

# FAST FORWARD FORT LAUDERDALE 2035 VISION STATEMENT



# INFRASTRUCTURE



- G1 GOAL 1: Be a pedestrian friendly, multi-modal City.
- **G2** GOAL 2: Be a sustainable and resilient community.



City staff and community partners announce the federal Tiger Grant Award for the Wave Streetcar Project

Infrastructure directly impacts our community every day. Quality infrastructure leads to neighborhood enhancement, active and safe public places, and spurs business and economic development. Our country, as a whole, is currently facing the dilemma of how to effectively address aging infrastructure with shrinking government budgets. In many areas of the nation, roadways, bridges, drinking water and wastewater systems are well past their useful life expectancy and are in need of renovations and upgrades. As one of the oldest cities in Broward County, Fort Lauderdale is not immune from dealing with this formidable challenge, which is exacerbated by the City's subtropical climate, coastal location and susceptibility to flooding and sea level rise. Not surprisingly, Fast Forward Fort Lauderdale 2035 contains hundreds of ideas related to the categories of Connected Development, Complete Streets, Public Transit, Sustainability, and Infrastructure.

The City will make significant infrastructure advances in the next five years.



State Road A1A after Hurricane Sandy

Fort Lauderdale will see real changes in transportation options and pedestrian friendliness to accommodate expected increases in our population. Thousands of new residential units in downtown coupled with an increase in the flow of commuters will require a more Transit-Oriented Development (TOD) strategy. A Multi-Modal Connectivity Map is in the final stages of development and will focus on a system that offers users diverse transportation options based on Complete Streets and Livability Principles at its core. The map is the foundation for prioritizing projects to implement the connectivity aspects of Fast Forward Fort Lauderdale 2035, along with other opportunities, such as those outlined in the Downtown Walkability Study. Staff is engaged in planning services for several significant transit initiatives including the Wave Streetcar, the Central Broward East-West Transit project, All Aboard Florida and the Transportation Management Association's (TMA) Sun Trolley community bus system. Additionally, water transportation will benefit from dredging plans that are in place to improve waterway navigability and increase access to our waterfronts.

Strategic community investments that consider adaptation and resiliency are important now and for future generations. Like many coastal communities, Fort Lauderdale is consciously incorporating ways to address climate change, sea level rise, and impacts from extreme weather events into our short and long-term operations and planning. High tides and heavy rain events impact our drainage systems and cause tidal and stormwater related flooding. The Water Works 2011 program was a major undertaking and a substantial investment in the future of our community. In the next five years, the City will focus on continuing our progress by proactively lining pipes, inspecting and cleaning

water lines, creating Adaptation Action Areas and traditional gray and natural green infrastructure, such as water retention parks and bio swales. Roads, sidewalks, and bridges need smart investments and maintenance in ways that meet resiliency and daily transportation needs. While prior generations made significant investments to ensure that we have sound infrastructure, we are now responsible for maintaining and preparing for future challenges and demands.



Distribution & Collection staff at the Public Works Central Maintenance Shop

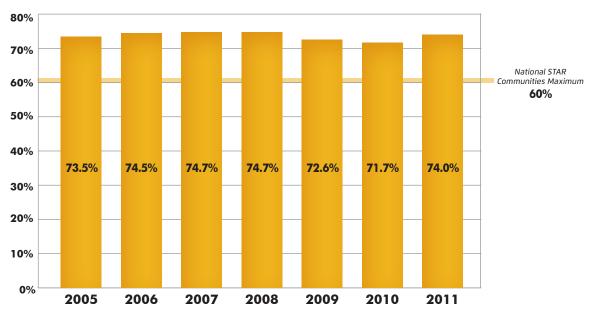


## **GOAL 1 OBJECTIVES**

- **OBJECTIVE 1:** Improve transportation options and reduce congestion by working with agency partners
  - **OBJECTIVE 2:** Integrate transportation land use and planning to create a walkable and bikeable community
- OBJECTIVE 3: Improve pedestrian, bicyclist, and vehicular safety

The focus for infrastructure improvements in the next five years will be the planning, design and construction of pedestrian friendly streets. Our infrastructure will be adaptive, well-designed and constructed to facilitate an easy and safe pedestrian-first experience, with shaded streets that are a pleasure to walk. Neighbors will have more connected mobility options, including increased sidewalks and greenways, additional bicycle amenities, and more public transportation options that are safe, reliable and accessible. Focus will be placed on completing the studies and design of projects with co-benefits that will result in a more connected Fort Lauderdale. As a result, the City will be well-positioned to apply for federal and regional grant investment dollars to fund final construction. These investments will also position us for economic growth.





Source: American Community Survey 1-Year Estimates, 2005-2011

The City of Fort Lauderdale desires to be a multi-modal city; a city that is safe, pedestrian and bike friendly, and easy to move through, with seamless connections to regional mass transit, such as Tri-Rail, Port Everglades, and the airports. In a 2012 Telephone Town Hall Meeting poll, 10% of participants indicated that the City was "very pedestrian friendly," while 54% indicated that the City "needs a lot of improvement." The 2012 Neighbor Survey also revealed low levels of satisfaction among respondents for walking and biking safety in Fort Lauderdale, with 43% of respondents being satisfied with the safety of walking and 30% being satisfied with the safety of biking within the City. The following objectives and initiatives outline our strategic approach to progress.

## **2012 NEIGHBOR SURVEY SNAPSHOT:**

- 60% of neighbors are satisfied with the availability of sidewalks in the City.
- 43% of neighbors are satisfied with the safety of walking in the City.
- 34% of neighbors are satisfied with the availability of biking paths and amenities in the City.
- 30% of neighbors are satisfied with the safety of biking in the City.

OBJECTIVE 1:
Improve transportation options and reduce congestion by working with agency partners

ST	RATEGIC INITIATIVES:	LEAD:	PARTNERS:
1.	>> Strategically route and expand the Sun Trolley as an overall complement to upcoming major transportation projects	Transportation and Mobility (T&M)	DDA, TMA
2.	Monitor All Aboard Florida implementation, and advocate for the City's best interest	T&M	DSD, DDA, All Aboard Florida, MPO, SFRTA
3.	>> Work with partners to construct the Wave Streetcar, including the Transit-Oriented Development (TOD) ordinances and connections to airport, port, and rail stations	T&M	DSD, DDA, BCAD, BCT, MPO, PE, SFRTA
4.	>>> Improve bus and mass transit amenities such as shelters and incorporate green design when feasible	T&M	DSD, BCT, FDOT, MPO, TMA, Wave
5.	>>> Work with partners to plan for the construction of Central Broward East-West Transit (light rail) Project in 2020	T&M	BCT, FDOT, MPO
6.	>>> Partner with agencies and businesses to increase commuter car-pooling and to incentivize and encourage mass transit use	T&M	DDA, BCT, FDOT, GFLCC, SFCS, SFRTA, Tri-Rail
7.	>>> Develop balanced public/private parking amenities that address future changes in modal share, such as motorcycles and scooters. Incorporate innovative design and sustainable practices that reduce greenhouse gas emissions	T&M	DSD, DDA, B-Cycle, Private Parking Associations,
8.	Implement the Broward Boulevard Gateway project to reduce congestion and calm traffic through transit planning and investment improvements to east-west connections, including: traffic signal synchronization, streetscapes, and review of traffic flow patterns in the downtown	T&M	DSD, BCT, FDOT, MPO
9.	Implement and monitor the parklets pilot program	Sustainable Development (DSD)	T&M
10	. Incorporate university talent and knowledge into the planning and design of urban areas	DSD	FAU, FIU
KE	Y PERFORMANCE INDICATORS:	BASELINE:	5-YR TARGET:
	>> Percent of residents that drive to work alone	74%	68%
	>> Satisfaction with the overall flow of traffic	39%	45%
•	Percent annual change in the number of Transit Management Authority (TMA) boardings	490,000	2% annual increase
•	Percent of TMA total cost recovery	75%	90%
•	Percent of commuters that use public transportation (excluding taxicab) to get to work	4.1%	Increase
•	Percent of commuters that walk or bike to work	4.5%	Increase
•	Number of improvements to transportation options and amenities	N/A	Average 1 per new approved development

<sup>&</sup>gt;> Indicates an idea from the Vision Plan. For more information on strategic initiative partners, see Cylinders of Excellence Community Partners.



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## **OBJECTIVE 2:**

Integrate transportation land use and planning to create a walkable and bikeable community

ST	RATEGIC INITIATIVES:	LEAD:	PARTNERS:
1.	>>> Plan for the MPO Hub network to connect people from live centers to employment centers	T&M	DSD, MPO
2.	>> Implement feasible short and long-term Downtown Walkability Study results	T&M	DSD, DDA, MPO
3.	>>> Develop a citywide comprehensive public/private sidewalk policy and plan to improve sidewalks and connections	T&M	DSD, PWD
4.	>>> Develop bike amenities	T&M	DSD, PWD, BC, B-Cycle, FDOT, MPO,
5.	>> Construct ADA accessible transit stops	Public Works (PWD)	DSD, T&M, MPO, SFRTA
6.	>> Develop and implement the Connectivity Master Plan to improve accessibility	T&M	DSD, PWD, DDA, BC, FDOT, MPO
7.	>> Develop and implement a Transit-Oriented Development (TOD) ordinance	DSD	T&M, DDA, BCT, MPO, SFRTA,
8.	Adopt Complete Streets guidelines	T&M	DSD, PWD, BC, MPO
KE	Y PERFORMANCE INDICATORS:	BASELINE:	5-YR TARGET:
	>> Percent of Connectivity Map completed	10%	25%
	>> Walkability Score	59	66
•	Percent of TMA transit stops that are ADA accessible	33%	100%
•	Annual increase in the number of linear feet of bicycle lanes, greenways, and sidewalks installed	N/A	20,000
•	Percent increase in the number of B-Cycle trips	10,915	2% annually

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## **OBJECTIVE 3:**

Improve pedestrian, bicyclist, and vehicular safety

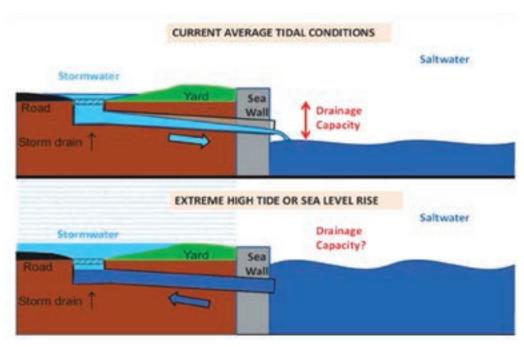
ST	RATEGIC INITIATIVES:	LEAD:	PARTNERS:
1.	>> Implement traffic calming mechanisms to increase safety	T0.14	FLPD, PWD,
	through environmental design	T&M	BC, CA, FDOT, MPO
2.	>>> Provide public education on pedestrian, bicyclist, and driver safety	Police Depart- ment (FLPD)	T&M, B-Cycle
3.	Maximize the Advanced Traffic Management System (ATMS) project as appropriate for public information	T&M	BCT, FDOT
KE	Y PERFORMANCE INDICATORS:	BASELINE:	5-YR TARGET:
•	Number of vehicle accidents involving pedestrians	164	Decrease
•	Number of vehicle accidents involving bicyclists	152	Decrease



# OBJECTIVE 1: Proactively maintain our water, wastewater, road and bridge infrastructure OBJECTIVE 2: Reduce flooding and adapt to sea level rise OBJECTIVE 3: Improve climate change resiliency by incorporating local, regional and mega-regional plans OBJECTIVE 4: Reduce solid waste disposal and increase recycling OBJECTIVE 5: Improve air and water quality and our natural environment OBJECTIVE 6: Secure our community's water supply

Fort Lauderdale's roadways and bridges, water and wastewater systems, and drainage infrastructure will be more structurally sustainable to meet the needs of current and future generations. This will make our City increasingly resilient to inclement weather, high-tides, future water demands, and a growing population. Our community will utilize sustainable construction techniques and efficiencies to blend buildings with the natural environment, and increase recycling practices to minimize our environmental impact.

Given our coastal location, beginning in the next five years and continuing beyond, the City will focus on building a sustainable and resilient infrastructure. We are surrounded by water and impacted by high tides, heavy rain events, and sea level rise, all of which significantly impact our drainage and gravity sewer infrastructure. We will need to design differently to account for these changes. This means smart investments in our community infrastructure for short-term and long-term economic and environmental viability and quality of life. Our roads, bridges, water and wastewater systems, and drainage infrastructure will need to be maintained and updated in accordance with sea level rise projections and other coastal threats.



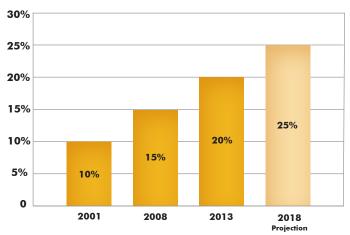
## Drainage Challenge with Sea Level Rise

Graphic courtesy of Dr. Nancy Gassman, Broward County

Additional benefits can be realized through increasing our participation in the FEMA Community Rating System (CRS) program. By increasing our flood-prevention efforts, we will be able to further protect our community from flooding risks, and save our neighbors money on flood insurance premiums as we achieve lower CRS scores. Focusing on awareness, planning, and efficiency now, will help us safeguard our long-term water supply later. We must also make a commitment to reduce our energy use and choose recycling and

reduction over disposal. We will evaluate our recycling and yard waste programs with an eye toward reducing waste and generating useful products, such as mulch. We will examine, pilot, and implement industry trends that will provide the best and highest use of our operations and waste. All of these initiatives will be carried out to protect the most fundamental environmental resources that sustain our community: air, water, and natural resources. The following objectives and initiatives outline our strategic approach to progress.





Source: Federal Emergency Management Agency (FEMA), Community Rating System

### **2012 NEIGHBOR SURVEY SNAPSHOT:**

- 59% of neighbors are satisfied with the overall quality of drinking water.
- 34% of neighbors are satisfied with the prevention of stormwater related flooding.
- 34% of neighbors are satisfied with the prevention of tidal related flooding.

# OBJECTIVE 1:

Proactively maintain our water, wastewater, road and bridge infrastructure

ST	RATEGIC INITIATIVES:	LEAD:	PARTNERS:
1.	>> Implement a road condition evaluation and maintenance program utilizing the Pavement Condition Index for prioritization of improvements	PWD	
2.	>> Consider placing utilities underground when feasible	PWD	AT&T, FPL
3.	>> Conduct an analysis of canal dredging needs and examine funding scenarios	PWD	P&R, MAB, SFWMD, USACE
4.	>> Examine funding options to maintain and update our aging bridge infrastructure, considering sea level rise, pedestrian friendliness, and aesthetics	PWD	T&M, FDOT, MPO
5.	Update the Water and Sewer Master Plan; integrate the plan with in- frastructure improvements that include modern and efficient energy standards	PWD	UAC, FDOH, BC, Developers, Municipalities Served
6.	Develop a Water Capacity Model and approval process for future development	PWD	Developers
7.	Address excessive Infiltration and Inflow (I&I), and develop performance indicators	PWD	CMO-SI, Consultants
KE	Y PERFORMANCE INDICATORS:	BASELINE:	5-YR TARGET
	>>> Percent of City roadways with an average Pavement Condition Index score of 70 or above	N/A	70%
•	Percent of sewer pipe lined	60.45%	85%
•	Number of sewage overflows annually	30	20
•	Number of water line breaks annually	900	850
•	Percent of bridges with a Sufficiency Rating above 50%	55.77%	75%

# OBJECTIVE 2:

Reduce flooding and adapt to sea level rise

ST	RATEGIC INITIATIVES:	LEAD:	PARTNERS:
1.	>> Incorporate sea level rise and resiliency projections into the Stormwater Management Plan and the Flood Hazard Mitigation Program	PWD	FLFR, BC, Compact, Seven50, SFWMD
2.	Implement the Stormwater Management Plan and examine funding rate structures based on vulnerability	PWD	BC, Compact
3.	Implement the Flood Hazard Mitigation Program for residents	PWD	CMO-BDGT, DSD, FLFR, BC, FDEM, FEMA
4.	Utilize a multi-agency advisory group to evaluate and implement solutions to address flooding concerns	PWD	BC, Consultant
5.	Identify potential Adaptation Action Areas (AAA) and develop AAA policies	PWD	DSD, FLFR, T&M, PNZ, CA, DEO, DEP, NOAA, SFRPC
6.	Examine and update the Save Our Swales program to include bio swale options	PWD	Neighbors

<sup>)</sup> Indicates an idea from the Vision Plan. For more information on strategic initiative partners, see Cylinders of Excellence Community Partners.



KEY PERFORMANCE INDICATORS:	BASELINE:	5-YR TARGET:
>> FEMA Community Rating System (CRS) Score	7	5
Percent of reclaimed Save Our Swales applications that are completed	90%	90%
Percent of storm drains inspected and/or cleaned twice annually	100%	100%
Acres of natural spaces in flood plain	893	900

## **OBJECTIVE 3:**

Improve climate change resiliency by incorporating local, regional and mega-regional plans

STRATEGIC INITIATIVES:	LEAD:	PARTNERS:
1. >> Implement the Sustainability Action Plan (SAP); align it with the Southeast Florida Regional Climate Action Plan (SFRCAP) and the Seven Counties - 50 Years Southeast Florida Prosperity Plan, and monitor progress	PWD	SAB, BC
2. » Create and monitor the Sustainability Scorecard	PWD	CMO-SI
3. Develop an approach for the future SAP update	PWD	DSD, P&R, T&M, SAB
KEY PERFORMANCE INDICATORS:	BASELINE:	5-YR TARGET:
>>> Percent of SAP initiatives implemented	10%	80%
>>> Citywide greenhouse gas emissions per capita	15.65	12.11

## **OBJECTIVE 4:**

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Reduce solid waste disposal and increase recycling

ST	RATEGIC INITIATIVES:	LEAD:	PARTNERS:
1.	Implement a Multi-Family/Commercial Recycling Program	PWD	P&R, BC
2.	Examine mandating commercial recycling through code amendments	PWD	DSD
3.	Explore the potential of turning yard waste collected by Parks and Recreation into free mulch for neighbors	P&R	PWD
4.	Examine the possibility of using sludge from water and wastewater operations more effectively	PWD	Consultants
5.	Explore the best and highest use of the compost site	P&R	PWD
KE	Y PERFORMANCE INDICATORS:	BASELINE:	5-YR TARGET:
•	Recycling and yard waste tons as a percent of garbage disposed	37.4%	50%
•	Household refuse collected (tons)	38,772	31,018
•	Yard waste materials diverted from disposal (tons)	16,190	17,809
•	Recycling material diverted from disposal (tons)	9,107	10,018

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## **OBJECTIVE 5:**

Improve air and water quality and our natural environment

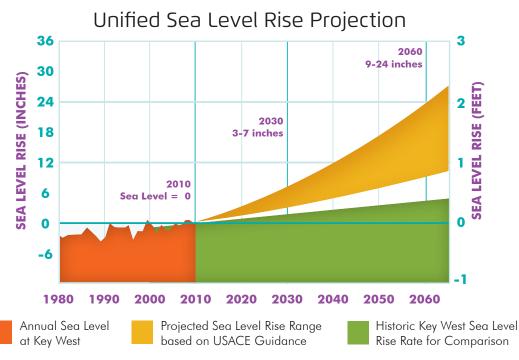
ST	RATEGIC INITIATIVES:	LEAD:	PARTNERS:
1.	>> Evaluate results of the National Pollutant Discharge Elimination System (NPDES) program to keep our waterways clean	PWD	DEP
2.	Explore and determine the environmental compliance rate and impact of businesses that hold county and state environmental permits	PWD	BC, Florida
KE	Y PERFORMANCE INDICATORS:	BASELINE:	5-YR TARGET:
•	Percent of days that air quality is rated "good" or "moderate"	99.73%	100%
•	Percent compliance with surface water quality standards	96%	96%

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## **OBJECTIVE 6:**

Secure our community's water supply

STRATEGIC INITIATIVES:	LEAD:	PARTNERS:
<ol> <li>Work with partners to identify and implement wastewater reuse opportunities</li> </ol>	PWD	Consultants
2. >> Participate in regional Long-Term Water Supply Strategies (C-51)	PWD	BC, PBC, SFWMD
3. Monitor the salt intrusion line and implement best practices, reuse, and other practices to hold the line	PWD	ВС
KEY PERFORMANCE INDICATORS:	BASELINE:	5-YR TARGET:
Water use per capita	190 MGD	180 MGD
Percent compliance with primary drinking water standards	100%	100%



Southeast Florida Regional Climate Change Compact