SOUTHEAST FLORIDA REGIONAL TRANSPORTATION PLAN 2050

Miami-Dade • Broward • Palm Beach

JUNE 12, 2024

SEFTC
Southeast Florida Transportation Council

SCOPE OF WORK

1. Project Management
2. Schedule & Coordination
3. Public Participation
4. Regional Goals, Objectives and Targets
5. Revenue & Finance
6. Regional Transportation Network
7. Scenario Development & Analysis
8. Model Support
9. 2050 RTP
10. SEFTC Support

Adopting Summer 2025

Schedule & Coordination

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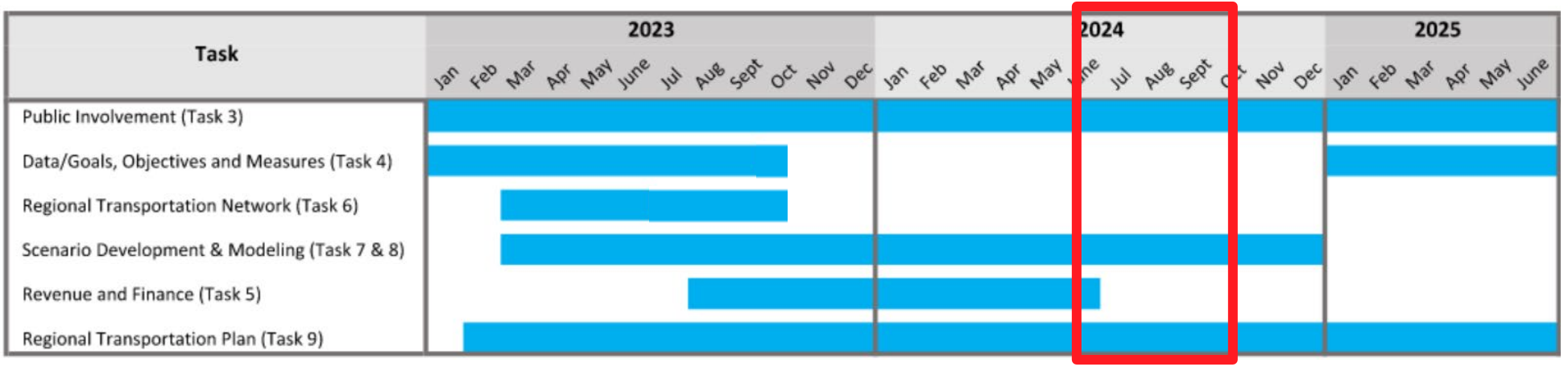

Now through Summer 2025

Revenue & Finance

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Task Update

- Updating individual local revenues
- Revising draft of Financial Resources Tech Memo
- **Next working group meeting is July 10th**

SEFTC
Southeast Florida Transportation Council

Financial Forecast Working Group
Date: March 13, 2024
Time: 10:30 am – 11:30 am
Location: Virtual

REGIONAL FINANCIAL FORECAST WORKING GROUP VIRTUAL MEETING

AGENDA

I. **Local Revenues**
   a. Local Revenues for Tech Memo
   b. Local Revenue Codes for Template
   c. Transit Revenues
II. **Potential Revenues & Financing Tools**
III. **Cost Per Mile Estimates and Ongoing O&M Costs**

July 2023 through June 2024

Scenario Development & Analysis 7

Intent & Purpose Refresher

- Purpose: Virtually explore alternative futures to inform planning

- Types
  - **Visionary** – differing ways to reach aspirations (change the trend)
  - **Exploratory** – influence of external forces on goals (proactively respond to external forces)

- Process
  - Where are we now? (existing conditions)
  - Where are we going? (trend / external forces)
  - Where do we want to go? (alternative trajectories)
  - What are the consequences? (trend versus alternative evaluations)
  - What are future course actions?

March 2023 – December 2024

Scenario Development & Analysis 7

2045 to 2050 Comparison

- 2045 scenario planning focused on vision

> Based on the performance results, it was evident that the Alternative Growth scenario's performance best achieved the 2045 Regional Transportation Plan's goals and SEFTC's ultimate vision to create "a seamless, multi-modal transportation system that serves and benefits the entire region." This scenario included an evaluation of current funding programs, identifying an opportunity to flex highway funding programs to transit investments–in addition to other funding sources–to build and maintain a multimodal system.

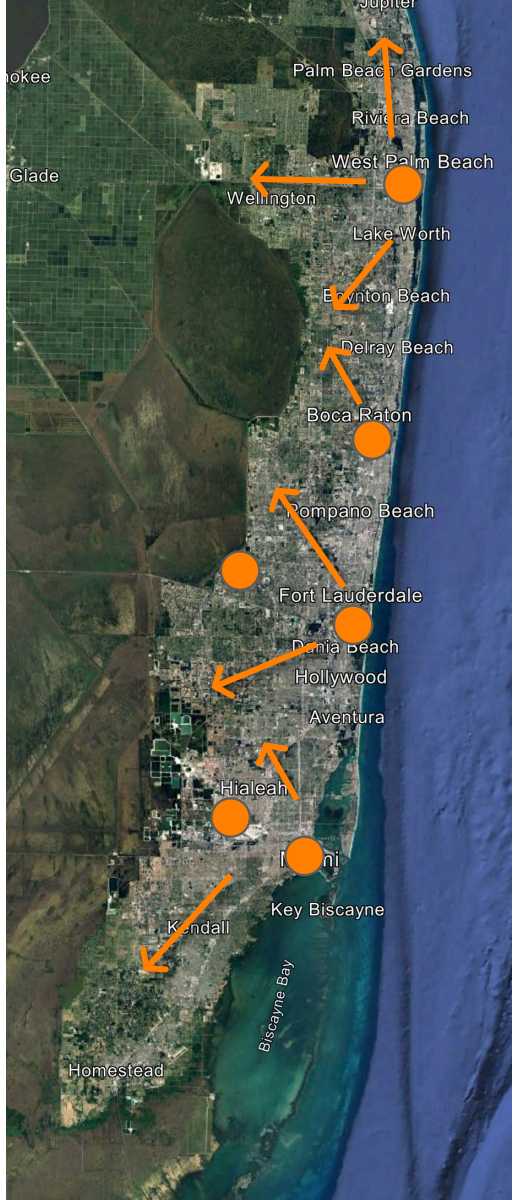
- 2050 scenarios focus on how external forces could impact the vision
  - Technology
  - Climate change

2050 Scenarios Refresher

	1. Tech and Transit	2. Resiliency and Growth	3. Compounding Effects (1+ 2)
Outside influences	**Impact of technology:** By 2050, travel technologies will be available across all modes.	**Impact of climate change**: By 2050, sea level rise and storm frequencies make rebuilding in low lying and storm prone areas cost prohibitive.	
Perspectives			
Reactive / Siloed	A	A	A
Proactive / Multidisciplinary	B	B	B

1A REACTIVE TECH

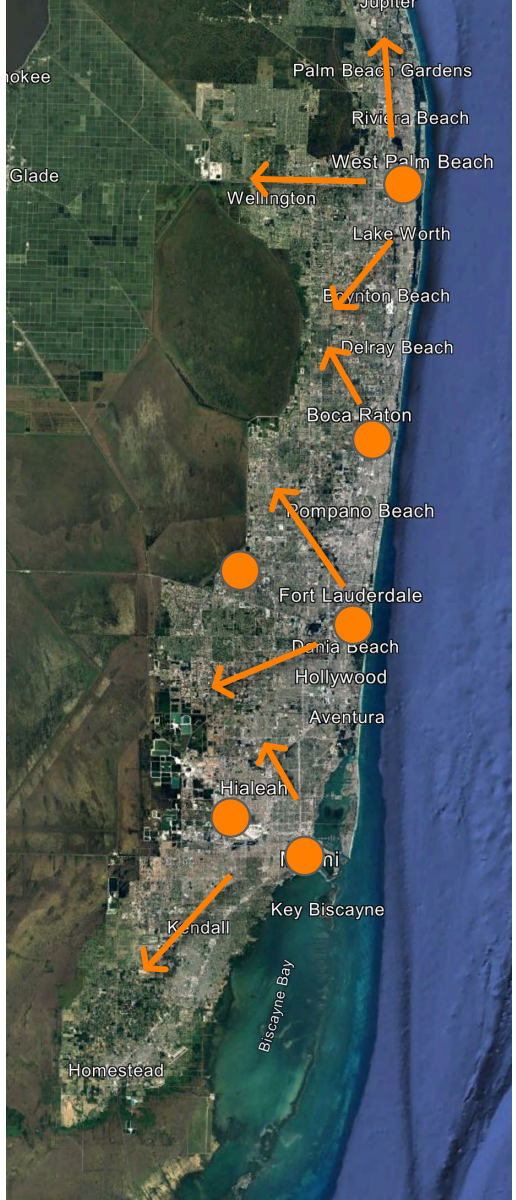
- **Impact of technology: Travel technologies available for all modes**
- **Roadway technology** fully developed and adopted (higher road capacity)
- **Transit technologies** are developed but **not invested in** (limited service improvements)
- Virtual technology reduces commuting and retail trips, lowers demand for offices and stores
- Roadway and virtual technologies **promote sprawling development patterns**
- Transit ridership and investment ebbs



2050

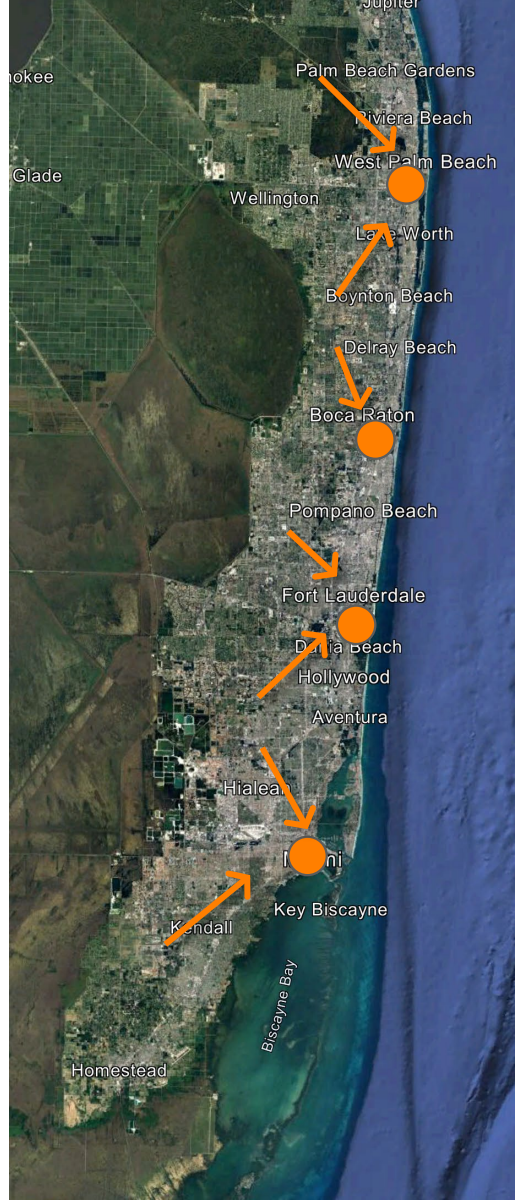
1A MODELING STEPS

- BEBR based 2050 population and employment control totals (done)
- Shift population and employment from corridors and centers (done)
- Roadway capacities increased (done)
- 2050 Transit Cost Feasible network (done)



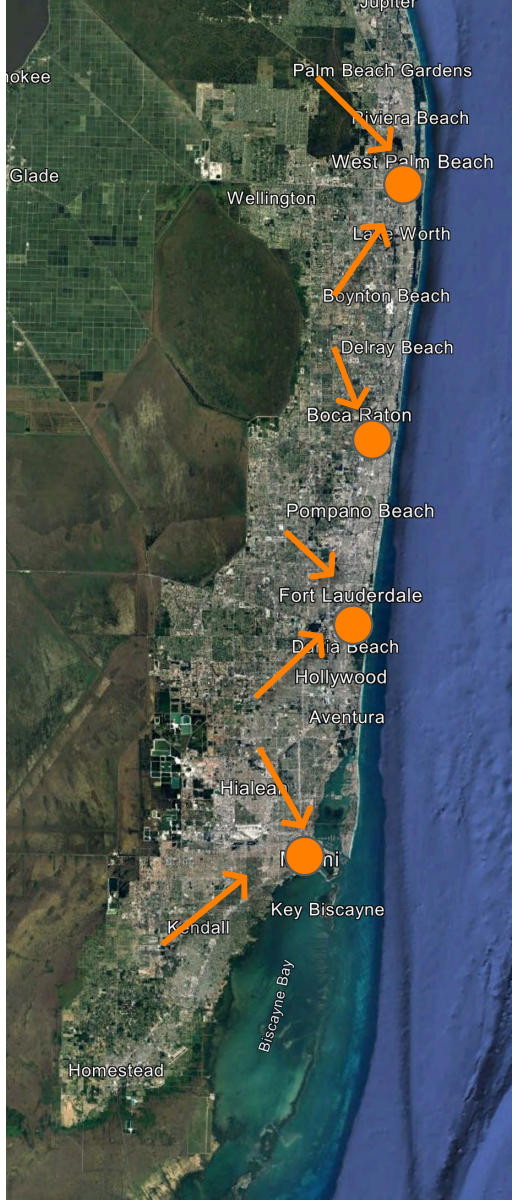
1B PROACTIVE TECH

- **Impact of technology: Travel technologies available for all modes**
- **Roadway and transit** technologies fully developed and adopted
- Investments in premium transit (2050 Transit Needs network)
- High tech hubs along multimodal corridors created to support new virtual technology lifestyles
- Investments and land use plans/regulations **reinforce corridor and center development**



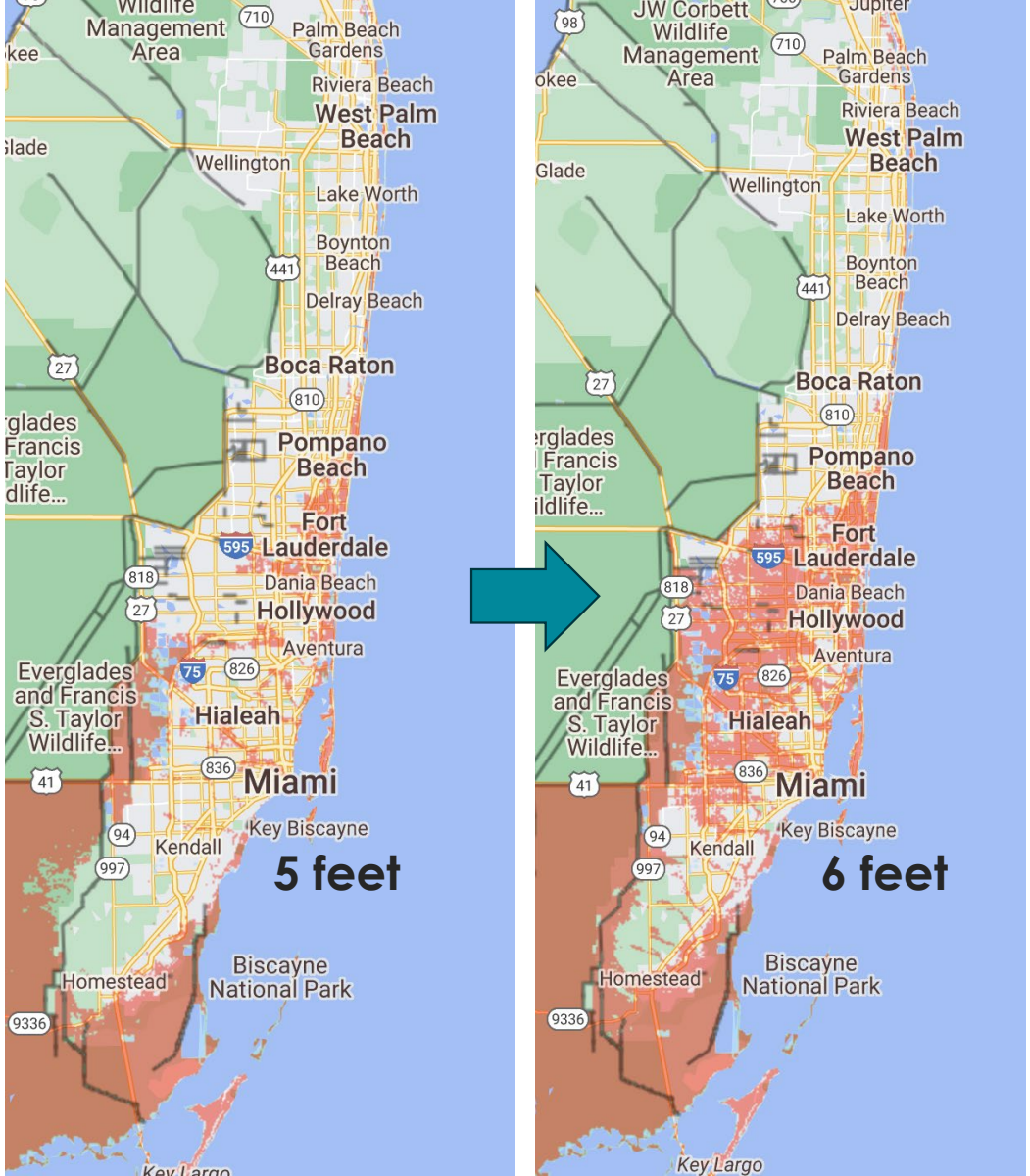
1B MODELING STEPS

- BEBR based 2050 population and employment control totals (done)
- Allocate higher percentage of population and job control totals into multimodal corridors (done)
- Roadway capacities increased (done)
- 2050 Transit Needs network (done)



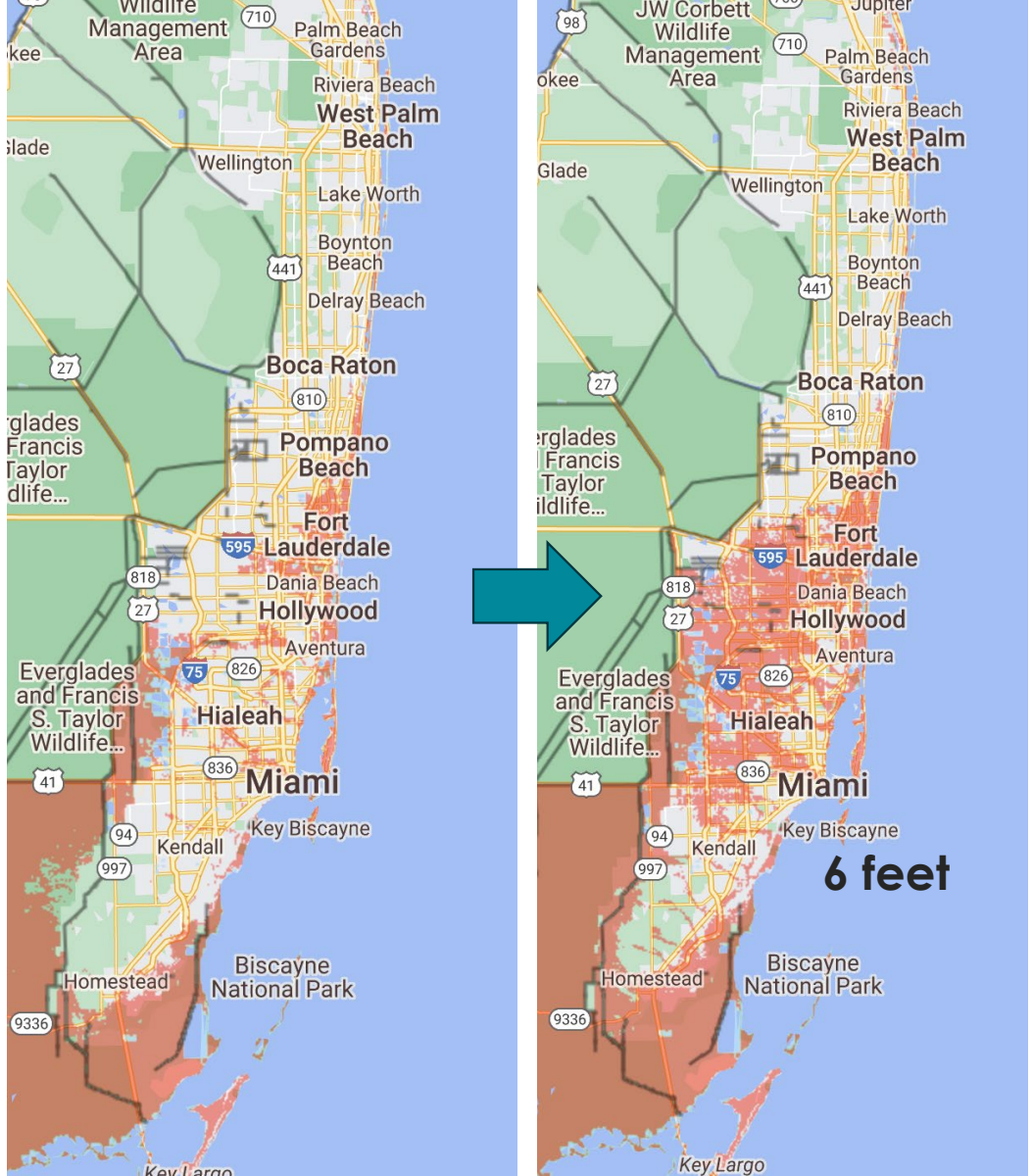
2A REACTIVE CLIMATE

- **2050 sea level rise is 5 feet, 6 feet expected by 2060**
- Southern Broward / Miami Dade hit hardest
- People and businesses move out of low-lying areas
- Massive shifts and uncertainty cause people to leave region
- Expressways and major arterials raised through inundated areas, other roads abandoned



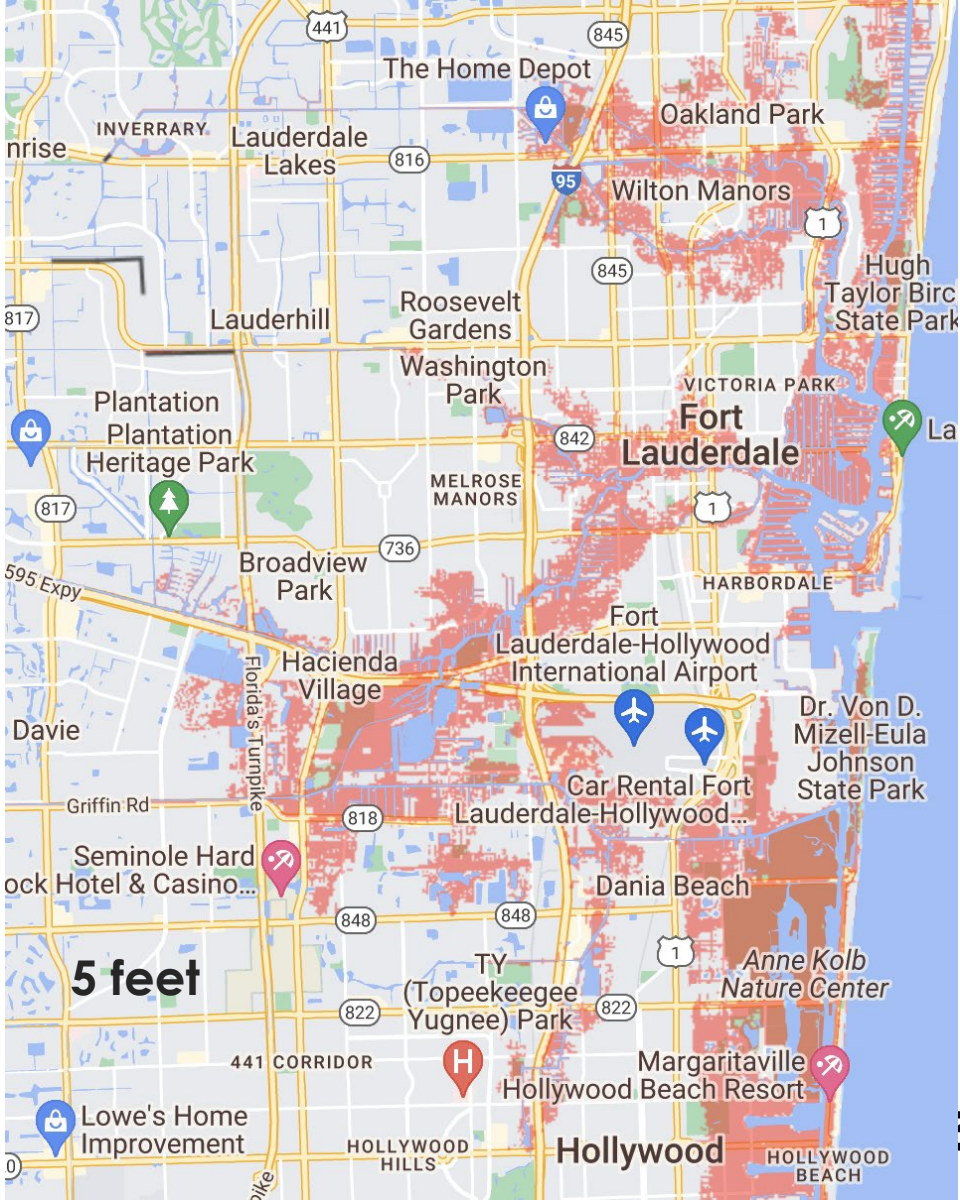
2A MODELING STEPS

- Identify impacted land at 5.5 feet (done)
- Sum existing / future number of jobs / dwelling units within impacted lands (done)
- Assume portion of dislocated jobs / Dus relocate within region, another portion percent move out (done)
- Calculate new population / job control total (done)
- Allocate new control totals to viable growth areas (done)
- 2050 Transit Cost Feasible plan (done)



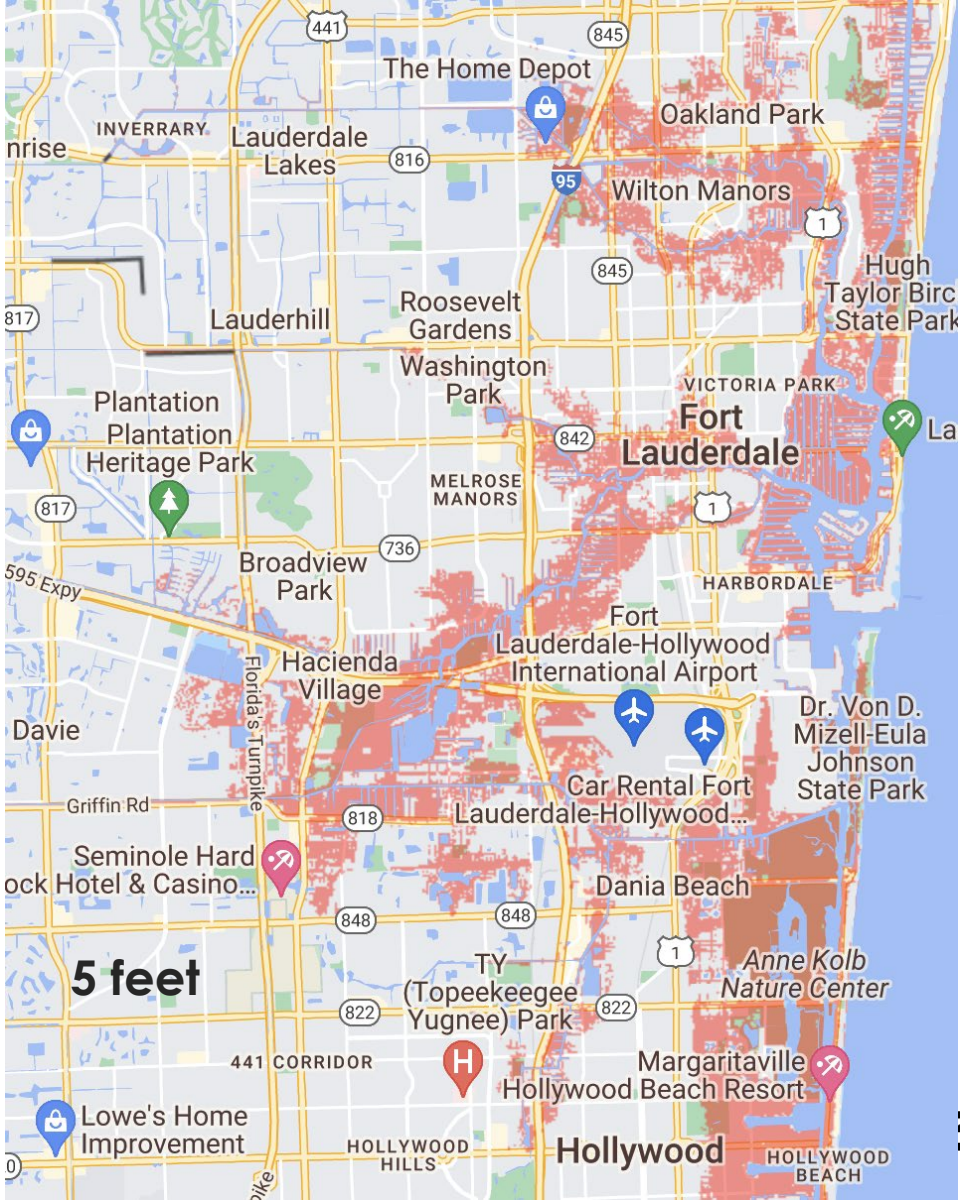
2B PROACTIVE CLIMATE

- **2050 sea level rise is 5 feet, 6 feet expected by 2060**
- Region develops and protects natural systems
- Region creates high intensity, mixed use, multimodal development nodes within natural systems
- Region modifies road and transit networks to serve development nodes



2B MODLEING STEPS

- Overlay impacted land onto growth areas (done)
- Develop natural system layer (done)
- Redefine growth areas based on natural system layer (done)
- Allocate control totals to new growth areas (done)
- 2050 Transit Needs network



Scenario Assumptions

Scenario	Land Use Forecasts	Roadway Network	Expway Capacity	Arterial Capacity	Transit Network	Telecommute Freq.	Shopping Trip Freq.	Freight (4 tire truck) Trip Freq.	Freight (larger truck) Trip Freq
1A. High Tech Reactive	New growth shifts to suburban and rural areas	2045 Cost Feasible	Increase 40%	Increase 40%	2050 E+C	Increase from 7% to 21%	Decrease from 15% to 5%	Increase by 10%	Increase by 5%
1B. High Tech Proactive	New growth concentrated on multimodal corridors	2045 Cost Feasible	Increase 100%	Increase 100%	2050 Needs	Increase from 7% to 21%	Decrease from 15% to 5%	Increase by 10%	Increase by 5%
2A. Resiliency Reactive	Growth slows (lower control total). Remaining growth locates in outlying areas	Modified 2045 Cost Feasible (1)	No change	No change	2050 E+C (1)	Increase from 7% to 14%	Decrease from 15% to 10%	Increase by 5%	No increase
2B. Resiliency Proactive	New growth locates in higher areas along multimodal corridors	Modified 2045 Cost Feasible (1)	No change	No change	2050 Needs (1)	Increase from 7% to 14%	Decrease from 15% to 10%	Increase by 5%	No increase
3A. Combined Reactive	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
3B. Combined Proactive	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

1. Road and transit networks modified in sea level rise areas

Performance Measures and Sources

Metrics	Details
VMT	HEVAL-24H-OverallSmry.prn, line 38
VHT	HEVAL-24H-OverallSmry.prn, line 39
PMT	Transit Trip Summaries.xlsx
PHT	Not directly available, exploring with SERPM9 team on extraction
ridership	Transit Boarding Statistics.xlsx
Avg trip length	Not directly available, calculated
mode share	trips_by_mode_count.csv
link volume	Comb-HWYLOAD_D2050.net
links with v/c ratio>1	Comb-HWYLOAD_D2050.net, attribute AM_VC, MD_VC, PM_VC ,EV_VC, EA_VC (by period only), AL_VCLOSE(An estimated daily average directional LOS-E volume/capacity ratio)

Scenario Development & Analysis

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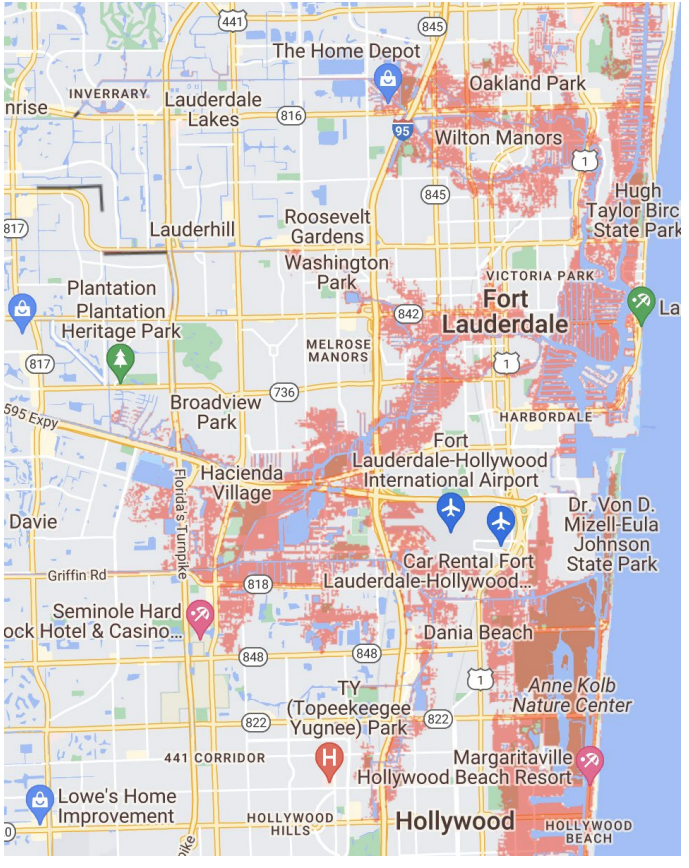
Next Steps

- SERPM runs and input / assumptions refinements as needed
- Summarize results
- Share with MPOs for feedback and finalization



Model Support 8

Network Coding Status

- **Needs analysis:**
  - received Needs network from MD TPO, Broward and Palm Beach pending
  - Currently reviewing the MD TPO Needs network
- **Scenario planning/modeling**
  - Developed SERPM9 inputs for all four alternative scenarios
  - Set up SERPM9 for scenario modeling and testing (adjustments on parameters, networks)
  - Completed three runs for initial analysis
  - Currently refining network with SLR impacts
- **Demographic report**
  - Received final comments by May 24th
  - Currently finalizing

March 2023 – December 2024

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THANK YOU!

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