

**REQUEST:** Recommend approval of the Evaluation and Appraisal Report to City Commission.

<b>Case Number</b>	T15009
<b>Applicant</b>	City of Fort Lauderdale
<b>Action Required</b>	Recommend approval or denial to the City Commission
<b>Authored By</b>	Lorraine Tappen, Planner III

**BACKGROUND/DESCRIPTION:**

The Comprehensive Plan provides the blueprint for orderly and sustainable land development over the next decade and beyond. The City will update the Comprehensive Plan in two phases. Phase I includes preparation of the subject Evaluation and Appraisal Report (EAR) of the City’s current 2008 Comprehensive Plan, and an update to Volume II of the Comprehensive Plan, which contains the data inventory and analysis. In Phase II, the City will update Volume I of Comprehensive Plan, which contains the goals, objectives and policies, and which will be initiated in the upcoming 2017 year.

At least once every seven years, pursuant Section 163.3191(1), Florida Statutes, local governments must evaluate its comprehensive plan to determine if plan amendments are necessary to reflect changes in state requirements since the last time the City updated the plan. In April 2015, the City notified the Department of Economic Opportunity, the state land planning agency, that amendments to the City’s comprehensive plan were not necessary to reflect changes in state regulations. In addition, the City Commission has authorized the update to the City’s Comprehensive Plan in order to better align it with the City’s vision and strategic goals. The Comprehensive Plan Evaluation and Appraisal Report is a Commission Annual Action Plan priority for Fiscal Year 2015.

The Comprehensive Plan also includes provisions that stipulate the City shall provide for review and amendment of the Plan to respond to State and County mandates, or local needs, as needed between EAR cycles and the State-required annual update of the Capital Improvement Element, through the year 2018. The Evaluation and Appraisal Report aligns the Comprehensive Plan with the community’s vision and goals contained in the *Fast Forward Fort Lauderdale Vision Plan 2035* and the *Press Play Fort Lauderdale 2018 Strategic Plan*. In addition, the report explores the following major topics:

- Climate change and resilience
- Sustainability and energy conservation
- Housing diversity
- Multi-modal transportation and connectivity
- Urban design and “sense of place”
- Optimizing economic development
- Creating an illustrative, user-friendly format for the Comprehensive Plan update

Multiple City departments were involved in the evaluation and appraisal process, including the City Manager’s Office, Sustainable Development, Transportation and Mobility, Public Works, Parks and Recreation, and the City Attorney’s Office. Meetings were also held with the agencies that review comprehensive plan amendments, including various Broward County departments, Broward County Planning Council, Florida Department of Transportation, Broward Metropolitan Planning Organization, and the South Florida Water Management District.

## **PUBLIC INVOLVEMENT**

Fort Lauderdale kicked off the Comprehensive Plan EAR with a public workshop at Mills Pond Park on February 11, 2015. Participants contributed to a discussion about major topics for the Comprehensive Plan's future update. Feedback included topics based upon the *Fast Forward Fort Lauderdale Vision Plan*, as well as a questionnaire provided at the meeting and available on-line, which together helped better inform the evaluation of the Comprehensive Plan.

Following the public meeting, city staff and the consultant team provided an update to the City Commission at a regular conference meeting on August 18, 2015. The consultant also presented preliminary EAR recommendations to the Council of Fort Lauderdale Civic Associations on September 8, 2015. Fort Lauderdale neighborhood associations and homeowner associations were notified about the Planning and Zoning Board meeting, including a link to the report on the City's website.

## **STRATEGIC CONNECTIONS**

The *2035 Vision Plan: Fast Forward Fort Lauderdale*, adopted by the City Commission on April 16, 2013, was the result of over 1,500 unique ideas collected from various members of the community through an extensive outreach program that developed a vision for the City of Fort Lauderdale (<http://www.fortlauderdale.gov/vision/>). In addition, the *Press Play Fort Lauderdale Strategic Plan 2018* was adopted by the City Commission to establish a 5-year period in which to accomplish specific goals and objectives as outlined in the Vision Plan (<http://www.fortlauderdale.gov/pressplay/>).

This item is a *Press Play Fort Lauderdale Strategic Plan 2018* initiative, included within the Neighborhood Enhancement Cylinder of Excellence, specifically advancing:

- Goal 6: Be an inclusive community made up of distinct, complementary, and diverse neighborhoods.
- Objective 1: Evolve and update the land development code to balance neighborhood quality, character, and livability through sustainable development.
- Strategic Initiative 3: Prepare the Comprehensive Plan Evaluation and Appraisal.

This item advances all six themes of the *Fast Forward Fort Lauderdale 2035 Vision Plan: We Are Connected, We Are Ready, We Are Community, We Are Here, We Are Prosperous and We Are United*.

## **PLANNING & ZONING BOARD REVIEW OPTIONS:**

The Planning and Zoning Board, in its capacity as the Local Planning Agency, shall recommend approval or denial of a resolution adopting the Evaluation and Appraisal Report of the Comprehensive Plan by the City Commission.

### **Attachment:**

Exhibit 1 – Draft Evaluation and Appraisal Report



# EVALUATION AND APPRAISAL REPORT

OF THE FORT LAUDERDALE COMPREHENSIVE PLAN

*Our City, Our Plan 2016*





## ACKNOWLEDGEMENTS

### FORT LAUDERDALE CITY COMMISSION

- » John P. “Jack” Seiler Mayor
- » Robert L. McKinzie Vice Mayor / Commissioner - District 3
- » Bruce G. Roberts Commissioner - District 1
- » Dean J. Trantalis Commissioner - District 2
- » Romney Rogers Commissioner - District 4

### CITY OF FORT LAUDERDALE

- » Lee R. Feldman City Manager
- » Jeff Modarelli City Clerk
- » John Herbst City Auditor
- » Phil Thornburg Assistant City Manager
- » Stanley Hawthorne Assistant City Manager
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- » Edward Ng Urban Planner
- » Donald Shockey Urban Planner
- » Rebecca Gutierrez Production Manager





**CITY OF FORT LAUDERDALE**

COMPREHENSIVE PLAN -  
EVALUATION AND APPRAISAL REPORT

NOVEMBER 2015

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**CITY COMMISSION**

JOHN P. "JACK" SEILER	MAYOR
ROBERT L. MCKINZIE	VICE MAYOR
BRUCE G. ROBERTS	CITY COMMISSIONER
DEAN J. TRANTALIS	CITY COMMISSIONER
ROMNEY ROGERS	CITY COMMISSIONER
LEE R. FELDMAN	CITY MANAGER
CYNTHIA A. EVERETT	CITY ATTORNEY
JEFF MODARELLI	CITY CLERK
JOHN HERBST	CITY AUDITOR

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Prepared by:

CITY OF FORT LAUDERDALE  
URBAN DESIGN AND PLANNING DEPARTMENT  
&  
THE CORRADINO GROUP, INC.

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## 1 INTRODUCTION

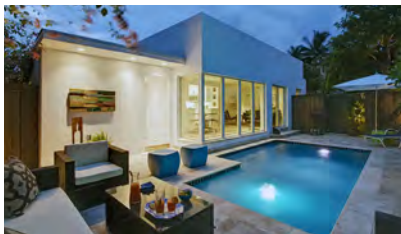
**The City of Fort Lauderdale's Comprehensive Plan** (Plan) is its blueprint for existing and future development. The Plan's goals, objectives and policies reflect the City's vision for its future, and how it will meet the needs of existing and future residents, visitors and businesses.

Through the Evaluation and Appraisal Report process, the City intends to update its current 2008 Comprehensive Plan, while advancing the community's vision and goals contained in the Fast Forward Fort Lauderdale Vision Plan 2035 and the Press Play Fort Lauderdale 2018 Strategic Plan. The City will update the Comprehensive Plan in two phases. Phase I includes preparation of the Evaluation and Appraisal Report (EAR) of the City's current 2008 Comprehensive Plan and an update to Volume II of the Comprehensive Plan, which contains the data inventory and analysis. In Phase II, the City will update Volume I of Comprehensive Plan, which contains the goals, objectives and policies. The updated Comprehensive Plan will be a cutting edge land use plan that will reflect the values of the City of Fort Lauderdale and implement the intents of both the Fast Forward and Press Play plans. The City's goal is to provide a most up-to-date, user-friendly and illustrative document for Fort Lauderdale neighbors and the development community.

The Evaluation and Appraisal Report (EAR) is a State-mandated assessment of the City's Comprehensive Plan to ensure that all current State statutory requirements are met. Beyond this requirement, the EAR also provides an opportunity to ensure that the Plan and its goals, objectives and policies reflect the City's vision for its future, and the work accomplished in other planning efforts. In order to be effective, the Plan is a living document, one with the flexibility to adapt to changing conditions and needs. Although there are other opportunities to periodically revise the Plan, these revisions often occur as the result of outside development applications. Periodically, the City needs to step back and take a holistic look at how well the Plan is working, and how it might be refined to address community-specific issues and challenges. The EAR provides this opportunity.

The City adopted the Fast Forward Fort Lauderdale Vision 2035 Plan in 2013. The Vision Plan, based on an extensive and innovative public involvement process, provides aspirational visions, expressed in six "vision directions", that reflect the kind of com-





munity Fort Lauderdale would like to be in 2035. The Vision Statement, is comprised of the following six themes:

The Evaluation and Appraisal of the Comprehensive Plan provides an opportunity to build upon the extensive public involvement effort that resulted in the Vision Plan by ensuring that the Vision is reflected in the City's master planning document, and its goals, objectives and policies. The Comprehensive Plan provides the roadmap and tools for achieving the vision.

The City also adopted Press Play Fort Lauderdale Our City, Our Strategic Plan 2018 in 2013. The Strategic Plan aligned 12 aspirational goals, 38 objectives, 191 strategic initiatives and 142 performance indicators under the Vision Plan's Vision Directions and five "Cylinders of Excellence": Infrastructure, Public Places, Neighborhood Enhancement, Business Development and Public Safety. Demonstrating its commitment to the process, the City realigned its various departments under these Cylinders.

The Evaluation and Appraisal Report also presents an opportunity to align the Strategic Plan with the Comprehensive Plan. The objectives and initiatives identified in the Strategic Plan should be consistent with and supported by the Comprehensive Plan's objectives and policies. In recognition of its importance in advancing the City's planning programs and initiatives, the Evaluation and Appraisal Report was identified as a Fiscal Year 2015 Commission Annual Action Plan (CAAP) initiative.



In order to ensure that the Comprehensive Plan is reflective of the Cylinders and the City’s vision and planning direction, the Comprehensive Plan, through the EAR amendments, will also be reorganized to align the required and optional elements under the appropriate Cylinder of Excellence. It is anticipated that this will allow the City to more effectively monitor plan implementation through the Vision and Strategic Plan progress report and scorecard processes.

**Infrastructure**

- » Climate Change
- » Transportation
- » Water
- » Sanitary Sewer
- » Stormwater
- » Aquifer Recharge
- » Solid Waste

**Public Places**

- » Parks and Recreation
- » Urban Design

**Neighborhood Enhancement**

- » Future Land Use
- » Housing
- » Conservation
- » Historic Preservation

**Business Development**

- » Economic Development
- » Public Schools

**Public Safety**

- » Coastal Management

**Internal Support Platform**

- » Capital Improvements
- » Intergovernmental Coordination
- » Administration and Implementation



The City of Fort Lauderdale is focusing its 2015 Evaluation and Appraisal Report (EAR) on a series of “topics” based on major issues, challenges, and previous planning efforts. These topics include:

1. How to best respond to the effects of *climate change* and become more resilient;
2. How to best achieve *sustainability* at all levels;
3. How to meet current and future *infrastructure* needs;
4. How to provide *housing* to meet current and future needs;
5. How to increase *multi-modal transportation* options;
6. How to enhance the City’s *sense of place*, and;
7. How to take advantage of the City’s *economic opportunities*.

The Evaluation and Appraisal Report builds upon the extensive public involvement effort that went into the creation of the *Fast Forward Fort Lauderdale Vision Plan* (Vision Plan) and the *Press Play Strategic Plan* (Strategic Plan). In addition to these efforts, the City conducted an Interagency Scoping meeting on January 26, 2015, a Public Workshop on February 11, 2015, an online questionnaire that received 618 responses between February 11 and April 15, 2015, and a presentation to the Council of Fort Lauderdale Civic Associations on August 18, 2015.

The following report provides a discussion of these topics as they relate to Fort Lauderdale and the “triple bottom line” of sustainability principles (social, economic and environmental impacts), and recommends amendments to address these topics and other relevant issues in the Comprehensive Plan.



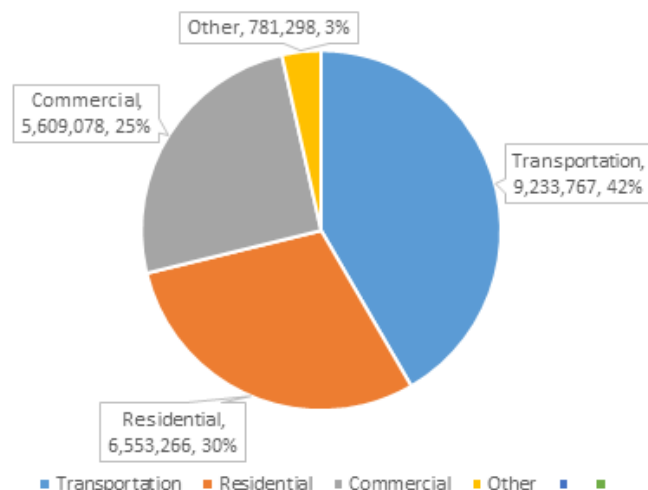
## 2 CLIMATE CHANGE

### DESCRIPTION

Climate change is one of the key challenges facing the world today. Greenhouse gas emissions resulting from the consumption of fossil fuels are widely considered to be the major contributing factor to climate change. Short term climate change impacts such as increased drought, tidal and stormwater flooding, and extreme weather events are already being felt in many areas. Long term impacts such as damage to buildings and infrastructure, agriculture, ecosystems, and human health, including increased asthma and allergies, are starting to be felt as well. While efforts to limit climate change are taking place at the national and international levels, local governments can make a significant contribution to both reducing the degree of climate change and to mitigating its effects. Ultimately climate adaptation must be planned for and implemented at the local level.

In 2010, 22,177,409 metric tons of greenhouse gases were emitted by various sources in Broward County. The most significant source of these emissions was fuel consumption in the transportation sector (42%), followed by electric and energy use in the residential sector (30%), electric and energy use in the commercial sector (25%), and electric and energy use in other sectors, including industrial and waste (3%).<sup>1</sup>

### TOTAL GREEN HOUSE EMISSIONS IN BROWARD COUNTY, 2010



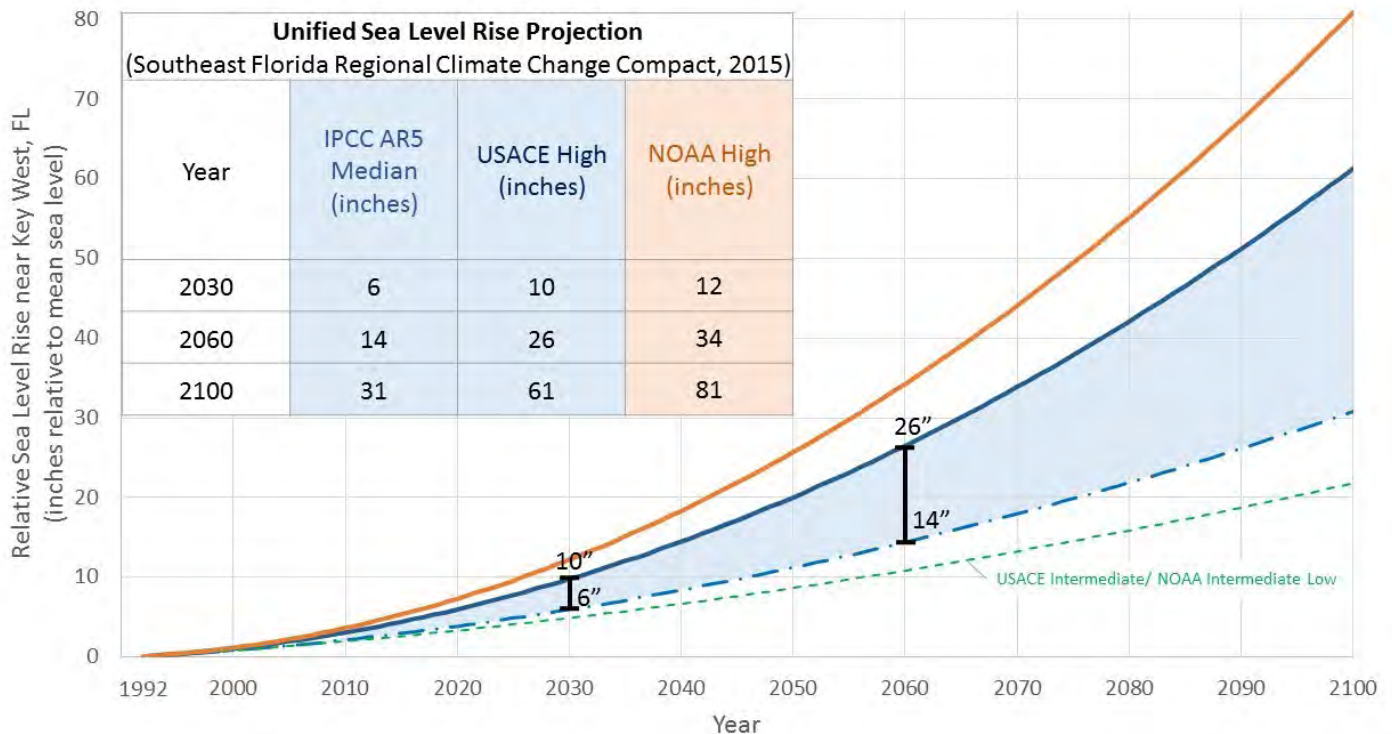
There are a number of actions that local governments can take to reduce greenhouse gas emissions. These actions include: reducing vehicle miles traveled through the provision of alternative transportation mechanisms; promoting land use patterns that reduce automobile dependence (i.e. compact mixed use development vs. urban sprawl), and; reducing energy consumption in all sectors (i.e. green building techniques, efficiency standards, etc.).

Given the City’s low-lying coastal location, porous limestone, significant beach, waterway and canal shorelines, as well as exposure to hurricanes, Fort Lauderdale recognizes the potential impacts of climate change, including sea level rise, stronger and more frequent storm events, and generally higher temperatures. The City has signed on to the Mayors’ Climate Change Pledge in support of the Southeast Florida Regional Climate Change Compact and the Regional Climate Action Plan. According to the South Florida Regional Climate Change Compact’s unified sea level rise projections for South Florida, sea levels are projected to rise by three to seven inches by 2030 and nine to 24 inches by 2060<sup>2</sup>, with potentially devastating circumstances.

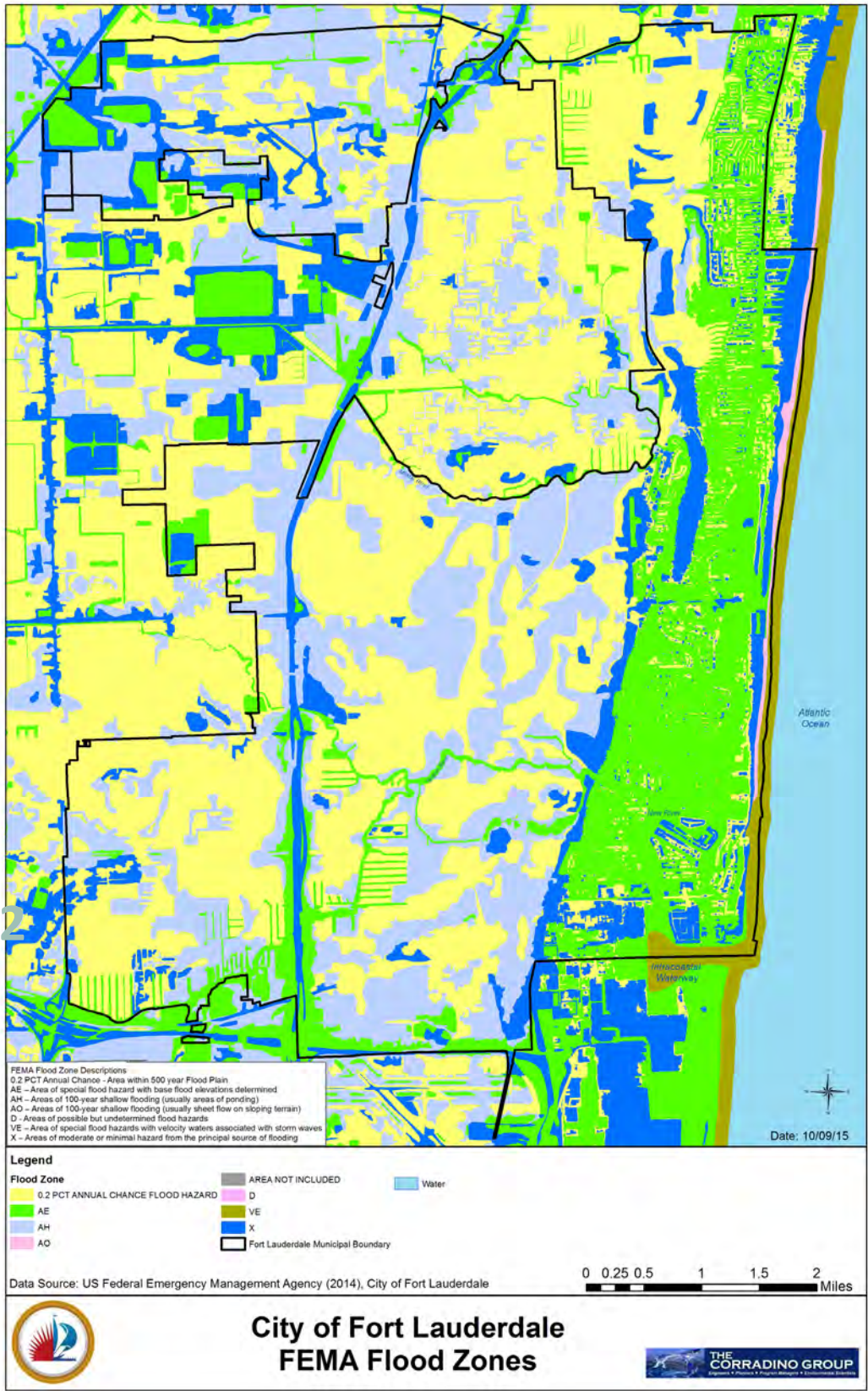
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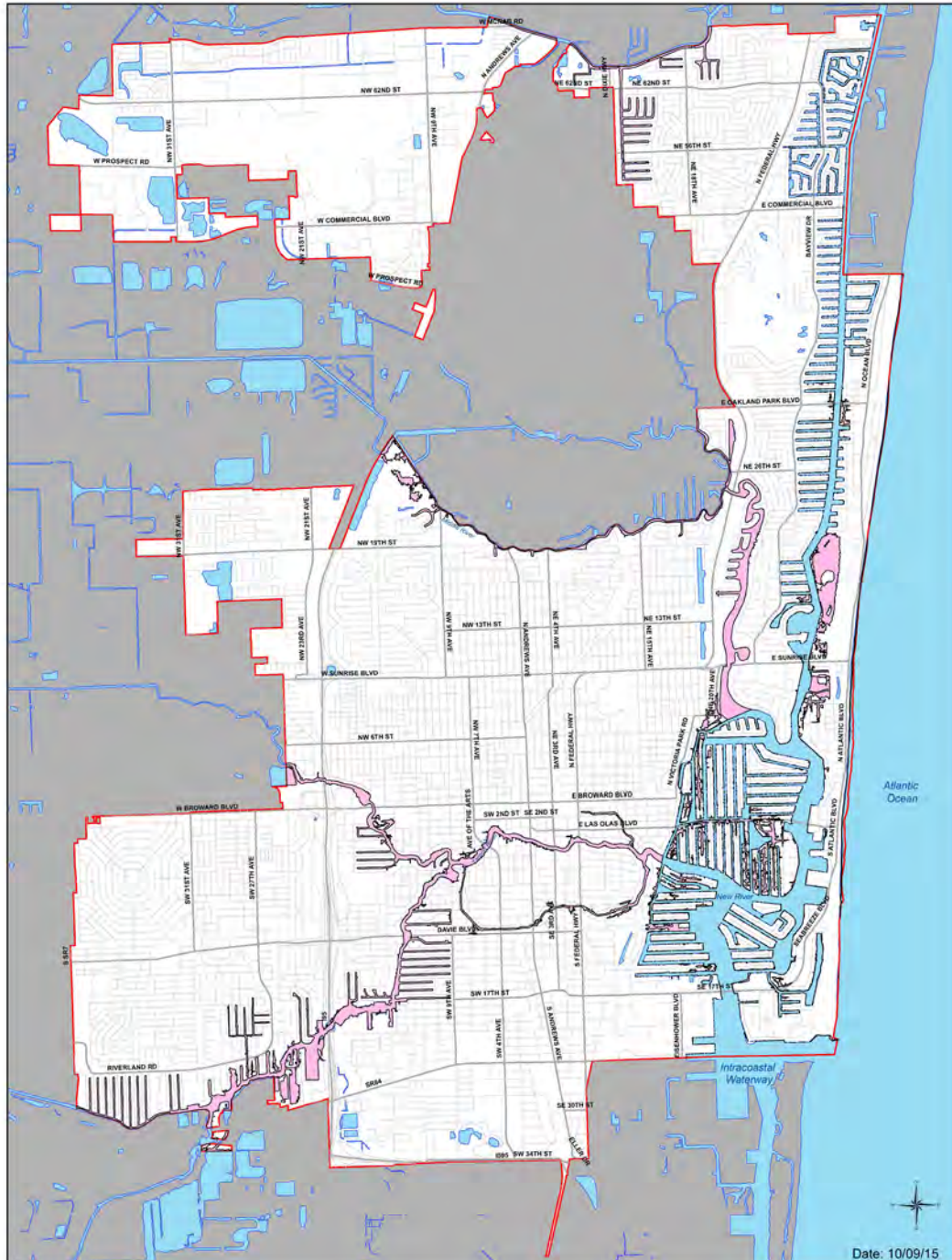
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Elevation is the key factor in identifying areas most at risk for sea level rise and/or increased storm frequency impacts. Figures A shows flood zones in the City, while Figure B shows Coastal High Hazard Areas, the areas of the City most at risk from sea level flooding and storm impacts.



GRAPHIC - OCTOBER 2015 DRAFT





- Legend**
- Coastal High Hazard Area\*
  - Local Streets
  - Fort Lauderdale Municipal Boundary
  - Water

\*The Coastal High Hazard area is "the area below the elevation of the Category 1 storm surge line as established by the SLOSH computerized storm surge model," as defined by Section 163.3178 (Coastal Management) of the Florida State Statutes.

Data Source: City of Fort Lauderdale (2015), South Florida Regional Planning Council (2010)



## City of Fort Lauderdale Coastal High Hazard Areas



# B

## CITY OF FORT LAUDERDALE Coastal High Hazard Areas

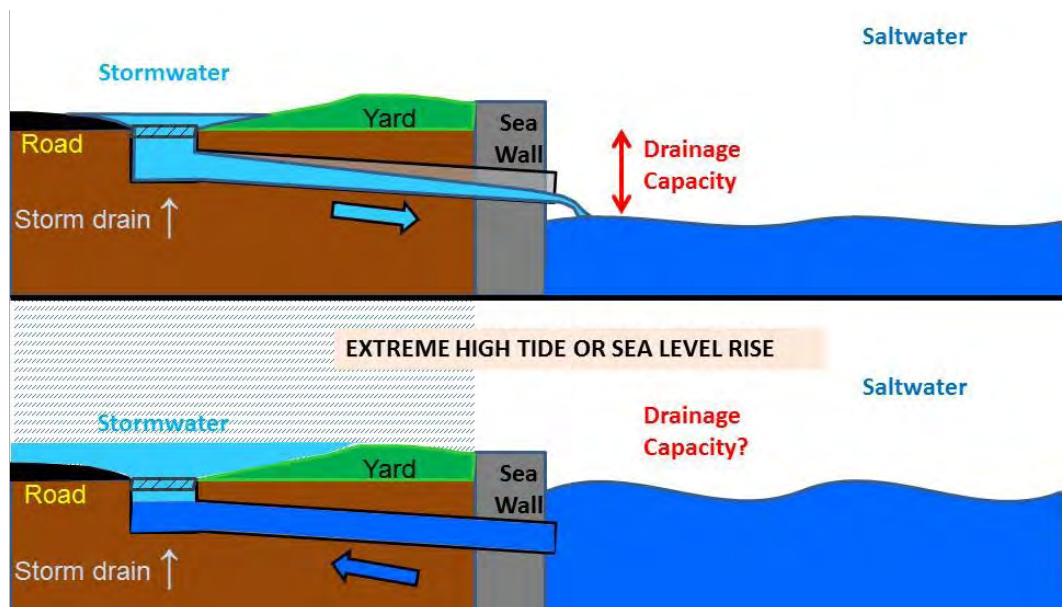


Climate change resilience means the ability of the built and natural environment (including infrastructure) to adjust to and absorb climate change impacts to the maximum extent feasible. Examples of management and development practices that can increase climate change resilience include: requiring increased minimum floor elevations for new development and redevelopment; retrofitting buildings for increased flood risk; designing infrastructure that can withstand higher water levels such as raising seawalls and installing tidal valves; implementing natural drainage features such as bioswales and stormwater buffers; reducing the heat island effect through increased landscaping, shading and green building practices, and adopting building practices that reduce vulnerability to increased storm events.

Resilience strategies specific to sea level rise and increased flooding are often categorized as Protection, Accommodation, and Retreat. Protection measures are structurally defensive measures designed to repel the impacts of rising seas. They include hard measures such as fortified seawalls or embankments and wave energy dissipation structures as well as soft measures like widened beaches and fortified sand dunes. Protection measures are especially key for appropriate locations where concentrated areas of buildings and infrastructure justifies the high cost of protection. Also, a critical factor that cannot be quantified is human safety.

Adaptation measures are designed to allow for a degree of flooding without causing major damage. Raising building elevations and designing areas that can accept tidal or stormwater flooding without major damage include types of adaptation methods. For example there may be certain streets that can flood without property damage and water could be directed to these areas, while other streets where flooding damages adjacent property could be raised. Adaptation is more difficult in heavily urbanized locations because there are fewer areas that can experience flooding without damage.



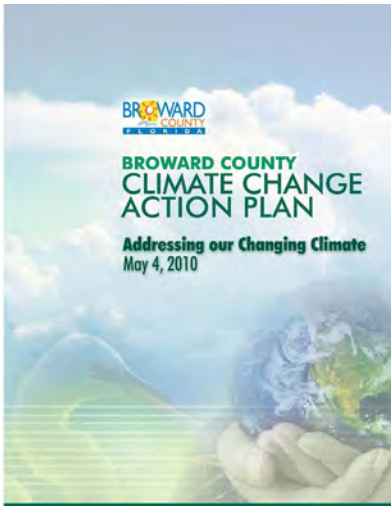


Another aspect of adaptation is designing infrastructure that can withstand and adapt to sea level rise. For example, sea level rise poses a particular threat to stormwater infrastructure in that the outfalls of gravity-fed drainage systems are likely to be blocked by sea level rise well before any actual flooding from that rise occurs. This could lead to flooding during regular rainstorms, or during clear days in which extreme high tides are occurring, known as “sunny day flooding”. Sea water can also flow backwards into the pipes and onto the land at some elevations, an impact that is already occurring during seasonal high tides commonly known as King Tides. One way valves, also known as tidal valves, installed on stormwater outlets can prevent backflow. However, the only way to get stormwater from rain through the pipes and then into the receiving canal would be via pumps which are an expensive infrastructure investment. Using alternatives such as surface level bioswales and stormwater preserves are therefore key in diverting as much stormwater as possible without relying on a high-cost pipe based system.

Retreat strategies involve the actual removal or relocation of existing development and the prevention of future development in the areas that are most at risk. Transfer of development rights is another means of achieving retreat as property owners can still realize their property value even if development rights on vulnerable properties are restricted. Retreat is the most invasive and expensive measure but may be required in certain situations.

In Fort Lauderdale, much of the most valuable real estate is concentrated in the most vulnerable coastal areas which makes retreat prohibitively expensive. For example, the City’s most active economic areas, Downtown and the Beach, are vulnerable to climate change impacts. In all areas of South Florida the construction of new dense real estate in vulnerable waterfront areas is continuing at a record pace. This can increase the risk of future loss if these climate factors are not considered in the siting and design of these developments. Directing development to less threatened areas may be a manageable form of retreat.

## OTHER PLANNING EFFORTS



The City has signed on to the Mayors' Climate Change Pledge in support of the Southeast Florida Regional Climate Change Compact and the Regional Climate Action Plan. Broward County adopted its *Climate Change Action Plan (CCAP)* in 2010, and the Climate Change Element of its Comprehensive Plan in 2013. The CCAP analyzed and documented Countywide greenhouse gas emission levels and sea level rise projections, and projected climate change impacts to the built and natural environment. The CCAP further made a series of recommendations to reduce the County's emission levels and address climate change impacts.<sup>3</sup> The CCAP recommendations were carried forward in the Goal, objectives and policies contained in the County's Comprehensive Plan Climate Change Element which was adopted in 2012.<sup>4</sup>



In 2011 the City of Fort Lauderdale updated its *Sustainability Action Plan (SAP)* which outlines strategies for increasing sustainability in a number of areas including preparation for climate change impacts and reduced greenhouse gas emissions. Specifically, the Sustainability Action Plan Leadership Chapter calls for the inclusion of adaptation strategies in City plans, enhanced communication about climate change adaptation in intergovernmental coordination efforts, and partnerships with agencies and institutions to increase disaster preparedness. With regard to greenhouse gas emissions, *The Sustainability Action Plan's* Air Quality Chapter calls for reducing emissions from City operations by 20 percent by 2020.

The *City of Fort Lauderdale Sustainability Action Plan Progress Report Making Waves* was completed in May 2015 and found that 42% of the actions identified in the *Sustainability Action Plan* have been implemented, with another 30% in progress.

Addressing climate change and its impacts is a major component of the City's vision for its future, as outlined in *Fast Forward Fort Lauderdale Our City Our Vision 2025*. The "WE ARE READY" Vision Direction imagines that in 2035 Fort Lauderdale will be "a resilient and safe coastal community" that has effectively addressed the challenges presented by climate change. Of the 1,562 ideas received during the visioning process, nine were specific to climate change and sea level rise, two were specific to disaster response, and 22 were specific to drainage. The 2014 Neighbor Survey found that 57% of the participating residents had observed coastal water level increases, while 52% had observed increased flooding.<sup>5</sup>



In order to realize the vision expressed in the *Fast Forward Vision Plan*, the City adopted the *Press Play Strategic Plan 2018* in 2013. Goal 2, Infrastructure is "Be a Sustainable and Resilient Community". Objective 2 under that Goal 2 is "Reduce flooding and adapt to sea level rise". Strategic initiatives under Objective 2 include: incorporating sea level rise and resiliency projections in the stormwater management plan and flood hazard mitigation program; identifying adaptation action areas and adaptation area policies, and including bioswale options in the "Save Our Swales" Program. Objective 3 under Goal 2 is "Improve climate change resiliency by incorporating local, regional, and mega-regional plans". Strategic initiatives under Goal 2 call for implementing the Sustainability Action Plan and creating and monitoring a sustainability scorecard.



The April 2014 Vision Plan Progress Report, *Fast Forward Fort Lauderdale – Rewind: Year in Review*, indicates progress in the “We Are Ready” Vision Direction. Specifically, the City hosted the 2013 Southeast Florida Regional Climate Leadership Summit, and improved its Federal Emergency Management Agency (FEMA) Community Rating System Score from 7 to 6, resulting in a 20% discount in flood insurance premiums for many residents.

The *January 2015 Press Play Strategic Plan Progress Report* also indicates that the City has made progress in implementing its strategic initiatives. Most significantly, in 2014 the City adopted Adaptation Action Area policies into the Comprehensive Plan in order to address the locations most vulnerable to sea level rise (Priority Planning Areas, Figure C). The policies were recognized by the State in early 2015. The Adaptation Action Areas are focused on reducing risks to residents, public infrastructure and services, private property, and the environment from the threat of rising sea levels. The corresponding policies adopted into the Comprehensive Plan address vulnerable infrastructure, adaptation strategies, criteria for area designation, funding options, and alignment with existing local and regional plans.

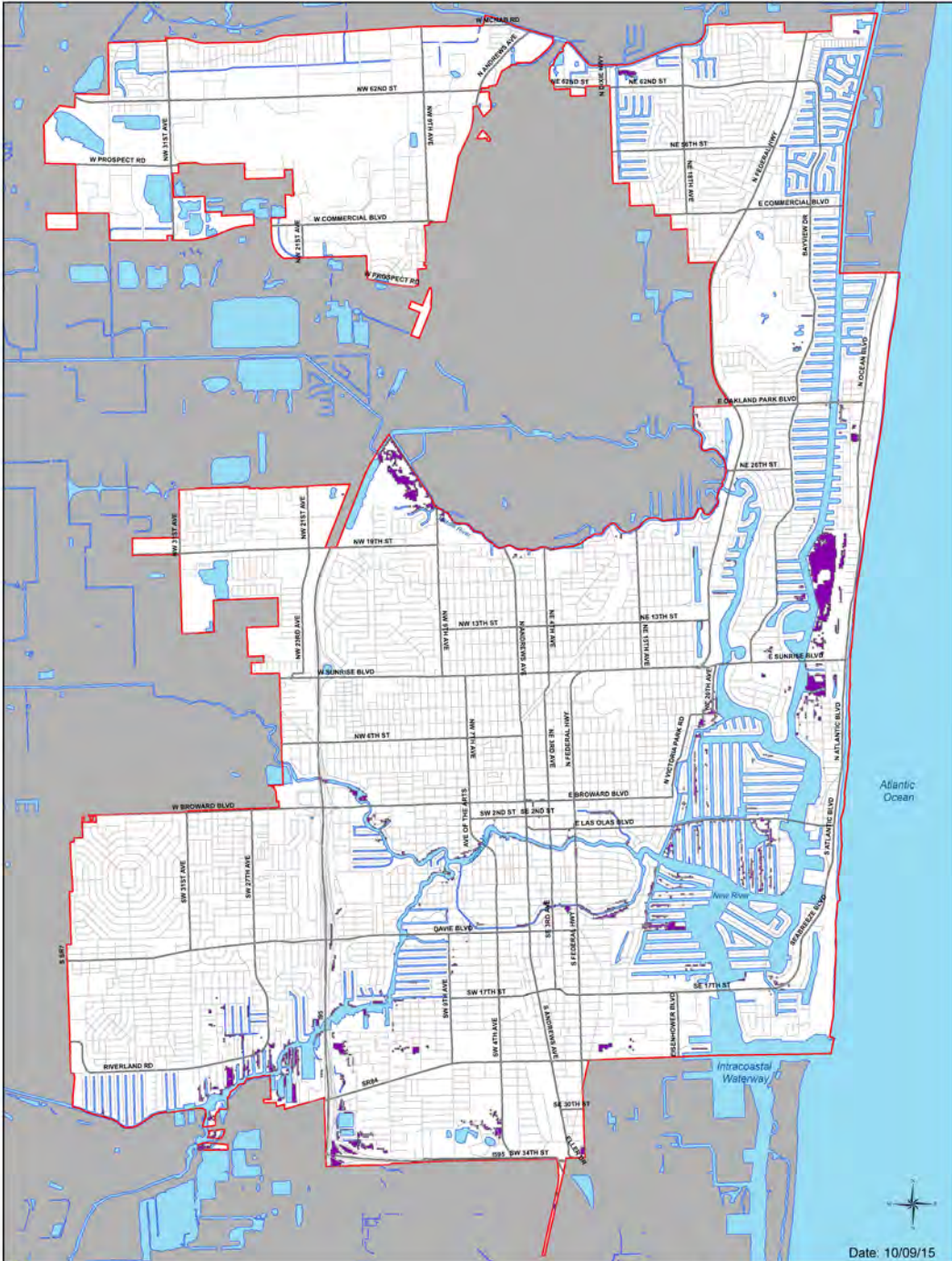


In 2015 an innovative Citywide climate change and sustainability training program was conducted for all City employees, nearly 2,600 in total, likely making the City the first in the nation to implement a mandatory training initiative of this type and magnitude. This training used science to raise workforce awareness and actively engage them in addressing this formidable challenge.

A comprehensive community planning effort was conducted to develop a strategy to realize the vision expressed in *Fast Forward Fort Lauderdale Our City Our Vision* of having a “Connected community where the pedestrian is first”. The effort included input from the Vision planning efforts as well as supplemental outreach focusing on multimodal transportation needs. The resulting Program is entitled “Connecting the Blocks Program: A multimodal connectivity program”. The Program was established in compliance with the Complete Streets Policy adopted by the City Commission in October 2013, and identifies a detailed listing of roadway improvements to create connected, complete streets.

The *Connecting the Blocks Program* identifies pedestrian, bicycle and transit infrastructure improvements needed to implement the Complete Streets Policy. Each street was evaluated based on the context of the roadway (i.e. such categories as Center City Boulevard, Commercial Avenue and Residential Street) and current conditions to determine needed improvements. The comprehensive list was then prioritized based on criteria utilizing rankings from various funding sources to assist in determining the viability of funding the projects in the future. Those criteria were weighted based on input from the City Commission, with a higher weight given to projects that improve safety, contain sustaining elements, fill existing network gaps, and support transit.





- Legend**
- Priority Planning Areas for Sea Level Rise\*
  - Fort Lauderdale Municipal Boundary
  - Local Streets
  - Water

Data Source: City of Fort Lauderdale (2015), Broward County (2015)

\*This map identifies areas near tidal water bodies at increased risk of inundation under a 2 foot sea level rise scenario, projected to occur by 2060.

0 0.25 0.5 1 1.5 2 Miles



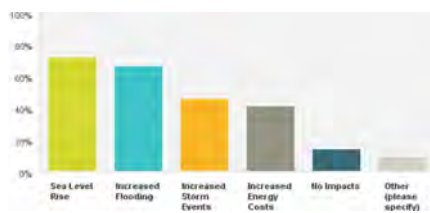
## City of Fort Lauderdale Priority Planning Areas for Sea Level Rise





## 2015 EAR QUESTIONNAIRE

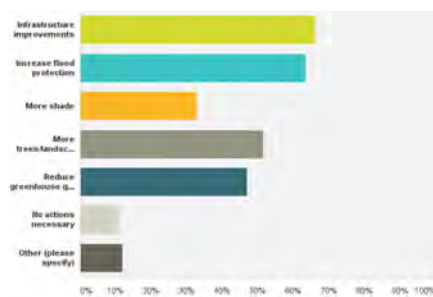
WHAT IMPACTS DO YOU THINK CLIMATE CHANGE HAS HAD, OR WILL HAVE, ON THE CITY?



As part of the 2014 Comprehensive Plan Evaluation and Appraisal process, the City conducted a Questionnaire Survey designed to obtain input on the evaluation topics including Climate Change, from individuals who reside or work in the City.

A total of 605 individuals responded to the question “What impacts do you think climate change has had, or will have, on the City?” A total of 434 (71.74%) of the respondents selected “Sea Level Rise”, 400 (66.12%) selected “Increased Flooding”, 275 (45.45%) selected “Increased Storm Events”, 248 (40.99%) selected “Increased Energy Costs”, and 85 (14.05%) selected “No Impacts”.

WHAT STEPS SHOULD THE CITY TAKE TO ADDRESS CLIMATE CHANGE?



A total of 601 individuals responded to the question “What steps should the City take to address climate change?” A total of 398 (66.22%) of the respondents answered “Infrastructure Improvements”, 381 (63.39%) answered “Increased Flood Protection”, 197 (32.78%) answered “More Shade”, 310 (51.58%) selected “More Landscaping”, 282 (46.92%) answered “Reduce Greenhouse Gas Emissions”, and 64 (11.81%) answered “No Action Necessary”.



## SOCIAL, ECONOMIC, AND ENVIRONMENTAL IMPACTS

### 1. Social

Climate change has a number of social implications. A significant portion of the City's northwest and southwest neighborhoods are highly vulnerable, as are the coastal and tidal waterway areas. However, sea level rise threatens the well-being of all income groups city-wide. Accordingly, social equity will need to be considered when determining how to distribute funds associated with adaptation costs throughout the City.

Many of the City's parks and recreation areas where residents come together are located along the waterfront and the loss of use of these areas could have an effect on residents' sense of community and social cohesion.

In addition, the City needs to consider how potential immigration from surrounding island nations may impact the City as climate change, availability of food and water as well as major impacts of sea level rise affect those communities.

### 2. Economic

The direct economic impact of climate change has the potential for damage and loss of both public and private property valued at hundreds of billions of dollars. The City and its homeowners may have to pay increased amounts of insurance premiums, repairs and prevention measures as the impacts of climate change progress. Low-lying areas of the City including some peninsular residential areas and Las Olas Boulevard already routinely experience some degree of high tide flooding unrelated to storm events. This flooding often disrupts traffic and damages landscaping and infrastructure.

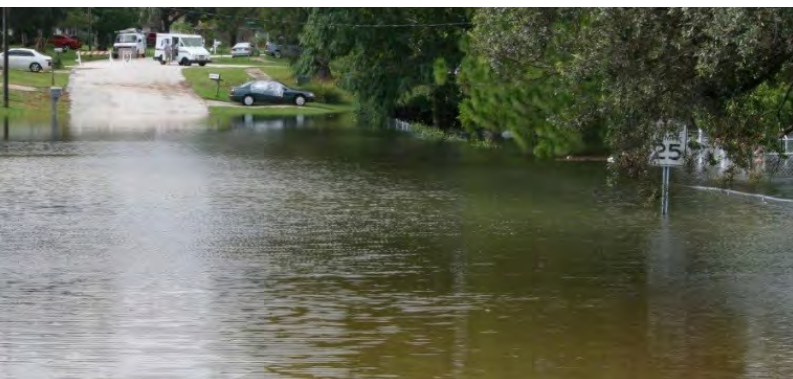
A secondary economic impact is the effect on the City's operational economy which remains heavily focused on tourism which is in turn closely tied to beaches and waterfront activities. In the fall of 2012, the City experienced significant beach erosion due to Tropical Storm Sandy when several areas lost sand and portions of A1A were flooded and severely damaged. Losing the beach and residential and commercial waterfront areas to sea level rise would strike at the center of the City's tourism and commerce.





Like any City, Fort Lauderdale depends heavily on growth – new residents, new stores, new homes, new offices, and new restaurants – for economic development. Real estate development is a main sector of the City’s economy. If significant areas of the City become essentially off limits to development due to flooding risk, this economic sector could be severely affected if the City failed to plan for future development in areas less vulnerable to this risk. If the City’s quality of life decreases due to damaged property and infrastructure as well as unpleasantly higher temperatures for longer periods of time, far fewer people and businesses would make the choice to relocate here. Careful and forward thinking to adapt the community can prevent a downward spiral of property values and tax revenues.

After past major hurricanes in South Florida, the number of claims resulting from the storms strained the insurance system. While safeguards to improve the resiliency of State and federal insurance programs have been put in place they have not been tested by a major weather event in the City. The economic impact to property owners unable to receive payment on claims would transform the community.



### 3. Environmental

The potential adverse environmental effects of climate change are numerous and complex. Coastal areas previously set aside for conservation of coastal habitats such as Birch State Park and the Bonnet House face this concern. The most serious of these is the damage or destruction of coastal ecosystems from submersion. Many species of fish and birds depend on relatively marginal changes in water depth and would be severely affected by the elimination of shallow water areas. In addition, warmer waters and ocean acidification threaten our coastal reefs which provide ecological services of habitat, shoreline protection and tourist values. Sea level rise impacts to the beach threatens sea turtle nesting areas and beach dune habitats.

Salt water intrusion can kill vegetation in freshwater ecosystems in addition to causing the salinization of the fresh water aquifer which supplies much of the City’s water. Freshwater ecosystems, such as pond apple groves, on tidal water bodies are currently in decline. Climate change related weather effects such as longer droughts or more intense precipitation can also have widespread environmental effects. Higher average temperatures for a longer period of time each year and shorter cool seasons can lead to a longer breeding season for mosquitos and other pests. The natural environment is at the heart of the City’s economic vitality and quality of life. Planning that integrates the protection of natural resources into climate mitigation and adaptation will be beneficial to the community as a whole.



## COMPREHENSIVE PLAN IMPACT AND RECOMMENDATIONS

Potential Comprehensive Plan amendments to address climate change by Element include the following:

### Future Land Use Element

- » Encourage new development in higher elevation, less vulnerable areas like Uptown
- » Consider resilience design guidelines and/or form based codes for new development and major renovation in residential areas, historic neighborhoods, and vulnerable areas
- » Consider transfer of development rights from coastal properties to less vulnerable locations
- » When possible, direct development to transit corridors
- » Create design guidelines based on higher base flood elevations that continue to enhance pedestrian level experience
- » Identify and implement development standards like shading devices, tree canopy, and cool roofs to counter the impact of higher temperatures
- » Identify and implement development standards such as pervious pavers to support addressing extreme rain events and storm water flooding

### Infrastructure Element

- » Retrofit existing drainage pipes to limit tidal back flow in areas where such retrofits are adaptive and will aid in maintaining access and property values
- » Consider sea level rise in all government infrastructure design work and vulnerable stormwater infrastructure
- » Integrate climate concerns into master planning to effectively develop future capital investments that will be resilient to impacts as well as perform their desired function for the intended lifecycle of that infrastructure
- » Use the best available climate science, as well as robust research, legislative action, advocacy and regional coordination to adapt the City's infrastructure to be resilient against disruption
- » Encourage low impact development (LID) stormwater collection including bioswales, permeable pavement and rainwater gardens
- » Plan for installation of drainage pumps as appropriate to address both tidal and stormwater-related flooding





- » Incorporate green infrastructure such as bioswales and consider emerging technologies which support aquifer recharge as alternatives to underground pipe-based systems which may be compromised when sea level rises
- » Consider identifying areas too vulnerable for future infrastructure investment
- » Consider non-pipe storm water upgrades during roadway construction to improve drainage

#### **Coastal Management Element**

- » Identify stormwater and tidal surge buffer areas (such as wetlands and beaches that can reduce the impacts of storm surges)
- » Plan for renourishment to maintain beaches for ecological, economic and shoreline protection functions
- » Consider innovative techniques for slowing wave action during storms

#### **Transportation Element**

- » Work with agency partners to incorporate resilience and adaptation into the location, design and construction of transportation infrastructure
- » Analyze impacts of increasing roadway heights to surrounding neighborhoods
- » Identify priority areas for building resilience into vulnerable transportation infrastructure
- » Encourage off-grid alternative means of transportation such as solar powered vehicles and bikes to increase mobility options for emergency vehicles and public transit in post-disaster situations

#### **Climate Change Element**

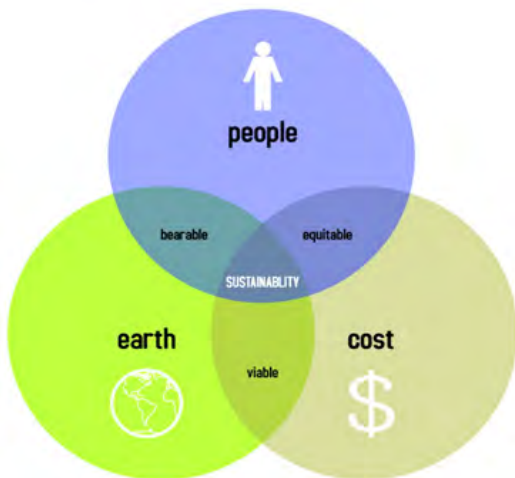
- » Adopt a new Climate Change Element incorporating relevant goals, objectives, policies and monitoring measures from: the Sustainability Action Plan, Fast Forward Vision Plan, and Press Play Strategic Plan; outside sources such as the Broward County Climate Change Element and South Florida Regional Climate Action Plan and; the Council of Fort Lauderdale Civic Associations' Consensus Statement's call for greater incentives for alternative energy sources and other measures.



### 3 SUSTAINABILITY

#### DESCRIPTION

Sustainability is often defined as meeting current needs while not compromising the ability of future generations to meet their needs. The concept of sustainability in planning arose from the environmental movement of the 1970's. The field of sustainability has expanded exponentially since then with thousands of books, college curricula and studies dedicated to the subject.



Many people think the concept of sustainability only pertains to environmental issues. In fact, sustainability also considers economic and social factors, including the economy, public health and community strength. Sustainability should be achieved and measured in the context of the “triple E” bottom line framework which considers the social equity, environmental and economic impacts of actions and development activities.

Reducing carbon emissions, as discussed under the Climate Change topic, is a principal focus of sustainability efforts. However, there are literally hundreds of other aspects of sustainability including environmental remediation and restoration, water conservation and reuse, waste diversion, local food production, transit and multi-modal connectivity, increasing multimodal transportation options, community health through better design, increasing shade tree canopy, green stormwater infrastructure, promoting mixed-use compact development, and many others. Each of these may also reduce carbon emissions – for example using less water means less water needs to be treated which reduces energy use and the related emissions – but they also each achieve unique sustainability objectives.

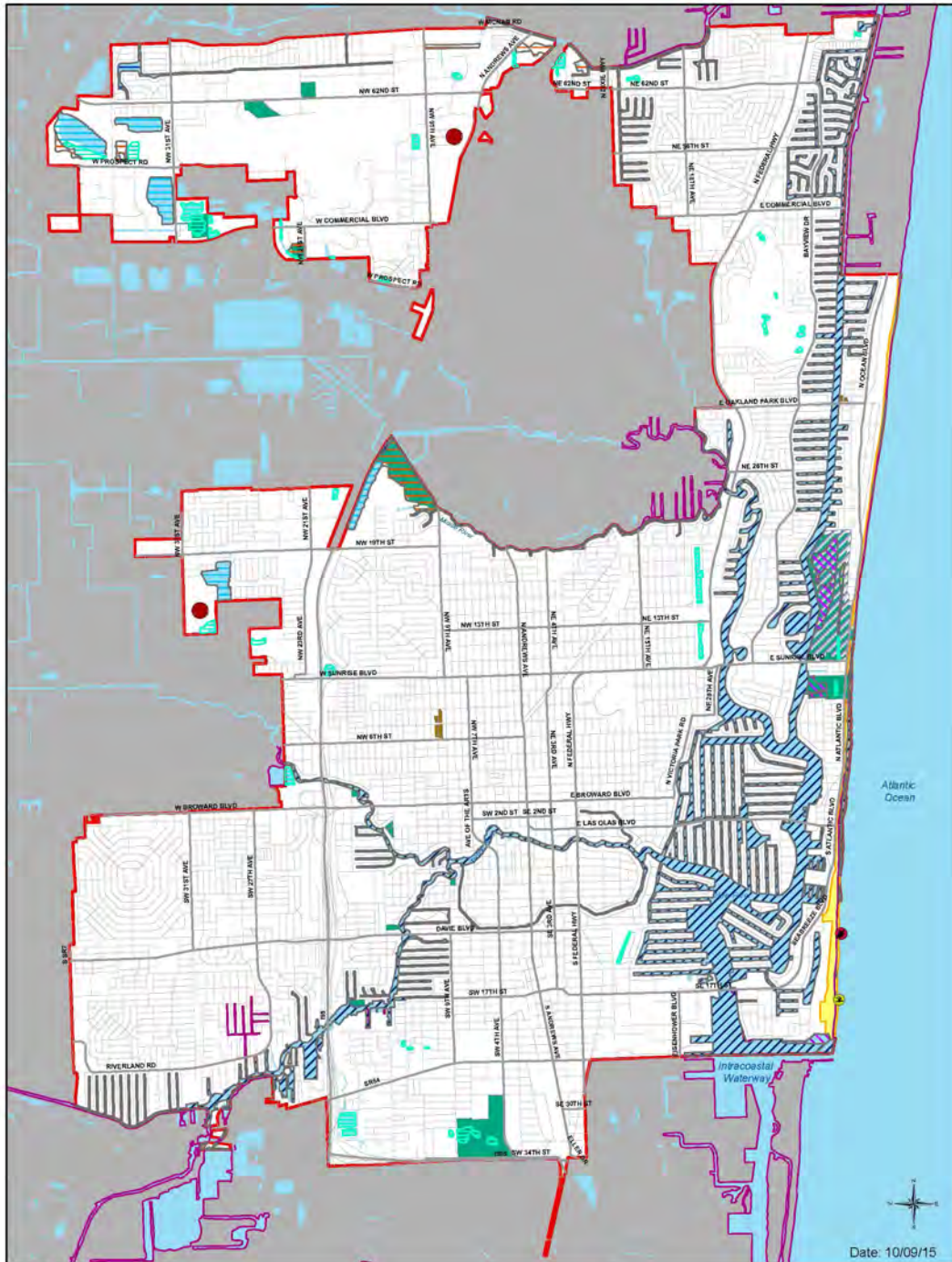
Fort Lauderdale’s natural environment is one of its greatest assets. The urban area is framed by the Atlantic Ocean to the east and the Everglades to the west, and its system of natural and manmade waterways has earned it the nickname “the Venice of America”. With 7 miles of beaches and 165 miles of canals and waterways, Fort Lauderdale has 337 miles of shoreline. Offshore coral reefs, although diminished by the effects of development, climate change, and other factors, continue to provide coastal protection and a habitat for a vast number of marine species. Fort Lauderdale’s beaches, dunes and waters are also the habitat for a number of species including sea turtles,



manatees and some native fish species. The City's wetlands provide important wildlife habitat and countless other benefits including cleaner water, flood protection and aquifer recharge. The City is located within a major migratory bird flyway. Within the urban environment itself, open spaces and natural and landscaped areas such as residential yards, parks and gardens provide habitat for insects, birds, reptiles and mammals. The Natural Resources and Environmentally Sensitive Areas Map (Figure D.) identifies natural resource areas in the City, including nature areas and wetlands.

Programs such as greenspace preservation, night lighting adjustments, waterway guidelines, and targeted development of new habitat are key to protecting and enhancing the biodiversity of Fort Lauderdale's urban ecosystems. The City is participating in the National Wildlife Federation's Community Wildlife Habitat Program which encourages residents, businesses, student groups, and organizations to foster and protect wildlife habitats through the designation of certified wildlife habitats at various sites throughout the City, including residences, churches, businesses, parks, and schools. The Florida Friendly™ Landscaping and NatureScape Broward programs assist local residents in implementing environmental friendly landscaping techniques that conserve water, protect water quality, and create habitats.

These programs, and green building certification programs such as Leadership in Energy and Environmental Design (LEED), promote sustainability at the micro (single property) level. In many cities sustainability is now being promoted at the neighborhood level through the designation of "Eco-districts". An Eco-district is a neighborhood that makes a broad commitment to achieving sustainability through infrastructure investments, building design, community programs, best management practices, and other activities. By focusing on the neighborhood level, Eco-districts provide a strong foundation for building a more sustainable City and are an important sustainability option for the City to consider implementing.





**Legend**

Freshwater Forested/Shrub Wetland	Outstanding Florida Waters Area (FL DEP)	Florida Managed Conservation Lands	Local Streets
Estuarine and Marine Deepwater	Freshwater Pond	Turtle Nesting Beach	Fort Lauderdale Municipal Boundary
Estuarine and Marine Wetland	Lake	Tern Rookery	Water
Freshwater Emergent Wetland	Riverine	US EPA Superfund Site	Turtle Hatchery
	Brownfield Areas (FL DEP)		

Data Sources: Florida Natural Resources Inventory (2014), Florida Fish and Wildlife Conservation Commission (2014), US EPA (2013), Florida Department of Environmental Protection (2014), City of Fort Lauderdale (2014)

0 0.25 0.5 1 1.5 2 Miles

**City of Fort Lauderdale  
Natural Resource and  
Environmentally Sensitive Areas**

## OTHER PLANNING EFFORTS

Fort Lauderdale has recognized the importance of achieving greater sustainability and has demonstrated its commitment to sustainability through leading by example in a number of ways. In 2009 the City Commission created the Citizens Sustainability Green Committee, which became the Sustainability Advisory Board in 2011. The Sustainability Advisory Board played a key role in the development of the City's *Sustainability Action Plan Update 2011*. In keeping with these efforts, the City took a number of actions, including: realigning its departmental structure along the *Press Play Fort Lauderdale Our City, Our Strategic Plan's* five "Cylinders of Excellence"; establishing the Sustainability Division of the Public Works Department to assist in implementing the *Sustainability Action Plan*; and creating an internal "Green Team" to establish and implement sustainability goals within each Department.



The *2011 Sustainability Action Plan* establishes a series of goals, objectives, and action items to increase sustainability in the areas of Leadership, Air Quality, Energy, Water, Built and Natural Environment, Transportation, Waste, and Progress Tracking. "Leadership" addresses the aforementioned actions that the City is taking to plan for climate change and mitigation and achieve sustainability in all of its activities and functions, and to work with other agencies and the public and private sectors to stimulate a local green economy and prepare for climate change impacts. Preparing for Climate Change impacts is a goal in "Leadership", achieved through action items such as: creating a database of best green management practice; including adaptation/mitigation strategies in the City's plans; establishing sustainable City procurement practices, ;and supporting a "green training program" to train the local workforce in such areas as weatherization, solar energy and energy audits.

*Air Quality* addresses strategies to improve air quality and reduce greenhouse gas emissions. Goals under *Air Quality* call for reducing Greenhouse Gas (GHG) emissions by 20% by 2020, and for improving offshore air quality. Action items include reducing greenhouse gas emissions from City operations at least 20% by 2020, and creating a climate change challenge program to reduce greenhouse gas emissions in specific sectors.

*Energy* addresses strategies to reduce energy consumption and increase efficiency across sectors. Goals under "Energy" call for reducing electricity usage 20% Citywide and sourcing 20% of electricity from renewable sources by 2020. Action items include reducing electricity use in City buildings by 20% by 2020, integrating electricity reduction goals with the capital improvements program, revising land development regulations to encourage the installation of wind powered systems, and creating renewable energy incentives for residential and commercial buildings.

*Water* addresses strategies to reduce water demand, and to protect and conserve water resources. Goals under Water call for reducing water demand by 20% by 2020, wastewater reduction, and stormwater treatment. Action items include implementing a landscape ordinance requiring low volume/avoidance watering, rainwater harvesting projects, and providing bio retention swales (bioswales) in urban areas.

*Built and Natural Environment* addresses how the City will implement sustainable development and management practices to ensure that that land use and development does not diminish the natural environment. Goals under Built and Natural Environment call for encouraging green buildings and development, preserving and expanding natural spaces, and improving energy performance.

*Transportation* addresses how the City will increase sustainability in its transportation sector. Goals under Transportation call for reducing the use of fossil fuels in vehicles (i.e. increased fuel efficiency) 20% by 2020, reducing vehicle miles travelled, and providing transportation alternatives to reduce automobile dependence. Action items include replacing City fleet vehicles with low-emitting hybrid and alternative fuel vehicles, providing for a community-wide infrastructure for alternative fuel supply, and expanding flexible work hour and telecommuting opportunities. The planned downtown WAVE streetcar system, an environmentally-friendly fixed-rail streetcar system, will significantly further the City's transportation sustainability goals

Finally, *Waste* addresses how the City will enhance sustainability by reducing the generation of, and the need for the collection and disposal of, solid waste. The Goal calls for increasing recycling rates 50% by 2020, while action items include doubling recycling efforts by City departments, reducing barriers to participation in recycling programs, supporting organic waste composting, and reducing the single use of plastic bags.



Sustainability is a major theme of the *Fast Forward Fort Lauderdale Our City, Our Vision 2035 Plan*. The “WE ARE CONNECTED” Vision Direction calls for a safe multi-modal transportation system where the pedestrian is first. The “WE ARE READY” calls for a resilient and safe coastal community. The “WE ARE COMMUNITY” Vision Direction calls for vital, safe, and healthy neighborhoods. The “WE ARE PROSPEROUS” Vision Direction calls for a thriving economy that offers employment, business and educational opportunities. As noted, the Vision Plan is the result of significant feedback received throughout the visioning process: of the 1,562 ideas received, 40 addressed various aspects of sustainability, including the environment, water supply and quality, energy efficiency, and sustainable construction.

The *Press Play Fort Lauderdale Our City, Our Strategic Plan 2018* outlines a number of objectives and strategic initiatives specific to sustainability. The Infrastructure Cylinder calls for a “sustainable and resilient community”, and resource protection and enhancement. The Public Places Cylinder calls for healthy, sustainable and connected neighborhoods that include ample greenspaces, a healthy urban forest, eco-friendly landscaping, and recreational opportunities. The Neighborhood Enhancement Platform calls for improved neighborhood aesthetics, sustainable development practices, access to locally grown fresh food, and a diversity of housing options. The Business Development Cylinder calls for increased economic and educational opportunities.

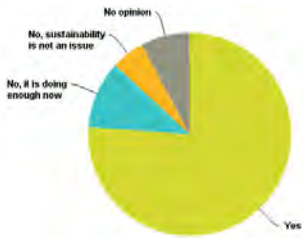
The *April 2014 Vision Plan Progress Report, Fast Forward Fort Lauderdale – Rewind: Year in Review*, indicates progress in the “We Are Ready” Vision Direction. Specifically, the percent of sustainability action plans implemented in City operations increased from 12% in 2012 to 16% in 2013 through such programs as LED lighting of City Hall, LEED building certifications, and increased use of hybrid vehicles. The January 2015 Press Play Strategic Plan Progress Report also indicates that the City has made progress in implementing the Strategic Plan; for example, it reports a tree canopy coverage increase from 20.6% to 23.4% between 2012 and 2014.

One important initiative launched by the City to reduce its environmental impact, lower costs, and make our workforce healthier and safer is the Environmental and Sustainability Management System (ESMS), an international standard known as International Organization of Standardization (ISO) 14001. The ESMS ISO 14001 institutes a systematic approach to innovation that improves the City’s service performance, lowers costs, improves safety, introduces new technology, and involves community builders in energy and water conservation, pollution prevention, waste reduction and natural resource protection. As part of this initiative, a Citywide ESMS policy was adopted which integrates the ESMS principles throughout the organization. ESMS ISO 14001 certifications were achieved for two sites, the City’s Fleet facility and the George T. Lohmeyer Wastewater Plant.



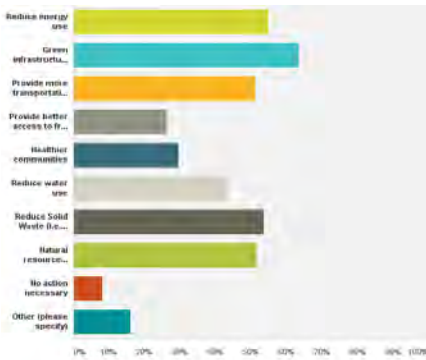
## 2015 EAR QUESTIONNAIRE

### DOES THE CITY NEED TO BE MORE SUSTAINABLE?



Two questions in the 2015 EAR Questionnaire designed to facilitate public input into the Comprehensive Plan Evaluation and Appraisal process directly address Sustainability. A total of 587 respondents answered the question “Does the City need to be more sustainable?”; 447 (76.15%) answered yes, 63 (10.1%) felt it is doing enough now, 31 (5.28%) answered that sustainability is not an issue, and 46 (7.84%) had no opinion.

### WHAT STEPS SHOULD THE CITY TAKE TO BE MORE SUSTAINABLE?



A total of 595 individuals responded to the question “What steps should the City take to be more sustainable?” Green infrastructure received the highest number of responses with 378 (63.53%); over 50% of the respondents also selected reduced energy use, more transportation choices, reduced solid waste, and natural resource protection. Only 40 respondents (8.24%) answered that no action is necessary.

## SOCIAL, ECONOMIC, AND ENVIRONMENTAL IMPACTS

### 1. Social

The social impacts of sustainability are extremely complex and can only be touched upon here. While a sustainability agenda employs a three pillar approach to balancing social, environmental, and economic needs, the larger issue of sustainability arose from problems of unchecked environmental degradation. The principal consequence of failing to implement an aggressive sustainability agenda to reduce global warming induced sea level rise will be focused geographically in coastal areas and will therefore more broadly affect all social and demographic groups with its potentially devastating environmental and economic impacts. Other adverse environmental effects continue to be felt more strongly by lower income areas and impact on these areas must be more carefully considered with a sustainable approach.

As sustainability moves beyond addressing impacts of environmental problems to addressing public health and community stability, many opportunities are created for bringing people together from different demographic and ethnic groups. Community gardens, neighborhood exercise facilities, and farmers markets are examples of efforts which can accomplish positive public health outcomes including reduced obesity, reduced diabetes rates, and increased cardiovascular health.

### 2. Economic

The principal negative impact of not pursuing an aggressive sustainability agenda is continuing to contribute to catastrophic sea level rise which has the potential to cause the damage and loss of use of both public and private property worth hundreds of billions of dollars. However, there are extensive other economic benefits from implementing a comprehensive sustainability agenda. Increasing infrastructure and energy efficiency can lead to savings to be spent on other goods and services. Water conservation can lead to reduced requirements for expensive capital investments. Encouraging biking and walking for transportation, improving diets from locally grown and available food, and improving air quality by reducing vehicle and power plant emissions can improve individuals' health and reduce medical costs. Investments in green infrastructure, bike lanes, parks, and other sustainable infrastructure can provide an economic stimulus and create jobs. Lastly, sustainability initiatives are increasingly viewed as a positive quality of life element which can be a major factor in attracting tourists and new residents, as well as retaining existing residents, who are essential to a growing healthy economy.

### 3. Environmental

As previously noted, the sustainability movement arose in response to environmental degradation, and addressing environmental issues remains a principal focus of sustainability initiatives. Continuing to focus on achieving greater sustainability will address numerous environmental impacts and lead to improved air and water quality, more urban wildlife, less pollution and waste, and a generally more livable and pleasant urban environment.







## COMPREHENSIVE PLAN IMPACT AND RECOMMENDATIONS

Potential Comprehensive Plan amendments to address sustainability by Element include the following:

### Future Land Use Element

- » Encourage compact multi-modal development
- » Responsive, compatible growth in existing neighborhoods
- » A built environment that supports healthy living
- » Support green design guidelines (i.e. green building practices such as the PACE program, car charging stations, tankless water heaters, rain collection systems, pervious on-street parking, bio-swales, Florida Friendly™ plant materials, solar panels and green roofs.)
- » Encourage density that supports transit and multi-modal transportation
- » Study feasibility of establishing an Eco-District program
- » Focus development and density in existing transit corridors
- » Improve the connectivity of bike lanes, sidewalks and transit

### Housing Element

- » Include Florida-Friendly™ and/or native plant targets in landscaping requirements
- » Support green design guidelines (i.e. green building practices such as the PACE program, car charging stations, tankless water heaters, rain collection systems, pervious on-street parking, bio-swales, Florida Friendly™ plant materials, solar panels and green roofs.)

### Infrastructure Element

- » Pursue alternative energy sources
- » Update city ordinances to remove barriers to renewable energy installations
- » Consider water reuse projects during the utility master planning process
- » Develop targeted water conservation programs to maintain treatment capacity and expand water reuse



- » Explore and expand opportunities for waste diversion
- » Implement green infrastructure as part of the stormwater master plan and provide planting area for native plants

#### **Conservation Element**

- » Maintain and achieve the targets for tree canopy coverage to provide wildlife and stormwater benefits and reduce energy use by cooling target areas with lower tree canopies for tree giveaways
- » Increase the use of Florida-Friendly™ and/or native plants to provide urban wildlife habitat for birds, butterflies, and other animals and to reduce water reuse

#### **Transportation Element**

- » Encourage multi-modal low GHG-emitting transportation options
- » Expand focus on creating a safe environment for walking and biking
- » Create a bicycle-pedestrian infrastructure
- » Encourage the planting of shade trees in streetscapes
- » Encourage increased transit infrastructure
- » Create and encourage alternative end of trip methods such as bicycling, walking, vehicle sharing, and transit in mobility hubs
- » Reduce household transportation costs by increasing access to workforce housing and mixed-use communities
- » Increase access to social, health and cultural destinations
- » Coordinate circulator and other transit services between adjacent municipalities
- » Improve neighborhood streets for the movement of people by all context appropriate transportation modes

#### **Parks and Recreation Element**

- » Utilize Florida-Friendly™ and/or native plants and plant communities in landscaping parks
- » Provide for active use and exercise
- » Promote the development of community gardens within residential neighborhoods and healthy eating habits throughout the community
- » Work with community leaders to develop comprehensive solutions to food deserts including nutrition education at Parks, encouragement of supermarket development in key areas, and planting of fruit trees.





## 4 Infrastructure

### DESCRIPTION

Hard infrastructure is defined as an interconnected physical network or system for the provision and delivery of essential commodities or services. At the local level, hard infrastructure includes the following: multi-modal transportation network; potable water treatment and collection system; sanitary sewer collection and treatment system; solid waste collection and disposal system; and stormwater drainage system. Soft infrastructure refers to institutions and facilities necessary to maintain community standards, the economy, and quality of life. At the local level, soft infrastructure includes parks, cultural facilities, and schools.

This Chapter addresses the physical capacity and condition of the City's hard infrastructure system, with the exception of the multimodal transportation system, which is addressed in the Multimodal Transportation Chapter. Certain aspects of the City's soft infrastructure system, including parks and the economy, are addressed in the "Sense of Place" and "Economy" chapters.

In order to maintain the physical capacity of its infrastructure system, the City of Fort Lauderdale has adopted Level of Service Standards in the Comprehensive Plan and Land Development Code. The City ensures that these standards are met through: Concurrency Management, which requires that the infrastructure needed to serve new development and redevelopment is in place prior to or at the time development; capital improvement projects, and; coordination with other service providers, such as Broward County.



### a. Sanitary Sewer

The City's adopted Level of Service standards for sanitary sewer, by type of development, are as follows:

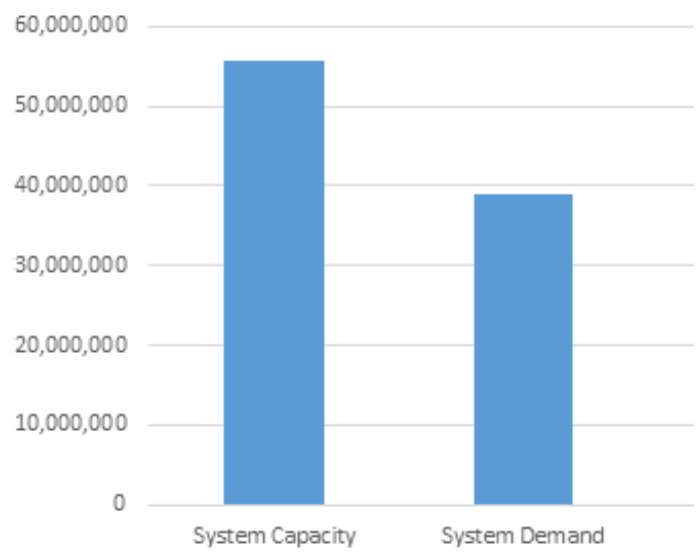
- » Single family housing, 350 gallons per day per unit
- » Other residential, 250 gallons per day per unit
- » Hotel/motel, 150 gallons per day per bedroom
- » Office, retail and warehouse uses- 1 gallon/day per s.f.
- » Institutional uses, 200 gallons per day per bed
- » Restaurant, 30 gallons per day per seat per day

Prior to issuing a development order, the City ensures that the system-wide capacity of the wastewater treatment system, and the sanitary sewer infrastructure that serves the site (i.e. pipes, pump stations), are sufficient to meet the standard based on the type and scale of development. If they are not sufficient, the developer may be required to provide the necessary improvements.

Central wastewater treatment in the City is provide through the George T. Lohmeyer Wastewater Treatment Plant, which is located on a ten acre site at Port Everglades. The plant provides continuous wastewater treatment to approximately 190,000 customers in Fort Lauderdale, Wilton Manors, and Oakland Park, as well as sections of Tamarac, Davie and unincorporated Broward County. Some residents in the service area remain on septic tank systems, mostly within the southern portion of the City of Fort Lauderdale. It is anticipated that these septic systems will be replaced with sewer service during the ten year planning period. The Plant has a current treatment capacity of 55.7 million gallons per day. In 2014, the City treated 14.24 billion gallons of wastewater, an average of 39,013,699 gallons per day.<sup>6</sup>

In addition to ensuring capacity to meet demand, the City is also implementing strategies to reduce wastewater flow. The Waterworks 2011 program identified approximately \$70 million in capital projects to reduce groundwater infiltration and unnecessary treatment, modernize infrastructure, and otherwise improve the operation and efficiency of the system. The 2015 Commission Annual Action Plan prioritized wastewater infiltration and inflow reduction through the rehabilitation of gravity mains, sewer laterals, manholes, and ten pump station areas between 2016 and 2019.<sup>8</sup>

**FORT LAUDERDALE 2015 WASTEWATER SYSTEM CAPACITY AND DEMAND**





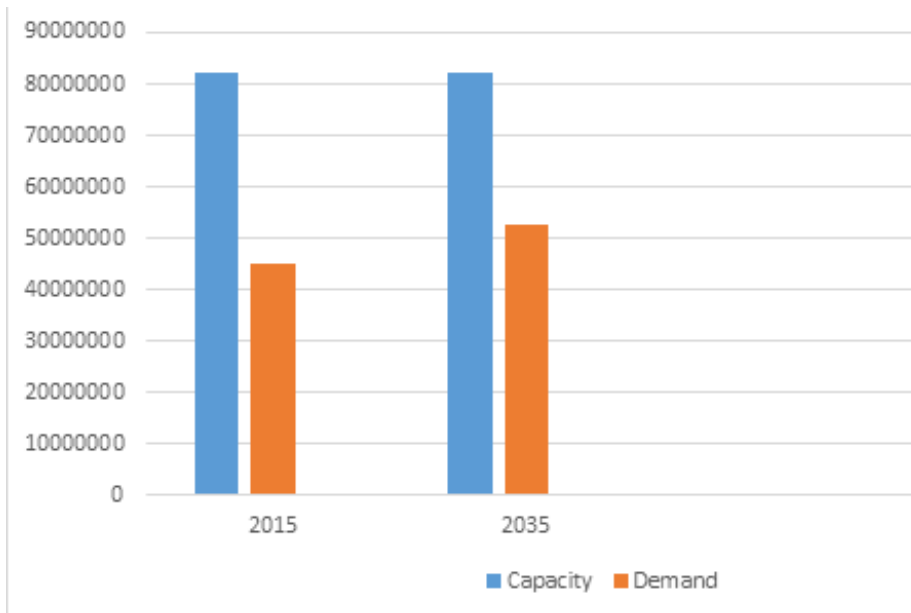
### b. Potable Water

The City's adopted Level of Service Standard for potable water is 197 gallons per capita per day. In 2014 the City updated its 10-Year Water Supply Facilities Workplan, which indicates how it will meet its potable water needs and level of service standard during the ten year planning period.

The City of Fort Lauderdale is the largest potable water supplier in Broward County. The City's Water Service Area provides potable water to 228,546 customers in the City and surrounding areas. By 2025, the service area population is projected to increase to 251,758 and by 2035, it is projected to increase to 267,196.

In order to meet the Level of Service, the City needs to have the capacity to provide 45,023,562 gallons of potable water per day. To meet projected demand in 2035, the City will require the capacity to treat 52,637,612 gallons per day. The City currently has the capacity to treat 82,000,000 gallons per day. It is therefore anticipated that the City will continue to meet its potable water Level of Service Standard through the short- and long-range planning periods. The City has established a conservation goal to reduce the potable water Level of Service Standard to 170 gallon per day by 2028.

**POTABLE WATER CAPACITY AND DEMAND**





### c. Solid Waste

The City's Level of Service Standard for solid waste is 7.2 pounds per capita per day. This requires a collection and disposal capacity of 1,235,189 lbs. per day at present (current population 171,544), and will require a collection and disposal capacity of 1,360,354 lbs. per day in 2035 (projected population 188,938).

In order to increase efficiencies and reduce the amount of solid waste produced, the City of Fort Lauderdale follows an integrated approach to solid waste management, including municipal solid waste, recycling, bulk trash, yard waste, and household waste and electronics disposal. In 2010, the City collected and disposed of approximately 40,000 tons of municipal solid waste, recycled approximately 10,000 tons and diverted 25,000 tons of yard waste from the waste stream. The amount of landfilled solid waste decreased almost 6,000 tons between 2007 and 2010, while the amount of materials recycled doubled and the amount of yard waste diverted almost tripled. The City, in accordance with its Sustainability Action Plan and other green initiatives, plans to achieve a recycling rate of 93% by 2020.

### d. Drainage

The City's adopted Level of Service standards for stormwater drainage are: a minimum public road elevation to withstand flooding that will occur during a ten year, one day storm event, and; a minimum floor elevation to withstand flooding during a 100 year, three day storm event. In addition, new development and redevelopment must provide for retention and treatment of the first inch of stormwater runoff through the use of vegetative swales, perforated pipes, deep well injection, or other means acceptable to City, County and/or State agencies or departments.

The City's stormwater drainage infrastructure includes 171 miles of stormwater pipes, 2,324 manholes, 1,258 outfalls, 37 drainage wells, and 8,288 catch basins. The City participates in the Federal Emergency Management Agency's (FEMA) Community Rating System, which allows residents to receive discounts on federal flood insurance. In addition, the City maintains a Stormwater Master Plan, which identifies projects to maintain and improve drainage performance through 2025. As discussed in Chapter I., increased sea levels resulting from climate change directly impact the performance of the City's drainage infrastructure. Addressing these impacts is a key component of the City's stormwater drainage and flood management efforts.



## OTHER PLANNING EFFORTS



The *2011 Sustainability Action Plan* outlines a number of strategies to increase the sustainability and performance of the City's infrastructure. The *Sustainability Action Plan* calls for reducing water demand 20% by 2020. Action steps to achieve this goal include water-efficient plumbing and fixtures, escalation of potable water fees for high-users in single family areas, low volume/avoidance wa-

tering, resource planning and conservation efforts focused on large water users, and rainwater harvesting. The *Sustainability Action Plan's* wastewater and stormwater goal is to reduce and improve wastewater treatment through reduced inflow and infiltration, runoff pre-treatment requirements, bioswales, and storm inlet improvements. With regard to solid waste, the Sustainability Action Plan establishes recycling and waste reduction goals for City departments, and calls for increasing recycling rates by 50% by 2020.

Infrastructure is also addressed in the City's Fast Forward Fort Lauderdale Our City Our Vision Plan. Of the 1,562 ideas received during the visioning process, eight were specific to potable water supply and demand, two addressed recycling and composting, six addressed drainage, and four addressed wastewater treatment.

*Press Play Fort Lauderdale Our City, Our Strategic Plan 2018* addresses infrastructure under Goal 2, "Be a sustainable and resilient community". Objective 1 is "Proactively maintain our water, wastewater, road and bridge infrastructure". Objective 2 is "Reduce flooding and adapt to sea level rise". Objective 4 is "Reduce solid water disposal and increase recycling". Objective 6 is "Secure our community's water supply". Strategic initiatives to achieve these objectives include developing performance measures to reduce infiltration and inflow, expanding multi-family and commercial recycling programs, reusing yard waste in a free mulch program, and identifying and implementing water reuse opportunities.

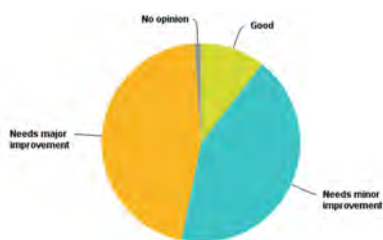
The *January 2015 Press Play Strategic Plan Progress Report* indicates that the City has made progress in implementing its strategic initiatives. For example, water line breaks decreased by 20% in 2014, and storm drains are inspected and cleaned on a more frequent basis.



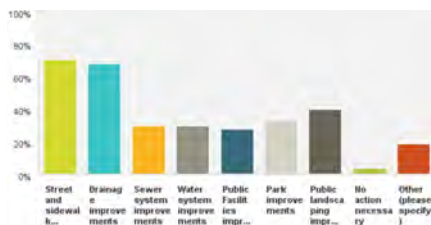


## 2015 EAR QUESTIONNAIRE

HOW WOULD YOU RATE THE CITY'S INFRASTRUCTURE?



WHAT TYPES OF INFRASTRUCTURE IMPROVEMENTS DOES THE CITY NEED TO MAKE?



In the 2015 EAR Questionnaire, a total of 579 individuals answered the question “How would you rate the City’s infrastructure?”. A total of 61 (10.54%) answered “good”, 247 (42.66%) answered “needs minor improvement”, and 265 (45.77%) answered “needs major improvement”.

A total of 584 individuals responded to the question “What types of infrastructure improvements does the City need to make?”. A total of 409 (70.03%) answered sidewalk and street improvements, 393 (67.29%) selected “drainage improvements”, 232 (39.73%) selected “public landscaping improvements”, 189 (32.356%) selected park improvements, 173 (29.62) selected “sewer system improvements”, 172 selected “water system improvements”, and 160 (27.40%) selected “public facility improvements”.



## SOCIAL, ECONOMIC, AND ENVIRONMENTAL IMPACTS

### 1. Social

From a social standpoint, the provision of utilities and services is an important component of the City's quality of life. Residents, visitors and businesses benefit from increased service levels and enhanced public facilities with outcomes including reduced obesity, reduced diabetes rates, and increased cardiovascular health.

### 2. Economic

From an economic standpoint, the provision of utilities, infrastructure and services entails a significant public cost. The Comprehensive Plan's Capital Improvements Element and Schedule must include a financially feasible plan for providing these services during the planning period that includes dedicated and potential funding sources. In adopting its EAR-based amendments the City will update the Capital Improvements Schedule in accordance with the State growth management requirements. The Capital Improvement Element is updated annually through the adoption of the Five Year Community Improvement Plan.

### 3. Environmental

From an environmental standpoint, infrastructure and utility improvements can reduce or eliminate negative environmental impacts through such strategies as best management practices and the replacement of substandard or failing infrastructure. Moreover, these improvements often further the achievement of specific environmental goals (i.e. water conservation, open space, recycling programs, etc.)



## COMPREHENSIVE PLAN IMPACTS AND RECOMMENDATIONS

General descriptions of Comprehensive Plan revisions to address infrastructure are as follows:

### Infrastructure Element

- » Reduce potable water demand
- » Encourage low volume/avoidance watering
- » Discourage excessive water use, including escalating fees and engagement of large water users in conservation efforts
- » Encourage rainwater harvesting
- » Reduce wastewater flow by reducing groundwater infiltration and other strategies (establish numerical benchmark)
- » Establish and enforce runoff pre-treatment requirements
- » Promote the use of bioswales
- » Implement storm inlet improvements
- » Increase recycling rates
- » Further promote the segregation and reuse of “green” waste
- » Coordinate standards for new stormwater methods with Broward County and the South Florida Water Management District
- » Encourage the conversion of street lighting and traffic signals to LED and/or solar lighting where feasible



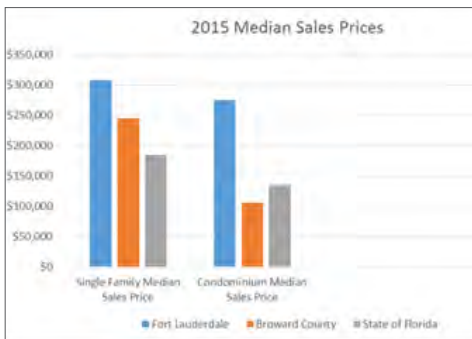
## 5 HOUSING

### DESCRIPTION

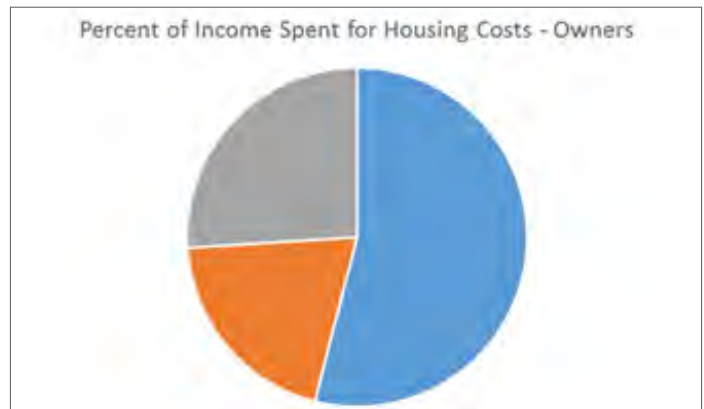
South Florida ranks nationally as the fifth most expensive major metropolitan area in terms of housing costs, after San Francisco, San Diego, Los Angeles and New York City<sup>10</sup>. Although increased property values are a positive economic indicator, they also reduce the stock of housing that is affordable to middle, moderate and low income households. This shortage of “workforce housing” has numerous economic implications, as the region’s existing and potential workforce is priced out of the market, and employers are hesitant to remain in or relocate to areas that employees cannot afford.

Fort Lauderdale, with its strategic coastal location and renowned quality of life, has also experienced dramatically rising housing costs. The median sales price for a single family home in the City was \$308,000 in 2014, compared to a median sales price of \$245,000 in Broward County and \$185,000 in the State of Florida. For condominium units, the median sales price in Fort Lauderdale was \$275,000 in 2014, compared to \$105,800 in Broward County and \$135,000 in the State. The median gross rent in Fort Lauderdale was \$1,057, compared to the median gross rent of \$1,171 in Broward County and \$990 in the State.<sup>12</sup>

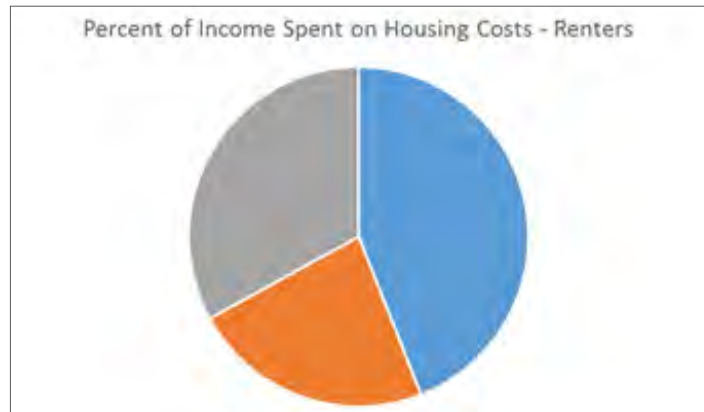
“Housing cost burden”, defined as the percent of a household’s income that is used to pay for housing costs, is frequently used as a measure for determining whether or not housing is affordable. According to federal housing program guidelines, housing costs should not exceed 30 percent of a household’s income in order to be considered affordable. Federal guidelines define an extremely low income household as a household whose income is at less than 30% of the median income for the area, a very low income household as a household whose income is at or below 50 percent of the median household income for the area, a low income household as a household whose income is between 50 and 80 percent of the median for the area, and a moderate income household as a household whose income is between 80 and 120 percent of the median for the area. The median income for a family of four in Broward County is \$63,300.



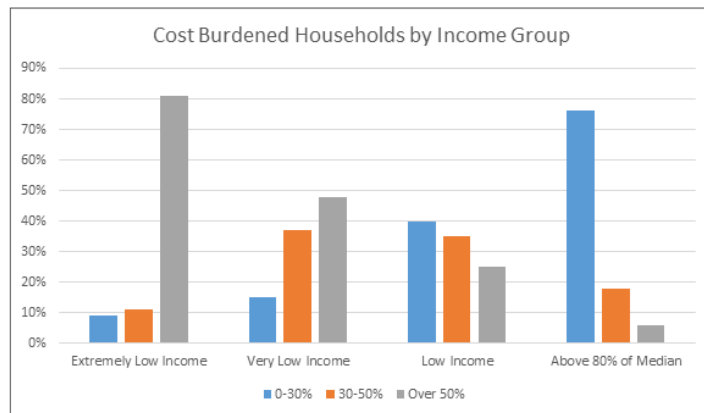
The homeownership rate in Fort Lauderdale is 55.6%, compared to 67% in Broward County and 67.6% in the State. Among the 43,067 homeowner households in the City, 8,617 (20%) pay between 30 and 50% of their income and 10,991 (26%) pay over 50% of their income for housing costs. Among the 34,397 renter households in the City, 8,037 (23%) pay between 30 and 50% and 11,181 (33%) pay over 50% of their monthly income for rent. Therefore, 46% of the City's homeowner households and 56% of its renter households are cost burdened, indicating a continued need for more affordable housing options.



Lower income households generally face the largest housing cost burdens. Out of the 14,253 extremely low income households in the City, 11,617 (81%) paid more than 50% of their income and 1,566 (11%) paid between 30 and 50% of their income for housing. Among the 10,879 very low income households, 5,168 (48%) paid more than 50% and 4,015 (37%) paid between 30 and 50% for housing. Among the 11,989 low income households, 2,940 (25%) paid more than 50% and 4,164 (35%) paid between 30 and 50% of their income for housing. Among the 39,434 households earning at or above 80% of the median, 2,447 (6%) paid more than 50% and 6,909 (18%) paid between 30 and 50% of their income for housing.<sup>12</sup>



The State of Florida defines a substandard unit as any unit that: lacks heat and/or; a complete kitchen, and/or; complete plumbing, and/or; is overcrowded (housing more than one person per room). According to the 2009 – 2013 American Community Survey, 2,765 housing units in the City (3.9%) are overcrowded; 2,467 (3.4%) do not use home heating fuels; 1,246 (1.3%) lack complete plumbing facilities, and; 1,928 (2.1%) lack complete kitchens.<sup>13</sup>



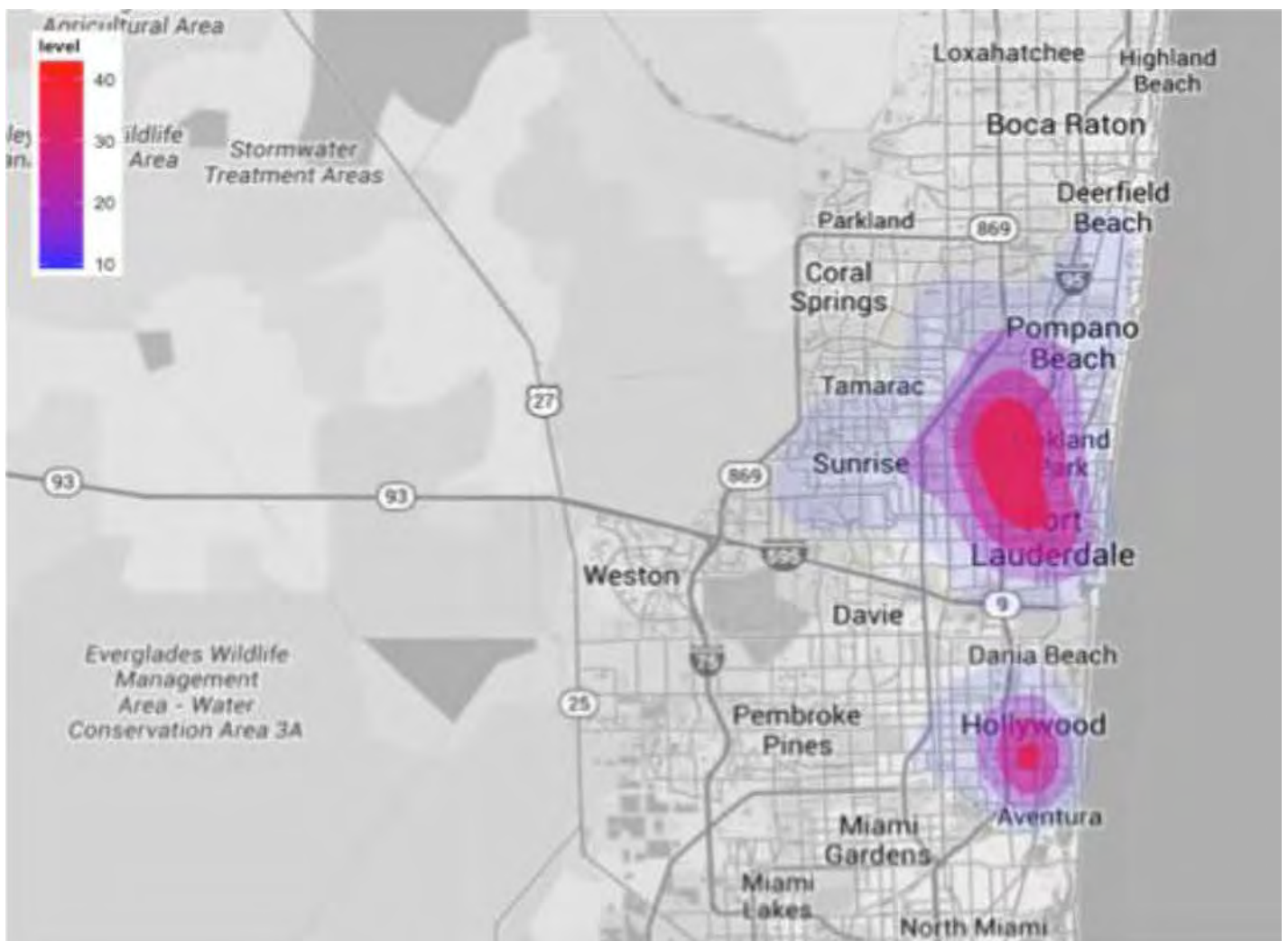
Peter Calthorpe, a noted architect and planner, stated that “affordable housing must begin with affordable neighborhoods”. The two largest costs borne by American households are housing (32% of income), and transportation (19% of income). Households earning less than 30% of the median (extremely low income) face the most daunting transportation challenges, often relying on undependable older model automobiles and spending over 50% of their income on transportation costs. In a transit rich environment, transportation costs for the extremely low income households can be reduced to as low as 9% of income.<sup>14</sup>

Providing increased affordable housing opportunities proximate to transit is therefore key to reducing cost burdens and increasing economic opportunities for all households, particularly in lower income groups. The Center for Neighborhood Technology has developed an index to gauge the linkage between housing and transportation affordability for communities throughout the U.S. According to this resource, the average household in Fort Lauderdale spends 66% of their income on housing and transportation costs, and spends \$10,618 annually for transportation. Out of a scale of 1 to 10, in comparison to other neighborhoods in the U.S., Fort Lauderdale received 7.5 for job access, 5.5 for transit access, and 7.5 for high density and walkable neighborhoods.<sup>15</sup>

Homelessness is a daunting challenge in the City of Fort Lauderdale. According to the 2014 Point in Time homeless count conducted by the Broward County Homeless Continuum of Care Board, there were a total of 2,766 homeless individuals in Broward County (count dates January 21-23, 2014). Of these individuals 1,887 (68%) were sheltered and 879 (32%) were unsheltered. As the County's major urban center, a high proportion of the homeless are in Fort Lauderdale. The Point in Time count estimates that 29% of the County's homeless are in the City.<sup>16</sup>

**MAP - HOMELESS IN BROWARD COUNTY**

(from Point in Time Count Report)





## OTHER PLANNING EFFORTS

The City of Fort Lauderdale, as required by State Statute, has appointed an Affordable Housing Advisory Committee as a condition for participation in the State Housing Initiatives Partnership (SHIP) program. In their January 2012 Committee Report, the Affordable Housing Advisory Committee recommended that the City give priority consideration to the following affordable housing initiatives:

- » Expedited permitting;
- » Flexible zoning that focuses on the removal of regulatory barriers;
- » Creation of more public/private partnerships, and;
- » Additional funding.

Housing is a major consideration in City's *Fast Forward Fort Lauderdale Our City, Our Vision 2025*. Of the 1,562 ideas received during the visioning process, seven were specific to homelessness, 15 addressed code enforcement, and four addressed housing affordability.

*Press Play Fort Lauderdale Our City, Our Strategic Plan 2018* addresses homelessness and housing affordability as well. Goal 6, Neighborhood Enhancement, is "Be an inclusive community made up of distinct, complimentary and diverse neighborhoods". Objective 2 under Goal 6 is "Ensure a range of housing options for current and future neighbors". Strategic initiatives to achieve that Objective include a Housing and Market Study and

providing land use and zoning for a range of housing options, including accessory dwelling and live-work units.

The *January 2015 Press Play Strategic Plan Progress Report* indicates that the City has made progress in implementing its strategic initiatives. With regard to homelessness, in 2014 22 homeless individuals or households were provided permanent supportive housing under the Continuum of Care Program, and a full time Homeless Administrator City staff position was created and filled.

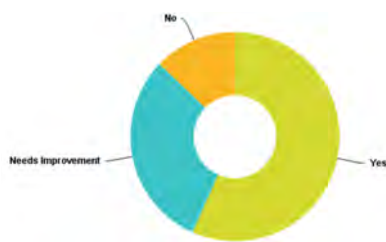
In September 2015 Florida International University's Metropolitan Center completed the Affordable Housing and Economic Analysis for the City of Fort Lauderdale. The Study addressed a number of issues, including population trends, economic indicators, the housing inventory, and policy implications. The Study found that an increased demand for workforce housing "magnifies the importance of providing a wide spectrum of owner and renter choice and opportunity with respect to affordability location and access to jobs".<sup>17</sup>



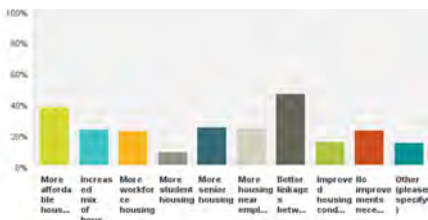


## 2015 EAR QUESTIONNAIRE

DO YOU THINK HOUSING NEEDS ARE CURRENTLY BEING MET IN THE CITY?



WHICH OF THE FOLLOWING ARE NEED TO BETTER MEET HOUSING NEEDS?



In the 2015 EAR Questionnaire, a total of 570 individuals answered the question “Do you think housing needs are currently being met in the City?”. A total of 323 (56.67%) answered “yes”, 174 (30.53%) answered “needs improvement”, and 74 (12.81%) answered “no”.

A total of 555 individuals answered “Which of the following are needed to better meet housing needs?” as follows: 254 (45.77%) selected “Better linkages between housing and transportation”; 208 (37.66%) selected “More affordable housing options”; 135 (24.32%) selected “More senior housing”; 133 (23.96%) selected “More housing near employment and activity centers”; 128 (23.06%) selected “Increased mix of housing types”; 126 (22.70%) selected “No improvements necessary”; 121 (21.80%) selected “More workforce housing”; 83 (14.95%) selected “Improved housing conditions” and; 46 (8.29%) selected “More student housing”.





## SOCIAL, ECONOMIC, AND ENVIRONMENTAL IMPACTS

### 1. Social

The scarcity of affordable housing contributes to many social issues, including poverty, homelessness, displacement, and foreclosures. Moreover, substandard and dilapidated housing negatively impacts the quality of life of occupants and neighborhoods. Affordable housing reduces such problems with the added social benefit of increased economic diversity.

### 2. Economic

From an economic standpoint, the availability of quality affordable housing increases household disposable income, which positively impacts local businesses and furthers job creation and other economic development goals. Moreover, the availability of affordable housing makes an area more attractive for workers and employers, and can be a key factor in attracting new business to the area.

### 3. Environmental

From an environmental standpoint, slum and blight conditions and a scarcity of affordable housing negatively impacts public health and safety, and degrades the quality and aesthetic beauty of the built and natural environment.





## COMPREHENSIVE PLAN IMPACT AND RECOMMENDATIONS

General descriptions of potential Comprehensive Plan amendments to address housing are as follows:

### Future Land Use Element

- » Allow accessory dwelling units within residential districts, as appropriate
- » Allow live-work units in the appropriate districts
- » Responsive, compatible growth in existing residential neighborhoods
- » Coordinate with the County on flexibility unit policies in order to provide more authority to the City

### Housing Element

- » Work to ensure that all new affordable housing units are water and energy efficient to reduce monthly costs for the residents.
- » Call for the development, redevelopment, retention or replacement of affordable and attainable homeowner and rental units to reduce the number of cost burdened households
- » Address substandard and dilapidated housing conditions through targeted rehabilitation and demolition, code enforcement, grant funds for eligible owners, and other mechanisms
- » Provide for the development of new housing units, particularly affordable housing, along current or planned complete streets and/or transit corridors;
- » Foster programs to assist in “future-proofing” the housing stock with leading practices on resiliency, energy and water efficiency
- » Address homelessness through the provision of temporary, transitional and permanent housing and related support services, and support of Continuum of Care programs and initiatives
- » Foster public/private partnerships for affordable housing development
- » Seek additional funding, including grants, for affordable housing
- » Utilize City of Fort Lauderdale property as a contribution to affordable housing projects





## 6 TRANSPORTATION

### DESCRIPTION

Transportation in Fort Lauderdale is about much more than the automobile. The City, as evidenced by its leadership in spearheading the 2015 Transportation Summit and myriad other transportation initiatives, is striving for a safe and integrated multi-modal transportation system that provides for the full range of mobility options, including walking, bicycles, and transit. Reducing dependence on the automobile by expanding mobility options, particularly for local trips, decreases traffic congestion, increases public health, lowers greenhouse gas emissions, and provides numerous other benefits.

A fully connected multimodal City emerged as the top community priority in the City's Fast Forward Fort Lauderdale Vision Plan. Of the 1,562 ideas received during the visioning process, 376 were related to this topic. The "WE ARE CONNECTED" Vision Platform states that in 2035, "we move seamlessly and easily through a safe transportation system where the pedestrian is first".

A comprehensive community planning effort was conducted to develop the strategies to realize the vision of having a connected community where the pedestrian is first. The effort included input from the Vision planning efforts as well as supplemental outreach focusing on multimodal transportation needs. The resulting Program is entitled "Connecting the Blocks Program: A multimodal connectivity program". The Program was established in compliance with the Complete Streets Policy adopted by the City Commission in October 2013, and identifies a detailed listing of roadway improvements to create connected, Complete Streets.

The Connecting the Blocks Program identifies pedestrian, bicycle and transit infrastructure improvements needed to implement the Complete Streets Policy. Each street was evaluated based on its context (i.e. such categories as Center City Boulevard, Commercial Avenue and Residential Street) and current conditions to determine needed improvements. A comprehensive list was then prioritized based on criteria utilizing rankings from various funding sources to assist in determining the viability of funding the projects in the future. Those criteria were weighted based on input from the City Commission, with a higher weight given to projects that improve safety, contain sustaining elements, fill existing network gaps, and support transit.

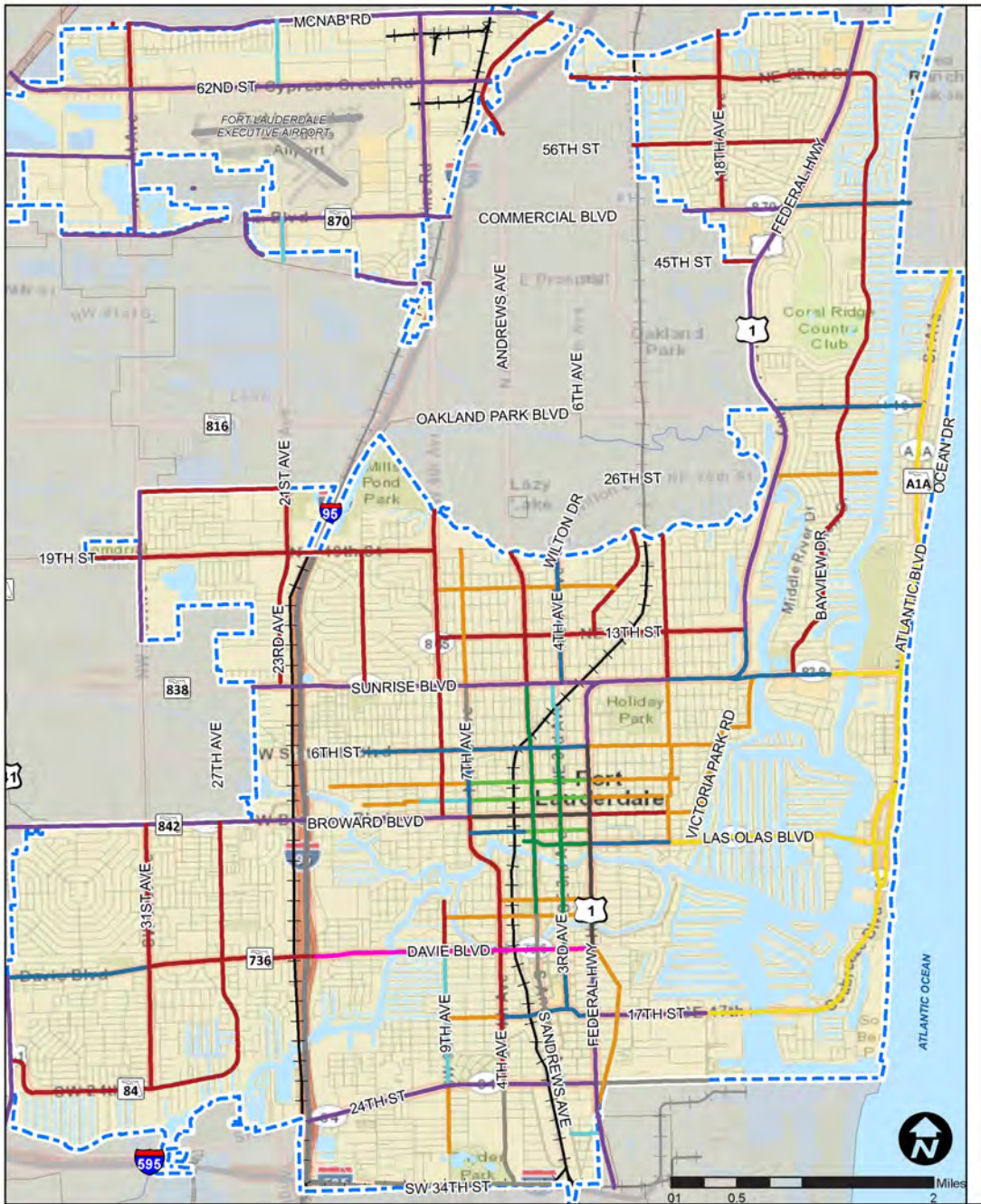
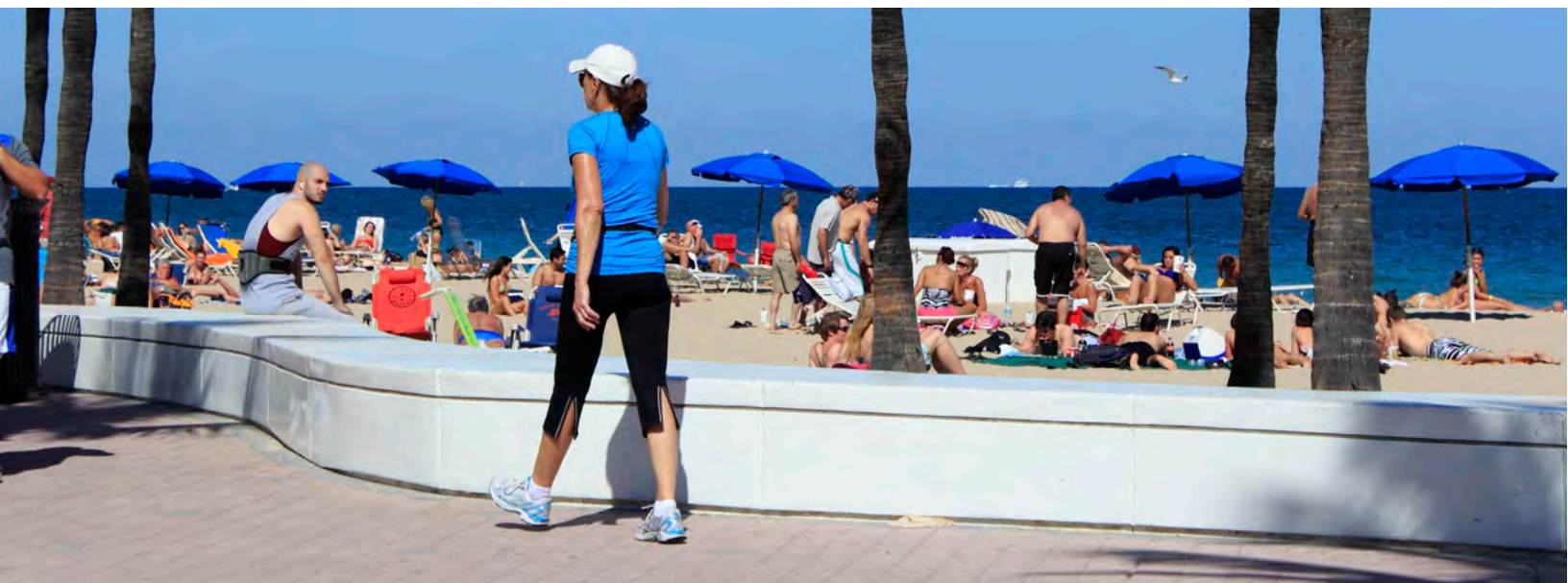


Figure 49: Complete Streets Typology

- |  |                       |  |                    |  |                    |  |   |
|--|-----------------------|--|--------------------|--|--------------------|--|---|
|  | Center City Boulevard |  | Center City Avenue |  | Center City Street |  | Beachfront Thoroughfare                                   |
|  | Commercial Boulevard  |  | Commercial Avenue  |  | Commercial Street  |  | Industrial Thoroughfare                                   |
|  | Residential Boulevard |  | Residential Avenue |  | Residential Street |  | Neighborhood Street<br>(either residential or commercial) |



## 1. Complete Streets

Complete Streets are the cornerstone of the City's transportation strategy. A complete street is a roadway designed to accommodate pedestrians, bicycles, transit, and automobiles in a context sensitive manner that reduces conflicts and prioritizes non-automobile transportation modes. Roadway design has traditionally been oriented to the automobile, and the result has been streets that are inconvenient or even unsafe for other transportation modes. The Complete Streets movement reverses this trend.

The City has adopted a Complete Streets Policy in order to "guide the planning, design, operation and maintenance of appropriate facilities for pedestrians, bicyclists, transit and transit riders, freight carriers, and emergency responders". As per this Policy, the City will transform many of its streets into Complete Streets that accommodate a full range of transportation options and are compatible with adjacent land uses, functional for all users, safe, convenient, and visually appealing. A Complete Streets Manual has been prepared in order to guide the implementation of this Policy.<sup>18</sup> Figure E. shows the City's Complete Street and Typology Map. It is important to note that a Complete Street does not always require accommodation of every transportation mode; in some cases, certain modes might be inappropriate due to the roadway's function and context in the built environment.

## 2. Pedestrians

Accommodating the pedestrian is the primary objective of the City's Complete Streets program. In order to be a Complete Street, wide sidewalks, shade, street furniture, lighting, marked crosswalks, and other features that put the pedestrian first must be provided. Beyond Complete Streets, a connected system of sidewalks and pedestrian facilities that makes walking a viable transportation option should be provided throughout the City. In addition to pedestrian facilities, promoting compact mixed-use development that allows people to safely and conveniently walk to and from their homes to jobs, shops, services, schools, parks, and other community facilities is one of the most effective strategies for the providing a pedestrian friendly environment.

The City's Connecting the Blocks Program reviewed roadway segments and ranked projects based on the level of connectivity they would provide, including: the number of new crosswalks; if it filled a gap in an existing network; if it supports transit access, and; if it addresses an existing safety issue. These factors combined with others allowed the project to be scored in comparison with other potential projects.



### 3. Bicycles

Bicycles and bicycle facilities are an important part of the City's multi-modal transportation system. Bicycles are a convenient and efficient mode for making short trips, and also provide numerous environmental and public health benefits. Encouraging bicycles as a safe and viable alternative to the automobiles can be accomplished by providing safe and connected bicycle lanes, convenient and well-located parking racks, transit accommodations, and other facilities and services. Incorporating bicycle lanes and facilities on streets is an essential part of providing a "Complete Street".

Figure F. shows bicycle lanes and facilities in the City of Fort Lauderdale. Unfortunately, at present many of the City's collector and arterial streets have limited bicycle facilities and lanes, and in many cases the lanes are not connected. The City will address these deficiencies in its transportation planning through Connecting the Blocks Program implementation and Complete Street initiatives.

B-Cycle, a membership based bicycle sharing program, has been offered at various locations throughout Fort Lauderdale since 2011. The program allows members to rent a bicycle at any B-cycle station, and drop it off at the same or any other station. As shown in Figure F, there are currently 18 B-Cycle stations located throughout Downtown Fort Lauderdale and Fort Lauderdale Beach. Since the creation of Broward B-Cycle there have been 110,054 bike rides by 74,730 individual riders. The program's 1,619 annual members have rode 393,589 miles, saving 19,387 gallons of gas and reducing carbon emissions by

381,374 lbs while also burning 14,956,367 calories and 4,171 lbs of fat. Efforts are on-going to continue increasing the infrastructure to grow the bike share program. B-cycle utilization continues to grow each year within the City of Fort Lauderdale.

The City's Connecting the Block Program reviewed the roadways within the City against Complete Street standards and identified implementation strategies necessary to accomplish the goals of the Fast Forward Fort Lauderdale Vision Plan. Projects were ranked on such criteria as: the level of connectivity that would be provided including the length of new bike lanes; if it filled a gap in an existing network; if it supports transit access, and; if it addresses an existing safety issue. These factors combined with others allowed the project to be scored in comparison with other potential projects.

Continued efforts to require bicycle parking and supportive facilities such as showers should be pursued in support of the efforts to increase the number of bike lanes throughout the City. As bike routes continue to expand, the need for bicycle parking will also continue to grow. In the most recent Neighbor Survey in 2014, the top priority for transportation and mobility issues was bicycle safety.







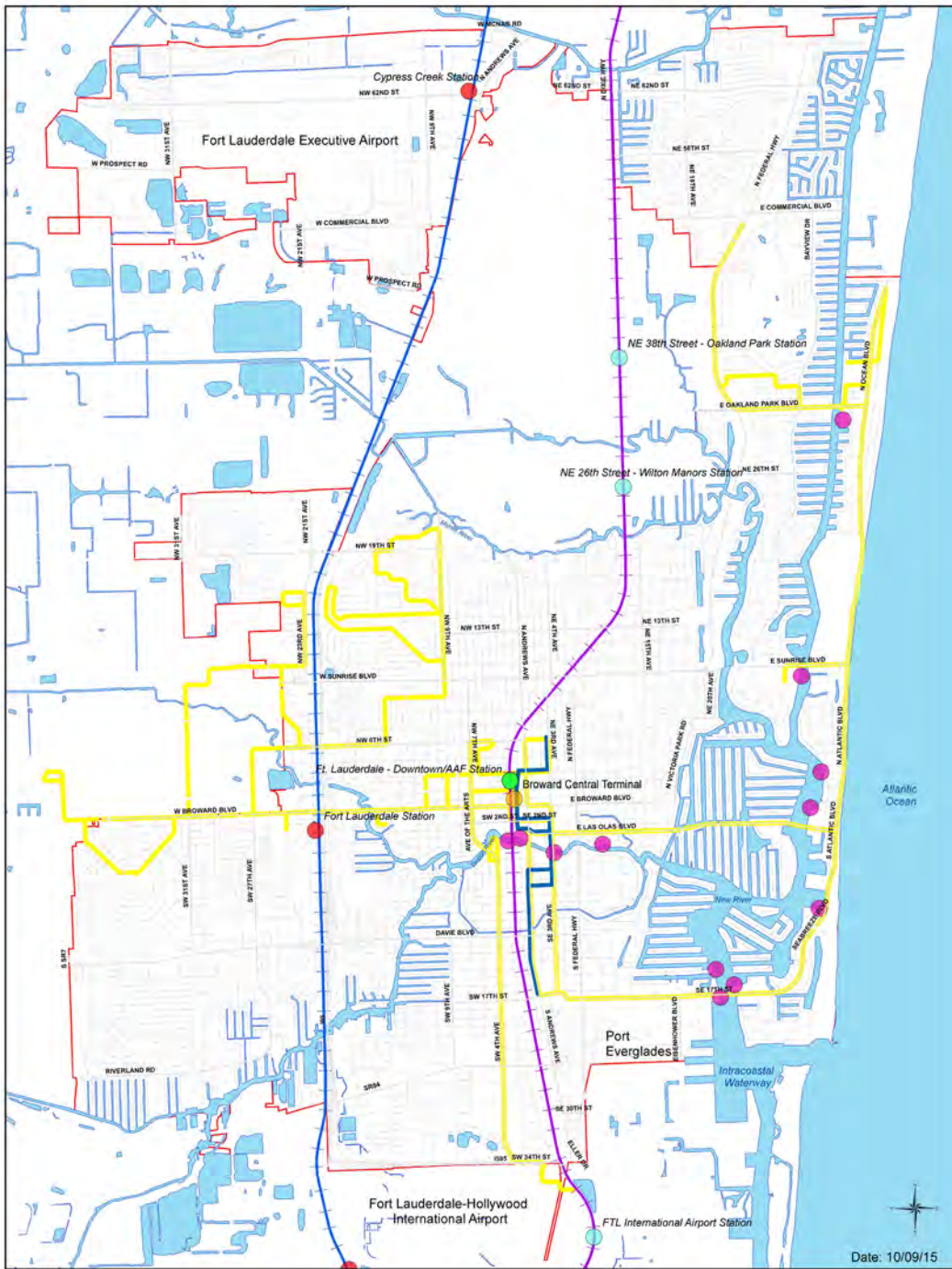
#### 4. Transit

Transit in Fort Lauderdale includes buses, paratransit, land and water trolleys, and commuter rail. The City's Transit System is shown on Figure G. Bus service in the City is offered along 21 fixed routes by Broward County Transit (BCT). Average daily weekday ridership on Broward County's route bus system was 138,711 in February 2015. In the fourth quarter of 2014 BCT's weekday bus service was the 23rd largest bus system in the U.S. in terms of ridership. In addition to the BCT transit service, the Sun Trolley provides community bus service along nine routes in the City, including a water trolley route. Unlike the BCT bus service, Sun Trolley buses do not have fixed stops, but can be flagged down by riders, and primarily move riders within the City of Fort Lauderdale. Monthly ridership on the City's Sun Trolley in March 2015 was 54,621. In addition to the Sun Trolley, the Uptown Link is a free City-operated shuttle that operates in the Cypress Creek area. Broward County Transit also offers paratransit service by reservation to eligible riders. As part of the Connecting the Blocks Program projects were ranked on criteria that included such factors as the level of support for transit stops and ridership.

South Florida Regional Transportation Authority's (SFRTA) Tri-Rail system offers commuter rail service between Mangonia Park in Palm Beach County and Downtown Miami. Fort Lauderdale's two Tri-Rail stations are located at Broward Boulevard and I-95, and Cypress Creek Road and I-95. In 2013, the Cypress Creek Station had 1,097 daily boardings, and the Broward Boulevard Station had 1,005 daily boardings. Efforts are underway to examine land use and infrastructure improvements to support transit ridership and create a Mobility Hub in the area surrounding the Cypress Creek Tri-rail Station.

There are several projects on the horizon that will greatly enhance transit connectivity in Fort Lauderdale. The first phase of the Wave Modern Streetcar, an environmentally-friendly electric fixed rail streetcar system, will operate along a 2.7 mile route in Downtown Fort Lauderdale. Additional extensions including connections to the airport and seaport are in the preliminary planning phases. The Wave Streetcar will greatly enhance the City's Complete Street efforts, and serve as an important component of its multi-modal transportation system. As a portion of this project, "last mile" pedestrian and bicycle improvements are being made to further support transit ridership.

The Tri-Rail Coastal Link Project will expand Tri-Rail service to the Florida East Coast (FEC) Railway Corridor that traverses South Florida's urban core, including Downtown Fort Lauderdale. The Coastal Link will significantly expand the Tri-rail system, and its Downtown Fort Lauderdale station, currently planned for the Government Center area, is likely to become a transit hub. All Aboard Florida is a planned passenger rail service that will link Miami, Fort Lauderdale, West Palm Beach, and Orlando. An All Aboard Florida station will be located in Downtown Fort Lauderdale. Efforts are underway to examine land use and infrastructure improvements to support transit ridership and create a Mobility Hub in the area surrounding the All Aboard Station.

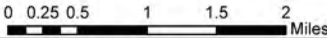


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**Legend**

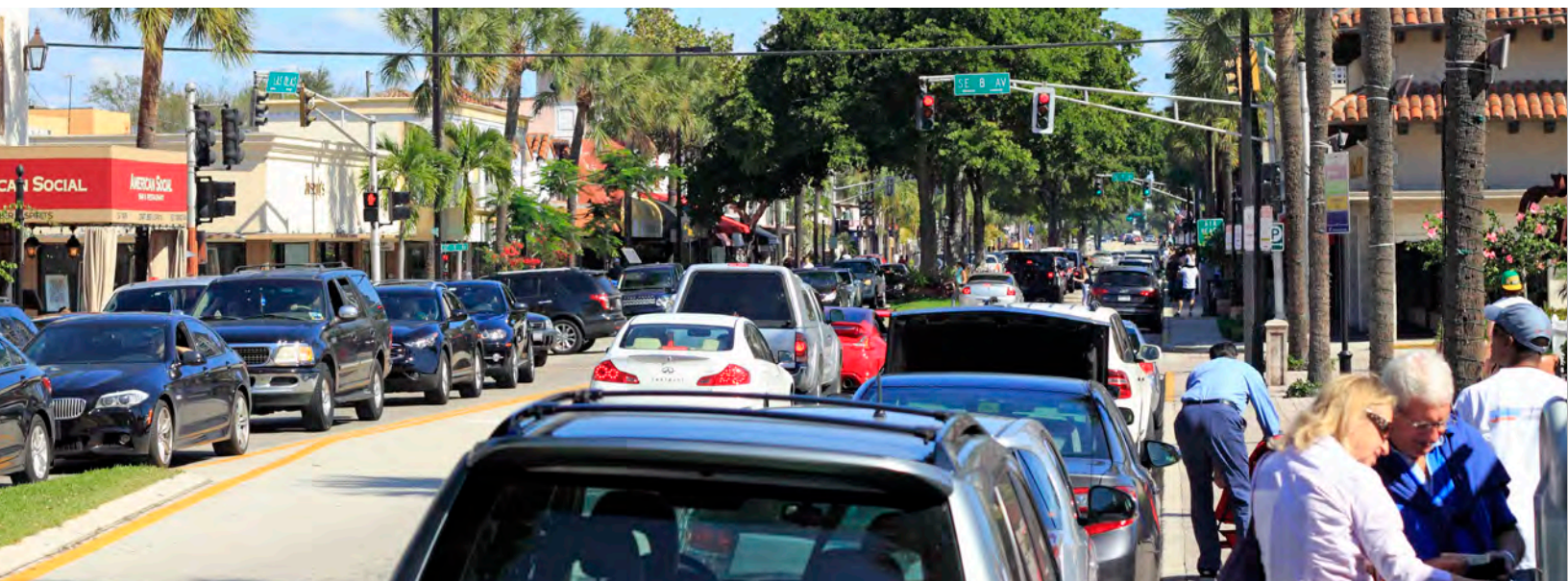
- Broward Central Terminal
- Existing Tri-Rail Stations
- Proposed All Abroad Florida/Tri-Rail Coastal Link Stations
- Proposed Tri-Rail Coastal Link Stations
- Water Taxi Stops
- Wave Line
- Existing Tri-Rail
- FEC Corridor (Proposed AAF/Tri-Rail Coastal Link)
- Sun Trolley
- Local Streets
- Fort Lauderdale Municipal Boundary
- Water

Data Source: City of Fort Lauderdale (2015), Broward County (2014), Sun Trolley (2014), FDOT (2014)



**City of Fort Lauderdale  
Existing and Proposed  
Transit Infrastructure**





## ROADWAYS

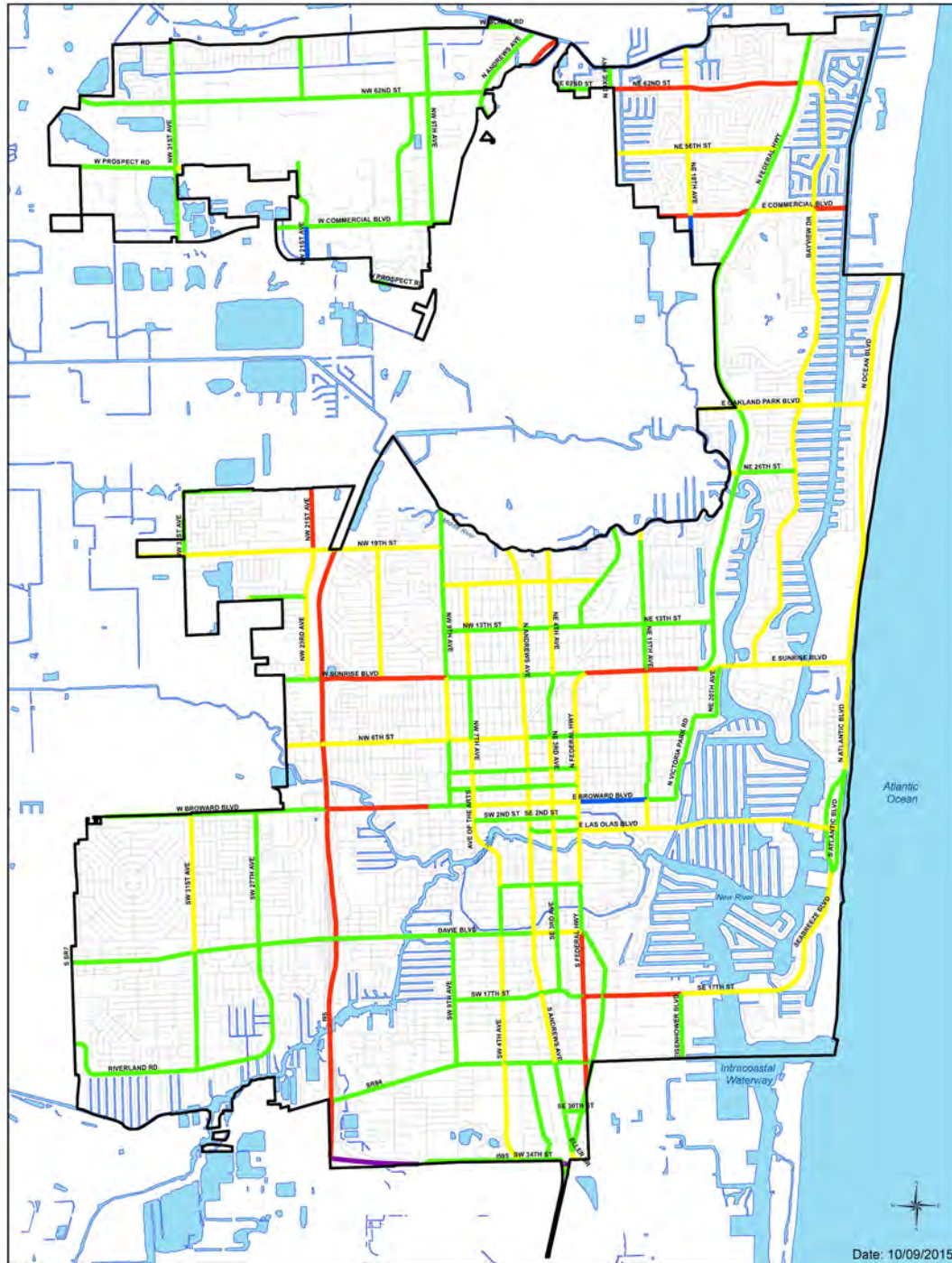
Like many areas in South Florida, vehicle traffic congestion and the function of the roadway system is a daunting problem in Fort Lauderdale. Fort Lauderdale is largely built-out, and it is unlikely that the vehicle capacity of its roadways system can be significantly increased. However, by providing alternatives to the automobile the overall capacity of the roadways to move people will be increased, reducing vehicle traffic congestion.

The Level of Service Standard for roadways is based on the following definitions:

- » LOS A  
Free flow traffic operations at average travel speeds;
- » LOS B  
Stable flow with other users in traffic stream;
- » LOS C  
Uncongested with other users causing significant interactions;
- » LOS D  
Congested stable flow with major delays;
- » LOS E  
Very congested with traffic at or near capacity, and;
- » LOS F  
Extremely congested with breakdown flows.

The City's current adopted Level of Service Standard is E for Interstate 95, and D for other Strategic Intermodal System roadways and local roads. Figure H. shows the Level of Service on the City's roadways in 2013, while Figure I. shows the projected Level of Service in 2035. As can be seen, twelve roadway segments in the City were not meeting the standard in 2013; by 2035 it is projected that the number of segments not meeting the standard will more than double.

There is a need to consider levels of service for all modes of transportation. Vehicle congestion can benefit the function of pedestrians and bicycles by slowing vehicles and encouraging the use of transportation modes other than the personal vehicle. A roadway Level of Service F might be acceptable in areas with a rich multimodal environment such as Downtown and the Beach.



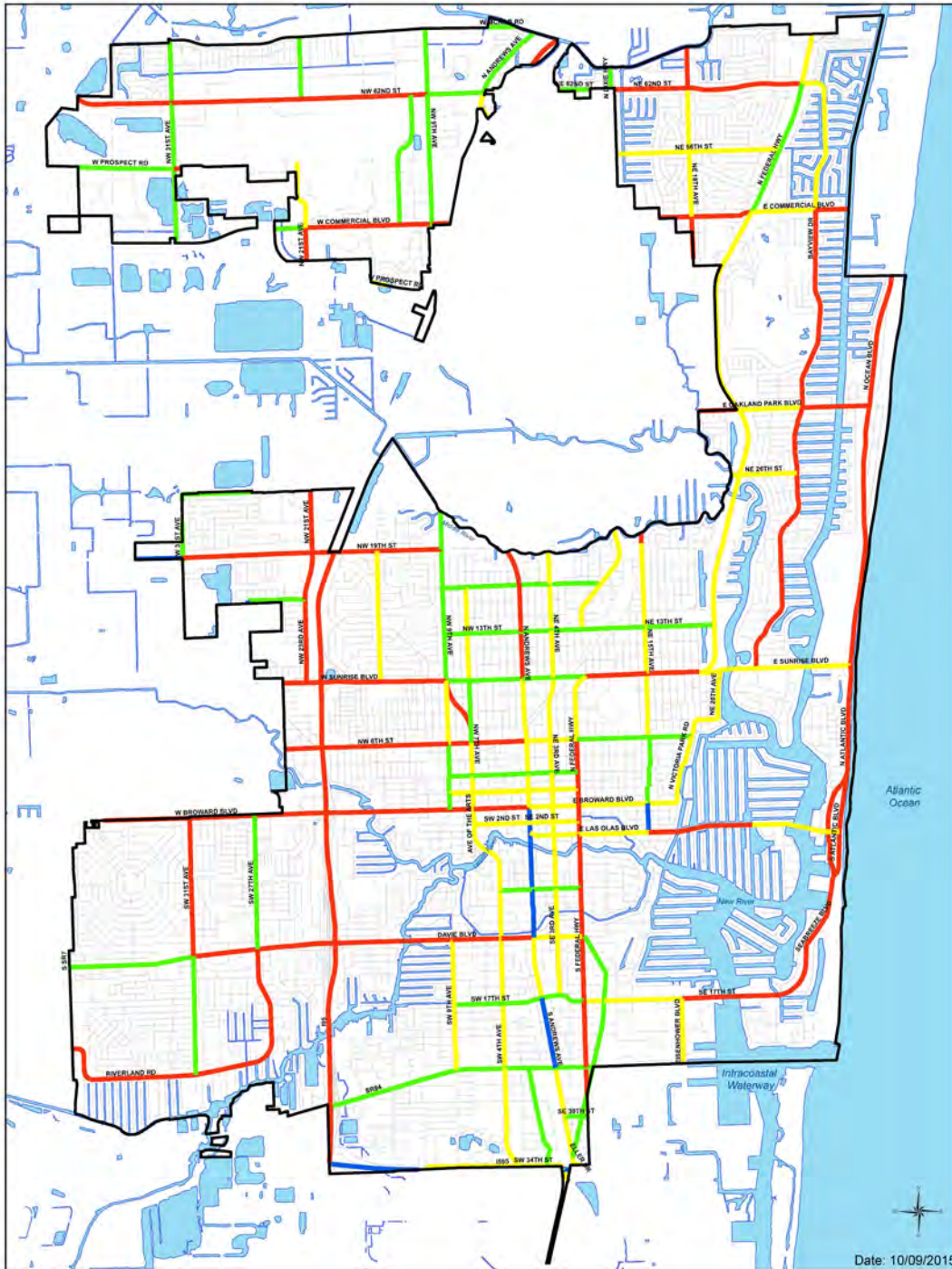
**Legend**

Fort Lauderdale Municipal Boundary  
■ B Local Streets  
■ C Water  
■ D  
■ E  
■ F  
 Data Source: City of Fort Lauderdale (2014), Broward County MPO (2014)



## City of Fort Lauderdale Roadway LOS (2013)



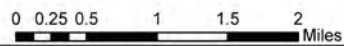


Date: 10/09/2015

**Legend**

- Peak LOS 2035
- Fort Lauderdale Municipal Boundary
- Local Streets
- Water
- C
- D
- E
- F

Data Source: City of Fort Lauderdale (2014), Broward County MPO (2014)



**City of Fort Lauderdale  
Roadway LOS (2035)**



## OTHER PLANNING EFFORTS



The City, and agencies with jurisdiction over portions of the City's transportation infrastructure (Broward County, FDOT, the SFRTA, Broward County Transit) have adopted a number of transportation plans and studies. A fully connected multi-modal City emerged as the top community priority in *Fast Forward Fort Lauderdale Our City Our Vision*. Of the 1,562 ideas received during the visioning process, 376 were related to this topic. "WE ARE CONNECTED" Vision Platform states that in 2035, "We move seamlessly and easily through a safe transportation system where the pedestrian is first".

Multi-modal connectivity is a major focus of the *Press Play Strategic Plan 2018*. Goal 6, Neighborhood Enhancement, is "Be an inclusive community made up of distinct, complimentary and diverse neighborhoods". Goal 1 under infrastructure is "Be a pedestrian friendly, multi-modal City". Objectives under that Goal call for improving transportation options and reducing congestion by working with agency partners, integrating transportation land use and planning to create a walkable and bikable community, and improving pedestrian, bicyclist and vehicular safety. Strategic initiatives to achieve these objectives include expanded transit options, pedestrian and bicycle infrastructure improvements, the adoption of complete street guidelines, traffic calming measures, and public education.



The *January 2015 Press Play Strategic Plan Progress Report* indicates that the City has made progress in implementing these strategic initiatives. For example, since 2011 2.8 miles of bike lanes and 63 bike racks were added to the multi-modal network. There were 400 projects identified in the Connecting the Blocks Program to create a connected community meeting the City's adopted Complete Streets Policy.

A comprehensive community planning effort was conducted to develop strategies to realize the vision of having a connected community where the pedestrian is first. The effort included input from the Vision planning efforts as well as supplemental outreach focusing on multimodal transportation needs. The resulting Program is entitled "*Connecting the Blocks Program: A Multimodal Connectivity Program*". The Program was established in compliance with the Complete Streets Policy adopted by the City Commission in October 2013, and identifies a detailed listing of roadway improvements to create connected, complete streets.



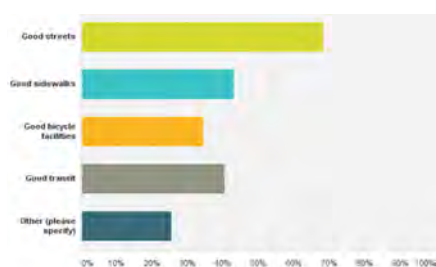
The *Connecting the Blocks Program* identifies pedestrian, bicycle and transit infrastructure improvements needed to implement the Complete Streets Policy. Each street was evaluated based on its context (i.e. such categories as Center City Boulevard, Commercial Avenue and Residential Street) and current conditions to determine needed improvements. The comprehensive list was then prioritized based on criteria utilizing rankings from various funding sources to assist in determining the viability of funding the projects in the future. Those criteria were weighted based on input from the City Commission, with a higher weight given to projects that improve safety, contain sustaining elements, fill existing network gaps, and support transit.

In addition, *Commitment 2040* is an investment plan for Broward County created by the Broward Metropolitan Planning Organization. The vision includes a variety of implementable projects which move people, create jobs and strengthen communities. Moving people, creating jobs, and strengthening communities is vital to the development and success of a region and establishes clear goals for our transportation system.



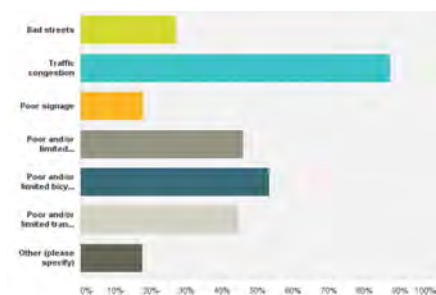
## 2015 EAR QUESTIONNAIRE

### WHAT MAKES IT EASY TO GET AROUND FORT LAUDERDALE?



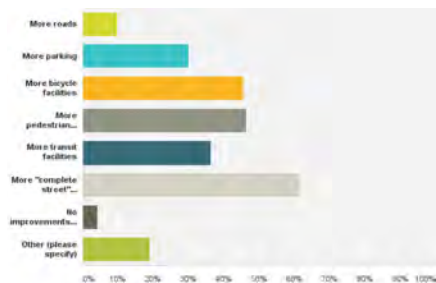
In the 2015 EAR Questionnaire, a total of 542 individuals answered the question “What makes it easy to get around Fort Lauderdale?”. A total of 370 (68.27%) answered “Good streets”, 233 (42.99%) answered “Good sidewalks”, 219 (40.41%) answered “Good Transit”, and 187 (34.70%) answered “Good bicycle facilities”.

### WHAT MAKES IT HARD TO GET AROUND FORT LAUDERDALE?



A total of 567 answered “What makes it hard to get around Fort Lauderdale as follows: 495 (87.30%) selected “Traffic congestion”; 302 (53.26%) selected “Poor and/or limited bicycle lanes”; 360 (45.86%) selected “Poor and/or limited sidewalks”; 253 (44.62%) selected “Poor and/or limited transit options”; 153(26.98%) selected “Bad streets”, and; 101 (17.81%) selected “Poor signage”.

### WHAT TYPES OF TRANSPORTATION IMPROVEMENTS SHOULD THE CITY MAKE?



A total of 560 individuals responded to the question “What types of transportation improvements should the City make? A total of 344 (61.43%) selected “More complete street improvements”; 259 (46.25%) selected “More pedestrian facilities”; 255 (45.54%) selected “More bicycle facilities”; 204 (36.43%) selected “More transit facilities”; 168 (30%) selected “More parking”; 55 (9.82%) selected “More roads, and; 23 (4.11%) selected “No improvements necessary”.



## SOCIAL, ECONOMIC, AND ENVIRONMENTAL IMPACTS

### 1. Social

In the 2014 Neighbor Survey, 47% of respondents indicated that they ride a bicycle regularly.

Nonetheless, the City's existing transportation system is primarily oriented to the automobile. There are a number of persons and households, however, who do not have regular access to an automobile, and who therefore have difficulty accessing employment, recreation and other services (transportation disadvantaged). Unfortunately, the transportation disadvantaged also tend to be more economically disadvantaged than the general population and/or are members of special needs groups (i.e. the elderly, single parents) with the greatest need for employment and services. The resulting cycle exacerbates the very factors that contributed to their disadvantages in the first place. The provision of an increased range of mobility alternatives will therefore increase the access of transportation disadvantaged persons and households to employment and services, with associated positive economic and social benefits.

From a public health standpoint, people who depend on the automobile to get from place to place have been shown to weigh more than people who live in an environment that encourages walking and physical activity. For example, a 2004 study conducted in Atlanta, Georgia found that each hour spent in a car increase the likelihood of obesity by 6 percent, while each kilometer walked per day reduced the likelihood of obesity by 4.6%. Providing for an integrated mix of land uses in a compact, pedestrian and bicycle friendly area that increases the likelihood that people will choose to walk or bike instead of drive for many of their daily trips, and that offers ample opportunities for a more physically active lifestyle, can therefore be a positive factor in reducing obesity rates.

### 2. Economic

The provision of an improved multi-modal transportation system will have a number of other positive economic benefits. There is evidence that Complete Streets have a positive impact on businesses by creating places that people want to be (and shop and work) in. Employers benefit by the improved access of existing and potential employees to the workplace, and businesses benefit from being more accessible to their customer base. Moreover, a good transportation system can be a key factor in attracting new employers and businesses to the area.

### 3. Environmental

Automobiles have a number of negative environmental impacts, including traffic congestion, air pollution, and energy consumption. The provision of alternatives to the automobile for local and regional trips lessens these negative environmental impacts. Moreover, mobility alternatives are perhaps the most important factors in reducing urban sprawl, and fostering more efficient land use patterns. Reduced land consumption preserves more land for open space and other environmentally important uses.





## COMPREHENSIVE PLAN IMPACT AND RECOMMENDATIONS

General descriptions of potential Comprehensive Plan amendments to address transportation are as follows:

### Future Land Use Element

- » Promote compact mixed use development as the City's preferred development pattern, particularly in Downtown and other Regional Activity Centers, the Uptown Village area, and along major transportation corridors and within the vicinity of premium transit stations and alignments
- » Develop land use policy to support Transit Oriented Development, transit and mobility hubs
- » Shared parking policies to reduce surface parking
- » Regulations requiring pedestrian, bicycle and transit accommodations for developments, including bicycle parking, showers, shaded sidewalks, pedestrian paths crosswalks, and transit shelters
- » Encourage transit use through Transit Oriented Development (TOD) land use policies

### Transportation Element

- » Adopt a Multi-Modal Level of Service Standard
- » Adopt a Pedestrian Level of Service Standard
- » Adopt a Bicycle Level of Service Standard
- » Adopt a Transit Level of Service Standard
- » Adopt Complete Streets objectives and policies to reflect the Complete Streets Policy and Manual
- » Adopt objectives and policies to address the City's Connecting the Blocks Program
- » Adopt appropriate FDOT Mobility Performance Measures
- » Seek additional funding, including grants, to implement multi-modal transportation projects
- » Implement transportation demand management strategies
- » Adopt parking management strategies
- » Follow NACTO design standards in designing streetscapes
- » Adopt policies to support multimodal districts such as Pedestrian Priority Zone in the RAC districts
- » Design for the pedestrian first
- » Continue to enhance transit services through the WAVE Modern Streetcar, Tri-Rail, All Aboard Florida, BCT Bus Service, and the Sun Trolley Community bus services
- » Consider converting dilapidated/unused infrastructure like bridges, roadways and rail into bicycle trails
- » Incorporate wayfinding in infrastructure projects
- » Develop safe bicycling and pedestrian messaging materials for various audience
- » Transit-friendly office commercial and multi-family residential within high-density, mixed-use activity centers



## 7 SENSE OF PLACE

### DESCRIPTION

A sense of place is an articulation of the historic, cultural and economic context of the community. A City's sense of place is defined by many factors including architecture, building forms and placement, streets, sidewalks, tree canopy, public spaces, waterfronts, public art, and skyline. A coherent and appealing sense of place is one of the most important factors in determining the success of a city. People and businesses are attracted to cities with a great sense of place. Places that exhibit a strong sense of place have an identity and character recognized by a visitor and valued by a resident.

Fort Lauderdale enjoys a strong sense of place defined by a number of elements including: an Atlantic Ocean beachfront location; extensive waterways and maritime activities; a major water element, the New River, that traverses downtown; historic and attractive neighborhoods like Sailboat Bend, Victoria Park, and North Beach; unique neighborhood commercial areas like Las Olas Boulevard, Flagler Arts & Technology (F.A.T.) Village, and Himmarshee Village; cultural institutions like the Broward Center for the Performing Arts and the Museum of Science and Discovery; parks like Holiday Park; and areas of heavy tree canopy. The City's extensive network of canals and waterways has earned it the nickname "the Venice of America", while its tropical resort/beach town ambiance combined with the energy and vitality of a major urban center provide a verve and a vibe that is uniquely its own.

Fort Lauderdale's 1.1 square mile Downtown is characterized by a modern skyline, pedestrian-scale activity and entertainment centers such as Las Olas Boulevard and Himmarshee Village; cultural and educational institutions; Riverwalk, a one-mile waterfront promenade along the New River, and; other assets. Downtown also faces challenges, including vacant, deteriorating or underutilized properties that contribute to blight conditions. The City and partners such as the Downtown Development Authority will continue to implement projects and activities to help Downtown achieve its potential as Broward County's premier business and 24-hour activity center.



Other major employment and activity centers in Fort Lauderdale include the Beach, the Galleria Mall, and the Cypress Creek area near the Executive Airport. Figure J. identifies the neighborhoods that form the foundation of Fort Lauderdale, while Figure K. shows major cultural and recreational destinations, including historic districts, arts districts, tourist attractions, parks and recreational areas, and cultural facilities. The City has three historic districts, 54 historic sites, and ten sites on the National Register of Historic Places; its public park system provides urban relief, recreation and open space, and community gathering places/focal points at 92 parks encompassing a total of approximately 827 acres. Protecting and enhancing its neighborhoods and destinations is key to Fort Lauderdale's sense of place and quality of life.

The City's unique neighborhoods are the foundation of its overall sense of place. As in any city, new development needs to be compatible with existing development in order to preserve and strengthen neighborhood character and sense of place. The City's existing ULDR regulations address this issue in the Neighborhood Compatibility section which requires that new development be compatible with and preserve the character and integrity of adjacent neighborhoods. Development and design issues addressed in the ULDR include traffic, noise, odors, shadow, scale, placement or orientation of buildings and entryways, parking areas, buffer yards, building mass, landscaping and numerous other development elements. The Neighborhood Compatibility regulations also require that consideration be given to the recommendations of the adopted neighborhood master plan in which the proposed development is to be located, a very important requirement that builds on the City's existing efforts to develop its neighborhoods in a sensitive manner.

Certain neighborhoods and areas face particular challenges, including vacant and/or underutilized parcels, deteriorating and blighted conditions, crime, disinvestment, and a lack of connectivity and access. The Fort Lauderdale Beach Community Redevelopment Area was established to focus and implement redevelopment activities in a declining 121-acre area in central Fort Lauderdale Beach. The Northwest/Progresso/Flagler Heights Redevelopment Area addresses redevelopment activities and needs in the area between Sunrise Boulevard on the north, Broward Boulevard in the south, the City Limits to the west and Federal Highway on the east. The neighborhoods in the Northwest/Progresso/Flagler Heights CRA have historically faced a number of challenges, including high unemployment rates, disinvestment, and deteriorating and blighted conditions.

Historic neighborhoods have a particularly discernible character and sense of place and contribute immensely to a city's overall character. Therefore preserving historic buildings is one of the most important ways a city can retain and enhance its character. The City has a strong historic preservation program which encourages preservation and renovation of historic buildings. Further, the City has developed special guidelines for new construction in historic districts. These guidelines provide direction tailored to multiple districts to promote creative solutions that reflect current design while remaining sensitive to the character of historic surroundings



As real estate activity increases the pressure to maximize buildable square footage, the City recognizes that additional efforts to protect neighborhood character are needed while maintaining a favorable development environment. The City's Neighborhood Development Criteria Revisions Initiative is intended to protect the best qualities of Fort Lauderdale neighborhoods. Through the Initiative, the City will be exploring and adopting measures to ensure that new development is consistent with existing neighborhood character. A variety of design issues will be addressed including garage size and placement, setbacks and landscaping, height and setback standards, and articulation standards that break down the apparent mass and scale of larger buildings.

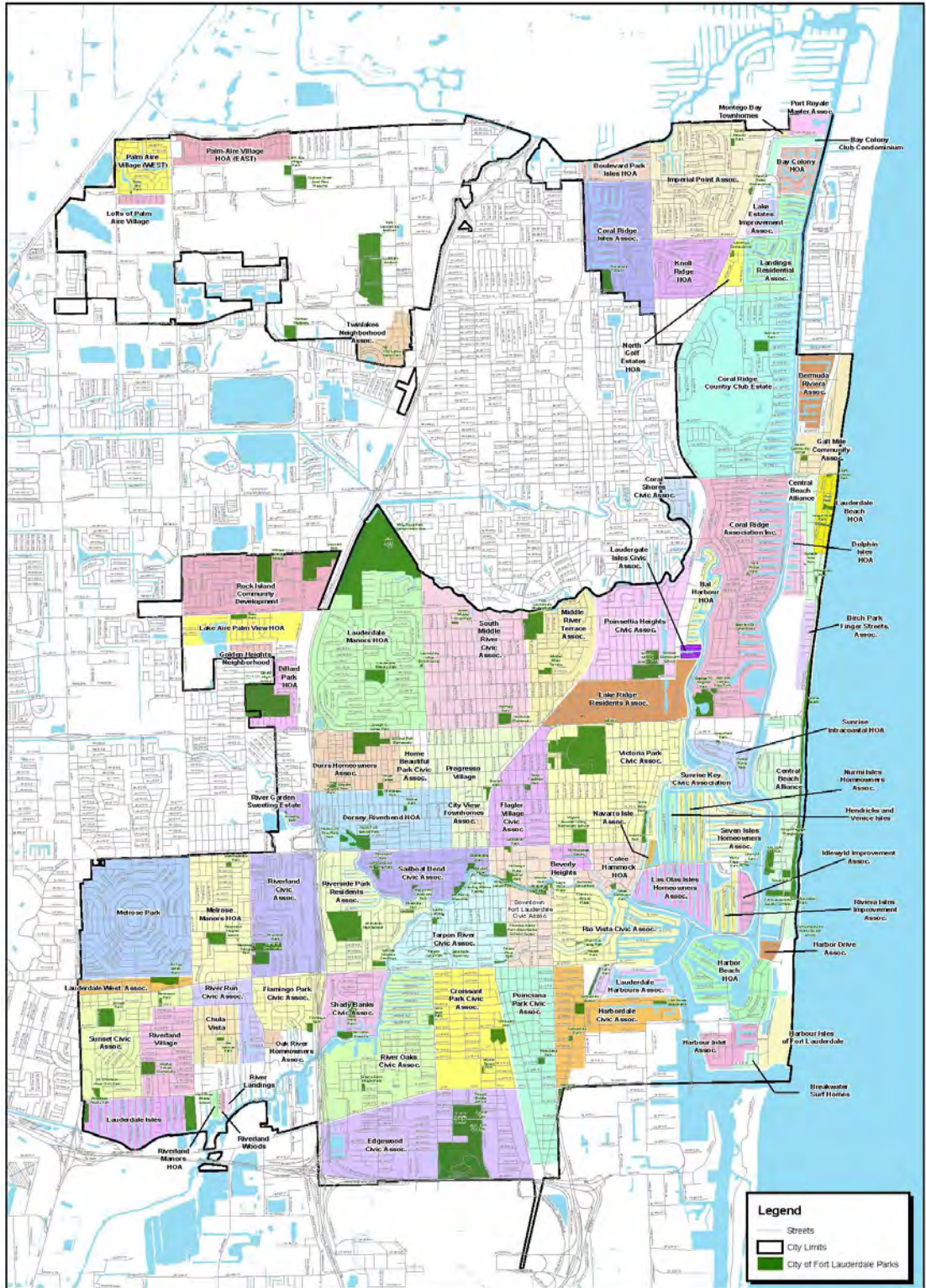
Improving the quality and design of development on the City's major corridors, particularly those that serve as gateways to Downtown, would greatly enhance the City's sense of place. The current pattern of low-rise commercial strip development that characterizes many of these corridors is replicated in thousands of cities around the country, and does not reflect the City's unique aesthetic. One of the most impactful ways for the City to enhance its built environment is to require all new development to be built close to the street edge to create a consistent urban fabric. Redeveloping these corridors with low- to mid-rise vertical mixed use buildings would reduce au-

tomobile dependence and provide a more visually appealing and functional transition to Downtown. Other major opportunities for enhancing the City's character and sense of place include:

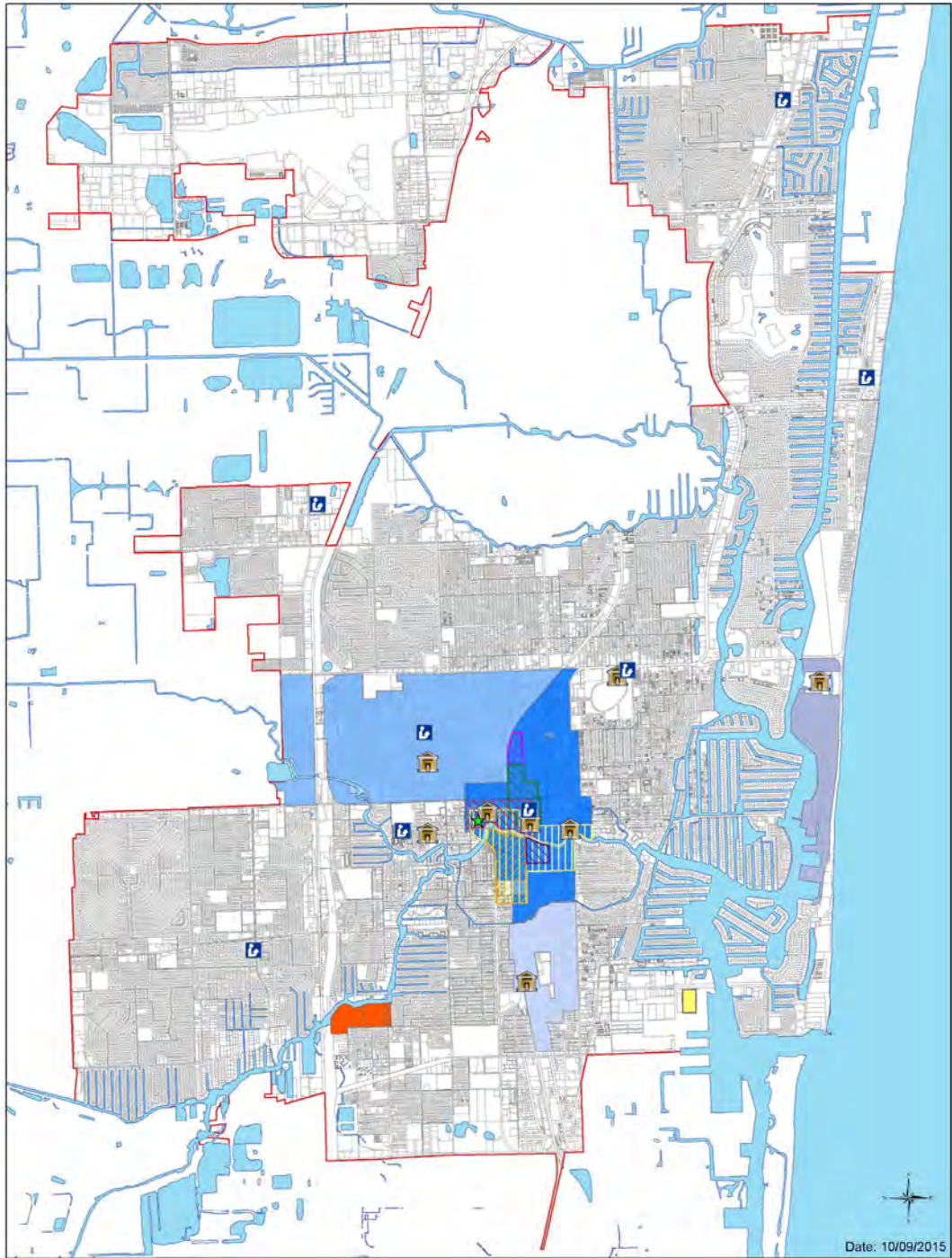
- » Lessening the impact of the wide roadways that traverse the City by increasing streetscape projects that widen sidewalks and add shade trees;
- » Reviewing urban design and placemaking master plans and policy direction to ensure active ground floor uses that enhance the pedestrian experience, and that other placemaking measures are being implemented;
- » Expanding the City's shade tree canopy to the greatest extent possible;
- » Ensuring that policies are in place for encouraging sidewalk cafes, innovative signage, and similar elements that enliven a City;
- » Increasing bikeways and pedestrian-friendly neighborhoods;
- » Increasing public art and cultural programming opportunities, and;
- » Utilizing signage and other design elements to define and enhance the identity of City neighborhoods.



Graphic taken from  
NEW RIVER MASTER PLAN



# J CITY OF FORT LAUDERDALE Neighborhood Associations



Date: 10/09/2015

**Legend**

Downtown Government Campus District	Judicial Campus	C Regional Activity Center	Greater Fort Lauderdale Convention Center	Broward Center for Performing Arts
Expanded Arts and Entertainment	Riverwalk	D Regional Activity Center	Libraries	Fort Lauderdale Municipal Boundary
Existing Arts and Science District	Taipan River Neighborhood	NW Regional Activity Center	Museums	Parcels
F.A.T. Arts District Village	Marina Mile	S Regional Activity Center		Water

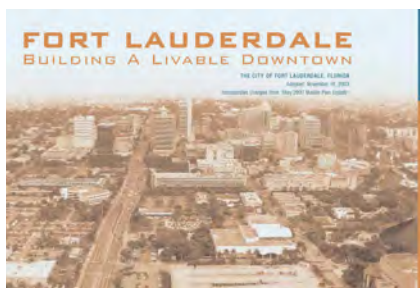
Data Source: City of Fort Lauderdale, Broward County

0 0.25 0.5 1 1.5 2 Miles



**City of Fort Lauderdale  
Cultural and Recreational Destinations**





## OTHER PLANNING EFFORTS

The City of Fort Lauderdale has proactively engaged in a number of planning initiatives in order to address the redevelopment needs and enhance the sense of place in targeted areas. The Downtown Master Plan, adopted in 2003 and updated in 2007, provides a comprehensive vision for development and redevelopment in Downtown Fort Lauderdale, and establishes a series of design guidelines for achieving this vision. These guidelines address a number of areas, including: street and building design; quality of architecture; storefront design; character area guidelines (i.e. Downtown Core, Near Downtown, Neighborhood Transition Areas); thematic planning districts (i.e. Arts & Entertainment/Cultural District, F.A.T. Village, Government Campus, Judicial Campus); riverfront design, and implementation. The Plan was updated in 2014 to include Transit Oriented Development Guidelines.

The *2008 Downtown New River Master Plan/2010 Riverwalk District Plan* further built upon the groundwork laid in the Downtown Master Plan for the area surrounding the New River waterfront. The plans recognized that the Riverwalk Promenade, despite being a major asset for Downtown, was not realizing its full potential; challenges include a lack of activity in certain areas, poor connections to surrounding activity centers, and public spaces that function more as special event venues than for daily use. The plans made a number of recommendations, including better connectivity to the Las Olas Corridor and between the north and south sides of the Riverwalk, improved public spaces, economic revitalization and activation strategies, and riverfront design guidelines.

The City has also prepared, or is in the process of preparing, master plans for a number of other targeted areas, including Central Beach, the Davie Boulevard Corridor, North US-1, South Andrews Avenue, and the Northwest Regional Activity Center. These plans advance the sense of place and address specific challenges in these areas through design guidelines, streetscape improvements, targeted development strategies, and other redevelopment mechanisms.

Maintaining and enhancing Sense of Place is an important component of *Fast Forward Fort Lauderdale Our City Our Vision Plan*. The “WE ARE COMMUNITY” Vision Direction calls for vital, safe, and healthy neighborhoods. The “WE ARE HERE” Vision Direction



envisioned THE City as “an urban center and vacationland in the heart of South Florida”. As noted, the Vision Plan is the result of significant feedback received throughout the visioning process. Of the 1,562 ideas received, 85 addressed various aspects of sense of place, including community identity, parks, entertainment and culture, Downtown and the riverfront, and special events.



The *Press Play Strategic Plan 2018* outlines a number of objectives and strategic initiatives specific to sense of place. The Public Places Cylinder calls for healthy, sustainable and connected neighborhoods that include ample greenspaces, a healthy urban forest, eco-friendly landscaping, and recreational opportunities. Goal 3 under this Cylinder is “be a community that finds opportunities and leverages partnerships to create unique, inviting, and connected gathering spaces that highlight our beaches, waterways, urban areas, and parks”; Goal 4 is “be a healthy community with fun and stimulating recreational activities for our neighbors”. The Neighborhood Enhancement Cylinder calls for improved neighborhood aesthetics. Goal 5 is “be a community of strong, beautiful and healthy neighborhoods”; Goal 6 is “be an inclusive community made up of distinct, complementary, and diverse neighborhoods”. Objectives and strategic initiatives to achieve these goals include improved access to the beach, Riverwalk, waterways, parks and open spaces; a unified wayfinding program; a beautification and maintenance rating program for public places landscaping; an arts in public places program; coordinated neighborhood and waterway clean up events; code enforcements, and; codification of the design guidelines contained in special area master plans (i.e. Downtown and Central Beach).

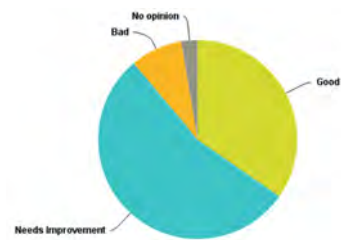
The *January 2015 Press Play Strategic Plan Progress Report* indicates that the City has made progress in implementing the strategic initiatives specific to sense of place. For example, the report indicates that the number of waterfront parks accessible by boat increased from 67% to 80%, and the number of Riverwalk events increased by 39% in 2014.



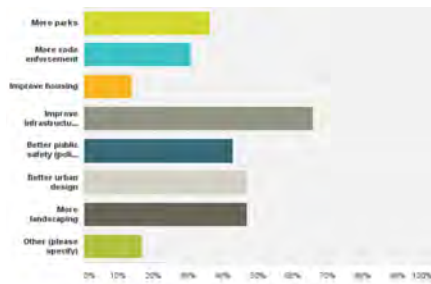


## 2015 EAR QUESTIONNAIRE

HOW WOULD YOU RATE THE QUALITY OF THE BUILT ENVIRONMENT IN FORT LAUDERDALE?



WHAT WOULD MAKE THE QUALITY OF THE BUILT ENVIRONMENT BETTER?



In the 2015 EAR Questionnaire designed to facilitate public input in the Comprehensive Plan Evaluation and Appraisal process, a total of 568 individuals responded to the question “How would you rate the quality of the built environment in Fort Lauderdale?”. A total of 308 (54.23%) answered “Needs Improvement”, 97 (34.68%) answered “Good”, and 48 (8.45%) answered “Bad”.

A total of 555 individuals responded to the question “What would make the quality of the City’s built environment better?”. Infrastructure improvements received the highest number of responses with 365 (63.77%). Better urban design and more landscaping both received 259 responses (46.67%), while 238 respondents (42.88%) called for improved public safety, 200 (36.04%) called for more parks, 170 (30.64%) called for more code enforcement, and 77 (13.87%) called for improved housing.

## SOCIAL, ECONOMIC, AND ENVIRONMENTAL IMPACTS

### 1. Social

Cities with a strong sense of place typically have a larger degree of social cohesion and stability. They offer opportunities for people from all neighborhoods and backgrounds to interact in enjoyable common spaces. They also promote residents' pride in their cities which improves quality of life and leads to higher maintenance standards.

### 2. Economic

Good character and sense of place are critically important to the economic success of cities. Attractive, popular, well-designed, interesting and active cities are magnets for economic development in terms of business development and relocation, tourism, attraction of new residents, and other aspects of economic growth. Hundreds of books and articles have been written reinforcing the connection between placemaking and economic development. As the September 2014 issue of the European Business Review noted: "The importance of placemaking is that it plays a much more significant role in current decisions affecting economic development than ever before. As investment and people are now more mobile than ever before, considering the quality of a place becomes ever more important."

Cities can always be enhanced through appropriate placemaking projects and policies. Even globally known cities with an extremely strong sense of place like New York City are constantly adding new signature elements. New York's High Line elevated park is credited with creating billions of dollars of economic activity and investment and is being emulated in cities around the world. Additional development of Fort Lauderdale's signature public spaces like the Riverwalk, Las Olas Boulevard, and North Beach streets is likely to have a very positive effect on economic activity in the City.

### 3. Environmental

One of the most direct environmental impacts of urban character and sense of place is that a great sense of place is based on the kind of compact, concentrated, and walkable development that has a far smaller environmental footprint than sprawl development. Tree canopy is another aspect of sense of place that is directly linked to strong environmental benefits.





## COMPREHENSIVE PLAN IMPACT AND RECOMMENDATIONS

Potential Comprehensive Plan amendments to address sense of place by Element include the following:

### **Future Land Use Element**

- » Include area specific policies based on master planning efforts
- » Evaluate the locations of the City's current flexibility units and commercial flexibility acreage to determine whether units and acreage should be reallocated or boundaries modified based on the City's vision to target future development in appropriate areas
- » Adopt Neighborhood Compatibility requirements

### **Housing Element**

- » Encourage a variety of designs for new housing that avoids large blocky forms

### **Parks and Recreation Element**

- » Enhance existing parks and public plazas with additional seating, shade trees, and other amenities
- » Consider adding new pocket parks where possible

### **Transportation Element**

- » Develop streetscape projects to replace highways for cars with Complete Streets and pedestrian friendly, tree-lined boulevards
- » Incorporate artistic features (i.e. artistic bike racks) into transportation infrastructure projects



### Historic Preservation Element

- » Strongly encourage the preservation and reuse of the City's remaining unprotected historic properties through transfer of development rights or other strong incentives.

### Urban Design Element

- » Adopt a new Urban Design Element to address the City's strategies for improving the quality of the urban environment through:
  - » Street and building design
  - » Quality of architecture
  - » Storefront design
  - » Character area guidelines
  - » Thematic planning districts, and
  - » Wayfinding
- » Adopt Neighborhood Compatibility Requirements
- » Implement the City Center Master Plan



**LET'S  
JUMP**

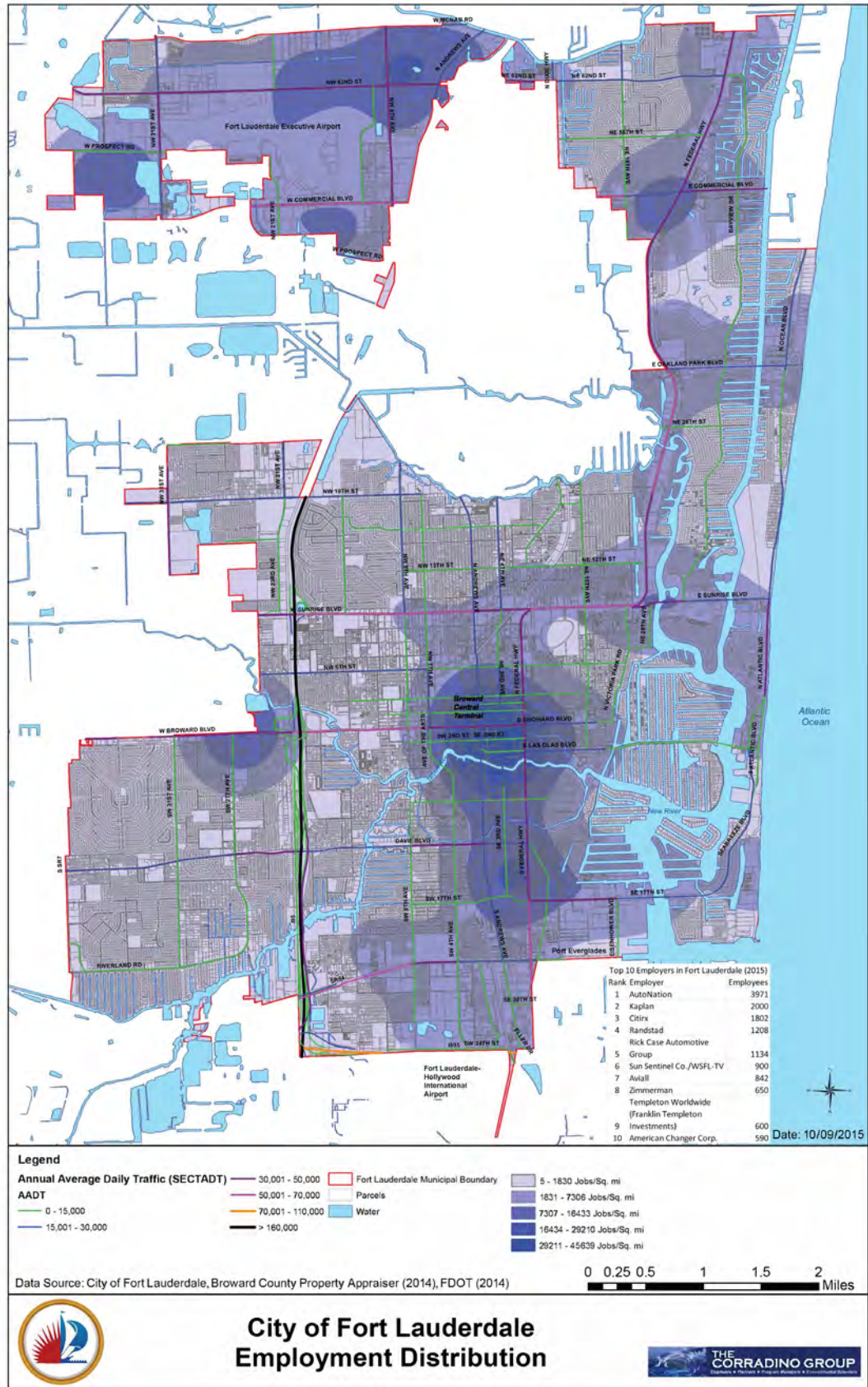


## 8 ECONOMIC OPPORTUNITIES

### DESCRIPTION

Greater Fort Lauderdale, with a gross metro product of \$81.3 billion<sup>20</sup>, boasts a vibrant and diverse economy. Marine commerce is the area's leading industry, providing more than 134,000 jobs and an annual economic impact of \$10.78 billion. (The Fort Lauderdale International Boat Show, the world's largest in-water boat show, alone has an annual economic impact of \$650 million.) Tourism is the area's second largest industry, employing 114,386 and having an annual economic impact of \$9.1 billion. The Greater Fort Lauderdale Convention and Visitors Bureau estimates that the area had 13.4 million visitors in 2013. Greater Fort Lauderdale is also an important center for international trade and business, has a strong manufacturing base, and serves as the corporate or regional headquarters for a number of corporations. The City's strong business climate and central location on South Florida's "Internet Coast", an emerging high tech corridor that is home to more than 6,000 high technology firms, has made it a high tech hotbed.

Fort Lauderdale's economy is based on a number of economic drivers. The tourism industry is largely centered on the City's seven miles of beaches and extensive system of waterways. The 600,000-square-foot LEED certified Greater Fort Lauderdale Convention Center hosts numerous large conventions and smaller meetings annually. Fort Lauderdale-Hollywood International Airport is the nation's 21st busiest airport and includes a growing number of international flights. The airport and related businesses provide more than 44,000 jobs and have an annual economic impact of \$2.6 billion. Fort Lauderdale's City-owned and operated Executive Airport is one of the nation's busiest general aviation airports, with an annual economic impact of \$330 million. Port Everglades is ranked as the 11th busiest cargo port in the nation, and the second busiest cruise port in the world. Other major economic assets and employment centers include a number of major medical centers, Downtown, and the Cypress Creek business and technology district.<sup>21</sup> Figure L. shows in the City of Fort Lauderdale.



## City of Fort Lauderdale Employment Distribution





Greater Fort Lauderdale's median household income of \$50,997 is higher than the median household income in the State (\$45,050), while the median home or condominium value in 2012 was \$223,400, compared to \$148,200 in the State. The City's unemployment rate in March 2015 was 5.5%, equal to the national rate and slightly lower than the State's rate of 5.7%.<sup>22</sup> The cost of living in Fort Lauderdale is 9% above the national average, and the 2013 job growth rate of 2.5% ranks 125th among metropolitan areas.<sup>23</sup> Education attainment for the over 25 population indicates that 85.2% have completed high school, 33.9% have earned a Bachelor's degree and 12.3% have earned a graduate or professional degree.<sup>24</sup>

The City and its partners like the Greater Fort Lauderdale Alliance, Chamber of Commerce, Convention and Visitors Bureau, Downtown Development Authority, and Broward County Economic Development work together to implement economic development efforts. Many of these efforts are focused on creating, fostering and attracting jobs and businesses in targeted industry sectors, including: aerospace and aviation; advanced materials and high tech manufacturing; alternative energy and renewable resources; global business services and logistics; human resources development and higher education; information and communications technologies; creative economy and film; corporate headquarters; global logistics; life science; and marine. Tax refunds and other incentives are available to companies that commit to providing high-wage jobs in these sectors.

In addition to these programs, another strategy to expand economic opportunities is to create synergies between the City's core economic assets by seamlessly linking them via a dedicated bus line or the planned Wave Streetcar. Such a link between the airport, port, downtown, beach, and northern business areas would allow for more efficient and easy movement

between the locations which can clearly enhance economic activity. For example, business travelers who might stay in the northern Cypress Creek area to be near an office for meetings might be enticed to visit downtown destinations if the connection was easy and inexpensive.

An urban design option for linking the core asset locations is a sophisticated gateway and wayfinding program that shows users the easiest and fastest way to travel between the locations. Such a program would enable even short-term visitors to the City to quickly navigate to multiple destinations.

While helping existing economic assets to expand is a logical focus for economic development, an equally important effort is to encourage innovation and start-up efforts which are frequently undertaken by what has been termed the creative class. Strategies to encourage creative class activity include creating attractive public spaces, and collaborative and inexpensive workspaces where people can exchange ideas with low up-front costs. Another component for encouraging innovation and the creative class is the promotion of arts activities of all kinds including permanent museums, pop up exhibits, public art, art festivals and events, street murals on buildings, and any of the many other forms of art expression that are constantly being developed and repurposed.

Supporting the development of knowledge and technical skills is another component of encouraging innovative economic development. While the comprehensive plan does not set educational policies, it does deal with the development of the physical facilities where education is provided. In general, the widest flexibility needs to be shown in the location and design of educational facilities so that they can be responsive to the host the constantly evolving needs of innovative education programs.



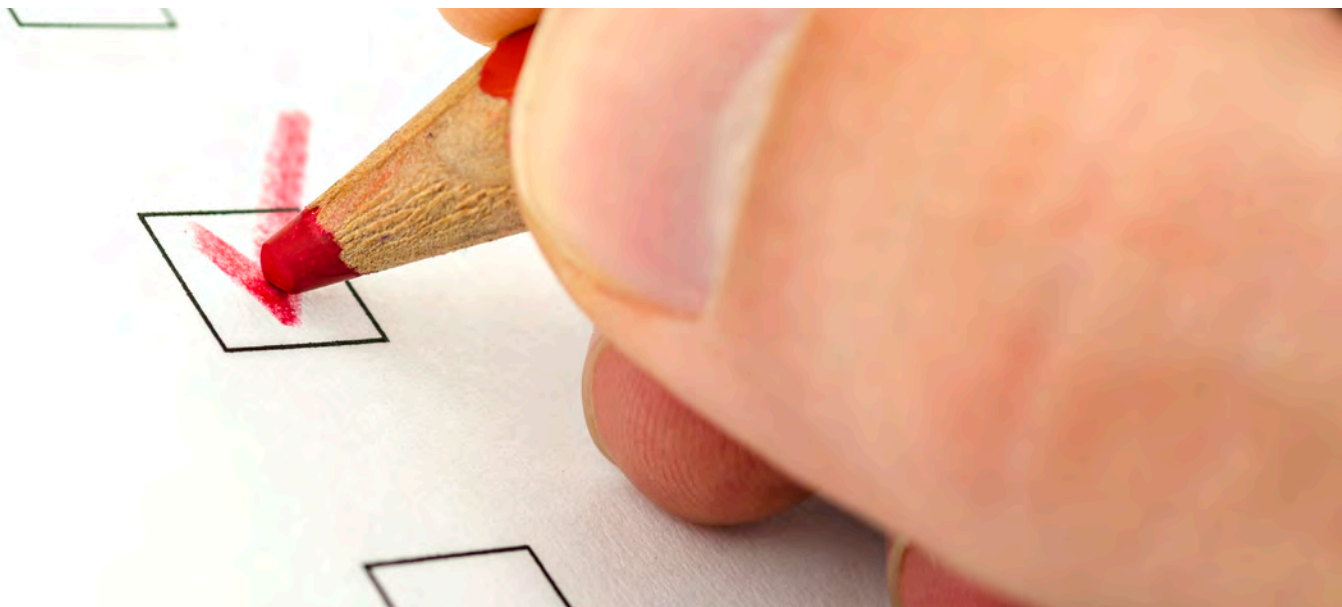


## OTHER PLANNING EFFORTS

The local economy, and expanded economic opportunities, are important components of the *Fast Forward Fort Lauderdale Our City Our Vision Plan*. The “WE ARE PROSPEROUS” Vision Direction calls for a “strong, diversified economic base coupled with excellent business and education centers”. As noted, the Vision Plan is the result of significant feedback received throughout the visioning process. Of the 1,562 ideas received, 93 addressed various aspects of the economy, including education, talent supply, innovation, tourism, and the airport.

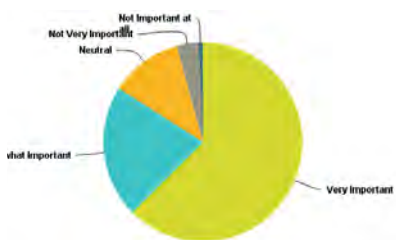
The *Press Play Strategic Plan 2018* outlines a number of objectives and strategic initiatives specific to the economy. The Business Development Cylinder calls for “a thriving economy with a healthy range of industries, including marine, tourism, manufacturing, finance, healthcare, insurance, real estate, high technology, avionics/ aerospace, and film and television production”. Goal 6 under this Cylinder is “be a well-positioned City within the global economic and tourism markets of the South Florida region, leveraging our airports, port and rail connections”; Goal 7 is “be known for educational excellence”. Objectives and strategic initiatives to achieve these goals include defining and targeting emerging industries, developing “Green Business” incentives, and coordinating with educational institutions to connect skills development with employment opportunities.

The *April 2014 Vision Plan Progress Report, Fast Forward Fort Lauderdale – Rewind: Year in Review*, indicates progress in the “We Are Prosperous” Vision Direction. Specifically, the City’s unemployment rate decreased from 6.9% in 2012 to 5.6% in 2013. Further indicating progress, the Press Play Strategic Plan Progress Report reports that 428 new jobs were created in targeted industry sectors in 2014.



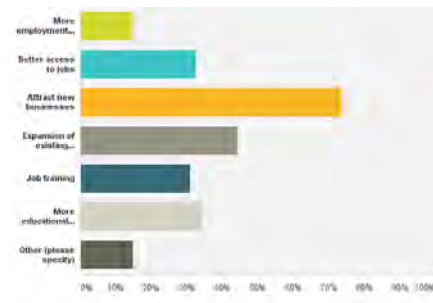
## 2015 EAR QUESTIONNAIRE

### HOW IMPORTANT IS IT TO HAVE A VIBRANT DOWNTOWN?



In the 2015 EAR Questionnaire designed to facilitate public input in the Comprehensive Plan Evaluation and Appraisal process, a total of 569 individuals responded to the question “How important is it to have a vibrant Downtown?”. A total of 356 (62.57%) answered “very important”, 122 (21.44%) answered “somewhat important”, 67 (11.78%) were neutral, 20 (3.51%) answered “not very important”, and 4 (0.70%) answered “not important at all”.

### WHAT STEPS SHOULD THE CITY TAKE TO IMPROVE THE LOCAL ECONOMY?



A total of 539 individuals responded to the question “What steps should the City take to improve the local economy?”. A total of 397 (73.65%) of the respondents selected “attract new businesses”. Other responses were: more educational opportunities (186 responses, 34.51%); better access to jobs (176 responses, 32.65%); job training (167 responses, 30.98%), and; more employment centers, (80 responses, 14.84%).



## SOCIAL, ECONOMIC, AND ENVIRONMENTAL IMPACTS

### 1. Social

Economic development is a critical issue for any city. People need jobs and income to survive and enjoy an adequate quality of life. Unemployment due to lack of jobs can lead to complete social breakdown. Even when economic growth is generally good, efforts need to be taken to ensure that different economic groups are encouraged to share public spaces and experiences.

### 2. Economic

Obviously economic development has a critical economic impact. Economic growth is key to maintaining the overall well-being and quality of life of a community. City economies need to grow to attract new residents and encourage further development which in turn fuels additional economic activity.

### 3. Environmental

Economic growth can fuel development which may have an environmental impact. Land use and environmental protection measures need to be sufficient to ensure sustainable physical development. During extended periods of low or negative economic growth, negative environmental effects may occur as disinvestment occurs.



## COMPREHENSIVE PLAN IMPACT AND RECOMMENDATIONS

Potential Comprehensive Plan amendments to address economic opportunities by Element include the following::

### **Future Land Use Element**

- » Encourage development forms that attract the creative class such as plazas, sidewalk cafes, and public art opportunities where people can interact and exchange ideas
- » Encourage development of flexible commercial and office spaces that mix uses, can be shared, and are of an affordable size

### **Housing Element**

- » Provide a wide range a flexible and affordable housing types

### **Transportation Element**

- » Provide streetcar links to the airport, port, convention center, beach, and downtown
- » Connect alternative transport (transit, bike lanes) links to streetcar stations
- » Provide parking garages near streetcar stations along the perimeter of Downtown

### **Parks and Recreation Element**

- » Promote the development of public park spaces and activities which encourage the exchange of innovative concepts and ideas

### **Economic Development Element**

- » Adopt a new Economic Development Element to address the City's economic development and job creation strategies, in concert with the business community
- » Coordinate with public schools and local colleges and universities to encourage high standards of education to attract talent to the City

### **Urban Design Element**

- » Adopt a new Urban Design Element to address the City's strategies for improving the quality of the urban environment through:
  - » Street and building design
  - » Quality of architecture
  - » Storefront design
  - » Character area guidelines
  - » Thematic planning districts, and
  - » Wayfinding



HISTORIC  
STRANAHAN HOUSE  
MUSEUM

VERDALE



## 9 SUMMARY OF RECOMMENDATIONS

The following Chapter includes a complete listing of the Evaluation and Appraisal Report recommendations by Element. These recommendations are made as a result of the evaluation and appraisal of the City's Comprehensive Plan in Chapters I. - VIII.

### GENERAL RECOMMENDATIONS

- » In order to ensure that the City's Comprehensive Plan is up to date, adjust dates cited in goals, objectives and policies to reflect the 2020, 2025, and 2035 planning horizons, or other dates as appropriate. Delete any policies that have already been implemented, or that are no longer relevant
- » Simplify language to improve readability. Follow the general format and user-friendly layout of the Vision Plan, Strategic Plan, and this report
- » Reorganize the Plan to align the required and optional elements under the appropriate Cylinder of Excellence, as follows:

#### Infrastructure

- » Climate Change
- » Transportation
- » Water
- » Sanitary Sewer
- » Stormwater
- » Aquifer Recharge
- » Solid Waste

#### Public Places

- » Parks and Recreation
- » Urban Design

#### Neighborhood Enhancement

- » Future Land Use
- » Housing
- » Conservation
- » Historic Preservation

#### Business Development

- » Economic Development
- » Public Schools

#### Public Safety

- » Coastal Management

#### Internal Support Platform

- » Capital Improvements
- » Intergovernmental Coordination
- » Administration and Implementation



## FUTURE LAND USE ELEMENT RECOMMENDATIONS

- » Encourage new development in higher elevation, less vulnerable areas like Uptown
- » Consider resilience design guidelines and/or form based codes for new development and major renovation in residential areas, historic neighborhoods, and vulnerable areas
- » Consider transfer of development rights from coastal properties to less vulnerable locations
- » When possible, direct development to transit corridors
- » Create design guidelines based on higher base flood elevations that continue to enhance pedestrian level experience
- » Identify and implement development standards like shading devices, tree canopy, and cool roofs to counter the impact of higher temperatures
- » Identify and implement development standards such as pervious pavers to support addressing extreme rain events and storm water flooding
- » Encourage compact multi-modal development
- » Responsive, compatible growth in existing neighborhoods
- » A built environment that supports healthy living
- » Support green design guidelines (i.e. green building practices such as the PACE program, car charging stations, tankless water heaters, rain collection systems, pervious on-street parking, bio-swales, Florida Friendly™ plant materials, solar panels and green roofs.)
- » Encourage density that supports transit and multi-modal transportation
- » Encourage transit use through Transit Oriented Development (TOD) land use policies
- » Study feasibility of establishing an Eco-District program
- » Focus development and density in existing transit corridors
- » Improve the connectivity of bike lanes, sidewalks and transit
- » Allow accessory dwelling units within residential districts, as appropriate



- » Allow live-work units in the appropriate districts
- » Responsive, compatible growth in existing residential neighborhoods
- » Coordination with the County on flex unit policies in order to provide more authority to the City
- » Promote compact mixed use development as the City's preferred development pattern, particularly in Downtown and other Regional Activity Centers, the Uptown Village area, and along major transportation corridors and within the vicinity of premium transit stations and alignments
- » Develop land use policy to support Transit Oriented Development, transit and mobility hubs
- » Shared parking policies to reduce surface parking
- » Regulations requiring pedestrian, bicycle and transit accommodations for developments, including bicycle parking, showers, shaded sidewalks, pedestrian paths crosswalks, and transit shelters
- » Include area specific policies based on master planning efforts
- » Evaluate the locations of the City's current flexibility units and commercial flexibility acreage to determine whether units and acreage should be reallocated or boundaries modified based on the City's vision to target future development in appropriate areas
- » Adopt Neighborhood Compatibility requirements
- » Encourage development forms that attract the creative class such as plazas, sidewalk cafes, and public art opportunities where people can interact and exchange ideas
- » Encourage development of flexible commercial and office spaces that mix uses, can be shared, and are of an affordable size

### **Housing Element Recommendations**

- » Include Florida-Friendly™ and/or native plant targets in landscaping requirements
- » Work to ensure that all new affordable housing units are water and energy efficient to reduce monthly costs for the residents
- » Call for the development, redevelopment, retention or replacement of affordable and attainable homeowner and rental units to reduce the number of cost burdened households
- » Address substandard and dilapidated housing conditions through targeted rehabilitation and demolition, code enforcement, grant funds for eligible owners, and other mechanisms
- » Provide for the development of new housing units, particularly affordable housing, along current or planned complete streets and/or transit corridors;
- » Foster programs to assist in "future-proofing" the housing stock with leading practices on resiliency, energy and water efficiency
- » Address homelessness through the provision of temporary, transitional and permanent housing and related support services, and support of Continuum of Care programs and initiatives
- » Support green design guidelines (i.e. green building practices such as the PACE program, car charging stations, tankless water heaters, rain collection systems, pervious on-street parking, bio-swales, Florida Friendly™ plant materials, solar panels and green roofs.)
- » Foster public/private partnerships for affordable housing development





- » Seek additional funding, including grants, for affordable housing
- » Utilize City of Fort Lauderdale property as a contribution to affordable housing projects
- » Encourage a variety of designs for new housing that avoids large blocky forms
- » Provide a wide range a flexible and affordable housing types

#### **Infrastructure Element Recommendations**

- » Retrofit existing drainage pipes to limit tidal back flow in areas were such retrofits are adaptive and will aid in maintaining access and property values
- » Consider sea level rise in all government infrastructure design work and vulnerable stormwater infrastructure
- » Integrate climate concerns into master planning to effectively develop future capital investments that will be resilient to impacts as well as perform their desired function for the intended lifecycle of that infrastructure
- » Use the best available climate science, as well as robust research, legislative action, advocacy and regional coordination to adapt the City's infrastructure to be resilient against disruption
- » Encourage low impact development (LID) stormwater collection including bioswales, permeable pavement and rainwater gardens
- » Plan for installation of drainage pumps as appropriate to address both tidal and stormwater-related flooding
- » Incorporate green infrastructure such as bioswales and consider emerging technologies which support aquifer recharge as alternatives to underground pipe- based systems which may be compromised when sea level rises
- » Consider identifying areas too vulnerable for future infrastructure investment
- » Consider non-pipe storm water upgrades during roadway construction to improve drainage
- » Pursue alternative energy sources
- » Update city ordinances to remove barriers to renewable energy installations
- » Consider water reuse projects during the utility master planning process



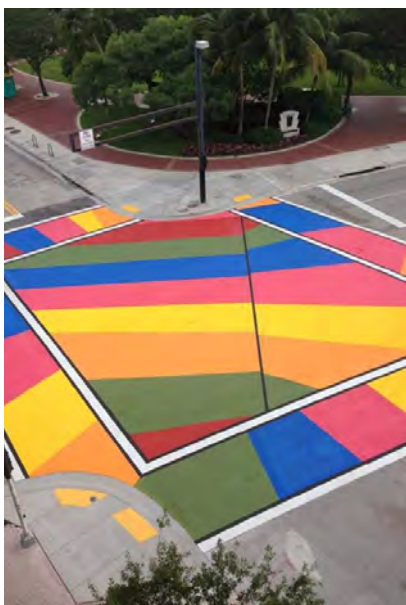
- » Develop targeted water conservation programs to maintain treatment capacity and expand water reuse
- » Consider regulations which allow cisterns and other water capture techniques in single family homes
- » Consider incorporation of renewable energy options in the design of new city buildings and infrastructure
- » Increase solid waste recycling goals
- » Explore and expand opportunities for waste diversion
- » Implement green infrastructure as part of the stormwater master plan and provide planting area for native plants
- » Reduce potable water demand
- » Encourage low volume/avoidance watering
- » Discourage excessive water use, including escalating fees and engagement of large water users in conservation efforts
- » Encourage rainwater harvesting
- » Reduce wastewater flow by reducing groundwater infiltration and other strategies (establish numerical benchmark)
- » Establish and enforce runoff pre-treatment requirements
- » Promote the use of bioswales
- » Implement storm inlet improvements
- » Increase recycling rates
- » Further promote the segregation and reuse of “green” waste
- » Coordinate standards for new stormwater methods with Broward County and the South Florida Water Management District
- » Encourage the conversion of street lighting and traffic signals to LED and/or solar lighting where feasible

#### **Coastal Management Element Recommendations**

- » Identify stormwater and tidal surge buffer areas (such as wetlands and beaches that can reduce the impacts of storm surges)
- » Plan for renourishment to maintain beaches for ecological, economic and shoreline protection functions
- » Consider innovative techniques for slowing wave action during storms

#### **Conservation Element Recommendations**

- » Maintain and achieve the targets for tree canopy coverage to provide wildlife and stormwater benefits and reduce energy use by cooling target areas with lower tree canopies for tree giveaways
- » Increase the use of Florida-Friendly™ and/or native plants to provide urban wildlife habitat for birds, butterflies, and other animals and to reduce water reuse



### Transportation Element Recommendations

- » Work with agency partners to incorporate resilience and adaptation into the location, design and construction of transportation infrastructure
- » Analyze impacts of increasing roadway heights to surrounding neighborhoods
- » Identify priority areas for building resilience into vulnerable transportation infrastructure
- » Encourage off-grid alternative means of transportation such as solar powered vehicles and bikes to increase mobility options for emergency vehicles and public transit in post-disaster situations
- » Encourage multi-modal low GHG-emitting transportation options
- » Expand focus on creating a safe environment for walking and biking
- » Create a bicycle-pedestrian infrastructure
- » Encourage the planting of shade trees in streetscapes
- » Encourage increased transit infrastructure
- » Create and encourage alternative end of trip methods such as bicycling, walking, vehicle sharing, and transit in mobility hubs
- » Reduce household transportation costs by increasing access to workforce housing and mixed-use communities
- » Increase access to social, health and cultural destinations
- » Coordinate circulator and other transit services between adjacent municipalities
- » Improve neighborhood streets for the movement of people by all context appropriate transportation modes
- » Adopt a Multi-Modal Level of Service Standard
- » Adopt a Pedestrian Level of Service Standard
- » Adopt a Bicycle Level of Service Standard
- » Adopt a Transit Level of Service Standard
- » Adopt Complete Streets objectives and policies to reflect the Complete Streets Policy and Manual
- » Adopt objectives and policies to address the City's Connecting the Blocks Program



- » Adopt appropriate FDOT Mobility Performance Measures
- » Seek additional funding, including grants, to implement multimodal transportation projects
- » Implement transportation demand management strategies
- » Adopt parking management strategies
- » Follow NACTO design standards in designing streetscapes
- » Adopt policies to support multimodal districts such as Pedestrian Priority Zone in the RAC districts
- » Design for the pedestrian first
- » Continue to enhance transit services through the WAVE Modern Streetcar, Tri-Rail, All Aboard Florida, BCT Bus Service, and the Sun Trolley Community bus services
- » Consider converting dilapidated/unused infrastructure like bridges, roadways and rail into bicycle trails
- » Incorporate wayfinding in infrastructure projects
- » Develop safe bicycling and pedestrian messaging materials for various audience
- » Transit-friendly office commercial and multi-family residential within high-density, mixed-use activity centers
- » Develop streetscape projects to replace highways for cars with complete streets and pedestrian friendly, tree-lined boulevards
- » Incorporate artistic features (i.e. artistic bike racks) into transportation infrastructure projects
- » Provide streetcar links to the airport, port, convention center, beach, and downtown
- » Connect alternative transport (transit, bike lanes) links to streetcar stations
- » Provide parking garages near streetcar stations along the perimeter of Downtown

### **Parks and Recreation Element Recommendations**

- » Utilize Florida-Friendly™ and/or native plants and plant communities in landscaping parks
- » Provide for active use and exercise
- » Promote the development of community gardens within residential neighborhoods and healthy eating habits throughout the community
- » Work with community leaders to develop comprehensive solutions to food deserts including nutrition education at Parks, encouragement of supermarket development in key areas, and planting of fruit trees.
- » Enhance existing parks and public plazas with additional seating, shade trees, and other amenities
- » Consider adding new pocket parks where possible
- » Promote the development of public park spaces and activities which encourage the exchange of innovative concepts and ideas

### **Historic Preservation Element Recommendation**

- » Strongly encourage the preservation and reuse of the City's remaining unprotected historic properties through transfer of development rights or other strong incentives.



### **New Climate Change Element**

- » Adopt a new Climate Change Element incorporating relevant goals, objectives, policies and monitoring measures from: the Sustainability Action Plan, Fast Forward Vision Plan, and Press Play Strategic Plan; outside sources such as the Broward County Climate Change Element and South Florida Regional Climate Action Plan and; the Council of Fort Lauderdale Civic Associations' Consensus Statement's call for greater incentives for alternative energy sources and other measures.

### **New Urban Design Element**

- » Adopt a new Urban Design Element to address the City's strategies for improving the quality of the urban environment through street and building design; quality of architecture; storefront design; character area guidelines; thematic planning districts, and other strategies to reduce replacement of existing neighborhood character with McMansions
- » Adopt Neighborhood Compatibility Requirements
- » Implement the City Center Master Plan
- » Implement the ULI Uptown Plan to accommodate alternate areas not prone to sea level rise

### **New Economic Development Element**

- » Adopt a new Economic Development Element to address the City's economic development and job creation strategies, in concert with the business community
- » Coordinate with public schools and local colleges and universities to encourage high standards of education to attract talent to the City



## PUBLIC PARTICIPATION

The Evaluation and Appraisal Report builds upon the extensive public involvement effort that went into the creation of the Fast Forward Fort Lauderdale Vision Plan (Vision Plan) and the Press Play Strategic Plan (Strategic Plan). In addition to these efforts, the City conducted an Interagency Scoping meeting on January 26, 2015 and a Public Workshop on February 11, 2015. These forums provided valuable input that went into this report. The verbatim flip chart notes from the February 11 workshop are as follows:

- » Economic and Development impacts of climate change
  - » Flood insurance
- » Seawall breaching at more times per year
- » Complacency because there has not been a major storm since 2005
- » SF Climate Compact has emerged in response
- » What are the consequences of continuing intensive development in at risk areas
- » Raising roads
- » Cox Landing – light colored asphalt
- » Economic attraction of major corporations
- » 37 square miles – how to use it better
- » Tie concurrency to climate change
- » Youth mindsets and preferences are changing
- » Sunrise Blvd. transportation options
  - » PW says only 30% of streets have sidewalks and sidewalks are in bad conditions
- » Neighborhood revitalization
- » Housing for college graduates, affordable rentals
- » Senior housing link to health care economic development
- » Encourage middle income housing
- » Infrastructure impacts of in-law housing
- » Increased Flooding
- » Beach erosions



- » Economic development
  - » Exodus
  - » Tourism ties
- » Adaptation areas/policies
- » Infrastructure
  - » Planning and funding
  - » May cost more at times, but look at effect
- » How does it fit into plan?
  - » We want it to be sustainable; people need to be able to understand sustainability
- » Greening of ROW
  - » What can/has City done?
    - » Design- Like w/ Park seawall
    - » Tech – Like with different pavement
- » Resist using Climate Change to justify other arguments
- » Economic sustainability
  - » Showcase physical infrastructure
  - » More than tourism: “Balanced City”
- » Efforts will take interagency cooperation. How will we accomplish this?
- » Utilize P3s (Public Private Partnerships)
- » “Controlling flow of growth”
  - » Opt-in choices/thresholds
  - » E.g. % in a period of time.
  - » “Different horizons”
- » Incremental growth/controlled growth
- » Infrastructure – growth – adequacy
- » Mitigation of impacts using newer/different methods
- » Asking the developers
  - » “We allow the development to happen, and clean up the mess afterwards.”
- » How do we get developers to look more at the Infrastructure Impacts
- » Network connectivity and expansion
- » Younger generation
  - » Different preferences
  - » Different projections
- » Shared parking
- » Congestion on sunrise is an issue
- » BRT?
- » Gateway – further review needed
- » Sense of Place important
- » Sidewalks
  - » Needed/gap infills
- » Crosswalks
- » Prioritization?
  - » Main corridors
  - » Fixing gaps

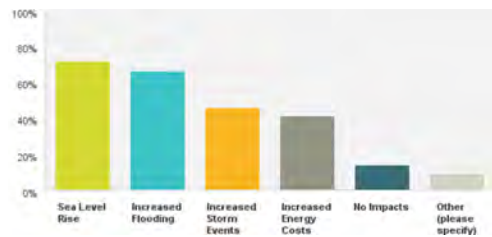


- » Connecting airport/port/downtown
- » Housing
  - » Bad-> Good neighborhoods
    - » Safety/Crime prevention
  - » Getting the youth (recent grads) to live here
  - » Affordable housing
  - » Increase the rental stock
- » Senior housing
  - » Should be a walkable environment
  - » Need housing that transitions to assisted living
- » Creating neighborhood environment where seniors remain “Engaged;” in-law units like SF should be examined
- » Workforce – housing initiatives. Middle income area/housing stock
- » “transitional Neighborhoods”
- » Diversity of income-> diversity of housing stock
- » Social Services
- » Maybe incorporate ideas about addressing homelessness
- » Public Schools
  - » Qualitative
  - » Connect more back with Fast Forward, Visioning Plans
- » Housing to Job proximities should be examined
- » Infrastructure – street lighting should be designed for walkers as opposed for cars
- » Neighborhood preservation





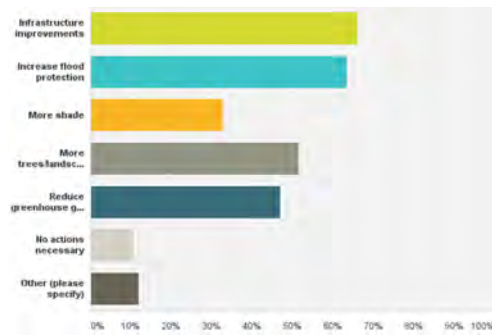
**WHAT STEPS SHOULD THE CITY TAKE TO ADDRESS CLIMATE CHANGE?**



The City also prepared and distributed a 15 question questionnaire that was posted on the City’s website and e-mailed to various community groups. The questionnaire asked questions pertinent to the seven topics contained in this report.

In total, the City received 618 questionnaires between February 12 and April 15, 2015. The results of the responses to the various questions are addressed in the Chapter for the Topic associated with the questions, and have also been compiled as follows:

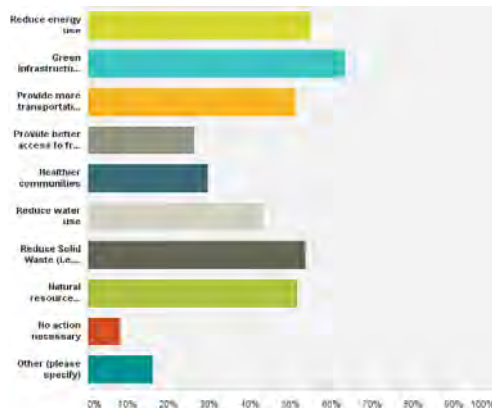
**WHAT IMPACTS DO YOU THINK CLIMATE CHANGE HAS HAD, OR WILL HAVE, ON THE CITY?**



A total of 605 individuals responded to the question “What impacts do you think climate change has had, or will have, on the City?” A total of 434 (71.74%) of the respondents selected “Sea Level Rise”, 400 (66.12%) selected “Increased Flooding”, 275 (45.45%) selected “Increased Storm Events”, 248 (40.99%) selected “Increased Energy Costs”, and 85 (14.05%) selected “No Impacts”.

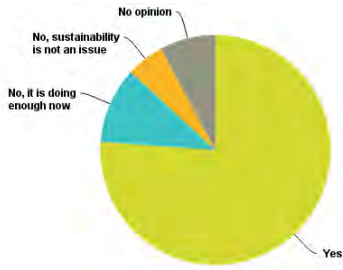
A total of 601 individuals responded to the question “What steps should the City take to address climate change?” A total of 398 (66.22%) of the respondents answered “Infrastructure Improvements”, 381 (63.39%) answered “Increased Flood Protection”, 197 (32.78%) answered “More Shade”, 310 (51.58%) selected “More Landscaping”, 282 (46.92%) answered “Reduce Greenhouse Gas Emissions”, and 64 (11.81%) answered “No Action Necessary”.

**DOES THE CITY NEED TO BE MORE SUSTAINABLE?**



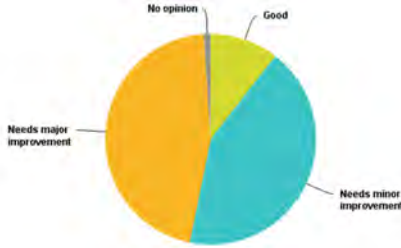
A total of 587 respondents answered the question “Does the City need to be more sustainable?”; 447 (76.15%) answered yes, 63 (10.1%) felt it is doing enough now, 31 (5.28%) answered that sustainability is not an issue, and 46 (7.84%) had no opinion.

WHAT STEPS SHOULD THE CITY TAKE TO BE MORE SUSTAINABLE?



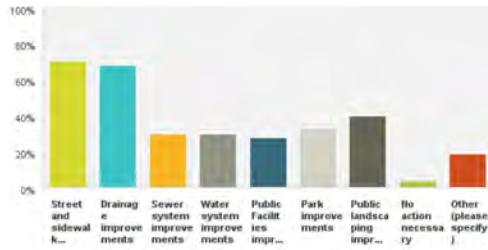
A total of 595 individuals responded to the question “What steps should the City take to be more sustainable? Green infrastructure received the highest number of responses with 378 (63.53%); over 50% of the respondents also selected reduced energy use, more transportation choices, reduced solid waste, and natural resource protection. Only 40 respondents (8.24%) answered that no action is necessary.

HOW WOULD YOU RATE THE CITY'S INFRASTRUCTURE?



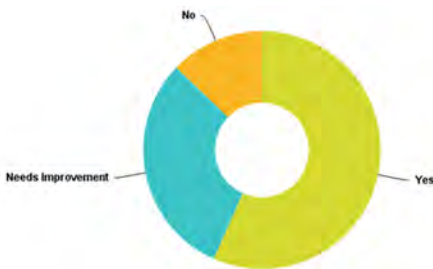
A total of 579 individuals answered the question “How would you rate the City's infrastructure?”. A total of 61 (10.54%) answered “good”, 247 (42.66%) answered “needs minor improvement”, and 265 (45.77%) answered “needs major improvement”.

WHAT TYPES OF INFRASTRUCTURE IMPROVEMENTS DOES THE CITY NEED TO MAKE?



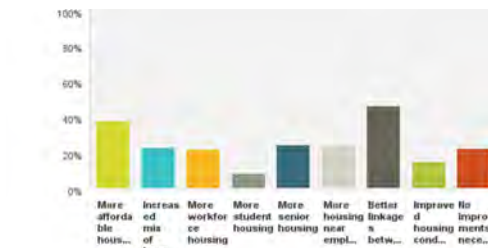
A total of 584 individuals responded to the question “What types of infrastructure improvements does the City need to make?”. A total of 409 (70.03%) answered sidewalk and street improvements, 393 (67.29%) selected “drainage improvements”, 232 (39.73%) selected “public landscaping improvements”, 189 (32.35%) selected park improvements, 173 (29.62%) selected “sewer system improvements”, 172 (29.61%) elected “water system improvements”, and 160 (27.40%) selected “public facility improvements”.

DO YOU THINK HOUSING NEEDS ARE CURRENTLY BEING MET IN THE CITY?



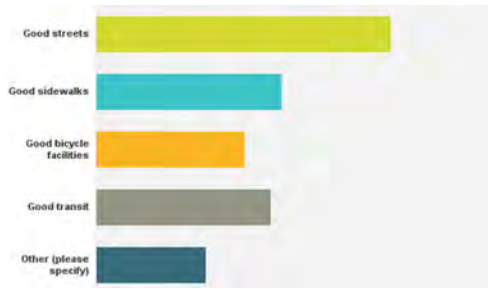
A total of 570 individuals answered the question “Do you think housing needs are currently being met in the City?”. A total of 323 (56.67%) answered “yes”, 174 (30.53%) answered “needs improvement”, and 74 (12.81%) answered “no”.

WHICH OF THE FOLLOWING ARE NEEDED TO BETTER MEET HOUSING NEEDS?



A total of 555 individuals answered “Which of the following are needed to better meet housing needs?” as follows: 254 (45.77%) selected “Better linkages between housing and transportation”; 208 (37.66%) selected “More affordable housing options”; 135 (24.32%) selected “More senior housing”; 133 (23.96%) selected “More housing near employment and activity centers”; 128 (23.06%) selected “Increased mix of housing types”; 126 (22.70%) selected “No improvements necessary”; 121 (21.80%) selected “More workforce housing”; 83 (14.95%) selected “Improved housing conditions” and; 46 (8.29%) selected “More student housing”.

WHAT MAKES IT EASY TO GET AROUND FORT LAUDERDALE?



A total of 542 individuals answered the question “What makes it easy to get around Fort Lauderdale?”. A total of 370 (68.27%) answered “Good streets”, 233 (42.99%) answered “Good sidewalks”, 219 (40.41%) answered “Good Transit”, and 187 (34.70%) answered “Good bicycle facilities”.

HOW WOULD YOU RATE THE CITY'S INFRASTRUCTURE?



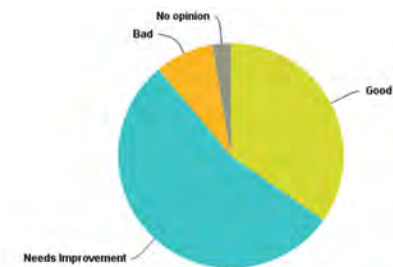
A total of 567 answered “What makes it hard to get around Fort Lauderdale as follows: 495 (87.30%) selected “Traffic congestion”; 302 (53.26%) selected “Poor and/or limited bicycle lanes”; 260 (45.86%) selected “Poor and/or limited sidewalks”; 253 (44.62%) selected “Poor and/or limited transit options”; 153 (26.98%) selected “Bad streets”, and; 101 (17.81%) selected “Poor signage”.

WHAT TYPES OF INFRASTRUCTURE IMPROVEMENTS DOES THE CITY NEED TO MAKE?



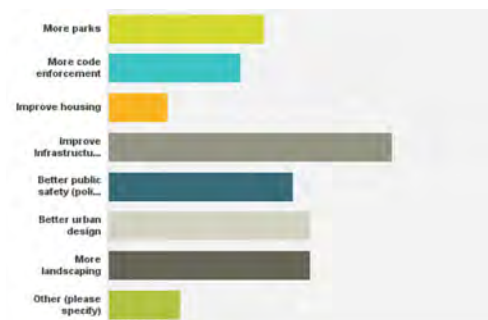
A total of 560 individuals responded to the question “What types of transportation improvements should the City make? A total of 344 (61.43%) selected “More complete street improvements”; 259 (46.25%) selected “More pedestrian facilities”; 255 (45.54%) selected “More bicycle facilities”; 204 (36.43%) selected “More transit facilities”; 168 (30%) selected “More parking”; 55 (9.82%) selected “More roads, and; 23 (4.11%) selected “No improvements necessary”.

DO YOU THINK HOUSING NEEDS ARE CURRENTLY BEING MET IN THE CITY?



A total of 568 individuals responded to the question “How would you rate the quality of the built environment in Fort Lauderdale?”. A total of 308 (54.23%) answered “Needs Improvement”, 97 (16.8%) answered “Good”, and 48 (8.45%) answered “Bad”.

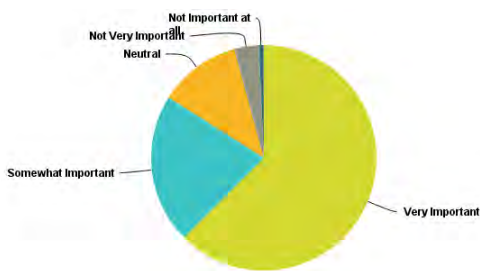
WHICH OF THE FOLLOWING ARE NEEDED TO BETTER MEET HOUSING NEEDS?



A total of 555 individuals responded to the question “What would make the quality of the City’s built environment better?”. Infrastructure improvements received the highest number of responses with 365 (63.77%). Better urban design and more landscaping both received 259 responses (46.67%), while 238 respondents (42.88%) called for improved public safety, 200 (36.04%) called for more parks, 170 (30.64%) called for more code enforcement, and 77 (13.87%) called for improved housing.

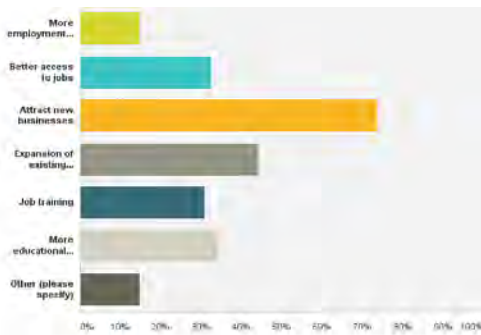


**HOW IMPORTANT IS IT TO HAVE A VIBRANT DOWNTOWN?**



A total of 569 individuals responded to the question “How important is it to have a vibrant Downtown?”. A total of 356 (62.57%) answered “very important”, 122 (21.44%) answered “somewhat important”, 67 (11.78%) were neutral, 20 (3.51%) answered “not very important, and 4 (.70%) answered “not important at all”.

**WHAT STEPS SHOULD THE CITY TAKE TO IMPROVE THE LOCAL ECONOMY?**



A total of 539 individuals responded to the question “What steps should the City take to improve the local economy?”. A total of 397 (73.65%) of the respondents selected “attract new businesses”. Other responses were: more educational opportunities (186 responses, 34.51%); better access to jobs (176 responses, 32.65%); job training (167 responses, 30.98%), and; more employment centers, (80 responses, 14.84%).