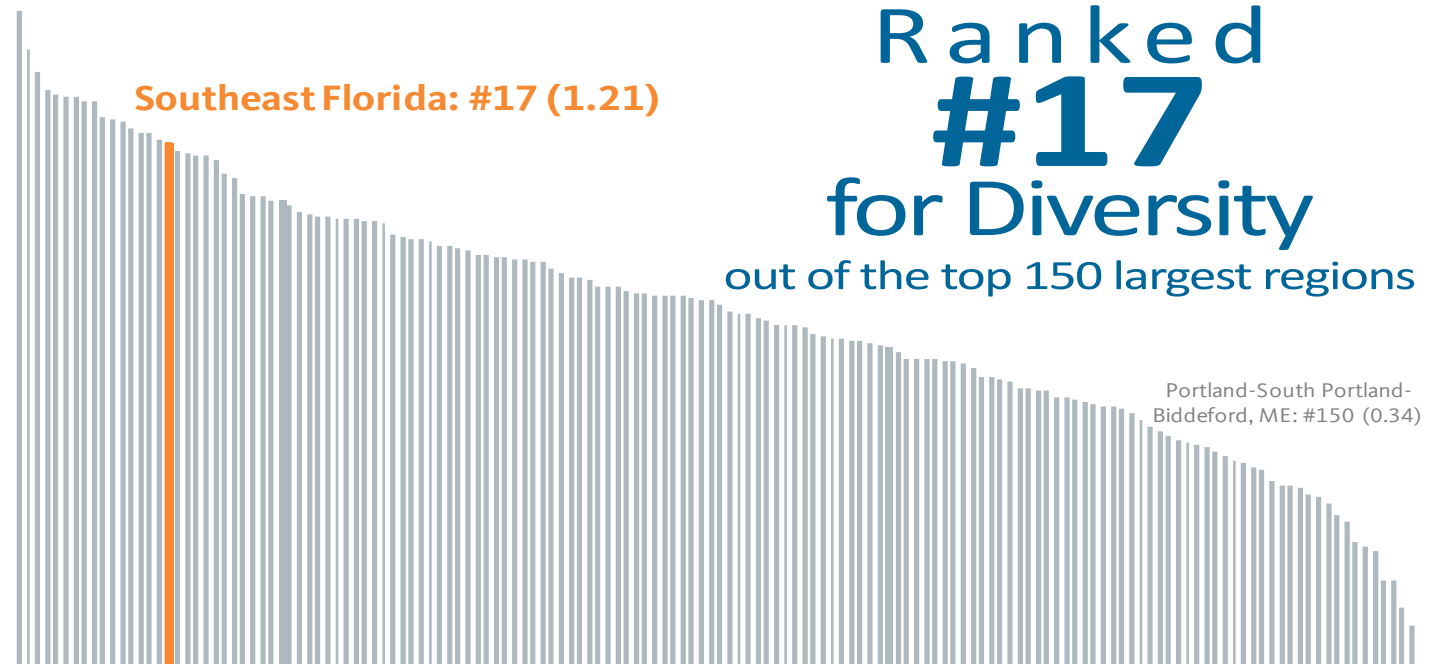
WE'RE DIVERSIFYING

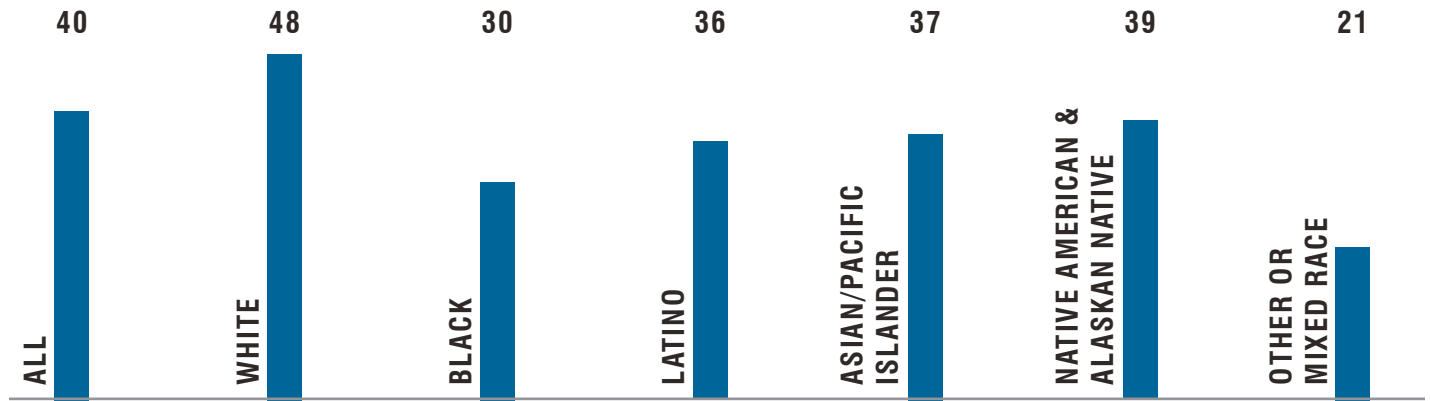
PEOPLE  
OF COLOR  
62%



The Population  
has Rapidly  
Diversified &  
People of Color  
Have Driven the  
Region's Growth  
Since 1980

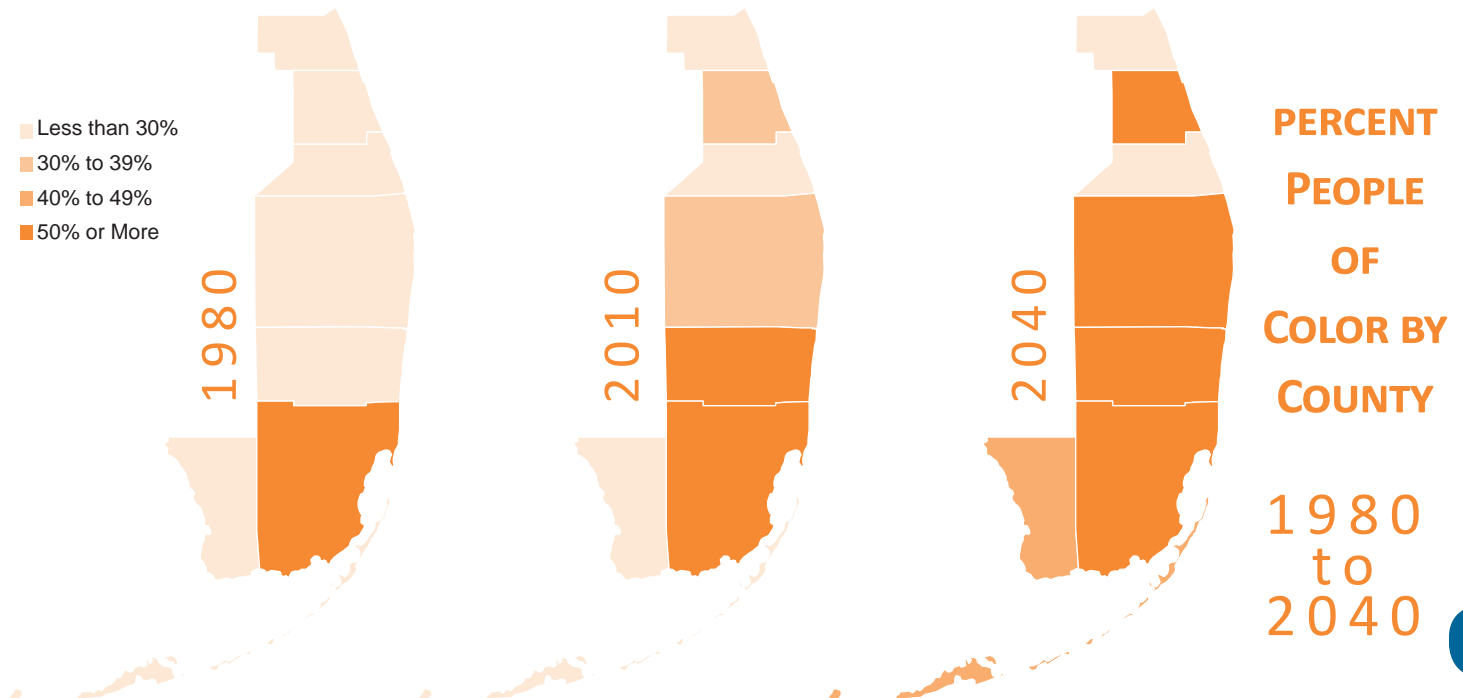
Vallejo-Fairfield, CA: #1 (1.45)

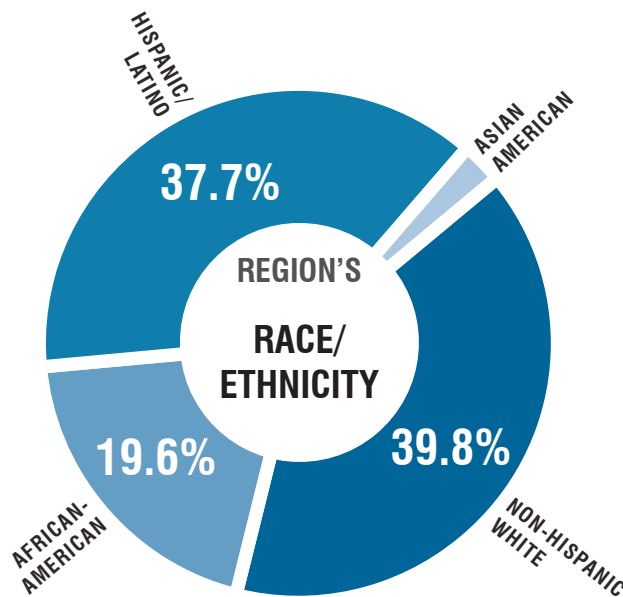




The region's white population is much older than its communities of color  
**MEDIAN AGE OF POPULATION BY RACE/ETHNICITY 2010**

## AT THE FOREFRONT OF THE NATION'S DEMOGRAPHIC SHIFT





**RACE & ETHNICITY**  
Source: Census, 2010

**Race / Ethnicity: Distribution of Non-Hispanic White Population**

**Regional Findings:** There are 2.42 million non-Hispanic white persons in the Southeast Florida region, accounting for 39.8 percent of the total regional population of 6.1 million. They are not evenly distributed throughout the region; the northern counties and Monroe County are highly represented, as are the coastal areas along almost the entire length of the region.

**County and Local Findings:** Indian River, St. Lucie, Martin, Palm Beach, and Monroe counties each have predominantly non-Hispanic white populations (78.3, 62.8, 81.2, 61.7, and 72.4 percent, respectively). Miami-Dade has the smallest, at 15.9 percent. The majority of census tracts in Martin and Monroe counties are more than 75 percent white. In Palm Beach County, the figure is closer to half, even though almost 62 percent of the county's residents are white. Miami-Dade County has only one area, in the vicinity of Surfside and Bal Harbour, that over the 2006-2010 period was more than 75 percent white. In Broward County, where the racial mix is generally more balanced than in the other counties, areas that are predominantly white are located almost entirely along the coast and in the City of Parkland.

**Race / Ethnicity: Distribution of African-American Population**

**Regional Findings:** A total of 1.21 million African-American persons reside in the region, representing 19.6% of the total population. There are relatively few areas in the region where they make up more than 75% of the local population; outside of these areas their share of the local population is generally less than 25%. Their largest concentration is within the three-county MSA and in the Belle Glade area on the south edge of Lake Okeechobee.

**County and Local Findings:** Monroe County is underrepresented by African-Americans, at only 6.4% of its 2006-2010 average population; none of the county's census tracts have any concentrations of African-American persons. A similar situation is evidenced in Indian River, St. Lucie, and Martin counties, although in these northern counties there is a small concentration of African Americans in the vicinity of Gifford, Fort Pierce and Stuart respectively. In the three-county MSA, areas where African American persons comprise 75% or more of the local population include north Miami-Dade County, central Broward County, and the Belle Glade and West Palm Beach areas in Palm Beach County. Central Broward County and north Miami-Dade County both encompass a number of small municipalities that have historically been African American. These include Lauderdale Lakes and Lauderdale in Broward and Opa-locka and Miami Gardens in Miami-Dade.

# 17%

OF RESIDENTS

ARE OVER

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## THE AGE OF 65



### **Race / Ethnicity: Distribution of Hispanic/Latino Population**

**Regional Findings:** Hispanics comprise 37.7% of the total regional population (2.3 million persons) and the majority of them are concentrated in Miami-Dade County. North and south of Miami-Dade, Hispanics are highly de-concentrated.

**County and Local Findings:** Outside of a moderate concentration in southwest Broward County and central Palm Beach County, Hispanics comprise less than a quarter of almost any census tract outside of Miami-Dade. The western tracts of Indian River and Martin counties do exhibit larger percentages of Hispanics; these are semi-rural tracts with relatively small populations. Hispanics and Latinos predominantly reside in Miami-Dade County, with a particular density in and around Hialeah. Smaller aggregations of Hispanic and Latino persons live in the vicinity of Miramar in Broward County and Lake Worth in Palm Beach County.

### **Race / Ethnicity: Distribution of Asian-American Population**

**Regional Findings:** Relatively few persons of Asian descent reside in Southeast Florida; in fact, only 2.6% of total residents (158,000 out of over 6.1 million) are Asian. The vast majority of tracts in the region have fewer than five percent of residents of Asian origin.

**County and Local Findings:** The westernmost parts of Broward County have an Asian representation of up to 10%, creating the largest local extent of the Asian cohort within the entire region. Two census tracts feature a resident Asian population that is greater than 15%; one each in Palm Beach and Broward counties, centered near Boynton Beach and Pembroke Pines, respectively.

### **People Who Do Not Speak English Well**

**Regional Findings:** Geographically, by far the majority in the region speaks English well. Most census tracts in which a substantial portion of the population does not (more than 30%) are located within the three-county MSA of Palm Beach, Broward and Miami-Dade.

### **Distribution of Senior Citizens**

In 2010, the dominant age group in Monroe County was 55 to 59; in Indian River and Martin Counties it was 50 to 54; and in Miami-Dade, Broward, Palm Beach, and St. Lucie Counties it was 45 to 49.

The region retains a high number of people over the age of 65 throughout the seven counties. With 17% of residents over the age of 65, our region is one of the highest ranking regions in terms of its population of seniors.

“Achieve high enough a  
quality of life & everything else  
[economic development,  
better schools, more jobs]  
happens on its own.”





“The next generation has a new American Dream.”





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PEARL BEACH  
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& gallery  
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iced or hot  
espresso  
lattes, cappuccinos & more  
breakfast  
bagels, sandwiches, waffles, croissants  
lunch  
sandwiches, wraps, salad, pasta  
baked goods  
cookies, brownies, cheese cakes  
ice cold  
real fruit smoothies, matcha lattes, hard tea  
whole bean coffee  
sumatra, costa rich, organic, para

# EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

## ***Economic Challenges***

The region's most pressing economic issues are high unemployment and over-reliance on industries that are tied to the region's population growth. The economic health of our region is unduly influenced by migration trends and swings in consumer confidence and spending. The result is over-exaggerated and problematic economic cycles that are particularly acute in lower income and disadvantaged communities.

An additional problem is the widening gap between the skills and education of residents, especially those with lower incomes and the many who are unemployed or underemployed, and the skills and education required to perform today's jobs. Also important is helping new businesses emerge from within the region, especially from lower income and disadvantaged urban, suburban, and rural communities – ranging from distressed inner cities and their surrounding neighborhoods to depressed rural communities surrounding Lake Okeechobee. Income disparities are also increasing, both within our counties, and between our region and the rest of the nation.

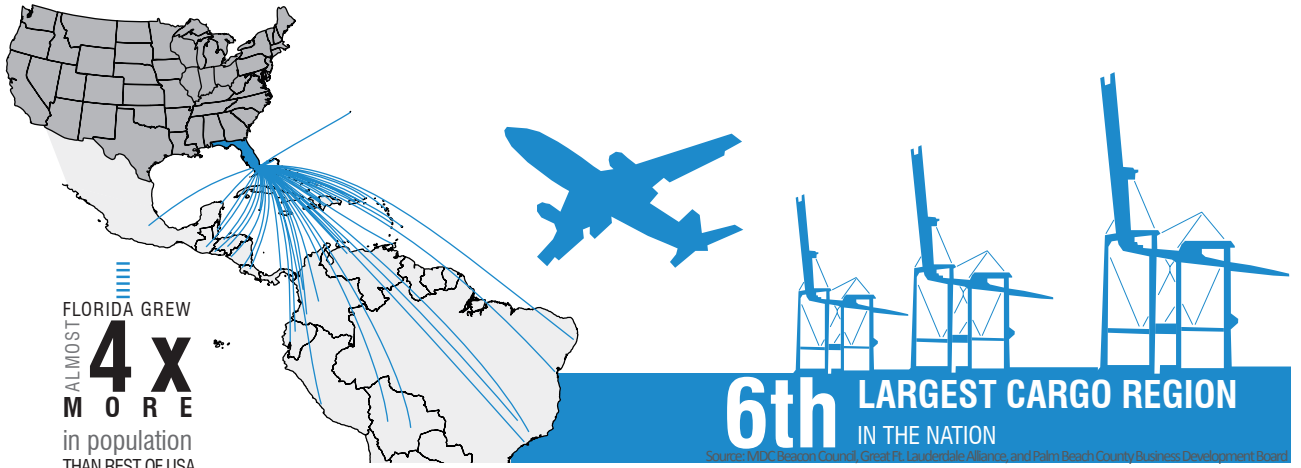
Strategies to support emerging and existing businesses include establishing communities or districts to nurture creativity and innovation, creating small business incubators near transit, providing financial and technical assistance for micro-enterprises, and working with the region's universities to establish a seven-county science, technology, and research corridor. The region must also seize the once-in-a-generation opportunity to expand its role as a global hub for trade, travel, and investment following the widening of the Panama Canal in 2014.

It is essential, therefore, that the region undertake efforts through a coordinated regional economic strategy to diversify and strengthen its economic base and, in doing so, provide affordable opportunities for creating new businesses and jobs and investments. By helping existing businesses to expand and creating an environment where new businesses are created and nurtured, economic growth can be achieved. Of equal importance, is the need to empower communities and individuals to compete in an ever-changing economic environment through enhanced educational and workforce training opportunities.

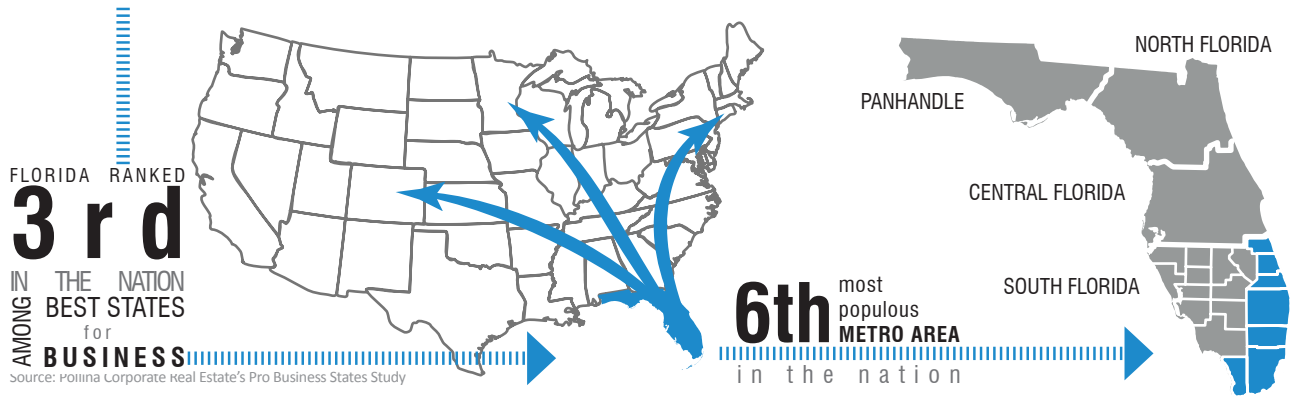
South Florida's unique positioning presents us with both incredible opportunity and equally sizable challenges. Miami has been nicknamed "The Capital of Latin America" and the influx of foreign capital into the whole region is extending that title to all of South Florida. Latin America is merely one piece of the puzzle however. Constantly ranked amongst the world's most powerful cities, we are quickly becoming a major economic hub, attracting investment from all corners of the world. South Florida has the potential to become one of the biggest international meeting points for commerce. South Florida's combination of diversity, culture, and a desirable climate have allowed us to make the move to become a world class city.

Such a desirable climate may prove to be a double-edged sword if not managed properly, however. The same lush beaches and mild weather that draw millions annually are facing the extremes of climate change. Insurance premiums are prohibitively expensive in parts of the region, creating an economic barrier for all but the wealthiest of developers. In the public sphere, investments in infrastructure must be carefully considered. Development projects must be able to stand up to both the gradual erosion of sea level rise, as well as the intensity of natural disasters. Growth in South Florida will require a carefully considered effort to achieve the most logical development possible.

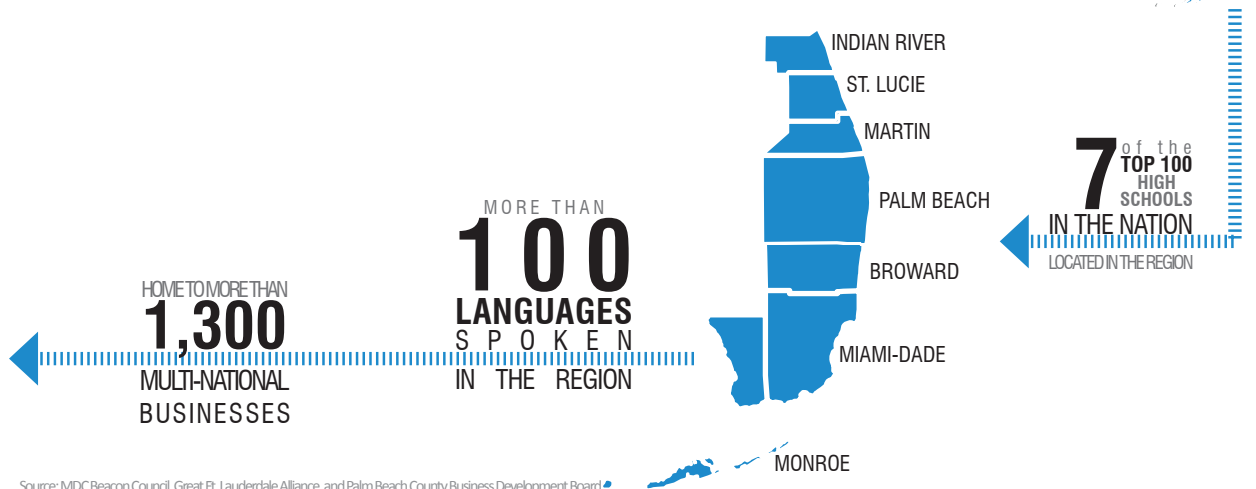
# INTERNATIONAL



# NATIONAL

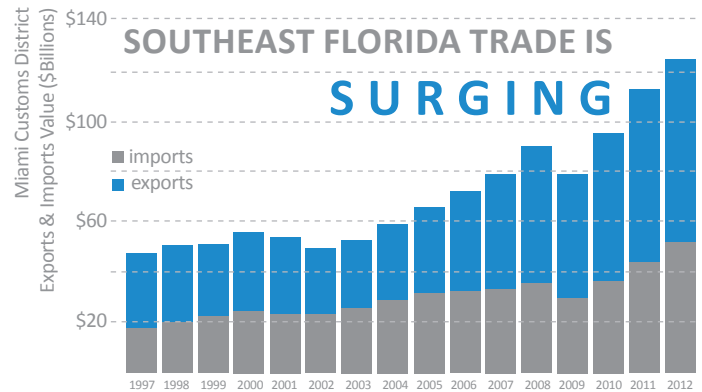


# REGIONAL



Economically we are the center of “a certain world,” Latin American and the Caribbean namely, but we have even more global aspirations.

Southeast Florida is a gateway into the United States for people as well as for goods and cargo from Asia, Western Africa, Southern Europe & South America. Picture New York City in the nineteenth century with arrivals everyday at Ellis Island who go on to work the waterfront – only with palm trees.

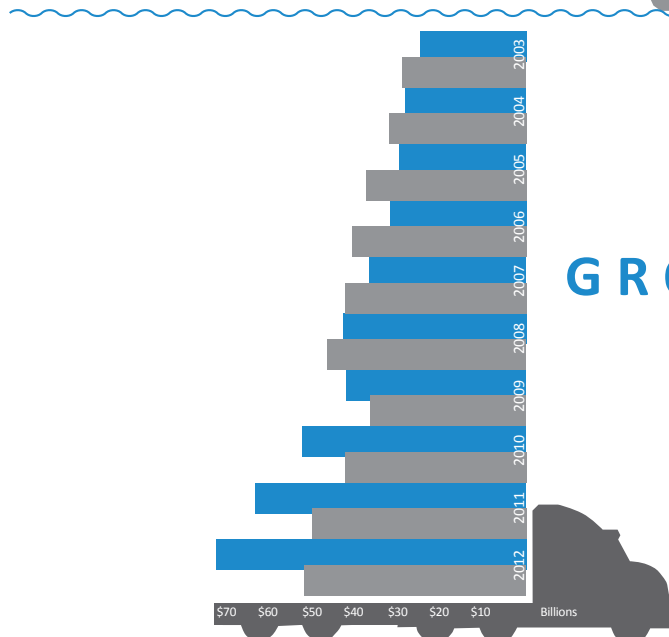
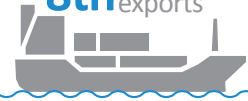


SE Florida **NATIONAL LEADER** in Trade & Tourism

**1st**

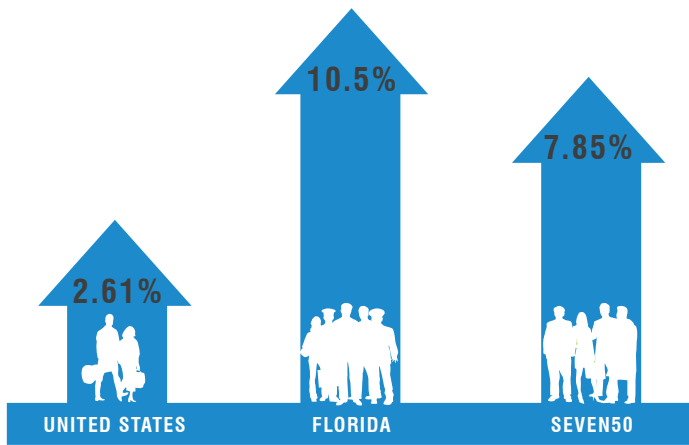
INTERNATIONAL AIR CARGO TONNAGE & HOME PORT CRUISE PASSENGERS

**3rd** international visitors  
**5th** air passengers  
**6th** waterborne containers  
**8th** value of exports



AIR & SEA CARGO TRADE **GROWING**

Air - Total Trade  
 Ports - Total Trade



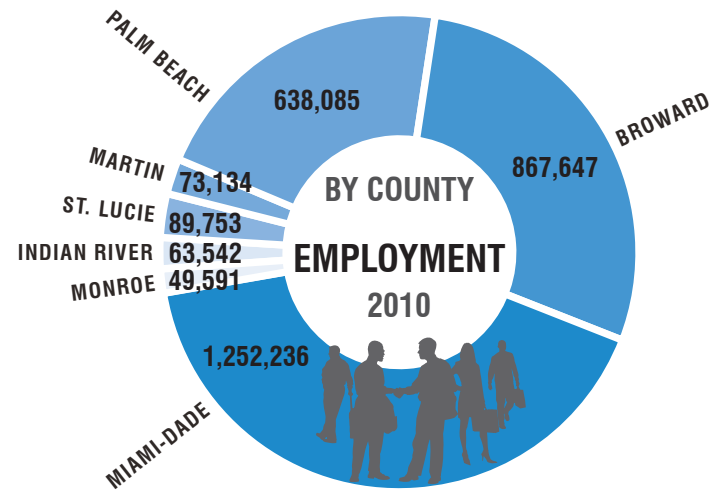
## REGIONAL EMPLOYMENT IN CONTEXT

Yearly Jobs Growth from 1960-2010

### Southeast Florida Seven50 Regional Employment in Context

- Between 1960 and 2010, U.S. employment grew from 62.1 million jobs to 143.3 million – a net gain of 81.2 million jobs, or 130%, over the past 50 years.
- Over the same time period, Florida's employment grew from 1.4 million in 1960 to 8.6 million in 2010 – a net gain of 7.2 million jobs, or 514%, over the past 50 years.
- The Seven50 region, during the same period, grew from 616,400 jobs in 1960 to 3.03 million in 2010 – a net gain of 2.41 million jobs, or 392% over the past 50 years.

As a region, and compared to other regions in the nation, we're an economic powerhouse and we're growing.

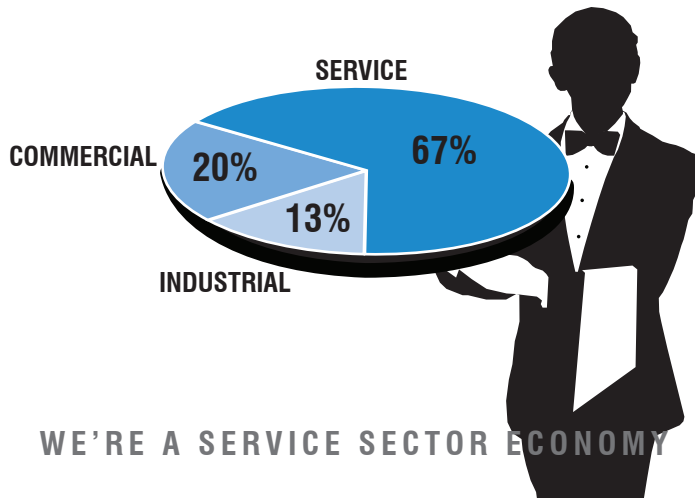


### Total Employment

There are 3.03 million jobs in Southeast Florida; about half the number of people. Of these, there are 0.86 million jobs in the four northern counties and 2.17 million jobs in the three southern counties.

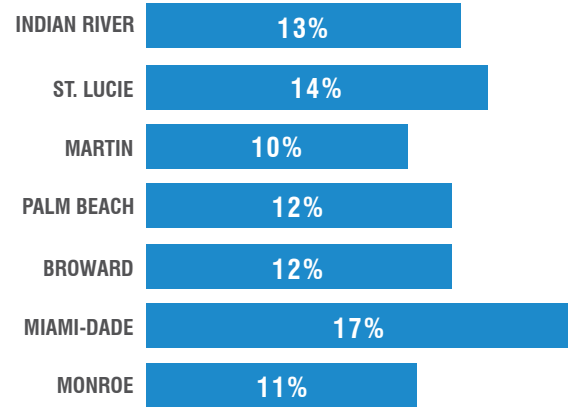
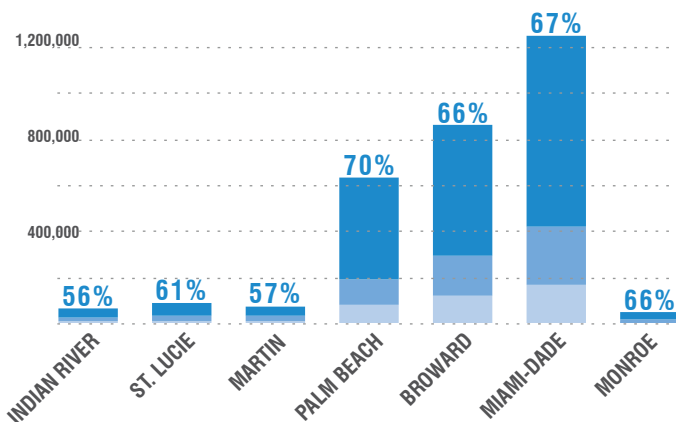
The Southeast Florida region as a whole has a notable concentration of work in the finance, professional services, and tourism industries. Over the last two decades, an observable shift has occurred toward more work in the professional and business services sector.

Employment is spread out over the seven-county region, with high concentrations of employment located along US 1, I-95, I-595, SR-836, and along portions of Florida's Turnpike. Some of the areas with high employment densities are Miami International Airport, Downtown Miami, US 1, south of Downtown Miami, Downtown Ft. Lauderdale, Port Everglades, Ft. Lauderdale-Hollywood International Airport, and Downtown West Palm Beach.



### We're a Service Sector Economy

A major portion of the total employment in the region, about 67 percent of the roughly 3 million jobs are in the service employment category. The remaining 20 percent of the jobs are in the commercial sector and 13 percent are in the industrial category. Palm Beach County has the highest share of service employment jobs (70 percent).



### Per Capita Income

An important measure of economic development is per-capita income. The region is relatively wealthy, containing four of the state's seven wealthiest counties, and having a significantly higher per-capita income than the United States as a whole. At the same time Miami is one of the poorest large cities in the country with 31% of the population living below the poverty line. And although the region's per-capita income is higher than the nation's, since 1985 it has deteriorated more quickly than the country.

Within the Seven50 region, significant gaps in per-capita income exist between the two wealthiest counties (Palm Beach and Martin) and the two poorest counties (Miami-Dade and St. Lucie). Per-capita income has grown most quickly in Monroe County, which includes Key West and most of the Florida Keys.

Per Capita Incomes from 2006-2010 are as follows:

- Martin: \$35,772 (130% of the national average)
- Monroe: \$35,516 (130% of the national average)
- Palm Beach: \$33,610 (123% of the national average)
- Indian River: \$31,918 (116% of the national average)
- Broward: \$28,631 (104% of the national average)
- St. Lucie: \$23,296 (86% of the national average)
- Miami-Dade: \$22,957 (84% of the national average)

The state PCI was \$26,551 just slightly below the national average of \$27,334.

# INDUSTRY STRENGTH INDEX =

SIZE  
TOTAL EMPLOYMENT

+

CONCENTRATION  
LOCATION QUOTIENT

+

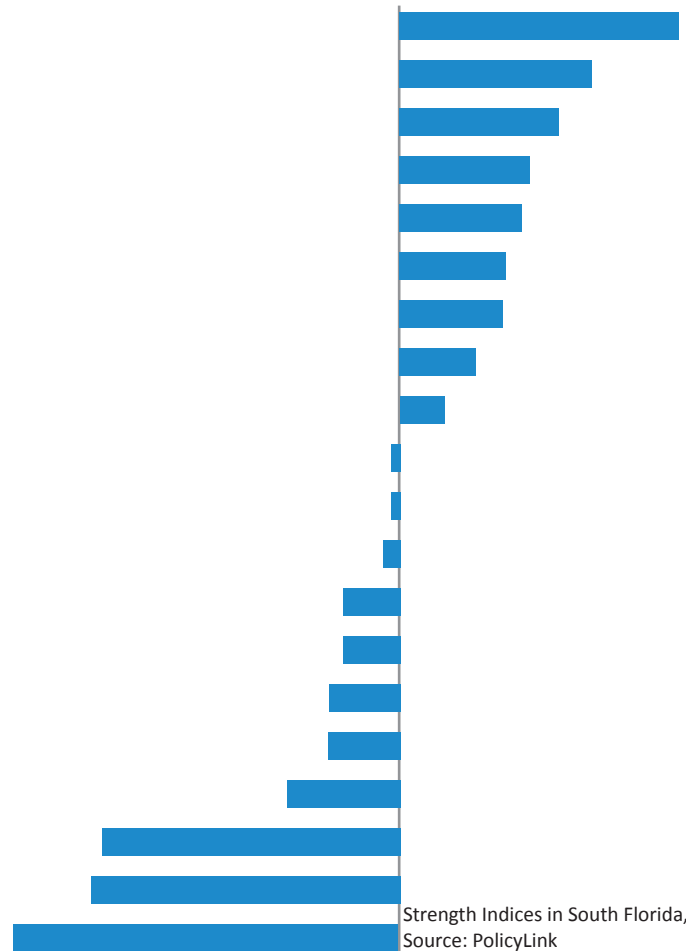
JOB QUALITY  
AVG. ANNUAL WAGE

+

GROWTH  
NUMBER OF JOBS &  
WAGE GROWTH

## HEALTH CARE, MANAGEMENT & PROFESSIONAL SERVICES DOMINATE

HEALTH CARE AND SOCIAL ASSISTANCE  
MANAGEMENT OF COMPANIES  
PROFESSIONAL, SCIENTIFIC & TECH SERVICES  
ACCOMMODATION & FOOD SERVICES  
WHOLESALE TRADE  
RETAIL TRADE  
FINANCE & INSURANCE  
EDUCATION SERVICES  
REAL ESTATE & RENTAL & LEASING  
ADMINISTRATIVE & SUPPORT  
WASTE MANAGEMENT & REMEDIATION  
TRANSPORTATION & WAREHOUSING  
ARTS, ENTERTAINMENT, & RECREATION  
UTILITIES  
INFORMATION  
OTHER SERVICES  
CONSTRUCTION  
AG, FORESTRY, FISHING & HUNTING  
MANUFACTURING  
MINING

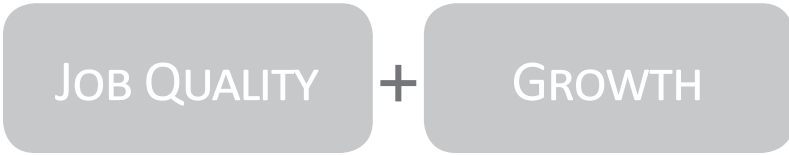


Strength Indices in South Florida, 2010  
Source: PolicyLink



# OCCUPATIONAL OPPORTUNITY INDEX =

ALL JOBS  
(2011)



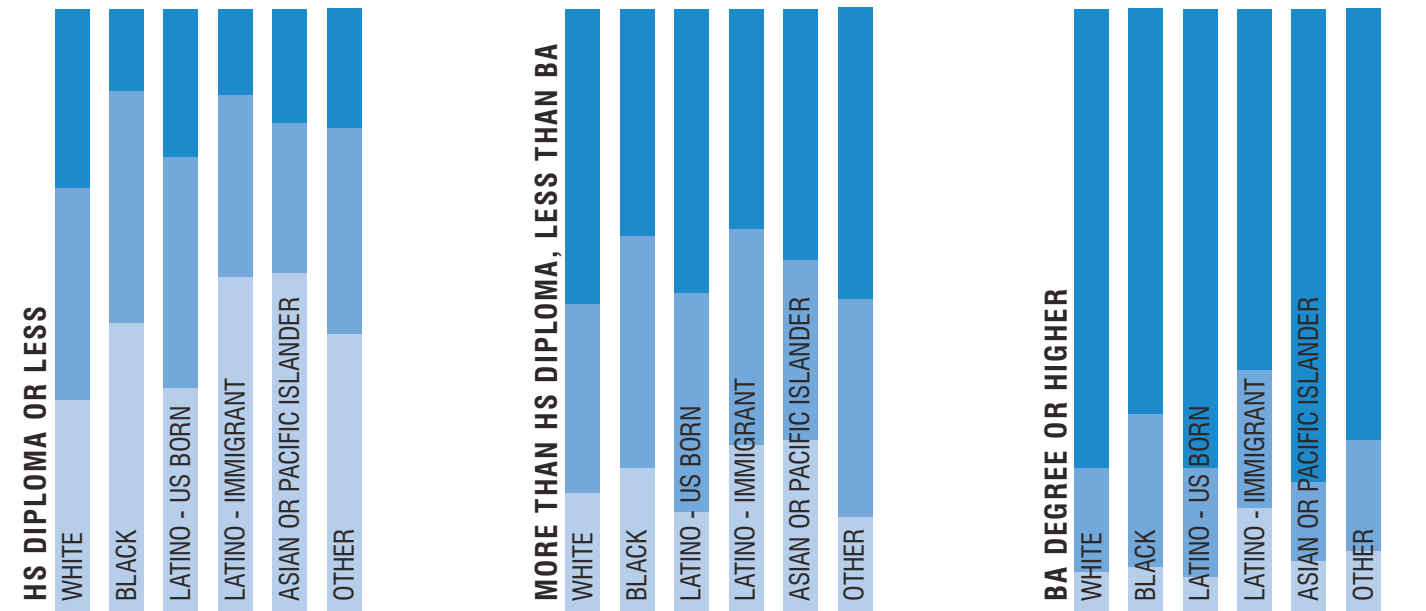
HIGH-OPPORTUNITY  
(32 OCCUPATIONS)

MIDDLE-OPPORTUNITY  
(28 OCCUPATIONS)

LOW-OPPORTUNITY  
(19 OCCUPATIONS)

Our region's target industries are those that have a higher job quality.

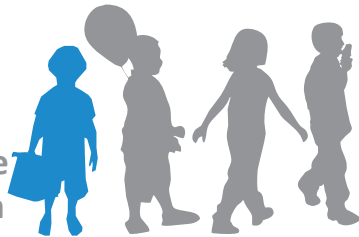
The ticket to high-opportunity jobs remains a college education.



# ACCESS TO HIGH-OPPORTUNITY JOBS

1 / 4 of the  
STUDENT BODY

are provided with free  
or reduced-rate lunch



ceeds 30 percent including Fort Pierce, Belle Glade, Lauderdale Lakes, Hialeah, Opa-locka, the northwest of Miami-Dade County, and the Blue Cypress Conservation Area of Indian River County.

#### Adult Population with only a High School Diploma

Approximately 1.19 million people in Southeast Florida (28 percent of all adults 25 years of age or older) have earned just a high school diploma. The majority of census tracts in St. Lucie and Monroe counties feature tracts whose residents predominantly have only a high school education. The majority of tracts in central Broward and Miami-Dade counties (including Kendall, Pinecrest, and neighboring municipalities in Miami-Dade), plus the extended region around West Palm Beach, also contain tracts whose residents largely have only a high school diploma.

#### Education

Affordable access to quality education is essential for both healthy neighborhoods and economic development. Regions with superior educational systems, particularly at the higher education level, thrive in today's global marketplace. However, to succeed at that level, residents must have access to excellent pre-K through 12<sup>th</sup> grade education to prepare for higher and continued education, and succeed in mastering subjects and skills necessary in a modern economy. With today's changing economy, residents must also have access to lifelong opportunities for education and learning new job skills. A particular focus needs to be on helping the region's many unemployed and underemployed workers obtain the education and skills required for the current market as well as new economy job sectors.

#### Adult Population without a High School Diploma

The percent of persons age 25 and over without a high school diploma varies widely across the region, although a full 17 percent of the 4.23 million people in the region 25 years of age and above lack a high school diploma.

Palm Beach, Broward and Miami-Dade counties each have a large number of census tracts with under-educated residents. The corridor along I-95 from Riviera Beach to Boynton Beach in Palm Beach County and the middle of the corridor extending from Deerfield Beach in Broward County south to Miami is composed of numerous tracts whose adult populations without a high school education number 15 percent or more. Some particular areas exist where the number of high school non-graduates ex-

7 OUT OF 10  
SCHOOLS

are

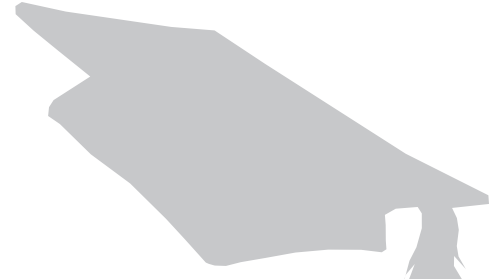
< 75 %

MINORITY



**17%** lack a  
**HIGH SCHOOL  
DIPLOMA**

25 years of age and above



**28%** have earned *just* a  
**HIGH SCHOOL  
DIPLOMA**  
of the 4.23 million people in the region

### Adult Population with a Bachelor's or Advanced Degree

Another 1.19 million people in Southeast Florida have earned one or more college degrees. This constituent is the same size as the group with just a high school diploma, but their distribution is different, being largely along the coast and the western urban growth boundary, particularly in Palm Beach and Broward counties.

College educated persons largely reside along the coastal census tracts, the western urban boundary, and the cities of Wellington, Boca Raton, Parkland, Weston, Pinecrest, and Coral Gables. In these locations, more than 45 percent of adults have one or more college degrees. The lowest penetration of college education among adults is generally in the middle of the region, the area surrounding Lake Okeechobee, and the ruralized west of Indian River and St. Lucie counties.

### Public School Rankings

Public schools are located evenly throughout the region. Schools in only a few census tracts in the region received an average grade that is the equivalent of a C or D letter grade and none received a failing grade.

Many of the census tracts with the best performing public schools are located in the western half of the urbanized corridor. Conversely, most of the worst performing census tracts (rankings of C or D) are located throughout the central third of the three-county MSA and in the vicinity of Belle Glade and Homestead.

### Share of Students Receiving Free or Reduced-Rate Lunch

The majority of public schools in the region provide free or reduced-rate lunches to a quarter or more of the student body. The schools on the western side of the urban zone, from Martin to Miami-Dade counties, generally show a lower percentage of students receiving subsidized lunches.

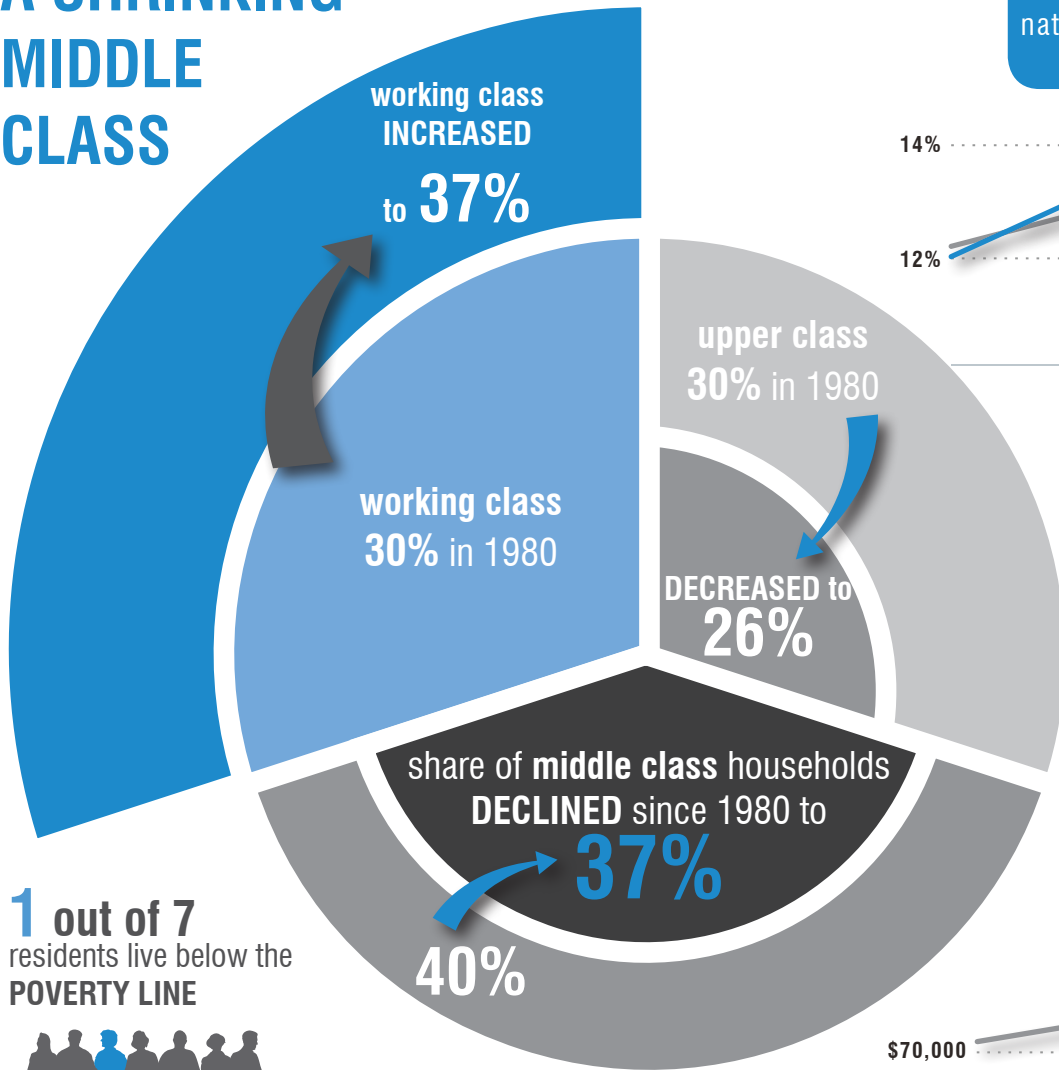
In 147 of the 220 census tracts (66.8 percent) in Miami-Dade County in which there are public schools, the number of students receiving the lunch benefit is greater than 75 percent. In Broward County, the figure is 61 out of 161 (37.9 percent) and in Palm Beach County, the figure is 47 out of 124 (37.9 percent).

### Share of Students Who Are Minorities

561 census tracts throughout the region have public schools, and 363 of them (70.3 percent) have student bodies that are at least 75 percent minority. The distribution of these tracts reaches across the entire urbanized corridor from West Palm Beach to Homestead.

Miami-Dade County's schools are heavily populated by non-white students; almost four out of every five census tracts containing schools have a minority student rate of 90 percent or higher (this includes 24 schools that are 100 percent minority). Compared to Broward County or Palm Beach County, where only 29 percent and 21 percent of census tracts with schools are 90 percent minority or higher, Miami-Dade stands apart in the region for the racial and ethnic composition of its student body.

# A SHRINKING MIDDLE CLASS



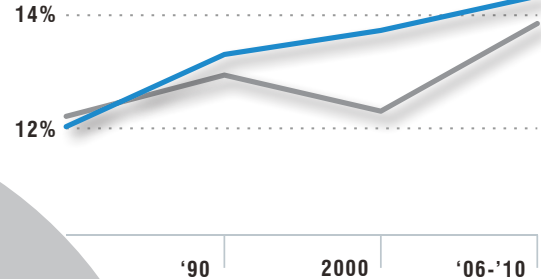
**1 out of 7** residents live below the **POVERTY LINE**



**SOUTHEAST FLORIDA'S MIDDLE CLASS IS SHRINKING:** since 1979, the share of households with middle-class incomes decreased from 40 to 37 percent. The share of upper-income households also declined, from 30 to 26 percent, while the share of lower-income households grew from 30 to 37 percent.

Source: An Equity Profile of the Southeast Florida Region, PolicyLink

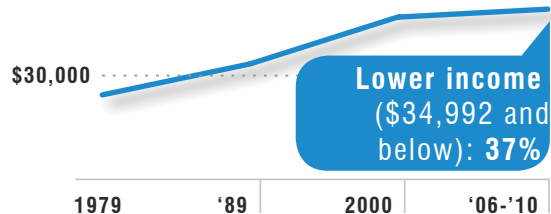
Poverty rates **EXCEEDED** national averages since 1990: **14.4%**



**Upper income** (\$84,186 and above): **26%**



**Lower income** (\$34,992 and below): **37%**



Why is the middle class in the region shrinking? The definition

of “middle class” goes beyond the household income and tends to refer to families with a house, two cars in the garage, yearly vacations, health care, enough savings to retire, and enough income to contribute to their children’s college education.

The cost of key goods like housing, health care, and college has risen faster than income in the United States and in the Region.

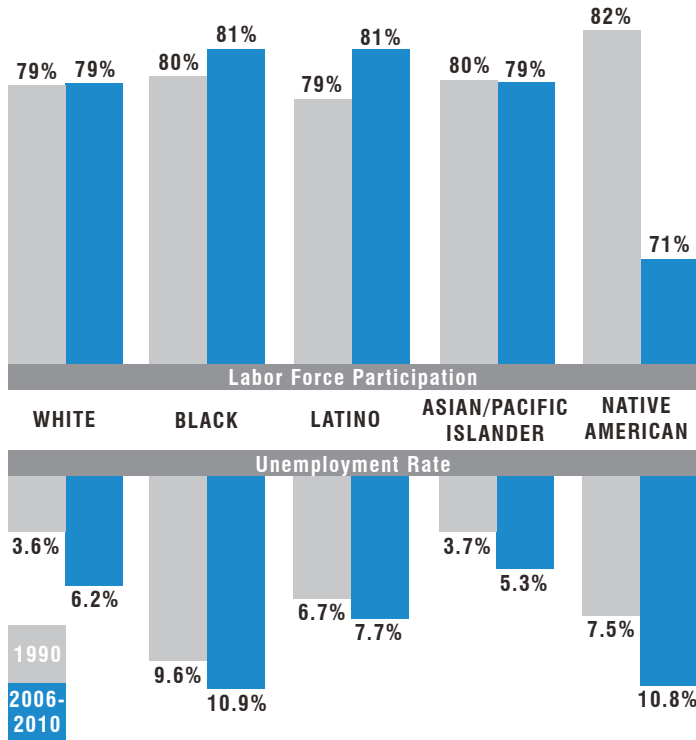
With median household incomes of \$59,589 in 2011, is this income enough to achieve “middle class”?

### The Region’s Shrinking Middle Class

Southeast Florida’s middle class is shrinking: since 1979, the share of households with middle-class incomes decreased from 40 to 37 percent. The share of upper-income households also declined, from 30 to 26 percent, while the share of lower-income households grew from 30 to 37 percent. In this analysis, middle-income households are defined as having incomes in the middle 40 percent of household income distribution. In 1979, those household incomes ranged from \$29,675 to \$71,394. To assess change in the middle class and the other income ranges, we calculated what the income range would be today if incomes had increased at the same rate as average household income growth. Today’s middle class incomes would be \$34,992 to \$84,186, and 37 percent of households fall in that income range.

Nationwide, the loss of manufacturing jobs and the rise of service-sector work coupled with a historically low minimum wage is a prime contributor to the loss of the middle class in the United States. Other factors include student loan debt, more single-parent households, a tax structure which puts more wealth in the hands of fewer people, a rise in corporate profits without corresponding increases in employee wages, and, especially in our region, a rising cost of living.

The US Department of Commerce released a report in 2010 based on Census data which described how two-thirds of college graduates relied on loans to get through college, up from 45 percent two decades ago. Average student debt in 2011 was \$23,300. Additionally health care spending per person has risen to roughly \$8,500 per year.



#1: Bridgeport-Stamford-Norwalk, CT (.53)

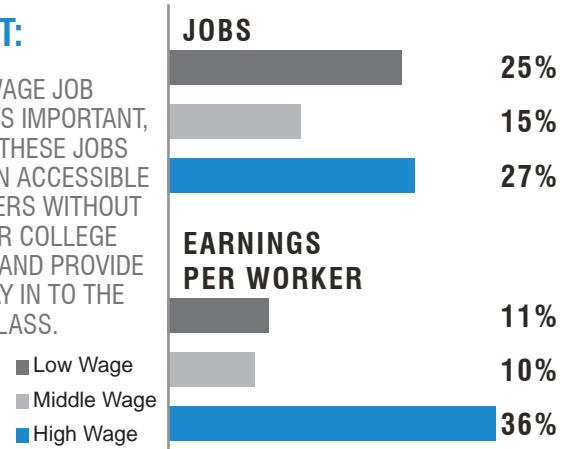
## #6: SOUTHEAST FLORIDA (.49)

Ranked  
**#6**  
 for Income Inequality  
 out of the top 150 largest regions

#150: Ogden-Clearfield, UT (.39)

### INSIGHT:

MIDDLE-WAGE JOB GROWTH IS IMPORTANT, BECAUSE THESE JOBS ARE OFTEN ACCESSIBLE TO WORKERS WITHOUT FOUR-YEAR COLLEGE DEGREES AND PROVIDE A PATHWAY IN TO THE MIDDLE CLASS.

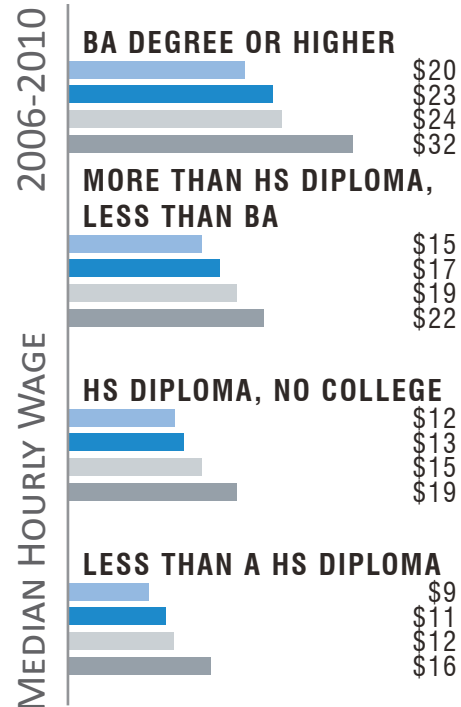
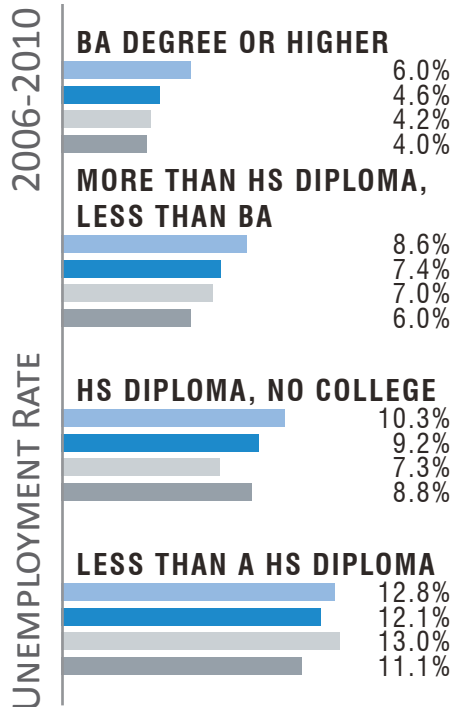


WAGE GROWTH HAS BEEN MUCH HIGHER FOR THE JOBS THAT WERE ALREADY HIGH-WAGE, WHILE LOW AND MIDDLE-WAGE JOBS HAVE SEEN MUCH LESS WAGE GROWTH.

**FASTER GROWTH OF  
 LOW- AND HIGH-WAGE JOBS  
 than  
 MIDDLE WAGE JOBS  
 1990-2010**

# THERE IS A GENDER GAP IN WORK & PAY

- Women of Color
- Men of Color
- White Women
- White Men



#1: Brownsville-Harlingen, TX (16%)

Ranked **#16**  
for Working Poverty Rate  
out of the top 150 largest regions

#16: SOUTHEAST FLORIDA (6%)

#150: Manchester-Nashua, NH (1%)

“More transit options...we need more independent local circulators.”





“Build great places that will be loved.  
Those are the ones that endure.”





BRICKELL

STATE HIGHWAY 112

50% OFF  
ON BRICKELL  
MORTGAGE RATES

EMERGENCY TOW  
24 HOURS A DAY  
CALL 800-888-8888  
WWW.EMERGENCYTOW.COM  
TOW SERVICE  
TOW SERVICE

2007

2007

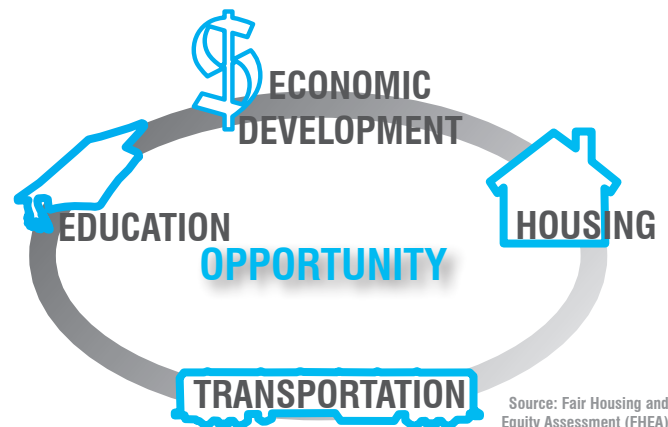
# DEVELOPMENT PATTERNS: HOUSING, TRANSPORTATION & HEALTHY COMMUNITIES

The Southeast Florida region has been hit hard by the burst of the housing bubble that pushed housing prices up beyond the reach of most homebuyers. Despite the unsustainability of those prices, all projections indicate that housing affordability, even with the dip in prices, likely will remain a major regional issue given the concurrent drop in household incomes. Rental costs for affordable units continue to be above national standards resulting in the region having the highest percentage of residents paying more than 50% of their income for housing.

Today, while housing prices have receded, home ownership is still unattainable for that portion of the workforce which is primarily of low- and moderate income. Affordable rental units are still scarce and a significant distressed inventory of foreclosed and abandoned homes continues to skew the market. Many residents live in auto-oriented communities that are fairly remote from existing job centers. This has resulted in a lack of economic integration and high household housing and transportation costs that places an additional burden on lower income residents. The region must plan to work collaboratively to address the more systemic problems caused by the inequity in housing values and incomes and the lack of housing choice, especially near well-paying jobs.

Some solution developed as part of the Seven50 process are regional affordable housing strategies, tied to more mixed-use, mixed-income, and mixed-housing type development near existing and planned transit options, that better connects safe and affordable housing with employment centers and educational

opportunities, services, and other basic needs of workers via multiple transportation options at lower costs. Implementing such strategies will contribute to a lower combined cost of housing and transportation; help foster more open space and safeguard rural landscapes; and reduce traffic congestion, greenhouse gas emissions, and the use of foreign oil. Additional benefits include but are not limited to, improved air quality; an increase in safe, walkable neighborhoods and improved public health; increased energy conservation; and revitalized community centers with enhanced ties between diverse populations.



Access to opportunity starts with access to jobs, housing, transportation and education.



above  
**30%**

H O U S I N G  
V A C A N C Y

### Housing Occupancy

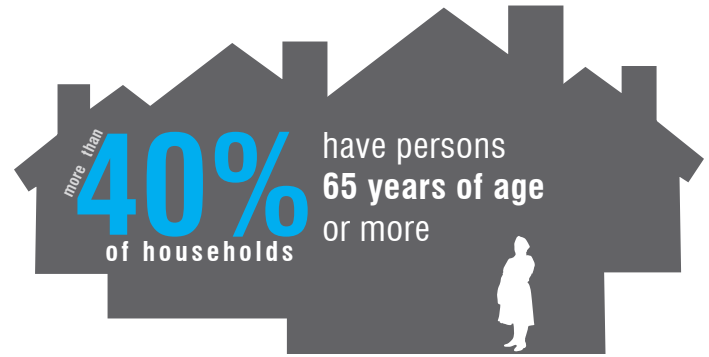
*Regional Findings:* Vacancy rates above 30 percent are observed across the entire region, but almost entirely along the coast. It should be noted that units are counted as vacant if they are habitable and are second homes or available for sale or rent. South Florida is not retaining year-round residents, at potential economic detriment.

*County and Local Findings:* Notably, every census tract in Monroe County, except for downtown Key West, exhibits a 30 percent or higher vacancy rate. Further inland, small areas with vacancy rates above 20 percent can be found north of Vero Beach, in the vicinity of the St. Lucie County Airport, Dania Beach, north Miami-Dade County, and Homestead.

### Household Composition: *Families with a Single Parent*

*Regional Findings:* From Indian River to Miami-Dade counties, single parent households comprise 10 percent or more of households in a substantial number of census tracts. Concentrations of such households are found in the Belle Glade area, from West Palm Beach south to Boynton Beach, and from Parkland south to North Miami. This represents a geographic reach covering much of the three-county MSA.

*County and Local Findings:* Only a few census tracts register a concentration of single parent households above 30 percent of total households—these are located in the vicinity of West Palm Beach, Fort Lauderdale and Kendall.



### Household Composition: *Households with Children*

*Regional Findings:* Across the region, approximately 718,800 households have children (representing a total of 31.7 percent of total households). Census tracts with the largest proportion of such households compared to the overall count are located almost entirely along the western edge of the urban growth boundary in the three-county MSA.

*County and Local Findings:* The cities of Belle Glade, Parkland, and Weston, and the exurban region west of Miami Lakes, each contain census tracts in which households with children make up more than 60 percent of total local households.

### Household Composition: *Households with Senior Citizens*

*Regional Findings:* Census tracts in which households containing persons 65 years of age or more represent more than 40 percent of total households are found in every county but especially in the northern half of the region (Indian River through Palm Beach counties). Their total number is similar to that of households with children—694,600 households, or 30.6 percent of the total count.

*County and Local Findings:* Areas with the least number of such households tend to be located on the western side of the MSA corridor (including the cities of Weston, Pembroke Pines, and Miramar) and the downtown districts of Miami and Fort Lauderdale.

## THE SHORTFALL IN AVERAGE WAGES NEEDED TO COMFORTABLY AFFORD A BASIC APARTMENT



affordability gap



averaging  
**\$500**  
per month

**AFFORDABILITY GAP**  
FOR RENTING HOUSEHOLDS

### **Housing Affordability Gap: Affordability Gap for Renters**

*Regional Findings:* Throughout much of the three-county MSA, an affordability gap exists for renting households. The average gap amount is generally less than \$500 per month, although in 24 census tracts (including 10 each in Miami-Dade and Palm Beach counties), the gap amount exceeds \$500.

*County and Local Findings:* Coastal and western urban boundary census tracts largely exhibit no affordability gap. For renting households, Indian River, Martin, and Monroe counties have the best affordability prospects.

### **Cost Burden: Mortgage-Holders Spending 30% or More of Income on Housing Costs**

*Regional Findings:* Census tracts throughout the entire region show a high percentage of cost-burdened owner-occupying households, distributed evenly from west to east across the three counties of the MSA. Somewhat fewer cost burdened households are located in Indian River, St. Lucie, and Martin counties. Notably, Key West has the lowest percentage of burdened households of any major city in the region.

*County and Local Findings:* The counties with the largest percentage of census tracts containing cost-burdened homeowners are Broward and Miami-Dade. In both of them, the number of census tracts in which 30 percent or more of homeowners spend more than 30 percent of their income on housing approaches two out of five (39.9 percent in Broward and 38.9 percent in Miami-Dade). Local areas in each county, however, show similar patterns, including Vero Beach, Juno Beach, Wellington, Weston, North Bay Village, and Key Largo.

### **Cost Burden: Renters Spending 30% or More of Income on Housing Costs**

*Regional Findings:* In the majority of census tracts across the region, at least 40 percent of renting households spend more than 30 percent of their household income to cover rent payments. Throughout the three-county MSA, 56.5 percent of census tracts with renting households have more than 60 percent of those households spending above the 30 percent threshold. Those census tracts with the lowest share of renters paying above the threshold are not concentrated in any geographic location, instead being rather randomly distributed across all seven counties.

*County and Local Findings:* Geographically, much of Miami-Dade and Monroe counties experience significant rental cost burdens (60 percent or more of renting households affected), with Broward and Palm Beach counties only somewhat less affected. Very few census tracts anywhere in the region contain renting households whose cost-burden proportion is below 20 percent.

across SE Florida

# 161

census  
tracts

contain Low Income Housing Tax Credit (LIHTC) housing units



with representation in each county

### **Affordable Housing: Percentage of LIHTC Units as Share of Total**

*Regional Findings:* Across Southeast Florida, 161 census tracts contain Low Income Housing Tax Credit (LIHTC) housing units, with representation in each county. The majority of tracts are located either in the middle of the MSA corridor or near the largest cities of the non-MSA counties.

*County and Local Findings:* Local areas with LIHTC housing units include Sebastian and Vero Beach, Indian River County; north of Port St. Lucie in St. Lucie County; Belle Glade and West Palm Beach in Palm Beach County; Pompano Beach in Broward County; North Miami, Opa-locka, and Homestead in Miami-Dade County; and Monroe County.

### **Affordable Housing: LIHTC Qualified Census Tract Status**

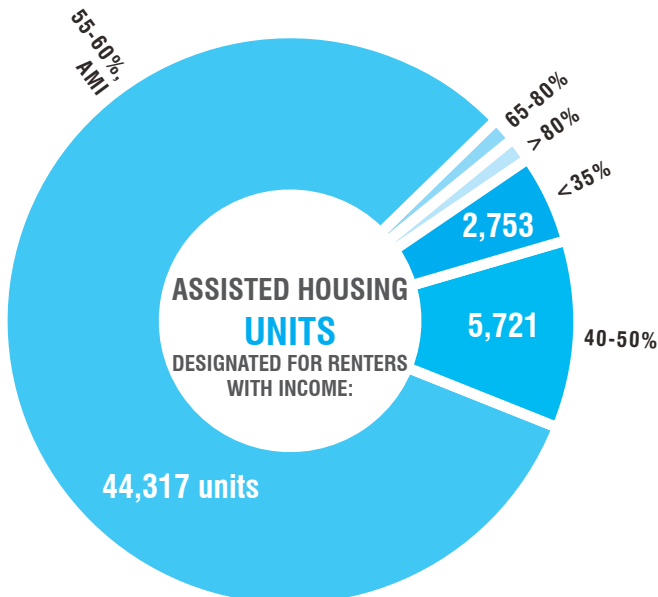
*Regional Findings:* 258 Qualified Census Tracts (QCTs) are distributed throughout the region, with the large majority of them (244) in the three-county MSA. The region's QCTs tend to be located either in the western, exurban half of the region or along the middle of the MSA corridor.

*County and Local Findings:* Local concentrations, featuring contiguous groups of QCTs, are located in and around Belle Glade, West Palm Beach, Pompano Beach, Lauderdale Lakes/Fort Lauderdale, and Miami/Hialeah.

### **Access to a Supermarket: Proximity by Census Tract**

*Regional Findings:* Most census tracts in the region are reasonably close to a supermarket offering fresh and healthful foods. The ones that are not are distributed throughout six of the seven counties (Martin County excluded) and without any particular pattern. The geographic share of Monroe County not located reasonably close to a supermarket is larger than the other counties.

*County and Local Findings:* Palm Beach County has the largest number of LSA (limited supermarket access) census tracts, with 55 of the region's 169 qualifying tracts. Miami-Dade County is a close second, with 54, followed by Broward County with 43. Geographically, the largest areas without supermarket proximity are in the keys in Monroe County, Belle Glade and the rural wedge between the Jim Corbett Wildlife Management Area and the Loxahatchee Slough in Palm Beach County, and the vicinity south of Vero Beach between Indian River and St. Lucie counties.



Source: Regional Analysis of Impediments to Fair Housing (RAI)

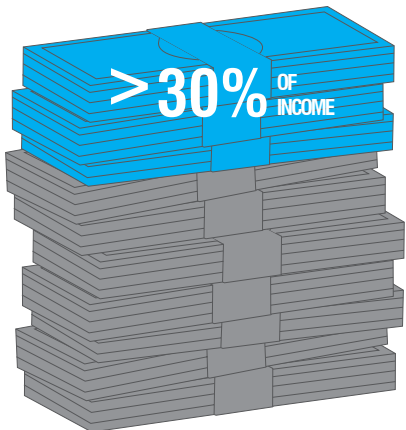
Various assisted housing units are reserved for renters in certain income brackets. The vast majority of these are for renters in the 55-60% average monthly income.

For those in the lowest income bracket, and therefore those in the greatest need of housing opportunities, only 627 units are designated for these renters across the seven-county region.

**BELOW POVERTY LEVEL**  
**32%** OF FAMILIES w/ children <18  
 w/ 1 head of household

Source: Fair Housing and Equity Assessment (FHEA)

Assisted housing units become critical in a region with high child poverty rates, high rental rates, and high numbers of renters versus homeowners.



**60%** OF RENTING HOUSEHOLDS

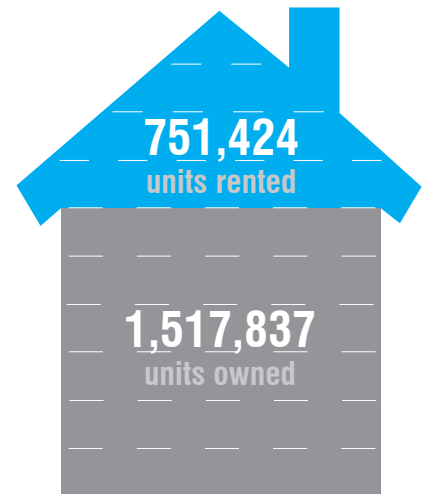
**PAY**

**MORE THAN 30%**

**ON HOUSING**

regardless of income

Source: Regional Analysis of Impediments to Fair Housing (RAI)



Source: Regional Analysis of Impediments to Fair Housing (RAI)



**4TH**  
**GREATEST LOSS**  
of any  
**MAJOR METRO AREA**  
**IN AMERICA**

Source: Wall Street Journal

# MILLENNIAL POPULATION DRAIN PROBLEM



**39.4**  
**YEARS OLD**  
**median age**  
in metro area

Source: US Census 2010

Florida placed  
**48th/50**  
**PARTICIPATION**  
by millennials

**LEAST**  
**CIVICALLY ENGAGED**  
**IN THE NATION**



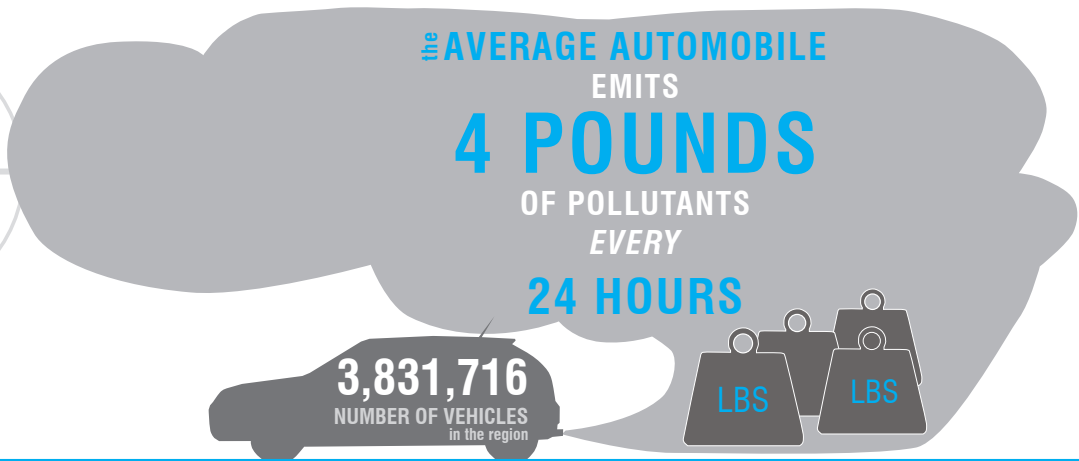
Florida's young people are less engaged in voting, volunteerism, and public debate than millennials in other states

Source: 2011 Florida Civic Health Index: The Next Generation

The Millennials, or Generation Y, the young professional age group with birth years from early 1980s to the early 2000s.

The Miami/Fort Lauderdale/Pompano Beach metro area has been losing its millennial population at an alarming rate. Even as the area's total population continues to grow, the young professionals leave to find employment in other large cities.





### **Transportation**

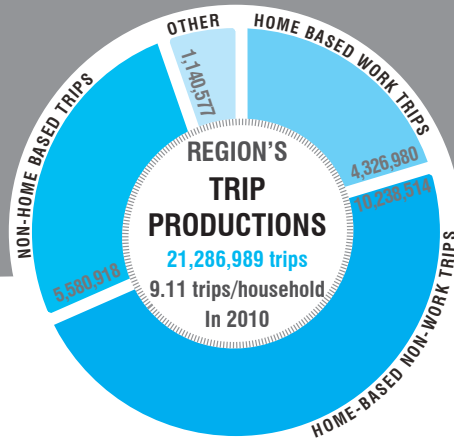
Mobility and connectivity are the lifeblood of the region’s economic development and vitality, yet the region’s transportation systems are overstretched. Its airports and seaports provide a tremendous economic development advantage because of easy access to global markets. However, as the region readies for the expanded opportunities which will come with the widening of the Panama Canal, its seaports are reaching physical capacity (both land side and waterside) and too often are not effectively connected to the highway and rail networks. Many of the region’s major highway corridors, most notably the I-95 corridor, are at capacity. A significant contributor to congestion is the long commute between where people can afford to live and where they go for jobs and daily services.

Two other issues are the predominantly sprawling, low-density, single-use development patterns that have resulted in a largely auto-dependent region and a lack of transit or rail alternatives for moving people and goods. While Miami-Dade has a more mature transit network, transit options in other counties of the Southeast Florida region are more limited. In addition, national, state, and regional sentiment against raising taxes has made it difficult to properly invest in the transportation improvements that are essential to both economic development and livability. Long commutes between jobs and housing, low-density suburban development, and a lack of transit choice have a significant impact on the use of foreign oil, reductions in air quality, and increases greenhouse gas emissions that occur with increases in vehicle miles traveled.

As a region we should identify and decide how to fund the regional transportation investments needed for economic growth and competitiveness. Those investments need to be made through integration of transportation, land use, and economic development decisions which are essential to achieving a reliable, cost-efficient, financially self-sufficient, fully-integrated and seamless multimodal transportation system that connects the region and is accessible to all segments of the population and businesses. Such a system of transport should provide to all residents of rural, suburban, and urban communities better access to affordable housing, more transportation choices, and lower transportation costs while simultaneously protecting the environment, promoting affordable development, and addressing the challenges of climate change, especially sea level rise which may severely impact and/or render inoperative parts of the current transportation system in Southeast Florida region.

Multiple local governments and agencies are tasked with working on the integration of transportation, land use, and economic development decisions. Increasingly, the importance of integrating transportation, land use, and economic development is being recognized. Southeast Florida Transportation Council, multiple Metropolitan Planning Organizations, and two regional planning organizations, among others, are in communication on these issues. Equally important are the many non-governmental organizations, public stakeholder groups, and citizen activists pushing the regional conversation forward. Coordinated planning and implementation initiatives by these organizations such as “The Wave” in Fort Lauderdale are consistent with the overall goal of achieving a more balanced mobility throughout region.

average **1.64**  
VEHICLES/HOUSEHOLD  
in the region



## Travel and Transportation

### Trip Making Characteristics

The results of the 2010 travel model indicate there are approximately 21 million trips being made each week day in the Seven50 region. On a regional level, more than 20 percent of these trips are home-based work trips, meaning they either start or end at home. About 48 percent of the trips made in the region are home-based non-work trips. Given the fact that the number of trips produced is directly tied to population, Palm Beach, Broward, and Miami-Dade counties produce the majority of trips.

Areas of dense trip productions indicate predominantly residential areas. Most of the residential development has been along the coastal area of the region. On the average, each household in the Seven50 region produces about 9.11 trips a day.

In travel model terminology, each trip that is “produced” by a household is “attracted” to land uses such as office parks, industrial complexes, retail centers, hospitals, entertainment complexes, tourist attractions etc. Thus, there are approximately 21 million trip attractions in the Seven50 region. The concentration of trip attractions is an indication of where the major activity centers are located. Miami-Dade, Broward and Palm Beach counties attract almost 87 percent of trips that are produced in the region.

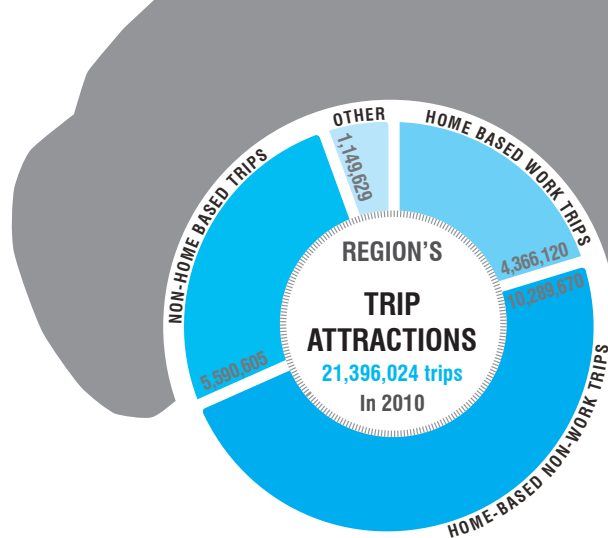
Home-based work trip attractions account for about 20 percent of total trip attractions in the region while the remaining 80 percent is attributable to home-based non-work and non-home-based trips.

The results of the 2010 travel model indicate that within the Seven50 region, approximately 90 percent of trips are within 30 to 35 minutes of a destination. Indian River County has the shortest travel time with at least 90 percent of trips originating within 25 to 30 minutes of a destination. Monroe County trips are the longest in terms of travel time with 90 percent of the trips occurring within 50 to 55 minutes of a destination.

### Modes of Travel

Most of the region’s 21 million daily trips are made by personal automobile. For work trips, 87 percent of commuters drive alone. The transit share of the daily trips is very small, about 1.5 percent. Currently, only Miami-Dade County has the most comprehensive transit system.

**11,081**<sup>total</sup>  
DIRECTIONAL MILES  
of region's roadways



One size does not fit all, and this is true for transportation. The three most populous counties – Miami-Dade, Broward, and Palm Beach – are largely done with road building and focused on the need for more transit and a development pattern that will support increased use of transit, bicycle, and pedestrian modes of travel. The three northern counties – Martin, St. Lucie, and Indian River – continue to build roads while also promoting travel by transit, bicycle, and pedestrian modes.

### We Tend to Drive to Work

In 2010, the Seven50 region contained approximately 2.3 million households. The average household size in the region is about 2.63 which is in the same range as any other major metro area in the southern United States. The predominant mode of travel in the region is automobile. The region contains more than 3.8 million vehicles with an average of 1.64 vehicles per household. Miami-Dade County has the highest auto ownership, with 1.72 vehicles per household, while Monroe and Martin counties have the lowest (1.53 and 1.54, respectively).

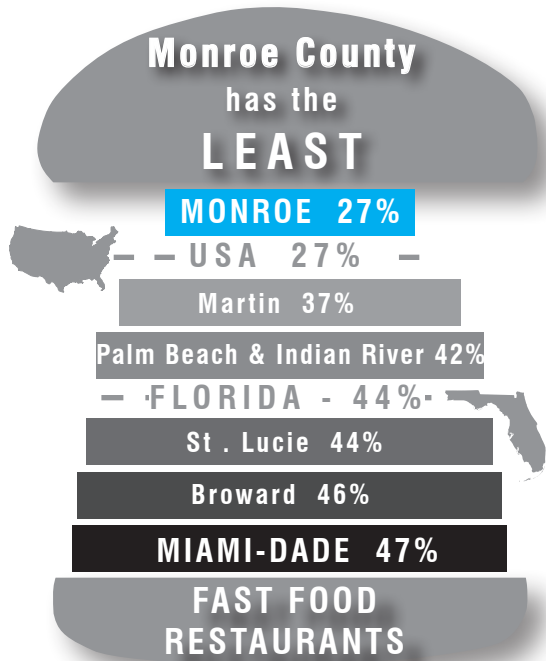
### Highway Conditions

The Seven50 region is served by a vast network of freeways, toll roads, high occupancy vehicle (HOV) lanes, and arterials to move millions of trips each day. There are about 490 miles of freeway, 530 miles of toll roads, 150 miles of HOV lanes, and 9,580 miles of major and minor arterials in the region. On a typical weekday, nearly 130 million miles of vehicle travel and about 3.6 million hours of vehicle travel occur on the region's roadway system.

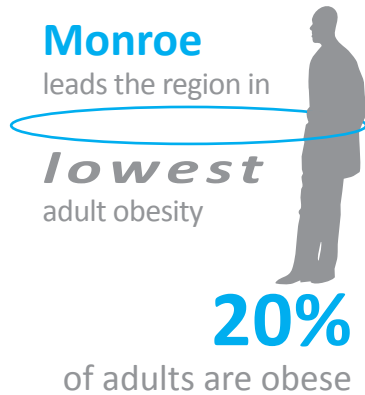
The 2010 travel model documented those sections of the region's roadways that are severely congested during the peak periods. The congestion levels on radial roadways leading to major cities such as Miami, Fort Lauderdale, Hollywood, and West Palm Beach are very severe. During the peak periods, the congestion levels are much worse, resulting in long delays on several sections of the region's freeways.

According to Southeast Florida 2060 Plan released in 2008, the cost of congestion in the region is about 2 billion dollars a year. The Seven50 region's roadway system continues to rank 5th among the nation's most congested highways.

# HEALTHY COMMUNITIES



Source: countyhealthrankings.org  
Percent of all restaurants that are fast-food establishments



Percent of adults that report a BMI  $\geq 30$   
Source: The National Diabetes Surveillance System; CDC's Behavioral Risk Factor Surveillance System (BRFSS); U.S. Census Bureau's Population Estimates Program.  
The county-level estimates are based on indirect model-dependent estimates.

## Miami-Dade

has the  
*most*  
**UNINSURED**  
people in the region

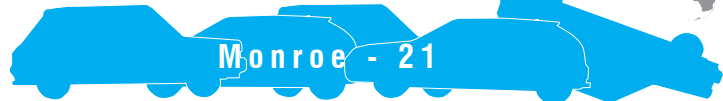


**36%**

of Miami-Dade  
**under 65**  
are

*without*  
**health insurance**

Source: countyhealthrankings.org  
Percent of the population under age 65 that has no health insurance coverage



years 2004-2010

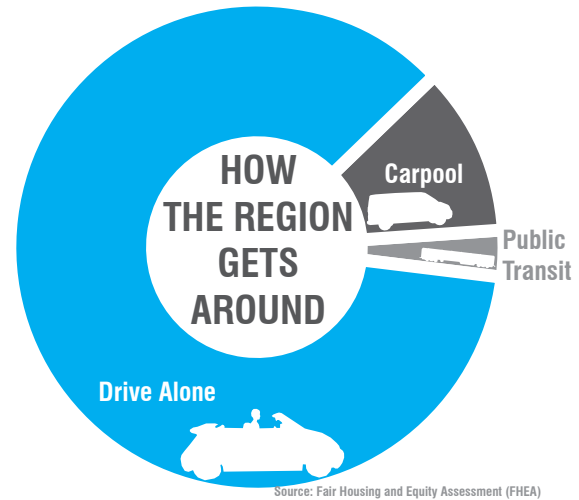
**Miami-Dade & Broward**  
**LEAD**  
the region in  
**lowest**  
vehicular crash deaths

Higher densities and transit options have been shown to correlate with fewer vehicular crash deaths.

Source: Data on deaths and births were provided by NCHS and drawn from the National Vital Statistics System (NVSS). These data are submitted to the NVSS by the vital registration systems operated in the jurisdictions legally responsible for registering vital events (i.e., births, deaths, marriages, divorces, and fetal deaths).

## How does the way we build our communities affect our health?

The drive-only communities we typically build today inadvertently cut people off from a casual experience of nature, social interactions, recreational activities and daily needs. When every trip must involve a car, people tend to not go out for walks and enjoy casual social interactions with others. Ultimately, an isolated, sedentary lifestyle can lead to depression, high obesity rates, heart disease, asthma, diabetes, and low birth weights.



### **Healthy Communities**

Recognizing, understanding, and effectively responding to the intersections between a community's health status and the social determinants of health (those conditions in which people are born, live, work, and age) is critical to addressing health inequities found across varying populations within the region. Chronic disease and preventive health indicators (e.g., asthma incidence, childhood obesity, diabetes, heart disease, and low birth weight) illustrate the complexities associated with ethnically diverse, medically underserved populations. Significant health status disparities exist across all categories in the Southeast Florida region and are often locally driven. Factors such as an inability to access primary care, lack of insurance, poverty, employment status, level of cultural assimilation in areas of high immigration, affordable housing in safe neighborhoods, and transportation all play a role in the incidence of preventable disease and affect the overall health and wellness of communities.

Seven50 should build the region's capacity to generate information about living and social conditions through participatory research initiatives and enhanced community empowerment utilizing a neighborhood-based service learning and education model. The Partnership should establish systems whereby acquired data are accessed and readily available to inform investment policies across myriad regional issues and support programmatic activities that will create and maintain healthier communities. Through these efforts, the Partnership will have a clearer understanding of the costs to the economy that arise from suboptimal health and should be better able to more fully estimate the impact that health costs have on local, regional, state, and national finances as well as the benefits arising from healthy communities.

324

violent crime rate  
per 100,000



**Martin County**

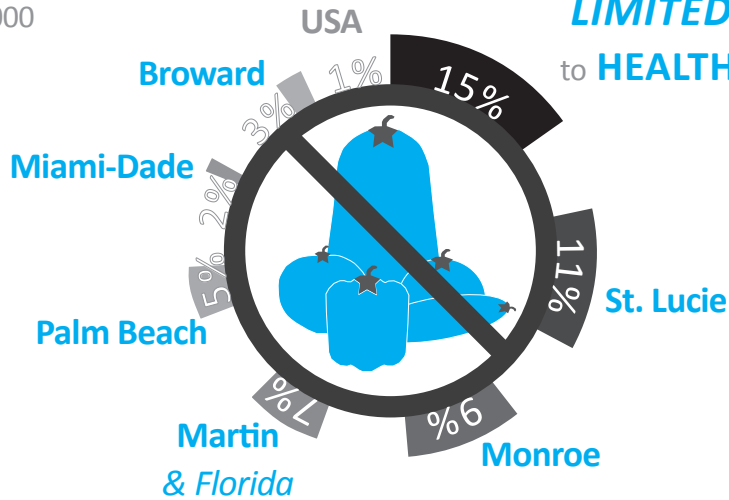
leads the region in  
*lowest*  
violent crime rate

Source: Uniform Crime Reporting (UCR) Program

**Indian River County**

has the most

**LIMITED** access  
to **HEALTHY FOODS**



Source: countyhealthrankings.org and US Department of Agriculture (USDA)  
Percent of population who are low-income and do not live close to a grocery store



**Miami-Dade**

leads the region in  
*lowest*  
premature death  
per 100,000 population

only

**5,916**  
potential life lost  
before age 75 per  
100,000 population

Source: National Vital Statistics System (NVSS)

11%

of adults report  
poor or fair health



**Monroe & Martin**

lead the region in  
*lowest*  
reported poor or fair health

Source: Behavior Risk Factor Surveillance System (BRFSS)

An unfortunate irony for many rural communities like Indian River is that while they are a breadbasket of fresh farm produce there is a comparative lack of variety when it comes to the availability of healthy foods at the supermarket. Urban communities as a whole have a wider variety of fresh foods available in stores. However, urban communities also have a greater availability of fast food franchises.

## Miami-Dade

leads the region in

# LEAST

adult smoking



# 13%

of adults  
that smoke

Source: Behavior Risk Factor Surveillance System (BRFSS)

## Monroe

leads the region in

# lowest

teen birth rate



# 29

out of 1,000  
teenagers in Monroe  
ages 15-19  
ARE PREGNANT

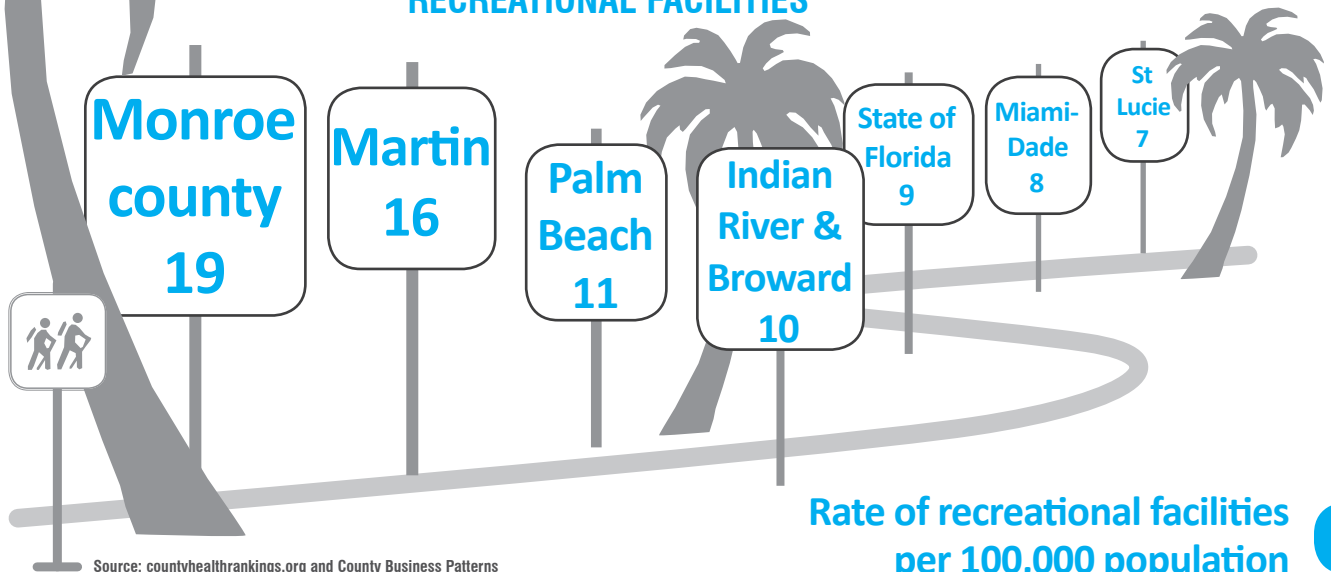
Source: National Center for Health Statistics (NCHS) and National Vital Statistics Systems (NVSS)

## MONROE COUNTY HAS THE *MOST*

### ACCESS TO

### RECREATIONAL FACILITIES

The Florida Keys is a vacation spot with an international reputation. People come from all over the world to visit the Keys. The economic contribution to the regional economy is enormous. Yet most of the Keys visitors are from Southeast Florida. **The Keys is the place where people who live in paradise go to for their vacation.**



Source: countyhealthrankings.org and County Business Patterns

## Rate of recreational facilities per 100,000 population



COLONY  
THEATRE





# COMMUNITY ASSETS & CULTURE

Southeast Florida is one of the fastest-growing and most dynamic cultural centers in the nation. The region is earning an international reputation that gives its cities a competitive edge in attracting businesses and tourism and enhancing and energizing the lives of residents. A scan of events listings within the region underscores a cultural vibrancy that is driven by, celebrates, and strengthens the region's international gateway role in the global marketplace.

*“In my own philanthropy and business endeavors, I have seen the critical role that the arts play in stimulating creativity and in developing vital communities. As this study indicates, the arts have a crucial impact on our economy and are an important catalyst for learning, discovery, and achievement in our country.”*

Paul G. Allen, Philanthropist and Co-Founder, Microsoft, from the report Arts & Economic Prosperity IV, prepared by Americans for the Arts. [www.artsusa.org](http://www.artsusa.org)

A few notable facts:

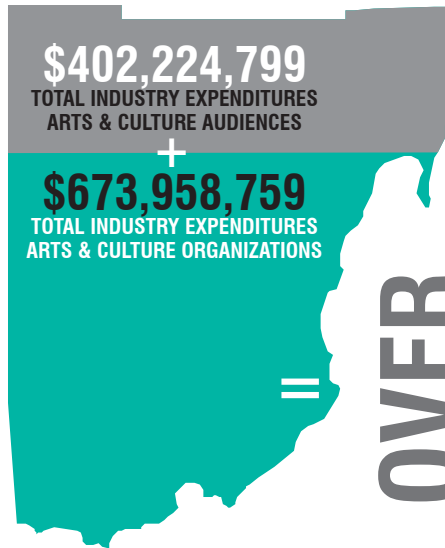
- The arts are a major economic contributor. Based on results from a recent economic study, Southeast Florida's nonprofit arts industry, over the seven county region, has a \$1.65 billion annual impact and provides more than 47,000 full-time jobs. Data for Indian River County showed that the cultural arts provided local creative jobs at about twice the national average (in proportional terms, greater than Chicago and on par with New York). The economic studies do not include the intangible benefits that a vibrant cultural arts environment brings to the livability and identity of the region and the diverse communities within it.
- Each of the region's counties has invested significant public and private resources in the arts, resulting in 25 years of unparalleled growth. In Miami-Dade County alone, over the last 30 years the number of non-profit arts organizations increased from 100 to 1,000, a phenomenal rate of growth for any business sector. Although the region's cultural arts community is relatively young, it has a growing reputation for reinventing art forms, generating exciting new work, and developing innovative models to connect with 21st century audiences.

# THE VALUE \$ OF THE ARTS: MIAMI-DADE



**29,792**  
full time equivalent  
**J O B S**

**\$935,293,000**  
IN RESIDENT HOUSEHOLD INCOME



**OVER \$1.08 BILLION**

Total Industry Expenditures

**\$65,731,000**

in state government revenue



**\$39,212,000**

in local government revenue



Source: Arts & Economic Prosperity IV: The Economic Impact of Nonprofit Arts and Culture Organizations and Their Audiences in Miami-Dade County

event-related spending by  
arts & culture audiences totaled

**\$402.2 MILLION**

(excluding the cost of admission)



nonprofit arts & culture event attendees  
spend an average of

**\$29.61** per person

(excluding the cost of admission)



# THE VALUE \$ OF THE ARTS: PALM BEACH



**5,782**  
full time equivalent  
**J O B S**

**\$135,847,000**  
IN RESIDENT HOUSEHOLD INCOME



Total Industry Expenditures



**\$12,583,000**  
in state government revenue

**\$11,348,000**

in local government revenue



Source: Arts & Economic Prosperity IV: The Economic Impact of Nonprofit Arts and Culture Organizations and Their Audiences in Palm Beach County

event-related spending by  
arts & culture audiences totaled

**\$111.1 MILLION**  
(excluding the cost of admission)



nonprofit arts & culture event attendees  
spend an average of

**\$25.64** per person  
(excluding the cost of admission)





# Seminole

the *only* 2 federally recognized tribes in Florida

# Miccosukee



over **\$1 million** Seminole tribe spends each year  
**ON EDUCATION**

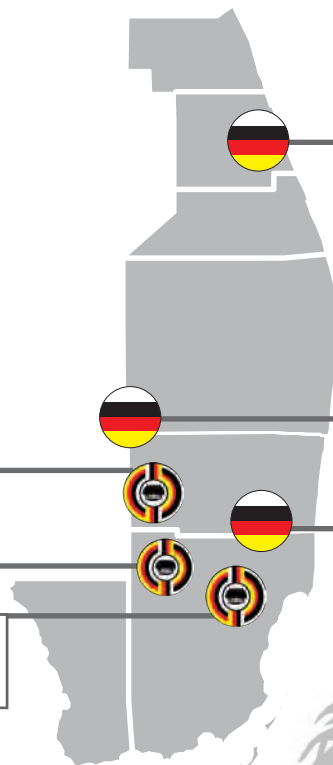
including Tribal college students grants-in-aid and Ahfachkee Indian School operation



On **January 11, 1962**, the U.S. Secretary of the Interior approved the Miccosukee Constitution and the Tribe was officially recognized as the **Miccosukee Tribe of Indians of Florida.**

year **1957**

U.S. Congress officially recognized the **unconquered Seminole Tribe Florida**



**Ft. Pierce Seminole Reservation**  
+/- 50 acres

**Alligator Alley Miccosukee Reservation**  
+/- 74,812 acres

**Big Cypress Seminole Reservation**  
+/- 52,462 acres

**Tamiami Trail Miccosukee Reservation**  
+/- 33.3 acres

**Hollywood Seminole Reservation**  
+/- 480 acres

**Krome Avenue Miccosukee Reservations**  
+/- 26 acres

**640** Miccosukee Service Area  
total population

more than **90,000** acres of Seminole reservations

in federal trust holdings in Florida

Where can I learn more about the Native American culture in Southeast Florida? At the annual Seminole Tribal Fair, The Seminole Tribe of Florida welcomes American Indian dancers, performers and artisans from more than 300 tribes across the Americas to the largest native event in South Florida. The festival, held second weekend in February, includes a powwow competition, Seminole cultural displays, crafts, artists and vendors, archery, log peeling, and many more events.

Important parts of the region's cultural traditions and history come from the Seminole Tribe of Florida and the Miccosukee Tribe of Florida, both federally recognized Native American tribes. Their story is woven into a variety of artistic expressions, including the visual arts, dance, dolls, basketry, beadwork, woodwork, patchwork, clothing, and storytelling. It is also celebrated at festivals and other signature events. For the Miccosukee, that includes a Music Festival, Arts Festival, and American Indian Day event. Seminole Tribe events include an annual American Indian Arts Celebration, a Second War Reenactment, and a Big Cypress Celebration that includes native dancing, food and music.

#### **Seminole Tribe of Florida**

The Seminole were highly affected by the rapidly changing American environment. Natural disasters magnified changes from the governmental drainage project of the Everglades. In the 1930s, the Seminole slowly began to move onto federally designated reservation lands. Initially, few Seminoles had any interest in moving to the reservation land or in establishing more formal relations with the government. Some feared that if they moved onto reservations, they would be forced to move to Oklahoma. Others accepted the move in hopes of stability, jobs promised by the Indian New Deal, or as new converts to Christianity. Beginning in the 1940s, however, more Seminoles began to move to the reservations. Reservation Seminoles began forming tribal governments and forming ties with the Bureau of Indian Affairs. In 1957 the nation reorganized and established formal relations with the US government as the Seminole Tribe of Florida, headquartered in Hollywood.

#### **Miccosukee Tribe of Florida**

A traditional group, known as the *Trail Indians*, moved camps closer to the Tamiami Trail to sell crafts to travelers. They felt disfranchised by the Seminole move to reservations, who they felt were adapting European-American ways. Their differences were exacerbated in 1950 when reservation Seminoles filed a land claim suit against the federal government for seizure of lands in the 19th century, an action not supported by the Trail Indians. Following federal recognition of the Seminole Tribe of Florida in 1957, the Trail Indians decided to organize a separate government. They sought recognition as the Miccosukee Tribe, as they spoke the Mikasuki language. They received federal recognition in 1962, and received their own reservation lands, setting up a 333-acre reservation on the northern border of Everglades National Park.

I think more investment should be made in the arts.\*



\* Note: This same idea was repeated over 120 times in surveys completed by the public as part of the plan's public engagement.

Two big trends are driving the remarkable growth rate of the region's art industries:

- The waves of immigration that enrich and energize the region with artists, arts supporters, and families who are committed to their cultural heritages. They contribute a diverse and dynamic array of cultural expressions and traditions, energy and ambition, and new arts patrons.
- The evolution of the region from a seasonal tourist destination to one that is a global center for commerce, tourism, and trade. That evolution is being led by civic leaders who recognize the importance of a strong cultural arts life as part of the essential infrastructure required to be competitive in the global marketplace.

*"The business case for arts and culture touches people, places, and prosperity. Every metropolitan region is in the race for talent, competitiveness, and success in an economy that is dramatically different from that of the past. In light of the needs for the 'next economy,' a solid business case emerges for arts and culture playing a central role in economic development and community life."*

From Vibrant Culture – Thriving Economy, Arts, Culture, and Prosperity In Arizona's Valley of the Sun, prepared for the Maricopa Regional Arts and Culture Task Force

## SOUTH FLORIDA CULTURAL CONSORTIUM

Created 25 years ago, the South Florida Cultural Consortium is an alliance of the local arts agencies of Broward, Martin, Monroe, Palm Beach and Miami-Dade counties that work collaboratively to develop cultural excellence and accessibility. Members pool resources for joint projects such as a regional artist fellowship program and a shared commitment to expanding the impact of arts education.

[www.broward.org/Arts/Artists/SouthFloridaCultural-Consortium/Pages/Default.aspx](http://www.broward.org/Arts/Artists/SouthFloridaCultural-Consortium/Pages/Default.aspx)

In addition to attracting and retaining businesses and luring visitors to the region, the cultural arts are also serving as:

- A backbone strategy in place making, including revitalizing and reenergizing once neglected neighborhoods. The arts are playing a significant role in transforming them from places to avoid into places to visit, live, and invest. For example, the dramatic resurgence of South Beach caught the region's (and country's) interest for the role that the arts and historic architecture played in creating one of the world's hottest destinations. The importance of the cultural arts in creating a sense of place and civic pride was underscored by the Soul of the Community project launched in 2008 by Gallup and the John S. and James L. Knight Foundation. The three-year, 26-community study involving over 43,000 interviews found that three main qualities attach people to a place: social offerings, such as entertainment venues and places to meet, openness, and aesthetics of place.

For more information see: [www.soulofthecommunity.org](http://www.soulofthecommunity.org)

- A proven way to improve student performance and better prepare them for the workforce. Research demonstrates that students who are involved in the arts are less likely to drop out of school and, in fact, score higher on their standardized tests ([www.artsedsearch.org](http://www.artsedsearch.org)). The region's cultural arts organizations emphasize the role of arts in education, including in-school and out-of-school programs that introduce students to the arts and help them learn in different ways. Economic development planners are starting to replace STEM (science, technology, engineering, and

**5000**  
participants



**19** government  
partners

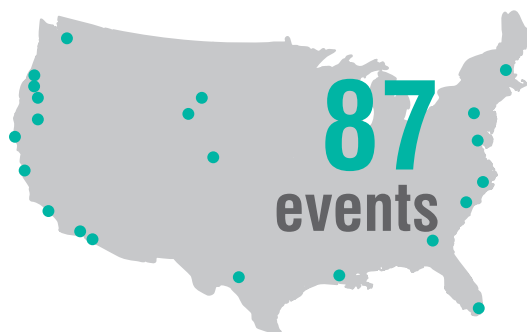
But is it art? Seven50 provided dozens of data sets for the 2013 National Day of Civic Hacking. Young hackers gained access to government data sets, exhibited their findings and created apps to make the information public.

mathematics) with STEAM (adds the arts) so that students will also have the best education in the critical thinking and communication skills they will need to be competitive. Another advantage of adding the “A” is for students to develop an appreciation of different cultures and traditions, also important in today’s global knowledge-based economy.

<http://stemtosteam.org>

- A way to draw people together in shared events that celebrate the region’s diverse culture and strong arts community and provide opportunities for civic connections and conversations that build communities and social capital. Working geographically up the region, examples include Fantasy Fest in Key West, Art Basel and Miami Book Fair International, Fort Lauderdale’s Winterfest Boat Parade, Sunfest in West Palm Beach, Martin County’s Arts Fest, Friday Fest in downtown Fort Pierce, and Under the Oaks in Indian River County. “In sum, cultural endeavors offer social capital effects both direct and indirect, immediate and long lasting. The arts provide a powerful way to transcend the cultural and demographic boundaries that divide us and to find deeper spiritual connections with those like us. To use our phrasing, the arts create both ‘bridging’ and ‘bonding’ social capital.”<sup>1</sup>

<sup>1</sup> From *The Arts and Social Capital* chapter of the *Saguaro Seminar report, BetterTogether*, John F. Kennedy School of Government, Harvard University, Cambridge, MA. 2001. Information on the arts and social capital can be viewed at [www.hks.harvard.edu/programs/saguaro/about/the-original-saguaro-seminar-meetings/the-arts-and-social-capital](http://www.hks.harvard.edu/programs/saguaro/about/the-original-saguaro-seminar-meetings/the-arts-and-social-capital).



**87**  
events

data sets &  
resources



In short, residents and visitors in Southeast Florida can choose from thousands of cultural arts events that showcase the region’s exceptional depth of creative talent in traditional and new forms of expression. The challenge is to cultivate and grow the role of cultural arts and the cache they provide – a proven strategy for creating and rekindling the economically successful, dynamic, and enduring places that will continue to draw investments and people to the region.

#### SOUTHEAST FLORIDA LOCAL ARTS AGENCIES: LEADING & SUPPORTING SOUTHEAST FLORIDA’S GROWING CULTURAL ARTS COMMUNITY

- Indian River County Cultural Council  
<http://cultural-council.org>
- St. Lucie County Arts & Cultural Alliance  
[www.artsinstlucie.org](http://www.artsinstlucie.org)
- Martin County Cultural Arts Council  
[www.martinarts.org](http://www.martinarts.org)
- Palm Beach County Cultural Arts Council  
[www.palmbeachculture.com](http://www.palmbeachculture.com)
- Broward County Cultural Division  
[www.broward.org/Arts/Pages/Default.aspx](http://www.broward.org/Arts/Pages/Default.aspx)
- Miami-Dade County Department of Cultural Affairs  
<http://miamidadearts.org>
- Florida Keys Council of the Arts  
[www.keysarts.com](http://www.keysarts.com)

"THERE ARE NO OTHER  
EVERGLADES IN THE WORLD.

"THEY ARE, THEY HAVE  
ALWAYS BEEN, ONE OF THE  
UNIQUE REGIONS OF THE  
EARTH, REMOTE, NEVER  
WHOLLY KNOWN. NOTHING  
ANYWHERE IS LIKE THEM:  
THEIR VAST GLITTERING  
OPENNESS, WIDER THAN  
THE ENORMOUS VISIBLE  
ROUND OF THE HORIZON,  
THE RACING FREE SALTNESS  
AND SWEETNESS OF THEIR  
MASSIVE WINDS, UNDER THE  
DAZZLING BLUE HEIGHTS OF  
SPACE.

"THEY ARE UNIQUE IN THE  
SIMPLICITY, THE DIVERSITY,  
THE RELATED HARMONY OF  
THE FORMS OF LIFE THEY  
ENCLOSE."

MARJORY STONEMAN  
DOUGLAS, *THE EVERGLADES:  
RIVER OF GRASS*





# ENVIRONMENT, NATURAL RESOURCES & AGRICULTURE

## ***The Environment and Natural Resources***

Southeast Florida enjoys an incredible mix of environmental and natural resources not found anywhere else in the world. The subtropical climate with its diversity of terrestrial, freshwater and saltwater systems attracts millions of people to visit the region every year. The environmental resources in Southeast Florida not only define the region, they attract tourists, residents and businesses, and contribute to one of the most agriculturally rich and productive regions found anywhere on earth.

## **The Florida Keys and Monroe County**

The Florida Keys is recognized around the world for its diving, snorkeling and fishing. This unique part of the world has parts of three national parks, 11 state parks and four national wildlife refuges that host an extremely high biological diversity and abundance of rare species. Examples include:

### *Florida Keys National Marine Sanctuary*

The marine sanctuary includes a 2,800 square nautical mile area surrounding the Keys and reaches into the Atlantic Ocean, Florida Bay and the Gulf of Mexico. The sanctuary was established in 1990 and is a U.S. National Marine Sanctuary in the Florida Keys. It includes the Florida Reef and has extensive mangrove forest and seagrass fields.

### *John Pennekamp Coral Reef State Park*

John Pennekamp Coral Reef State Park, established in 1963 as America's first underwater preserve, draws more than a million visitors annually to explore its nature trails and beaches and to observe the abundant underwater wildlife that inhabits its 70 square nautical miles.

### *Dry Tortugas National Park*

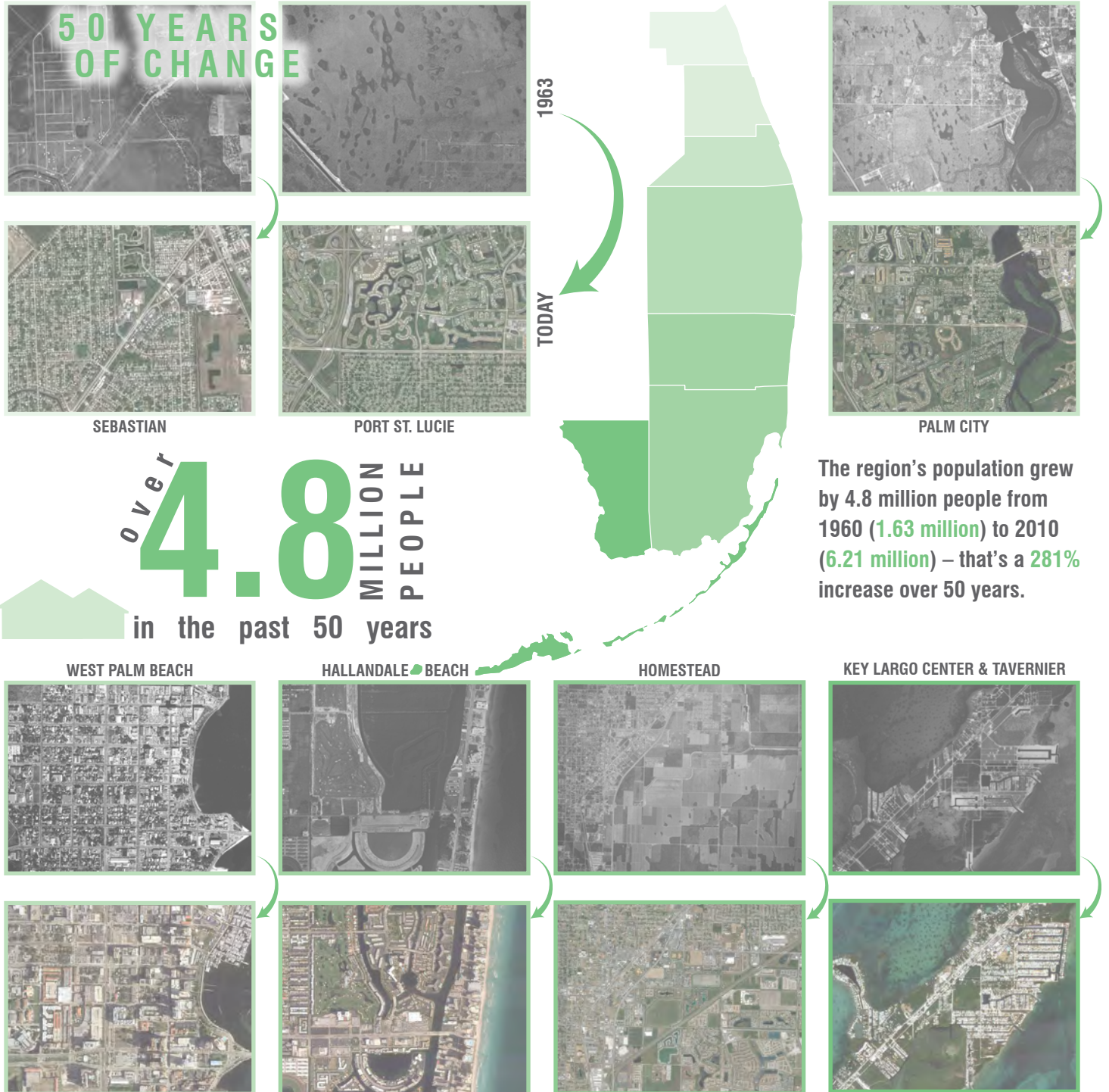
Located 68 miles west of Key West in the Gulf of Mexico, the Dry Tortugas can be reached by ferry or seaplane from Key West. This secluded and pristine area, one of America's most remote national parks, is home to rare migratory birds and a wealth of marine life.

## **Biscayne National Park**

Within sight of Downtown Miami, Biscayne National Park protects a rare combination of aquamarine waters, emerald islands, and coral reefs. Biscayne National Park also includes evidence of 10,000 years of human history, from pirates and shipwrecks to pineapple farmers and presidents. With 95% of its 172,000 acres covered by water, a boat excursion is the best way to experience this park.

## **Florida Bay**

Florida Bay is a shallow inner-shelf lagoon located at the southern end of the South Florida watershed. Fresh water from the Everglades mixes with salty water from the Gulf of Mexico to form an estuary that is surrounded by mangrove forests and encompasses over 200 mangrove islands. Its nearly 1,000 square miles of interconnected basins, grassy mud banks, and mangrove islands are nesting, nursery, and feeding grounds for a host of marine animals: the American crocodile, the West Indian manatee, the loggerhead turtle, bottlenose dolphins, a variety of bird species and many game fish. Parts of the bay are also the nursery grounds for the economically valuable pink shrimp and Caribbean spiny lobster. Florida Bay is important economically, supporting a \$59 million shrimp fishery and \$22 million stone crab fishery.



Source: Sustainable Development Plan for Southeast Florida: 2010-2060, Rutgers University, Bloustein School

We've reshaped the natural environment of Southeast Florida dramatically in the last 150 years.

Over six million people live in a place thought of for four hundred years before, according to Marjory Stoneman Douglas, as a “series of vast, miasmatic swamps, poisonous lagoons, huge dismal marshes without outlet, a rotting, shallow, inland sea... labyrinths of dark trees hung and looped about with snakes and dripping mosses, malignant with tropical fevers and malarias...” From the perspective of most people living here today, our region is only lately a paradise.



Source: US War Department, Military Map of the Peninsula of Florida, April 1856

THE EVERGLADES  
PROVIDES A  
TOTAL VALUE OF

**\$46.5+** BILLION  
in ecological services

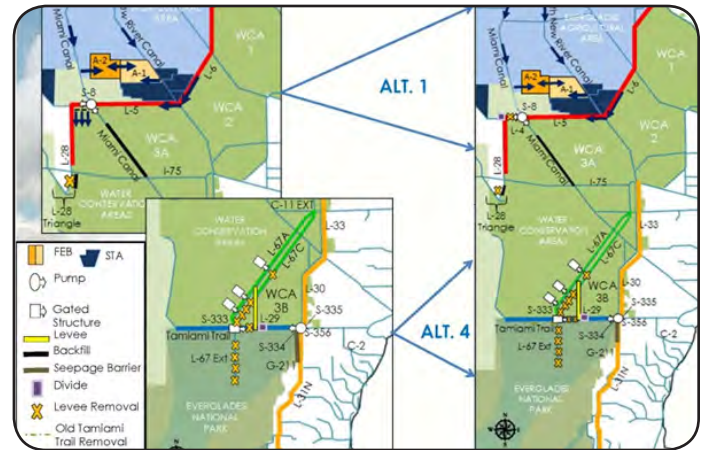
Source: "Measuring the Economic Benefits of America's Everglades Restoration"

### Everglades National Park

Everglades National Park spans 1.5 million acres and protects an unparalleled landscape that provides important habitat for numerous rare and endangered species like the manatee, American crocodile, and the elusive Florida panther. The park is an international treasure as well: it is a World Heritage Site, an International biosphere reserve, a wetland of international importance, and a specially protected area under the Cartagena Treaty. Everglades National Park was established to preserve a portion of the vast Everglades ecosystem as wildlife habitat and an important habitat for numerous endemic and legally protected plant species. The mosaic of habitats contained within the greater Everglades supports an assemblage of plant and animal species not found elsewhere on the planet.

### The Everglades Protection Area

Historically, the Everglades covered over 2.5 million acres or about 4,000 square miles from the south shore of Lake Okeechobee to the mangrove estuaries of Florida Bay. Today's Everglades Protection Area (EPA) comprises 863,200 acres in Water Conservation Areas (WCA) 1, 2A, 2B, 3A, and 3B, 64,000 acres in the Holey Land and Rotenberger Wildlife Management Areas and more than 1.5 million acres in Everglades National Park, which includes most of Florida Bay. WCA-1, a 143,200-acre area owned by the state and managed by the U.S. Fish and Wildlife Service, encompasses most of the Arthur R. Marshall Loxahatchee National Wildlife Refuge. The refuge is located west and southwest of West Palm Beach. Additional lands in the Loxahatchee Refuge, but outside WCA-1, include the 1,604-acre Strazulla Marsh to the east and about 2,550 acres to the east and west. Covering 134,400 acres, WCA-2 is the smallest of the



Map of Water Conservation Areas

WCAs. Situated directly south of WCA-1, it stretches over parts of southern Palm Beach and northern Broward Counties. Historically, this area was part of the overland flow system that extended from Lake Okeechobee to Florida Bay. WCA-3 is over twice the size of WCA-1 and WCA-2 combined. Covering 585,600 acres in western Broward and Miami-Dade Counties, it is located west and southwest of WCA-2 and extends approximately 40 miles from north to south and 25 miles from east to west. Currently, it is the only WCA not entirely enclosed by levees. The L-28 Gap, a seven-mile stretch left open in the midwestern perimeter, permits overland flows to enter the area from the Big Cypress National Preserve and other drainage basins to the west.

### Beaches

Florida's 1,200 miles of beaches are the iconic image of the state. Southeast Florida has some of the most beautiful and accessible beaches in the state, which are economic drivers for attracting residents, visitors and businesses. Our beaches are also the front line of coastal defence from storms and provide valuable wildlife habitat such as for sea turtles and shore birds. Just naming some of the most popular beaches in the region brings to mind their importance to our livelihood and enjoyment.

- *Blowing Rocks Preserve in Martin County*
- *Hollywood Beach in Broward County*
- *Jupiter Beach in Palm Beach County*
- *Haulover Beach in Miami-Dade County*
- *South Beach in Miami-Dade County*
- *Hutchinson Island Beaches in Martin & St. Lucie Counties*
- *Sebastian Inlet Beach in Indian River County*
- *Anne's Beach & Bahia Honda Beach in Monroe County*



Summer storm on the Everglades, Miami-Dade County

### **The Florida Gulf Stream**

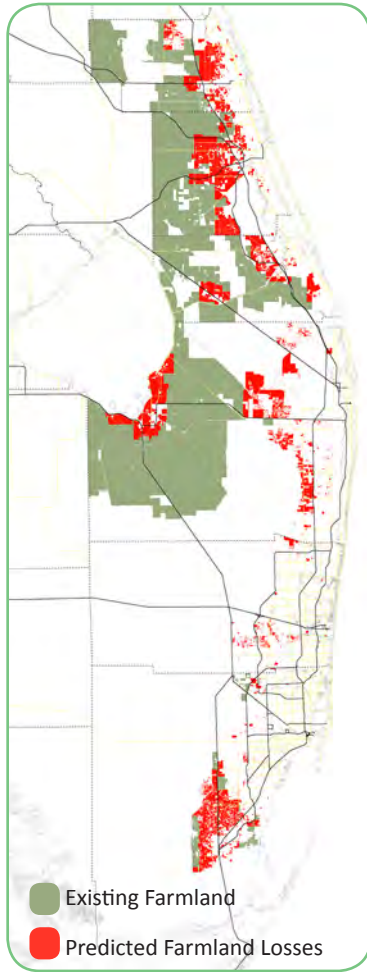
The Florida Gulf Stream is the beginning of the Gulf Stream, a powerful ocean current that follows the eastern coastline of North America and then crosses the Atlantic Ocean. The Florida Gulf Stream provides a feeding ground for game fish that attracts fishing enthusiasts from around the world. Divers explore the living coral reefs and underwater environment unique to Southeast Florida. The Gulf Stream is also being investigated as an alternative energy source that could help supply energy to our region.

### **Lake Worth & Indian River Lagoons**

Southeast Florida includes two of the most diverse and environmentally rich brackish water lagoons in North America. The Lake Worth Lagoon is located in Palm Beach County. It runs parallel to the coast separated from the Atlantic Ocean by barrier beaches including Palm Beach Island. The lagoon is connected to the Atlantic Ocean by two permanent man-made inlets. The Indian River Lagoon is a grouping of three lagoons: Mosquito Lagoon, Banana River, and the Indian River, on the Atlantic Coast of Florida. Its full length is 156 miles, extending from Ponce de León Inlet in Volusia County to Jupiter Inlet in Palm Beach County. Lake Okeechobee is connected to the lagoon by the Okeechobee Waterway, which meets the St. Lucie River near Stuart. The Indian River Lagoon is North America's most diverse estuary with more than 2,100 species of plants and 2,200 species of animals, including 35 that are listed as threatened or endangered — more than any other estuary in North America. The lagoon also has one of the most diverse bird populations in America. Both lagoons are being threatened by excess freshwater from Lake Okeechobee and local stormwater basins and should be protected by specific actions outlined in this plan.

### **Lake Okeechobee**

Lake Okeechobee means “big water” in the Seminole Indian language, an appropriate name for a water body whose opposite shore can't be seen from the water's edge. With a surface area of 730 square miles, it is the largest lake in the southeastern United States. Despite its impressive size, the lake is shallow, with an average depth of only 9 feet. Lake Okeechobee and its wetlands are at the center of a much larger watershed, the Greater Everglades, that stretches from the Kissimmee River through the Everglades and finally into Florida Bay. Lake Okeechobee is also a key component of South Florida's water supply and flood control systems. Lake Okeechobee provides natural habitat for fish, wading birds and other wildlife, and it supplies essential water for people, farms and the environment. The lake provides flood protection and attracts boating and recreation enthusiasts from around the world. It is also home to sport and commercial fisheries. The lake's health has been threatened in recent decades by excessive nutrients from agricultural and urban activities in the lake's watershed, by harmful high and low water levels and by the spread of exotic vegetation. Despite these impacts, Lake Okeechobee continues to be a vital freshwater resource for South Florida, with irreplaceable natural and community values.



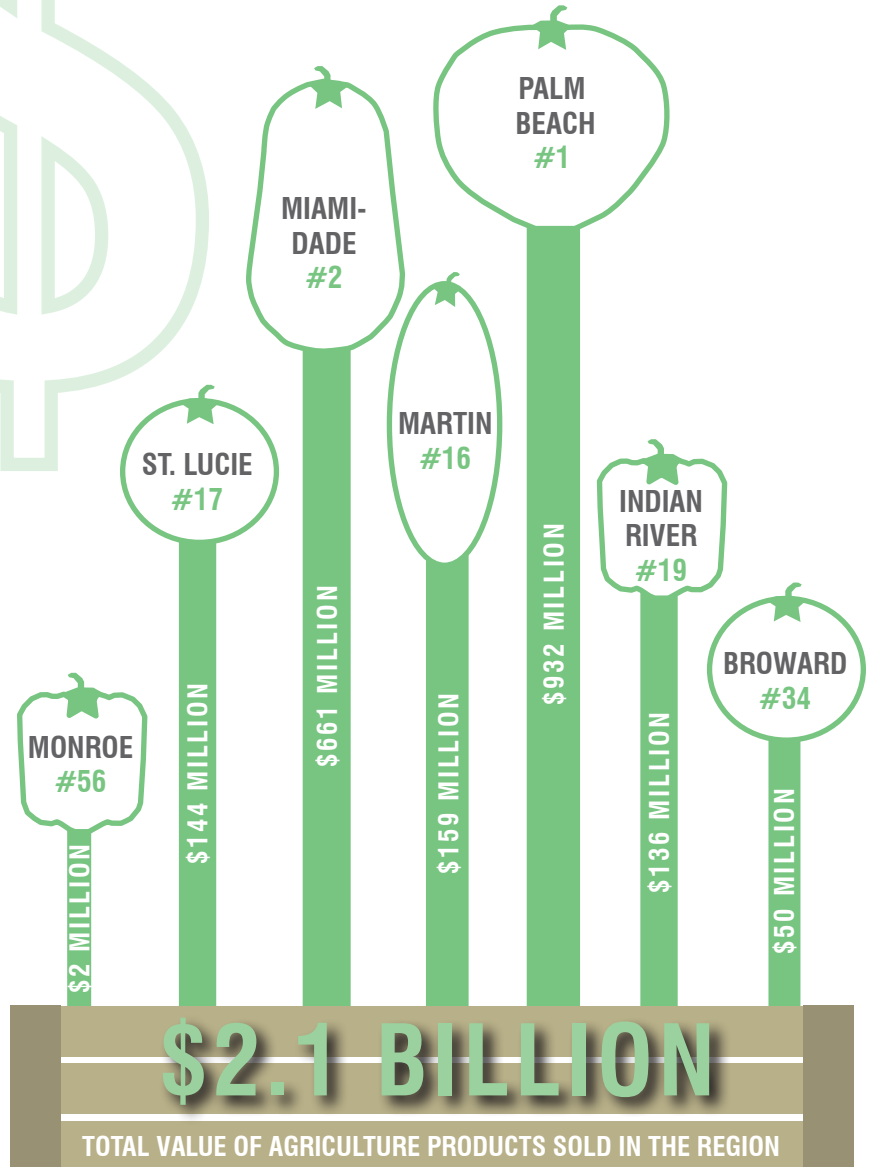
FUTURE TREND :

**250+** SQUARE MILES  
of additional farmland developed

Growth management policies hold but development in farmlands is still significant



# VALUE \$ OF FARMLAND



Source: Value of Agricultural Products Sold in 2007, Florida Department of Agriculture and Consumer Services

## Agriculture

Agriculture is a major economic driver for Southeast Florida. The most recent data from the US Census Bureau shows that the seven counties region produce agriculture products worth \$2.1 billion in 2007, with Palm Beach and Miami-Dade counties ranking #1 and #2 in the state respectively. Those two counties alone produced nearly \$1.6 billion worth of agriculture products in 2007. Agriculture also contributes to the security of the region, state and U.S. by providing a domestic source of food supply. We are the only sub-tropical growing climate in the Continental US.

### Everglades Agriculture Area

The Everglades Agricultural Area (EAA), comprising about 741,120 acres, is situated almost entirely in Palm Beach County. This important regional economic resource includes sugarcane farms, winter vegetable and sod farms, and cattle ranches. It is the largest contiguous agricultural land mass in the region.

### A Sampling of the Benefits Provided by Agricultural Lands<sup>1</sup>

Retaining farmland and a strong agricultural economy brings multiple potential public benefits, including possibilities to:

- Make a direct economic contribution through off- and on-farm job creation, purchasing local products and services, and supplying goods to food processing companies.
- Provide fresh healthy local food that reduces reliance on imported food and avoids the need for transporting it long distances (this helps with goals to reduce greenhouse gas emissions).
- Provide greater biodiversity and habitat for wildlife including pollinators
- Store and filter water, reduce flooding, help recharge ground water, and lead to cleaner streams, rivers, and coastal estuaries.
- Improve air quality and sequester carbon (an important strategy in climate change mitigation plans).
- Provide opportunities for agro- and eco-tourism.
- Serve as a source of locally produced energy to reduce reliance on imported oil.
- Retain the rural character and heritage that residents often enjoy and identify as important to their quality of life.
- Broaden outdoor recreational opportunities.
- Foster a stronger social structure in communities.
- Make farmland available for future generations.
- When integrated through design, add value to housing units in new compact communities and make them more competitive in the marketplace.

1 Source: *St. Lucie County Western Lands Study – Options and Opportunities for the Future*, 2010

### Economic Pressure on Agriculture

To retain agriculture and the multiple economic, environmental, and quality of life benefits it brings, the region must address the economic pressures on agricultural landowners to get out of farming or ranching and sell their land for development. This requires engaging farmers in the conversation about growth and putting a set of planning tools in place that can be used in combination or separately to help ensure the continuing presence of agriculture and offset the pressures for the development of productive farmland. The St. Lucie Western Lands Study examined these issues and concluded that:

- Viable agriculture is the backbone of maintaining a functioning network of agriculture, open space, and natural areas and providing multiple services from which the public benefits and enjoys.
- Any program to maintain agriculture must address the current pressures on farming and help prevent the “switch point” – when the income generated from agriculture is not sufficient to sustain farming and/or when land is more valuable for development than for agriculture.
- If development offers a higher return, agricultural land will be converted to development.

In order to avoid an unbalanced switch from agricultural uses to development, landowners must be able to realize revenues that equal or exceed those provided by development alternatives. Finding those new sources of revenue is all the more important given the current threats to the agricultural economy. Agriculture in Southeast Florida has been faced with a perfect storm – hurricane damage, increased pests and diseases, and growing global competition coupled with rising costs.<sup>2</sup>

In order to retain rural lands, three things must happen:<sup>3</sup>

- Agriculture must be profitable both now and in the future, providing farmers with sufficient revenue to remain in farming.
- A working Transfer of Development Rights (or Purchase of Development Rights) program must be developed to maintain the value of lands that remain in agriculture.
- The combination of future revenue must provide to the landowner a value as high as or higher than that of the ranchette or other suburban development alternative.

2 Source: *St. Lucie County Western Lands Study – Options and Opportunities for the Future*, 2010

3 Source: *St. Lucie County Western Lands Study – Options and Opportunities for the Future*, 2010; also *Committee for a Sustainable Treasure Coast Final Report*, 2005

## Water

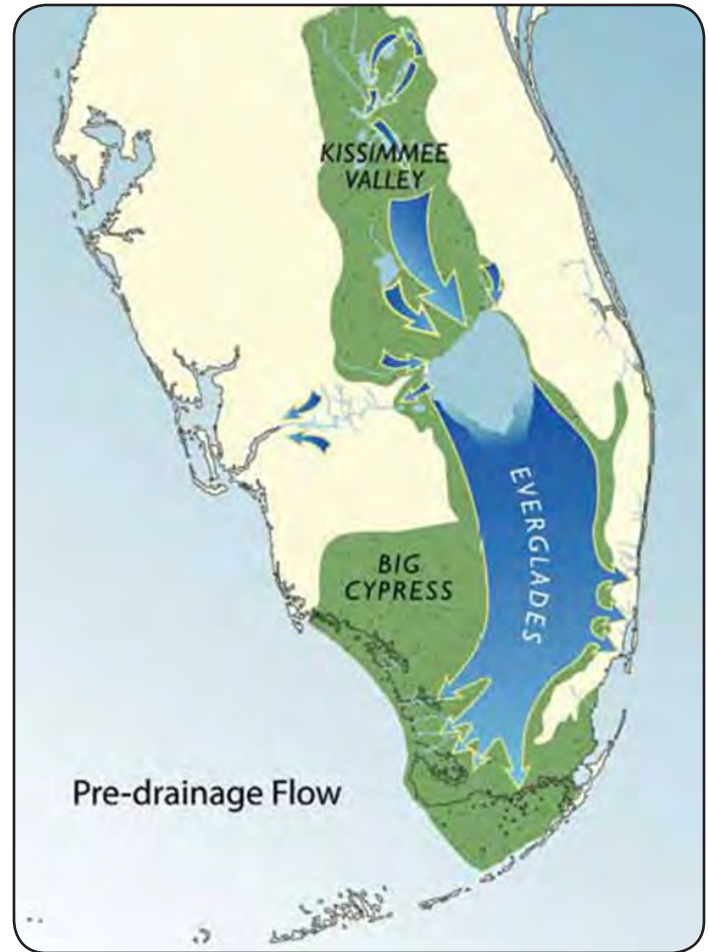
Water is critical to sustaining a growing economy. It is ultimately, the region's life force. Although Southeast Florida is rich in water, only a small portion is suitable for drinking. As the region grows, that limited freshwater supply will become even more depleted. The region needs to conserve its fresh retain rain and ground water, and increase its use of the desalinization of salt and brackish water to supplement the supply of fresh water. It must be noted that desalinization will be more expensive than historic freshwater supplies because of the infrastructure and energy needed to convert brackish water into drinking water. Volatile commodity and energy prices could dramatically increase the price of the region's fresh water supply. Further, the use of energy to meet the region's water supply needs may run counter to the region's need to reduce greenhouse gases.

Southeast Florida has exceptionally low levels of fresh water reuse and inadequate and aging water infrastructure. The number of communities on septic systems and the quality of outfall flowing directly into the estuaries and ocean also present problems. All will be exacerbated by the impacts of climate change, specifically sea level rise, on the region's water supply and its flood control and water infrastructure. Particularly in the most southern parts of the region, saltwater is already intruding into drinking water wellfields and stormwater retention areas, and rising water tables are causing increased flooding in inland areas.

Addressing those complex issues will require greater coordination among what today are fragmented utility providers. A regional strategy would help water providers, residents, and businesses collectively create a water supply plan that would address the region's long-term water infrastructure needs and make more sustainable use of its limited fresh water supply.

### **Human Impacts to the Natural System**

Historically, the St. Lucie River was a freshwater river with no permanent connection to either the Atlantic Ocean or Lake Okeechobee. Beginning in the late 19th century, the river and its watershed underwent a series of modifications for navigation, flood control and water supply purposes. The St. Lucie River is today part of the Central & Southern Florida Project, one of the world's largest interconnected public works systems. The C-44 Canal now connects Lake Okeechobee to the South Fork of the river. In addition, the C-23 and C-24 canals move stormwater runoff directly into the North Fork of the river instead of allowing natural systems to gradually absorb the water. These changes illustrate the interconnected nature of drainage and public water supply.



At the spine of South Florida was a river fifty miles wide. North of Lake Okeechobee, much of the river has been converted to homes. South of the lake, the river has become a farming belt. Both changes alter the quantity and quality of Southeast Florida's water.



## Drainage

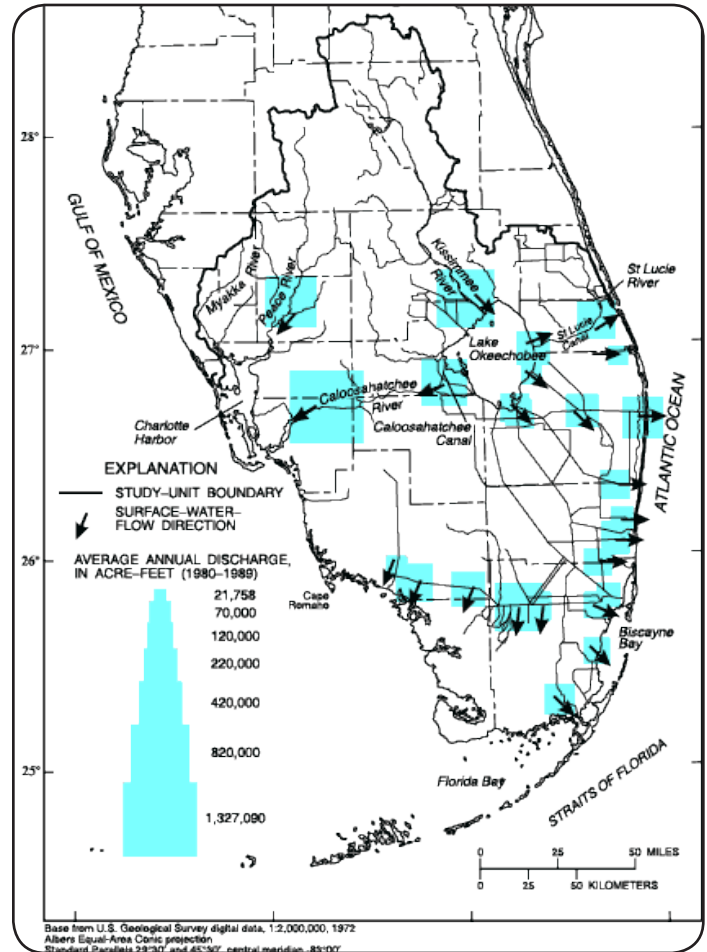
Drainage for flood control in South Florida has caused the loss of roughly 6 million acre-feet of water storage, half of which came from Lake Okeechobee. In the urbanized area of Southeast Florida, approximately 2 million acre-feet of freshwater is now discharged directly to tide on an annual basis from canals and urban drainage systems, causing adverse impacts to coastal estuaries. While this drainage provides flood control, water lost to tide is not available for use during the dry season. The decrease in storage capacity of the South Florida and Everglades ecosystem has resulted in insufficient and improper timing of water deliveries to meet the needs of Everglades and Florida Bay restoration efforts, as well as the Caloosahatchee, Indian River, St. Lucie and Lake Worth Lagoon estuaries, Biscayne Bay, urban areas and agriculture.<sup>4</sup> Rising water tables due to sea level rise will affect crop stability. In the southern counties, excessive watering will damage crop yields, destroying some of the more sensitive crops. Citrus blight is spread partly by water (namely rain and hurricanes) but adding to the water table may prove to severely impact orange crops.

## Rainfall Driven System<sup>5</sup>

- South Florida has essentially two seasons: the five-month rainy season from June through October, when 70 percent of the year's rain falls, and the seven-month dry season from November through May.
- Southeast Florida averages 53 inches of rainfall each year. Peak rainfall varies from 4 to 18 inches over one day; 6 to 20 inches over three days; and 8 to 22 inches over five days.
- Major long-term droughts occur and have negative impacts on agriculture, the environment and public water supplies, primarily due to a lack of storage and flexibility in managing the regional drainage system.
- Miami and other coastal cities enjoy an abundance of rain, but it is not stored anywhere. During periods of drought, these cities become very vulnerable.

<sup>4</sup> Source: *Everglades Interim Report*, Chapter 10, C&SF Project Restudy, 1998

<sup>5</sup> Source: Padowski, J. C., and J. W. Jawitz, 2012. *Water availability and vulnerability of 225 large cities in the United States*, *Water Resources Research*, 48, W12529, doi:10.1029/2012WR012335

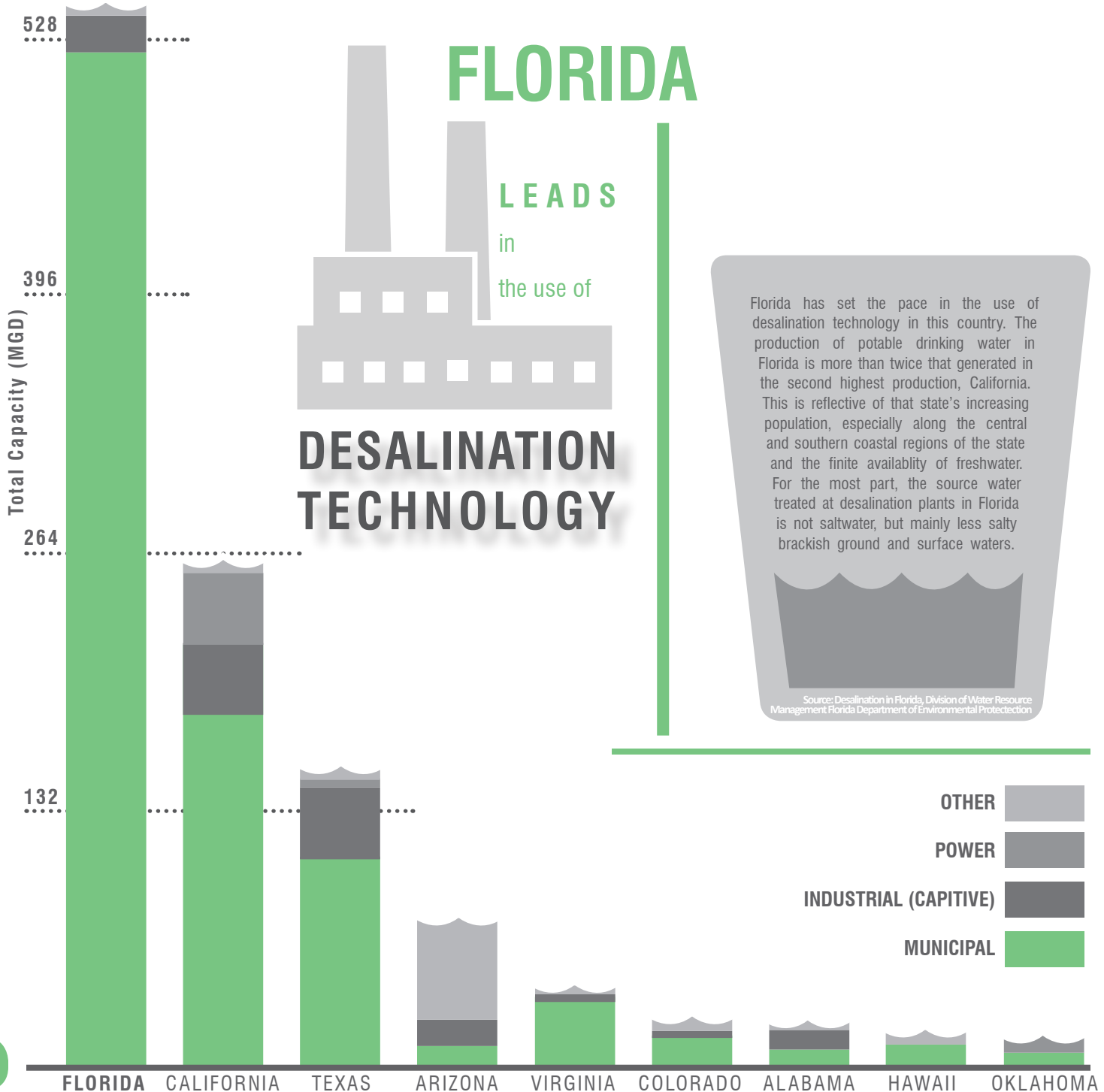
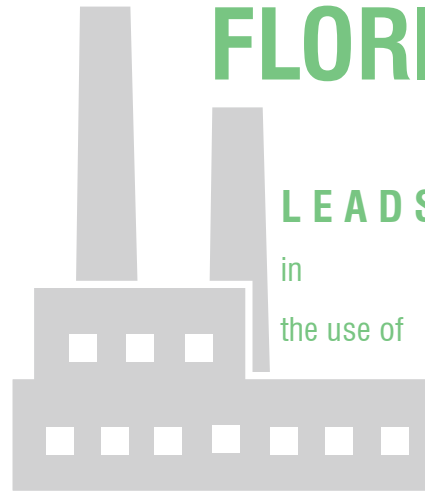


Florida can be thought of as a giant bucket that once held, say, four gallons of water. Development reduced the bucket's capacity to two gallons; to prevent flooding, the extra is flushed to the ocean using canals.

# FLORIDA

LEADS  
in  
the use of

## DESALINATION TECHNOLOGY



Florida has set the pace in the use of desalination technology in this country. The production of potable drinking water in Florida is more than twice that generated in the second highest production, California. This is reflective of that state's increasing population, especially along the central and southern coastal regions of the state and the finite availability of freshwater. For the most part, the source water treated at desalination plants in Florida is not saltwater, but mainly less salty brackish ground and surface waters.

Source: Desalination in Florida, Division of Water Resource Management Florida Department of Environmental Protection

- OTHER
- POWER
- INDUSTRIAL (CAPITIVE)
- MUNICIPAL

South Florida  
Water Management  
District Desalination  
Capacity

**245**  
**MILLION**

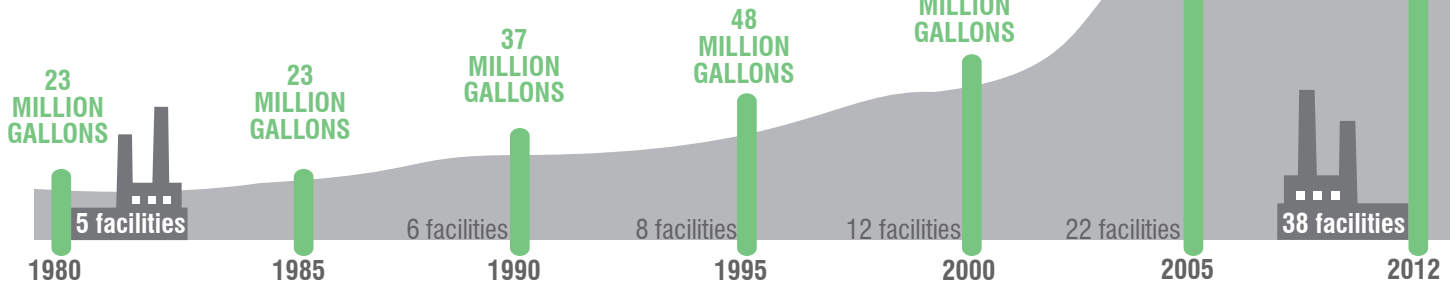
gallons  
of fresh water  
every day

**PUBLIC  
WATER SUPPLY**

South Florida Uses  
**3+**  
**BILLION**  
gallons per day

**AGRICULTURAL  
IRRIGATION**

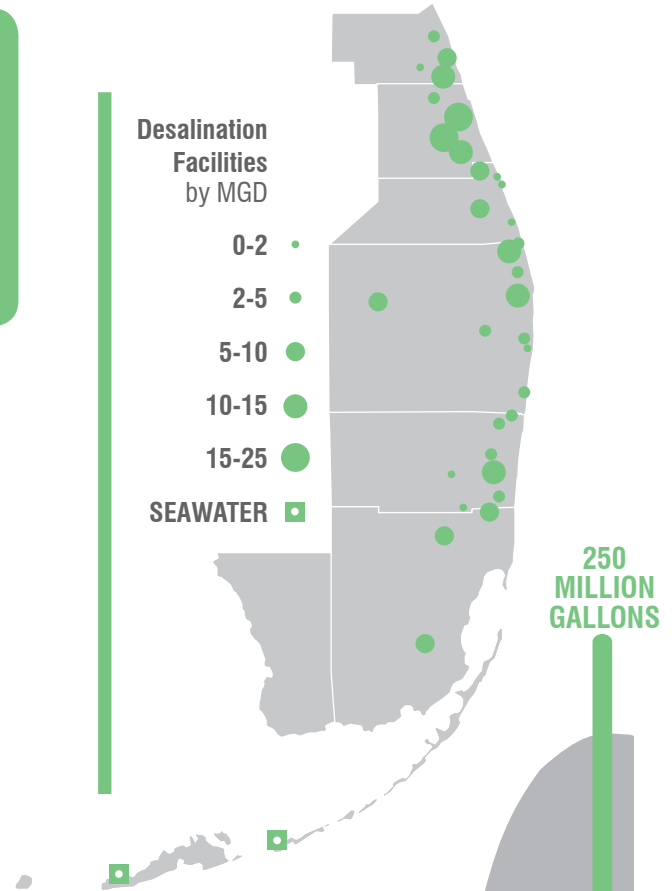
Source: South Florida Water Management District



**Desalination  
Facilities  
by MGD**

- 0-2
- 2-5
- 5-10
- 10-15
- 15-25

**SEAWATER**



THE 10-MILE-LONG SHORELINE FRONTING MIAMI BEACH WAS REPLENISHED BETWEEN 1976 AND 1981. THE PROJECT COST \$64 MILLION AND IT REVITALIZED THE AREA'S ECONOMY.

PRIOR TO NOURISHMENT, IN MANY PLACES THE BEACH WAS TOO NARROW TO WALK, ESPECIALLY DURING HIGH TIDE.

TODAY THE SANDY BEACH IS HOME TO FESTIVALS AND CONCERTS YEAR-ROUND. THE BEACH SYSTEM ALSO PROVIDES A CRITICAL BARRIER AGAINST STORM SURGE AND SEA LEVEL RISE.



# CLIMATE & ENERGY RESILIENCE

## The Climate Compact

Resilience is the capacity of a place to maintain their purpose and their identity given any future circumstance. The health of our regional economy depends on physical resilience. Southeast Florida is one of the most vulnerable areas in the world to climate change and sea level rise. In early 2009, representatives of several Southeast Florida counties and cities walked the halls of Congress to advocate for climate policy. After a few meetings with legislators it became evident that our region would need to move ahead of the federal government on this issue.

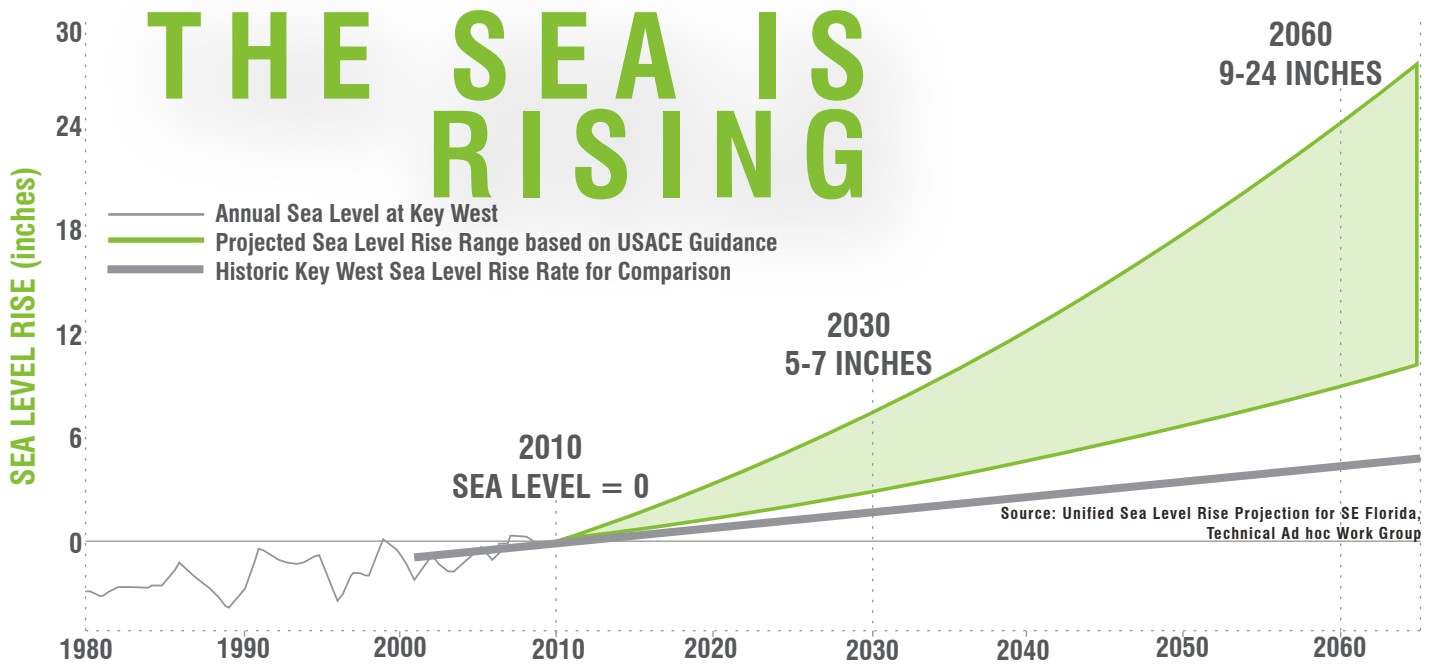
Since 2009 a great deal of work has been undertaken by many jurisdictions. However, each had slightly different baseline emissions figures at different points of time and different sea level rise planning scenarios. An opportunity to reconcile conflicting data and pool resources presented itself.

Realizing the necessity of a local effort paved the way for a unique arrangement – the **Climate Compact** – a voluntary and cooperative partnership among governing bodies to tackle what may be the most important issue of our generation. At the same time,

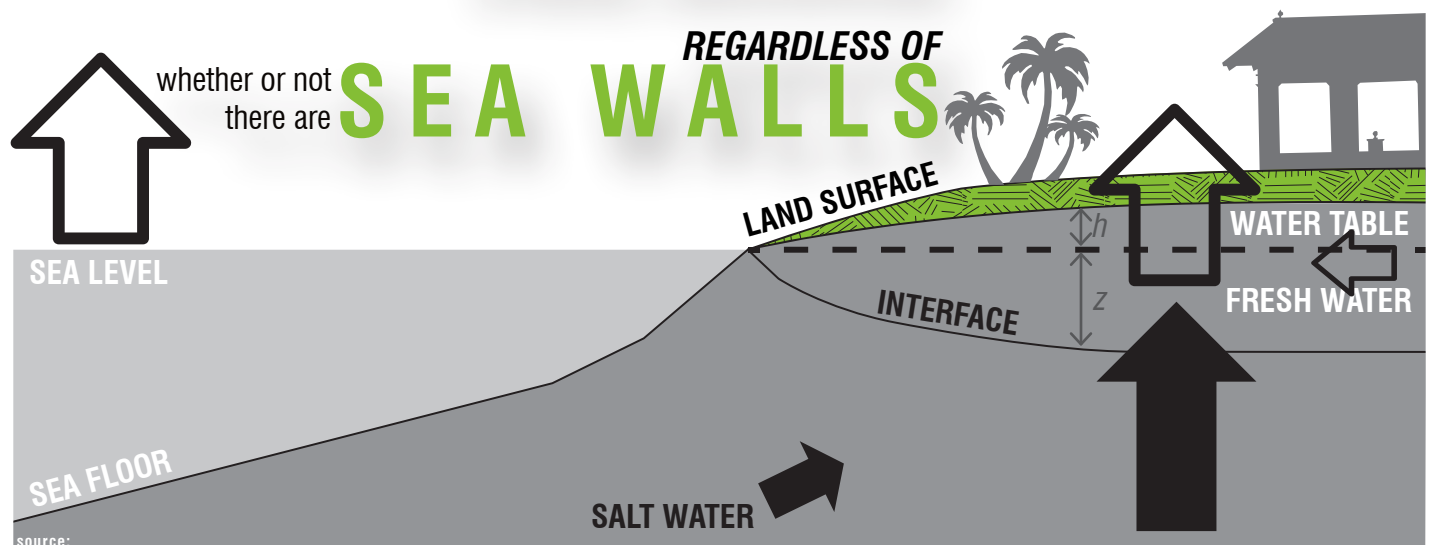
this focused collaborative respects the diversity of the region and the autonomy of the many governing bodies.

The Compact began when elected officials representing each of the four counties hosted Regional Climate Leadership Summit later in 2009. This first summit led to the ratification of the Southeast Florida Regional Climate Change Compact in 2010, with unanimous votes of each County Commission. Since adoption, the four counties have used existing resources to support implementation of the Compact under the direction of a Compact Staff Steering Committee. Through Seven50, the northern counties of Martin, St. Lucie, and Indian River have become involved in the discussion, sparking the beginnings of a unified effort to protect our region in the way that best suits the needs of the community.

It's a historic start. The Climate Compact provides a groundwork for action, but there is a lot of difficult work ahead.



**SALT WATER** from the ocean is moving UPWARD, UNDERGROUND,



## Why haven't we seen any sea level rise yet?

We have. Boat captains in the Keys can tell you about it – but we've only seen 8 inches of rise over the last 100 years.

From this point things will move more quickly. Estimates range from 9 inches by 2060 (manageable, though costly) to 24 inches (quite dramatic).

## Can't we just build a levee?

While levees would help during storm events the slow rise of water may come up below our feet because of the porosity of our soils and substrata across much of the region.

### The Effect of Rise

Just one-foot of sea level rise has serious implications for Southeast Florida. At three feet, the very existence of many areas would be threatened.

**1 Foot of Rise:** Regionally, nearly 80 percent of the lands potentially affected in the one-foot scenario are conservation lands, especially coastal wetlands. Low-lying natural systems of buttonwood, mangrove, scrub mangrove, and herbaceous saltwater and freshwater wetlands would be significantly affected. Losing these protective systems would further increase our vulnerabilities to extreme weather.

There are also many low-lying, high-investment areas that become vulnerable after just one-foot of rise. The upper estimate of current taxable property values in Monroe, Broward, and Palm Beach Counties vulnerable in the one-foot scenario is \$4 billion. Three of Monroe's four hospitals, 65 percent of schools and 71 percent of emergency shelters are located on property at elevations below sea level at the one foot scenario. The cooling canals of power plants in Miami-Dade and Broward as well as power lines in Monroe may be located in water.

Southeast Florida depends on canals to drain stormwater into the ocean. Just six more inches of sea level rise could severely effect almost half the area's flood control capacity unless the gravity-drained systems became more mechanized.

**3 Feet of Rise:** In Broward, Palm Beach, and Monroe more than \$31 billion in real estate and public investments become vulnerable in the three-foot rise scenario. Many barrier islands would require significant bulwarking to stay intact; others face the threat they may disappear. Communities near the Everglades would have to increase pumping dramatically to stay dry. Water rise in many canals would make neighborhoods expensive to insure. The cost to repair storm damage due to flooding rises with the water. The entire region, even upland areas in the north, would be affected by the loss of coastal drinking water well fields due to saltwater intrusion.

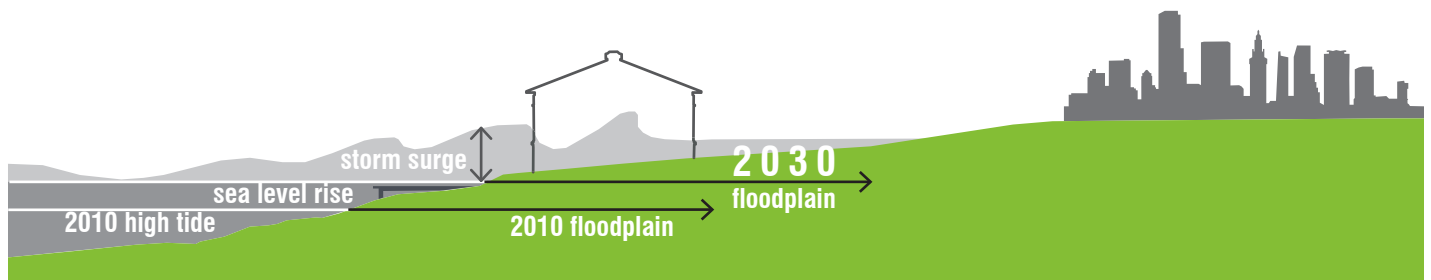
# HIGH TIDES, STORM SURGE & FLOODING

**WILL RISE HIGHER**

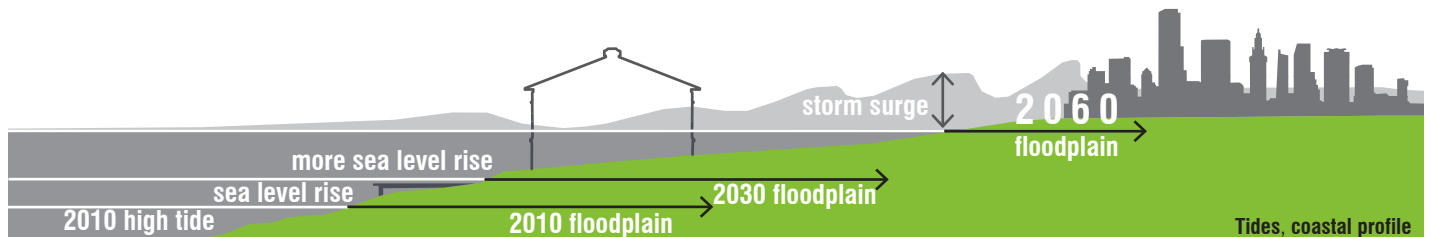


FLOODPLAINS ARE AREAS THAT FLOOD WHEN THE WATER LEVEL REACHES FLOOD STAGE

Storm surge, the potentially damaging increase in sea height that happens during a coastal storm, is set by the sea level. As local sea level rises, so does the origination of the storm surge, permitting coastal storms to infiltrate farther inland. With higher global sea levels predicted for 2030 and 2060, areas much farther inland would be at risk of inundation. Local factors such as tides, natural and artificial barriers, and the coastal topography also affect the range of local flooding.



STORM SURGE RISES AS THE BASE WATER LEVELS RISE



Tides, coastal profile and other local factors will influence extent of floodplain

Source:



My home is on a lot with a higher elevation than the 2' potential rise by 2060. Do I have anything to worry about?

Storm surge and flooding events on top of the 2' of rise will have an exponential effect. Areas that had been dry before will see water during hurricanes and flooding events.

### Preparations Underway

The Climate Compact process provided climate change education, political consensus and a basis for action. However, the plan is not mandatory, and implementation faces serious challenges including high costs.

There are more than 100 local governments in the region, each at varying stages of climate adaptation planning and implementation. Miami Beach is moving quickly to adapt out of necessity. Miami Beach has discussed spending \$200 million overhauling an aging drainage system with more pumps, higher sea walls, more storage for storm water runoff and back-flow preventers to keep seasonal high tides from flooding streets and neighborhoods.

Miami Beach leaders have sought advice from representatives from the Netherlands where much of the population already lives below sea level. The Dutch are kept safe and dry by towering natural sand dunes, 2,100 miles of dams, dikes and locks and a vast pump system. However, unlike in the Netherlands, Southeast Florida's geology allows water to rise up below the surface. Also, the various engineered systems of the Netherlands never have to face hurricanes.

Elevated roads and homes, storm water systems and around-the-clock pumping are not new to Southeast Florida. Western Broward and Miami-Dade counties were "underwater" in the 1850s and were essentially part of the Everglades. These lands stay dry only by virtue of careful water management.

Other parts of the nation also require significant expenditures to keep them viable. The northeast relies on tremendous amounts of home heating oil and home insulation to survive the winters. The desert southwest must import water, desalinate water, and recycle water at tremendous cost. The Pacific coast lives under the shadow of catastrophic earthquakes and must routinely retrofit its buildings to survive seismic activity. Southeast Florida communities are just as worthy of preservation.

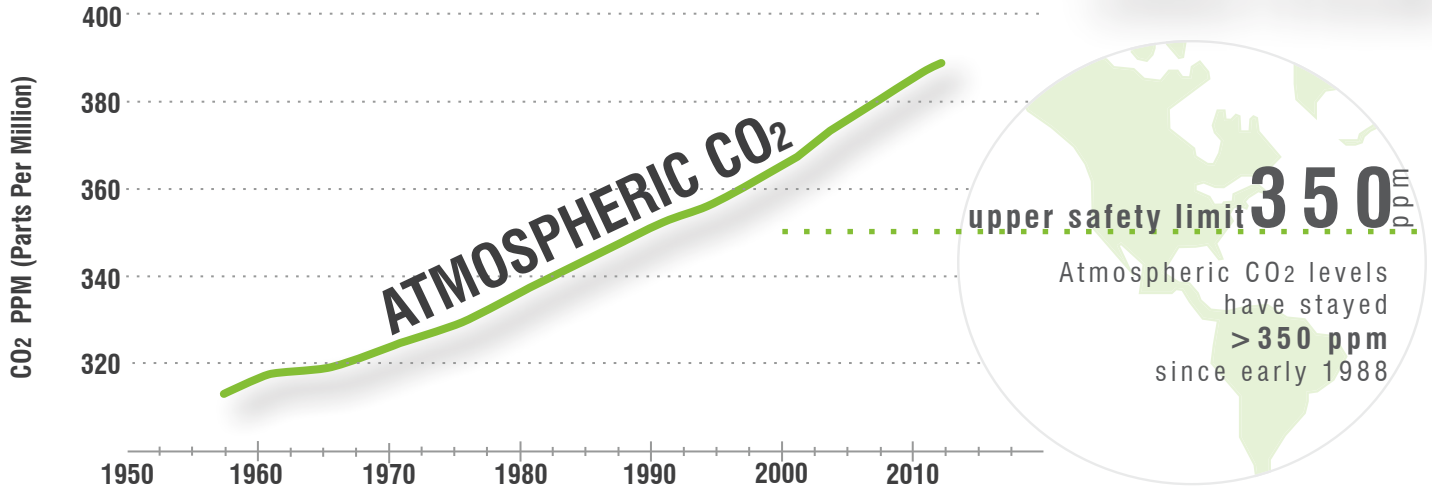
We have a long history of engineering our environment and weathering catastrophic storms and there are many lessons the region can learn from elsewhere. HUD's Hurricane Sandy Rebuilding Strategy, for instance, includes dozens of recommendations that will guide billions of dollars in federal investment to help the Sandy-impacted communities rebuild in a way that makes them better able to withstand future storms. Even with substantial investment our region will always remain vulnerable to climate change. The time for preventive preparation, like the kind we see in Miami Beach, is shortening.

Seven50 has worked to provide tools to identify areas of vulnerability by creating maps to visualize the locations most likely to face the impacts of climate change. Local and regional governments can use this information to make informed decisions and strategically determine their growth priorities.

and this is all happening  
because...

# THE WORLD IS WARMING

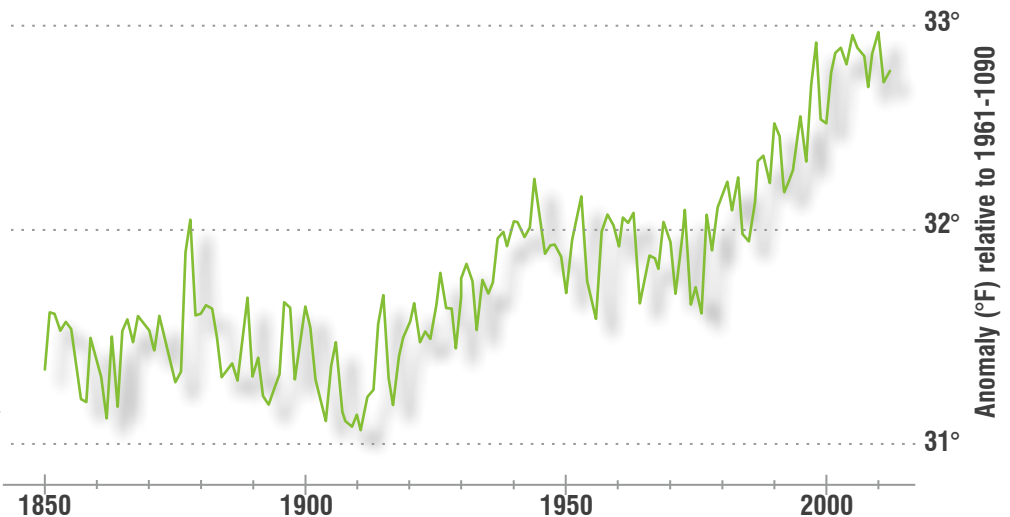
AND HUMAN ACTIVITY IS  
LARGELY TO BLAME



observed **GLOBALLY**  
averaged combined



**LAND  
+  
OCEAN**  
surface  
temperature  
anomaly  
1850 to 2012



## How do we know the climate is changing?

This report uses as a reference the Intergovernmental Panel on Climate Change (IPCC) Report produced in 2013 which involved over 250 Lead Authors, and over 600 Contributing Authors from over 32 countries.

I heard the IPCC report models are not always accurate and that the IPCC report contains unanswered questions.

Both are true. However the report says unequivocally that there is a 95% chance that human-generated emissions of carbon dioxide and other greenhouse gases are changing the climate.

## World Wide Collaboration

The IPCC Fifth Assessment Report provides a comprehensive assessment of the physical science basis of climate change, drawing on the scientific literature accepted for publication up to March 13, 2013. The IPCC Assessment Report is updated every four years. Below are some Headline Statements from the Summary for Policymakers with the level of confidence expressed parenthetically:

“Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased.

Each of the last three decades has been successively warmer at the Earth’s surface than any preceding decade since 1850. In the Northern Hemisphere, 1983–2012 was likely the warmest 30-year period of the last 1400 years (medium confidence).

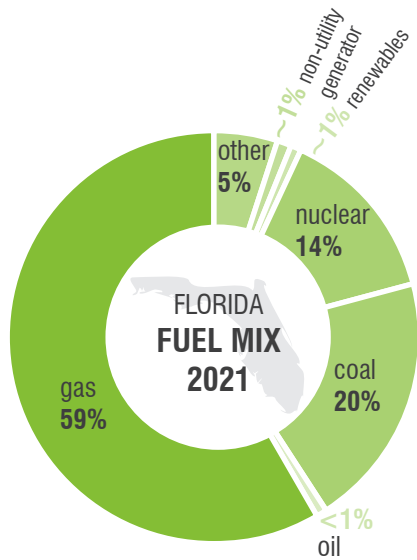
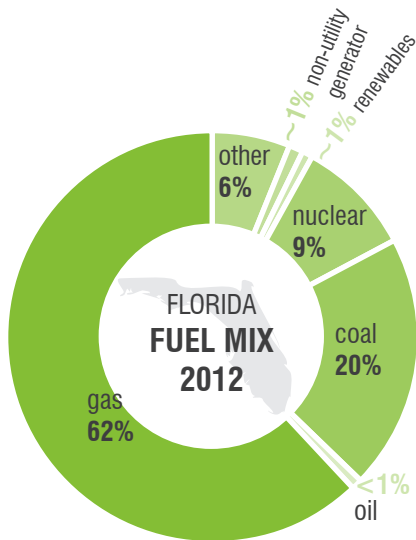
Over the last two decades, the Greenland and Antarctic ice sheets have been losing mass, glaciers have continued to shrink almost worldwide, and Arctic sea ice and Northern Hemisphere spring snow cover have continued to decrease in extent (high confidence).

The atmospheric concentrations of carbon dioxide (CO<sub>2</sub>), methane, and nitrous oxide have increased to levels unprecedented in at least the last 800,000 years. CO<sub>2</sub> concentrations have increased by 40% since pre-industrial times, primarily from fossil fuel emissions and secondarily from net land use change emissions.

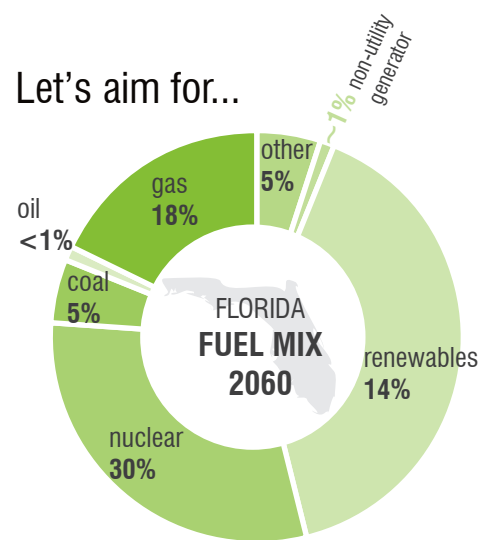
Human influence on the climate system is clear. This is evident from the increasing greenhouse gas concentrations in the atmosphere, positive radiative forcing, observed warming, and understanding of the climate system.

Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions.”

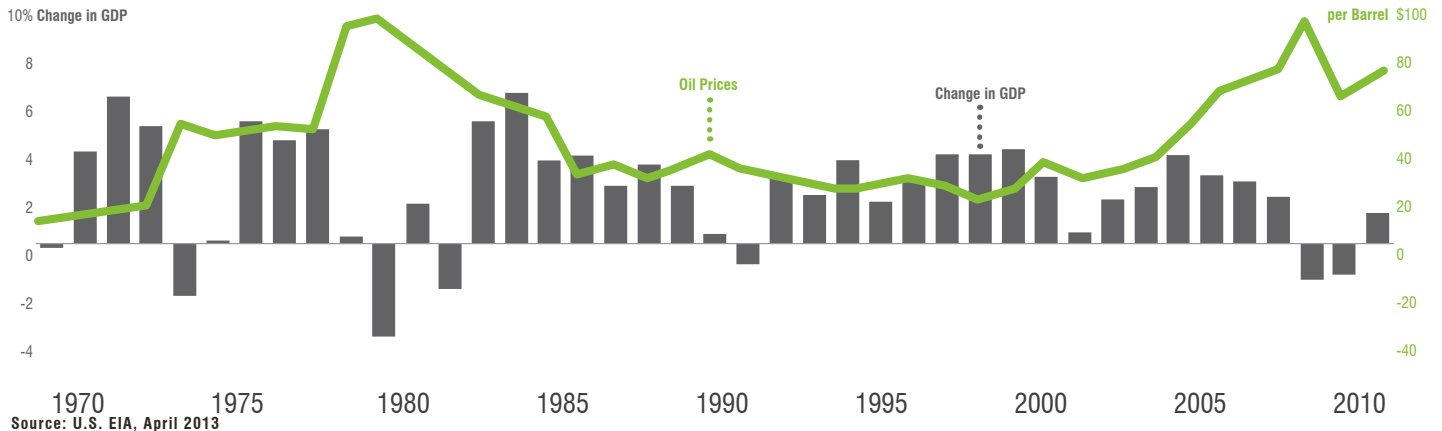
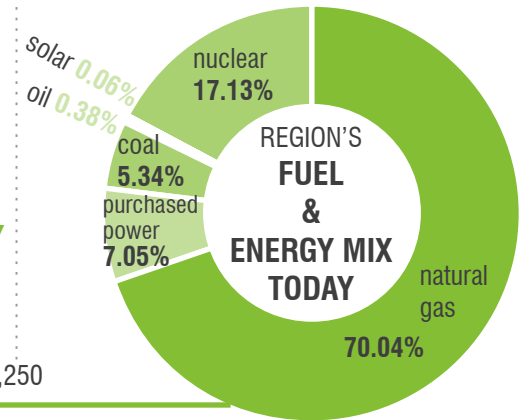
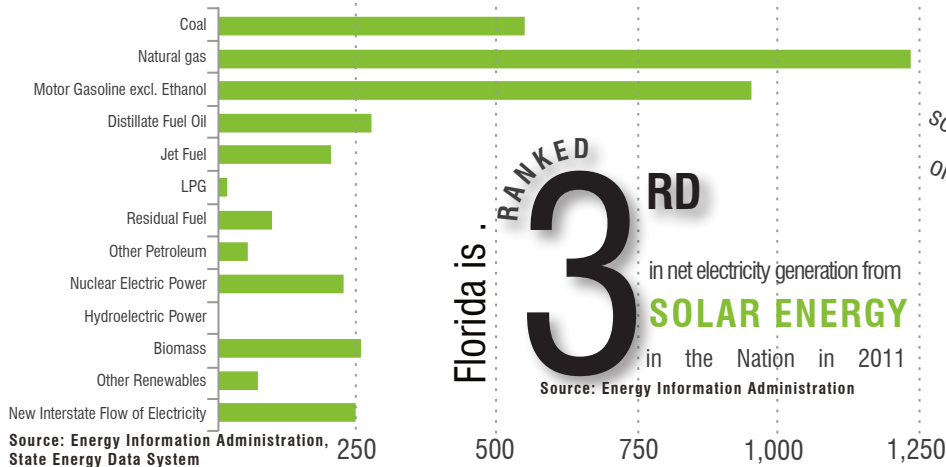
The National Climate Assessment (NCA) is an online report that will be updated on a continuous basis as new information is assessed and acceptable for publication. The NCA can be used as an ongoing source of updated projections for use by the Climate Compact.



Let's aim for...



Source: Florida Reliability Coordinating Council, 2012



How do we achieve a more diversified energy mix which generates less greenhouse gas emissions?

Florida Power and Light, our region's energy provider, already has one of the lowest emission profiles in the nation. They made the switch from coal to natural gas.

As a region, in the next fifty years, what will the next switch be to?

### **Solar**

South Florida is a logical choice for the usage of solar power, but it has struggled to reach its potential in the past. Many companies and organizations are looking to change this. Florida Power and Light has established three solar power plants in Florida, including one in Martin County. FPL also provides a net metering service, which allows individuals who install solar panels to sell their excess energy back to the company, reducing costs. Many solar energy advocacy groups have emerged, but the practice is still a difficult and costly transition. Up-front costs can be over \$10,000 for single family-homes, and may be higher than \$1 million for large commercial buildings. Under existing Florida laws however, only utility companies may provide energy to consumers, forcing solar companies to sell directly to utility companies, making it difficult for solar to be attractive to investors.

### **Biofuels**

Biofuels contain energy derived from biomass, or any living or once-living biological material. Two of the most popular forms of biofuel include biodiesel and bioethanol, along with other bioalcohols. Biodiesel in particular has seen a rapid increase in usage, due to its "renewable" nature. West Palm Beach based organic sugar company Florida Crystals uses the waste products of sugar production to fuel their own facility. The company also sells their energy to utility companies, and is working with FIU to develop technologies for more effective bioethanol production. As a major agricultural producer, South Florida has the potential to use biofuels effectively. The conversion of farmland to land for energy production is a controversial practice, however given that climate change is affecting the viability of other crops it must be carefully considered.

### **Nuclear**

South Florida contains two nuclear power plants: Turkey Point in Miami-Dade County, and St. Lucie Nuclear Power Plant, operated by FPL. Nuclear energy is on the rise in Florida, and FPL is seeking to expand the Turkey Point plant, increasing their usage of nuclear power. While nuclear energy results in fewer GhG emissions when compared to coal-powered plants, issues such as terrorism, natural disasters and disposal of used nuclear fuel pose concerns to the expansion of nuclear energy in the region. Expansion of nuclear power should not deter the region's efforts to increase the use of greener, locally-sourced energy sources.

# FLOOD INSURANCE



FLOODING is the

**NATURAL HAZARD  
DISASTERS**  
in the country

\$ COST \$

## BIGGERT-WATERS FLOOD INSURANCE REFORM ACT

In July 2012, the U.S. Congress passed the Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12) which calls on the Federal Emergency Management Agency (FEMA), and other agencies, to make a number of changes to the way the National Flood Insurance Program (NFIP) is run. Some of these changes already have occurred, and others will be implemented in the coming months. Key provisions of the legislation will require the NFIP to raise rates to reflect true flood risk, make the program more financially stable, and change how Flood Insurance Rate Map (FIRM) updates impact policyholders. The changes will mean premium rate increases for some—but not all—policyholders over time. Homeowners and business owners are encouraged to learn their flood risk and talk to their insurance agent to determine if their policy will be affected by BW-12.

Source: FEMA.gov



the **HIGHER** above base elevation...

the **LESS RISK** from flood damage...

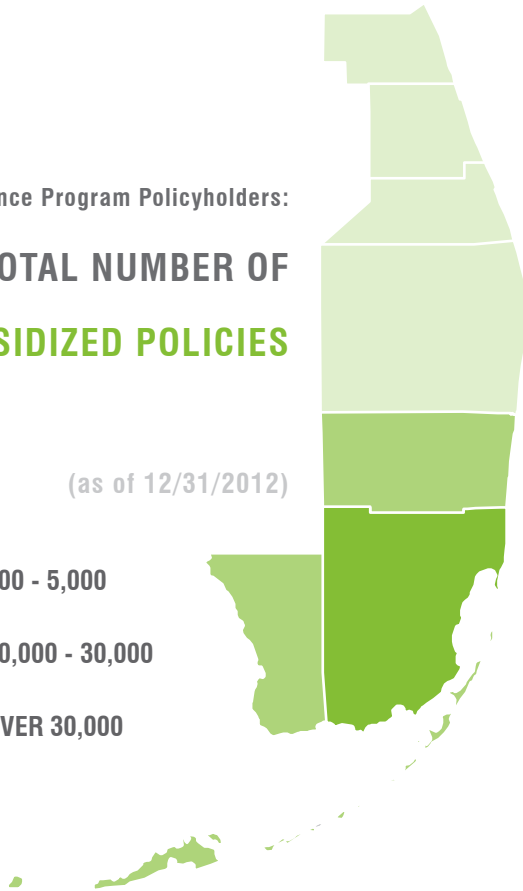
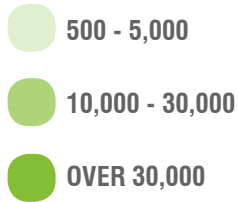
the **LOWER** the flood insurance premium



National Flood Insurance Program Policyholders:

## TOTAL NUMBER OF SUBSIDIZED POLICIES

(as of 12/31/2012)

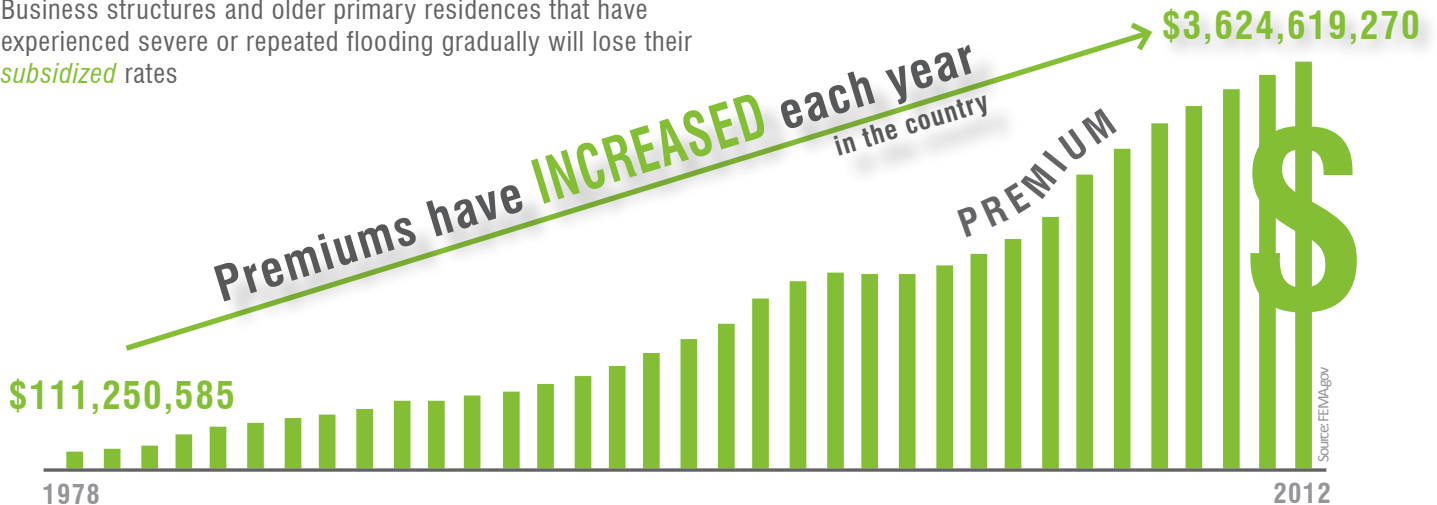


over  
**\$3**  
BILLION

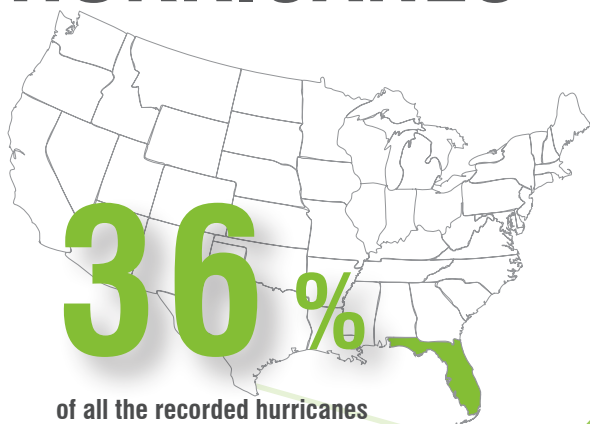
**EACH YEAR**  
the flood insurance program  
collects in premiums  
in the country

### Biggert-Waters Flood Insurance Reform Act:

Business structures and older primary residences that have experienced severe or repeated flooding gradually will lose their *subsidized* rates



# HURRICANES



of all the recorded hurricanes to hit the US since 1851

have made  
**LANDFALL**  
in  
**FLORIDA**

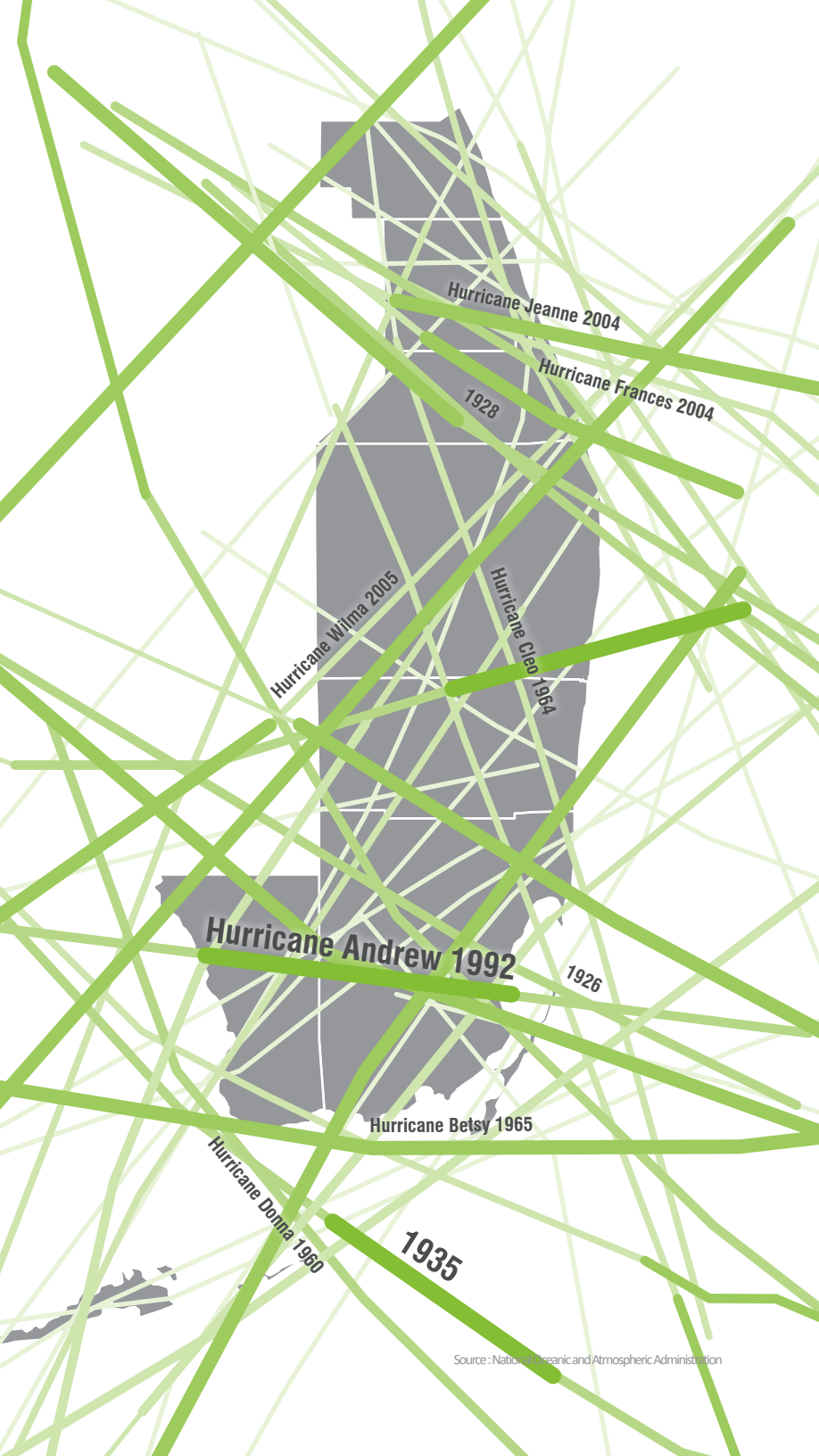
- H5 (Category 5)
- H4 (Category 4)
- H3 (Category 3)
- H2 (Category 2)
- H1 (Category 1)

Source: South Florida Sun-Sentinel

Florida is the US state that has been hit the **MOST** times by hurricanes. When we look to the future the effects of climate change may be uncertain but our history with hurricanes is not. What's past is prologue wrote Shakespeare in "The Tempest".

Between 1851 and 2005, there were **35 MAJOR HURRICANES** that struck Florida. With the exception of one, they all hit in the months of August through October.

Because our state is near the tropics and westerly winds blow off the African coast along the equator we are vulnerable. We need to retrofit through building codes and infrastructure upgrades, reinforce low-lying areas of high investment and, in some cases, retreat from areas that cannot be safely or cost-efficiently defended.



Source: National Oceanic and Atmospheric Administration



## 1935 - The Florida Keys

The Labor Day storm was a category 5 hurricane that killed 408 people in the Florida Keys. People caught in the open were blasted by sand with such force that it stripped away their clothing.

## 1992 - Hurricane Andrew

For 27 years, South Florida had been spared a severe hurricane. Then Andrew arrived, one of the most expensive natural disasters in U.S. history. Andrew wrecked more property than Hugo, Agnes and Betsy combined, with damages estimated at \$25 billion. Twenty-three died.

Source: South Florida Sun-Sentinel

## 1919 - Key West

Key West was hit by the most powerful hurricane in its history on Sept. 10, 1919. The storm killed more than 800 people before it was done.

## 1926 Miami: The blow that broke the boom

The 1926 storm was described as “probably the most destructive hurricane ever to strike the US.” It hit Ft Lauderdale, Dania, Hollywood, Hallandale and Miami, with an estimated death toll from 325 to 800.

## 1928 - Okeechobee

The storm hit Florida with 125 mph winds. Rain filled Lake Okeechobee, crumbling the dikes. Water rushed onto the swampy farmland, and homes and people were swept away. Almost 2,000 people perished.

## 1960 - Hurricane Donna

After swiping the Florida Keys and striking land near Fort Myers, ‘Deadly Donna’ did not travel along the usual path that storms of her magnitude usually take.

## 1964 - Hurricane Cleo

Hurricane Cleo blasted Key Biscayne and then moved north along the state’s coastline, following State Road 7 and passing over Miami, Opa-locka, West Hollywood and Fort Lauderdale.

## 1965 - Hurricane Betsy

Headed to South Carolina, the storm whirled to a stop, about 350 miles east of Jacksonville. Changing directions, the storm hit the Bahamas and South Florida.

## 2004 - Hurricane Frances

The super-sized storm left the entire state of Florida, 435 miles from Tallahassee to Key West, enveloped in rain and wind.

## 2004 - Hurricane Jeanne

The storm left the nation’s fourth most populous state dazed by pounding from four hurricanes in six weeks. At least six people died during and after the storm.

## 2005 - Hurricane Wilma

Hurricane Wilma clobbered the region with surprising strength, leaving the entire region damaged, dark and startled by the ferocity of a storm that many hadn’t taken seriously enough.



# INCLUSIVE REGIONAL LEADERSHIP & OPPORTUNITY

## A TIME TO LEAD

Globally competitive, sustainable regions providing equal opportunities require inclusive, well-informed, focused, and unified leadership that speaks with a clear voice. Effective regional leadership must draw from the public, private, and civic sectors; include diverse voices representing the region's multitude of ages, ethnicities, races, and socioeconomic groups; and pay particular attention to those voices that traditionally have not been represented in regional processes.

The relative “newness” of the Southeast Florida region as an integrated economy, combined with the diversity and transitory nature of the region's population, make identifying, developing, and retaining leaders a particular concern compared to other regions. At the same time, the wide-range and varied scope of issues that needs to be tackled provides an unprecedented opportunity for different coalitions to form, address issues and lead the region.

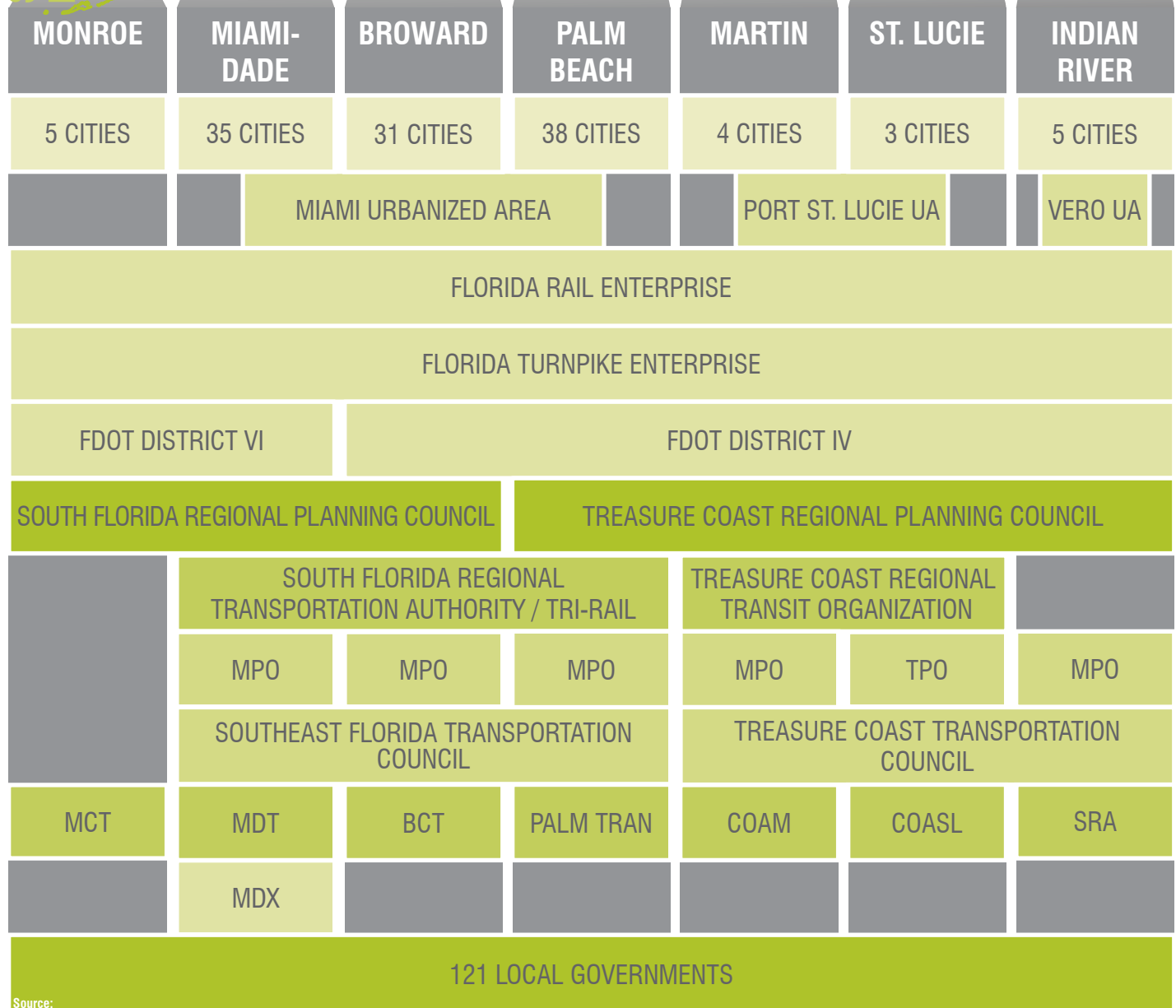
The Southeast Florida Council of the Urban Land Institute compiled a Regional Leadership report to identify the necessary steps required for implementation of the plan. They highlighted elements of a number of regional models that could be extracted for use in South Florida. ULI found that organizations benefited the most when composed of members from both the private and public sector, encompassing many of the major interests in the region. The composition and qualification of staff was a determining factor of adeptness. Successful organizations also worked to provide a forum for discussion, rather than dominating a conversation or striving to have the final word on substantive matters. Organizations and coalitions with a clearly defined scope performed especially well. Rather than taking on too many tangentially related projects, focusing on one substantial goal proved to be most effective. Funding came from a variety of sources, including donations, membership fees, and government, while necessarily remaining private.

The Partners of Seven50 must incorporate a range of educational and collaborative strategies to create a vital network of regional leaders and champions who can guide the region through the choices of today to set the stage for the future; identify and develop emerging leaders who can guide the region tomorrow; and create more opportunities for involvement of leaders who have been underrepresented in the past.

As other regions have experienced, this civic capacity may be the single most lasting impact of this visioning process.



# IS THERE A PATH TO REGIONAL LEADERSHIP?



**Who is in charge here?** No one group. There are 121 individual municipalities.

**Who speaks for the region?** No one person – especially given that our state capital is 500 miles away.

**Are there advantages to this dispersal of authority?** Absolutely. There is more

local control when power continues to be delegated to the group most affected by governmental decisions.

**Who will continue the Seven50 effort?** Many individual organizations. Perhaps new

advocacy groups will form, but no new overarching regulatory organization is

proposed. Leaders rise from the regional conversation hosted by Seven50, not

from an official action, but rather

because of individual initiative, timely relevance and a unified objective .



3

# THE REGION IN 2060

Growing The Economy

The Livable Region

Celebrating Arts & Culture

Strengthening The Environment

Adaptation & Mitigation

Inclusive Regional Leadership

A BLUEPRINT  
FOR ENSURING  
ECONOMIC PROSPERITY  
AND THE BEST-POSSIBLE  
QUALITY OF LIFE IN  
SOUTHEAST FLORIDA



ER,  
COMMUNITY

ATING J  
ENT ECO

UR  
ECOSYSTEM





# GROWING THE ECONOMY

## FIRST PRIORITIES FROM THE EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT WORKGROUP

### PRIORITIES

1

Strengthen Southeast Florida's role as a global hub for trade, visitors, talent & investment

2

Create & expand strong regional innovation clusters

3

Develop & retain a highly skilled, diverse, globally fluent workforce

4

Promote an entrepreneurial culture that fosters new business opportunities

5

Plan for the impact of climate change & sea level rise on private & public investment in the form of rising insurance rates & costs of new resilient infrastructure

6

Enhance Southeast Florida's quality of life to attract & retain a diverse mix of families, workers, visitors, retirees & businesses

7

Develop & maintain globally competitive infrastructure & economic development sites that support the region's economic vision

8

Improve coordination & collaboration to help Southeast Florida compete globally as a leading region

9

Position Southeast Florida to attract national & international events

### TOOLKIT ITEMS

Regional Export Development Plans

Regional Innovation Cluster

Career Pathways

Intermodal Logistics Center

Ports & Airports Coalition

Community Reinvestment Strategy

Regional Economic Development Initiatives

Use of Six Pillars Framework

Incentivize Preferred Scenario Growth

Simplify Permitting

Multimodal Balance

Fab Labs/ Collaborative Spaces

Urban Parking Strategy

Shops on the Sidewalk

Historic Preservation

Workplace Distribution



## Education is the Center of our Region's Economic Prosperity

As a society, we all desire for each child to attain success, every adult to obtain gainful and meaningful employment, our quality of life to be enhanced as we grow toward a vital future and a citizenry totally engaged in creating a world where prosperity is for all. The key is education at all levels and in multiple ways.

The direct link between Pre-K/12 education and post-secondary career readiness is well researched; however, the future will offer jobs that may not exist today. It is imperative that we have job training for the employers of today while we create continuous learners who have the ability to change with the unknown opportunities of the future and be the agents of those innovations. There are a myriad of anecdotes of students graduating with a degree or professional certificate only to learn their chosen path no longer exists or is significantly diminished. More training, more coursework, a new direction, frustration, and more expense. Plato believed in a "liberal arts" education, not training for a job. He is still correct in most cases, but there is still a need for the straight-line-to-work education as well as the broader scope of skills needed to be flexible in the work-place.

At this time, school districts and post-secondary institutions are graduating more highly qualified students than there are regional jobs for them to fill. A true conundrum: education surpassing the job market. With such a well-educated work-force, can high wage jobs be far behind? Our students are better educated, better trained and better informed than any generation in history. The future of economic prosperity in our region is indeed great.

We want each child to become a contributing adult: education is the key. We want every adult to have meaningful, gainful employment: education is the key. We want a high quality of life in a beautiful, sustainable environment: education is the key. We want all to have a fair chance at a prosperous life: education is the key. There are no careers without education. There is no global competitiveness without education. There is no strong democratic republic with a sustainable economy without education.

The Pre-K/12 system + post-secondary job-training and degree programs + diversified careers = economic prosperity. Sounds simple, but the task is a challenge in a politically driven and often fragmented education continuum. It is a challenge that we must accept and successfully solve.

**Honorable Katheryn Hensley**  
School Board Member, St. Lucie County

Let's cultivate and create jobs by investing in the creative industries.



# 1

## Strengthen Southeast Florida's role as a global hub for trade, visitors, talent & investment

Trade and tourism have been mainstays of the Southeast Florida economy since the Henry Flagler extended the Florida East Coast Railway down the Atlantic Coast and built the Port of Miami. Today, trade and tourism are key drivers of the regional economy, with the region ranking first in the nation for the value of international cargo and the number of home-port cruise passengers, and among the top ten for international visitors, air passengers, number of containers handled, and the value of exports.

A global outlook is critical for any region to compete in the 21st century: By 2030, 80 percent of the world's purchasing power, 90 percent of economic growth, and 95 percent of consumers will live outside of U.S. borders. The widening of the Panama Canal, the continued growth of Latin American and Caribbean nations, and anticipated growth in Africa all will contribute to growing trade and travel volumes. With a location close to the junction of vital north-south and east-west trade lanes, Southeast Florida is well positioned to become an even more significant global hub.

Larger trade and visitor flows directly benefit Southeast Florida's airports, seaports, and transportation and logistics industries. They also create opportunities throughout the economy, particularly for Southeast Florida agricultural producers, manufacturers, and service providers to sell goods and services overseas and become part of global supply chains. The U.S. Department of Commerce has estimated that export-oriented companies typically grow 15 percent faster and pay 15 percent higher wages than firms operating solely in the U.S. market.

Other regions such as Savannah and Charleston are aggressively pursuing global trade opportunities, but Southeast Florida can excel based on its global name recognition, its large cluster of international banking and law firms, and its long-standing business and cultural ties with Latin America and the Caribbean.

To accomplish its global vision, the region in the near term should:

- Continue to advance key seaport, rail, and highway infrastructure investments to prepare for the anticipated growth in trade following the Panama Canal widening;
- Provide a unified voice at the federal level to support continued development of free trade agreements and to address delays in customs, immigration, and inspection processes at seaport and airports;
- Collaborate on key infrastructure, land use, and economic development opportunities. The Southeast Florida Regional Freight Plan, under development by the Broward, Miami-Dade, and Palm Beach MPOs with FDOT and other partners, provides a forum for regional collaboration on freight issues that should be expanded over time to include all seven counties.

Longer-term, the region must continue to build the global connections, infrastructure, and business relationships to position Southeast Florida as the "Singapore of the Americas" – a trade and investment hub leveraging a strategic location to play an outsized role on a global stage.



## Aligning Education with the Needs of Businesses & Industry

From its very inception, our nation has placed a high value on education as the foundation of a free and democratic society. Support of literacy as an essential skill for all, the founding of great land-grant universities, the GI Bill, and rise of a national community college system are visible and vital expressions of this commitment.

Today, America faces a new challenge – global competition, and once again, education must step forward as our nation’s most capable resource to meet this demand. Yet education cannot stand alone in this endeavor. To maintain economic, innovative and entrepreneurial leadership on the world stage requires a fresh view of the relationship between business, industry and education.

In the age of rapid global change, advanced technology and knowledge-based economies, this relationship couldn’t be more important. So the question then becomes: How do we as providers of postsecondary education align our programs, curriculum, certifications, and degrees with the specialized skills being sought by industry? The answer is simple: collaboration.

Students want high-wage employment. Organizations need highly capable employees. Higher education is the bridge.

Education and the workplace flourish within a symbiotic relationship, and to achieve full economic prosperity, partnerships are critical. They can take the form of internships, giving students exposure to everything from advanced research environments to industry specific technology and equipment not found in the classroom. Institutions can help cultivate new product development, commercialization, and a myriad of other business expansion opportunities. They can also serve as an entrepreneurship incubator or powerful economic development recruitment tool.

Essentially, partnerships between educators and business leaders are reciprocal; they inspire each other to remain ahead of the next great curve. And as our educational institutions rise to meet not only the current needs of industry, but the future ones as well, our region’s creative workforce potential, entrepreneurial spirit, and economic prosperity will soar. Collaboration is the key.

**Dr. Edwin Massey**  
President, Indian River State College

## 2

### Create & expand strong regional innovation clusters

Today's most competitive regions in the United States and around the world are driven by innovation clusters - geographic concentrations of interconnected businesses, suppliers, service providers, and associated institutions in a particular field. National studies show that successful clusters are associated with increased rates of business formation and growth, higher wages, greater productivity, and more rapid cycles of innovation.

Examples of well-known clusters nationwide include: Silicon Valley (electronics, software, digital media), Boston (life sciences, higher education, financial services), New York (financial services, media, pharmaceuticals), Seattle (aircraft, information technology), Houston (energy, chemicals), Detroit (motor vehicles), and Los Angeles (entertainment, design, trade).

Southeast Florida is best known for its industry clusters related to tourism, construction/real estate, and agriculture, and is gaining recognition in other areas such as life sciences and global trade and logistics. The region has a mix of clusters today at various points in their lifecycle.

Cluster strategies often are best pursued at a regional scale that matches supply chains and business-to-business relationships, and focuses on where innovation-oriented businesses and skilled labor co-locate. There are examples of regional cluster initiatives today such as Life Science South Florida. The region's seven counties are pursuing similar lists of targeted industries, but often on an individual basis that may not build critical mass and economies of scale.

Moving forward, the region should develop a seven-county cluster strategy that defines and evaluates the region's clusters, and identifies two to three clusters that can be a primary focus for coordinated regional-level economic development activities. This cluster strategy should consider how to:

- Support expanding clusters such as logistics or life sciences that can be the drivers of growth in the coming decades;
- Facilitate early identification and nurturing of emerging clusters such as clean technology, design, marine industries, aerospace, or marine and environmental science that could become significant drivers in the future;
- Help transition established clusters to serve new markets, including focusing on emerging niches for tourism (high-end business meetings and eco-tourism), agriculture (renewable energy), and military (homeland security technologies); and
- Help align education, training, research, infrastructure, regulations, and other public policies and investments to address each cluster's opportunities and needs.



There is a lot of talent in these counties, and many resources available. We need to collaborate to match opportunities with employees.

### 3

## Develop & retain a highly skilled, diverse, globally fluent workforce

Talent will be key driver of Southeast Florida’s success in becoming a global hub and developing strong innovation clusters. Workforce skills and education attainment are strongly correlated with higher employment levels and incomes for both individuals and regions as a whole and are a key driver of economic competitiveness.

Southeast Florida has a large and growing workforce, supporting nearly 2.4 million jobs today. The region’s workforce, like its population, is one of the most diverse in the nation, which a tremendous asset as the region pursues opportunities in global trade and services. The educational attainment of the region’s residents roughly tracks the national average, but this masks tremendous variation among counties and among socioeconomic groups in the region.

The Florida Department of Economic Opportunity projects that two out of three jobs in 2019 will require some form of postsecondary education and training, with more than half in “middle skill” occupations that typically require vocational education, industry certifications, or other technical training. The percentage of four-year college graduates in the region is slightly higher than the national average, with concentrations in Broward, Palm Beach, and Martin counties. The number of “middle skill” workers is relatively low across the board, and job growth in these categories has lagged during the past decade. The percentage of residents without a high school diploma is higher than the national average, with significant pockets of unskilled workers in parts of the region.

Developing and retaining a highly skilled workforce must be a critical priority for the future of the region. Immediate actions should include documenting current and future workforce needs and skills gaps to support the targeted innovation clusters and the global role, and then aligning education and workforce development programs to address these gaps.

Ultimately, the region should move toward a world class education system from pre-kindergarten to graduate degree and technical training programs that emphasizes:

- Positioning Southeast Florida as a global leader in key educational programs, such as trade and logistics or hospitality management;
- Strengthening critical skill areas with emphasis on science, technology, engineering, the arts, and mathematics (STEAM); creative thinking; entrepreneurial skills; and language and cultural skills;
- Developing innovative programs such as career academies, internships, and business-industry partnerships to prepare workers for the jobs of the future;
- Enabling lifelong learning and continued skill upgrades to reflect an evolving economy;
- Integrating immigrants and traditionally under-reached population groups into the region’s workforce;
- Retaining college graduates and skilled workers in the region; and
- Preparing Southeast Florida residents to become engaged citizens and leaders.

## 4

## Promote an entrepreneurial culture that fosters new business opportunities

Southeast Florida's small businesses and entrepreneurs are key drivers of the economy. Nearly 9 out of 10 businesses in the seven counties have fewer than 20 employees. The region also has 778,000 sole proprietors, nearly half of all such entrepreneurs in Florida.

This emphasis on small business reflects Southeast Florida's history as a draw for new residents from both the United States and other nations, many of whom bring an entrepreneurial spirit. This trend will likely continue in the future as international migration remains a key source of population growth, as the economy shifts toward innovation clusters, and as traditional employer/employee relationships evolve toward greater reliance on contract employees and virtual teams.

Small businesses include a wide range of enterprises, from mom-and-pop grocery stores and T-shirt stands to web developers and financial consultants. While ensuring a healthy business climate where every business can thrive, the region should give particular emphasis to the small businesses and entrepreneurs who support the targeted industry clusters and are involved in global commerce. Key needs include:

- Developing a thicker web of entrepreneurial support resources, including assistance with research and development, technology transfer and commercialization, market research, business planning, targeted training, export promotion, mentoring, and networking initiatives.
- Providing physical space for research and development, business incubation, and collaboration, including innovative concepts such as fab labs and hackerspace.
- Streamlining and improving the consistency of business licensing, permitting, and other regulatory functions in Southeast Florida.
- Expanding access to capital for startup and growing businesses, with emphasis on angel, seed, and early-stage venture capital. Southeast Florida has more than 150 banks and pockets of great wealth, yet private investment in small businesses and innovation and redevelopment is limited compared to other regions. The region should implement tools for encouraging private investment and leveraging available federal resources, such as community development financial institutions, new market tax credits, and other types of investment funds.

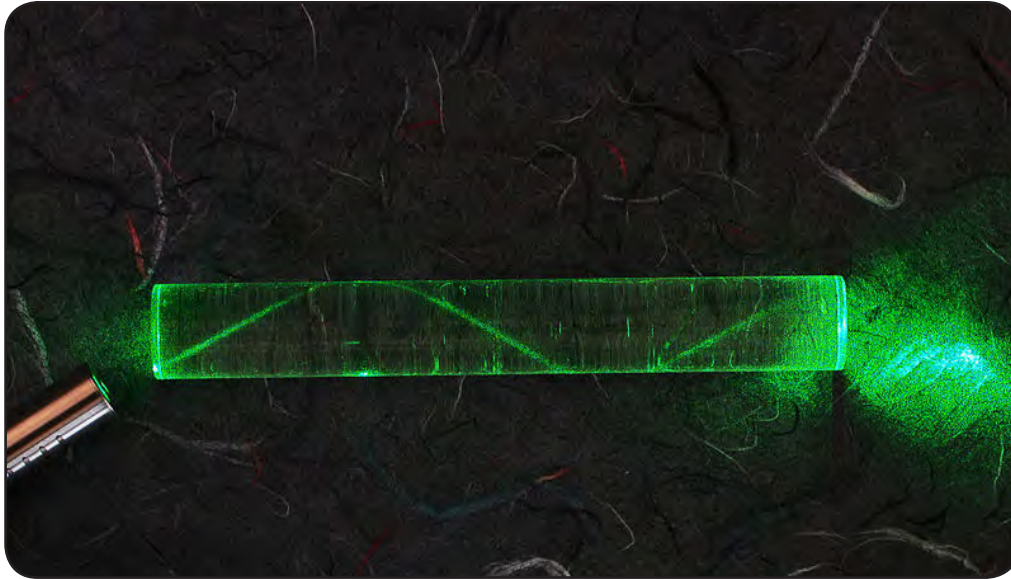
## 5

## Plan for the impact of climate change & sea level rise on private & public investment in the form of rising insurance rates & costs of new resilient infrastructure

The federal government offers subsidized flood insurance in low-lying or coastal areas. When the National Flood Insurance Program proceeded to address its debt in 2012 new flood maps for high-risk areas and new nonsubsidized rates were introduced. A rise in insurance premiums in our region followed. In the future, catastrophic storms could cause a dramatic spike in flood and wind insurance rates and property values could actually decrease as insurance costs rise. Yet to be assessed is the potential impact on home sales given the annual increasing of rates assuming a dramatic increase following a storm.

Municipalities in the seven counties must begin to incorporate and prioritize preferred climate adaptation improvement projects in capital improvement plans and pursue funding. Too often capital improvement projects begin after the disaster. Arguably this was the case after Hurricane Sandy in the Northeast and Hurricane Katrina on the Gulf of Mexico. Clearly this was the case with the Herbert Hoover Dike on Lake Okeechobee which came after the 1928 Okeechobee Hurricane, killing thousands. Following the storm President Hoover directed the Army Corps of Engineers to construct floodway channels, control gates, and major levees along Lake Okeechobee's shores. A long term system was designed for the purpose of flood control, water conservation, prevention of saltwater intrusion, and preservation of fish and wildlife populations. The dike has expanded multiple times since its inception and today almost completely encloses the lake.

Federal, state and local resources are necessary to implement climate change resilience and must be coordinated. This is not to say that every portion of Southeast Florida should plan on engineering solutions to avert climate change damage. Good candidates are low-lying areas which currently host high investment. Miami Beach's recent, roughly \$200 million dollar resilience project has been described as potentially insulating the island from 20 years of sea level rise and was designed to be upgraded in case of higher water rise. Very few communities can afford such systems alone. Communities must identify their own approach to climate change within their local budgets and utilizing appropriate technologies. However, Southeast Florida should work as a region to secure state and federal investment.



Fiber Optic Cable

## The Fiber Optic Revolution

The Fiber Optic Revolution may affect us more forcefully than the Industrial Revolution affected our forefathers. Instead of drawing millions from the farms into the repressive factories of the dingy cities; this Revolution will be liberating; creating economies of wealth for all, substantially improving our quality of life.

With a high capacity fiber optic network for Southeast Florida providing a backbone connecting local governments, and regional anchors — schools, colleges, universities, hospitals and non-profit biomedical institutions — which will create the stimulus to promote total changes in lifestyle. The local governments will be interconnected for emergency management communications; coordinate cost savings for major capital spending, combining bids to leverage purchasing power, a sharing of expertise, and providing a concerted increase in citizen services.

Schools, colleges and universities with high capacity broadband will provide students and researchers with access to libraries and research data from all over the world; opening up the classroom to all those seeking to learn. Our entire educational system will be restructured; making self-selected su-

perior quality lectures available 24 hours per day, at the user's demand. Education will not be location specific nor financially restrictive to any who desire to learn.

Biomedical non-profits and hospitals participating in large scale research projects, can readily share data and analysis, and with interactive, virtual conferencing can conveniently discuss new research advances.

The local government network will open the floodgate to a gusher of personal benefits from fiber; stimulating entrepreneurial efforts, sustaining telecommute jobs, restructuring our commerce and educational systems. The Fiber Optic Revolution will allow unimaginable flexibility in selecting where and how we want to live; unrestricted by the location of the facilities we need to use for employment, shopping, education, and social interaction.

But like the Industrial Revolution of past centuries where some areas of the world gained long term competitive advantages by early adoption of industrialization; so it will be today with the Fiber Optic Revolution. We must push to quickly install a regional fiber optic network or be consigned to the back eddies of economic vitality.

**Honorable Ed Fielding**  
Martin County Commissioner



## Enhance Southeast Florida's quality of life to attract & retain a diverse mix of families, workers, visitors, retirees & businesses

Southeast Florida's economic competitiveness relies heavily on its appeal to a wide range of residents, including workers, students, and retirees. Between 2010 and 2012, in-migration from other states and nations accounted for 80 percent of the region's population growth – the largest share among the nation's 13 large urban regions. A high quality of life including access to a range of housing choices, high-quality schools and health care, and distinctive arts and cultural resources. These are not simply a product of economic prosperity—they are a fundamental prerequisite for it.

Other aspects of the Seven50 vision highlight the importance of future community planning and design decisions to the region's future quality of life. Priorities and strategies related to development patterns and community assets and culture point to a future characterized by a range of choices of where to live, learn, work, and play. This approach strongly supports the region's economic vision as well, particularly the emphasis on creating clusters of innovation and talent and expanding as a global hub for trade and travel.

From an economic development perspective, it is important to provide support for effective community planning, design and investments that help attract and retain a range of residents and visitors. It also is important to protect and enhance Southeast Florida's unique arts, cultural, and historic resources; to promote the region's diversity as an economic asset; and to take proactive steps to create access to opportunity for all residents in the region.

### ***Livability and Quality of Life***

The way the built environment is organized has a profound effect on the social, economic, and civic life of the region. An auto-dominated environment of single-use development has a negative effect on the quality life - most disproportionately on the lives of people who don't drive - children, the elderly, and the economically and physically challenged. The large single-use complexes isolate even near-by residents who would prefer to walk - forcing the average person to make numerous daily car trips for work, schools, and shopping.

Reducing the number of daily car trips is fundamental in recovering lost time in the day to tackle the requirements of work, raising a family, spending time with friends, strengthening a spiritual life, and making civic contributions to the community. A neighborhood with small stores, offices, and a fine-grain of uses will give residents more choices of transportation and getting around. Providing transportation options gives independence and self-reliance to those who cannot drive.

### ***Size and Location of Schools Within Neighborhoods***

Just as urban centers are considered the heart of the workplace, the school should be the center of a community. Schools should be sized to be easily accessible to those who use them, nurturing the ties to their community. Elementary schools should be scaled to be accessible by residents and young children on foot. At a larger scale, high schools are community assets when sized to accommodate the bicycling population around them.

Embedding schools within the neighborhood gives children the opportunity to freely access their environment. By letting children meet their needs independently instead of taking them places by car, children can develop a strong sense of self-esteem and self-respect. Similarly, teenagers gain independence within an environment where they are accountable not only to their parents but to the larger community. Properly designed streets have windows and doors facing the public realm to provide “eyes-on-the-street” and a safe environment.

### ***Embed Concentrations of Commercial activity in Neighborhoods and districts***

Larger increments of development can have negative consequence on travel patterns, forcing longer car trips for both drivers and passengers. Distributing workplaces and daily needs within neighborhoods can drastically cut these long daily commutes and car trips, allowing more time with family and less time apart. Similarly, large concentrations of housing that are distant from workplaces and shopping lead to empty neighborhoods during business hours. This creates an easy environment for vandals and thieves, and bored teenagers due to the lack of natural surveillance. Distributing small-scaled commercial uses in a neighborhood creates a safe and walkable environment for all users.



Downtown Miami

## How Can Small Buildings Help Large-Scale Planning?

Seven50 is a regional plan, a big plan. The most vibrant urban neighborhoods, like Boston's North End or New York's West Village or Miami's Little Havana, are made of many small buildings. What do big plans and small buildings have to do with each other? Plenty!

A regional plan can help small buildings by recommending certain policies. For example, to reduce development pressure on natural and agricultural areas, a regional plan might recommend that local governments directly create incentives or remove obstacles to building on small urban vacant lots, which are often plentiful but seen as costly or inefficient.

Or another example, less direct but equally significant: to make passenger rail more financially sustainable, a regional plan might recommend that local governments stop requiring that new buildings include off-street parking. This policy also helps small buildings because parking requirements disproportionately burden small properties.

Conversely, small buildings can help a regional plan achieve its goals. Small buildings add up to urban neighborhoods that are dense and mixed-use, which support walking, biking, car sharing, and mass transit. These neighborhoods promote public health and use water and sewer infrastructure more efficiently. Neighborhoods made of many small buildings (as opposed to a few big ones) help spread the wealth created by revitalization.

In fact, small buildings aren't just helpful, they are necessary for some of the highest goals of a regional plan. What are your ideas for how Seven50 can help small buildings?

**Andrew Frey**

Florida International University Professor,  
Development Manager, CC Residential Executive Director,  
Townhouse Center

## Develop & maintain globally competitive infrastructure & economic development sites that support the region's economic vision

Southeast Florida's infrastructure is one of its primary tools for supporting its economic vision. Airports and seaports serve as global gateways for trade and tourism. Highways, rail lines, bike lanes, and waterways connect these gateways and Southeast Florida's businesses to markets in other parts of Florida and to other states. These modes of transportation, along with high-capacity communications systems and efficient, reliable energy systems all support the innovation clusters the region is targeting. Transit systems, streets, trails, and sidewalks help build vibrant urban centers that attract residents, workers, and visitors.

Southeast Florida is at the beginning of a fundamental transformation of its transportation system to meet the needs of a 21st century economy:

- Seaports and airports are preparing for anticipated growth in global trade and tourism through major projects including the deep dredge, tunnel, and on-dock rail service at Port Miami, and the runway extension at Fort Lauderdale/Hollywood International Airport;
- Plans for the All Aboard Florida passenger rail service from Miami to Orlando and the Tri-Rail Coastal Service from Jupiter to Miami are moving the region toward a more integrated multimodal transportation system for moving residents, visitors and goods; and
- The revenue-generating success of the tolled express lanes on I-95 in Miami-Dade and Broward County is prompting plans for "managed lanes" on other expressways. Managed lanes are often unpopular and when used should integrate and encourage the provision of mass transit service.

Southeast Florida must continue this recent innovation and reinvestment in its multimodal transportation system over the next 50 years to meet the evolving needs of residents, visitors, and businesses. Key needs will include:



I think we should streamline the services provided to facilitate investments and development.

- Continuing to expand the physical and operational capacity of airports and seaports;
- Continuing to build out a network of passenger rail and transit systems connecting major urban centers;
- Modernizing the region's highways to reduce bottlenecks and improve long-distance flows of visitors and freight, including connections to other regions of Florida;
- Providing seamless connections between the modes of transportation for both people and freight; and
- Developing an advanced communications system to provide information connectivity across the region.

Equally important is the need to develop world class sites for a range of industries, including intermodal logistics centers, state of the art research and technology facilities, and continued expansion of education and research institutions. Economic development and marketing activities would benefit from a regional inventory of shovel-ready or potentially available sites. The region's local governments should consider strategic land use decisions to preserve land for economic development purposes and to align with infrastructure and other investment decisions.

The Florida Chamber International Trade and Logistics Plan 2.0 is a good resource that provides information and recommended goals and strategies for Florida's future global business development activities. It looks at the overall impact of increased trade beyond just freight movements.

## 8

## Improve coordination & collaboration to help Southeast Florida compete globally as a leading region

Southeast Florida's industry clusters and labor markets increasingly function at a regional scale. As one example, nearly one out of four Broward County residents commute across the county line to go to work. Southeast Florida's economic strategy should increasingly take a regional perspective that matches these business and labor markets.

If the region works together, it can better compete for global investment and provide a unified voice in Washington D.C. and Tallahassee. Critical mass comes from size: Southeast Florida is the 9th most populous region and 11th largest economy in the United States. With 6.1 million residents in the seven counties in 2010, the region is approaching the size of Tampa Bay and Orlando combined. Projected 2060 population of 9.1 million residents would put the region at about the size of Washington, D.C. and Baltimore combined today.

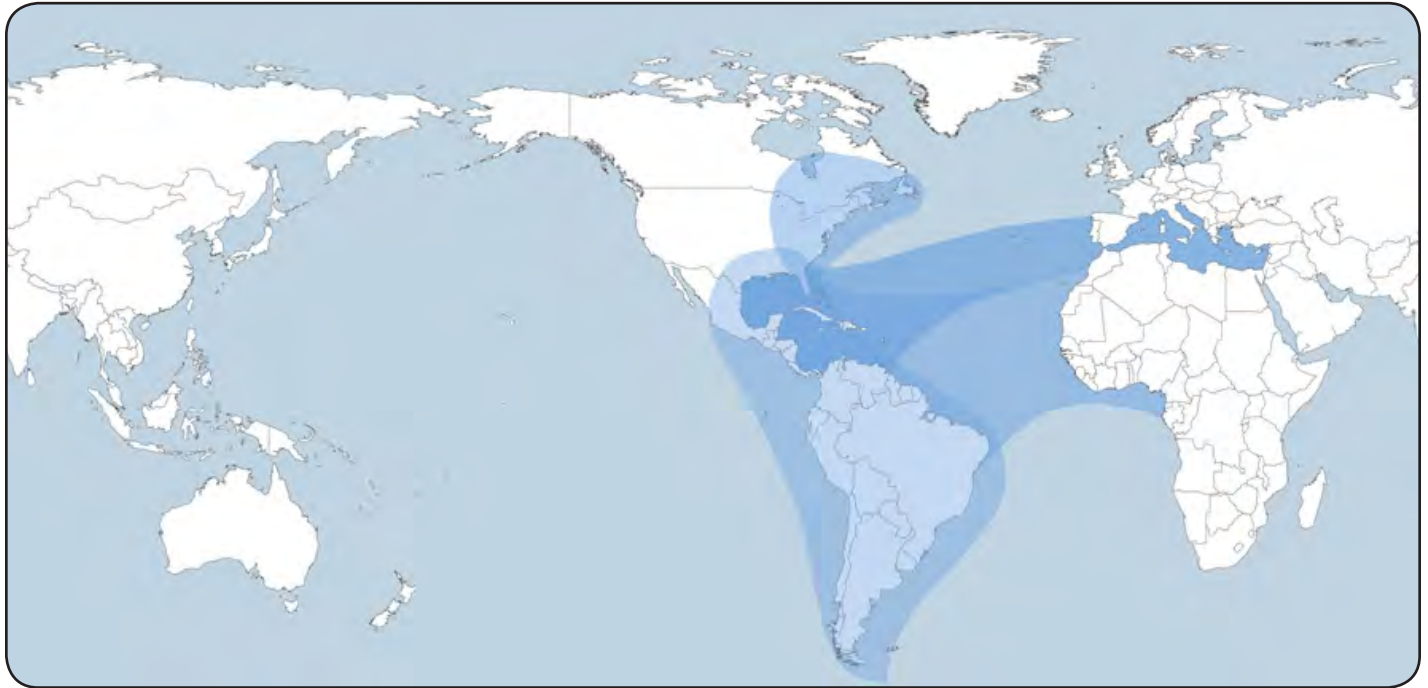
Economic development, workforce, and education decisions in Southeast Florida today are fragmented among seven county governments, six primary economic development organizations, four regional workforce boards, two regional planning councils, and numerous college, universities, economic development partnerships, and chambers of commerce. Harnessing the reach and resources of these organizations to common regional goals is an important foundation for the future.

South Florida needs a better perception of education. We are lacking a public Tier 1 research institute.



In support of the Seven50 economic vision and the other priorities outlined in this report, the Southeast Florida region should continue to improve coordination and collaboration to compete globally as a leading region. Key strategies include:

- Developing a seven-county Economic Development Strategic Plan that builds upon and supports the two Comprehensive Economic Development Strategies and seven county plans, as well as others;
- Establish a seven-county economic development partnership, perhaps as a virtual organization with periodic collaboration among the boards of existing economic development organizations;
- Market Southeast Florida globally as a place to live, learn, visit, work, and do business;
- Align regional economic development priorities with state and national initiatives, with emphasis on implementation of the Florida Strategic Plan for Economic Development;
- Identify successful practices that can be shared among counties; and
- Provide data, tools, and technical assistance to help Southeast Florida counties to expand economic development capacity.



Center of a Certain World: Southeast Florida is at the center of trade & travel between Central & South America, the Caribbean & the Mediterranean, West Africa, & the east coast of the U.S. & Canada

## 9

### Position Southeast Florida to attract national & international events

The region seeks to attract high-profile sporting events and sport-related business opportunities that generate economic impact, engage the community and support the region's identity as active and healthy. Our region is positioned both geographically and culturally to become a center of world sports and events. We are a short flight from all the major cities of the Americas and our cities contain fans from every country and of every sport. Our climate makes year-round training and year-round events possible; Southeast Florida virtually never freezes. We already host world-class training venues and exhibition facilities. Why aren't there more teams and arenas? Why couldn't we host the Olympics?

Our region already hosts Art Basel, the world's premier international art show for Modern and contemporary works, the International Boat Festival, and a myriad of local events like the South Beach Wine and Food Festival. Big events should not be limited to sports events. More international events and sporting events will require a marketing campaign involving a showcase of the entire region's positive attributes.

# GROWING THE ECONOMY TOOLKIT

## APPROACHES FOR CREATING A MORE SUSTAINABLE FUTURE

### REGIONAL EXPORT DEVELOPMENT PLANS



Container Ship at the Port of Miami

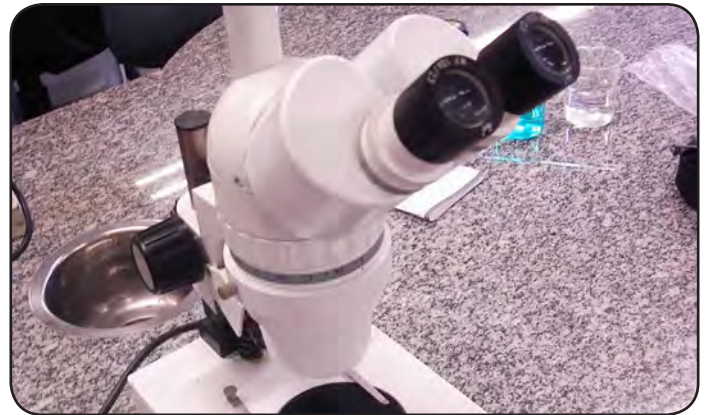
Fewer than 10 percent of all Florida businesses currently export, and those firms that do export often sell to just one country or just market a single product overseas. In partnership with the U.S. Small Business Administration, Enterprise Florida manages nationally recognized pilot programs to provide support to small businesses for participating in trade missions and for developing customized export marketing plans. The Brookings Institution is working around the nation with groups of public, private, and civic leaders to develop customized metropolitan export plans. Southeast Florida's economic development organizations can leverage these resources to maximize the region's global opportunities.

#### SCALE OF IMPLEMENTATION

REGION

### REGIONAL INNOVATION CLUSTER

KNOW WHAT YOU ARE AND BE THE BEST AT IT



Life Sciences Microscope

A regional innovation cluster is a geographic concentration of interconnected businesses, suppliers, service providers, and associated institutions in a particular field. A cluster initiative is a formally organized effort to promote cluster growth and competitiveness through collaborative activities among businesses, research and educational institutions, and public agencies. As one example, Life Sciences South Florida seeks to establish a cluster focused on life sciences, biotechnology, pharmaceuticals, diagnostics, and information technology. With support from 16 education, economic development, and research institutions, Life Sciences South Florida can work to increase research activity, accelerate research commercialization, and strengthen K-20 STEM education and talent development.

CITY, TOWN & VILLAGE

## CAREER PATHWAYS

PAIR SKILLS WITH OPPORTUNITIES



University of Miami

Career pathways strategies are integrated programs to develop students' skills and help prepare them for high-demand jobs. The core of career pathway strategies is a defined sequence of academic and technical courses, typically commencing in secondary school and leading to a two-year or four-year college degree or an industry recognized certification or license. These strategies are developed through partnerships among community colleges, school systems, workforce and economic development agencies, employers, and social service providers. Similar initiatives can be developed for adult education and retraining. Southeast Florida's workforce and educational institutions are developing career pathway strategies to support industries such as logistics and life sciences.

## INTERMODAL LOGISTICS CENTER

CONNECTING TRUCKS, TRAINS, SHIPS & PLANES



Coordinating movement of goods by truck, train, ship and plane.

An intermodal logistics center (ILC) is a location separate from an airport or seaport that provides for the transfer of freight between vehicles or vessels and also provides value-added logistics services such as consolidation, warehousing, assembly, customization, finishing, packaging, cold storage, and fumigation. These can become inland focal point for logistics and manufacturing activity. The South Florida Logistics Center under development by Florida East Coast Industries in Hialeah Yard recently received a \$2.5 million grant as part of the state's ILC Infrastructure Support Program and expects to create over 1,000 jobs. Other ILCs are being planned in Palm Beach and St. Lucie counties.

We should improve the ease of doing business in South Florida. Small businesses and corporations alike should be able to grow and improve the region.

Our infrastructure should match up with our economic vision. If we want a competitive economic core, focus our limited resources on improving existing redevelopment and infill.



## PORTS & AIRPORTS COALITION



Plane taking off at Miami International Airport

## COMMUNITY REINVESTMENT STRATEGY



Financial Instruments

An alliance of all international ports and airports in the region was suggested and initiated as part of the process of developing Seven50. Port Everglades, Port Miami, Port of Palm Beach and the Port of Fort Pierce should meet regularly and include the international airports of Miami, Fort Lauderdale, Palm Beach, St. Lucie County and Key West. Such an alliance is intended to address issues common to those doing business within the seven-county Miami Customs District such as soft-infrastructure deficiencies, increased capacity and more efficient distribution, economies of scale, as well as roles and support opportunities of each and between entities. This alliance is also a key to the increased global competitiveness potential of the region.

A variety of investment tools are available to help regions promote small businesses, entrepreneurship, and community reinvestment. A community development financial institution (CDFI) provides credit and financial services to underserved markets and populations. The U.S. Treasury Department has certified 10 CDFIs in Southeast Florida out of approximately 1,000 nationwide. The federal New Market Tax Credits program provides tax credit incentives to investors for equity investments in certified Community Development Entities (CDE), which invest in low-income and distressed communities. No CDEs operate in Southeast Florida today. SRFCP operates a small business revolving loan fund.

### SCALE OF IMPLEMENTATION

REGION

CITY, TOWN & VILLAGE



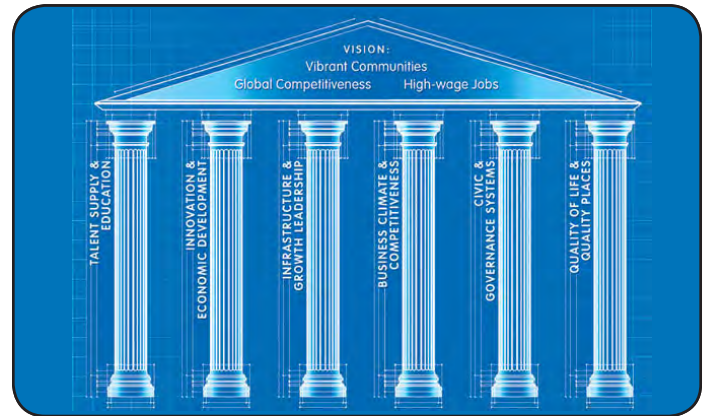
## REGIONAL ECONOMIC DEVELOPMENT INITIATIVES



Florida Trend Luncheon

There are many examples around the country of counties and cities working on collaborative economic development initiatives, in many cases through virtual partnerships of existing entities. In Southeast Florida, the Beacon Council in Miami-Dade County, the Greater Fort Lauderdale Alliance and the Business Development Council of Palm Beach County are jointly marketing the region globally as South Florida: Your Global Business Connection. Florida's Research Coast is a public-private partnership focused on business, educational, and governmental collaboration to support regional economic development, working with the Indian River Chamber of Commerce, the Business Development Board of Martin County, Okeechobee Main Street, the Economic Development Council of St. Lucie County and Workforce Solutions.

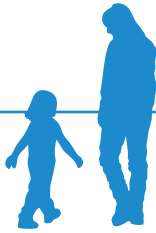
## USE OF SIX PILLARS FRAMEWORK ECONOMIC COMPETITIVENESS INITIATIVES



Florida Chamber of Commerce Six Pillars of Competitiveness

The Florida Chamber Foundation has defined the Six Pillars of Florida's Future Economy™ to serve as a visioning platform for moving Florida forward. The Six Pillars provide a framework, supported by metrics and best practices, for collaboration and alignment among state, regional, and local entities. The Florida Department of Economic Opportunity used the Six Pillars as the basis for the Florida Strategic Plan for Economic Development. Palm Beach and Broward counties are among the counties in the state that have developed public/private/civic strategies to enhance their competitiveness in each of the pillars, ranging from talent supply and education to quality of life and quality places.

We are full of potential both within our boundaries and beyond. South Florida is a vibrant place that should take advantage of its role in the international community.



We need to start considering the real economic cost of short-sighted land use. Thinking long-term is the answer.



## INCENTIVIZE PREFERRED SCENARIO GROWTH

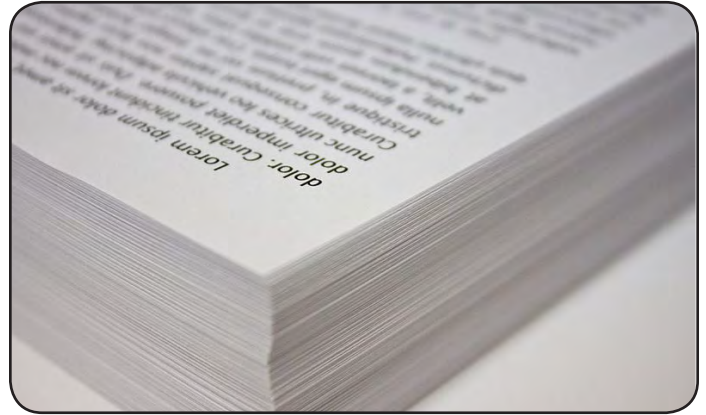


City Place, Palm Beach County

Development projects furthering the preferred scenario provide the greatest benefit for the community as a whole. To encourage this type of development, municipalities should provide incentives whenever possible, such as tax incentives or financial assistance, impact fee reductions, concurrency relief, or simplified codes. When this is not possible, local agencies should still strive to simplify and expedite the permitting process. Developers that actively work towards a more logical development patterns furthering the preferred scenario should reap the benefits.

## SIMPLIFY PERMITTING

REDUCE BUREAUCRACY ON PROJECTS WE ALL AGREE ON



The permitting process can be tedious and redundant.

Development that is beneficial to the community should not be thwarted or slowed by the red tape that can prevent some projects from ever being initiated. The permitting process should be simplified to reduce barriers to trade, allowing for the most diverse and open market.

We should determine what industries are going to bring companies and jobs to the region, and what our workforce needs to succeed.



Our region is more than just seven counties - we're also Latin America and the Caribbean. Maybe we need a free-trade zone.



### MULTIMODAL BALANCE PROVIDE CHOICES IN TRANSPORTATION



Miami Intermodal Center, Miami-Dade County

Despite the rising demand for public transportation, the vast majority of government funding goes to build and maintain roads. For transit to become a more widely used method of transportation, investment must increase, and take into account the actual demand for transit, rather than the current usage, which is somewhat low due to the lack of availability. Transportation costs are consuming a major portion of the budget of the average US family, making living in a well-connected community a luxury, as opposed to the hallmark of a properly designed city.

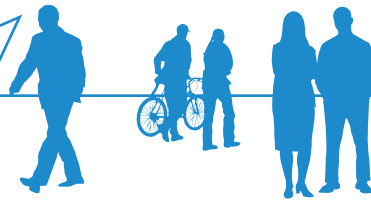
### FAB LABS/COLLABORATIVE SPACES INNOVATION NEEDS (CHEAP) SPACE TO GROW



Tools in a Fabrication Lab

Some of the newest tools in economic development are targeted at individual entrepreneurs and the smallest of companies. A hackerspace, also referred to as a hacklab and a makerspace, is a community-operated workspace where people with common interests, typically related to technology, can meet and collaborate. A fab lab is a small-scale workshop offering digital fabrication devices such as 3D printing. Hackerspaces, fab labs, and other types of co-working space can facilitate development of new technologies and products, as well as the networking that supports emerging industry clusters. Only a handful of these facilities are located in Florida today.

We should have a training center here in Florida for all kinds of maritime jobs and port work.



We need better connectivity with other parts of the world - areas that we currently aren't connected with.

## URBAN PARKING STRATEGY

CITIES CAN REDUCE THE COST OF DOING BUSINESS



Collins Avenue, Miami Beach, Miami-Dade County

Parking is required to attract businesses and customers to any given area. However, often in urban areas, individual parking requirements can be prohibitive to developing smaller lots and creating walkable environments. A few strategies can be utilized to provide necessary parking, attract businesses and customers, and create a walkable environment. First is to unbundle parking and individual property parking requirements. Utilize on-street parking to meet parking needs and allow a parking shed strategy. As long as adequate parking is provided within a 5-minute walk or quarter mile then an individual business does not need to provide their own parking. In urban environments it is beneficial for the municipality to provide central parking locations in the form of parking garages.

## SHOPS ON THE SIDEWALK

GIVE SMALL RETAIL BUSINESSES A PLACE TO START



Ft. Pierce, St. Lucie County

Local main streets support a variety of small businesses in a way that is affordable to new business. An efficient and economical way to accommodate new businesses is to bring buildings up to the sidewalk within the road right-of-way with shopfronts facing out onto the sidewalk. Between forty and sixty feet lot depth and twenty feet of lot frontage can accommodate a retail shop. Parking should be accommodated on-street and within parking lots in mid-block locations behind the buildings to allow an unbroken line of storefronts.

### SCALE OF IMPLEMENTATION

REGION

CITY, TOWN & VILLAGE

Diversity brings energy and employment opportunities to our communities.



Let's concentrate on workforce training - for both vocational and high-tech.

## HISTORIC PRESERVATION

HISTORIC PRESERVATION IS ECONOMIC DEVELOPMENT



Harriet Himmel Theatre, West Palm Beach, Palm Beach County

The uniqueness, craftsmanship, and quality of construction in historic structures is unlikely to be matched by new construction in our era. For this reason, historic structures should be protected not only as a duty to the past but as a tool for economic development. In competing for the creative class the historic structures of Southeast Florida maybe the region's greatest asset.

## WORKPLACE DISTRIBUTION

PROVIDE JOBS WITHIN THE NEIGHBORHOOD



Miami Beach, FL

Neighborhoods that have a “jobs-housing balance” have offices, light manufacturing, artisan, and retail uses in walking distance or within easy reach of transit. Homes above stores, live/work buildings, multifamily dwelling units, and apartment buildings house the workforce nearby. Small commercial spaces incubate new businesses that might not be able to afford the standard commercial rents. These neighborhoods have a high degree of walkability and low peak-hour traffic congestion.



# THE LIVABLE REGION

## FIRST PRIORITIES FROM THE DEVELOPMENT PATTERNS: HOUSING, TRANSPORTATION & HEALTHY COMMUNITIES WORKGROUP

### PRIORITIES

1

Integrate land use & transportation planning to provide more transportation choices & increase opportunities

2

Enhance physical infrastructure to increase economic competitiveness & growth

3

Provide more housing & workplace choices in response to emerging trends

4

Integrate land use & transportation planning; plan more transit-oriented development areas to support transit

5

Improve coordination & collaboration among all levels of government & the private sector

6

Protect & enhance the unique character of all communities & ensure protection of private property rights

7

Explore sustainable transportation funding with alternative ways to finance improved mobility

8

Leverage our natural assets to connect the region

### HOUSING TOOLKIT ITEMS

Mixed-Use

Affordable Housing

Subsidized Housing

Commercial Lofts

Live-Work Housing

Apartment Houses

Rowhouses

Conservation Subdivisions

### TRANSPORTATION TOOLKIT ITEMS

Interstate Commuter Rail

Regional Commuter Rail

Commuter Ferries

Circulators

Local Bus Networks

Bus Rapid Transit

Rubber Tire Trolleys

Electric Streetcars

Alternative Funding

The Network

Multimodal Streets

Design Speed

On-Street Parking

Bicycle Network

Electric & Hybrid Cars

Shared Vehicles

### HEALTHY COMMUNITIES TOOLKIT ITEMS

Growth Priorities

Inevitable Growth

Form Based Codes

Create a TDR Program

Paved Path Along FEC

24-Hour City

The Neighborhood

Neighborhood Schools

Complete Streets

Block Size

Sidewalks

Sidewalk Substitutes

Street Trees

Rear Alleys & Lanes

Shade the Pedestrian

Athletic Events

Urban Parks

Fresh & Healthy Food

Gardens

Eyes on the Street

Pocket Parks

Playground Shade



South Miami, Miami-Dade County

## Transportation at the Core of Economic Prosperity

Transportation investments provide mobility for people and goods, building economic vitality for both businesses and communities. Businesses expect that the transportation system will provide for the efficient and reliable delivery and distribution of goods and services to all markets, and that it will serve employer needs for recruitment and retention of a high-quality workforce. People want to live and work in places with a high quality of life, including reasonable commutes.

Transportation mobility in southeast Florida is currently at a crossroads where the conditions and solutions of the past cannot continue with reasonable results. We must make different choices. The big issues include:

- The primary transportation funding source, the gas tax, is failing as fuel economy improves and tax receipts fall.

- Population is increasing about ten times as fast as we expect to add highways. Our most developed areas have limited room for roadway widening.
- Premium transit is hampered by a shortage of local funding for operating subsidy and by development patterns that do not create enough density to support transit ridership.

A solution is to optimize our highway capacity while increasing the portion of trips that use other modes. On the highway side we are adding an Express Lane network to our limited access highways and are using advanced traffic management methods called Transportation Systems Management and Operations. This highway approach will fail to maintain mobility unless we also increase premium transit options including express buses, commuter rail, and street cars which create better options for getting between home, jobs and stores. Premium transit will support denser land uses, which will be vital to making that transit a success.

**James Wolfe, PE**  
Secretary, Florida DOT, District 4



# 1

## Integrate land use & transportation planning to provide more transportation choices & increase opportunities

As the population in Southeast Florida continues to grow in the coming decades, the need for a richer menu of transportation choices will become increasingly important.

If one looks back far enough, the region had a history of diverse transportation options. Most of Southeast Florida's settlements originally grew around rail stops along Henry Flagler's Florida East Coast (FEC) Railway. Many of these stations were also once connected to local streetcar lines supplementing the horse drawn wagons of the day. A number of the historic FEC passenger station structures can still be seen today, sitting idle, as the FEC line has not carried passenger trains for the past several decades.

In all, the Southeast Florida region historically featured over 35 FEC Railway passenger stations. They were located in communities as diverse as: Vero Beach, St. Lucie, Fort Pierce, Jensen Beach, Stuart, Jupiter, Palm Beach Gardens, Lake Park, Riviera, West Palm Beach, Lake Worth, Boynton, Delray Beach, Boca Raton, Deerfield, Pompano, Oakland Park, Fort Lauderdale, Dania, Hollywood, Hallandale, North Miami Beach, North Miami, Miami Shores, and Miami.

The 1920s saw the beginning of the proliferation of the automobile in Southeast Florida. This fast-growing new technology and the personal freedom it represented soon eclipsed the use of transit. The Southeast Florida building booms of the early 1900s coincided with grand national visions of the City of the Future, such as the famous designs by Norman Bel Geddes for the Futurama exhibit at the 1939 New York World's Fair. Unlike older parts of the country with substantial cities built pre-auto, Southeast Florida was seen as a virtual blank slate where these visions of a bold future built around the automobile could be achieved in a pure form. Streetcar lines were eagerly pulled up and replaced with wide arterials designed for automotive speed and efficiency. This "golden age of the automobile" lasted for several decades.

As South Florida's population grew, some of the very physical characteristics of the built environment that were originally meant to improve the free flow of the automobile ironically began to have the opposite effect. In an attempt to avoid slowing auto traffic on arterials, street intersections were made as infrequent as possible. This resulted in an intentionally implemented lack of connectivity, which in turn meant that all traffic needed to use the sparse roads that did connect – a formula for traffic congestion at relatively low building densities. As the charac-

ter of the automotive arterials became harsher, new real estate developments turned their backs and became introverted, with often only a single entrance road for hundreds of homes. This cycle of increasingly severed connectivity was compounded by a pattern of extremely low intensity development with separated uses and an increasing reliance on the automobile as the sole mode of transit. This coincided with dramatic population growth in the region. Over the course of a few short decades, the dream of free flowing Cities of the Future instead became a reality of tremendous amounts of time, money, and energy wasted by crushingly inefficient vehicular traffic congestion.

Today, the all-too-common daily South Florida sight of tens of thousands of commuting automobiles stuck in rush hour traffic congestion with motors idling is particularly and cruelly ironic in a region with so much at risk from the accelerating levels of sea level rise that likely will result from global increases of greenhouse gas production. This is compounded by a second irony – today, the grimly unwalkable and unbikeable character of South Florida's auto-centric streets causes many South Floridians to fight tooth and nail against travel by any means other than by car.

### So, what can be done?

Emphasis should be placed in the coming decades on supporting the mobility of Southeast Florida's residents and business people with a diverse array of transportation options. In many locations, redevelopment is currently occurring at transit-supportive intensities. There is a complementary explosion of interest in travel by foot and bicycle.

Transportation change on the scale needed in South Florida will not be easy, but there are some encouraging trends. Many communities are implementing bicycle plans, and increasing numbers of bicyclists can be seen on the streets for exercise, recreation, and regular work commutes. Several South Florida municipalities and counties are moving forward with plans to create streets more friendly to multiple modes of transportation and for more regular bus, streetcar, and even light rail service. Resumption of passenger service on Henry Flagler's FEC Railway alignment is inching closer to reality.

All of these exciting initiatives to broaden the array of transportation options available to South Floridians should be harnessed to further the region's future prosperity.

## 2

## Enhance physical infrastructure to increase economic competitiveness & growth

Physical infrastructure must support multiple goals simultaneously, optimization for: mobility, convenience through proximity, and sense of place.

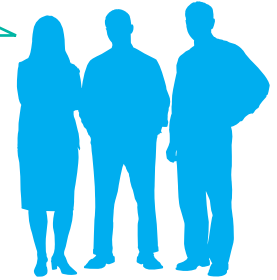
For the past half-century, an overemphasis on vehicular mobility has greatly influenced the growth patterns and public infrastructure investments in Southeast Florida to its detriment. Activities have been pushed further apart from one another, resulting in unnecessarily longer travel distances. Tax dollars needed to support and maintain the roadways required have drained public coffers and cannot keep pace. The physical environment has been optimized for the car, and has consequently often become hostile for the human. The key to achieving economic competitiveness and growth includes sufficient mobility to efficiently connect goods, services and people to the places where they are needed, but this must be balanced with equally important requirements for multi-modal transportation, convenience through close proximity of uses, and creation of environments with a high sense of place.

Prosperity in the future for Southeast Florida will increase with a new mind-set, where the primary focus is on first creating desirable, well-planned community and business destinations. A sense of place may at first seem like a rather abstract requirement for economic competitiveness, but it is perhaps the most important. Creation of built environments that feel inviting, exciting, stimulating, interesting and safe will help tremendously to attract and retain the workforce and wealth that Southeast Florida needs in order to be prosperous in the coming decades.

In his book *The Rise of the Creative Class*, Richard Florida explores the kind of environment sought by the burgeoning workforce that will bring energy and economic prosperity to cities in the coming decades. Here is how he summarizes the findings of his research into the kinds of environments that are attractive to the “creative class”:

“The most highly valued options were experiential ones---interesting music venues, neighborhood art galleries, performance spaces, and theaters. A vibrant, varied nightlife was viewed by many as another signal that a city “gets it,” even by those who infrequently partake in nightlife. More than anything, the creative class craves real experiences in the real world.

We need more ideas centered around the region’s opportunities in international trade and large participation in the global economy.



They favor active, participatory recreation over passive, institutionalized forms. They prefer indigenous street-level culture--a teeming blend of cafes, sidewalk musicians, and small galleries and bistros, where it is hard to draw the line between performers and spectators. They crave stimulation, not escape. They want to pack their time full of dense, high-quality, multidimensional experiences. Seldom has one of my subjects expressed a desire to get away from it all. They want to get into it all, and do it with eyes wide open.”

After first thinking about creating the quality destinations necessary to attract those who will bring future vitality , then secondary focus should then be placed on connecting these destinations to one another. Mobility should always focus on moving people, and not just cars. Emphasis should be placed on as rich a menu of transportation options as possible: pedestrian, bicycle, bus, rail, water taxi and the automobile.



The region needs more areas for biking and hiking,

### **Add Bike Trails**

Bike trails play an important role in the overall regional bicycle network. In addition to carrying commuter work-trips, bike trails also contribute to recreational opportunities, expanding the opportunity for non-motorized activity which improves the health and quality of the region. In addition to expanding efforts to ensure bicycles can safely travel on and/or along key roads, bike trails along major thoroughfares can help advance the process of safely integrating cyclists into the larger transportation network. Bike paths can connect significant points of interest and advocate the usage of cycling as a mode of commuting and mobility. Bike paths should be maintained well, with appropriate amenities, ideally with sufficient shade as well as natural features. When properly designed and maintained, access to bike paths and trails can be of economic importance to neighborhoods, attracting use by bicycle commuters as well as families with children. Commuter trips can be augmented by the inclusion of appropriate workplace amenities, such as bike racks, lockers, and showers. It bears repeating, however, that full inclusion of cyclists in the traffic network is of great importance.

### **Connecting and Completing the Region's Greenway and Trail Network**

The success of a multi-modal transportation network will require special planning and consideration of non-motorized modes to enable mobility by all users. Each of the region's MPO/TPOs includes a bicycle/pedestrian plan that identifies a selection of non-motorized facilities; however, a focus on the interconnection of these facilities along with other on-road and off-road greenways and trails will create a more valuable and more extensive regional network.

The Regional Greenways and Trails Plan identifies an interconnected network of trails for hiking, bicycling, equestrians, and paddling, highlighting the region's natural beauty, rich array of park and recreational facilities, cultural and historic resources, and natural areas. In addition, this network provides on-road and off-road connections from neighborhoods to destinations for commerce, education, health, recreation, culture, and institutions. By offering multi-modal connectivity with the roadway and transit network, Regional Greenways and Trails provide expanded mobility as well as unique economic advantage for "human-powered" connections. Further, the regional interconnectivity of these facilities provides a unique eco-tourism opportunity, complementing other resource protection initiatives, and expanding access to and awareness of the region's natural areas. In addition to the routine home/work trips, the regional greenways and trails network offers day-long or multi-day excursions, including connectivity to overnight lodging, to expand the utility and economic benefits to the region. Greenways and trails offer opportunity for a broad range of users, including pedestrians, cyclists, equestrians, and paddlers, as well as the transportation disadvantaged.



Seaside, Florida

## The New Urbanism

The New Urbanism is a movement that advocates the making of a resilient, healthy and beautiful physical environment for human settlement.

The Congress for the New Urbanism (CNU), founded in 1992, is a not-for-profit organization dedicated to “promoting walkable, mixed-use neighborhood development, sustainable communities and healthier living conditions.”<sup>1</sup> The organization leads efforts to “restore urban centers, reconfigure sprawling suburbs, conserve environmental assets, preserve our built legacy...by educating design professionals, policy makers and the public.”<sup>2</sup> The CNU convenes a multi-disciplinary constituency of architects, planners, landscape architects, traffic and civil engineers, attorneys, elected leaders and civic activists who share experience and learn from each other.

1 [www.cnu.org](http://www.cnu.org)

2 Shelley R. Poticha in *Charter of the New Urbanism*, ed. Emily Talen, McGraw Hill Education, New York, 2013

The Charter of the New Urbanism (1993) describes the vision and guides it with 27 principles, at three scales: region and metropolis; neighborhood and district; street, block and building. At the scale of the region, these describe an effective distribution of conservation land, agriculture, urbanism and transportation; at the scale of the neighborhood, the integration of a diversity of uses and housing types with a connective network of streets and public spaces; and at the scale of the street, block and building, the detailing of elements that make places safe, comfortable and interesting, to encourage walking and human interaction.

The movement spawned Traditional Neighborhood Development (TND), Transit-Oriented Development (TOD), the Lexicon, the Rural to Urban Transect, and Form-based Codes, all now widely used planning tools. Florida has played an important role in New Urbanism’s evolution: the Panhandle community, Seaside, now thirty years old, was the first new community embodying its principles. Throughout the U.S. and indeed the world, there are literally thousands of communities that have benefited from New Urban codes and projects implemented during the last three decades.

## Elizabeth Plater-Zyberk

Founder & Principal, Duany Plater-Zyberk & Company

## 3

### Provide more housing & workplace choices in response to emerging trends

#### ***South Florida's evolving housing market, and housing diversity for economic prosperity.***

Southeast Florida's housing history over the century begins with the small, compact towns strung like pearls along Henry Flagler's Florida FEC Railway. These towns had farms and ranches on their periphery. When passenger rail was the dominant means of long distance transportation of both passengers and goods, these towns grew compactly around their FEC stations. Conventional use-based zoning had not yet been invented, so towns grew with a rich mixture of uses and housing types shaped nimbly by the needs of the market. One can still visit many of these original compact town centers today and see a rich assortment of mixed-use buildings, cottages, larger houses and small apartment buildings all sitting within close proximity of one-another.

The dawn of the national "Golden Age of the Automobile" in the 1940s coincided with the proliferation of use-based zoning. This period saw the beginning of rapid growth of low-density, highly homogenous development patterns. Over the next half century, Southeast Florida's landscape rapidly transformed from a series of small, compact towns into a collection of housing subdivisions, apartment complexes, office parks and shopping malls. Much of this new development was designed around the automobile and was quite difficult to negotiate by any other means of transportation. The national image of Southeast Florida was of the tile-roofed single family detached ranch house under palm trees with a garage door in front. This was, by far, the dominant form of housing built during this period, and this suburban product sold very well to families and retirees seeking to move away from the decanting cities further north.

Today rural and suburban lifestyles continue to be popular, but a new and very different image of the ideal living arrangement for many in South Florida can also be seen. As Southeast Florida runs out of room to expand outward, a second wave of development is occurring in the region's centers. The new development and rehabbing of historic structures in these areas has a great deal in common with the development patterns of Southeast Florida's original towns along the FEC line. For the first time in a half century, a substantial diversity of housing options is being constructed. These new small apartment buildings, mixed-use



We should be implementing quality mixed-use development.

buildings, rowhouses, and compact cottages are being designed with a new awareness of the importance of well-designed streets for pedestrian and cyclist comfort.

The trend toward a balanced range of housing options in Southeast Florida, with urban choices being added to the region's historic inventory of rural and suburban choices, is likely to continue for the foreseeable future. The burgeoning diversity of housing options being provided in Southeast Florida caters to the region's rapidly changing demographics. Many baby boomers who moved to the region to raise their families are now empty nesters and retirees. Many are exchanging the large yards they once desired for housing choices requiring less maintenance and closer proximity to arts, culture, and recreation.

Many in the younger generation also crave close proximity to urban activity and stimulation. Providing the housing options these young people seek, especially in price ranges they can afford, will be a key to attracting the workforce needed to propel Southeast Florida's economic prosperity in the coming years.

#### ***Affordable housing in the mix – it's the right thing to do, and it contributes to economic prosperity.***

To maximize the economic benefit of new development in Southeast Florida, affordable workforce housing should be a part of the mix.

Rather than forcing the workforce to "drive until they qualify" in order to find options they can afford, the provision of affordable housing choices close-in and near to transit and places of employment helps to promote a reduction in "housing plus transportation" costs. This reduction in combined employee living expenses helps make a highly skilled workforce more available to employers. This in turn helps to make Southeast Florida's businesses more competitive in national and global markets.

Providing options for reducing "housing plus transportation" expenses also leaves households with more buying power for other goods and services. This in turn will help to further stimulate the Southeast Florida economy over time.

## 4

## Integrate land use & transportation planning; plan more transit-oriented development areas to support transit

### ***Integrated Land Use and Transportation Decisions***

Land use and transportation are inexorably linked. Land use decisions have immense effects on transportation choices, just like transportation decisions have immense effects on land use patterns. In the absence of coordinated planning however, transportation investments often move forward without a proper understanding of their effect on adjoining development and in some instances development moves forward without proper understanding of their impact on the transportation.

Over the past 50 years Southeast Florida has made big investments in automotive transportation infrastructure, particularly highways and large arterial roads. In response to highway construction, automobile-dependent development sprang up, which in turn, created more demand for auto-only transportation infrastructure. Multiple cycles of this self-reinforcing pattern of development has led to dramatic increases in per-capita vehicle-miles traveled.

Transportation contributes 45% of our regional greenhouse gases (GHGs), almost equal to the emissions from the generation of electricity. This is significant because nationally the average is much lower and in the low 30%) according to the *SE Florida Regional GHG Inventory*.

At the same time, investments in transit have been made without fully taking into account the role of development in creating successful transit systems. As a result, transit investments don't always produce their intended results due to a lack of supportive development around transit stations. Development designed for driving has thus created the dual problem of traffic-clogged roads and underutilized transit systems.

Improving transportation will help with traffic, air pollution, water issues, and land & space issues.



### ***Land Use First, Transportation Second***

An important tool in creating a balanced transportation system is to first design our cities and towns to fit the community's vision, and then make the necessary transportation investments to implement that vision. Streets in neighborhoods designed to be walkable, mixed-use and connected can then follow context-sensitive design guidelines that support a multi-modal environment. Properly scaled streets and public spaces not only encourage walking and biking, but help to create the compact, mixed-use, urban environments that support transit.

### ***Transit-Oriented Development***

To build and maintain a world-class transit system, development around station areas has to be thought of as an integral part of the system. Miami's Metrorail system, long thought of as underperforming has, in recent years, seen soaring ridership in large part due to walkable, mixed-use development around the Brickell, Dadeland and South Miami stations, among others. This, along with experiments around the country have proven just how valuable these walkable destinations are to the success of a transit system.

Not only is development crucial to the transit system, but the transit system itself provides a valuable amenity for entire generations of people now seeking more convenient, convivial and sustainable lifestyles. This makes each and every station area a tremendous opportunity for walkable development. Each station then becomes a complete urban neighborhood that supports walking, biking and transit in addition to auto trips, providing a full range of transportation options to residents and visitors.

On a similar note, development-oriented transit ensures that transit investments are made where they can best support existing and future urban neighborhoods. For example, the FEC line runs directly through many of the regions most important cities and towns, making it an ideal corridor for transit development.



Collaboration between cultural organizations, civic institutions and the private sector will support creative industries and job growth.

5

### **Improve coordination & collaboration among all levels of government & the private sector**

Many issues, especially those involving housing, workforce development, economic development, transportation, healthy communities, and comprehensive planning cannot be addressed at a single level of government. Adequate coordination is needed to plan for orderly growth in Southeast Florida because plans and decisions made by a local government will have an impact upon other public agencies and independent organizations and vice versa. Intergovernmental coordination involves how governmental entities within the Southeast Florida region work with each other, with adjacent local governments, and with other quasi-public entities such as the school board, water and sewer authorities, and transportation agencies.

Varying levels of government have different goals. Improved coordination of the goals and policies at all levels of government will help to align community needs and desires and prevent conflicts of interest. Seven50 encourages partnerships that integrate housing, transportation, water infrastructure, and land use planning and the implementation of strategies that provide more transportation choices, promote affordable housing, enhance economic competitiveness, support existing communities, coordinate policies and leverage investment, and value communities and neighborhoods.

Integrating the private sector is essential to promoting growth in a community. Individual efforts have been responsible for transforming the very fabric of cities, tapping into resources otherwise inaccessible to the public sector. Public-private partnerships should be organized to create the most mutually beneficial arrangement, serving taxpayers and other stakeholders alike.

## 6

**Protect & enhance the unique character of all communities & ensure protection of private property rights**

As mentioned several times throughout this report, the diversity contained within the seven-county region is nothing short of staggering. Retirees, immigrants, out-of-towners and life-long residents alike call this area home. This amalgamation has created many communities with a strong sense of character, with an atmosphere that is uniquely theirs.

These deeply ingrained characteristics all contribute to the large burst of popularity South Florida has seen, along with all of the economic benefits that accompany such growth. The benefits however, are accompanied by the many pressures of development, placing communities at risk of diluting their character.

With the knowledge that each of these locales is an integral part of South Florida, one of the chief efforts of the plan is prioritizing the protection of home-grown culture and individual property rights. Keeping local efforts local retains the tight-knit communities so many Floridians have grown up with and seek to preserve for the future. Maintaining property rights ensures that power is kept in the hands of those directly influenced by legislative actions. Every effort should be made to keep the diversity of Florida communities, while still moving forward with a unified regional effort.

## 7

**Explore sustainable transportation funding with alternative ways to finance improved mobility**

Conventional state and federal gas tax collections are not keeping pace with the transportation needs of a growing population and economy. Americans are driving less, using less motor fuel, and taking more trips via public transit. Escalating demands on the region's ports, airports, rail and highway system will continue with expected tourism and freight transport increases. These trends are expected to continue.

Corporate Average Fuel Efficiency (CAFÉ) standards for new cars will increase from 35.5 MPG in 2016 to 54.5 MPG in 2025. Federal gas tax revenues are expected to fall 21 percent by 2040. Florida can expect a similar impact on state gas tax collections.

Since 2008, the Federal Highway Trust Fund has required over \$54 billion in taxpayer subsidies/transfers from the country's general fund, primarily for financing highway maintenance and road improvements. It is estimated that an additional \$12 billion per year subsidy from the federal general fund will be required to extend current transportation funding levels beyond 2014. Because of inflation and reduced revenue the purchasing power of motor fuel taxes has decreased by 80 percent over the last 22 years.

By 2022, the projected federal highway trust fund balance is expected to run at a \$109.6 billion deficit. The traditional methods for funding the region's future transportation needs are not sustainable. Achieving the region's vision for a globally competitive multimodal transportation system will require alternative means of funding.



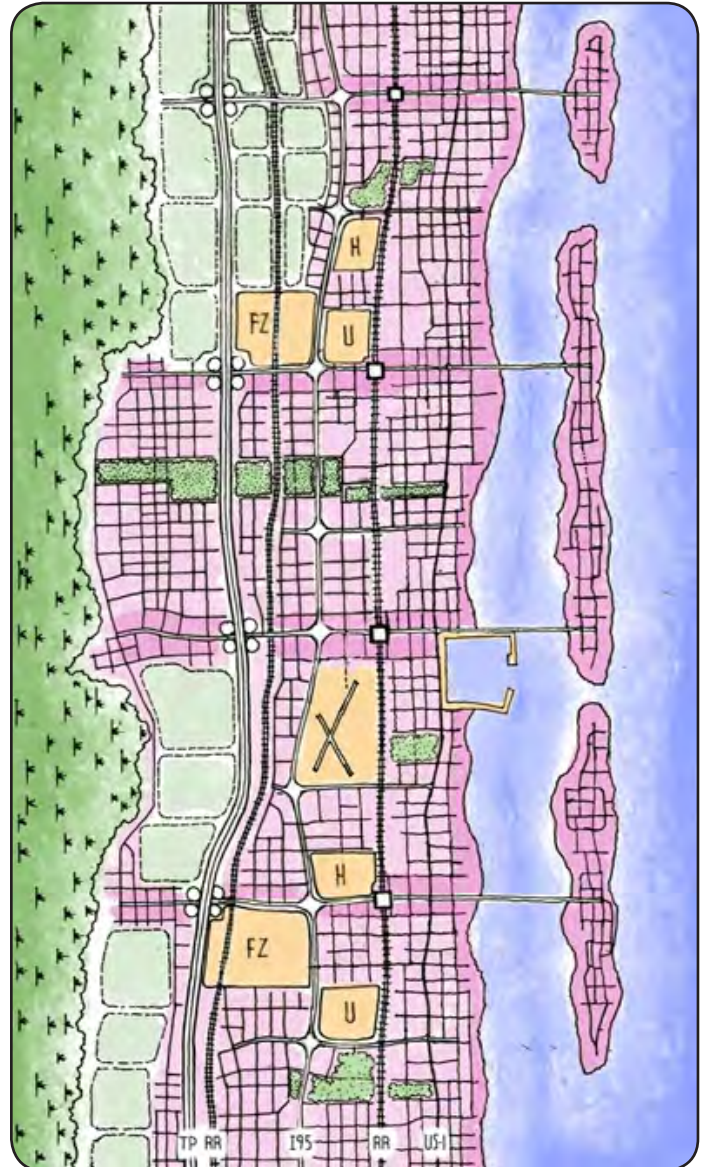
## 8

## Leverage our natural assets to connect the region

With the Everglades on one side and the Atlantic Ocean on the other our region's network of north-south and east-west streets look like a ladder from the air. This allows us to build a north-south commuter rail system along the coast that connects our historic centers from Miami-Dade to Sebastian Inlet which is "fed" by an east-west system of premium transit utilizing light rail and bus rapid transit. By virtue of our linear development pattern we can thus build a transit system with fewer investments (fewer rail lines, fewer bus routes) than is necessary in regions that are more amorphous.

Our region also has very few gaps; very few natural features like mountains or valleys disrupt the network. We have barrier islands but they are connected by east-west bridges which form some of the most important (most well-travelled, compactly developed) rungs in the ladder. Our barrier islands were accounted for in our region's initial grid planning with a great deal of design discipline. It is impossible to connect the cities of the American northeast or southwest for instance without a system of lines that must zig and zag around mountain ranges and bays, follow the coast as it moves in one direction and then to the next, and span long distances with no major destinations between them.

If we work together we can very efficiently connect the entire region north-south and east-west. In this respect we have an enormous advantage over other regions.

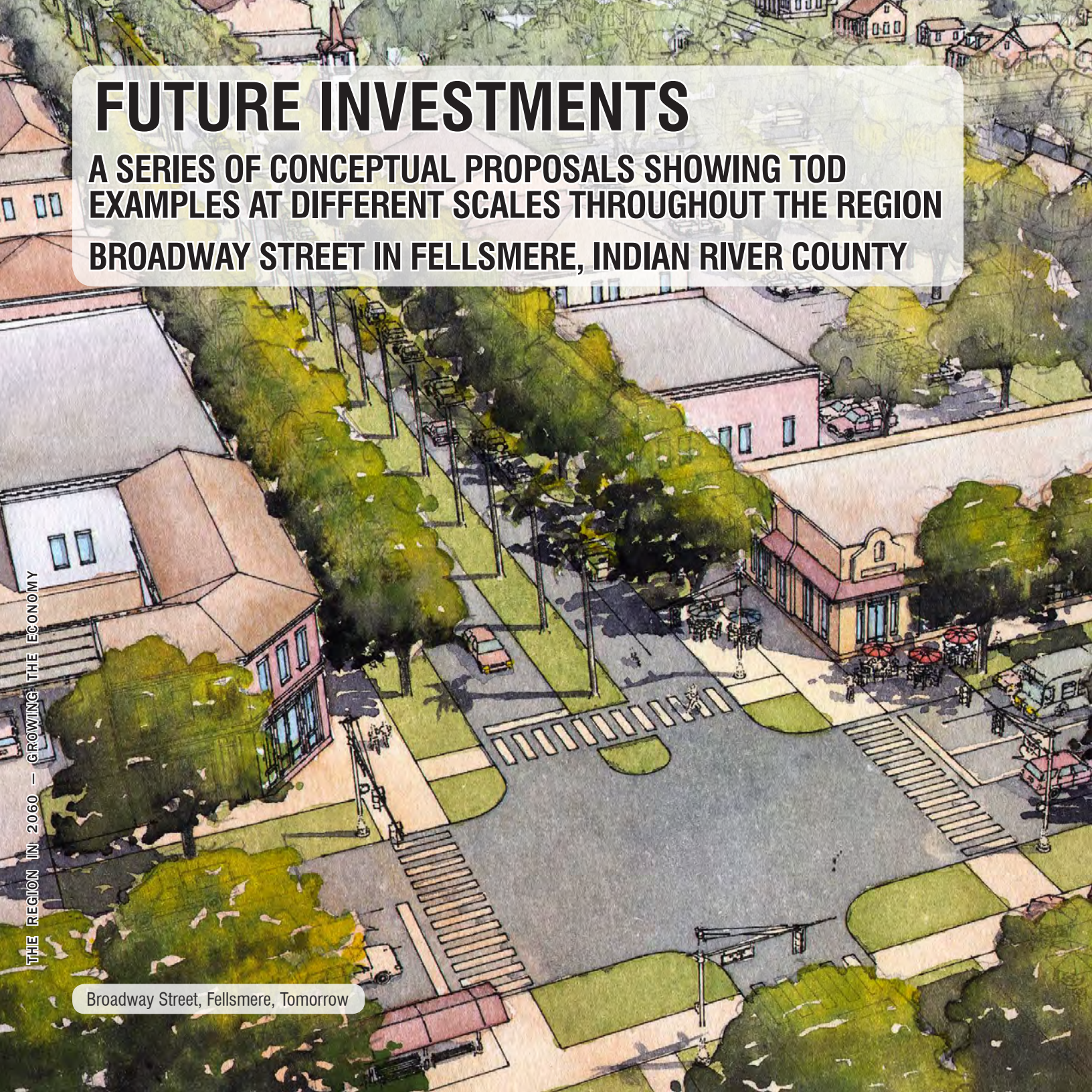


# FUTURE INVESTMENTS

A SERIES OF CONCEPTUAL PROPOSALS SHOWING TOD  
EXAMPLES AT DIFFERENT SCALES THROUGHOUT THE REGION  
BROADWAY STREET IN FELLSMERE, INDIAN RIVER COUNTY

THE REGION IN 2060 — GROWING THE ECONOMY

Broadway Street, Fellsmere, Tomorrow





The following site specific diagram are simply a few examples intended to exemplify a range of scales of transit oriented development (TOD) throughout the region. There are several opportunities to better connect Southeast Florida in order to encourage economic prosperity and regional innovation. Implementing additional transit options in key locations whether along a bus or rail line will not only make the region more livable, but also more accessible. Each community should focus on the scale most appropriate to its own character and scale.

### Low-Rise TOD Along a Bus Rapid Transit Line

Bus Rapid Transit (BRT) is a method that is used to connect transit patrons to popular destinations in a way that is both reliable and economically feasible. Implementing a fast and effective bus service system in western communities and communities not serviced by rail, such as Broadway Street in Fellsmere, will provide an opportunity for residents to gain access to major resources in the surrounding area. BRT is also sustainable--contributing to a reduction in automobile trips and greenhouse gas emissions. A dynamic transit system has the potential to increase nearby land values, increase connectivity to employment, reduce auto-related infrastructure costs to cities and counties, and reduce transportation costs for residents while also further engendering a sense of community and place.

The “last mile” is the concept that the last mile from where transit drops passengers off to their destination should be pedestrian friendly. If the last mile is inhospitable to pedestrians to allow access to the destination, then alternates such as trolleys or car or bike share programs should be utilized to make using transit more viable.



Broadway Street, Fellsmere, Today

Private investment follows public investment. In the case of Fellsmere, a tree-lined boulevard with wide sidewalks, which can be used for outdoor dining, gives the addresses along Broadway Street greater “curb appeal.” A walkable, traffic-calmed street keeps pedestrians safe. Customers are also more likely to frequent multiple businesses when they can walk to them in a “park-ance” environment.



45<sup>th</sup> Street Tri-Rail Station, West Palm Beach, Tomorrow

# FUTURE INVESTMENTS

## 45<sup>TH</sup> STREET TRI-RAIL STATION, PALM BEACH COUNTY



## Low- To Mid-Rise TOD Along A Rail Line

The 45<sup>th</sup> Street Tri-Rail Station sits just to the southeast of St. Mary's Medical Center, an important regional hospital facility. Several large opportunity parcels exist between the station and the medical center, offering a very promising location for new transit-oriented development.

Expansion of St. Mary's Medical Center onto the opportunity parcels adjacent to the Tri-Rail Station will make the center far more accessible to those wishing to arrive by foot. New development will be most beneficial if it features a robust mix of uses, including residential, commercial and workplace. Care should be taken to ensure that new development forms an interconnected network of traffic-calmed, walkable streets featuring wide sidewalks, pedestrian-scaled lighting and continuous shade from regularly-spaced street trees.



45<sup>th</sup> Street Tri-Rail Station, West Palm Beach, Today

# FUTURE INVESTMENTS

BOYNTON BEACH TRI-RAIL STATION, PALM BEACH COUNTY

THE REGION IN 2060 — GROWING THE ECONOMY



Boynton Beach Tri-Rail Station, Today





Boynton Beach Tri-Rail Station, Tomorrow

## Mid-Rise TOD Along A Rail Line

Southeast Florida's rail transit systems were originally designed for a largely suburban, auto-oriented context. Stations were optimized for park & ride use to intercept those who would otherwise be commuting long distances by automobile. In these first-generation transit stations, the rail platform was typically surrounded by plentiful and convenient surface parking.

While convenient for those arriving by car, these auto-oriented transit stations are quite difficult to use for those arriving by bicycle or on foot. Large surface parking lots are generally too hot, difficult to cross, and visually un-engaging for pedestrians and cyclists.

The large surface parking lots adjacent to many of southeast Florida's transit stations present an exciting opportunity, however. These parking lots represent perfectly located land banks that, with careful design and implementation, can be transformed into highly walkable, and bicycle-friendly environments.

As southeast Florida continues to grow, exciting potential exists for evolving the auto-oriented areas surrounding rail transit stations into new walkable centers. This will enable more people to live well with reduced dependence on the automobile. Those who are able to rely less on a car can spend less of their time stuck in traffic and will have the financial benefit of freedom from the expense of car usage.

A primary design goal should be to replace surface parking adjacent to transit stations with an interconnected network of walkable streets and public spaces. Surface parking may be concentrated into parking structures to free land for new development. Parking structures should be conveniently located, but should be screened from view from public spaces in order to create an optimized pedestrian environment. A rich mix of uses should be provided conveniently along the route of pedestrians to the station platform. This mixture of uses could be configured around a small plaza or square adjacent to the transit station. Uses should cater to the needs of commuters and may include a dry cleaner, coffee shop, grocery store, daycare, print shop, and office supply store, among others.

Newly developed areas adjacent to transit stations are also great potential locations for urban residential building types such as apartments and rowhouses. These urban building types reduce the amount of land consumed per residential unit, and therefore allow a greater concentration of population within walking and biking distance to the transit station.

New development close to transit stations is also a great possible location for office and other workplace uses.

Locating concentrations of both residential and workplace within walking and biking distance of transit stations and supplementing these with a variety of commercial uses is a great formula for maximizing the benefits of reduced auto usage, particularly during rush hour.



Evernia Tri-Rail Station, West Palm Beach, Tomorrow

# **FUTURE INVESTMENTS**

## **EVERNIA TRI-RAIL STATION, PALM BEACH COUNTY**





## Mid- To High-Rise TOD Along A Rail Line

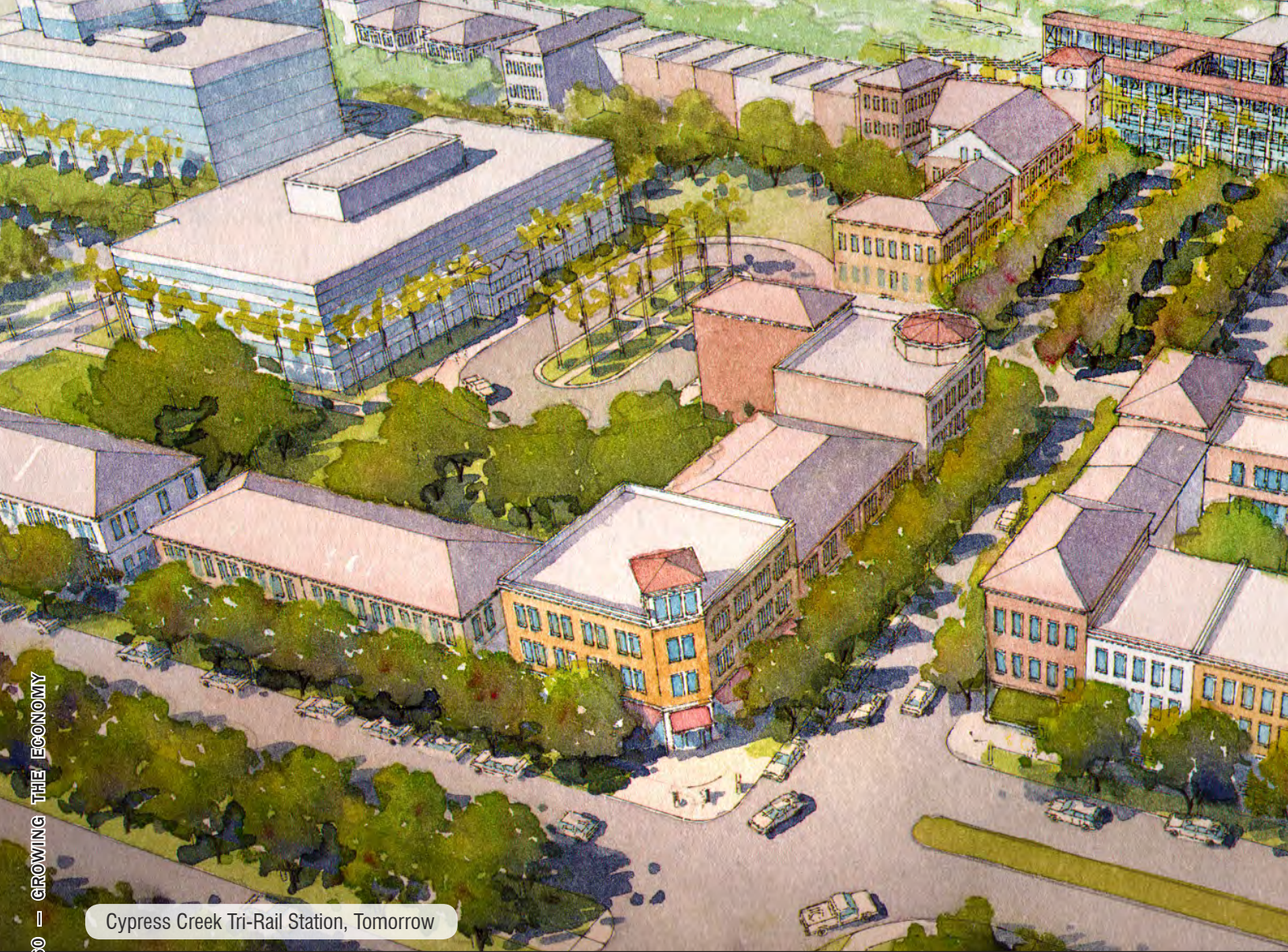
Central West Palm Beach has experienced steady development in recent decades and the downtown area has become a vibrant place to live, work and enjoy entertainment. The mixed-use urban center is rapidly becoming more walkable; however, the majority of users still navigate West Palm Beach via automobile—even though the Tri-Rail is in close proximity.

The existence of a new possible Tri-Rail site presents a unique opportunity for growth and connectivity in the city. Although there are multiple train stations in the region, they are often underutilized and difficult to access. Transit Oriented Development at Evernia Street will take advantage of an opportunity while also connecting transit users to an already dynamic destination.

A lively, pedestrian-friendly and mixed-use main street with on-street parking and continuous street trees should serve as the core of Transit Oriented Development. Incorporating a community center, a daycare facility and a public park that are within walking distance from homes and offices will allow for a sustainable lifestyle in West Palm Beach. Residential streets should be lined with a variety of housing options, including apartment buildings and rowhouses. A parking structure, lined by habitable buildings on all sides and fixed-route buses that circulate the edge of the neighborhood will further contribute to the usability and connectivity of the development.



Evernia Tri-Rail Station, West Palm Beach, Today



Cypress Creek Tri-Rail Station, Tomorrow

# FUTURE INVESTMENTS

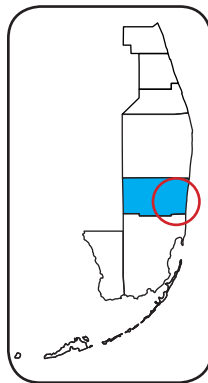
## CYPRESS CREEK TRI-RAIL STATION, BROWARD COUNTY



## Mid-Rise TOD Along A Rail Line

The Cypress Creek station currently sits near a fairly robust mix of uses including: office, industrial, retail and residential, several hotels, and a university's small satellite campus. A large 556 space park and ride lot immediately adjacent to the rail station provides a strong opportunity for additional transit-oriented in-fill development.

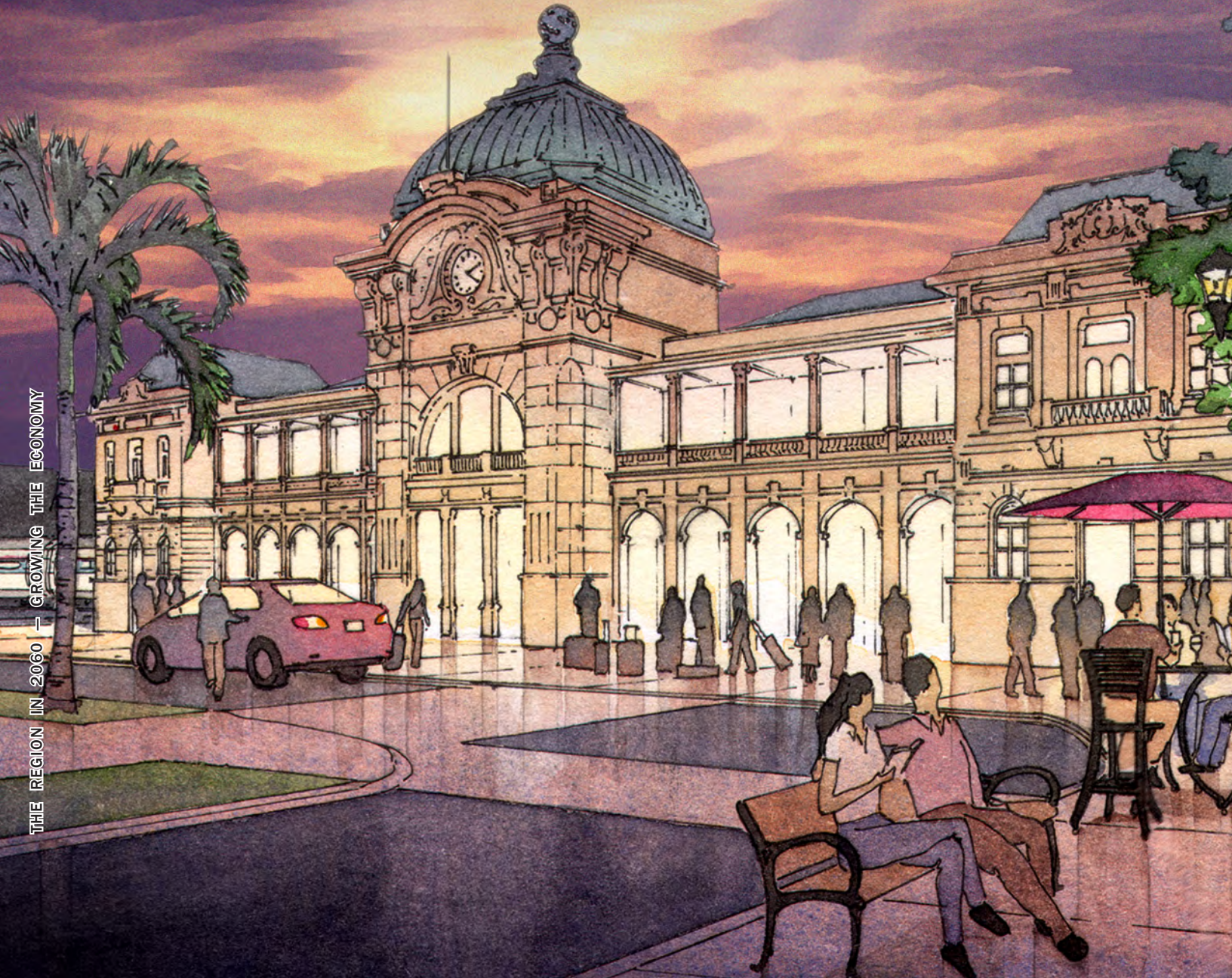
The parking for the station's park and ride facility can be consolidated into a parking structure to make space for new development. New development should be in the form of blocks and streets forming a variety of convenient routes for walking and biking to the station entrance.

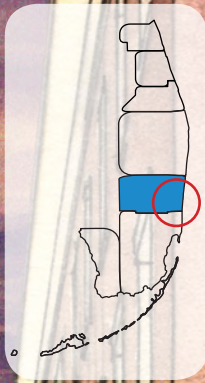


Cypress Creek Tri-Rail Station, Today

# FUTURE INVESTMENTS

NW 2<sup>ND</sup> STREET & BROWARD BLVD STATION, BROWARD COUNTY





NW 2<sup>nd</sup> Street & Broward Boulevard Station Area  
Fort Lauderdale, Tomorrow

## Mid-Rise TOD Along A Rail Line

Presently, Broward Boulevard at NW 2<sup>nd</sup> Street features relatively auto-oriented high rise offices and multi-family condominiums. Around the proposed station area, there are possible redevelopment opportunities where walkable, transit-oriented development can occur.

### Proposed Conditions

The new transit station would become a landmark for Ft. Lauderdale and increase pedestrian traffic and economic growth.

Train travel was once an entirely designed experience – from the city center one departed from, to the passenger car one travelled in, to the city center one arrived at – and for this reason train travel had tremendous appeal. There was an instant excitement upon arrival that automobile and plane travel can never fully provide. Immediately after getting off the train there was an experience of place.

For transit to become attractive to new generations it needs to recover its grandeur. This will require station buildings that are proud, memorable, and iconic (regardless of style). Leaving the station one must find oneself in more than just a walkable environment with connections to local transit, but at the heart of the city or town, at the center of activity.

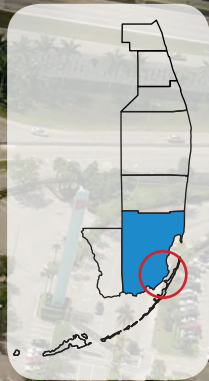
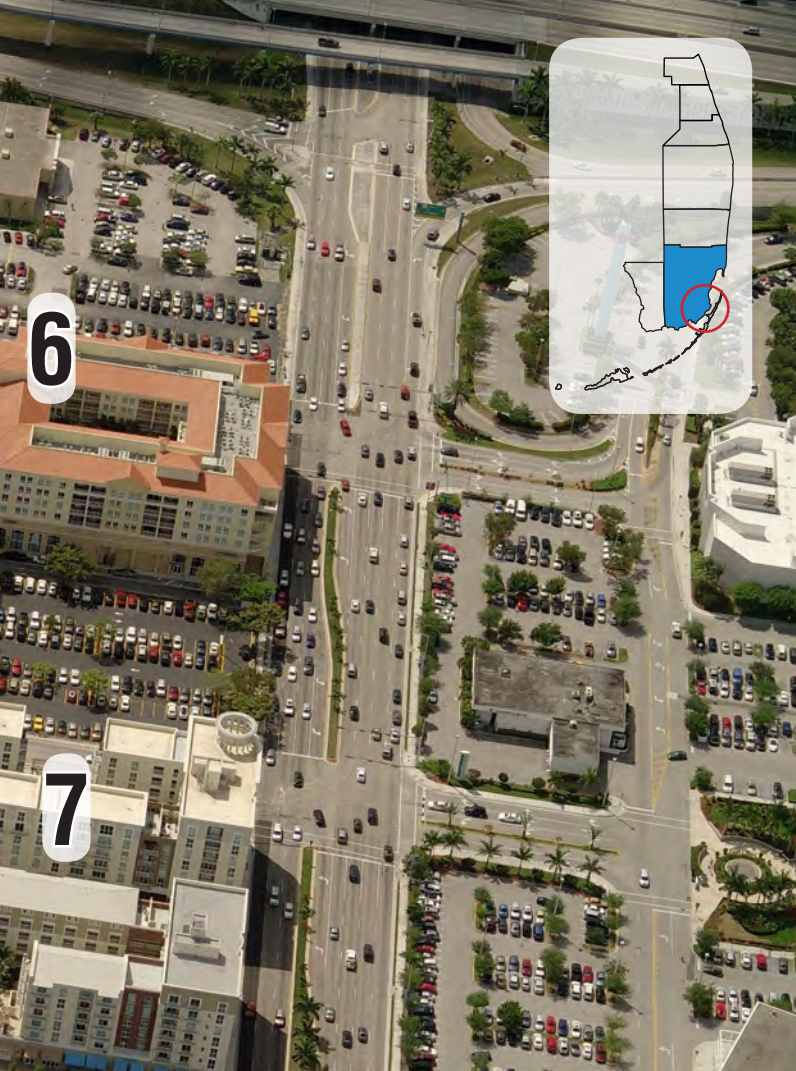
Transit center designs should be anchored by a signature open space shaped by buildings containing a mix of uses. This space can serve as an identifiable landmark for all the surrounding neighborhoods. While, walkable, mixed-use destinations in the grand tradition of placemaking established in the golden age of Florida rail travel are the goal, first steps can be modest. All it takes initially is a single well-configured public space to form a choice worthy place.



Downtown Kendall Metro Rail Stations, Today  
(We've come a long way already)

# FUTURE INVESTMENTS

## DOWNTOWN KENDALL TRI-RAIL STATIONS, MIAMI-DADE COUNTY



## High-Rise TOD Along A Rail Line

Downtown Kendall is a major Transit-Oriented Development neighborhood located in unincorporated Miami-Dade County near Dadeland Mall in the Kendall area. The entire 150+ acre site is entirely within ½ mile from two Metrorail stops including Dadeland South. The area saw major redevelopment following the implementation of an overlay Community Urban Center Zoning ordinance and Master Plan. Since then, a substantial amount of commercial and residential space has been added to a part of the city that was previously parking lots. These investments include:

- |  |   |
|--|---|
| 1. Dadeland Centre II<br>15 floors<br>116,530 sq ft commercial | 5. Metropolis<br>25 floors<br>397 units                                   |
| 2. Marriott City Kendall<br>4 floors<br>128 units              | 6. Toscano<br>25 floors<br>403 units<br>39,086 sq ft commercial           |
| 3. SDG Dadeland<br>121,266 sq ft commercial                    | 7. Downtown Dadeland<br>7 floors<br>416 units<br>127,586 sq ft commercial |
| 4. Town Center 1<br>25 floors<br>214,364 sq ft commercial      |   |

Downtown Kendall has only begun to emerge. Continued investment in Downtown Kendall will result in several more walkable, low auto-use neighborhoods that will add up to a major regional destination. Development follows a plan that calls for structured parking; shop-fronts, awnings and arcades; investments in public art; short block sizes, and tree-lined streets that are safe comfortable and interesting to the pedestrian.

Downtown Kendall is one of Miami's most fashionable neighborhoods among the city's emerging creative class. Apartments and condominium uses mix with restaurants, clubs, retail and workplaces.



Downtown Kendall Metro Rail Stations, Tomorrow

# LIVABLE REGION TOOLKIT

## HOUSING, TRANSPORTATION & HEALTHY COMMUNITIES APPROACHES FOR CREATING A MORE SUSTAINABLE FUTURE

### MIXED-USE HOMES ABOVE RETAIL



Palm Beach County

Mixed-use is at the very core of smart growth. Rather than forming districts segregated for housing, retail, office, etc., a well-designed neighborhood will integrate all of these. Single-use land tracts alienate those not there for that specific purpose, creating closed off and isolated communities. Mixed-use neighborhoods also decrease traffic, due to their general connectedness and proximity to transit. Preventing sprawl should be incentivized, providing a benefit to communities and developers alike.

### AFFORDABLE HOUSING OPTIONS FOR EVERYONE

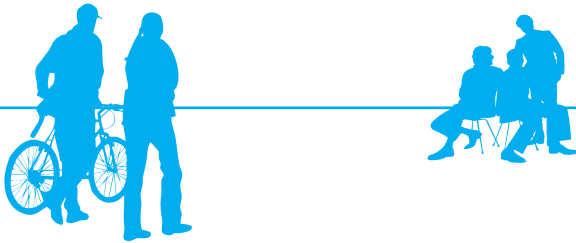


Bermuda Village, Coral Gable, Miami-Dade County

The success of a community relies on the integration of affordable housing. Concentrating poverty inevitably produces unstable communities. The simple solution to this is distributing accessible housing. A recent trend by municipal governments has been requiring that a certain percentage of all large development projects be priced affordably. In this way, the number of lower cost housing units increases, with seamless incorporation into the rest of the community. Ideally, these lower cost units are accessible by transit, reducing or removing the costs of vehicle uses.



Our issues are our aging in place population, affordable housing, concentration of poverty, and a need for public transportation.



Workplace and affordable housing should promote density and walkability.



## SUBSIDIZED HOUSING

DIGNIFIED, DECONCENTRATED & ACCESSIBLE



Blue Water, Tavernier, Monroe County

To successfully integrate subsidized housing into the neighborhood, three factors should be taken into consideration. First, the appearance of affordable housing should be analogous to middle-class housing, to prevent stigmatization. Second, subsidized housing should not be too densely aggregated, to avoid inadvertently creating neighborhoods without access to jobs, schools and open spaces. Third, subsidized housing that is only accessible by car proves to be a major economic burden on those residing there. For affordable housing to truly be so, it should be within easy reach of the major transit networks.

## COMMERCIAL LOFTS

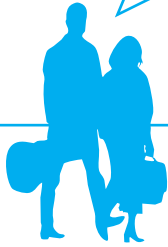
STREET SUPERVISION & CONVENIENCE



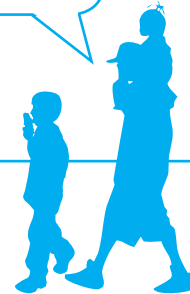
Worth Avenue, Palm Beach, Palm Beach County

Commercial lofts are the housing units above street level storefronts, offices and cafes. In renovated historic buildings these units can consist of several stories of units. Commercial lofts offer affordable housing by design in a way now unavailable with standard one-story commercial buildings. Apartments above shops provide supervision of the street, utilize unused parking spaces when the commercial use is closed, and offer a built-in customer base for businesses in the area.

Transportation should include all scales of modes—infrastructure for all.



We need to place an emphasis on multi-modal transportation. Airport, seaport, and rail connectivity combined lead to economic growth.



## LIVE-WORK HOUSING

COMBINING RESIDENTIAL & WORKPLACES



Miami Beach, Miami-Dade County

Live/work buildings are single-family dwellings that contain workplaces on the ground floor. They are ideal for both urban infill and suburban retrofit areas. Live/works provide a transition between commercial centers and single-family homes. Often live/works offer their owner the option of having just one mortgage for both their home and workplace. “Creative class” professionals like architects, graphic designers, technology designers, and artists are attracted to the reduced commute time and greater integration of home life and work.

## APARTMENT HOUSES

DIVERSITY WITHIN NEIGHBORHOOD CONTEXT

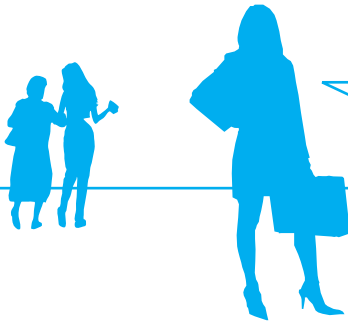


Vero Beach, Indian River County

Apartment houses are located on streets that have a variety of other uses, while apartment complexes, the more predominate form of apartments, are located within parking lots in single-use pods that may even be gated. Apartment houses have facades that address the street and place parking to the rear, while apartment complexes usually have no clear fronts or backs. Apartment houses are mixed with other housing types and not concentrated in single-type “developments,” thus adding socio-economic diversity, workforce housing, and housing for young people and seniors to neighborhoods without damaging property values and without concentrating poverty and crime.

We should revitalize Eastern communities before creating new cities in Western lands. We also need better East to West transit options.

Our city centers are too isolated from each other to form a cohesive region. I want an interconnected transit system.



## ROWHOUSES

NEIGHBORHOOD-SCALE DENSITY



Delray Beach, Palm Beach County

Rowhouses, or townhouses, are attached units of multiple stories on lots generally between 16 and 32 feet wide. They have short front setbacks and form street walls that frame streets and public spaces, creating the feeling of an outdoor room. Rowhouses have unattached parking garages or tuck-under parking at the rear, accessed by alleys. First floors should be raised to allow privacy and can be accessed by stoops. Attention should be paid to the entryway door surround or portico to give the unit a proud presentation to the street.

## CONSERVATION SUBDIVISIONS

PROTECT NATURAL FEATURES BY BUILDING COMPACTLY



Bermuda Village, Coral Gables, Miami-Dade County

Locating homes closer together than would typically be allowed can preserve open space or farmland. Compact building limits the cost of development by reducing infrastructure like roads and sidewalks, sewer and water pipes, and telephone and electrical wiring. When enough new neighborhoods are developed in this way, cross-city trailway systems can locate through a system of connected open spaces.

To encourage conservation-based construction, density bonuses, that allow more homes than ordinarily would be permitted, are sometimes granted to compensate developers for the cost of thoughtful design, coordinated open spaces, and the construction of alleys.

# LIVABLE REGION TOOLKIT

## HOUSING, **TRANSPORTATION** & HEALTHY COMMUNITIES APPROACHES FOR CREATING A MORE SUSTAINABLE FUTURE

### INTERSTATE COMMUTER RAIL



Los Angeles, CA Amtrak Station

The US has a single passenger interstate rail provider, Amtrak, with 44 routes on 21,000 miles of track. The publicly funded railway provides an alternative to flying or private vehicle with tracks spanning the country. 46 of 50 states are serviced, but rail is limited by the sheer size of the nation. Cross-country trips are prohibitively lengthy, and can take days, compared to air travel. Though interstate rail service is of great benefit and has even greater potential, it is not today a fully viable travel option in most areas.

### REGIONAL COMMUTER RAIL



Tri-Rail, Delray Beach Station

Regional commuter rail, heavy-rail “Metro” services, and newer “light rail” systems have the greatest community potential. A well-designed rail system can span the entire region. The New York system services the city proper, the five boroughs, and the surrounding tri-state area. Metros can create competitive mega-regions, allowing residents to commute longer distances. Most importantly, Metros and light-rail systems are connected to other transit modes, establishing better connectivity with the rest of the region. Commuter rail is used primarily by commuters, servicing few areas between stations. Light-rail systems are not as fast but are considerably less costly. Implementing a well-thought-out Metro system is a high priority for populous regions, but cannot be the only method of public transit in a comprehensive system.

We should learn from others and embrace non-vehicular transportation to move forward.



More transit-oriented development will lead to healthier cities. Roads and highways can't be our only priority.



## COMMUTER FERRIES

## CIRCULATORS



Commuter Ferry, Boston, MA



Downtown Miami, Miami-Dade County

Commuter ferries are extremely popular in a many cities, including San Francisco, New York, Seattle, Vancouver, Hong Kong and many others. Their popularity stems from their simplicity and affordability. Ferries reduce gas, parking and toll costs, while providing a generally pleasant experience. Ferries often have cafes or newsstands on board, to improve the quality of the trip while increasing revenue. High speed ferries are becoming more readily available, addressing the biggest criticism of ferries: longer travel times. At the same time conflicts with endangered species inhabiting our waterways such as manatees must be balanced against where and how ferry systems can be executed. Cities along waterways may consider implementing ferries, potentially increasing tourism, while reducing the number of vehicles on the road.

At-grade circulators, small-scale monorails, or automated guideway transit system are effective at moving people within a dense area, usually the downtown core. These types of vehicles are typically small, with constant service and many stops in a small area. Circulators reduce the number of short trips, allowing the urban core to remain walkable, with as little traffic as possible. Vehicles are continually arriving, leading to short wait times for riders, and a greater number of passengers served. Downtown Miami has the most successful circulator in the US, with over 8 million rides annually. The connections between other forms of transit and the rapid turnover make circulators a more appealing option than waiting in traffic. Under the right circumstances, circulators can be an effective investment for cities.

## LOCAL BUS NETWORKS

### A FIRST STEP TO TRANSIT



Changwon, South Korea

Traditional local bus systems are in use throughout the world, and providing significant benefit to the community. Local buses serve the most extensive network and offer more frequent stops, as opposed to BRTs or light-rail systems that must limit stops to offer longer-range mobility.

Local buses are still plagued by the single biggest complaint of motorists: traffic. Buses travel in the same lanes as cars, resulting in potentially sluggish transit and reducing the number of people willing to use buses. Despite this, buses are still one of the most popular modes of transportation worldwide and will be a part of every widespread transit system, especially for underserved markets.

## BUS RAPID TRANSIT

### A FIRST STEP TOWARD PREMIUM TRANSIT



Miami Beach, Miami-Dade County

Bus Rapid Transit (BRT) systems seek to remove many of the factors that cause delays in traditional bus systems. Special buses travel in lanes separate from normal traffic, allowing for constant circulation. BRT stations expedite the boarding process because fares are paid off the bus, rather than directly to the driver, and platforms are usually the same height as the bus' floor. True BRT systems have intersection priority, making movement even faster. Although they are faster than buses, BRTs, like light rail, are very expensive to construct and cannot serve all neighborhoods. To increase their usage, BRTs and all high-capacity transit systems should connect as many forms of transportation as possible, as well as ensuring that cyclists can be accommodated. All diesel-powered bus systems still present significant environmental impacts, but the impacts are far less than individual vehicles.

Planning should be a complete process. Don't create isolated 100% residential or commercial neighborhoods.



Our cities should be safe, and not just from crime. We should be able to walk around without being worried about excessive traffic or congestion.

## RUBBER TIRE TROLLEYS

### SPECIAL ROUTES FOR SPECIAL PLACES



Coral Gables Trolley, Miami-Dade County

Rubber-tire trolleys can add to the atmosphere of a neighborhood and provide a quick method of transit in a small, clearly defined area. Also known as tourist trolleys, these are vehicles designed to look like traditional streetcars. They differ from bus systems however, in that they are not designed primarily for commuters, but seek to serve casual riders. In downtowns or other areas where parking is difficult, pedestrians can leave their cars in designated locations and use the trolley service to move more freely around the neighborhood. Rubber-tire trolleys are often used as circulators, moving constantly between points of interest and other public transit stops.

## ELECTRIC STREETCARS

### THE ULTIMATE IN PREMIUM TRANSIT



The Wave Streetcar, Broward County

Electric trolleys on rails, also known as streetcars, lend a sense of permanence to a neighborhood that helps create strong economic corridors. Trolley systems are typically more efficient and have a higher carrying capacity than buses, making them ideal for transit in small established districts, particularly downtowns. The high visibility of trolleys and their tracks allows for greater simplicity in using the system, especially benefiting visitors and tourists, as the streetcars in San Francisco exemplify. The use of electricity rather than petroleum based fuel sources reduces pollution in dense areas. Streetcars also have a much longer life than buses systems, and help decrease the number of cars on a road. The initial cost of trolleys on rail will be higher, but it can be a long-term, attractive method of public transportation.

## ALTERNATIVE FUNDING TRANSPORTATION FUNDING APPROACHES



Fuel taxes help fund transportation projects.

Several states and regions are considering alternative approaches to funding future highway, public transit, and port and airport needs.

- Tolling on specific transportation facilities
- Increasing the fuel tax
- Increasing general sales tax in lieu of fuel tax
- Institute a sales tax on gasoline
- Mileage-based user fees

The Oregon state legislature recently enacted a mileage-based user fee or road usage charge legislation as alternative to the motor fuel tax. Miami-Dade County passed a 1/2 penny sales tax for transportation projects including transit operations and maintenance, and municipal circulators.

Whatever Florida decides, it is clear that alternatives to conventional motor fuel tax collections are needed to accomplish the Seven50 vision and a strong regional coalition must form to carry that message to Tallahassee.

### SCALE OF IMPLEMENTATION

REGION

## THE NETWORK CONNECTIONS WITHIN COMMUNITIES



Miracle Mile, Coral Gables, Miami-Dade County

The road system should be organized in a contextual and logical manner. Major thoroughfares should lead in and out of the urban core, creating major city districts. Streets within these neighborhoods and districts should progressively get smaller and slower to allow for the best local usage. A well-designed urban core should be easy to find, and a full road network allows for many routes between destinations. Roadways should not be determined by vehicular usage, but should instead provide the most use to those who find it difficult to rely on the car.



We need to enhance economic competitiveness and our quality of life by redeveloping smarter and more efficiently.



Planning for development should be integrated with planning for transportation. You need both for a vibrant community.



## MULTIMODAL STREETS

INCENTIVIZE TRANSIT & PEDESTRIANS



Dorn Avenue, South Miami, Miami-Dade County

In the creation of a comprehensive transportation network, the task of the planner is not to accommodate vehicles, but to incentivize transit and pedestrian modes. Past efforts to adapt roads for increased traffic flows have only led to a higher demand constantly overtaking supply. The addition of highways, widening of lanes, and excessive construction of parking structures have only served to create unwelcoming commercial districts at the expense of pedestrian traffic. Creating roads to suit the needs of drivers weakens the urban environment, and makes transit an afterthought as opposed to a priority. Rather than tailoring roads to drivers, it is of increasing importance to advocate usage of transportation modes such as pedestrian, bicycles, and transit, other than vehicles.

## DESIGN SPEED

SAFE STREETS HAVE LOW VEHICULAR SPEEDS



Key West, Monroe County

Vehicular speed is perhaps the single biggest determinant of pedestrian safety. Pedestrians have only a 10% chance of surviving collisions over 40 MPH, with much greater likelihoods at slower speeds. Motorists do not necessarily drive at the posted speed, but at a speed that feels comfortable to them. To effectively manage the speed of drivers, roads should be designed in ways that suggest slower speeds, including narrower lanes, more sidewalks, on-street parking, and cues such as pedestrian crossings.

## ON-STREET PARKING

SMALL BUSINESSES RELY ON CONVENIENT PARKING



West Atlantic Avenue Delray Beach, Palm Beach County

The existence of on-street parking can change the character of a neighborhood for the better. The flow of traffic is generally slower, as motorists are more aware of cars on the road. This awareness also benefits pedestrians, who are protected by the slower speed of cars and by the separation of the sidewalk from traffic. Sidewalk activity increases, as more individuals walk from their car to their destination, resulting in a more pleasant street atmosphere and encouraging pedestrians to explore local businesses. Parallel parking is the preferred mode, but angle parking may be justifiable on streets with a greater need for parking. Parking requirements in zoning regulations should recognize on-street parking and other sources of shared public parking.

## BICYCLE NETWORK

USE A VARIETY OF ROADWAY TYPES



University of Miami, Miami-Dade County

The vast majority of bicycle facilities are shared routes: low-speed streets safely shared by cars and bikes. A complete bicycle network utilizes three other types as well:

1. Bicycle trails are entirely removed from high speed traffic.
2. Bicycle lanes are typically on medium-speed roads, and are separated by lines on the road.
3. Bicycle boulevards are designed to accommodate cyclists over motorists, using traffic-calming strategies.

All four have an important role in a bicycle network.

To make the major destinations in a city accessible by bike, the first step is to determine the extent of the existing bicycle network, and then grow the network using various facility types. To complete the network, parking facilities as well as adequate transit accommodations must also be available.

## ELECTRIC CARS & HYBRIDS

### THE INFRASTRUCTURE OF THE FUTURE



Tesla Motors has started the construction of a network of charging stations nationwide

Innovation is a key to success when it comes to the future of transportation in South Florida. Two major types of electric vehicles, plug-in and hybrid, are quickly gaining popularity. Plug-in hybrid electric vehicles (PHEVs) combine a fossil fuel source with electric propulsion, allowing flexibility. Plug-in vehicles are appearing more frequently, aided by significant investments in charging infrastructure by private companies. Tax benefits, fuel savings, and HOV allowances have all played major roles in attracting drivers to electric and hybrid vehicles.

## SHARED VEHICLES

### PRIVATE & PUBLIC SUPPORT



South Beach, Miami-Dade County

In locations where space is at a premium, the public is quickly embracing vehicle sharing programs. Car and bike sharing programs are growing in cities all over the world, and quickly becoming a viable option for certain trips. A number of these services have already appeared in South Florida, including Zipcar, Car2Go, and Decobike.

Local governments can support these efforts in many ways, including sharing existing parking spaces for bicycle racks, eliminating on-site parking requirements for car-share services, and reducing tolls for shared vehicles. With support from private and public entities, vehicle sharing may prove to be a cost-effective mechanism for reducing the number of cars on the road.

Shared vehicles also hold great promise for increasing transit use and contributing to peoples' decisions to live in transit oriented developments because those people will have a car available when needed. Shared vehicles are a last mile solution for transit use.

# LIVABLE REGION TOOLKIT

## HOUSING, TRANSPORTATION & **HEALTHY COMMUNITIES** APPROACHES FOR CREATING A MORE SUSTAINABLE FUTURE

### GROWTH PRIORITIES REVITALIZE, INFILL, AND RETROFIT



Key West, Monroe County



Design District, Miami, Miami-Dade County

Prioritize areas to direct public and private investment to areas where new growth will have the greatest overall benefit.

#### **First priorities:**

1. **Urban Revitalization:** These are areas of existing concentrated activity, including downtowns, where new growth can have a transformative effect. Multiple investments spread too far apart may dilute this effect. By contrast, strategic placement on all four sides of a single corner, or on both sides of a main street, builds 360° views of revitalization, multi-purpose destinations, and visible synergies.
2. **Urban Infill:** These are new small additions to areas where services and infrastructure already exist that are both fiscally prudent and can catalyze vitality more quickly by leveraging existing investments. New additions into walkable urban areas should not be designed the same as for more drivable suburban areas.

3. **Suburban Retrofit:** Aging, auto-dependent strip commercial areas often have prime locations near major intersections. Widely-spaced, single-story buildings are an inefficient use of such prime real estate. Much more value can be created by creating compact, walkable, multi-story environments.

#### **Secondary priorities:**

4. New neighborhoods on existing infrastructure
5. New neighborhoods requiring new infrastructure and avoiding environmentally sensitive areas

#### SCALE OF IMPLEMENTATION

REGION

CITY, TOWN & VILLAGE

## INEVITABLE GROWTH PLANNING AHEAD



Jensen Beach, Martin County

## FORM BASED CODES ZONING BASED ON FORM



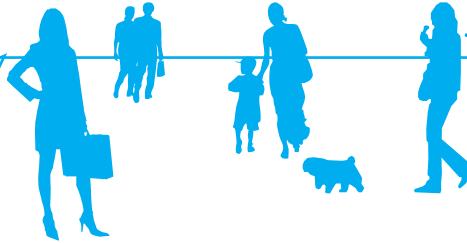
National chain built under form-based code in South Miami, Miami-Dade County

With the population of Southeast Florida expected to grow by 3 million in the next 50 years, there is no doubt that adaptation and change will be needed to create a successful region. A thoughtful plan is needed to improve the Southeast Florida's urban setting; avoiding growth altogether is not an option. A more positive outlook on growth is essential to avoid going through periods of manic construction followed by panicked moratoria. Natural-appearing cohesive redevelopment can allow growth to take place in a way that is truly beneficial to the region.

Zoning in America is conceptually based on the Standard State Zoning Enabling Act of 1926, often referred to as "Euclidian" zoning. Its primary purpose is to separate uses – such as homes – from stores and polluting factories. The unforeseen side-effect of this laser-focus on separating uses is that all activity, every errand, requires a drive.

Under form-based coding, building forms are regulated more than their ultimate uses, although the more troublesome uses are still fully regulated. This allows a finer-grained mix of uses within buildings that form healthy neighborhoods. When properly implemented, form-based codes help create or maintain complete communities or improve existing ones.

Improve coordination and streamline development approvals.



Our physical infrastructure should encourage sustainable, compact, walkable mixed-use communities - with residential and business.

## CREATE A TDR PROGRAM PRESERVATION BY DENSITY



Commercial use created through NROGO TDR program in Monroe County, Florida

Large-lot zoning restricts development to very low densities, seeming to slow growth. Ultimately however it puts rural areas at risk of being overtaken by sprawl. Compact urban development, on the other hand, is often curbed by zoning laws prohibiting residential development in most commercial areas. To facilitate the movement of residential growth from the low-density areas into high priority development areas, a Transferable Development Rights (TDR) mechanism may be helpful. TDRs regulate the sale of development potential from one location to another so that new growth best suits local needs. In this way, property owners in rural areas may sell off development value while still retaining ownership and use of their land, as well as reducing property taxes that are based on development value rather than rural value.

### SCALE OF IMPLEMENTATION

REGION

## A PAVED PATH ALONG FEC CORRIDOR BUILD A REGIONAL RAIL NETWORK & A MULTI-USE PATH



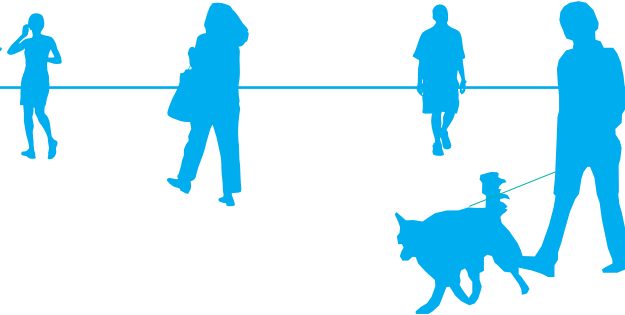
Florida Biking

The Florida East Coast Corridor, an active freight rail line proposed for passenger service, could be developed with a paved path for cyclists and pedestrians. Ultimately this path could provide a 230-mile rail-with-trail from Orlando to Miami with segments connecting cities and towns inbetween. This is a once-in-a-lifetime opportunity to connect the communities within the region.

The path would help move people to and from the regional rail networks including the Coastal Link and All Aboard Florida stations, improve safety by reducing trespassing on the tracks, and create an amenity to the communities that are going to be impacted by the new rail service.

CITY, TOWN & VILLAGE

I'd like more transit choices, in major cities in the north and south.



We could redesign strip plazas and use native plants because they use less water.

## 24-HOUR CITY

MEETING THE COMMUNITY NEEDS



Ocean Drive, Miami Beach, Miami-Dade County

## THE NEIGHBORHOOD

THE CORE OF COMMUNITIES



Abacoa, Palm Beach County

Rather than shutting down cities at night to prevent “unsavory elements,” the safety of a city is improved when it is constantly in use. A well rounded community is not defined solely by workplaces and homes, but by a number of other factors, including places for socializing and shopping. Neighborhoods require a balance of such places, and areas lacking any factor must prioritize those to balance the community. Central business districts often lack affordable housing, and suburban areas may lack desirable employment, creating two opportunities for rebalancing our communities.

Generally speaking, development should be centered around the neighborhood. The well-designed community has specific features that permit the greatest efficiency and usefulness, while also managing to create cohesive communities. It is usually designed to be compact, allowing for residents to move about freely. It must be pedestrian friendly, and of a size that is easily walkable in a 5 to 10 minute time period. It should contain amenities required by its inhabitants, including housing, employment, entertainment and education, for a variety of lifestyles. It should also be easily accessible, by car as well as by other methods of transportation, including cycling and transit.



We need more green space in urban centers.



We should widen housing choices and create a diversity of lifestyles and boost collaboration.



## NEIGHBORHOOD SCHOOLS

GREATER SAFETY & MORE EXERCISE FOR KIDS



Coral Gables Middle School, Miami-Dade County

## COMPLETE STREETS

BEYOND MOVING VEHICLES



Palm Beach County

Schools are often the highest priority for families deciding where to live. School districts must design schools to make them not only appealing, but also safer and more accessible by foot. Elementary schools should be located within a mile of the majority of homes, and the radius for high schools should also be small. Smaller schools provide better atmospheres for students and result in higher achievement. Though our region is building more small schools, the recent national shift towards massive schools with thousands of students should be halted. These are typically too far from neighborhoods to be walkable. Placing schools further away requires parents to drive their children to school, worsening neighborhood traffic flows.

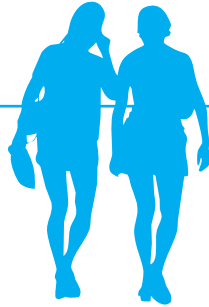
Streets not only move people and vehicles, much of life can take place there, from commerce, to socializing, to employment, to recreation. Streets should be designed to serve all these purposes well. A complete street will include safer speeds for vehicles, accessibility for bicycles and buses, on-street parking, a safe sidewalk, shade, and other features that make a street pleasant and livable. The statewide, but locally administered program entitled Complete Streets provides education and design solutions to completing our public thoroughfares.

### SCALE OF IMPLEMENTATION

REGION

CITY, TOWN & VILLAGE





We need more discernible town centers and more removal of blight via mixed-use development.

## BLOCK SIZE

WALKABLE PLACES RELY ON WALKABLE BLOCKS



Key West, Miami-Dade County

Smaller blocks provide more travel choices, especially for pedestrians and bicyclists. In particular, the urban core of any city should have a high intersection-to-square-mile ratio. A typical residential neighborhood may have longer blocks. Intermediate pedestrian passages can break blocks and avoid an overly long street wall while also improving mobility.

## SIDEWALKS

WIDE & SHADED



Downtown Kendall, Miami-Dade County

Sidewalks are vital parts of streets. Other than rural roads and high-speed highways, all streets should have sufficient walking space. Urban areas require wider sidewalks to allow a constant flow of pedestrians and to encourage people to walk and explore local stores and services. Urban sidewalks should be at least 10 feet wide but can be up to 25 feet in busy areas or if businesses require the space. Suburban sidewalks should be wide enough for two to walk comfortably, but may be wider, particularly near parks, schools, and other public areas.

Sidewalks should be clear of obstructions like signs, mailboxes, light poles, street trees, etc. These items should be located within a furnishing strip between the sidewalk and the street.



Development is a way attract the creative class and bring jobs to the area.



I think there is a lack of public transportation options for the workforce.

## SIDEWALK SUBSTITUTES

KEEP PEDESTRIANS ON STREET LEVEL



Douglas Road and US 1, Miami-Dade County

Thought it may seem attractive, sidewalk substitutes such as overpasses should not be considered a viable alternative to an at grade sidewalk. Rather than protecting pedestrians from heavy traffic, they simply remove them entirely, allowing drivers to continue at high speeds, increasing the danger to pedestrians. Elevated crossings also weaken adjacent retail possibilities by making it difficult for foot traffic to access them easily. Rather than isolating pedestrians, a more effective street with active pedestrian use would be designed for slower vehicular speeds, and breaks in traffic flow to allow pedestrians to safely cross.

## STREET TREES

SAFETY, SHADE & VALUE



Vero Beach, Indian River County

Street trees provide a natural border to street space, create shade for pedestrians, decrease traffic speed by creating a visual friction that results in more cautious driving, and increase property values. Ecologically, street trees reduce heat island effects and filter airborne particles and groundwater pollutants. In urban locations, shade streets should provide complete street cover, with different streets using a different species of trees in a strategic effort to prevent blight through biodiversity. Trees should be in planters and equally spaced along the curb.

In less urban locations, trees should be planted in a grassy strip between the street and sidewalk, spaced further to let the trees grow to their fullest potential. Along rural roads, trees may be planted in more natural arrangements, with clusters of a range of tree species in various distances from the road.

Our growth needs to make use of our natural resources, while still protecting them.



Try using existing spaces rather than clearing new or unused land.



## REAR ALLEYS & LANES

SERVICE, STORAGE & ACCESS



Miami Beach, Miami-Dade County

Rear alleys and lanes add significant value to neighborhoods by providing service access while hiding many of the unsightly but necessary elements of modern life, such as parking and utilities. Rear-facing garages create unbroken streetscapes, making them more visually appealing.

Alleys are most common in urban locations; they are wider than the more residential rear lanes. In many locations, the majority of services i.e. mail boxes, garages, power transformers and so on, are placed in the back, with only the front entrance and windows visible from the sidewalk.

## SHADE THE PEDESTRIAN

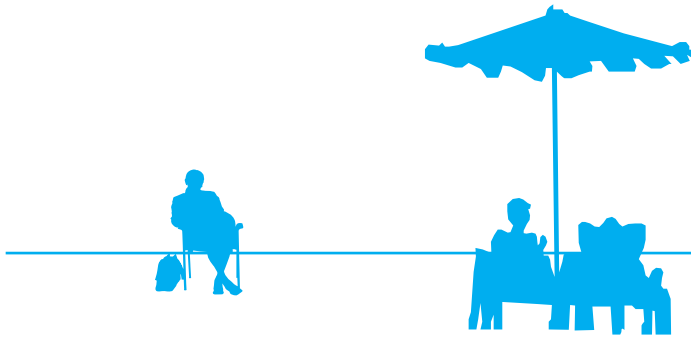
ALLOW ENCROACHMENTS TO SHADE SIDEWALKS



Riverside Hotel, Ft. Lauderdale, Broward County

Building attachments such as porches, balconies, and stoops infuse neighborhoods with activity and movement. To incentivize these, codes should permit these attachments to be constructed within the setback zones, where they may be considered a bonus to the building.

Awnings and arcades on commercial building afford a dual benefit: providing shade for shoppers and increasing the physical presence of the shop. These should be constructed over the public sidewalk. Many codes will have to be modified to allow a true arcade, which puts livable area above the public right-of-way and fully shades and protects the sidewalk.



Development should work for the community. It should improve and invest in our homes, culture and transportation. South Florida has all the potential to be a powerhouse.



## ATHLETIC EVENTS

### WHAT'S YOUR 5K TIME?



Miami Beach, Miami-Dade County

## URBAN PARKS

### NATURE IN NEIGHBORHOODS



Stuart, Martin County

Southeast Florida is an ideal year-round venue for outdoor amateur sports like 5K run/walk events, marathons, triathlons, long-distance swims, and cycling events. These events require partnerships between professional event organizers and municipalities to temporarily close streets, provide security, advertise and sponsor the events, and identify event spaces. These events create revenue for both local non-profit organizations and the local economy. Amateur athletic events also encourage group involvement, year-round training, and a dedication to personal fitness.

Extensive park systems establish a central location for a community, resulting in the natural formation of neighborhoods and providing a location for civic events, encouraging, community participation and pride. Open spaces such as Central Park in New York not only draw tourists, but serve as a pull factor for cities seeking to expand their “creative class”.

Parks are also necessary as a public health measure, allowing for greater movement and exercise within an urban core. With the continuation of sprawl, the location of parks must be carefully considered. Parks serve the greatest benefit when they are accessible with bikes and on foot, rather than by vehicle.

## SCALE OF IMPLEMENTATION

REGION

CITY, TOWN & VILLAGE

## FRESH & HEALTHY FOOD

### FARMER'S MARKETS & GROCERY STORES



Lincoln Road, Miami-Dade County

Obesity and diet-related diseases have been linked to limited access to fresh, nutritious food and easy access to fast food and convenience store snacks. Municipalities should identify opportunities to locate grocery stores and farmer's markets near underserved areas. Zoning regulations that prohibit roadside produce stands and farmer's markets should be rethought. Transit planners should consider grocery shopping when selecting routes. A Community Food Assessment (CFA) is a tool from the USDA to locate and identify "food deserts" with little or no access to healthful food.

## GARDENS

### KITCHEN GARDENS & COMMUNITY GARDENS



Community Garden, Miami-Dade County

Gardens provide nutritious food and can be a catalyst for neighborhood pride and community social networks. Gardens also provide exercise and can help families reduce household costs. Community gardens should be considered in parks. Raised planting boxes allow the use of healthy soils if lead or other contaminants are present in the soil.

## EYES ON THE STREET

SAFER STREETS WITH NATURAL SURVEILLANCE



Vero Beach, Indian River County

Overall neighborhood safety is boosted not by high walls and closed fences, but by the sense of surveillance that doors, windows, and balconies provide. Referred to as natural surveillance, crime decreases when there is a feeling that someone may be watching. The “eyes on the street” of buildings should face the street, as opposed to a rear parking lot. Buildings with parking lots should utilize both a parking and front entrance to encourage use from pedestrians. Parking structures should be surrounded by habitable space to assist in the growth of an energetic and secure streetscape.

## POCKET PARKS

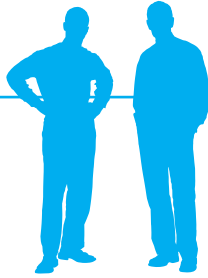
SMALL GREEN SPACES FOR NEIGHBORS



Stuart, Martin County

Parks play a vital role in neighborhood life, providing green space to residents, places for children to play, places for residents to meet, and creating natural breaks in the urban landscape. Pocket parks do so in a smaller scale, allowing a greater number of residences to have access to these open areas. Parks should be distributed so that they are within a five minute walk to most households. Pocket parks usually include amenities such as shaded seating, hard and soft surfaces, and play equipment, and ideally have daycare locations nearby to ensure consistent usage. Pocket parks may also contain community gardens.

We should build healthier  
and safer communities.



## PLAYGROUND SHADE



Miami Beach, Miami-Dade County

Provide shade devices for playgrounds to protect children from sunburn and increased risk of skin cancers. Even one blistering sunburn in childhood can increase the risk of developing skin cancer in adulthood. Many existing parks throughout the region should have shade devices added. Large tensile structures are a preferred approach. Additionally, routes to and from parks, mixed-use centers, and ideally, all streets, should offer some degree of shade. This can often best be accomplished by establishing a tree canopy.





# CELEBRATING ARTS & CULTURE

## FIRST PRIORITIES FROM THE COMMUNITY ASSETS & CULTURE WORKGROUP

### PRIORITIES

1

Embrace great design as a core Seven50 planning principle and policy

2

Connect with local arts & cultural to create communities with a distinctive sense of place

3

Invest strategically in the creative arts

4

Recognize that culture is a significant driver for economic competitiveness & quality of life

5

Add the “A”(rts) to STEM to produce the competitive workforce of tomorrow

6

Develop regional cultural assets according to a hub & spoke strategy

7

Empower the region’s arts leadership to implement the arts objective of the Seven50 plan

8

Promote sustainable development that emphasizes the region’s natural, historic, & cultural assets & preserves sense of place

### TOOLKIT ITEMS

Cultural/Arts & Entertainment Districts

Arts Education Navigator

Arts & Economic Prosperity Calculator

Arts & Business Councils

Arts Incubator

Building Meaningful Relationships in Your Community

Toolkit for Community Marketing & Cultural-Heritage Organizations

Arts Education Partnership

Civic Buildings

Historic Buildings

Food Trucks

Intersection Repair

Open Streets

Play Streets

PARK(ing) Day

Pavement to Plazas



## Broward County's Community Assets & Culture

From the beginning, Seven50 recognized the integral role culture and community assets have to the social and economic prosperity of our region. Broward County illustrates why Seven50 so aptly embraced this reality.

Broward County residents and visitors are able to engage in a rich variety of arts, culture, community education and learning opportunities. These outlets provide positive economic benefits through strong county, state, city, and private partnerships resulting in sustainable community assets. In 2013, Broward's arts and culture industry is estimated to generate up to \$230 million in economic activity, supporting more than 6,400 jobs, providing approximately \$157 million in household income, and realizing a return on investment of some \$21.9 million in local and state revenue.

Broward's private/public sectors play a vital role to foster, incubate, and maintain a healthy environ-

ment in order for the arts to flourish. Jointly, we have made a shift in focus from grant programs to incentive programs. These new incentive-based initiatives provide arts education experiences to our youth and adults in artistically underserved segments through collaborative business partnerships with individuals and community based organizations. This new philosophy also helps artists embrace technology and strengthen their business skills.

Looking ahead to Broward County's 100th Birthday in 2015, our public and private cultural infrastructures are already fully engaged in crafting a Centennial Happening that will transcend that celebration and also become an annual signature event. What better way to demonstrate Broward's "Sawgrass to Seagrass" inclusiveness and showcase Broward's Seven50 commitment to insure the region's continued cultural and economic prosperity and community assets' enrichment?

**Honorable Suzanne Gunzburger**  
Commissioner, Broward County

# 1

## Embrace great design as a core Seven50 planning principle and policy

***The Increased Role of Placemaking in Economic Competitiveness***  
“Place shapes us. Place defines us. Place is what forms our identities, our attitudes, and our relationships.”

Place does matter in a world where businesses and talent are mobile and trend toward connected, walkable, and distinctive places with great character and a lively, stimulating urban environment. That means design excellence should serve as a core component of the Southeast Florida brand and be integrated in every aspect of planning and implementation. It also means that quality place-making should be an essential component of the region’s economic development toolbox. For example, New York City’s Design + Construction Excellence program was developed to improve its capital process by engaging the best design consultants through modifying its procurement process and forming new partnerships with the private sector design community. The same emphasis on the importance of design in the built environment is demonstrated through the U.S. General Service Administration’s Design Excellence Program.

***The Involvement of Artists, Urban Designers, and Architects When Creating Great Places***

Every regional project that stems from Seven50 should promote the involvement of great designers and architects, along with outstanding artists. That would include transportation facilities, public housing, squares and parks, and government, cultural arts, health, and education buildings. The goal should be a sustainable built environment that embraces and celebrates the region’s natural, historic, and cultural assets and creates a strong sense of place and positive public realm. That will also produce those gathering places that promote social interaction and connections to each other and the community – what Partners for Public Spaces calls “the ‘front porches’ of our public institutions....where we can interact with each other.

Design is important.  
Especially in this  
economy.



### NEW ENGINES OF GROWTH FIVE ROLES FOR ARTS, CULTURE & DESIGN National Governors’ Association, May 2012

“This report focuses on the role that arts, culture, and design can play in assisting states as they seek to create jobs and boost their economies in the short run and transition to an innovation based economy in the long run.

In particular, arts, culture, and design can assist states with economic growth because they can:

1. Provide a fast-growth, dynamic industry cluster;
2. Help mature industries become more competitive;
3. Provide the critical ingredients for innovative places;
4. Catalyze community revitalization; and
5. Deliver a better-prepared workforce.

Globalization and the changing economy have affected individual states differently, but all are searching for ways to support high-growth industries, accelerate innovation, foster entrepreneurial activity, address unemployment, build human capital, and revive distressed areas. Using the five roles as a framework, state leaders—governors, economic development officials, and state arts agencies—have a way to intentionally and strategically make arts, culture, and design an important part of an economic growth agenda.”

[www.nga.org/cms/home/nga-center-for-best-practices/center-publications/page-ehsw-publications/col2-content/main-content-list/new-engines-of-growth-five-roles.html](http://www.nga.org/cms/home/nga-center-for-best-practices/center-publications/page-ehsw-publications/col2-content/main-content-list/new-engines-of-growth-five-roles.html)



We need to have the community engaged.

## 2

### Connect with local arts & culture to create communities with a distinctive sense of place

#### ***Integrating the Arts and Heritage in Design Teams***

In addition to great designers and architects, every design team for regional projects resulting from Seven50 should include artists and others involved with the arts and who know the region's history. The arts can be used to communicate and celebrate the region's diverse cultural traditions, history, and distinctive heritages and strengthen civic pride and identity. Art can be integrated outside or inside of buildings, improving the very elements of the built structures. Artists can help make public buildings great by creatively designing features that incorporate art into such areas as floors, fences, facades, and finishes, thereby creating surprises and refuges. Artists also can be part of the teams that plan for entire neighborhoods or districts, developing innovative solutions for streetscapes and quality design criteria for buildings and helping create gateways, street furniture, plazas, gardens, and other features that define or redefine the environment.

#### ***Local Policies that Involve Artists and Public Art in Public Capital Projects***

Communities around the region and country are putting in place a policy that requires that artists and public art be a part of all new regional public capital construction or reconstruction projects resulting from Seven50. In places where this is being done, artists are working as part of the teams that design places like transit stations, libraries, community centers, government office buildings, educational and health institutions, museums, courthouses, garages, hospitals, gateways, plazas, and parks. The most effective strategy for success is to involve artists from the inception of a project through its completion. The fact that each of the Seven50 counties has a public art program underscores the importance of integrating art as part of the civic realm and creating public buildings where employees and visitors find

celebratory features. One way to finance such programs is to require that a percentage of the capital costs of all new public facilities be dedicated to public art. Martin County and the City of Stuart, for example, generate funding for public art by allocating a percentage of the construction costs of new or remodeled county buildings, regional parks greater than 50 acres, and parking facilities. Monroe County also allocates a percentage for art programs as part of any new major county construction. A similar program in Miami-Dade County requires that one and a half percent of the capital costs of all new local government buildings be dedicated to public art. At the federal level, the GSA's Art in Architecture Program commissions American artists to create publicly scaled and permanently installed artworks for federal buildings.

*"The arts are a natural component to furthering this Administration's commitment to creating more livable, walkable, environmentally sustainable communities," said HUD Secretary Donovan. "They can play a key role as a partner that is able to enhance the unique characteristics of communities and increase our economic competitiveness through supporting creativity and innovation."*

*"The arts are creative placemakers," said former NEA Chairman Landesman. "We are able to work alongside federal agencies like HUD to help create places where people want to live work and play, both today and in the future."*

[www.arts.gov/news/news10/HUD.html](http://www.arts.gov/news/news10/HUD.html)

### 3

## Invest strategically in the creative arts

### ***Investments in the Arts and Culture Are Economic and Quality of Life Drivers***

Strong financial investment in creative industries is a significant driver for creating economic competitiveness and a desirable quality of life. A high creative capital quotient is one of the factors that mobile talent workers (and, therefore, the companies that employ them) look for when choosing a place to live. The creative arts are also being used successfully in the region to revitalize neglected neighborhoods and reenergize downtowns. The arts are contributing to the image of the region as one of the hemisphere's newest and most dynamic cosmopolitan hubs. Southeast Florida is now known internationally as the home of major museums and theaters, performing arts companies, and special events and as a place where artists are creating important new works reflecting the unique qualities of the region.

### ***Methods of Investing in Arts and Culture***

Significant public and private sector investments in cultural arts programs and facilities is a regional quality of life and economic priority. That can include incorporating best practices in strategic arts support and establishing incentives to encourage arts growth. Examples include establishing dedicated funding sources for the arts, putting in place live-work-sell cultural districts with zoning and other financial benefits, creating micro loans designed for artists (could be done regionally), and offering developers incentives to undertake innovative public-private partnerships that support the cultural arts.

Another method is to direct some of the funding from special taxing districts to the cultural arts and continue to create more cultural tourism campaigns and arts and economic development marketing initiatives. Seven50 should be an advocate for state

and federal funding that complement local and regional strategies and provide the meaningful levels of support needed to advance the arts throughout the region. It is especially important to emphasize artists' involvement in designing public housing and other government facilities where public art and arts venues can make them more attractive places to live, work, and visit. The Mayor of Charleston, South Carolina, once commented that all residents, no matter how poor they might be, should have beauty around them. And that is where he began his work to revitalize the city.

Great cities are the patrons of art.





Clematis Street on PARK(ing) Day, Palm Beach County

## Park(ing) Day as Urban Acupuncture

*“Do not start making any borders between architecture, urban design, urban planning, environmental art, sociology, anthropology, cultural theory and the rest within the field of the built human environment. These are just disciplines, meaning MEANS of studying things. When a THING is found, the MEAN can be thrown away as it has done its duty. Working for a discipline is nothing, forget them and start breaking boundaries.”*

– Marco Casagrande, 2008

Through the project of Park(ing) Day throughout the world, the process of urban acupuncture has been used to create a purposeful small intervention that can gauge how people use public space in the city. The design was a collaborative process to create a contextually responsive project. The local knowledge of different stakeholders that live and work in the area was collected through a series of openly public meetings, including some on-site gatherings, and later interpreted by students, researchers, artists, builders, and other external collaborators to create a design that reflected the needs and desires of locals into physical form.

Urban acupuncture “uses small-scale interventions to transform the larger urban context” (Casagrande, 2010). In the case of West Palm Beach in 2013, we used a total of one-thousand two-hundred and eighty square feet (1,280 sq ft) of asphalt, or five on-street parking spaces, to give the citizens a linear “park” system that provided areas to lounge, sit, relax, and play. These prototypes included one physical parklet that was designed and constructed in a modular form. Through observational research, data was collected by using time-lapse video and physical mapping of how people used the space before and during the installation. Including the research component makes this project viable to assess the project’s level of achievement.

This hands-on approach to teaching, or experiential education format, is very useful to further develop future planners and designers that have a sense of human-oriented design and a conscious understanding that whatever we may build in a space directly affects people. Cities are very complex systems and to address this adequately, we must use a cross-disciplinary approach to modify our urban environment in a contextually appropriate way.

**Sherryl Muriente**  
Florida Atlantic University Instructor

## 4

### Recognize that culture is a significant driver for economic competitiveness & quality of life

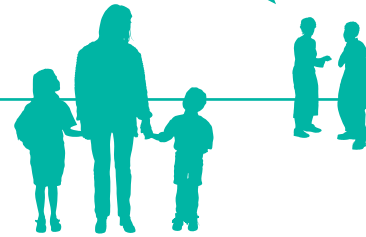
#### ***The Importance of Arts and Culture in Growing the Creative Class***

Members of the creative class encompass a wide variety of industries, including technology, entertainment, journalism, finance, high-end manufacturing, and the arts. The creative class is fast-growing, highly educated, and a well-paid portion of the workforce. It also contributes significantly to corporate profits and economic growth. Regions with significant percentages of creative class members are also some of the most wealthy and prosperous. It is regions that succeed in attracting and retaining creative class people that are thriving, while those that fail may endure long economic downturns. Many of the region's cities have large concentrations of service workers and that pushes them low on the list for the creative class

#### ***Authentic and Unique Places***

Cities and regions that have appealed to creative talent are often those with greater diversity and high levels of quality of places that are unique and authentic. Authenticity comes from many qualities of a community - historic buildings, established neighborhoods, a distinctive music scene, or particular cultural characteristics. Those features are most effective in a compact and diverse built environment with refurbished buildings and infill development. An authentic place also provides exclusive and original experiences that attract talented people who seek a vibrant environment receptive to diversity. A positive people environment is also important to creating the quality places that the creative class seeks. That includes investments in amenities such as urban parks and places for bicycling, roller blading, and casual walking (and places for dog to walk too).

Emerging creative industries are economic opportunities.



#### ***An Effective People Climate***

While a solid business climate is always important, an effective people climate is even more vital. Small targeted investments are vital components for fostering an effective people climate. Whereas companies and even sports teams that get financial incentives can pull up and depart at practically any time, small investments in amenities like urban parks, for example, last for generations. Other lifestyle amenities, such as dog parks, bike lanes or off-road trails for running, cycling, roller blading, casual walking, and even off-road vehicles can have long-lasting benefits for the entire community.

#### ***Young People Work Hard and Stay Single Longer***

A critical engine of economic growth in the region is young people. While it is important for cities and communities to be accessible for children and families, prosperity in the creative age comes from an environment that satisfies the social interests and lifestyle needs of the creative class. Young workers prosper because they are able to work longer and harder, are more prone to take risks, and have the most up-to-date skills. The average age of marriage has risen about 5 years in the last generation, and furthermore, college-educated people postpone marriage longer than the national averages. The never-been-married group is the fastest growing category. A climate oriented to young people is also more broadly appealing to the creative class.

## 5

## Add the “A”(rts) to STEM to produce the competitive workforce of tomorrow

### ***The Importance of the Arts in Producing a Competitive Workforce***

The case for adding “A” for the arts to STEM (science, technology, engineering, and math), thereby making it STEAM, is articulated in *Ready to Innovate*, a report that highlights the results of a study conducted by the Conference Board (a global business membership and research association) and Americans for the Arts in association with the American Association of School Administrators. The study, which was based on a survey of business executives and school superintendents, concluded that “building an innovative workforce will depend on developing employees’ creative abilities.” That means that although STEM is of critical importance, the arts are equally important in preparing an innovative, competitive workforce with the strong critical thinking and problem-solving skills increasingly required by employers.

### ***Adding “A” to Stem Means Arts in the Required Curriculum***

State and local elected officials should support the resources necessary for comprehensive classroom instruction and require that students have credits in the arts in order to graduate from high school. Progressive communities provide arts education experiences in two complementary ways: (1) incorporating sequential arts instruction in K-12 education and requiring credits in the arts to graduate from high school, and (2) delivering arts experiences for children through in-school residencies of artists and field trips to community cultural activities. Each of those strategies provides exposure to the arts, an appreciation of various artistic disciplines, and training in the hands-on making of art. Experience with artists and community museums, theaters, and performances can be achieved through partnerships among local cultural arts councils, school boards, and children’s councils.

The region already has successful models to build on. For example, the St. Lucie County Arts and Cultural Alliance Inspiration x Imagination = Education Program supports arts education through participation in and out of the classroom, and the Palm Beach County Cultural Arts Council’s Building Learning Communities through Arts and Culture Program focuses on building capacity in the schools. In Indian River County, the Vero Beach Museum of Art offers a professional development for K-12 educators. At the regional scale, the South Florida Cultural Consortium is developing an initiative to train artists throughout Southeast Florida so that they have the recognized credentials to teach in any of the region’s counties. That will help share those resources across county lines and enable teaching artists to earn an adequate living through employment opportunities throughout the region. One product of the consortium’s work is the development of a directory of artists who can work in the schools, similar to the one sponsored by the Broward County Cultural Arts Division and the Broward County School Board .

Martin County can become a regional arts destination. Every small area of the region is filled with character and talent.





The leadership element is crucial to the success of a community-driven strategic plan.



6

### Develop regional cultural assets according to a hub & spoke strategy

#### ***Greater Synergy through Concentrating and Connecting Cultural Arts Amenities***

The cultural arts, like other retail and entertainment amenities, thrive and create more economic spinoff and energy when they are strategically located in and near central markets. In a long linear region with a series of urban centers and surrounding communities and neighborhoods, a hub and spoke approach to establishing cultural facilities and activities can parallel transit facilities and offer urban living opportunities. It allows audiences throughout the region to experience the full inventory of cultural events and venues in the region.

#### ***Integrating Cultural Arts into Overall Community Planning***

Planning for cultural arts opportunities and venues should be a part of, not separate from, planning for the community. Already, major cultural offerings such as art and science museums and performing arts centers are being located in downtown centers and/or highly trafficked tourism sites, and smaller art centers, theaters, and community-based events are being situated in neighborhoods close to where families live and children go to school. Signature art events are also evolving throughout that hub and spoke cultural network. Reinforcing that network, the connecting transportation corridors can also be used to incorporate public art and quality design principles that celebrate Southeast Florida. Examples include wayfinding signs and street furniture as well as bus shelters that can be models of quality design in terms of both functionality and aesthetics.

7

### Empower the region's arts leadership to implement the arts objective of the Seven50 plan

#### ***Capitalizing on the Region's Strong Cultural Arts Leadership***

Each Southeast Florida county has a strong, well-established local arts agency that enjoys the support of the public and private sectors and is recognized as among the best in the nation for effectively cultivating the arts and culture. Individually and collectively they have a strong track record of implementing visionary cultural planning, conducting actionable cultural research, establishing innovative and successful arts policies and programs, and coordinating that work with their civic, tourism, and economic development counterparts. They also help support, promote, and advocate on behalf of thousands of artists and non-profit arts organizations. They and the South Florida Cultural Consortium provide the leadership nucleus to implement the cultural recommendations of the Seven50 plan.

#### ***Involving the Region's Cultural Arts Organizations in Seven50 Implementation***

Where Seven50 priorities result in projects (transit for example) in one or more counties, the cultural agencies should be called on to assess and recommend the applicability of the arts and culture objectives of the Blueprint. Those agencies and the arts organizations and artists they serve can be powerful partners in helping with Blueprint implementations. In addition, the South Florida Cultural Consortium is in a strategic position to help coordinate and carry out arts and culture objectives for projects that affect all or most of the region.



Image Caption

## Supporting Culture through Infrastructure

Southeast Florida has a unique opportunity to get it right. As we plan together responsibly for our region's future, we must resolve to make our communities great. An essential ingredient in achieving that greatness is the arts and culture.

We need to think in a revolutionary, new way about the role of the arts in our communities. The arts and artists must be part of developing and implementing strategies in every facet of our life – from transportation and housing to ecosystems and education. Transit lines and public housing must be created by superb architects, planners and designers in collaboration with artists. Education and the environment must be advanced through innovative and proven arts integration techniques. How our surroundings look, how well they function, how we share our diverse heritages and how effectively we develop creative thinking and problem-solving skills are critical to a sustainable economy. Investing boldly in our artists and arts organizations is essential to advancing our region and celebrating our humanity.

Great communities know this. They are committed to working with outstanding architects who design superb public structures; they engage visionary planners who understand that vibrant cities and neighborhoods must look brilliant; and they rely on talented artists to create environments that are surprising, uplifting and welcoming. When these elements magically coalesce, a place becomes more livable. Its neighborhoods are revitalized. It has a competitive edge for commerce and tourism. It becomes the kind of progressive place where a sophisticated, 21st century workforce wants to live. It achieves greatness.

### Michael Spring

Chair, South Florida Cultural Consortium

Director, Miami-Dade Department of Cultural Affairs

## 8

## Promote sustainable development that emphasizes the region's natural, historic, and cultural assets & preserves sense of place

### *What it means to build sustainably?*

Sustainable development is about much more than using the most modern and highest-rated 'green' materials. Places are sustainable when they offer multiple ways of getting around; embed mixed-use buildings in neighborhoods; disperse a full range of housing options; provide residents their daily needs within a short and safe walk; have access to fresh, locally grown food. Furthermore, sustainable buildings should be attractive, human-scaled, and dignified. They should be built to last, able to house a variety of uses, and be economical to maintain.

### *Connect people and nature*

Until recently, most buildings encouraged a connection between indoor and outdoor environments. Traditional buildings were designed to respond to the local climate without having to rely on air conditioning. Front porches provide comfortable outdoor rooms, shielded from the sun. Buildings with narrow wings allow for natural ventilation. Courtyards offer secure, outdoor space that can also aid in natural ventilation and illumination. By revisiting how these traditional buildings are designed, including their placement on the land, orientation, and their relationship to the public realm, one can recover knowledge that respects the region's natural systems and reconnects people to their environment.

### *Preserve historic places and buildings*

The region has a unique history, created by layers of development, economies, and cultures. The contributions of previous generations should always be acknowledged and respected. Sustainable development honors the historic fabric of urban places and incorporates design strategies that allow the best traditions to be incorporated and adapted to changing needs. The preservation of a single building can make an impact not only on the

neighborhood but on the region as a whole. Historic buildings, districts, and landscapes should be regarded not as relics of the past but as living traditions.

### *Reinforce culture and a sense of place*

The region today is comprised of a diverse set of cultures from around the world, an aspect that should be celebrated through the built environment. As development adds new layers, cultural elements such as museums, public spaces, civic buildings, organizations, historic districts, and more should be maintained and preserved to create a sense of place. A community's sense of place grows from its history, nature, and culture. However, it is the relationship between this context and the current culture that form the character and identity of a community. Therefore to reinforce a sense of place, the community's history, culture, economy, and social context must be understood. A continually evolving vision for the future can then incorporate new ideas while balancing the values and culture of the past, present, and future.

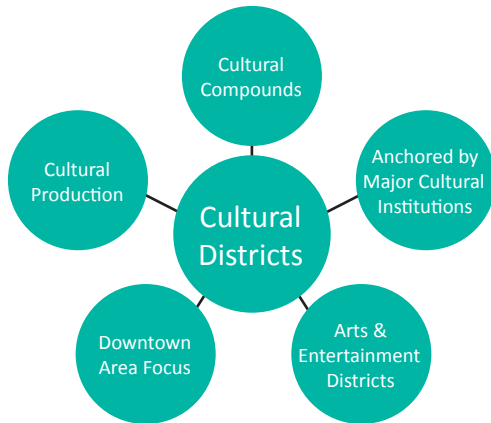
In Monroe County the environment is our economic lifeline.



# CULTURAL TOOLKIT

## APPROACHES FOR CREATING A MORE SUSTAINABLE FUTURE

### CULTURAL/ARTS & ENTERTAINMENT DISTRICTS



Types of Cultural Districts

Communities in Florida and across the country are using cultural arts and arts and entertainment districts to energize neighborhoods and downtowns, stimulate economic development, and enhance their cultural offerings. Those districts are anchored by a concentration of cultural arts facilities and programs and can contain a mix of uses that allow artists to live and work in the same space at an affordable rate. Complementary uses can include coffee shops, cafes, bookstores, parks, plazas, art supplies stores, design-related businesses (e.g., architects, furniture and furnishings stores, graphic designers, etc.) and art galleries and studios for a range of artists, including those in the visual and performing arts. The combination creates creative, energetic places that attract artists, arts-related organizations, businesses, and facilities, along with today's talented workers seeking those kinds of places. The districts can be small or large and have a different focus, as shown in the illustration above. They often feature a strong brand and are located in areas that have a unique cultural character and identity or historic significance.

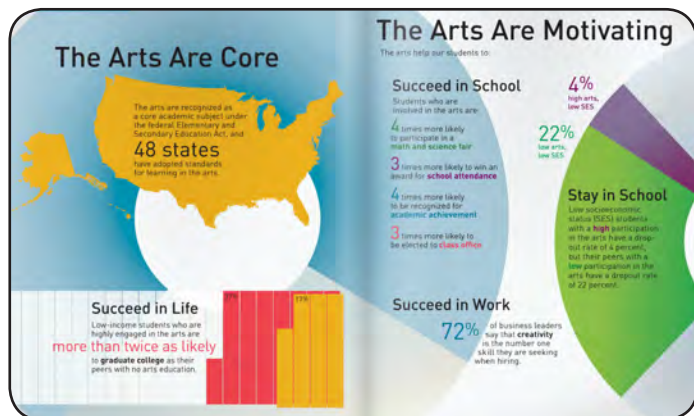
Local governments are using a variety of techniques to encourage or create cultural arts and arts and entertainment districts:

- Designating the arts and culture as the catalytic drivers of tax increment and business improvement districts, thereby using the resulting revenues to support arts-oriented redevelopment strategies
- Implementing zoning overlays to encourage arts- and culture-related uses and allow live-work/sell space in the same or accessory unit
- Offering incentives such as grants, low interest loans, expedited permitting, and tax breaks for artists, arts organizations or property owners who are developing space for arts groups and artists to live and work at an affordable price
- Providing branding features such as installing signature banners, wayfarer signage, street lighting and furniture, and landscaping. They are also allowing public art and adding street and sidewalk improvements and designs that make the pedestrian experience more desirable
- Sponsoring festivals and events that feature local culture and the arts, provide outlets for artists, and draw visitors to the area
- Enabling design guidelines when a part of the district's success is the character of the buildings and accommodating a wide mix of residential, commercial, and cultural uses

Numerous resources are available to encourage creative places, including the *Cultural Districts Handbook: The Arts as a Strategy for Revitalizing Our Cities*, prepared by Americans for the Arts. The handbook shows how cultural districts can be established to best reflect the unique strengths of cities while supporting local artistic and redevelopment goals.

[www.americansforthearts.org/NAPD/files/9257/Cultural%20Districts.pdf](http://www.americansforthearts.org/NAPD/files/9257/Cultural%20Districts.pdf)

## ARTS EDUCATION NAVIGATOR



Pages from Arts Education Navigator Getting Started Publication

The Arts Education Navigator contains a series of e-books designed to help educators, students, and advocates learn how to navigate the field of arts education. The e-books are designed by Americans for the Arts in partnership with Vans Custom Culture. Each e-book in the series covers a specific topic. The intent is to give education supporters the knowledge and case-making statistics and techniques to effectively communicate with decision-makers. Two of the e-books are available now: Getting Started, which describes the who, what, where, when, why, and how of arts education, and Facts and Figures, presenting data on the benefits and decline of arts education. Additional e-books in the series (in both English and Spanish) will be forthcoming.

[http://artsusa.org/networks/arts\\_education/navigator.asp](http://artsusa.org/networks/arts_education/navigator.asp)

## ARTS & ECONOMIC PROSPERITY CALCULATOR

Prosperity Calculator

The Americans for the Arts' Arts & Economic Prosperity Calculator is available as an on-line tool. The tool is straightforward and provides reliable economic impact data for the arts. The results which can be printed show:

- Total expenditures spent by nonprofit arts and culture organizations and their audiences and event-related spending by arts and culture audiences.
- Total number of full-time equivalent (FTE) jobs in the community that are supported by the expenditures made by arts and culture organizations and/or their audiences.
- The ripple effect of total dollars paid to community residents as a result of the expenditures made by the arts and culture organizations in a community and/or their audiences.
- Total tax dollars received by local and state governments (e.g., license fees, taxes) as a result of the expenditures made by arts and culture organizations and/or their audiences.

[www.americansforthearts.org/information\\_services/research/services/economic\\_impact/iv/calculator.html](http://www.americansforthearts.org/information_services/research/services/economic_impact/iv/calculator.html)

## ARTS & BUSINESS COUNCILS



Source: [artsbizmiami.org](http://artsbizmiami.org)

Connecting Arts & Business

Creating collaborations between the arts and businesses at the community level helps build support for and grow a healthy arts community. Those collaborations can include capitalizing on donated business expertise to assist art organizations, recruiting business leaders to serve on arts boards, developing traditions of corporate philanthropy, and sharing creative arts strategies to help businesses with innovation and growth. Several private sector arts-focused networks provide support for arts and business networks, including the Arts & Business Council (ABC), Business Committee for the Arts (BCA), and United Arts Fund (UAF). They work with local arts agencies and Americans for the Arts to promote positive business/arts relationships.

In Southeast Florida, the:

- Arts and Business Council of Miami is an affiliate of ABC. Founded in 1985, it sponsors numerous volunteer programs, educational outreach, leadership training, collaborations, and networking events. It also serves as a catalyst for

building working partnerships between the corporate and cultural communities.

[www.artsbizmiami.org](http://www.artsbizmiami.org)

- Business for the Arts Broward is an affiliate of BCA. It advocates for and provides information about the importance of the county's arts and cultural community and its positive economic impact. Programs include Arts in the Workplace, Arts Tours, power2give, and Arts Teacher of the Year.

[www.bfabroward.org](http://www.bfabroward.org)

Two resources for business and arts partnerships include:

- Americans for the Arts' pARTnership Movement provides arts organizations and businesses with the tools to create stronger partnerships. Its services include providing information the benefits of arts and business partnerships, success stories of those partnerships, and suggestions for how business leaders can enhance their partnerships with the arts.

[www.americansforthearts.org/information\\_services/arts\\_and\\_business\\_partnerships/get\\_involved/default.asp](http://www.americansforthearts.org/information_services/arts_and_business_partnerships/get_involved/default.asp)

- De Vos Institute of Arts Management at the Kennedy Center in Washington, DC. It focuses on helping nonprofit arts groups strengthen their organizational programs. The institute also partners with regional and national funders to provide training and support for executive, artistic, and board leadership. It offers a free of charge two-year program to participants. Topics include artistic planning, board development, fundraising, marketing, institutional visibility, and strategic planning, Miami is one of the institute's training program sites.

[www.kennedy-center.org/education/artsmanagement](http://www.kennedy-center.org/education/artsmanagement)

### SCALE OF IMPLEMENTATION

REGION

CITY, TOWN & VILLAGE

## ARTS INCUBATOR



Source: Artserve.org

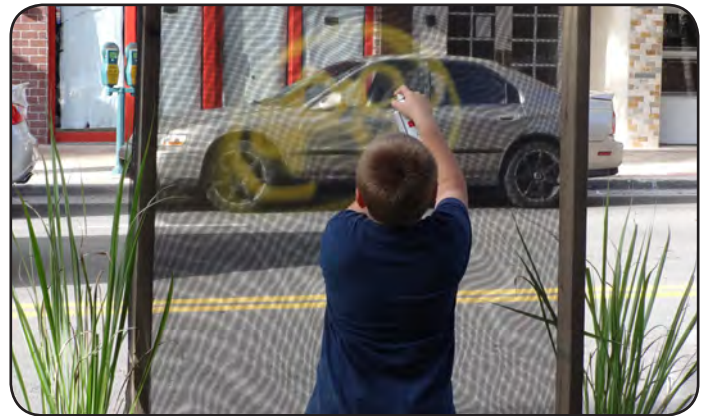
Painting Class, ArtServe, Broward County

An arts incubator is similar in many ways to a business incubator that helps new businesses get off the ground and established, typically by providing space at a lower rent with a range of support services. For an arts incubator, services might include providing studio and work space for artists and assistance with marketing, ways to distribute their products and build their audiences, and opportunities for networking.

ArtServe is an arts incubator in Broward County. It was incorporated in 1989 as one of six original arts incubators in the U.S. Today it offers a range of services that help artists turn art into a business. That involves offering affordable rentals that include a copy center, internet connection, conference space, and post office box. ArtServe also hosts major exhibits, administers Broward County's Cooperative Advertising Program, provides technical assistance, and manages ArtsCalendar.com. Its annual Red Eye Event features inventive lowbrow, radical art. A new program, Play Your Stuff, will provide a venue for local musicians to play for an audience.

[www.artserve.org](http://www.artserve.org)

## BUILDING MEANINGFUL RELATIONSHIPS IN YOUR COMMUNITY



Encouraging young Artist, Clematis Street, Palm Beach County

The Leadership Development Institute (LDI) of the Association of Performing Arts Presenters (APAP) produces information and resources on how performing arts organizations can build and sustain meaningful relationships in their community. That information includes descriptions of ways to engage the community through the arts. Website visitors can learn how to make a case of support, build an organizational culture, connect with the community, involve artists, and evaluate impacts. Best practices of each are also offered. The goal of the LDI is to develop the leadership, knowledge, and capacity required to advance the field of presenting performing arts. In addition, LDI members have created a library of resource materials to help presenters in their community building efforts.

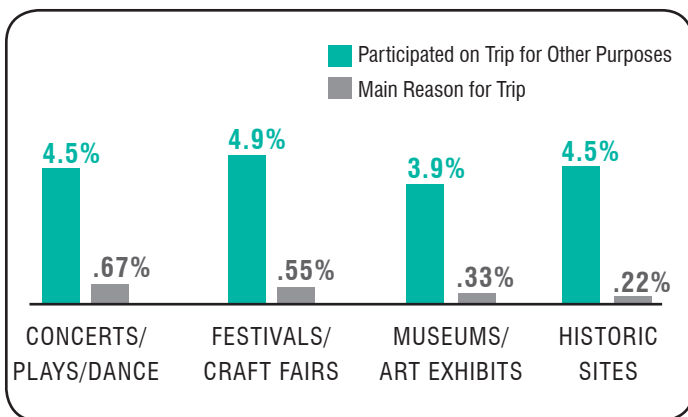
<http://ldi.apap365.org>

I think we need to clean and restore our rivers - they affect everything.

Regional arts destinations can offer character-filled amenities with the uniqueness of each area.



## TOOLKIT FOR COMMUNITY MARKETING & CULTURAL-HERITAGE ORGANIZATIONS



Visitor Participation vs. Main Reason for Trip

The toolkit was a project of Americans for the Arts and Destination Marketing Association International. Its purpose is to open a dialogue and working relationship such as joint marketing between a community's Destination Marketing Organizations (DMO, typically a convention and visitors or tourism organization) and local arts agency that represent its cultural and heritage organizations and facilities and presenters of various types, including those in the visual and musical arts and events such as festivals and art fairs. In a joint marketing approach the DMO incorporates cultural-heritage resources and activities in its overall story about a destination and in its efforts to get visitors out and experiencing the resources and spending money. The role of the cultural-heritage organizations is to help create a distinctive and authentic traveler experience, distinguishing a destination through its indigenous cultural and historical resources and events.

*"If you build a place people want to visit, you build a place where people want to live. If you build a place where people want to live, you'll build a place where people want to work. If you build a place where people want to work, you'll build a place where business needs to be. And if you build a place where business has to be, you'll build a place where people have to visit."*

-Maura Gast

From the Toolkit for Community Marketing Organizations and Cultural-Heritage Organizations, Joint Task Force of Americans for the Arts and Destination Marketing Associations International

The toolkit also describes specific areas of mutual expectation for both DMOs and cultural-heritage organizations and stakeholders. It also describes ways in which both types of organizations can lobby together for common causes and provides data on importance of culture-heritage resources for visitors in determining travel destinations. The toolkit notes nearly 18 percent of all domestic travelers have cultural and heritage events and sites as their main destination. That includes historic sites, festivals and craft fairs, museums and art exhibitions, concerts, plays, and dance.

The toolkit can be downloaded at :

[www.destinationmarketing.org/sites/destinationmarketing.org/files/Toolkit\\_for\\_AFTA-DMAI.pdf](http://www.destinationmarketing.org/sites/destinationmarketing.org/files/Toolkit_for_AFTA-DMAI.pdf)



## ARTS EDUCATION PARTNERSHIP



Source: Cover of *Preparing Students for the Next America: The Benefits of an Arts Education*

Arts Education Partnership (AEP) is a national coalition of education, arts, business, cultural, government, and philanthropic organizations that serves as the nation's hub for individuals and organizations committed to making high-quality arts education accessible to all U.S. students. It was established in 1995 through a unique interagency agreement between the National Endowment for the Arts and the U.S. Department of Education. Its roles include:

- Serving as recognized source of objective and nonpartisan information about arts education research and the ways that the arts contribute to student success.
- Providing information about reliable arts-based best practices that improve teaching and learning in and out of school. That includes two national forums each year to help foster collaboration and actions that secure the role of arts education in the curriculum.

*“Perhaps now more than ever—as the country becomes increasingly diverse, the world more interconnected, and the workplace more oriented around technology and creativity—arts education is key to such a system and to ensuring students’ success in school, work, and life.”*

*From *Preparing Students for the Next America: The Benefits of an Arts Education*, Arts Education Partnership*

- Improving policy and practice in order to make the job of adding the arts to education easier. That includes an ArtsEdSearch database, the nation's first clearinghouse of research examining the mounting body of evidence about the benefits of an arts education.

A useful AEP publication is *Preparing Students for the Next America: The Benefits of an Arts Education*. The publication, which draws from research in ArtsEdSearch, provides information on the multiple school, life, and work benefits of an arts education.

[www.aep-arts.org/wp-content/uploads/2013/04/Preparing-Students-for-the-Next-America-FINAL.pdf](http://www.aep-arts.org/wp-content/uploads/2013/04/Preparing-Students-for-the-Next-America-FINAL.pdf)

I would like to see eco-art that emphasizes the region's natural, historic and cultural assets.



The addition of one letter changes everything. The arts help connect science, technology, engineering and math.



## CIVIC BUILDINGS

GIVE CIVIC BUILDINGS A PROMINENT PLACE



Palm Beach Town Hall, Palm Beach County

## HISTORIC BUILDINGS

ADDING COMMUNITY VALUE



Historic County Courthouse, Palm Beach County

Civic buildings play a major role in the creative nature of the city. Major civic buildings establish landmarks and create an identity for the community. Due to this, civic buildings should be built in highly visible locations, confirming their relevance. Private buildings should generally contain some form of architectural continuity, creating a unified atmosphere without appearing too similar. Civic buildings, on the other hand, should be used as an opportunity to define the city and create a sense of place. Consider the immediately identifiable New York Library, which not only serves millions but is a clear New York landmark, of great significance to the community.

Historic buildings are of major value to cities, and preservation should be considered within development. A mistake prevalent in a number of codes is the requirement that historic buildings must be brought up to current standards. Renovating historic buildings is a costly practice, and usually has the opposite effect. Rather than modernizing buildings and ruining any historical character, owners sometimes allow the building to remain as is without making any improvements, eventually requiring it to be torn down. Rather than placing such stringent requirements on property owners, codes should allow for more practical measures than whole-cloth renovations. Preservation should be desirable, rather than a chore or an impossibility.

### SCALE OF IMPLEMENTATION

REGION

CITY, TOWN & VILLAGE

We should be using our cultural diversity as an asset to provide a good quality of life.

Artists and designers should be integrated to make every part of the built environment great.



## FOOD TRUCKS

CREATE A DRAW AT EVENTS



Food truck event in Miami-Dade County

Food trucks are far from a new invention. They go back to the American Civil War. They've experienced a significant rise in popularity in the past five years, with thousands of trucks serving all forms of cuisine. The cultural relevance of food trucks has been heavily discussed, particularly the growth effect on local restaurateurs. In the context of urban design, food trucks can provide a public meeting space. Clusters of food trucks provide an attraction while simultaneously increasing pedestrian activity along a street. Food trucks provide an option that is quick and inexpensive, directly combating the appeal of fast food restaurants. Equally importantly, food trucks can be an intermediate step leading to a more permanent location, allowing aspiring restaurateurs to gauge the response from the public to new ideas.

## INTERSECTION REPAIR

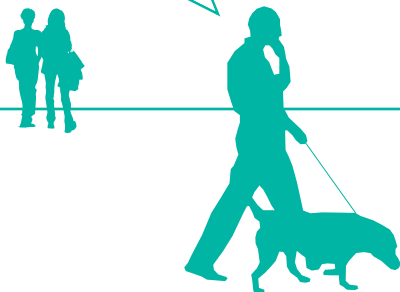
CLEARLY MARK "THIS PLACE IS FOR PEOPLE"



Intersection repair in Los Angeles, CA  
Source: Tactical Urbanism Vol. 2

Intersection repair is another way communities can take back their streets and convert them into points of significance in the neighborhood. In this tactic, residents decorate and embellish major intersections, indicating to motorists that they are moving through a space relevant to a community, and suggesting a shift in speed. The repaired intersections are not intended to close off the neighborhood to cars; instead, they highlight that streets can serve motorists and other members of the community. Open spaces are intended to be shared and used fully.

We need synergy between culture and entertainment, so there's something for everyone.



Providing arts in the community at the neighborhood level will help foster creativity in our children.



## OPEN STREETS

“CLOSED” STREETS WERE NEVER SO LIVELY



Thousands take advantage of open streets in Madison, WI  
Source: Tactical Urbanism Vol. 2

Open streets temporarily close off streets to traffic, allowing for the safe movement of runners, bicyclists, and pedestrians of all ages. Public health organizations also use open streets to advocate residents exercising more frequently by establishing a safe and social atmosphere. Transit advocates utilize open streets to highlight the need for transportation options. Streets can serve the population in safer and more beneficial ways than typically imagined. Within the past decade, more cities are considering open street initiatives as a means of encouraging physical activity and creating a tight-knit social fabric within the community. Open streets initiatives can be implemented by municipal governments, but community movements can have a stronger effect.

### SCALE OF IMPLEMENTATION

REGION

## PLAY STREETS

WHEN THERE IS A DEFICIT OF PARKS USE STREETS

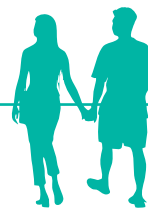


Creating playgrounds where there is a need  
Source: Tactical Urbanism Vol. 2

Play streets work in a manner similar to open streets, but with the primary purpose of creating a safe location for children and their families to play. Play street events may have planned recreational events, or educational programs, including nutrition lessons. Play streets are generally on a smaller scale, cordoning off only a few blocks, as opposed to the extended length of the open street. Open streets are generally organized by municipalities, while play streets are a more localized effort, focused on the betterment of a specific community. Successful play street events have turned into regular events, making them a fixture of the neighborhood.

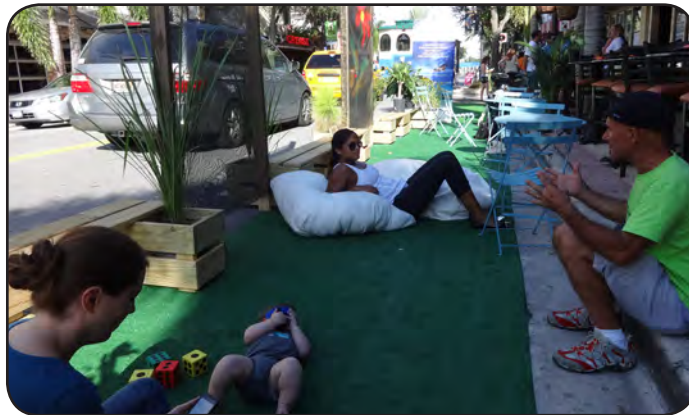
CITY, TOWN & VILLAGE

We should leverage our cultural resources to enhance our economic competitiveness.



## PARK(ING) DAY

AN INTERNATIONAL EVENT NOW



Park(ing) Day, West Palm Beach  
Source: Tactical Urbanism Vol. 2

Park(ing) Day is a worldwide event seeking to highlight just how much public space is reserved for the sake of automobiles. Participants claim a parking space for a day and transform the space into a park, using plants, chairs, games and other elements that make public space attractive. The first Park(ing) Day was held in 2005, by the urban design group Rebar, which has since spearheaded the cause and turned Park(ing) day into a national event held on the third Friday of September. Parks do not have to be elaborate. Instead, the emphasis is on creating a space that is inviting and allows motorists and pedestrians alike to consider how big an impact a small space can make. Park(ing) Day 2011 took place in over 160 cities in 35 countries, with a bigger presence yearly.

## PAVEMENT TO PLAZAS

TEMPORARY OR PERMANENT



Times Square, New York  
Source: Tactical Urbanism Vol. 2

The term induced traffic refers to the phenomenon that the more space motorists are allotted, the more vehicles appear on the road. To combat this, activists are turning extraneous street space into plazas and open social areas. Pedestrian plazas reduce the design speed of a street, while creating visual interest and turning the street into an attraction, rather than just a thoroughfare. Plazas need not be extensively designed; instead, they can simply provide minimal seating and shade for pedestrians. Pavement to Plaza operations have been popular in New York, where they are being adopted by becoming permanent fixtures.



“Stop the road building along the edge of the Everglades. It pushes the line every time.”



**“Promote local agriculture and support research into protecting crops against diseases.”**







# VALUING THE ENVIRONMENT

## FIRST PRIORITIES FROM THE ENVIRONMENT, NATURAL RESOURCES & AGRICULTURE WORKGROUP

### PRIORITIES

1

Ensure the future supply & quality of water to meet the region's economic, environmental & quality of life goals

2

Redevelopment opportunities should be prioritized over new development

3

Enhance independence, quality, access & security of the region's food supply

4

Ensure that development in coastal areas is resilient & sustainable

5

Mitigate damage & assure proper freshwater flows to the St. Lucie & Lake Worth estuaries, Indian River Lagoon, Lake Okeechobee, the Everglades & Florida Bay

6

Ensure future growth & development decisions strengthen agricultural opportunities & meet natural resource & ecosystem restoration goals

7

Support Everglades restoration

### TOOLKIT ITEMS

Payment for Environmental Services  
Water Farming & the Northern Everglades

Finish & Implement Existing Plans for Restoring the Everglades

Living Shorelines

Create Incentives & Investment Strategies to Protect Environmental Resources

Farmlink Programs

Farm-to-School & Farm-to-Table Programs

Community-Supported Agriculture

Preserve Wetland Buffers

Natural Corridors

Greenways & Trails

Clean Brownfields

Celebrate Nature

Manage Wastewater

Manage Stormwater

Preserve Trees

Agriculture & Biofuels

Construction Waste Management

Pavement Materials

Conserving Water

On-Site Energy Generation



Everglades in Monroe County

## Valuing our Region's Environment

You don't need to be a swamp dweller to know that Southeast Florida's economy depends on a healthy environment. Multiple studies show that for every public dollar invested in our environment, many more dollars are generated for the local economy.

This region is home to 3 national parks, a national marine sanctuary, 7 national wildlife refuges, 23 state parks, and multiple county and city parks. Southeast Florida has invested in its natural areas in recognition of their importance to our economic prosperity and quality of life. The region's two largest industries, tourism and agriculture, couldn't exist without protecting and preserving our environment.

If we hope to increase the economic prosperity and quality of life that draws people to southeast Florida, we must make sure our growth patterns are sustainable.


As the Seven50 Blueprint seeks to ensure a more prosperous and desirable region, protecting our natural resources must be paramount. The Blueprint can guide us towards developing existing communities with a strong sense of place, including our proximity to the Everglades, while still having ample open space and viable agricultural lands.

With support from our local and regional leaders, we can shift from a fragmented and congested region to a connected one. The region must implement a variety of functional transportation choices that move away from the failed policy of more road expansions. Local governments must work together to address and minimize the impacts from sea level rise and increased weather events.

Using Seven50's Blueprint to truly value our Region's environment will ultimately create economic prosperity.

**Sara E. Fain**

Executive Director, Everglades Law Center



We need safe, clean water.

I am concerned that we'll exhaust the drinking water supply if we further alter the natural system that replenishes it.

1

## Ensure the future supply & quality of water to meet the region's economic, environmental & quality of life goals

Southeast Florida traditionally has relied on fresh groundwater from the surficial aquifer system and surface water as primary water sources for urban, agricultural, and industrial uses. The Everglades provides groundwater and surface water recharge to the urban coastal communities, contributing to the water supply throughout most of this region. In 2010, fresh groundwater accounted for 94 percent of potable water produced by public water supply utilities. The surficial aquifer system, including the Biscayne aquifer in the southern part of the Seven50 planning region, provides more than 1 billion gallons a day for utilities, as well as agricultural production, landscape irrigation, and other uses.

In recent years, limitations have been placed on additional allocations from the freshwater sources in the region to protect the region's natural resources. As a result, use of alternative water sources has expanded. Utilities have diversified their water supply sources with development of alternative water supplies, including treatment and storage technologies, and water conservation programs. These alternatives include constructing brackish Floridan aquifer wells and reverse osmosis treatment plants, reclaimed water treatment and distribution facilities, and aquifer storage and recovery systems. Similar actions to increase water use conservation and facilitate the move to alternative water supply sources is occurring throughout Southeast Florida.

Sea level rise will also increase the need to diversify our water sources. Porous limestone and soil types underlying much of Florida makes the state particularly vulnerable to sea level rise. Seawalls can't block seawater from infiltrating underground, and the ocean is already contaminating freshwater aquifers. We must work to conserve the region's water supply, especially as the climate changes, and protect water quality by diversifying water sources.

South Florida Water Management District includes six out of seven counties, in the Upper and Lower East Coast regions. SF-WMD has worked to create long-term water management plans, including aquifer levels, access to water, and safety of drinking water, with regional plans updated every five years. The entire South Florida District contains over 1,100 water testing facilities, allowing for consistent and thorough analysis of the water based needs of the community. SFWMD has worked to identify potentially impaired water bodies, meaning those that are either at risk of heavy pollution or of being drained too quickly. With this information, areas most vulnerable to economic degradation may be prioritized.

## 2

### Redevelopment opportunities should be prioritized over new development

#### Where to Grow?

With a projected growth of approximately another three million people by 2060, where are these new people going to live and work? If we exclude growth from the environmentally sensitive areas, we are left with our agricultural lands, which may or may not be currently in use, and the lands that have already been built upon, either urban or suburban in character.

Under this approach transit ridership will be more significant in the future. Since the value of land increases along transportation corridors and intense usage of land helps financially support transit systems, it makes logical sense that the priority for new development should take place along these corridors. Where will new rails and dedicated busways go? Preferably in areas that have already been developed, because the transit authority needs the ridership as soon as the new routes open. This will require adaptation of existing structures and replacement of others. The benefits of redeveloping within the currently urbanized areas are:

- **Use of Existing Infrastructure and Utilities**  
Many utility companies already have capacity for growth built into their systems. Also there is efficiency by confining the 'reach' of a system. For example: when you expand a system of pipes farther out from the plant, you will still have to enlarge the pipes closer to the plant to take care of the additional usage. So it is more efficient to simply enlarge the pipes closer to the plant without extending the system.
- **Reduction in the Cost of Providing Parking Spaces and in the Number of Large Parking Structures**  
New development can rely on the transit system and therefore fewer parking spaces will be needed.
- **Flexibility for the Magnitude of Redevelopment**  
With existing streets and utilities in place, the amount that gets built at one time can be more responsive to market demands and economic conditions.

- **Saving Farms**

As insurance for an uncertain future regarding the cost of transporting food, the region will benefit by preserving land for future agriculture should the cost of shipping increase to the point where locally grown food becomes more viable in the market place.

- **Cleaning of Contaminated Sites**

They need to get cleaned up eventually, why not sooner rather than later? Higher rents in urban areas can often justify the expense of clean-up.

Urban infill and densification of existing low-density suburban centers can accommodate the population with less stress on natural systems than greenfield development in the Northern counties. While it is neither likely, nor necessarily preferable, that single-family suburban residential areas densify, commercial areas along major arterials provide opportunities for conversion from single-story commercial to multi-story mixed-use, thus "growing up, and not out."

I like dense cities and wide open wilderness.



### 3

## Enhance independence, quality, access & security of the region's food supply

Consistent with the premise of the *St. Lucie County Western Lands Study – Options and Opportunities for the Future*, the best way to sustain agriculture and rural lands is profitable agriculture. This should be coupled with strategies to keep that land available for farming and discourage nearby incompatible development. Because each agricultural operation is different, a variety of tools that can be used in different combinations are required to create the revenues needed.

Two strategies to sustain agriculture relate to water. One is to encourage the South Florida Water Management District (SFWMD) and U.S. Army Corps of Engineers to **complete the Comprehensive Everglades Restoration Plan (CERP)**. In the northern part of the region, that includes projects to store water, thus helping hydrate resources and reduce the amount of freshwater going into the Indian River during high rain events.

A related strategy is to promote what is often referred to as **water farming** or dispersed water storage. This approach is already in use by the SFWMD in its pilot dispersed water storage initiative to help restore and protect the Everglades by encouraging property owners to retain water on their land and reduce discharges to coastal estuaries.

Related to citrus, a key third strategy is for the region to **support disease research** to find solutions to greening that, if not resolved, could imperil the future of the region's citrus industry.

Three additional strategies for retaining a healthy agriculture economy and land available for farming are to:

### **Promote the Incorporation of a Payment for Ecosystem Services (PES) Program in Regional and Local Plans**

An agricultural landowner could receive an economic value for providing environmental services that benefit the public. In a PES program, the buyers may be public agencies or private entities that must satisfy a policy or regulatory requirement (e.g., to mitigate habitat or wetland impacts or meet water quality and supply needs, such as the SFWMD's dispersed water storage). The seller,

the landowner, incorporates the provision of those services into his or her business and land management plans and conservation practices. The result is a win-win for the environment, the public, and the landowner through additional revenue sources.

### **Make Agriculture a Core Part of County and Regional Economic Development Programs**

This should include giving agriculture the same priority as other business sectors when designing financial and regulatory incentives and services (e.g., reduced fees and taxes and access to capital).

Other services could include local or regional programs that help link those wanting to get into farming with those who already are and to increase the demand for locally produced food through programs such as Farm-to-School and Farm-to-Table programs and Community Supported Agriculture.

Expanding agriculture's opportunities to produce renewable energy sources is another strategy. When designing such incentives and services, agriculture needs to be at the table. One way of ensuring that is through an agricultural coordinator. Such a person serves as a liaison with the agricultural community and works with that community to develop and put in place the strategies to help sustain and remove impediments to a healthy agricultural sector. This could include help with many of the services including marketing, business planning, removing regulatory impediments, etc.

### **Keep Land Available for Farming**

Other tools could include agricultural zoning, purchase and transfer of development rights programs, and, where a portion of land is developed, clustering development based on conservation design principles. In this approach, the development is concentrated in a much smaller footprint than allowed by traditional large-lot zoning (typically one unit per five or ten acres) that chops up the landscape. By using smaller lots to accommodate development on less space and located in areas of lower natural resource value, a larger portion of agricultural lands and areas of high natural resource value could be retained, and the landowner receives economic value for the development potential of his or her land.



Port Everglades, Broward County

## Energizing Florida

When it comes to energizing the Sunshine state and ensuring a strong economy for the future, what we knew decades ago, still holds true today:

- A successful tomorrow begins with making the right investments in infrastructure today.
- There are no silver bullets in energy generation nor in economic prosperity.
- Day-in day-out, rain or shine, sun up or sun down, it's always about reliability.

Looking at the staples of Florida's economy, real estate and tourism, we realize that people won't move to Florida if they can't catch their breath and families won't visit our sunny beaches if they're not sandy and white. To ensure the long-term growth of Florida's economy mandates the right infrastructure investments today.

Florida Power & Light (FPL) recently tore down the iconic red and white smoke stacks that stood at our Port Everglades plant defining the Ft. Lauderdale skyline for more than a half century. While they helped to fuel the growth of Florida, these stacks also symbolized an era of consumption and dependence on foreign oil that we're now helping to make a part of Florida's history. In their place, we are building a new, fuel efficient center that will run on low-cost American natural gas. This investment in Florida's future energy needs and a cleaner plant profile will also cut the carbon dioxide emissions rate in half and reduce air emissions by more than 90%.

FPL's switch to generating electricity from American natural gas has cut our use of imported oil by 98% since 2001. Across the state, nearly 68% of the electricity Floridians use is generated by clean-burning natural gas. In fact, Florida uses more natural gas to generate electricity than any U.S. state other than Texas. However, we must be mindful that an over reliance on natural gas creates exposure for our future as well. A balanced power generation mix ensures that our bills are not held hostage to any single fuel source. Clean, zero emission nuclear generation and renewable generation have their place in Florida's future as well.

Reliability means more than just keeping the AC and lights on, it means ensuring that low-cost American natural gas can reach our plants to generate power. Today Florida's only two pipeline systems are nearing capacity. Without finding a way to bring more natural gas to our state in the near future, there won't be enough gas to meet the growing electricity needs of Floridians. Last month, we announced the details of a new system, consisting of two, new interstate natural gas pipelines and an interconnection hub. This third gas pipeline system will benefit reliability for all Floridians and ensure access to clean fuel for our state's future.

Speculating about our energy future and new kinds of interesting generating opportunities can be fun. However, Florida's energy future will be shaped by prudent, balanced investments in long-term infrastructure needs and a focus on reliability. By keeping our energy bills low and focusing on clean fuel sources, Florida's economy will benefit for decades to come.

### Donald Kiselewski

Director, External Affairs, Florida Power & Light Company

## 4

## Ensure that development in coastal areas is resilient & sustainable

*“Resilience involves enabling the Region to respond effectively to a major storm, recover quickly from it, and adapt to changing conditions, while also taking measures to reduce the risk of significant damage in a future storm. Sustainability involves ensuring the long-term viability of the people and economy of the region and its natural ecosystems, which requires consideration of the risks posed by a changing climate, the practicality of maintaining a long-term presence in the most vulnerable areas, and the need to protect and restore the natural ecosystems.”<sup>1</sup>*

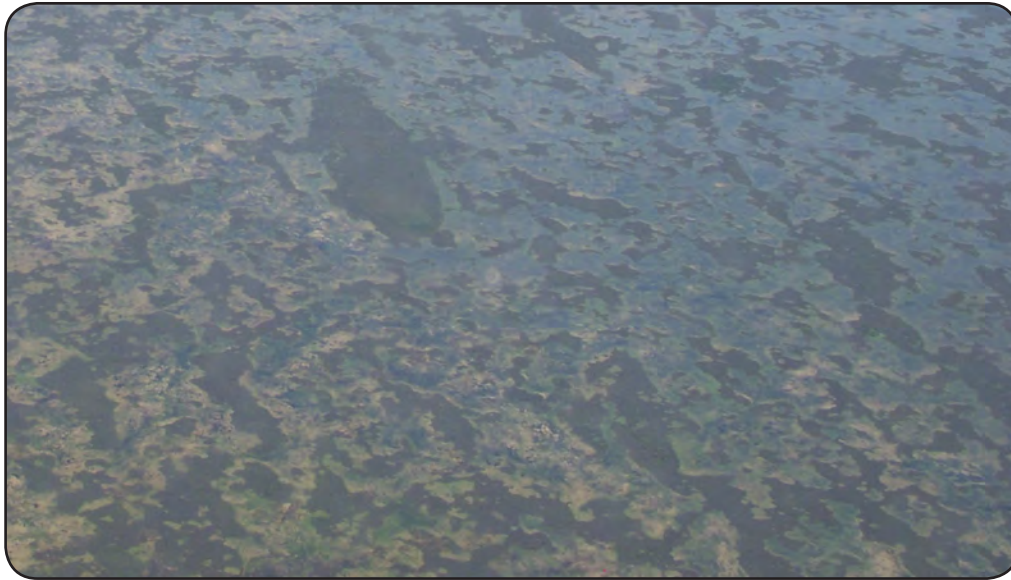
The statement above, which came from the Hurricane Sandy Rebuilding Strategy for New York, New Jersey and Connecticut, applies to Southeast Florida also. The same resiliency and sustainability issues faced in the northeastern U.S. are important to Southeast Florida. Miles of naturally protective coastal dunes, mangroves and other parts of a “living shoreline” have been removed and replaced with urban development including sea walls, high rise buildings, roads, rail systems and even public utilities.

The geology of Southeast Florida also provides challenges to responding to the potentially damaging combination of normal tides, storm surges and sea level rise. If the impacts of these three situations are combined with large rainfall events, the results can be catastrophic damage to the natural and built environment. The porous nature of the limestone which underlies Southeast Florida allows water to move underground when coastal water levels increase. Therefore, sea walls and other revetments and coastal barrier construction techniques will not prevent inland flooding when seas rise whether it is due to a hurricane or long-term sea level rise. The solution to ensuring resilient and sustainable development in Southeast Florida will involve a menu of short-, medium- and long-term initiatives such as rebuilding our natural dunes and wetlands, building our structures at higher elevations, providing “forward pumping” water control structures along the coast, and using deep well injection technology to prevent saltwater intrusion.

<sup>1</sup> Source: *Hurricane Sandy Rebuilding Strategy: Stronger Communities, A Resilient Region. Hurricane Sandy Rebuilding Task Force. August 2013.*

Resilient development also must consider how systems are powered. Our region and nation is relying heavily on natural gas. Natural gas cuts the carbon dioxide emissions rate, however these estimates are “downstream emissions”, particularly for CO<sub>2</sub>. While the exact amount is under debate, there are significant methane emissions from upstream processes (fracking) and leaks from distribution and transfers. Upstream emissions may offset the benefits of lower emissions from burning natural gas. Over the long-term our region and our nation will need to do better than natural gas if our goal is a truly resilient, and thus sustainable, system.





Tree Farm, Everglades, Miami-Dade County

## The Everglades & the Prosperity of the Seven50 Region

As we look at the seven-county Treasure Coast/South Florida area, our planning must be guided by an understanding that the lifeblood of this region is water. The quality and quantity of water influences the present and will determine the health and sustainability of our future.

The greater Everglades ecosystem was the natural regulator of our water system. Rainwater from the Kissimmee River basin flowed south and periodically filled Lake Okeechobee. Water flowed from the Lake in a slow journey through a 60-mile wide shallow river to Florida Bay. This “River of Grass” with wetlands covering almost nine million acres was defined by clean water and an abundance of plants and wildlife.

Today the Everglades are about half the size they were. The massive water control system put in place by federal, State and local agencies has allowed the region to become one of the most prosperous places in the world, but this prosperity has come at an enormous cost. Bird and other wildlife populations have declined to alarming levels. Water quality has deteriorated and changed the natural balance in the ecosystem. Damaging amounts of freshwater are being discharged into our estuaries.

The State and federal governments have embarked on a massive program to rescue the Everglades. Authorized by Congress in 2000, the Comprehensive Everglades Restoration Plan and successor programs are designed to “get the water right.” This program has seen many starts and stops over the past ten or so years. The success of this program is vital and imperative. Why? Because a healthy and sustainable Everglades ecosystem is vital to the sustainability and prosperity of the region. In short, the health of this ecosystem is linked to our drinking water supply, our fisheries, our recreation and open space and to tourism – a major economic engine. Without clean water, an effective water control system and a healthy ecosystem, the region will lose much of what makes it the place people want to live, work and play.

To understand the unquestionable linkage between a healthy environment and a healthy economy one only has to look at our own backyard – the Everglades. It is critical that this linkage be made as we make decisions about how and where we grow in the region. Our planning decisions must be born in a crucible of an understanding of this linkage. Seven50 creates a framework for such an understanding.

**Michael L. Davis**

Vice President, Keith and Schnars, P.A.



## Mitigate damage & assure proper freshwater flows to the St. Lucie & Lake Worth estuaries, Indian River Lagoon, Lake Okeechobee, the Everglades & Florida Bay

There is a lack of available capacity in Southeast Florida to store excess water during major rainfall events. When storms occur, the only place to store large volumes of stormwater runoff in the regional drainage system is Lake Okeechobee. However, the Lake cannot safely store water above a specific lake regulation level based on the time of year. If Lake Okeechobee is at or near its storage capacity the only way to reduce the risk of a failure of the Herbert Hoover Dike which surrounds the Lake is to release water to the east through the St. Lucie Canal and into the St. Lucie Estuary or to the West Palm Beach Canal which feeds into the Lake Worth Estuary, or to the west through the Caloosahatchee Canal into the Caloosahatchee Estuary. These releases of water from Lake Okeechobee combined with local basin runoff have severe environmental impacts to the estuaries.

Saline levels are reduced to fresh water levels and excess silt and pollutants enter the estuaries destroying sea grass beds, oysters and other dependent wildlife. In the St. Lucie Estuary the Martin County Health Department recently issued health warnings stating people should not be exposed to the water for fear of contracting water borne diseases. Businesses that depend on the clean and productive estuaries are harmed and people complain about the odor of the water passing through the estuaries near their homes and businesses.

In 2007, the activities dependent on the Indian River Lagoon generated \$1.6 billion in the value of goods and services produced in the Lagoon counties and, in the case of Lagoon-related boat-related expenditures, in Florida. The production of these goods and services generated \$630 million in income to residents and \$112 million in State and local tax revenues. These activities supported 15,000 full and part-time jobs. Of the \$630 million of income, at least \$358 million accrues to residents of the five county Lagoon area and the rest accrues to residents in all of Florida. (IRLNEP, 2008).

The region must increase its water storage capacity and water disbursement efforts to reduce the releases of water to the St. Lucie and Lake Worth estuaries. Here is a list of current storage plans underway:

### Emergency Storage Efforts

- Emergency Pumping Agreements with Landowners (1,030 ac-ft)
- Pre-Project Lands Emergency Storage (2,215 ac-ft)
- Other South Florida Water Management District Lands (Maximizing storage opportunities on 148,771 acres of natural lands)
- Local Drainage Districts and the Everglades Agricultural Area (EAA) – Retaining maximum amount of water possible

### Ongoing Efforts

- Dispersed Water Management Program (61,300 ac-ft average annual)
- Regional Facilities (stormwater treatment areas, reservoirs, etc., 72,000 ac-ft average annual)

Since 2005, the SFWMD has been working with a coalition of agencies, environmental organizations, ranchers and researchers to enhance opportunities for storing excess surface water on private and public lands. Managing water on these lands, known as the Dispersed Water Management Program, is one tool to reduce the amount of water flowing during the wet season into the lake and discharged to coastal estuaries for flood protection. Private ranchlands in this program currently provide a storage volume of more than 60,000 acre-feet. Shallow water retention also provides groundwater recharge for water supply, potential for water quality improvements, and rehydration of drained ecosystems. The program encourages property owners to retain water on their land rather than drain it, to accept and detain regional runoff or to do both.

## 6

## Ensure future growth & development decisions strengthen agricultural opportunities & meet natural resource & ecosystem restoration goals

Why should we worry about preserving agricultural lands? The image of the farmer and family working the land and reaping its rewards of fresh produce and a wholesome quality of life is a part of our national identity. Most don't know why it could disappear. Forty acres and a mule was the 'American Dream' before it became a ranchette-house in a suburb, in the mid-20<sup>th</sup> century.

The 2007 census of Agriculture reported that Florida has 47,500 farms, with an average size of 195 acres. With an average net income reported at \$47,790 per farm, it is understandable why more than half of the owners claim farming as secondary income. Eighty-seven percent of farms are owned by individuals or families.

Despite Southeast Florida's longer growing season, many farmers argue that trade agreements such as the North American Free Trade Act (NAFTA) put US farmers at a competitive disadvantage for selling food products in their own local market, putting the business at risk. Comparing cash income per year for Florida using the USDA's historic statistics, there is not a significant reduction of agricultural income since NAFTA was adopted, however this argument may hold true for certain products, such as tomatoes.

Historically it has been shown that even with productive lands close to a strong market (Brooklyn NY in the late 1800s); agricultural lands are at risk from development pressures. When a farmer decides to sell the land, developers tend to pay a better price if they can build on the land and/or sell real estate to others. So which counties in Florida are the top two producers of agricultural products? According to the 2007 census, Palm Beach County and Miami Dade Counties, the two most populous counties of the seven-county region with the strongest pressures for urban development.

To help the farmers, some municipalities have increased land development rights with the idea to increase their borrowing potential. The new rights have unusual constraints that at the time of adoption sound unlikely for a developer to actually implement. But then developers do buy the land and actually build with those restricted entitlements. The spillover effect is that the new residents get frustrated with farm noises, odors, and farm vehicles on the roadways with no stores or services for miles. This begins a cycle of driving agriculture out of an area that remains under a rural or agricultural zoning.

Many participants at the Seven50 workshops expressed that it doesn't seem wise to lose all of our agricultural lands solely because of today's market conditions. Because then we will never again be able to grow our food closer to home should some future global occurrence, such as a drastic increase in transportation costs, make foreign-grown food unobtainable.

Strategies are always changing and require the farmers and regulators to remain flexible. To learn more, we can start with studies from the University of Florida, and the Florida Department of Agriculture who recommend strategies to save open lands and promote environmentally sustainable farming practices to reduce the pollution to the ecosystem. The Palm Beach County Agricultural Reserve Master Plan and St. Lucie County's Towns, Villages and Countryside chapter of their local comprehensive plan outline various strategies that had been researched specifically for our region.

## 7

### Support Everglades restoration

The river of grass is unlike any other ecosystem in the world. It is one of only three wetland sites designated as internationally significant by UNESCO, and has provided a fascinating case study into the interactions of nature and human growth patterns.

Humans have been residing in the area for centuries, but intensive development of the Everglades started in the 19<sup>th</sup> century, in a nationwide push to drain wetlands to increase available farmlands, as well as fundamentally paving the way for the future of South Florida, with Henry Flagler extending his FEC railway as quickly as drainage projects would allow. The proximity of highly productive farmland to rapidly developing urban areas led to an enormous economic boom, attracting the diverse and colorful demographics the region retains to this day.

The continued pressure of development very quickly took a toll on the wetlands, sparking conservation moments following the creation of Everglades National Park in 1947, with Marjory Stoneman Douglas' infamous work, *The Everglades: Rivers of Grass*. The title forced the recognition that the Everglades were simply an obstacle in the path of construction, but an enormous living, dynamic system. Protection reached the national stage in the 70's when an enormous jetport was proposed, with the potential to devastate the ecological stability of the region; something already weakened by hurricanes and excessive drainage and diversion projects. A series of projects of restoration projects were established, culminating in the Comprehensive Ever-

glades Restoration Plan, which is working to revive the entire ecosystem.

The necessity of preserving the Everglades cannot be overstated. Value analyses have shown that the economic value of a restored Everglades is over \$46 billion, up to \$123 billion. Components of this number include tourism, construction, commercial fishing amongst other traditional benefits. One of the most relevant to South Florida however, is groundwater purification. The Everglades acts as an immense desalinization plant, thanks to its dense mangrove habitat. The value of the filtration is over \$13 billion, significantly reducing the energy required by water management districts, and generally improving water quality.

The Everglades also house over 20 rare to threatened species, such as the Florida Panther, in a wide range of ecosystems. The Park contains nearly 300 species of fish, 400 bird species, and the alligator and crocodile, making it one of the biggest and most diverse repositories of wildlife. The cultural significance of the Everglades is quite substantial as well, with over 200 archaeological sites. Ultimately, the water systems of the Everglades made settlement possible in Southeast Florida. Its preservation will ensure the region is here to stay.

# ENVIRONMENT & AGRICULTURAL TOOLKIT

## APPROACHES FOR CREATING A MORE SUSTAINABLE FUTURE

### PAYMENT FOR ENVIRONMENTAL SERVICES WATER FARMING & THE NORTHERN EVERGLADES



A sawgrass prairie on the Everglades

Environmental services are the multitude of resources and processes that are supplied by natural ecosystems. The natural environment also provides, for free, services that we would otherwise have to pay for, in both capital outlay, and operation and maintenance costs. “Environmental Services” refers to a wide range of natural processes that help sustain and fulfill human life, such as:

- Purification of air and water
- Detoxification and decomposition of wastes
- Pollination of crops and natural vegetation
- Cycling and movement of nutrients
- Protection of coastal shores from erosion by waves
- Moderation of weather extremes and their impacts
- Provision of aesthetic beauty and intellectual stimulation that lift the human spirit (Beever, J. and Walker, T., 2013)

In August 2013, the SFWMD Governing Board approved the first water farming pilot project to store excess water on fallow citrus land. Under the pilot program, Caulkins Citrus Company will pump water onto 450 acres of its property located along the St. Lucie Canal in Martin County, capturing an average of 6,780 acre-feet of water a year that would otherwise flow along the canal from Lake Okeechobee and surrounding basins into the St. Lucie River and Estuary. The three-year pilot project will provide vital information on the proposed concept of retaining storm water on citrus properties.

The Northern Everglades-Payment for Environmental Services (NE-PES) program is a partnership between water managers and private landowners to achieve water storage, water quality and habitat improvement benefits in the Northern Everglades. The SFWMD Governing Board approved the first eight NE-PES projects in October 2011. These cost-effective projects will collectively provide 4,800 acre-feet of water retention on local ranches in the Northern Everglades.



The Everglades are one of South Florida's biggest assets. We should continue working to repair them and keep them around as long as possible.

## FINISH & IMPLEMENT EXISTING PLANS FOR RESTORING THE EVERGLADES



A tiny patch of upland on the Everglades river of grass.

Much of the water that ultimately flows into the Everglades originates in the Kissimmee Chain of Lakes region in Central Florida. Water flows south into the Kissimmee River, enters Lake Okeechobee and is then moved through the Everglades Agriculture Area into stormwater treatment areas, ultimately entering the Everglades Protection Area. Initiated by several lawsuits, a series of major Everglades restoration initiatives were begun. Some have been completed and others are still in the planning stages. The long-term economic and environmental sustainability of Southeast Florida can only be achieved if these major Everglades restoration projects are completed and implemented.

- **Everglades Construction Project (ECP)**  
This series of projects have been built and in operation consisting of over 40,000 acres within six large constructed wetlands that use “passive” biological treatment facilities called stormwater treatment areas (STAs) that cost over \$700 million to build.

- **Kissimmee River Restoration**  
When restoration construction is completed by the U.S. Army Corps of Engineers in 2015, 40 square miles of Kissimmee River and floodplain ecosystem will be affected, including almost 25,000 acres of wetlands and 40 miles of historic river channel.
- **Comprehensive Everglades Restoration Plan (CERP)**  
CERP was authorized by the Federal government in 1996 consisting of 68 components with an estimated construction cost of \$7.8 billion and is considered the “world’s largest ecosystem restoration project”.
- **Central Everglades Planning Project (CEPP)**  
CEPP is a joint planning effort between the Corps of Engineers and the SFWMD to identify and use land already in public ownership to allow more water to be directed south to the central Everglades, Everglades National Park and Florida Bay while protecting coastal estuaries through increased storage, treatment and conveyance south of Lake Okeechobee; removing and/or plugging canals and levees; and, retaining water within the Everglades National Park.
- **Everglades Restoration Strategy**  
The Everglades Restoration Strategy was approved by the 2012 Florida Legislature and is a series of projects designed to meet the 10-parts-per-billion phosphorous ambient water quality criterion established in rule for the Everglades Protection Area.
- **Indian River Lagoon South Project**  
Flood control canals have historically channeled huge discharges of nutrient laden waters from regional watersheds and Lake Okeechobee into the St. Lucie River and the Indian River Lagoon creating devastating impacts to marine life. The project holds back the water and cleans it up, reuses it instead of dumping it into the estuary.

## LIVING SHORELINES



Mangrove, Monroe County

Living shorelines use plants and other natural materials to stabilize shorelines, minimize coastal erosion and maintain the natural coastline. This benefits property owners as well as fish and wildlife. Coastal systems maintain a natural cycle of sediment transport that is vital for productive bays, estuaries, salt marshes and tidal flats. Understanding these erosion and sedimentation processes along with careful site planning can help determine the best method of shoreline stabilization to protect waterfront property and the quality of the waterbody for all to enjoy. Living shorelines provide shoreline stabilization using a combination of coastal native vegetation for sediment stabilization and, if needed, breakwaters constructed of oyster shells, limestone rock, or other structures conducive to the natural environment.

Enhanced natural systems can reduce impacts of storms. The region should work to integrate natural (e.g., living shorelines and wetlands restoration) and nature-based (e.g., sand dune ecosystem creation) approaches to increase resilience of coastal ecosystems and communities. There are problems associated with conventional shoreline armoring using seawalls as cited in the Florida Department of Environmental Protection’s Ecosystem Restoration Section:

- Create a “bathtub” effect in bays, removing the gentle rolling/lapping of waves on shorelines into “popping” of waves against walls.
- Perpetuates erosion in front of/behind structure
- Disrupts longshore sediment transport
- Creates erosion of adjacent properties
- Costly to construct and maintain
- Does not allow for acclimation to sea level rise
- Provides no habitat for wildlife – loss of intertidal zone
- Loss of natural shoreline vegetation reduces water quality by removing the shoreline’s ability to filter excess nutrients from runoff.

The Southeast Florida Regional Climate Change Compact, Regional Climate Action Plan (October 2012) contains the following statements and recommendations regarding living shorelines in Southeast Florida:

- Hardened shorelines may be transformed to living shorelines.
- Coordinate “living shorelines” objectives at regional scale to foster use of natural infrastructure (e.g. coral reefs, native vegetation and mangrove wetlands) instead of or in addition to grey infrastructure (e.g. bulkheads).

We have made too many decisions based on short-term thinking.

The culture of profligate consumption results in unsustainable waste and energy use.

## CREATE INCENTIVES & INVESTMENT STRATEGIES TO PROTECT ENVIRONMENTAL RESOURCES



In addition to traditional land use regulation and environmental controls and requirements, creative strategies based on incentives and investment strategies must be developed and applied within Southeast Florida to protect our still existing abundant natural resources. An example of such a technique is the use of Transfer of Development Rights (TDRs) as a way to incentivize development away from environmentally sensitive areas to areas more suitable for development.

Palm Beach County established a TDR program in 1993; as of 2008, 35,000 acres of sensitive lands had been preserved. Miami-Dade County established a TDR program in 1981 and has preserved 4,145 acres of sensitive lands as of 2008.<sup>2</sup> Other market driven efforts include conservation easements, carbon sequestration agreements and biofuel production.

<sup>2</sup> Source: *What Makes Transfer of Development Rights Work: Success Factors From Research and Practice*, Rick Pruetz and Noah Standridge

Other programs available to agriculture and rural land owners are included in the table below.

PROGRAM	LEAD SPONSOR
Wetland Reserve Program (WRP)	U.S. Dept. of Agriculture, Natural Resources Conservation Service (NRCS)
Rural and Family Lands Protection Program	Florida Department of Agriculture & Consumer Services (FDACS)
Indian River Land Trust	Indian River Land Trust
Section 319(h) of the Clean Water Act for Non-Point Source Water Quality Grants	U.S. Environmental Protection Agency (Clean Water Act)
Conservation Reserve Program (CRP)	U.S. Dept. of Agriculture (Farm Bill)
Environmental Quality Incentives Program (EQIP)	U.S. Dept. of Agriculture (Farm Bill)
Conservation Stewardship Program	U.S. Dept. of Agriculture (Farm Bill), NRCS
Wildlife Habitat Incentive Program (WHIP)	U.S. Dept. of Agriculture (Farm Bill), NRCS
Wetlands Mitigation Banks	Florida Department of Environmental Protection (FDEP)
Conservation (Wildlife Species) Banks	U.S. Fish and Wildlife Service (FWS)
Rural Lands Stewardship Program	Florida Department of Economic Opportunity
Florida Forever Land Acquisition Program	Florida Department of Environmental Protection (FDEP)

## FARMLINK PROGRAMS CONNECT FARMERS



Florida West Coast RC&amp;D Logo

Florida Farmlink, a project of Florida West Coast Resource Conservation & Development, connects those who want to get into farming to land, expertise, apprenticeships, mentors, markets, peer networks, and other resources and services related to starting or expanding a farming operation. Services can include a virtual one-stop resource center, one-on-one technical assistance, educational seminars and training workshops, and websites for farmers to share information. Some Farmlink programs provide information about where and how to obtain land, equipment, and supplies, training in production methods, and help in developing a marketing strategy and business plan. The goal is to stimulate connections among landowners, beginner farmers, consultants in farming, and other businesses that support a local food system and help expand existing farm businesses and create new ones.

<http://fwcrd.org/projects/farmlink.html>

## FARM-TO-SCHOOL & FARM-TO-TABLE PROGRAMS



Poster by Florida Department of Agriculture for use in Schools

Both Farm-to-School and Farm-to-Table programs facilitate getting local produce into local use. In Florida, the Florida Department of Agriculture and Consumer Services provides assistance for those interested in setting up such a program. The purpose is to promote opportunities for schools and local farmers to work together and provide fresh nutritious food to students. By working with the schools, farmers can plan ahead as to what, when, and how much to grow or produce. Curriculum and classroom experiences (farm tours and classroom sessions with farmers and chefs, for example) centered on local food can also be part of the program. A farm-to-table program works much the same way. In that approach, restaurants, grocery stores, caterers, companies with in-house dining, and institutions such as hospitals and universities buy products from local farmers. Some programs facilitate the process by helping with marketing to make buyers aware of local products and how to buy them and assisting with distribution.

### SCALE OF IMPLEMENTATION

REGION

CITY, TOWN & VILLAGE





Let's stop building in areas where there are sinkholes.



Florida's population increases by 1,000 residents each day. What is our carrying capacity? At what point do we stop accommodating people to avoid environmental system failure?

## COMMUNITY-SUPPORTED AGRICULTURE PROVIDE THE COMMUNITY A LINK TO FARMS



Typical produce from a CSA

A CSA is increasingly used by farmers to sell their products to local buyers as they are harvested. Because the buyers pay the farmer, he or she has that early use of the capital and a firm price for crops, thus helping reduce risks. The buyer benefits from fresh food and connections with the farmer.

In some cases community supported agriculture actually involves the community in the planting, harvesting, washing, and distribution of crops. Information about CSAs and agricultural products in the region can be found at:

<http://localfoodsouthflorida.org/producecsas.html>

## PRESERVE WETLAND BUFFERS PROTECT WETLANDS & THE LAND AROUND THEM



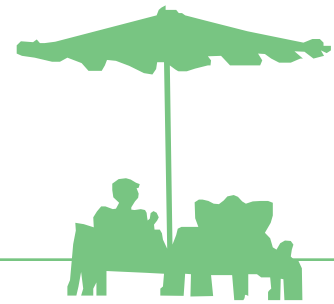
Savannas Preserve, St. Lucie County

Wetland preservation is already required by state and federal laws related to the Clean Water Act. To ensure ecological success, however, conservation must extend beyond the limits of the wetland itself. Without consideration of the land surrounding the wetland, preserved areas are susceptible to invasive and exotic species, reduced biodiversity and sediment accumulation. To prevent this from occurring, wetlands should be surrounded by buffer zones. Buffers should have a minimum width of 50 feet, with an average of 100 feet.

Where possible the buffers should be in the form of parks with trails running along connections. A constituency for buffer protection can be built by building a user base. Diversity within the buffer zone, through the use of varied features such as islands, sandbars, and thoughtfully designed storm water retention ponds, will strengthen the habitat.

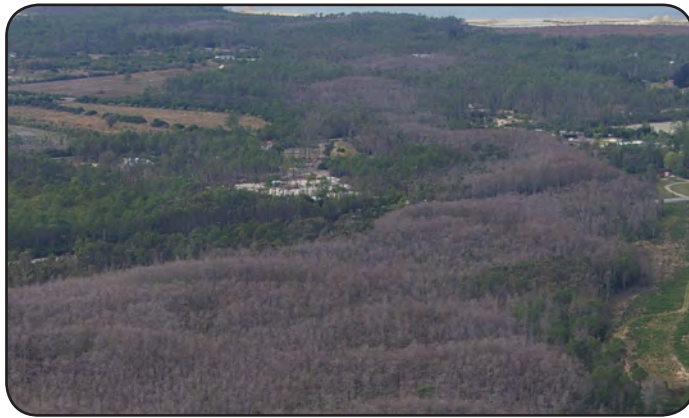


South Florida is known for its climate and natural resources. Protecting them will only boost the region.



## NATURAL CORRIDORS

PRESERVE ECOLOGICAL SYSTEMS AS YOU DEVELOP



A slough of water running through wetlands.

## GREENWAYS & TRAILS

CONNECT NATURAL AREAS WITH TRAILS



Miami-Dade County

As undeveloped lands are converted to residential uses, natural corridors should be created to preserve natural systems. There are two kinds of natural corridors. One is a large reserve on the edge of the neighborhood and the other is a narrow section that penetrates into the neighborhood. Wider corridors should be implemented into any residential plan, with precautions for wildlife such as identified animal crossings. Ideally speaking, natural corridors will extend beyond a single neighborhood and connect to other corridors, creating larger habitats for wildlife. The visibility of such greenspace often proves to be an economic benefit to landowners.

Greenways connect people and wildlife to places, to nature, and to each other. In places where urban open space is a rarity, new recreational opportunities may only exist in linear patterns—along utility easements, roadways and other transportation corridors and waterfronts. These paths make it possible to connect people to parks while creating more recreational opportunities for residents and visitors. They also provide an alternative means of transportation; protect natural resources; increase property values; and encourage tourism and business development.

More green spaces will improve our quality of life.



Finding a balance between urban density and natural preservation is difficult but crucial.



Our coasts are more and more at risk. We need to help them thrive.



## CLEAN BROWNFIELDS

FEDERAL & STATE INCENTIVES TO CLEAN & REUSE



A brownfield site is land previously used for industrial purposes or some commercial uses. The land may be contaminated by low concentrations of hazardous waste or pollution, and has the potential to be reused once it is cleaned up.

The primary goals of the Florida Brownfield Redevelopment Act are to reduce public health and environmental hazards on existing commercial and industrial sites that are abandoned or underused due to these hazards and create financial and regulatory incentives to encourage voluntary cleanup and redevelopment of sites. A variety of incentives exist including tax credits and exemptions for redevelopment, and grants and funding for cleanup.

## CELEBRATE NATURE

CREATE EASY ACCESS TO NATURE



Ft. Lauderdale Riverwalk, Broward County

Going beyond the vital preservation of nature for the sake of ecology, natural features offer a number of benefits to a community. They offer ecological services such as stormwater filtration, add to property values, and solidify the atmosphere of a neighborhood. With such immediate and tangible benefits, it stands to follow that nature should take a central role in the design of a site.

Natural features should be visible and prominent. Although it may be tempting to develop lots containing the greatest access to nature, designing the community in such a way that a greater number of lots have some access will result in an overall increase in property values.

## MANAGE WASTEWATER

PREVENT WASTING OUR MOST PRECIOUS RESOURCES



Wastewater treatment plants are vital for public health.

The efficiency of a wastewater management system is particularly crucial in places facing water shortages, as many locations in the region currently are. South Florida Water Management has highly rigid water quality standards, with over 75 wastewater treatment facilities and 1,100 testing sites in the seven-county region. Wastewater treatment is still a highly energy intensive practice, and much of the filtered waste is simply discarded. Whenever possible, treatment facilities should attempt to use waste products productively. Wastes can be integrated into constructed wetlands, which filter out microorganisms and excess pollutants.

## MANAGE STORMWATER

USE NATURAL FEATURES IN NEW NEIGHBORHOODS



Miami Beach, Miami-Dade County

Rather than altering the topography of a site and installing pipes and grates, the most effective drainage systems take their lead from the existing lay of the land. Runoff permits pollutants to enter the water table, allowing them to concentrate in drinking water supplies, as well as impacting infrastructure, ruining septic systems and permitting erosion from acid rain. Reducing the amount of pollutants that may enter groundwater may also mitigate the damaging effects of runoff. By observing and using existing stormwater patterns, natural and cost effective management systems can be put into place. The use of retention trenches and infiltration basins, as well as selective choices of materials, can create low profile and highly efficient drainage systems, which simultaneously add value to the neighborhood. It must be noted that suburban and urban sites must have different management regulations. The usage of natural features impedes the high-density growth necessary for urban communities.

## PRESERVE TREES

RETAIN THE NATURAL CHARACTER AS YOU GROW



Indian River Drive, St. Lucie County

Tree preservation is an important step in site planning. Early in the design phase, the natural landscape of the area should be assessed to identify native trees and areas of significant tree concentration. These factors then serve to determine the location of parks, squares, trails and other public spaces. Such spaces function as a form of buffer zone to protect root mass and avoid unnecessary tree death. Just a single landmark tree can provide a distinctive pocket park.

Allees and hedgerows may be utilized as design features along avenues to preserve tree roots. New streets that are sited to include existing trees as street trees do not have to wait a generation for shade. If trees cannot be maintained in their existing location, they should be moved to tree-save areas and natural reserves whenever possible. Old-growth forests and existing woodland canopies provide far more ecological and economic benefit than recent plantings, improving the character of a neighborhood.

## AGRICULTURE AND BIOFUEL

USE WASTE PRODUCTS TO FUEL FOOD PRODUCTION



Jatropha Curcas, used in biofuel production.

Biofuels can and should be used as a support mechanism for agriculture. Converting the inevitable waste products of agriculture into biodiesel or bioethanol can fuel at least portions of the whole food production process, minimizing waste and emissions, and reducing costs. Florida Crystals, a West Palm Beach based sugarcane company, uses its sugarcane waste products to produce bioethanol, selling excess energy back to Florida utility companies.

Care must be taken to ensure that agriculture remains the priority in this process. Converting lands from food production to energy production will put food security at risk, and reduce the capacity of the land. Biofuel production as a secondary process however, will result in significant benefit, and companies controlling the majority of their growing process.

Energy crops may become an increasingly important option as rainy and drought seasons shift along with our region's ability to grow certain crops.

I'm concerned about our natural resources - we need to manage, maintain, restore, and conserve.



We should use native plants to prevent nutrient run-off.



We should conserve and develop water supply, and consider water storage at both large and small scales.



## CONSTRUCTION WASTE MANAGEMENT

### BUILD SUSTAINABLY



Recycling Center

A focus on waste management in construction allows for more sustainable buildings and an increase in efficiency. Though it may be cheaper in the short term to simply cart away excess materials and build at the fastest possible pace, a more thoughtful construction technique often proves more economical in the long run. The goal is to minimize construction and demolition debris that leaves the job site for landfill disposal.

The sustainability principles of reuse, reduce and recycle are vital to continuing extended development. To ensure this occurs, local governments should offer incentives to builders who follow recommended practices.

### SCALE OF IMPLEMENTATION

REGION

## PAVEMENT MATERIALS

### USE APPROPRIATE MATERIALS IN THE PUBLIC REALM



Jensen Beach, Martin County

Street materials may play a significant role in determining the practicality of the road. Rural sidewalks may be paved in rougher porous materials, such as gravel or limestone, to allow water movement. To assist in the growth of street trees, urban roads should use permeable materials, allowing water to reach the roots. Suburban areas should retain the growth of green space, with a sequence of tree planters allowing for rain gardens and other natural features. For the most benefit, local materials should be emphasized, such as limestone in South Florida.

CITY, TOWN & VILLAGE

## NATIVE & DROUGHT TOLERANT VEGETATION

### CONSERVE WATER



Wildlife in the Francis S. Taylor Wildlife Management Area-Water Conservation Area 3B in the Everglades National Park in Miami-Dade County

In regions already facing water shortages, heavy landscaping poses a significant problem. Lush lawns and water-hungry flora options are a poor choice in such settings. Water-saving and minimizing options should be used whenever possible, so as to reduce drought and maximize existing water sources. When possible, plants that use less water should be used, particularly native species. Collected rainwater can be used in gardens and on lawns, and those with the ability may collect household water as well. The preservation and expansion of wetlands is an extremely important strategy in conserving water, as they are also natural filtration systems, while providing significant environmental benefit.

## ON-SITE ENERGY GENERATION

### EVERYONE CAN PLAY A PART IN ENERGY CREATION



Solar panels array to produce energy for a municipal building. New Hampshire.

Methods of small-scale energy production have advanced dramatically since the introduction of the first solar panels. In high-density locations, solar water heating systems take up very little room and improve efficiency, reducing energy costs. Suburban homes can use more advanced solar panels, and may be able to receive tax benefits, in addition to selling excess production back to the utility. In buildings with high density, e.g. high rises or dorms, geothermal climate control is an economical option, while corporate campuses can use cogeneration (simultaneously producing electricity and heat). While on-site energy generation is vital, moving towards large-scale alternative energy methods is something that must still be considered.



FORT PIERCE MARINA

SNAPPE

FORT PIERCE, FL

DownEaster 32

El Gordito

FORT PIERCE



# CLIMATE & ENERGY RESILIENCE

## FIRST PRIORITIES FROM THE CLIMATE & ENERGY RESILIENCE WORKGROUP

### PRIORITIES

- 1 Ensure water supply: identify & prioritize at-risk natural resources & infrastructure & minimize saltwater intrusion
- 2 Engage & educate the public to create new policy regarding climate change issues
- 3 Utilize adaptive planning for natural systems
- 4 Infrastructure, utilities, transportation choices & the built environment should reflect goals for conservation, energy efficiency & sustainable infrastructure
- 5 Value & enhance agricultural assets
- 6 Ensure a sustainable, consistent, independent & cost effective energy supply & delivery system throughout the region
- 7 Prioritize storm preparedness, risk reduction & emergency management
- 8 Focus on the region's barrier islands: they host unique destinations & also provide frontline barriers for the mainland

### ADAPTATION TOOLKIT ITEMS

Mangrove Replenishment

Beach Restoration

Flood Control Gates

Raising Land

Ice Wall

Reinforcing Bridges

Pumps

Back-Flow Preventers

Levees

Stormwater Injection Wells

Rip Rap Walls

Higher Sea Walls

### MITIGATION TOOLKIT ITEMS

Electric Vehicle Charging Stations

Energy-Efficient Design

Sustainable Building Materials

Green Building Standards

Renewable Energy Technologies

Energy Conservation



Everglades, Monroe County

## Environmental & Water Resources

Environmental and water resource issues facing Southeast Florida are wide ranging and complex. Natural systems are connected from the northern Kissimmee Basin through Lake Okeechobee to the Everglades and Southeast Florida. Water supply, water quality, flood control, threatened and endangered species, wildlife corridors and wetlands are all issues that demand integrated, regional solutions that can be implemented at the local level if they are to be truly sustainable. There are no easy solutions nor are there any solutions that can be fully addressed by any individual organization.

New solutions need to be nimble, adaptive and scalable so that they can be started quickly and revised as necessary to reflect changing social, economic and environmental understanding. The environmental, governmental and private sectors must work together to identify creative ways to incentivize more efficient uses of natural resources. An example of such an initiative is the Northern Everglades - Payment for Environmental Services (NE-PES) program administered by the South Florida Water Management District (SFWMD). The NE-PES

program establishes a contractual relationship between private land owners and SFWMD so that the land owner can get paid for providing environmental and water resource improvements to their land that benefit the region at-large. Benefits include wetland creation and enhancement, wildlife habitat protection, reduction of downstream inflows to the St. Lucie Estuary and increased groundwater recharge. The land owner benefits by having a new revenue source allowing him to improve or preserve the environment, and the agency benefits by meeting their objectives without having to make long term financial commitments through land acquisition and operations and maintenance. In addition, since it is a time-limited contractual relationship, if changing conditions occur, priorities change or new information is received the project can be revised or terminated at the end of the contract to allow for a new and improved approach to solve the problems. The NE-PES program, and other creative incentive driven solutions, must be identified and implemented to successfully and sustainably address the environmental and water resource issues facing Southeast Florida.

**Mr. Terry Clark, AICP, PMP**  
Senior Consultant, Cardno ENTRIX

# 1

## Ensure water supply: identify & prioritize at-risk natural resources & infrastructure & minimize saltwater intrusion

As a region, we need creative water management strategies and infrastructure improvements that can mitigate adverse impacts of climate change and sea level rise on our water supplies, water and wastewater infrastructure, and water management systems.

Climate change presents serious challenges for water managers— given its likely impacts on the quality and abundance of water supplies, water and wastewater infrastructure, and drainage and flood control operations. An effective response will require the coordinated efforts of governmental agencies and service providers and a holistic approach that treats water supply, disposal and management as integrated systems.

In Southeast Florida, climate change is predicted to influence precipitation patterns with both water supply and water management implications. Fewer storm events, drier winter and spring months, and an increase in local evapotranspiration rates (water lost to the atmosphere through evaporation and plant transpiration) will increase the frequency and severity of droughts while less frequent but more intense storms will tax water management systems causing both inland and coastal flooding. Impacts will be compounded by sea level rise with the loss of coastal wellfields due to saltwater intrusion and constraints on water management operations due to increases in groundwater levels and reduced discharge potential at canal water control structures. Addressing the impacts of climate change will require: finding solutions to consistently maintain high quality and adequate water supplies for all local communities, strategies to reduce the cost and energy demands of alternative water supplies, consideration of future conditions with respect to the placement of infrastructure, and investments in new and upgraded infrastructure to maintain essential drainage and flood control operations. Additionally,

Its a long distance between city centers and there's a lack of public transportation connecting those centers.



sea level rise resulting from climate change is threatening the Florida Everglades, the backbone of our natural resource system, highlighting the urgent need for restoration of the Everglades with improved delivery and distribution of water flow to provide both natural resources and water supply benefits.

Given these challenges, it is essential to identify practical solutions today to help mitigate the impact of climate change on our future water supply. The *Regional Climate Action Plan* proposes recommendations to provide regionally coordinated water management plans that address storm water use and disposal, traditional and alternative water supplies, wastewater disposal and reuse, water conservation measures, and continued support for Everglades restoration efforts.

A unified effort among government, businesses, and consumers is needed to implement near-term solutions and develop long-term strategies to mitigate adverse impacts of climate change on water supplies while developing new sources that add diversify our water supply. Efforts will require optimized use of all water resources, with conservation being paramount, along with development of new sources less vulnerable to changing climate conditions. The challenge will be to implement these necessary projects without marked increases in energy consumption, a difficulty that underscores the value of conservation as a priority strategy. Policy and regulatory changes, funding for infrastructure, development of alternative water supplies, and public education will all be necessary in order to make significant progress. The issues are vast and the investments to be great, with effective response requiring the collaboration of the public, financial participation of state and federal governments, and the exploration of new finance strategies.

## 2

**Engage & educate the public to create new policy regarding climate change issues**

An effective communication strategy is needed to highlight the risks related to climate change and the value of adapting policies and practices to achieve resilience throughout the region.

Today's world is marked by instant communication, immediate information and multitasking behaviors. It is difficult to communicate news and information related to climate change in a sound bite. It's relatively easy to communicate the threat of an imminent storm, tornado or other natural disaster, but much more difficult to mobilize the public to hazards that unfold over years and decades. The state of the current economy also makes a long-term discussion on climate change more difficult when many Americans are focused on short-term housing, employment and other immediate needs. And, of course, the science of climate change is still evolving, and its core tenets are contested by some.

The strategies and actions in this area aim to educate stakeholders in all sectors and at all levels – from the general public and voters to elected officials, professionals and other decision makers. These are initiatives to inform and create a common understanding of the benefits of energy independence, energy use reduction, water conservation, smart growth, and natural area protection that will create demand for a healthy, sustainable and resilient region. There is a need to modify existing public outreach, education and engagement programs as people access natural areas (including upland, wetland, marine, coastal and near shore environments) to include climate change mitigation and adaptation messaging and include volunteer opportunities that will enhance green infrastructure to facilitate climate change resilience and adaptation.

Outreach to the community has already been expanded with the collaboration of the northern counties with the Climate Compact. A localized effort will result in the most effective climate change policy for the region.

We'll need to educate elected officials and the public about the findings and suggestions in this plan.



Let's stop using dirty energy.



### 3

## Utilize adaptive planning for natural systems

Southeast Florida's natural ecosystems exist within specific climate, water and salinity regimes. Coral reefs and seagrasses grow in clear, shallow seawater with abundant sunlight and stable temperatures whereas mangroves thrive in the often brackish areas between the low and high tide lines. Freshwater-dependent hardwood hammocks and pine rockland forests support an abundance and diversity of rare plants and animals unrivaled in the United States. Similarly, Everglades tree islands depend upon wet and dry seasonal rainfall patterns that have existed for centuries. Climate change threatens many of the native plants and animals important to Southeast Florida's culture, economy and distinctive sense of place.

Changing weather patterns are not new to the native flora and fauna of Southeast Florida. Plants and animals are always living and competing on the edge of their limits. Wetland plants gain ground, moving up the slope in wet years and perhaps losing that same ground in dry years. But in many climate change scenarios, the speed and direction of such changes are unprecedented. Climate change may exceed the capacity of native species to keep pace. By taking specific action now, we may be able to manage our native flora and fauna without losing species diversity and without introducing potentially harmful species.

Coral reefs are vital to local fisheries and the economy. Healthy oceans provide most of the oxygen in the air we breathe. Extensive research is underway regarding the impact of climate change on the world's oceans. Locally, strategies are being developed to maintain our ocean in the face of climate change. In estuarine systems, mangroves and seagrasses are primary converters of sunlight energy to food energy. However, they are both limited by water depth. As seas rise, they may not survive in their current locations. It will be incumbent on us to ensure that newly inundated areas are available for them to colonize. The fate of freshwater wetlands is currently harder to predict. Tide water may reach further inland and some freshwater sources may become more brackish. These 'lightly salty' estuaries can be biologically healthy habitats but we must ensure that other land uses, including drinking water supplies, are not threatened.

Most of the regions' freshwater wetlands and native uplands are supplied with rainwater. At this time, no one knows exactly what changes in rainfall patterns are in store for us. What we do know is that storage of freshwater is an important mitigation option whether rainfall is too much or too little – or both. Having freshwater storage options allows us to collect flood waters and hold them for later release during drought.

Given the opportunity, some species can adapt, migrate or transition. Adaptation and migration or transition, necessary for sustaining natural plant and animal communities, will require careful and thoughtful planning. Land use planning and land acquisition programs will have to allow for such transitions. Hardened shorelines may be transformed to living shorelines. Open lands or vacant parcels may be suitable locations for habitat restoration.

A new tool for comprehensive planning is to designate "Adaptation Action Areas" which can focus technical assistance and funding to areas most vulnerable to the impacts of sea level rise and coastal flooding. In 2011, the Florida Legislature amended state law to provide for Adaptation Action Areas as an optional designation in local comprehensive plans for those identified areas experiencing coastal flooding due to extreme high tides and storm surge and the related impacts of sea level rise. The law also provides for the development of adaptation policies and will maximize funding opportunities for infrastructure needs associated with Adaptation Action Areas. Members of Congress have since suggested adding the definition of Adaptation Action Areas into federal law to provide for appropriations for adaptation planning and infrastructure needs in designated areas. It is realistic to believe that future funding opportunities will become available through federal and state appropriations and grants for these areas or areas similarly designated for adaptation planning.



Miami Beach on a day with no rain experiencing a seasonal high tide.

## Using the Best Data... But Ready to Update the Projections

The modeling of mid-century concerns will address the day to day impacts of sea level rise. Extreme events such as hurricanes, unusual rainfall, and other unpredictable occurrences will also impact our community and are likely to drive changes in attitudes and investments. The Compact Counties have agreed to use the 24 inch projection as a planning maximum for 2060. Even with predictions of greater sea level rise by the end of the century, two feet of rise will continue to fall within the range of expected values for 2060. The Compact's technical group will be reconvened following release of the Intergovernmental Panel on Climate Change report in 2014. Adjustments in the planning projection will be made at that time and incrementally as we move forward with building community climate resilience. Local governments can use the Seven50 Plan as a vision of what could be while adapting to what is and what can reasonably be foreseen in the near future.

**Nancy Gassman, PhD**

Natural Resources Administrator, Energy and Sustainability  
Program, Broward County Natural Resources  
Planning and Management Division

## 4

### Infrastructure, utilities, transportation choices & the built environment should reflect goals for conservation, energy efficiency & sustainable infrastructure

Greenhouse gas emissions should be reduced by planning, designing, and prioritizing walkable, diverse communities supported by sustainable multimodal transportation options.

The transportation sector contributes 45 percent of the region's greenhouse gas emissions, with the majority of trips taken for family and personal purposes in single occupancy vehicles. Reducing vehicle miles traveled (VMT), which reduces emissions, can be achieved by shifting trips taken in the personal vehicle to walking, biking and public transportation, and by shortening or avoiding trips altogether through community design and sustainable development strategies.

Recent studies demonstrate the significant impact this approach can have on avoiding greenhouse gas emissions – estimating that the five “Ds” of compact development – density, diversity, design, destination and distance to transit – could reduce VMT by 12 to 18 percent.<sup>1</sup> Clearly, the success of this reduction depends on the extent and timing of implementation. Some recommendations call for increased funding for mobility solutions that achieve a reduction in greenhouse gas emissions while improving the livability and economic strength of the region by reducing our dependence on personal vehicles. Other recommendations focus on more immediate strategic service improvements as well as initiatives to attract individuals who could drive their cars but who choose to ride transit or share a ride because of the conveniences and other benefits represented by these choices.

More than 100 entities in the Southeast Florida region, including municipalities, county and state governments, metropolitan planning organizations, and regional planning bodies, exercise governance over transportation planning, operation, and investment decisions. A continued and expanded collaborative approach to these activities will be a cornerstone to implementing recommendations that not only serve to reduce greenhouse gas emissions but will realize cross-cutting benefits of more livable and desirable communities within our region.



<sup>1</sup> Source: Urban Land Institute

## 5

**Value & enhance agricultural assets**

Agriculture has consistently been a strong part of Florida’s economy, even in what are perceived as urban counties. Palm Beach and Miami-Dade Counties rank #1 and #2 in the state respectively in the value of the agricultural products they produce each year.

When the economic impact of tourism, development and agriculture are reviewed over many years, agriculture tends to be the stabilizing component of the economy.

Southeast Florida is unlike any other growing area in the nation due to a 12-month growing season and ample local market potential. More than 250 different and unique crops grow in Southeast Florida. These crops supply the entire east coast of the United States with winter vegetables, contributing to the food security of the nation. Many tropical and ethnic crops are also grown and marketed to the diverse population of the region.

Farmers are actively adapting Best Management Practices that efficiently utilize nutrient application (right time, right place) and conserve water resources. They are also evaluating alternative methods to utilize and retain water when it’s not harmful to current or projected growing practices.

The agriculture community is committed to sustainability, and the economic viability of regional agriculture will allow farmers to remain on the land to grow food, fuel and fiber for area residents as well as the nation. Consideration of agricultural impacts is vital to any regional action plan which should include action plans to address flooding, salt-water intrusion, exotic pests and disease introduction and crop changes due to climate change.

## 6

**Ensure a sustainable, consistent, independent & cost effective energy supply & delivery system throughout the region**

“Sustainability” has come to mean different things to different people, however, most definitions include making sure that resources do not deteriorate or deplete from generation to generation. Energy resources are a prime concern of sustainability.

Fossil fuel phase-out is often described as the ultimate achievement of long-term sustainability. Fossil fuel phase-out means energy transition beyond fossil fuels through multiple means, including transportation electrification, decommissioning of operating fossil fuel-fired power plants; and prevention of the construction of new fossil-fuel-fired power stations. Its purpose is to both reduce air pollution and greenhouse gas emissions which cause climate change as well as to create resilient energy systems not dependent on finite sources.

Clean, safe, renewable, energy sources such as wind, hydroelectric, solar and less well-known sources such as landfill gas, biomass, biofuel and others involve technologies largely still in development. Many argue that energy sources such as coal, petroleum, natural gas, and nuclear are to be considered interim sources of energy until the renewable technologies are fully developed. In just the last ten years in the field of solar energy alone has seen enormous advances. Solar water heaters, roof-mounted photovoltaics, and solar arrays are increasingly reliable and cost-efficient.

Others argue that as the number of people in the region and on the earth increases, even the most diverse energy portfolio must include fossil fuel use. However, energy providers see this as an argument that needn’t be solved. Energy providers are working to diversify their energy portfolio while still keeping the lights on by every means available to them. As a point of regional policy we must as well keep the lights on but also work toward a more sustainable future with greater reliance on renewable energy sources.

Encourage the Region’s Energy Independence: reduce the Region’s reliance on fossil fuels, diversify the Region’s energy mix, and decrease the region’s vulnerability to fuel price increases and supply interruptions.



## 7

### Prioritize storm preparedness, risk reduction & emergency management



I'm concerned about climate change - we need to figure out how to battle sea level rise.

The Southeast Florida region should provide a more resilient natural and built physical environment in light of climate change.

The *Southeast Florida Regional Climate Action Plan* provides a foundation for establishing a more predictable physical environment in the face of climate change through regulations, adaptation strategies, and emergency operations, with the goal of reducing future economic losses and threats to public safety.

Southeast Florida is no stranger to the devastating effects of hurricanes and other severe weather events. Our experience has made us experts in planning, preparedness, response, mitigation, and recovery. Our emergency managers are trained in an all risk-based, all hazards approach. Disaster can strike anytime, anywhere. It takes many forms – a hurricane, a tornado, a flood, a fire, a hazardous spill, an act of nature or an act of terrorism. In fact, in the aftermath of September 11, homeland security preparedness was easily incorporated into Southeast Florida's all hazards approach to emergency management. An emergency can build over days or weeks, or hit suddenly, without warning. Southeast Floridians are resilient and accustomed to this and can mitigate, prepare, respond, recover, and return to better than normal.

However, climate change differs, with impacts that may not be immediately evident as the changing conditions are slower and occur over longer time scales. With climate change there is no overnight return to "normal." Sea level rise does not appear on the 6 o'clock news weather map moving towards the coast of Florida. It is that difference that makes it more difficult for the general public to understand and to react. Yet, we are already experiencing more extreme weather conditions – from extreme rain to extreme droughts, from unseasonable heat waves to early cold fronts. The climate is changing. Adapting and planning for more and possibly new weather-related threats needs to be incorporated into preparedness procedures. One step further is to include climate change in our emergency preparedness and hazard mitigation plans.

The collection of strategies and actions in this area is aimed at integrating climate change risk into all-hazards emergency management planning and response models. This provides support for the objectives of the *Coastal Zone Management Act* of 1972 which recognizes sea level rise as a threat to coastal communities and encourages strategies for improved protection of life and property and builds upon requirements of Section 163.3178 and Chapter 252 F.S. relating to coastal and emergency management plans.

#### THE IMPORTANCE OF PREPARATION

Superstorm Sandy destroyed nearly 82,000 homes and caused \$7.8 billion in insured losses. New Jersey now has had to decide how best to protect homes, roads and development from future storms. The resulting debate is turning neighbors against each other in many communities along the coast.

Kate Zernike writes in *The New York Times*: "The corps had completed some dunes before Hurricane Sandy hit, but stopped when they could not get enough easements. Where there were dunes, the storm left relatively minor damage. Where there were not, homes — even many seemingly safely inland — were destroyed."

### Adaptation Across the Regional Transect

Strategies for adaptation to sea level rise for the built environment range from fortification, to accommodation, to retreat and shrinkage. In South Florida, in addition to the coastal impacts of flooding and storm surge, sea level rise can impact inland areas as the water table rises.

The geographic transect from ocean coast to the Everglades exposes a sequence of conditions, requiring response appropriate to geography. Within each location, the type of response may vary according to the facility and its importance to the economy.

This transect identifies a framework of eight geographic scenarios for studying types of response: island coastal dune; island bay front low land; mainland bay front low land; mainland ridge; mainland ridge back slope; western development on fill; agricultural land; and Everglades.

Coastal islands represent an important tourist asset for the region's economy. Their fortification may include raising the beach dune level, for which there is already regional experience, and raising street levels as flooding frequency increases.

Mainland urban centers, the focus of regional commerce, can justify investment in fortified infrastructure, such as raising streets, and would also benefit from restoring mangroves to buffer storm surges.

Inland on the ridge and further west, where much of the suburban development is built on fill, increasing percolation and drainage infrastructure, along streets and on private property, is a way to accommodate the shrinking differential between the ground surface and the water-table level. Low density development close to the Everglades, where the economic impact may be less, may retreat to avoid infrastructure investment, becoming more rural, in effect reverting to its origins.

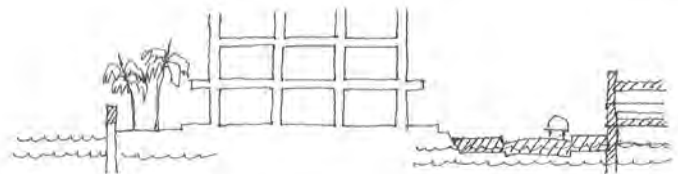
Agricultural lands will adapt to rising water levels by the evolution of crop type. In the region's natural conservation lands, flora and fauna will evolve as the character of the ground-water changes.

Across the transect, in all scenarios, it is clear that planning is necessary to coordinate public infrastructure investment with private property impact, in ways to which we are little accustomed. Raising a roadway may be a tactic appropriate for a particular location, but what must the adjacent shops and houses do to avoid inundation, and who pays for that?

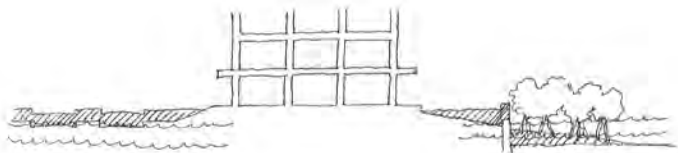
The region should study scenarios across the transect to prepare the range of responses for several increments of sea level rise, coordinating potential public infrastructure investment and private redevelopment requirements. These diagrams, by no means the definite study, illustrate its potential framing, taking into account specific infrastructure and building types, their location, their importance to the economy, and the funding required for implementation.



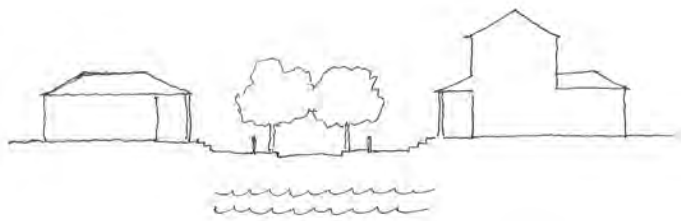
1. Island coastal dune, fortified with increased elevation.



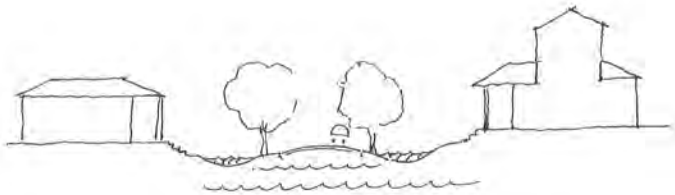
2. Island bayfront, often at a lower elevation than the coastal dune, fortified with raised roadways and sea walls.



3. Mainland bayfront urban business centers, fortified with raised roadways and sea walls.



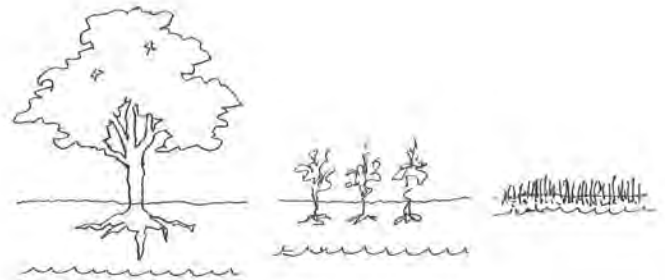
4. Mainland ridge accommodates with increases in density corresponding to transportation infrastructure investment.



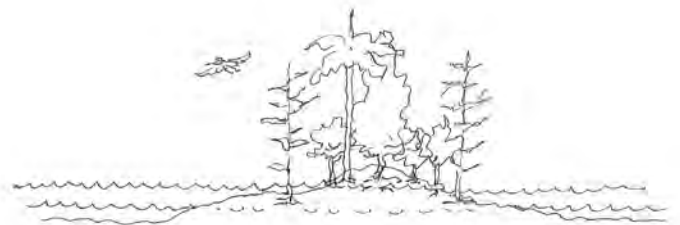
5. Ridge backslope accommodates with increased drainage capacities.



6. Western low density development accommodates more surface water, or in some cases, retreats.



7. Agricultural land cultivation evolves from tree crops to row crops to water storage.



8. In the Everglades and other conservation land, habitats evolve, and plant and animal life changes.



# EXISTING CONDITIONS

## A SOUTHEAST FLORIDA BARRIER ISLAND IN 2013



## 8

### Focus on the region's barrier islands: they host unique destinations & also provide frontline barriers for the mainland

Barrier islands protect the mainland coast of all of the counties in our region and are enormous economic engines. They are home to many people and provide recreation as parks, beaches and resorts.

Many of these islands, like much of Miami Beach and the Keys were artificially created. These islands don't have naturally high elevations of hardwood uplands and are especially susceptible to sea level rise and punishing storms.

Public access to the water typically occurs through public parks and around bridges between islands. Barrier islands have spectacular views of the water; however, the waterfront is often accessible only from private lots, restaurants and resorts.

Resilience infrastructure, where it exists, is often in the form of built beaches, private seawalls, and pumping systems. Publicly funded improvements provide an opportunity to strengthen the islands while simultaneously increasing public access to the waterfront.



# FUTURE CONDITIONS

A SOUTHEAST FLORIDA BARRIER ISLAND & 4' OF SEA LEVEL RISE



### **Moderate Sea level Rise: No Adaptation**

The current projection for sea level rise is between 9” and 2’ by 2060. It is possible that this level can be handled with investments in higher storm walls, and pumping systems to control rise.

Estimates are currently evolving regarding how long it will take for 4’ of sea level rise to occur in the region. Sea levels are currently rising approximately 1 inch per decade, and this rate may increase over time due to global climate change patterns. The barrier islands of the region are very low in elevation, so even modest sea level rise will have appreciable effects.

On barrier islands water views are typically prized, so residential development currently tends to be concentrated near the shoreline where elevations are coincidentally lowest. In many cases the quantity of shoreline has been increased historically through fill to create new lots along canals. This new land tends to also be especially low in elevation.

Rising sea levels will therefore have their greatest impacts on the region’s barrier islands in the locations where residential development is currently most concentrated.



# FUTURE CONDITIONS

A SOUTHEAST FLORIDA BARRIER ISLAND & 8' OF SEA LEVEL RISE

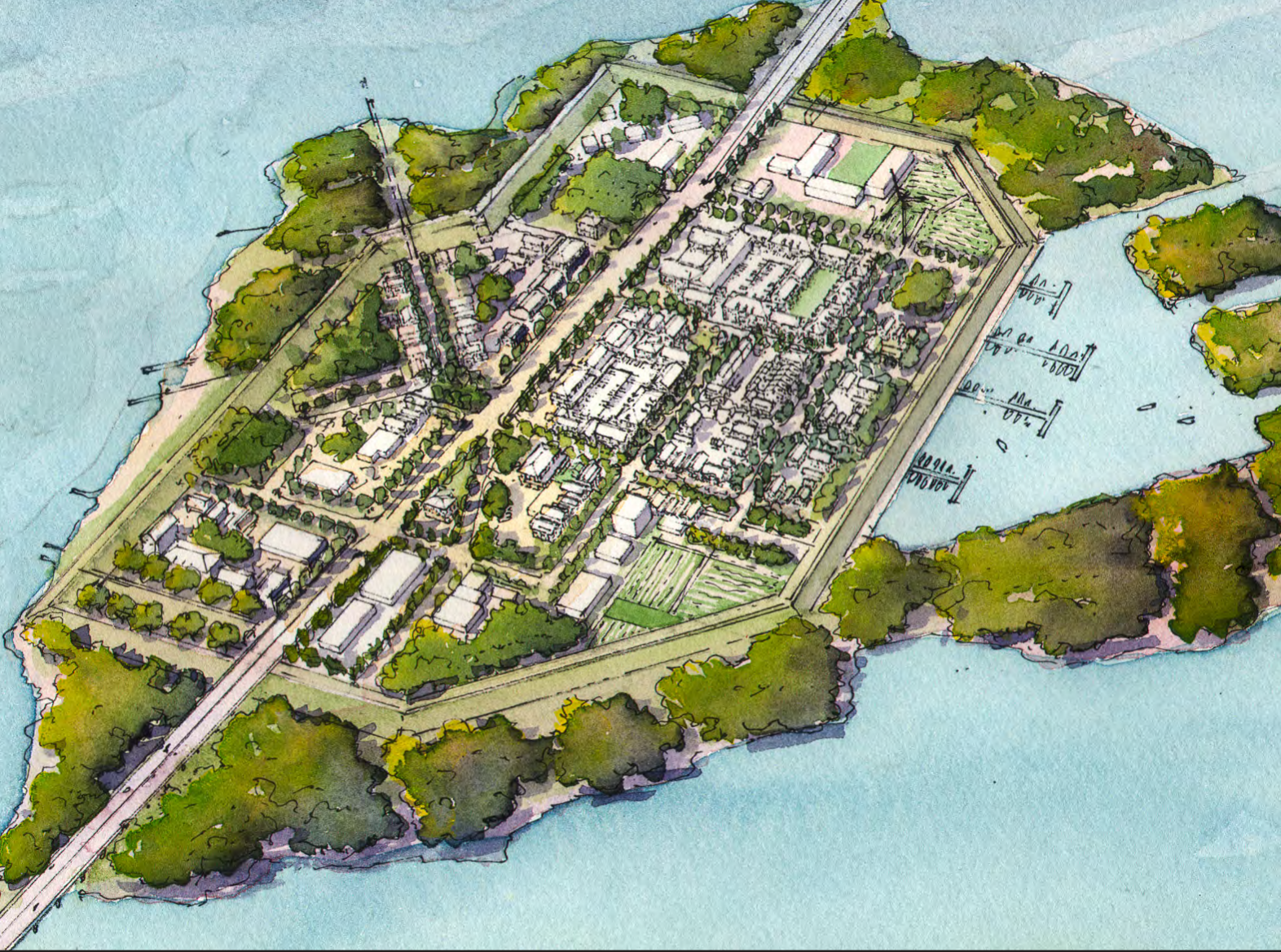




### **High Sea level Rise: No Adaptation**

It is impossible to say how long it will take for 8' of sea level rise to occur in the region. The Climate Compact estimates between 500 years (at a rate of nine inches of rise in 50 years) to 200 years (two feet of rise in 50 years). However, we can not be sure yet that the rate of increase will not be higher, faster.

Many of the barrier islands of the region are long and host sparse amounts of investment. While it may be unrealistic to reinforce every part of every island, if no investment is made the islands will disappear in time. Before that happens property insurance for the barrier islands may become impossible to cost-effectively insure, which may accelerate the devaluing of the land and ultimately the abandonment of the land. This would result in economic loss, resettlement of the population, and a less resilient regional system overall – barrier islands are the first line of defense for the mainland against storm events.



# FUTURE CONDITIONS: ADAPTATION

A SOUTHEAST FLORIDA BARRIER ISLAND ADAPTED FOR 8' OF SEA LEVEL RISE



## High Sea Level Rise: Significant Adaptation

Many decades in the future, investment in storm-resilience today in the core towns of the barrier islands may pay off. As lower-lying areas are slowly submerged, island living could remain a way of life.

One way to help preserve the islands way of life is to identify and fortify centers of daily life. These areas should be located in the least vulnerable areas and take into account utilities and other public assets. These “hearts of town” may be located at the historic centers and should be additionally fortified with higher sea walls, rip rap, and reinforced shorelines. The land area along US 1 and A1A, the main connections that run through the barrier islands, tend to be located along the point of highest elevation. Focusing any new development along these main roadways makes more sense for long-term resilience.

If designed and detailed correctly, it is possible to add concentrated new developments along the rural barrier islands that reinforce and enhance the island-town feel that people associate with islands. Land zoned for new development along the main roadways could be legally configured as a receiving area for a movement of investment out of harm’s way and out of lower-lying flood prone areas. This would promote long-term sustainability of property values by allowing those who own flood-prone properties to sell their development rights. Effectively, even properties under water will retain the value of their development entitlements.

One possibility of protecting core economic investments would be a “**slow retreat to the heart of town**” from outlying areas that see continual inundation due to a lack of resilience infrastructure. The heart of town would be more densely developed and heavily reinforced. A wide variety of tools would be necessary including pumps, back-flow preventers, new storm water systems, levee walls, new mangrove systems, strategic elevation of land with fill and so forth.

One large unknown could doom this process. The rise of sea levels could occur up through the subsurface porous limerock that make up most of the islands in Southeast Florida. Walls and similar strategies may reduce the velocity of surging seas but the slow creep of water levels is still an unknown.

The Seven50 plan looks at the future for the next 50 years, keeping in mind the future that will come after that. It may take hundreds of years to see a significant enough amount of sea level rise to affect life on the barrier islands as it is known today. If seas do rise drastically there are interim steps where portions of the islands can still thrive. It is not necessarily an all or nothing future.

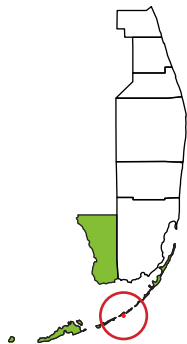
-  Potential areas for Reinforced Coastline
-  Sea Walls
-  Built Beaches
-  Rip Rap Sea Wall & Slopes
-  Mangrove Protection / Restoration
-  Reinforced Bridges



Plan illustrating how potential areas for reinforced coastline could be implemented at Mile Marker 50 on Marathon Key in Monroe County.

# FUTURE CONDITIONS: ADAPTATION

## A SOUTHEAST FLORIDA BARRIER ISLAND ADAPTED WITH REINFORCED EDGES



## Reinforcement of the edges

As sea levels rise, barrier islands may take on a different form but human activity does not need to cease in these areas. The scenario plans highlight areas of 'Potential areas for Reinforced Coastline'. Strategic investments should be made to these areas based on numerous factors such as elevation above sea level, essential services, value of protection of inland areas, or areas of existing public and private investment.

A variety of techniques can be used to reinforce strategic areas such as sea walls, built beaches, and rip rap sea walls and additional infill to elevate infrastructure and development. The fact that sea walls must be raised to present a solid wall to the ocean is reason for local and even regional coordination. Additional techniques like the protection and restoration of mangroves can help mitigate the effects of storm surge. Additional channels could be cut through larger islands so storm surge waters can more easily pass through instead of over land.

Would these strategies work, especially given the rise of water up through the limestone? The answer may be one of timeframe. They may work for a certain period of time and then cease to be useful. We also need to exercise a great deal of humility in dealing with changing natural forces. We do not want to place people in potentially dangerous situations by creating a false sense of hope in untried systems. While it is ultimately the choice of each municipality to invest in reinforcement, failure to adapt to climate change in a cooperative manner will result in a strategy with gaping holes, ultimately weakening the resilience of the region further.



Proposed Conditions

# FUTURE CONDITIONS: ADAPTATION

## KEY WEST ADAPTED WITH NEW SHORELINE



## Existing Conditions

Key West has been preparing for the effects of climate change for many years. One of the areas of the island most vulnerable is New Town. This area is built largely on fill and sits at a lower elevation than Old Town. Consequently it is more susceptible to the effects of sea level rise and of storm surges.

Additionally, New Town is a visitor's first impression of Key West. The suburban auto-oriented character of the present development is much-criticized as incongruous with Key West's historic tropical Anglo-Caribbean architectural aesthetic.

If carefully designed, interventions to help make New Town more resilient to the effects of climate change can also help improve the character of this very visible area.

## Proposed Conditions

Infrastructure changes, particularly along New Town's waterfront, could help greatly to simultaneously reinforce this area against the effects of climate change and to improve the character of the area. A hardened sea wall can be combined with strategic elevation of land with fill, and a mangrove buffer area to help provide resilience against both sea level rise and storm surges. The construction of these items can be combined with an improved pedestrian walkway along the water, larger beach access and regularly-spaced shade trees to greatly enhance the quality of experience for visitors to the area.

Over time, new development and redevelopment on the parcels in this area can further be formatted to improve both climate resilience and character. New buildings may feature modestly elevated first floors. As can be seen in the illustrations, if carefully designed with character in mind, it is possible to increase the overall quantity and land coverage of development in this area while simultaneously reinforcing Key West's tropical Anglo-Caribbean architectural aesthetic.

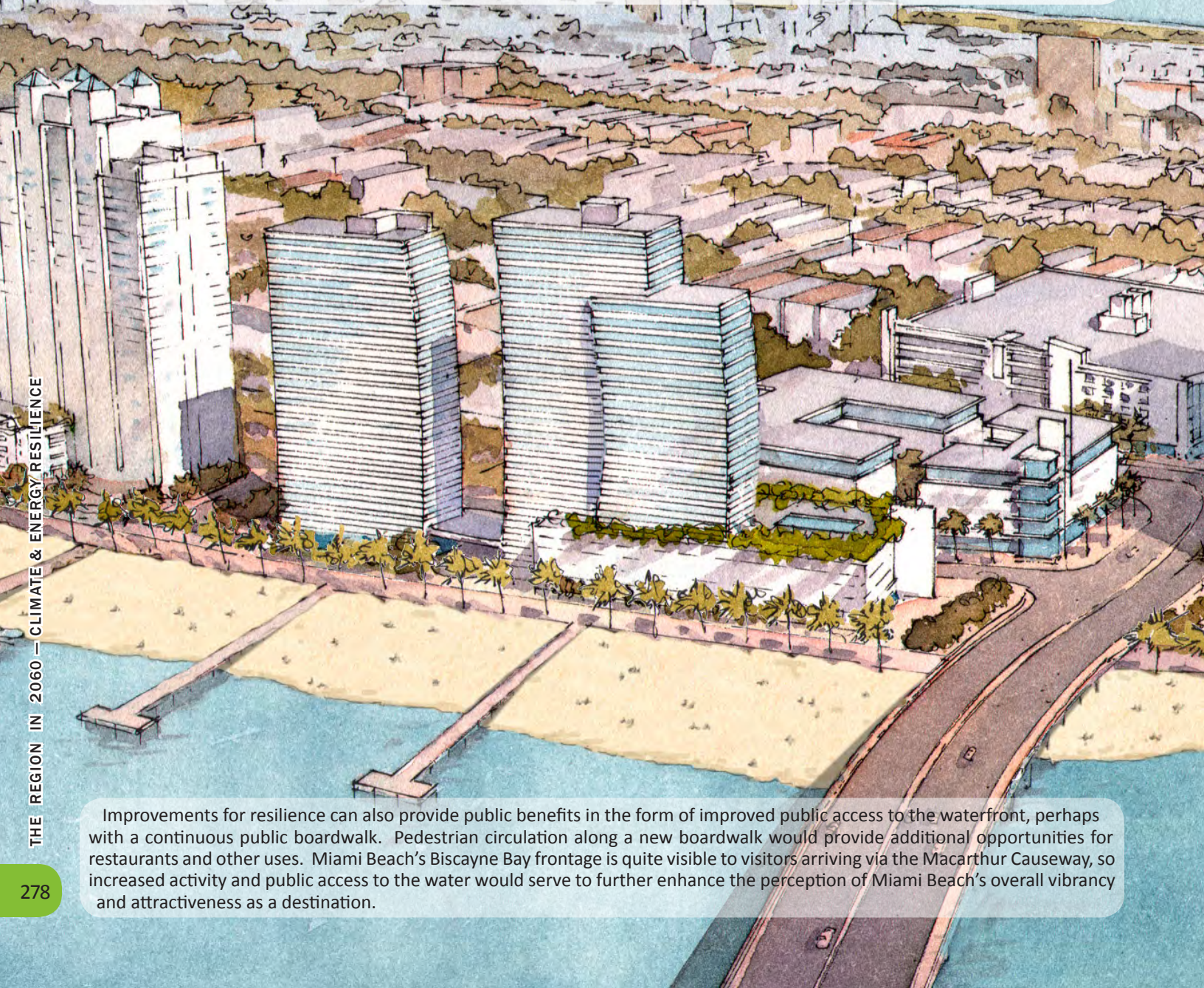
Vehicular circulation and visual character at the arrival of US 1 at New Town can potentially be even further enhanced with replacement of the current traffic signal with its accompanying turning lanes with use of a modern roundabout. This configuration shows early promise, and should be further investigated for technical feasibility.



Existing Conditions

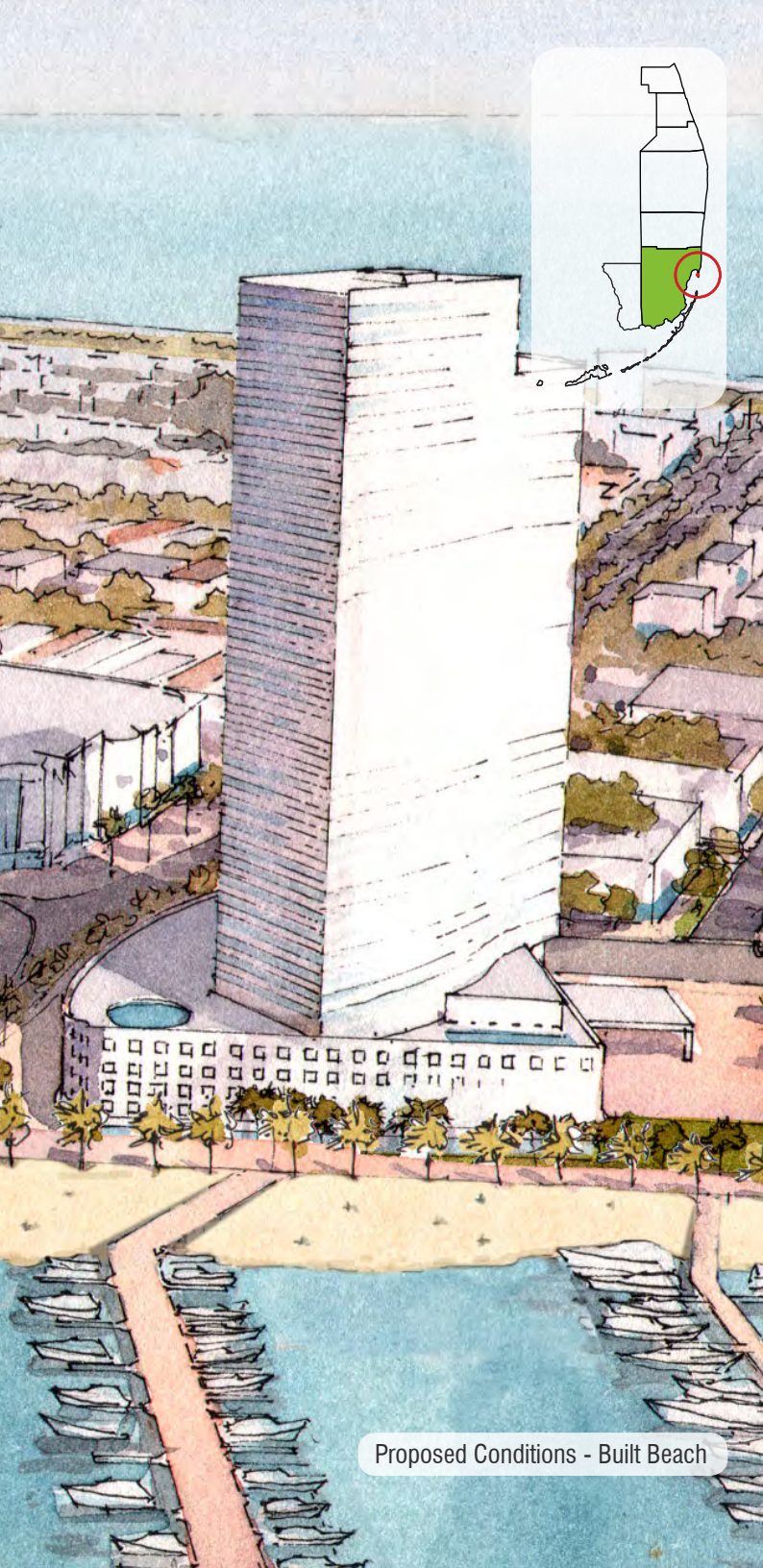
# FUTURE CONDITIONS: ADAPTATION

## MIAMI BEACH ADAPTED WITH LIVING EDGES



Improvements for resilience can also provide public benefits in the form of improved public access to the waterfront, perhaps with a continuous public boardwalk. Pedestrian circulation along a new boardwalk would provide additional opportunities for restaurants and other uses. Miami Beach's Biscayne Bay frontage is quite visible to visitors arriving via the MacArthur Causeway, so increased activity and public access to the water would serve to further enhance the perception of Miami Beach's overall vibrancy and attractiveness as a destination.



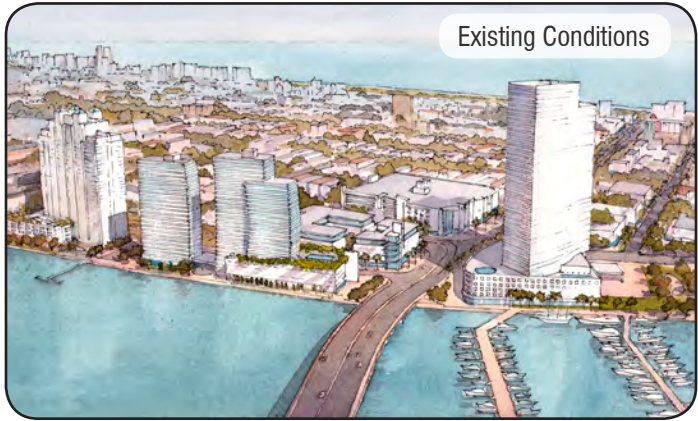


Proposed Conditions - Built Beach

Miami Beach, like Southeast Florida's other barrier islands and waterfront areas, is susceptible to the effects of climate change. Miami Beach is a tremendously high value area that is critical to the region's identity and should therefore receive high priority for infrastructure adjustments to increase resilience to sea level rise and storm surges. The west side of Miami Beach is lower in elevation and lacks the engineered storm-hardened beach front of the east side of the island. This side fronting Biscayne Bay is most in need of infrastructure adjustments for resilience.

**Proposed Conditions**

Modifications to infrastructure on the Biscayne Bay side of Miami Beach for resilience against sea level rise and storm surges could include: engineered solutions for drainage, a reinforced sea wall, and strategic elevation of land with fill. These solutions could perhaps be augmented with the addition of an engineered beach or alternatively, a buffer of mangroves.



Existing Conditions



Proposed Conditions - Living Edge

# CLIMATE & ENERGY RESILIENCE TOOLKIT

## ADAPTATION APPROACHES FOR CREATING A MORE SUSTAINABLE FUTURE

### MANGROVE RESTORATION

OUR FIRST LINE OF DEFENSE IS A NATURAL ONE



Mangroves outside of Everglades City in Monroe County

As native Florida species, mangroves have immense potential in minimizing the effects of storm surge. While many coastal communities are looking toward sea walls and other methods of constructed protection, mangroves provide a natural barrier to swells and storm surge. Mangroves typically have roots that extend deep into the soil, preventing erosion. Mangroves typically flourish in brackish to saline water, allowing the trees to fill a biological niche as well as providing a habitat to ocean life. Existing mangroves should be conserved, and restoration of coastal wetlands should be prioritized. Small buffers of mangroves are not enough, large offshore systems are necessary. Vast acreages acres, even multiple square miles are necessary. Even still, compared to other approaches, mangrove restoration is an economically viable solution for coastal protection.

### BEACH REPLENISHMENT

CLIMATE INFRASTRUCTURE CAN DO MORE THAN PROTECT



A beach in Miami-Dade County

Artificially enhanced beaches are a very real and viable alternative to disappearing coastlines. Man-made beaches involve extending the existing beach, often with more structural reinforcement than just sand, creating new coastlines and, in ideal conditions, restoring the extent and elevation of ocean shorelines to their previous state. Materials matching the local character (e.g. appropriate consistency of sand and native dune vegetation) are used to give the appearance of a naturally occurring beach. Man-made beaches, and restored beaches, can be economically beneficial by boosting tourism, and can also create a barrier against rising waters or high waves. Beaches can also be nourished, to prolong their lifespan. By adding natural sediment to widen the beach, the distance from storm surge to developed area is increased, reducing the likelihood of destruction. Restored beaches and dunes help absorb wave energy and storm surge and reduce the likelihood of damage to built areas. Sediment in nourishing projects is usually acquired from nearby areas. Special care must be taken to prevent these areas from being damaged, while ensuring coastal life remains safe.

## WATER CONTROL STRUCTURES

BALANCING FLOOD PROTECTION & WATER SUPPLY



Water control structure on the Everglades.

Water control structures are used to regulate the flow of water as part of a water management system. Gates and pumps are typically automated and are controlled by the existing conditions of water patterns. Gates have already been integrated into Florida water management districts and play a major role in the Central and Southern Florida flood control system to convey high water levels via canals from the land to the coast. These water control structures also help maintain water levels in natural areas like Everglades marshes, and protect drinking water wellfields from coastal intrusion by recharging the aquifer. Most water control structures and weirs and salt intrusion barriers.

## RAISING LAND

BUILD STRONGER, SAFER, HIGHER



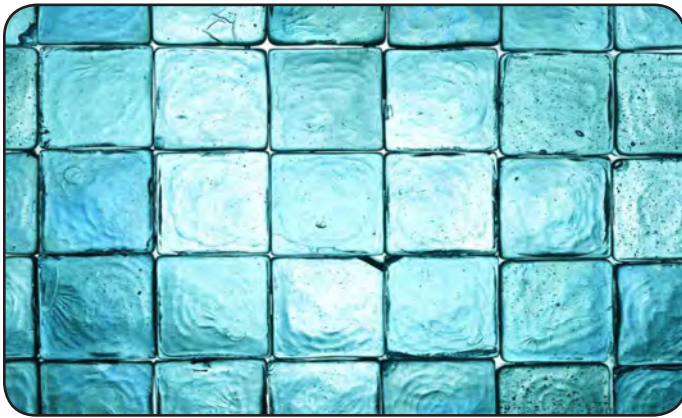
After Hurricane Sandy A1A in Ft. Lauderdale was washed away. The new road is higher & lined with walls.

Cities sit on layers of history because structures, roads, and even the groundplain itself in many cases, has been incrementally elevated for various environmental or climactic reasons. FEMA flood regulations mandate the elevation of new structures in flood prone areas. New flood zones will be created as the water rises.

Elevating roads above the floodplain will help them stay passable in times of high water events. In some cases, like the Tamiami Trail, raising roads can help to restore natural flows of water and allow animals to pass unimpeded as they historically could. In other cases, low-lying roads that flood often need to be raised so they stay passable in times of storms and keep businesses and homes reachable. This can have some adverse affects on adjacent land. When the roads are raised, excess water still needs to go somewhere, if adjacent land is still low-lying, it will receive the water that once flooded the road. Even still, raising the land and surrounding roads should be part of the scope of work of every new project in Southeast Florida.

## ICE WALL

(YES, ICE WALL)



Ice walls are not made of blocks of ice but by freezing existing water systems under the land.

Faced with the possibility of devastating groundwater pollution following the Fukushima nuclear reactor meltdown, the Japanese government formed a plan to create an immense ice wall below the earth's surface. Not quite a true wall of ice, the wall is actually a network of pipes containing coolant at temperatures below -40 C. The result is a vast aquifer that keeps water in. A similar method could be used to do the opposite: keeping rising sea levels from coming up under the subsurface of the land. Ice walls have been proposed in the mining areas of Lee County, Florida to prevent the “draw down” causes by mining pits.

The concept of an ice wall is experimental, they are highly dependent on energy and may have results other than what is anticipated. However, innovative practices like these in very select locations may become more vital for the continued success of South Florida.

## REINFORCING BRIDGES

WE'RE A REGION OF BRIDGES (AND THEY'RE VULNERABLE)



Barber Bridge, Vero Beach, Indian River County

Bridge failure can prove to have devastating effects, isolating communities and making movement nearly impossible. Bridges may be particularly susceptible to storm surge and erosion from repeated exposure. Bridges should be reinforced in areas facing significant natural disasters as a preemptive measure to preserve the infrastructure of a region. The Federal Highway Administration has established specifications for bridges in locations vulnerable to storms. Existing bridges should be reinforced to avoid future damage, and new constructions should follow the engineering requirements as recommended by the Federal Highway Administration.

Stop building! Preserve rural areas. They are the low-lying areas likely to flood anyway.



People need to see win-win climate change solutions like protecting the shoreline with more beaches.

## PUMPS

OUR REGION LEARNED TO MOVE WATER EARLY



Outflow from a pump station

Water control structures in Southeast Florida have historically relied on gravity systems to move excess stormwater toward the Atlantic and the Everglades. These systems are becoming less effective as the sea level rises in low-lying areas and will need to be retrofitted with pumps to help move the water from areas inundated with storm water to water storage areas and natural bodies of water that can manage the excess water. Pump stations, rather than a gravity-based systems can also be used to remove sea water. New systems of pumps should be carefully considered.

## BACK-FLOW PREVENTERS

KEEP THE RISING TIDE AT BAY

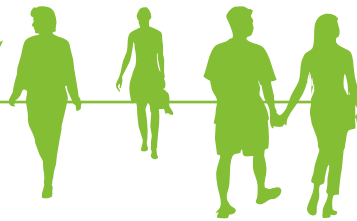


Back-flow preventer

Back-flow preventers at the outfall points of municipal storm water systems are used by municipalities to prevent the rise of seawater up from the ocean or other waterways.

In the City of Miami Beach storm water flows to catch basins through large pipes into outfalls along the Biscayne Bay. When the sea level rises water flows more slowly or even flows from the water bodies to the streets. Currently Miami Beach is subject to tidal flooding when water levels rise. Back-flow preventers have been recommended as part of a system upgrade. Many communities in the region have back-flow preventers already in place.

Use public outreach, public policy, education and communication for climate change awareness.



Prepare and protect from climate change with water supply management, infrastructure, natural systems, health, sustainable communities including local farms, and risk reduction and emergency management.

## LEVEES

### AN ANCIENT TECHNOLOGY



Herbert Hoover Dike, Lake Okeechobee

Levees are an embankment which regulates water levels. It is usually earthen and often parallel to the course of a river in its floodplain or along low-lying coastlines. While they provide protection in cases of storm surge they could not provide against a slow rise of water underneath the region's porous limestone.

Levees are also referred to as dikes and the "Herbert Hoover Dike" is located around Lake Okeechobee. The 100 foot wide levee surrounding Lake Okeechobee is a part of the Florida Trail. There is a well-maintained paved pathway along the majority of the perimeter. It is used by hikers and bicyclists, and is wide enough to accommodate authorized vehicles.

It must be noted that the Herbert Hoover Dike is at great risk of failure. Therefore it is of utmost importance to complete federal projects to improve its structural integrity. Once strengthened the dike will also allow greater flexibility for storage of flood water in the lake.

### SCALE OF IMPLEMENTATION

REGION

## STORMWATER INJECTION WELLS

### DEEP STORAGE

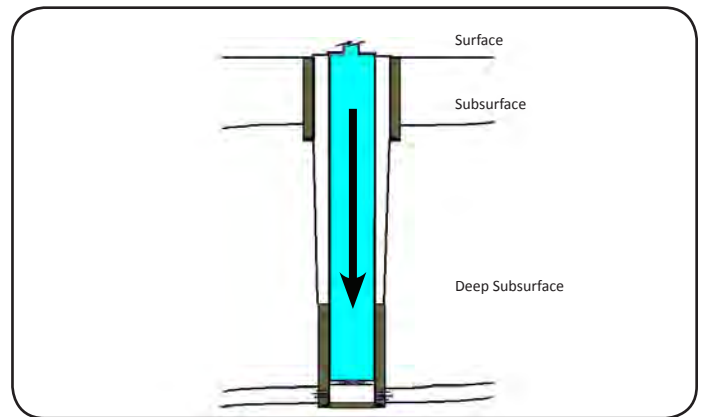


Diagram of injection well

Stormwater injection wells can be used for drainage and recharge of freshwater into the salt-intruded aquifer, thus increasing the underground amount of freshwater, the freshwater head, which holds back the salt water intrusion line. Injection wells are drilled directly into the aquifer, directing storm water downwards and away from sensitive surface water bodies. Injection wells are particularly effective in urban areas where there is not enough room for swales or retention ponds. This makes injection wells useful for flood control as well. The intake levels of wells can be controlled, making it possible for injection wells to handle overflows and pump water away from the surface. Injection wells have their negatives. Heavily polluted surface water can result in increased contamination of aquifers, requiring greater water treatment and potentially resulting in significant health hazards. Pollutants can also reduce the efficiency of the well, making it less useful for flood control.

## RIP RAP WALLS

UBIQUITOUS IN THE REGION (BUT WE'LL NEED MORE)



Rip rap along a shoreline

Rip rap walls can be an affordable and simple method of protecting shorelines from storms. Rip rap walls are constructed by piling coarse, angular rocks to create a sloping wall that absorbs wave energy instead of reflecting it, thereby preventing erosion. Though they can be fairly inexpensive and easy to maintain, they are a less beneficial option than natural vegetation which protects the soil along moving water sources more effectively. In South Florida, especially in tidal waters, riprap is generally required instead of seawalls because it absorbs energy instead of reflecting it, and can provide habitat for some intertidal marine life.

## HIGHER SEA WALLS

PROTECT BY INCREASING THE SIZE OF EXISTING WALLS



Sea walls on Biscayne Bay in Miami-Dade County

Sea walls are large scale constructions built along a coastline to protect from rising waters and destructive waves. In South Florida, because of permeable limestone geology seawalls may not provide much benefit for long-term increase in sea level however, it is impossible to deny their short-term and mid-term efficacy. In the long-term it is not higher seawalls that are needed, but building up the land behind the seawalls where seawalls already exist.

Sea walls inhibit the natural patterns of tides and sediment exchange, they eliminate coastal dunes, mangroves, and wetlands and the ecological and erosion control benefits they provide. Sea walls are generally a controversial solution, and should not be considered as a first line of defense unless where necessary. In some areas, such as aquatic preserves like Biscayne Bay, new or replacement seawalls are currently prohibited by state and local regulation.

# CLIMATE & ENERGY RESILIENCE TOOLKIT

## MITIGATION APPROACHES FOR CREATING A MORE SUSTAINABLE FUTURE

### ELECTRIC VEHICLE CHARGING STATIONS



Ft. Lauderdale, Broward County

Electric Vehicles become more practical for ownership when the infrastructure for their use is in place. The majority of charging takes place at home. Work place charging is also critical. However, there should be a concerted effort to install electric vehicle charging stations throughout the Southeast Florida region, particularly near governmental buildings and facilities.

### ENERGY-EFFICIENT DESIGN

#### USE OF NATURAL FEATURES



Ft. Pierce, St. Lucie County

When it comes to efficiency in design, it is of utmost importance to consider the long-term ramifications of design choices. Fixtures such as doors, windows, heating, cooling and water selected for efficiency may be more expensive short term, but the energy savings and sustainability aspect make up for the immediate cost. Suggestions such as more advanced insulation, and more natural cooling methods have been heavily outlined in a number of literature, but energy efficiency must be a more holistic process. A net zero emission building an hour away from the nearest city will ultimately provide less benefit than the less efficient building along major transit routes.





Plan for sustainable communities that include local farms, risk reduction and emergency management, transportation, energy and fuel management, and comprehensive planning.

## SUSTAINABLE BUILDING MATERIALS

SOME MATERIALS ARE MORE NATURAL THAN OTHERS



Key West, Monroe County

Building materials provide the greatest benefit when they can be sourced locally and sustainably. There is no single set of benchmarks for sustainable materials, but they are often produced within 500 miles, sturdy to avoid constant replacement, and typically follow the three R's of reuse, reduce and recycle. They should also be produced with the least amount of energy possible (e.g. no plastics) and should not be toxic. Sustainable materials veer primarily towards naturally occurring materials that can be replenished frequently and safely.

## GREEN BUILDING STANDARDS

LEED CERTIFIED



LEED Symbol

The Leadership in Energy and Environmental Design, or LEED standards, are a major component of sustainable smart growth. Widely respected and considered to be the main benchmarks of sustainable growth, more communities are working to wholly adopt LEED. This does not mean however, that it is without criticism. LEED standards have faced disapproval from both extremes of the spectrum, with some saying it is too aggressive, and others saying it is not nearly comprehensive enough. Ultimately, LEED is a useful tool for providing long-term benefits to the community, and should be implemented as much as possible, while retaining sight of its limitations.

So many of our region's institutions and agencies are resistant to real change.



Local governments should lead by example. County-owned buildings should meet the highest environmental standards.



## RENEWABLE ENERGY TECHNOLOGIES

THE ULTIMATE GOAL; AMONG MANY INTERIM STEPS



Courtesy of Southeast National Marine Renewable Energy Center

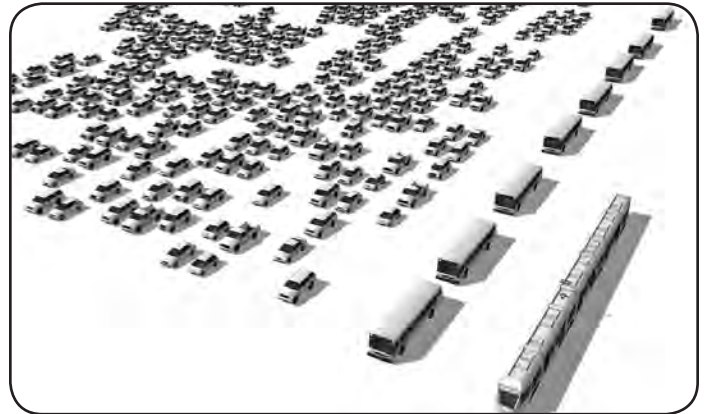
An underwater turbine

Renewable energy is generally defined as energy that comes from resources which are continually replenished such as sunlight, wind, rain, tides, waves and geothermal heat.

Florida Atlantic University's Southeast National Marine Renewable Energy Center (SNMREC) is currently collaborating with university and industry partners to research, fabricate and test promising hydro-kinetic power technologies to harness the ocean's vast energy potential. Vast underwater energy farms utilizing the power of the Gulf Stream may be a part of the region's energy portfolio.

## ENERGY CONSERVATION

ITS AMAZING HOW MUCH WE CAN ACCOMPLISH



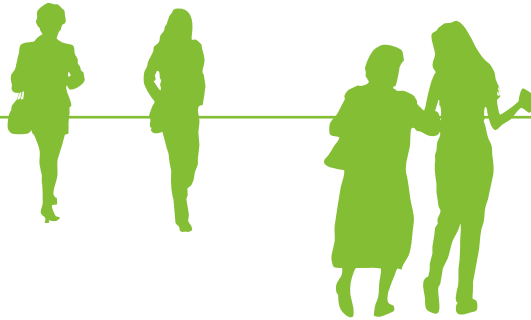
In terms of moving people, 400 cars = 8 buses = 1 train

Energy conservation refers to reducing energy through using less energy. Driving less is an example of energy conservation. Energy conservation differs from energy efficiency in that the goal of energy conservation is to avoid using the technologies that use energy wastefully altogether rather than maximizing the efficiency of those technologies. In terms of net energy conservation cities where people walk and use transit are "green solutions." The most cost effective way to reduce energy consumption is through conservation.

### SCALE OF IMPLEMENTATION

REGION

CITY, TOWN & VILLAGE



Southeast Florida should work as a region to secure state and federal investment and implement actions that leverage off and complement each other.

## DARK SKY



Southeast Florida night sky

Light pollution in southeast Florida affects the rhythms of natural life in plants and animals as well as wastes energy by emitting additional light for no reason. Efforts to control light pollution with dark sky ordinances should be undertaken as a region. By utilizing only the light that we need and shielding it from emitting light where it is not needed, lower wattage bulbs can be used, saving energy.



# INCLUSIVE REGIONAL LEADERSHIP

## FIRST PRIORITIES FROM THE INCLUSIVE REGIONAL LEADERSHIP & OPPORTUNITY WORKGROUP

### PRIORITIES

1

Continue the discussion on creating regional leadership organizations focused on resolving major regional issues

2

Regional leadership organizations should be politically independent

3

Regional leadership organizations should advocate with one voice for the region

4

Establish regional coalitions to address regional issues

### TOOLKIT ITEMS

Community Involvement

A Unified Voice for the Region

University Affiliation

Local Summits & Workshops



Image Caption

## Creating an Inclusive SE Florida Regional Leadership Organization

Regionalism is a widely-used term these days, especially in Southeast Florida. It's one thing to talk about regional cooperation, but it's another entirely for local officials to act and think regionally. Try as they might, municipal and county governments – which often hold the planning and taxing authority – are simply not set up to function regionally.

Other parts of the country have found greater success in effectively dealing with regional issues through the formation of a regional leadership organization, usually lead by civic leaders, specifically created to advocate for implementation of regional solutions. Southeast Florida lacks such a regional leadership organization to discuss and advocate for concerns that cut across governmental jurisdictions. If the Seven50 goals and priorities are to become realities, our region needs an organization focused on advocacy of these and other regional challenges.

Successful regional leadership organizations across the country were analyzed as part of the Seven50

work program. Six effective models were examined, all of which operate, as one organization put it, “in the white space on the organizational chart.” All six groups were created by civic leaders committed to addressing tough issues transcending local jurisdictions.

The board members of these organizations represent a region's geographic and economic diversity. They advocate for major regional projects and needs, often providing the political cover elected officials need to make tough decisions. Their goals mirror Seven50's priorities, as they advocate to enhance economic prosperity, provide greater housing and transportation choices, effectively manage natural resources, and improve outdated infrastructure.

The time has come to create such a regional voice here in Southeast Florida, if we are to prosper in our 21st Century, global economy. Will you step forward to volunteer?

### Carla Coleman

Executive Director, Urban Land Institute,  
Southeast Florida/Carribbean



Regional leadership needs to be both public and private. Elected officials can change, and we need consistency.

1

## Continue the discussion on creating regional leadership organizations focused on resolving major issues

Encourage our public and private leadership organizations to create a Regional Leadership Advocacy Organization focused on resolving major issues. When we study regions across the country that succeed on region-wide, cross-jurisdictional projects, we find they are often led by Regional Leadership Advocacy Organizations with specific qualities that engage in specific roles.

### ***The Qualities of Successful Regional Leadership Organizations***

Successful, enduring Regional Leadership Advocacy Organizations were usually created to advocate for specific projects like highways, ports, and new civic centers. The organizations filled the leadership gap in order to build something the region needed or to deal with the most pressing issues of their time. Most Regional Leadership Advocacy Organizations were private-sector driven, although in every case public-sector partners played an important role.

### ***Private-Sector Led, Public-Sector Involvement***

Some of the most noted non-governmental regional organizations include Joint Venture of Silicon Valley; the Regional Plan Association of New York, New Jersey, and Connecticut; and the Metropolitan Planning Council of the Chicago region. The Chicago region stands out in any discussion of regionalism because it has been planning at the regional scale for over one hundred years.

The *Plan of Chicago* in 1909 was created at a time when Chicago was becoming the center of the modern world while at the same time the City was plagued by growing poverty, unsanitary living conditions, and a plummeting quality of life. Architect Daniel Burnham had designed the plan for the Chicago World's Fair in 1893 and was commissioned by the private-sector Merchants Club and Commercial Club of Chicago to create a plan for the region. The *Plan of Chicago* included specific projects that in-

cluded a barrier island waterway park, a new city hall, a regional network of tree-lined boulevards and a system of playgrounds and parks. Later the Chicago Plan Commission, a 328-person board of business and social interests, was created to promote and implement the Plan. Considering its ambition, the *Plan of Chicago* was enormously successful with a high degree of implementation. Between 1912 and 1931, Chicagoans approved over 80 plan-related bond issues covering over 20 different projects.

The Chicago Plan also set the framework for regionalism. Today the Chicago Plan Commission is a branch of local government; however another group has formed in the spirit of the original Commission. The Metropolitan Planning Council works today as an independent, nonprofit, nonpartisan organization of 18 counties and 469 municipalities. The Metropolitan Planning Council continues the Chicago Plan Commission's original mission of providing an independent voice that drives regional growth and advocates for a vibrant, livable city.



Walk Disney World

## Planning Florida's Future

Fifty years ago a visionary came to Florida and foresaw a future for our State that no one else could have imagined. In November 1963, as Walt Disney flew above the lakes, swamps, and pastures of central Florida, he did not focus on prevalent cattle and agriculture below him. Instead Disney saw a well-developed road network (including the planned Interstate 4 and the Florida Turnpike), multiple airports (i.e., Kissimmee Field and McCoy Air Force Base - later Orlando International Airport), and an opportunity to change the world. In that moment, Walt Disney found the location for his "Florida Project" which would later become the location of his dream... "Disney World".

The State of Florida supported Disney's vision in a number of ways:

1. The statutory creation of the Reedy Creek Improvement District allowed bonds to be issued to build infrastructure,
2. FDOT and various turnpike, expressway and aviation authorities built and expanded the roads and airports necessary to serve the new development.

As a result, Walt Disney World transformed both Orlando and Florida in its wake. Orlando is now the most visited city in the world. Florida welcomed 90,000,000 visitors last year and has created a tourism industry that is second to none.

Who are Florida's next visionaries? What will be Florida's next great industry? Will Miami become one of the great cities in the world? These are just a few of the questions that the Seven/50 Committee has explored during this planning process. The answers are not readily apparent and may be subject to debate.

Two final questions come to mind:

- What do you think are the keys to Florida's future?
- What would Walt Disney say?

### William Perry

Managing Shareholder, Gunster Law Firm



## 2

### Regional leadership organizations should be politically independent

#### **Utilize a Politically Independent Board of Directors**

A typical arrangement for Regional Leadership Advocacy Organizations is to couple a 40 to 50 person board of directors with a smaller executive committee that is empowered to make recommendations on behalf of the board. Board members include private-sector leaders from organizations that can transcend geographic boundaries and local political considerations.

The board must understand that the future of the region is determined more by what happens in the region than by national politics. The ultimate loyalty of the board of directors cannot be politically partisan.

*“A Boundary Crosser is a person who connects people across boundary lines that traditionally divide community. They are citizen leaders who extend past their familiar territory, whether that’s government, non-profits, business, ethnic groups, religion, or neighborhoods to become community builders.”*

— Sarasota County Openly Plans for Excellence (SCOPE)  
[www.scopexcel.org/boundary-crosseraward.html](http://www.scopexcel.org/boundary-crosseraward.html)



Get rid of unnecessary business regulations that hamper trade

## 3

**Regional leadership organizations should advocate with one voice for the region**

Successful regional advocacy organizations must be able to rise above local and partisan politics and act in the public interest. They must provide a safe forum for regional conversations. Trust and relationships are built by working toward a common agenda and shared goals. These organizations provide an important connection between their diverse participants across various sectors to work toward common goals.

***Lead Through Sound Information***

Regional advocacy organizations are valuable to the degree they provide trusted, pioneering research on timely issues that allows informed decision-making. The research must provide a holistic view of long-term consequences and incremental impacts.

***Be a Good Strategic Communicator***

Investment in continuous education, public outreach and communications to a broad audience are key practices for successful regional organizations. All forms of media, events, and eye-catching publications are key tools.

***Provide a Regional Voice***

Effective regional advocacy organizations provide a unified voice on regional issues and must advance public policies and investments critical to their region's quality of life and economic success. The regional advocacy organization must create an impressive list of accomplishments. Important to the organization's influence is that its voice comes from the region's top leaders from different geographies, political parties, and interests.



I want our leadership to have our best interests in mind. The conversation needs to be open-ended, not behind closed doors.

## 4

### Establish regional coalitions to address regional issues.

There are many parts to the Seven50 Prosperity Plan, everyone will need to take piece to make it happen. Regional coalitions should be formed that involve organizations interested in specific topic areas.

Restoration of the Everglades, building transit-oriented development, coordination of freight traveling the entire region, and even regional tourism rely on cross-county efforts.

Many municipalities lack capacity and need greater access to information and resources as well as support of coordinating entities at higher levels of government. Regional leadership organizations and regional coalitions should seek to provide that support and cross-communication.

At the same time, when it comes to implementation of any regional plan, especially climate change adaptation, resources should be devolved to the lowest level of government –such as the city or town – that can demonstrate capacity to both manage and implement these funds.



Our entire region faces many of the same issues. We should have a consensus of our goals as well as our tactics for the best growth strategy.

# LEADERSHIP TOOLKIT

## APPROACHES FOR CREATING A MORE SUSTAINABLE FUTURE

### COMMUNITY INVOLVEMENT



Broward County Roadshow

The desires of the community are a crucial aspect of planning and design. So important in fact, that soliciting input should be among the first acts of any planning process. The initial gathering of community input serves as the basis of the plan, guiding it along in further stages. Keeping the planning process open allows the public to remain informed and ensure it is progressing in the way the community desires. Even within the public process, emphasis should be heavily placed on benefitting the majority of the population rather than catering to the most vocal. To assist in this, planners should use all possible mechanisms to reach as many people as possible, from the standard town meeting to using emerging technologies.

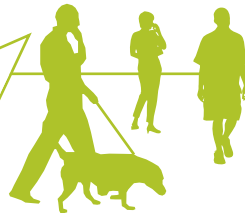
### A UNIFIED VOICE FOR THE REGION



Developers are an essential part of the planning system.

Plans should reflect the influence from all sectors, including private businesses. Non-profit organizations and independent groups are capable of producing as much change as formal planning efforts. The Burnham Chicago Plan of 1909 was initiated by a group of Chicago businessmen, who hired architect Daniel Burnham to turn Chicago into a world-class city. The plan was marketed to leaders in all sectors, particularly civic and governmental. The result was a plan backed by the majority of decision makers, allowing it to be implemented quickly and successfully. The Burnham plan is still an influential element of planning in Chicago. The role of the private sector should not be minimized, as it is a vital aspect of the planning process.

Regional leadership needs broad participation but a way to opt out so we can accept the differences and work through them to flourish.



I am in favor of decisions being made locally



## UNIVERSITY AFFILIATION



Universities can integrate the community into decision-making processes.

An excellent way to introduce our region's next generation to the goals of this plan is to integrate the plan into a higher education curricula. More than just a case study, the expectation is that the Seven50 initiative will continue into the future. The region's educational institutions could play an important role in plan implementation, helping the Seven50 initiative to continue into the future.

To begin the conversation with the universities Seven50 held a regional summit at Miami-Dade College. The plan was later presented to architecture students at the University of Miami, and Seven50 joined planning students at Florida Atlantic University on Park(ing) Day in 2013.

University affiliations have already begun with Steve Sauls, the Vice President of Governmental Relations at FIU presiding on the executive committee for Seven50 and coordinating efforts with FIU.

## LOCAL SUMMITS & WORKSHOPS



Haitian Summit

Locally organized initiatives such as the Seven50 sponsored Haitian Summit (HAPC) or the South Miami Lean in: New Leaders Event are key tools to identify, nurture and support future leaders. Local governments and other civic, private and public agencies should support all non-political community efforts aimed at discussing and/or addressing issues consistent with Seven50 that depend on local leadership to succeed and/or provide a forum for future leaders to emerge.

4

# IMPLEMENTATION

Implementation of Seven50

Early Implementation Success

The Seven50 Difference: Tomorrow

Regional Initiatives

# IMPLEMENTATION OF SEVEN50

Seven50 exists as a set of future trend analyses, planning strategies, and advisory recommendations offered as potential solutions to common challenges facing the region today and likely to be confronted in the future. Seven50 also provides a long-term, shared vision for the future and measurable goals in specific subject areas.

The regional vision comprehensively deals with:

- Improving the large-scale structure or pattern of the region's physical, economic, and social environment;
- The growth and formation of more self-sufficient and resilient towns, cities, and communities;
- Maintenance of the natural environment, water resources, and the countryside;
- The layout of a multimodal transportation network;
- Strengthening the region's role as a global hub for trade, visitors, talent, innovation, and investment; the relationship between work and households;

- The formation of suitable public and private institutions for education, training and;
- Strong neighborhoods and communities.

Seven50 is not a self-executing document and is not backed by any force of law. Implementation of the Seven50 vision and its goals and planning strategies is a voluntary undertaking. It will require broad support from a great number of diverse groups working together, including: local government, state and regional planning agencies, private entrepreneurs, public and private development organizations, academia, civic and non-profit groups, and individual citizens. It is clearly recognized that the Seven50 vision can never be implemented or built overnight. It will require patient incremental steps, designed in such a way that every planning decision and initiative sanctioned by these groups and by citizens helps to build a stronger, more resilient region.

## LOCAL GOVERNMENT COMPREHENSIVE PLANS & ACTIONS

Implementation of Seven50 can occur in a variety of ways. However, broad achievement of the vision and recommended planning initiatives should be furthered by inclusion in local government comprehensive plans, and through other actions of local government, and the private sector.

Local comprehensive plans serve as the business plan for how local governments will operate and how they will respond to various private and public initiatives. These plans are carried out through a set of land development regulations, accompanied by a capital improvements program. They also serve as a promise to citizens about the level of public services, quality of life, and protection of private and public assets they can expect from their local government. Local government decision-making and law remains a powerful force in shaping the built and natural environment and quality of life.

Seven50 charts several general planning strategies for addressing future trends and regional issues. If deemed desirable by individual counties and municipalities, these strategies will be implemented at the local level. Implementation may require changes to land development regulations and amendments to local comprehensive plans, depending on the specific conditions and needs of each local government. At the same time, many of the ideas contained in Seven50 are already found to some degree in local plans. Regardless, the ultimate decision to amend local plans and regulations rests solely with the local government.

Seven50 also points out shared challenges and opportunities which might be better dealt with by working together with other units of government and/or the private sector around the region. Implementing regional ideas and solutions by working with your neighbors cannot be mandated. Implementation through mutual cooperation will occur when it makes sense for all affected parties to work together.

## REGIONAL PLANNING COUNCILS (RPCS)

Under Seven50, regional planning councils remain advisory in nature. Even so, these “councils of local government” have several avenues for furthering Seven50 initiatives. This can occur as a result of their own program activities, other regional and state agency actions and activities, and through facilitating private sector initiatives and leadership consistent with Seven50.

Some of Council’s work program activities that will assist with implementation are listed below.

- Economic development planning
- Preparation of special planning and development studies
- Serving on task forces and committees involved in regional planning issues
- Emergency preparedness planning
- Regional transportation planning
- Providing neutral ground in convening public and private sector leaders
- Development of regional impact (DRI) review process
- Intergovernmental coordination and review process (ICR) Dispute resolution process



## METROPOLITAN PLANNING ORGANIZATIONS (MPOS)

(MPO) is a federally mandated and federally funded transportation policy-making organization in the United States that is made up of representatives from local government and governmental transportation authorities. Federal funding for transportation projects and programs are channeled through the MPO planning process.

- The MPOs play a role in planning and implementation of transit projects and overcome the very real obstacles of operation and maintenance costs which are not discussed in this report which intentionally concentrates more on the “what” and less on the “how” of improving the region.
- There are six MPOs in the region. To describe the work of the MPOs we can use of one MPO’s recent accomplishments. The Broward MPO: leads the Wave Streetcar project in downtown Fort Lauderdale, is working on a Transit Oriented Development Project at the Cypress Creek TriRail Station (which is conceptually depicted in a rendering in this report; assists in the siting of 5,000 housing units in downtown Fort Lauderdale, is working on the Port Everglads Florida East Coast Rail Road on-port facility; and helps fund a water taxi system in Broward. These are projects in complete accordance with the goals of the Seven50 Project.

## SEVEN50 COALITIONS

Through the seven50 process a series of coalitions have been identified that should be formed to further address region priorities and issues. These coalitions include the southeast florida waters coalition, the balanced mobility coalition, the climate change coalition, the education coalition, the economic competitiveness coalition, the opportunity coalition, and the data coalition.

## PRIVATE ENTREPRENEURSHIP & PARTNERSHIP

Regional planning councils encourage and enable local units of government and the citizenry to assemble and cooperate with one another and with representatives of major private economic interests. Implementation will require this kind of collaboration, advocacy, leadership and action by the private sector consistent with Seven50.

In recognition and support of this notion, Seven50 is recommending that representatives of regional leadership organizations meet together on a regular basis for the strategic purpose of implementing Seven50’s regional initiatives. This suggestion is modeled after similar successful leadership alliances that were established in Silicon Valley, Chicago, and Los Angeles metropolitan areas to implement regional economic initiatives. More information about these private sector-led implementation organizations can be found at [Seven50.org](http://Seven50.org). Seven50 identifies economic development issues and initiatives where a competitive advantage can be gained by private leadership organizations working together. The regional planning councils and others can help facilitate the involvement and leadership of the private sector on resolving these issues and carrying out selected Seven50 initiatives.

## INDICATORS & MEASURES

Benchmarks and metrics have been developed to evaluate progress in implementing Seven50. Over 50 factors have been established for measuring the pace of implementation. A detailed report on Seven50 progress indicators and measures can be found in the *Scenario Report* at [Seven50.org](http://Seven50.org).

## STATE & REGIONAL PLANS & ACTIONS

The last few years in Florida have been marked by several significant state/regional agency and private sector partnership efforts recognizing the value of regional planning, visioning, cooperation, and investment. Actions to implement all of these state-wide and regional plans will further implementation of Seven50. Some highlights of these efforts include:

### FLORIDA'S FUTURE CORRIDORS PLAN FLORIDA DEPARTMENT OF TRANSPORTATION

This is an ongoing statewide planning initiative to plan for the future of major transportation corridors critical to the state's economic competitiveness and quality of life over the next 50 years. This initiative builds on the 2060 Florida Transportation Plan which calls for a transportation system that maintains economic competitiveness by meeting current and future transportation needs for moving people and freight. This initiative will utilize regional forums, scenario planning, and a cross-acceptance process to determine statewide connectivity and mobility needs, and determine whether significant transportation investment in proposed corridors is consistent with statewide policies and regional and community visions and plans like those developed under the Seven50 process.

### STRATEGIC PLAN FOR ECONOMIC DEVELOPMENT FLORIDA DEPARTMENT OF ECONOMIC OPPORTUNITY

This plan utilized regional stakeholder forums, the Florida Chamber Foundations Six Pillars framework, Comprehensive Economic Development plans from the 11 Regional Planning Councils, early policy planning work from the Seven50 effort, and other State plans to develop statewide goals, objectives and strategies for establishing Florida as, "a globally competitive mega region and the world's best place to live, learn, play, work and do business." The Seven50 strategic regional planning initiative is specifically identified in the Plan as a best practice for furthering State economic development goals in the Southeast Florida region.

### FLORIDA'S FREIGHT MOBILITY & TRADE PLAN FLORIDA DEPARTMENT OF TRANSPORTATION

This plan utilized regional listening forums and scenario planning to develop policy and investment strategies to establish the State's long-range vision and plan for enhancing rail passenger and freight mobility, and for becoming a global hub for trade, logistics and export-oriented manufacturing. Input from the Seven50 planning process was effective in influencing the plan to the benefit of the seven-county Southeast Florida Region.

### SIX PILLARS 20-YEAR STRATEGIC PLAN FLORIDA CHAMBER FOUNDATION

This plan utilized a "caucus system" of business leaders and issue experts from around the State along with regional forums to establish its comprehensive 20-year strategic plan and statewide vision for, "more vibrant communities enjoying prosperity and high-paying jobs realized through competitive advantage in a global economy." It established the Florida Scorecard consisting of more than 120 metrics for measuring progress towards the stated goals and objectives. Part of the Seven50 process utilized the Six Pillars planning framework and goals, policies, and indicators described in the Foundation's 20-year plan.

### COMPREHENSIVE EVERGLADES RESTORATION PLAN SOUTH FLORIDA WATER MANAGEMENT DISTRICT

CERP provides a 30-year framework and guide to restore, protect and preserve the water resources of central and southern Florida, including the Everglades. This regional planning initiative covers 16 counties over an 18,000 square mile watershed. The goal of CERP is to capture freshwater that now flows unused to the ocean and the gulf and redirect it to areas that need it most. The majority of the water will be devoted to environmental restoration and reviving a dying Everglades ecosystem. The remaining water will benefit cities and farmers by enhancing water supplies for the south Florida economy. Seven50 considers CERP and efforts to accomplish its goals a "cornerstone" regional issue that can only be resolved by the entire region working together for that purpose.

## PROTECTING PROPERTY RIGHTS IN A CONSTITUTIONAL MANNER

Associated with the rapid population growth in the Region is the expansion of needed infrastructure, such as roadways, water, and sewer plants, and recreation and lands containing significant natural systems. Quite often the land needed for public infrastructure is privately owned. It is the dictate of responsible government to ensure that the impact of public uses on private lands is minimized and that when the use of privately owned land is negatively impacted in an unconstitutional manner, the private landowner should be fairly compensated in a timely manner.

The issue of property rights can be divided into two categories. The first deals with instances discussed above, where it is determined that the public's best interests and shared community-wide goals can be achieved only through public acquisition of privately owned lands. The second aspect of property rights deals with the regulation of land. This occurs mainly through land regulations such as comprehensive plans, zoning ordinances, subdivision regulation, and building codes. All local governments have the authority to adopt such regulations where it is shown that they promote or guarantee the health, safety, and welfare of their residents.

At the same time, Florida has some of the most strict property rights laws in the nation, which must be abided by the local government.

# EARLY IMPLEMENTATION SUCCESSES

## SEVEN-COUNTY TRANSPORTATION MODEL MPOS/TPOS PARTICIPATED IN CREATION & EVALUATION

This is a valuable project for the counties and cities of the region as they will not have to pay to update the model next year when some of the region's TPOs/MPOs must begin their 2040 Regional Long Range Transportation Plans.

## CLIMATE COMPACT SEVEN COUNTY INUNDATION ASSESSMENT

This is a project done for all seven counties that identified inundation for one, two, and three-foot rises in sea level using the latest inundation models and GIS technology. This is work done at no cost to the counties and will enhance their ability to address potential impacts of sea level rise (accomplished through extensive County staff participation and cooperation).

## REGIONAL DATA WAREHOUSE

This is the most comprehensive data base for the region ever provided to the public and private sector. It will be accessible at no cost to local government. It provides a one-stop shop for data that will be useful in conducting local government and private sector business and identifying potential economic development opportunities – saving time and money. Better data should lead to better decisions. It also serves as another way of advertising that the region is open for business.

## FIBER OPTIC AGREEMENT WITH FEC INDUSTRIES & SEVEN COUNTY RESOLUTION

This Seven50 project will ensure the region has sufficient fiber optic capacity to grow the health care, bio/medical science, and transportation logistic sectors of our economy and will put the County and the Region in a better position to compete with the rest of the country and world.

## FDOT, SFRTA, FEC INDUSTRIES COMMUTER RAIL AGREEMENT

This Seven50 effort, brought together the region's two largest transportation planning organizations and Florida East Coast Industries. The purpose was to set in motion negotiations for reintroducing commuter and express passenger rail services of all kinds on the FEC railway, opening up the opportunity for passenger rail service between Miami to Sebastian and beyond.

## FLORIDA'S STRATEGIC PLAN FOR ECONOMIC DEVELOPMENT

Early Seven50 work on future trends, data collection and policy development provided the Florida Department of Economic Development (DEO) the basis for including goals, objectives and strategies benefiting Southeast Florida in their recent strategic plan. As such, the Seven50 effort is recognized by DEO as a "best practice" and is featured in their strategic plan.

## SEVEN50 CIVIC & LEADERSHIP ASSETS MAP

This interactive, Google-based map serves as a civic resource and service clearinghouse for the region. It provides a way for all citizens and users to connect with the region's civic and non-profit leadership organizations and networks by geographic and topic areas.

The Assets Map covers the following organizations and topic areas.

- Agriculture
- Climate Resiliency
- Community Assets and Culture
- Economic Development
- Education and Workforce Development
- Environment/Natural Resources
- Healthy Communities
- Housing
- Social Opportunity
- Transportation
- Other (e.g., faith-based, young professional organizations, civic clubs, etc.)

Full access to the map is through [Seven50.org](http://Seven50.org).

# THE SEVEN50 DIFFERENCE: TOMORROW

There are many reasons for a region as diverse as Southeast Florida to coordinate internally. Although each county will always retain its autonomy and opinions, there are issues that face our region that cannot be tackled one county at a time. We not only need inter-jurisdictional cooperation, but by joining together as a single voice on certain topics, the region can utilize its combined strength to leverage the state and federal sources to revise policy and award funding for the projects that really matter to Southeast Florida.

The following are some of the areas that could be coordinated as a region for a better future for everyone.



## A BALANCED INTERMODAL TRANSPORTATION SYSTEM RESULTING IN A “MODAL SHIFT”

Coordinating our rail lines, seaports, airports and highways will improve the region’s ability to be a hub for the transportation of imports and exports, bolstering and further diversifying our regional economy.

Keeping the region in motion is too much for any one organization. Public facilities, land use and transportation systems must be planned in an integrated way.

We envision a paved path for cyclists and pedestrians from Key West to Sebastian Inlet. Currently our region offers a patchwork of trails and there are a variety of ways to connect those trails. The surest route may be a path within the Florida East Coast railroad right-of-way which extends from Miami to Indian River County. A paved path was proposed in the early versions of the Department of Transportation’s commuter rail plans (a rail-to-trail plan) but the future of this path became uncertain when All Board Florida introduced its new Miami-Orlando passenger rail concept. As All Aboard Florida connects the region with rail, with municipal assistance it could also provide a trail to further connect the region.

Few other single projects could unite the region as much as a continuous path connecting all its cities.



## A UNIFIED LOCAL VOICE AT THE STATE & FEDERAL LEVEL

Speaking for the region means speaking for over six million people today and over nine million people by 2060. Working with the public regional leaders identify issues that unify the region, Seven50 provides the mechanism for expressing the region will.

While Seven50 has identified several possible initiatives in the future other issues will arise. Seven50 can be a voice for local and regional goals and aspirations in Tallahassee and a voice in Washington.



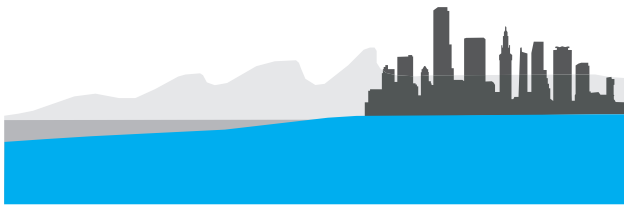
## A SUSTAINABLE FOOD & ENERGY SUPPLY

With such an immense boom in population expected in the next 50 years, establishing a secure food supply will be of utmost priority. South Florida contains the two biggest growing counties in the state, but a substantial amount of our food is still imported, whether domestically or internationally. Advancing the status of agriculture in South Florida will have a triplicate benefit. First, it will provide the ability to feed the expanding population. Second, a substantial amount of jobs will emerge from improving the agricultural industry. Agriculture is evolving constantly, and the emergence of technology in food production will lead to jobs across the entire education spectrum. Lastly, the increased demand and supply of Florida agricultural products will result in a greater dispersion of food in the region, rather than requiring new markets. The decreased shipping that follows will reduce the costs of agriculture, decrease emissions from one of the most notorious CO<sup>2</sup> and Methane heavy industries, and work to keep the South Florida economy internally strong and self-reliant.



## EXPAND HOUSING & JOB OPPORTUNITIES

The future will require a much more varied mix of housing options than our region currently provides. Families come in many more shapes and sizes than they once did. Seniors, younger people, new immigrants and the working poor have become statistically dominant populations in our region. The previous approach to public housing, isolated towers in the inner-cities have given way to a more integrated approach. As funding for subsidized housing market solutions to housing will be necessary including mid-size apartments, units above commercial, accessory dwelling units, and multi-generational homes. But housing is more than simple structure. Transportation needs, social needs, health needs are also part of the housing equation today and holistic approaches and complete “community” are sought.



**A RESILIENT REGION CAPABLE OF  
ADAPTING TO EXTREME CLIMATE CHANGE  
EVENTS & TRENDS  
(BEFORE DISASTER HITS)**

Through its extensive public process Seven50 has helped bring attention to the challenges of climate change and sea level rise. Seven50 helped fund the work of Climate Compact in the northern counties. Seven50 will continue to be an advocate for mitigation and adaptation in the region. The tools that were created as part of the process will continue to be enhanced.

Seven50 will also help lead the conversation on engineering solutions to adaptation which can even mean “retreating to the heart of town” and other compact cores. There are many unknowns in this sphere of science. The solutions that have worked elsewhere may not work as well here with our unique geology. **Solutions to climate change and sea level rise for our region may have to be invented by our region. This will require a tremendous regional focus.**



**A REGION RECOGNIZED AS A GLOBALLY  
COMPETITIVE HUB WITH OPPORTUNITIES  
FOR ENTREPRENEURSHIP & CAREER  
ADVANCEMENT**

Trade and tourism are the mainstays of the Southeast Florida economy. Today, trade and tourism are key drivers of the regional economy, with the region ranking first in the nation for the value of international cargo and the number of home-port cruise passengers, and among the top ten for international visitors, air passengers, number of containers handled, and the value of exports. Yet there is still work to be done to give the region international prominence while at the same time helping the small businesses that are the largest component of our economy and human capital which lives and works in the region.





## A RESTORED REGIONAL ECOSYSTEM (PROVIDING BENEFITS FOR NATURAL & BUILT ENVIRONMENTS)

The success of the seven-county region relies on the health of our environment. This is true for our day-today consistent economic activities, including agriculture, tourism, fishing, and recreation. It is also true however, for the long-term wellbeing of South Florida. Although the impacts of climate change have been heavily considered and discussed, the impacts of development on the environment have the potential to be more devastating, and can be seen right in front of us. Building South Florida entailed carving out our most precious natural resources, and diminishing elements of the environment that are not so easily replaced. Draining the Everglades and attempting to fundamentally alter the flow patterns of the Kissimmee River have only led to detrimental sociocultural and economic results.

All seven-counties contain regions constantly inundated by flooding, ruining infrastructure and driving away residents. While this is no doubt partly due to rising sea levels, a major contributor is the short-term planning principles that attempted to force the natural environment to work around human interests. Developing with nature, rather than against it, leads to resilient environments, where ecosystems flourish, as well as providing benefit to civilization.

Every sign points towards restoring our environment to the point where it is capable of thriving. The benefit of this is both guaranteed and multi-fold. Environmental resources are an obvious necessity. On a purely ecological level: a diverse environment is a healthy one, capable of responding to challenges, and providing all manners of services. Environments also play an essential role in protecting our built environment. Strong ecosystems guard from natural disasters, while also slowing long-term erosive effects on buildings, and minimize any extreme weather patterns. Ultimately, the future of the South Florida region will require an environmental effort.

# REGIONAL INITIATIVES

## COALITIONS FOR THE FUTURE

Building new strategies, transforming business models and adopting new ways of collaboration are critical to a more prosperous southeast Florida in the future. Common Regional Priorities have been identified. A Preferred Vision has been outlined. But the reality is that much of this vision will not be possible and our regional priorities will not effectively affect positive change unless we tackle a few, yet significant regional issues. In a region as large, diverse and complex as ours, no one organization or individual can do this alone. We need special coalitions of individuals and/or organizations. These coalitions should include representatives of nearly every segment of the community, depending upon the breadth of the issue. These individuals must share the common interest and agree to work together, understand, advocate, lead and address these core regional issues.

Seven50 strives to support existing and help launch new coalitions as well as establish a system by which interested or affected parties may join, participate or even lead these coalitions. The South Florida and Treasure Coast Regional Planning Councils commit to jointly support these coalitions for the future.

- Everglades & Waterways
- Balanced Mobility
- Climate Preparedness & Resilience
- Education & Workforce
- Economic Competitiveness
- Economic Opportunity

## CLIMATE ACTION PLAN



**7 Goal Areas**  
**137 Initiatives**



**4 Counties**  
**Regional Climate Action Plan**



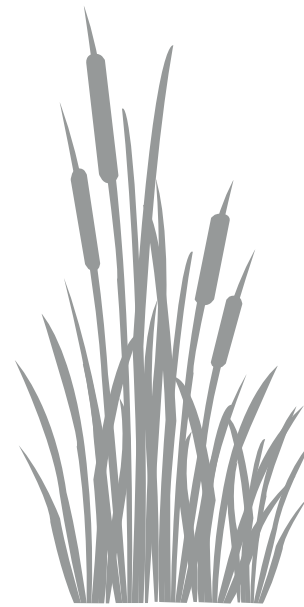
**2 Regional Planning Councils**  
**7 Livability Principles**

**local mitigation strategy**  
**- stormwater master planning**  
**- local comprehensive plan**

# LOCAL & REGIONAL ALIGNMENT OF PLANNING WORKING TOGETHER ON CLIMATE INITIATIVES

# EVERGLADES & WATERWAYS

Water is a common feature, resource and concern throughout the seven counties. Our region's relationship with water presents tremendous advantages and equally large challenges. The Seven50 vision and many of the goals suggested will not be achieved if the effort to modify the region's "plumbing system" is not successful. Our natural systems will not be pristine unless we stop polluting them. Our drinking water supply needs to be shielded from the impacts of sea level rise. We need to find a balance between home affordability and probable flooding.

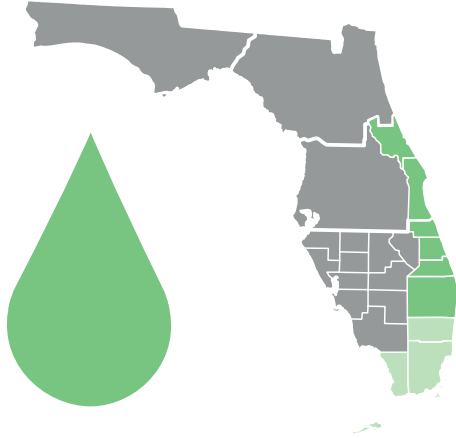


## EVERGLADES RESTORATION

There is existing regional leadership in place for the Comprehensive Everglades Restoration Plan (CERP) lead by the South Florida Water Management District and the US Army Corps of Engineers. The US Congress has also set up the South Florida Ecosystem Restoration Task Force to provide coordination among levels of government and native America tribes. The Water Resources Advisory Commission provides an ongoing venue for other stakeholders to provide comment and the Everglades Foundation and the Everglades Coalition actively support funding requests to the state and federal governments. Today, the larger Everglades ecosystem has evolved into special planning and implementation programs for the Northern, Western and Central Everglades. In reality the Seven50 area encompasses the Eastern Everglades and we need to stay focused on the long and short term priorities such as protecting the Indian River Lagoon and Biscayne Bay.

### Short-Term Priority:

- Secure state and federal funding for the next five mile elevated highway extension for US 41, Tamiami Trail.



## PROTECTING OUR WATERWAYS

Regional coalition needed. Six-county Indian River Lagoon coalition should expand to include nine (Miami-Dade, Monroe, Broward), and then all 16 counties and private sector participation. Leadership should be provided by all regional planning councils, leagues of cities, and South Florida Water Management District. There are also many navigable waterways in the region that need to be maintained for recreational uses and their water quality enhanced.

### Short-Term Priority:

- Support the Indian River Lagoon Collaborative efforts to secure funding for upgrading treatment of sewage flowing into the Indian River Lagoon.



## COASTAL PRIVATE SEPTIC TO PUBLIC SEWER

Leakage from coastal septic sewage systems has been suggested as a contributing factor to the current poor health of the Indian River Lagoon and St. Lucie River Estuary. Within the counties of Indian River, Martin and St. Lucie, there are about 120,000 private septic systems. Brevard, Volusia, and Palm Beach counties share this same issue. Many local and state political leaders in the region have expressed some desire to eventually get septic system users on public sewer systems. The cost of switching from septic tanks to public sewer systems may be prohibitive for individual counties and property owners. But, combining their political influence, the counties and cities together may have more opportunities to get the funding help necessary to at least begin replacing the most troublesome septic tanks. The recently established six-county Indian River Lagoon Counties Collaborative is in a good position to take a leadership role in this task.

### Short-Term Priority:

- Assist in preparing funding applications to federal and state agencies.

# BALANCED MOBILITY

Without premium transit and funding for operating transportation costs, much of the Seven50 vision and goals will not be achievable. Building and maintaining a world-class multi-modal transportation system for the region will not be possible if this initiative is not successful. At the same time it is important to understand that the different counties in the region play different roles when it comes to transit. The more urban counties cannot continue on the current, predominately road-building path. The less populated counties need to balance their current transportation options and work on a more balanced mobility system for their future.

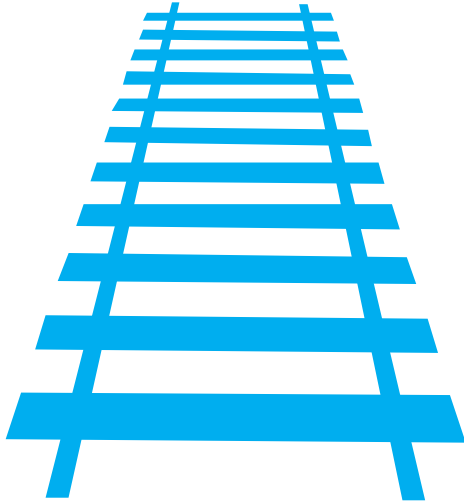


## SUSTAINABLE TRANSPORTATION FUNDING

Regional coalition needed. This region needs to invest in premium transit and that this will not happen unless there is new funding for operating subsidy. Premium transit is so critical that without this there are no options for any alternative other than the “Stay the Course” or “Suburban Expansion” scenarios for the future. Seven counties and the private sector should work together to implement an alternative road usage assessment system to replace or supplement the old gas tax system. Join with other groups around the state to get this done by legislation. Push at the federal level to keep a greater share of monies collected for transportation improvements due to our size and position as an outsized global trade and logistics hub. The region needs to work together identify and advocate for funding tools at the local, state and federal levels that will provide sustainable transportation funding.

Short-Term Priority:

- Organize a Corridor Coalition to reach consensus and build support for a feasible, implementable funding plan for premium transit.



## COMMUTER RAIL EXPANSION/TOD SUPPORT

Regional coalition and private sector partnership needed. The Florida Department of Transportation, South Florida Regional Transportation Authority, MPOs, TPOs, and regional planning councils are working together to expand the Tri-Rail commuter rail service onto the FEC Rail Corridor in Miami-Dade, Broward, and Palm Beach counties. Local government, public agency, and private sector leadership is needed to determine station locations, financing alternatives, and integration with the multi-modal transportation network.

### Short-Term Priority:

- Work with local governments to finalize station locations and develop Transit Oriented Development (TOD) plans that will attract public and private funding.



## REGIONAL CORRIDORS

In addition to the growing use of regional rail corridors for freight and passenger service there is a need to organize stakeholders around key roads that connect the counties within the region and to other regions. Existing corridor alliances exist for US441/SR 7 and other can be created as needed. There are also key road corridors that connect Southeast Florida to Southwest (SR 41) and Central Florida (US 27).

### Short-Term Priority:

- Initiate a corridor study for US 27, working with the Southwest Florida Regional Planning Council and the Central Florida Regional Planning Council, as part of FDOT Future Corridors program.

# CLIMATE PREPAREDNESS & RESILIENCE

Southeast Florida Preparedness and Resilience Initiative is a combination of the existing work of the Southeast Florida Climate Compact, the Energy Resilience work of the two regional planning councils through the Florida Regional Councils Association (FRCA), and the ongoing work the Regional Planning Councils do for Florida Division of Emergency Management such as storm surge mapping, and a focus on making our coastal communities, especially those located on the barrier islands, more resilient to future storms and sea level rise.



## CLIMATE COMPACT/ SEA LEVEL RISE MITIGATION

Public infrastructure retrofits, their costs, and policy changes necessitated by sea level rise impacts are as difficult to quantify as accurately predicting exactly how high sea level will rise in the future. At the same time some counties in the region are already investing in retrofit and mitigation work. The Climate Compact is a four-county resource for addressing the issue of sea level rise. By expanding this resource to the seven-county region, there should be some advantages gained by all in sharing ideas about ways to plan for sea level rise and obtaining state and federal financial assistance for implementing mitigation and adaptation measures. This coalition would grow stronger through the participation of the county commissions of Martin, St. Lucie and Indian River counties.

### Short-Term Priority:

- Integrate regional Adaptation Action Area guidance into local climate action plans.



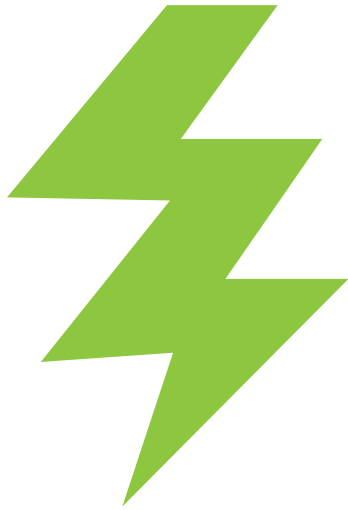
## BIGGERT-WATERS FLOOD INSURANCE REFORM ACT OF 2012

Southeast Florida, including the Florida Keys, pays more federal flood insurance premiums than any other region in the US. The Biggert-Waters Act will significantly harm the economy of our region as a vast number of homes and businesses are required to have flood insurance. The Act seeks to reduce subsidies for flood insurance policies and increase premiums until they are “actuarially sound.” A bipartisan deal has been struck to delay implementation for approximately four years until a study has been completed and for implementation to take effect. Our region not only needs the delay in implementation, but we also need to keep federal flood insurance.

### Short-Term Priority:

- Work with Congressional delegation to obtain delay in the significant increases in the flood insurance rates.





## SEVEN-COUNTY ENERGY CONSERVATION INITIATIVE

In 2011, St. Lucie County helped establish a Solar and Energy Loan Fund (SELF). It is a federally designated 501(c)(3) and a certified Community Development Financial Institution (CDFI) able to serve the region. Its purpose is to help homeowners and businesses identify solutions to their rising energy costs and then provide favorable financing to make recommended energy saving improvements. This model program has spread from St. Lucie County to include a lending territory of Brevard, Indian River, and Martin counties. SELF is in discussions with the cities of West Palm Beach and Orlando for program expansion. In a relatively short time SELF has completed 848 energy audits and has a \$2 million dollar loan portfolio. The program is making it possible for home and business owners to make much-needed energy conservation improvements, saving money, creating local jobs and promoting clean energy alternatives and energy independence.

### Short-Term Priority:

- The regional planning councils should seek funding for SELF and for other energy conservation and alternative fuel activities.



## BEACH RENOURISHMENT & INLET MAINTENANCE

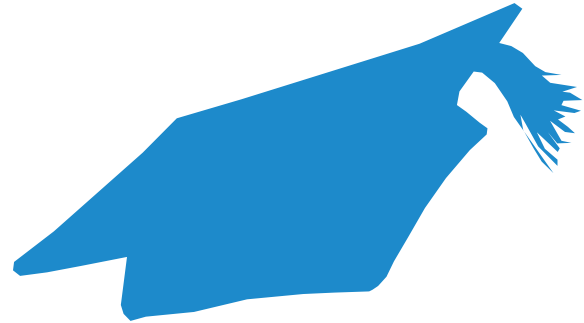
All seven counties of the region are in the beach renourishment and/or inlet maintenance business. All have a need for high quality sand and funding to periodically replenish their beaches and keep their inlets navigable. All should be interested in a sustainable source of sand and funding for beach renourishment and inlet dredging. Sea level rise may increase the need for such renourishment and maintenance activity. Currently, the US Army Corps of Engineers and the Florida Department of Environmental Protection are taking a regional approach to this issue, looking at sand deposits from Miami to Fort Pierce, including those in state and federal waters which lie beyond three nautical miles offshore and are in the process of deciding how to distribute this resource regionally. Rather than have the state and federal government decide for the region, the seven counties should be given the opportunity to devise their own regional strategy for utilizing these sand resources. This will require leadership from the county commissions to begin meeting together and discussing this issue. Some counties need sand, some need a sustainable source of funding to maintain their inlets, some need both. Either way, there is a solution that can be negotiated among the seven counties where each could benefit equally.

### Short-Term Priority:

- A single long-term regional permit for inlet maintenance and beach renourishment within the seven county area.

# EDUCATION & WORKFORCE

An educated and skilled workforce is essential if we want to achieve of a strong and economically competitive region. Our workforce affects the prosperity of our businesses and the ability to preserve our quality of life for generations to come. We have to provide our current workforce with the tools to satisfy current and short term market's demands. At the same time we need to prepare our children for the jobs of the future. We do not know what skills many of those jobs will require, or which technology we will be using to conduct business or even socialize in the future. What we do know is that a society of literate and skilled citizens has the highest chance at success and has the ability to reduce poverty and social injustice by providing everyone resources and opportunities for social mobility and social inclusion.



## REGIONAL WORKFORCE ALIGNMENT INITIATIVE

The bringing together of the academic community with the career/job marketplace is an initiative to make the region globally competitive. A regional research initiative to identify current and future talent requirements to fill workforce gaps should be a priority for the seven-county region. The initiative should showcase how we can build a stronger workforce to meet the needs of an ever-changing marketplace. Jobs, employees and employers are not confined by county boundaries. A vision and plan for this must be shared and developed by the academic and career community in the region. This is a monumental task, but one that our local high schools, through specialized academics; that our local college and universities, through additional degree programs and partnerships with businesses; should be willing to undertake. Economic Development office's, workforce organizations and school district, college and university leadership, partnered with private sector business leaders could form a coalition to continuously be working on developing and aligning the region's future employee pool with the needs of the job marketplace.

Short-Term Priority:

- Evaluate the recent proposal by the Brooking Institute for the designation of Innovation Districts and then identify possible locations within the seven county region.



## SOUTHEAST FLORIDA INNOVATION ALLIANCE

### **LIFE SCIENCE SOUTH FLORIDA:**

Expand this regional coalition to become a seven-county public/private leadership consortium to grow this important industry cluster. A huge public and private investment has already been made to get the cluster established and diversify our economy. This coalition has a good opportunity to organize, create and push a legislative agenda to capture increased research funding, targeted workforce and job training, increased STEM initiatives, sustainable public-education funding, attracting and increasing venture capital and philanthropy, etc. It has also been suggested that STEM become STEAM to include the arts which will help to attract potential employees.

### **AGRICULTURAL INDUSTRY & RESEARCH SUPPORT:**

A regional coalition and private sector partnership is needed. Agriculture, and the countryside it occupies is not only a key industry cluster for the state and region, it also is critical for the environmental services, native land and endangered species protection, and for the food security it provides the state and nation. It is Florida's original heritage and cultural institution and a direct link to our future quality of life. Maintaining agriculture as a viable industry in Florida will require funding and legislative initiatives for assistance with everything from disease/pest research, farm-to-market mobility, branding, and fair trade practices. The agricultural industry should be able to count on the region's public and private leadership for help and support when needed.

#### Short-Term Priority:

- Support the upcoming eMerge Americas International Conferences in Miami.

# ECONOMIC COMPETITIVENESS

Understanding the key factors, unique advantages and complex challenges determining our future prosperity and economic growth is the first step. Coordinating our resources and jointly committing to working towards the same goal comes next and represents our best opportunity to succeed. A strong and vibrant private sector is key to our prosperity, to securing a leading position in this fast-changing global economy, to addressing employment challenges and to creating a sufficient number of jobs to absorb the region's growing young workforce. The public sector's role is to improve Southeast Florida's economic policies and remove obstacles in order to facilitate investment and progress in each community's terms. Improving education, focusing on innovation and investing in our regions human capital is the path towards a strong and resilient economy of the future.

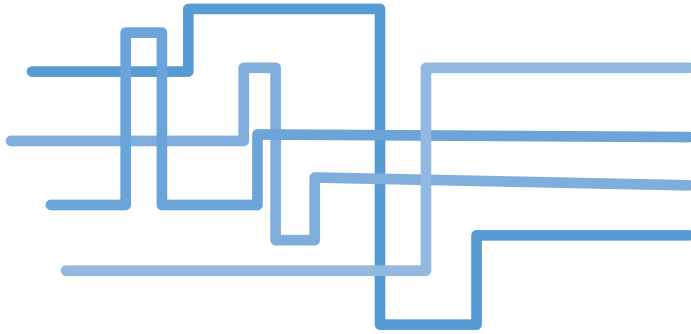


## REGIONAL FREIGHT & INTERMODAL INVESTMENT COALITION

Broward MPO has taken the lead in developing the “Cargo 2040” freight plan through Southeast Florida Transportation Council for the three southern counties. This effort is intended to recommend actions that improve the movement of goods within Broward, Miami-Dade and Palm Beach counties. It will be overseen by a 21-member “Regional Transit Technical Advisory Committee Freight Subcommittee” with membership from the 3 southern MPOs, FDOT (Central Office plus District 4 and District 6), the airports and seaports, economic councils, Miami-Dade Expressway Authority, Florida Turnpike Enterprise, railroads (CSX and FEC), and freight business representatives. The movement of freight and goods impacts the entire region as it must continue north through Martin, St. Lucie and Indian River counties via their network of highways, railroads, and waterways.

### Short-Term Priority:

- Invite a freight representative from Martin, St. Lucie, and Indian River counties to join the Regional Transit Technical Advisory Freight Subcommittee.

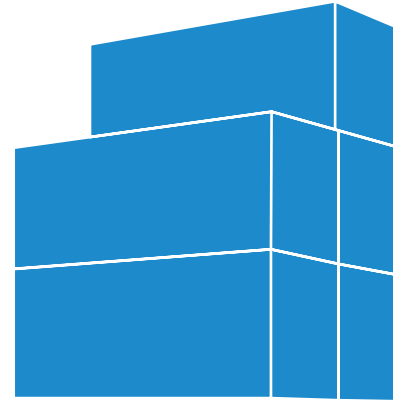


## GLOBALLY COMPETITIVE FIBER OPTIC NETWORK

A globally competitive, fiber optic network that provides free or very low-cost opportunities to local governments, colleges and universities and our research and hospitals has been at the center of Seven50. This type of competitive connectivity is not an option, it is imperative in order to compete in this technological era. A coalition is necessary to realize and increase current work to accomplish this initiative in the seven-county region. Ultimately a seven-county public and private investment pool will be needed to accomplish this mission.

### Short-Term Priority:

- Support a regional coalition to secure commitments and funding for a seven county regional fiber optic network.

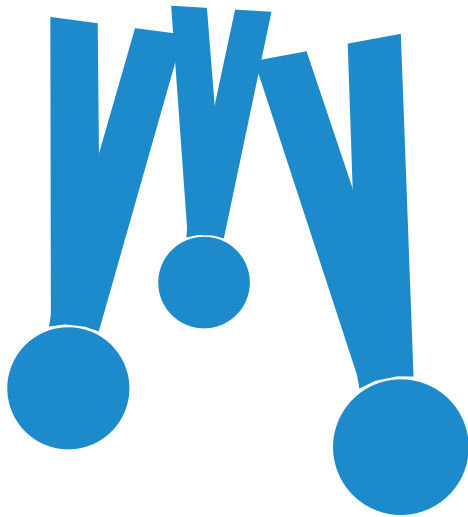


## SOUTHEAST FLORIDA GLOBAL GATEWAY ALLIANCE

Southeast Florida is strategically positioned as a global gateway for business and commerce. As we focus on diversifying our region's economy, we have the opportunity to intensify what could become one of the strongest drivers of our economy over the coming decades: international commerce, global trade and logistics activities. In order to do this successfully, we need to address the challenges, among others, of increasing local manufacturing and exports, increasing port and airport capacity and competitiveness, and balancing the impacts of transporting goods and people. Significant efforts such as the Cargo 2040 Southeast Florida Regional Freight plan and Florida Chamber's Trade and Logistics Plan 2.0 are essential to strengthen Southeast Florida's presence as a global trade hub are underway.

### Short-Term Priority:

- Create an Alliance to support implementation of Trade and Logistics Plan 2.0 in Southeast Florida.

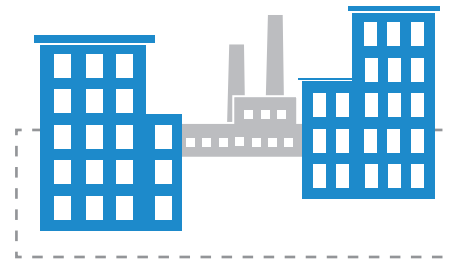


## SEVEN-COUNTY INTERNATIONAL GAMES COALITION

Whether it's the Summer Olympics or the soccer World Cup, securing a bid for the region to host these kinds of international events requires long-term regional planning and cooperation among the private and public sector. The economic benefit to the region as the host should be evaluated. If there is interest in working towards this goal, a regional coalition of organizers and supporters from all seven-counties should be convened. The regional planning councils, tourist development boards and others can organize such a long-range planning effort. Assistance can also be provided by Enterprise Florida through their Sports Industry Development Division and the Florida Sports Foundation. This effort should provide the region some additional incentive to develop a world class transportation system that can provide the necessary transportation options between some of the existing and potential venue locations situated throughout the region.

### Short-Term Priority:

- Poll the region on the kind of events it would like to see. Where is their excitement and possible consensus?

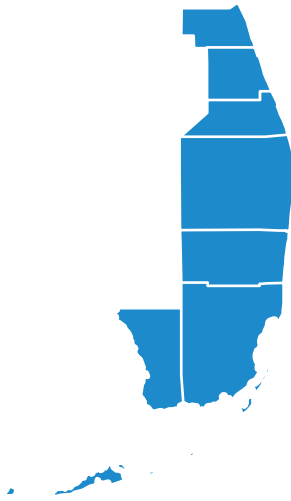


## SEVEN-COUNTY BROWNFIELDS ASSESSMENT

Coalition needed to push establishment of a seven-county assessment of all brownfields in the region. Brownfields represent a significant, but currently under-capitalized land resource and tax base. In order to unlock the potential of brownfields for economic development sites and redevelopment, they must be identified and cleaned up. A regional proposal for their identification, assessment, and cleanup could be developed in cooperation with the private sector and affected local governments. This would help move the region to the front of the line in securing state and federal funding assistance to clean these sites up and render them usable for development. The regional planning councils have active brownfields assistance programs and could provide leadership for this effort.

### Short-Term Priority:

- Work with the development community to introduce representatives to brownfield sites. Some sites are on the waterfront, other sites unlock vast tracts of possible acreage. Many sites have advantages that outweigh their disadvantages.



## “READY OR NOT HERE IT COMES” COALITION

The leaders of the seven-county commissions as well as the region’s largest cities must have the kind of relationship that will allow them to quickly gravitate together in case of unanticipated events of regional impact. For example, the eight counties of the Big Bend Region after the BP oil spill working together to shape federal policy and implement \$5-20 Billion RESTORE ACT. In order to cultivate and maintain this kind of relationship, annual or biennial summits should be organized to bring these groups together over an agenda of common interest and action items. The regional planning councils, in cooperation with the private sector and universities, and perhaps the Florida Association of Counties and Florida League of Cities could provide the leadership needed to arrange these regional summits.

### Short-Term Priority:

- Plan the first coalition event using Seven50 networks to keep the momentum that Seven50 has generated going.

# ECONOMIC OPPORTUNITY

Our region ranks 17<sup>th</sup> in diversity out of 150 in the nation. Projections show that we will continue to diversify in the decades to come. This presents both challenges and opportunities. Our population is highly entrepreneurial and brings a unique advantage to address the needs that arise from participating in a global market. At the same time, we face challenges of integration, a shrinking middle class, and many areas of segregated poverty with disproportionately limited access to opportunity.



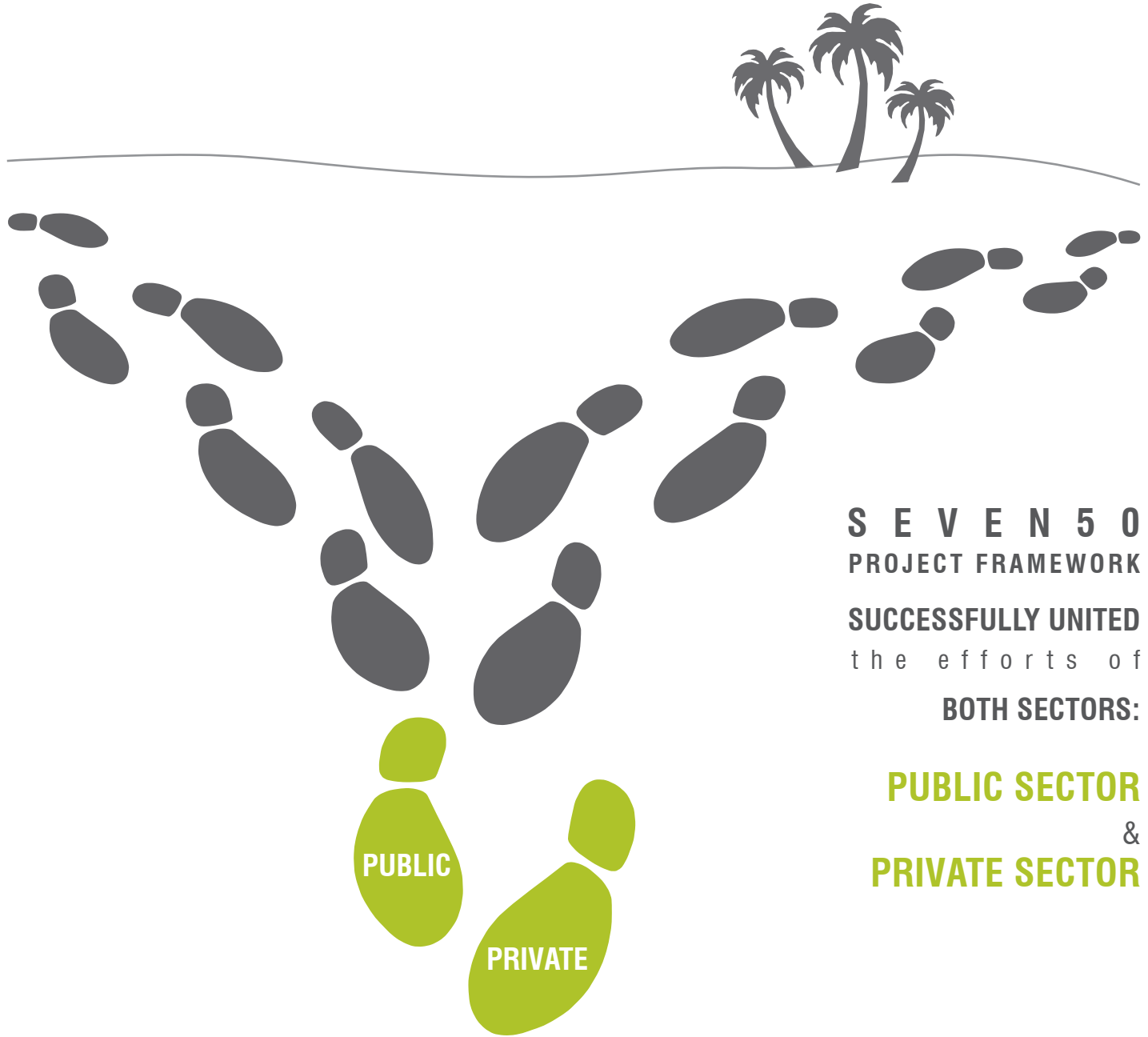
## SOUTHEAST FLORIDA OPPORTUNITY ALLIANCE

Given the diversity of the region, improving competitiveness will require a continued focus on education and innovation, and at the same time an environment that provides the tools for all residents in Southeast Florida to prosper, have access to affordable housing and jobs, an increased educational attainment and a chance at leadership and participation in the decision-making process. A coalition is needed to support and further the efforts initiated by Seven50 and the Fair Housing and Equal Opportunity, efforts like the Six Pillars and the Regional Planning Councils Economic Development Strategies and the work by numerous civic and public organizations throughout the region that are devoted to investing and enhancing our human capital. Providing assistance and a friendly environment for businesses is essential.

Short-Term Priority:

- Support creation of an Opportunity Alliance to further the work done by Seven50.





**S E V E N 5 0**  
**PROJECT FRAMEWORK**  
**SUCCESSFULLY UNITED**  
the efforts of  
**BOTH SECTORS:**

**PUBLIC SECTOR**  
&  
**PRIVATE SECTOR**

# ACKNOWLEDGEMENTS

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Carras Community Investment

First+Main Media

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1000 Friends of Florida\*  
79th Street Corridor Neighborhood Initiative  
Advanced Green Technologies  
Advanced Roofing  
Audubon of Florida  
Barry University  
Beacon Council  
Broward College\*  
Broward County League of Cities  
Broward County\*  
Broward Housing Partnership  
Broward Metropolitan Planning Organization\*  
Broward Workshop  
Builder's Association of South Florida  
Business Development Board, Palm Beach County  
Business Forum of Palm Beach County  
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Catalyst Miami\*  
Central Palm Beach County Chamber of Commerce\*  
Children's Services Council of Martin County  
Citi Community Development\*  
City of Boca Raton\*  
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City of Lauderdale Lakes  
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City of Margate  
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City of OpaLocka  
City of Pompano Beach\*  
City of Port St. Lucie\*  
City of Sebastian\*  
City of Stuart  
City of Sunrise  
City of Sweetwater  
City of West Palm Beach\*  
City of Weston  
Clean Water Fund  
Consolidated Credit Counseling Services, Inc.  
Coordinating Council of Broward  
Credit Card Management Services, Inc.  
Delray Beach CRA  
Delray Beach Housing Authority\*  
Dover, Kohl & Partners  
Drawing Conclusions LLC  
Dream Home Organization, Inc.  
Duany Plater-Zyberk & Company  
Economic Council of Martin County  
Economic Development Council of St. Lucie County  
Enterprise Development Corporation of South Florida  
Enterprise Florida  
Florida Atlantic University\*  
Florida Department of Transportation Dist. IV\*  
Florida Department of Transportation Dist. VI\*  
Florida Housing Coalition  
Florida International University\*  
Florida Public Health Institute  
Florida Redevelopment Association\*  
Gold Coast Clean Cities Coalition  
Greater Fort Lauderdale Alliance\*  
Greater Hollywood Chamber of Commerce  
Greater Miami Chamber of Commerce  
Habitat for Humanity – Greater Miami  
Habitat for Humanity – Indian River County  
Health Council of South Florida

\*Consortium Member

Hispanic Unity of Florida, Inc.  
Hollywood Council of Civic Associations  
Housing Leadership Council of Palm Beach County, Inc.\*  
Indian Creek Village  
Indian River County School Board  
Indian River State College  
Jacobs Engineering LLC  
Legal Aid Society of Palm Beach County Inc.  
Little Haiti Housing Organization, Inc.  
Liberty City Community Revitalization Trust\*  
Life Sciences South Florida \*  
Mark Buchbinder Consulting  
Martin County CRA  
Martin County Metropolitan Planning Organization\*  
Martin County\*  
Miami Dade Affordable Housing Foundation, Inc.  
Miami Dade College\*  
Miami Dade Expressway Authority\*  
Miami Downtown Development Authority  
Miami-Dade County\*  
Miami-Dade Metropolitan Planning Organization\*  
Miami-Dade Public Housing Agency  
Monroe County\*  
Neighborhood Housing Services of South Florida

North Dade Regional Chamber of Commerce  
OIC of Broward County, Inc.  
Okeechobee County Schools  
OpaLocka Community Development Corporation  
Palm Beach County League of Cities, Inc.  
Palm Beach County Resource Center  
Palm Beach County\*  
Palm Beach Metropolitan Planning Organization\*  
Palm Beach State College  
Palms West Chamber Foundation\*  
PNC Community Development Banking  
Sant La Haitian Neighborhood Center\*  
Smart Growth Partnership  
Social Compact Inc.  
South Florida Community Development Coalition  
South Florida Cultural Consortium\*  
South Florida Regional Business Alliance\*  
South Florida Regional Planning Council\*  
South Florida Regional Transportation Authority\*  
Southeast Florida Transportation Council\*  
St. Thomas University\*  
Sustain-a-Village  
The Center for Technology Enterprise & Development

The State Road 7 / US 441 Collaborative  
The Trust for Public Lands  
Town of Cutler Bay  
Town of Davie  
Town of Jupiter  
Town of Lake Park  
Town of Lauderdale-by-the-Sea  
Town of Wellington  
Treasure Coast Regional Planning Council\*  
Tropical Audubon Society  
United Way of Martin County  
Univ. of Florida / Shimberg Center for Housing Studies  
Univ. of Florida/IFAS Extension  
University of Miami  
Urban Health Solutions, LLC  
Urban Health Partnership, Inc.  
Urban Land Institute - National and Southeast Florida / Caribbean Chapters  
Urban Land Institute – Southeast Florida / Caribbean Chapter\*  
Urban League of Broward County  
Urban League of Greater Miami  
Urgent, Inc.  
West Palm Beach Community Redevelopment Agency\*  
West Palm Beach Housing Authority\*  
Westgate/Belvedere Homes CRA  
Workforce Alliance (Palm Beach)  
Zyscovich

# LETTERS AND RESOLUTIONS IN SUPPORT OF THE PARTNERSHIP

AIA Treasure Coast	Florida Poison Information Center - Miami	PNC Community Development Banking
Arts Council Martin County	Florida Power & Light (FPL)	Port Everglades (Broward County)
Broward Cultural Council	Florida's Research Coast	RCL Development
Business Development Board of Martin County	Gate House Home & Estate Services	School Board of Broward County
City of Belle Glade	Girl's Club	Seminole Improvement District
City of Boynton Beach	Hollywood Council of Civic Associations	South Florida Water Management District
City of Coral Gables	ICLEI – Local Governments for Sustainability	Southeast Florida State Legislative Delegation
City of Florida City	Indian River Citrus League	Southeast Florida Utilities Council
City of Greenacres	Indian River County Chamber of Commerce	St. John's Water Management District
City of Hialeah	Indian River Economic Development Council	The Miami Foundation
City of Lauderhill	Latin Chamber (Broward County)	Treasure Coast Council of Governments
City of Miami Gardens	Marine Industries Association of South Florida	Treasure Coast Regional League of Cities
City of Miami Springs	Martin Soil and Water Conservation District	Tropical Audubon Society
City of North Miami	Miami-Dade Climate Change Advisory Task Force	United States Congressional Delegation for Southeast Florida
City of Pembroke Pines	Miami Dade College Earth Ethics Institute	United States Senator Bill Nelson - Florida
Clean Water Fund	Miami-Dade County Public Schools	United States Senator George Le Mieux
Cultural Council of Indian River County	Miami-Dade League of Cities	Urban Environmental League
Department of Children and Families, Circuit 17	Museum of Discovery and Science (Fort Lauderdale)	Urban Land Institute – National
Economic Development Council of Martin County	National Parks Conservation Association	US Green Building Council South Florida Chapter
Economic Council of Palm Beach County	Northern Palm Beach Chamber of Commerce	Village of Islamorada
Enterprise Florida	Nova Southeastern University	Workforce One (Broward County)
Everglades Foundation	Palm Beach County School Board	Workforce Solutions (Martin County)
Farm Credit of South Florida		
Florida Brownfields Association		
Florida Departments of Community Affairs, Elder Affairs, Health, and Transportation		

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