

Modeling Seven50

Southeast Florida FSUTMS Users Group Meeting, FDOT D4 Auditorium September 6, 2013 Santanu Roy, PTP(HDR Engineering, Inc.)

It All Starts with a VISION

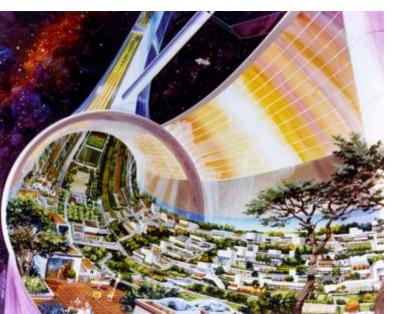






Driverless Cars - Nevada, California and Florida passed law to allow testing

Colonizing Space - SpaceX wants to build a colony for 80,000 people on Mars





'Hyperloop' Tube Transport – Very High Speed Transit - LA to NY in 21 min

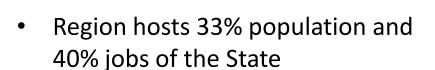
Disclaimer!

SEVEN Counties – 50 Year Vision Plan





- Study funded by HUD Grant
- Regional partnership SFRPC, FDOT, MPOs, Counties, etc.
- Comprehensive approach multidisciplinary consultant team



- More population than 35 states
- World class tourist destination
- Global gateway to and from the US





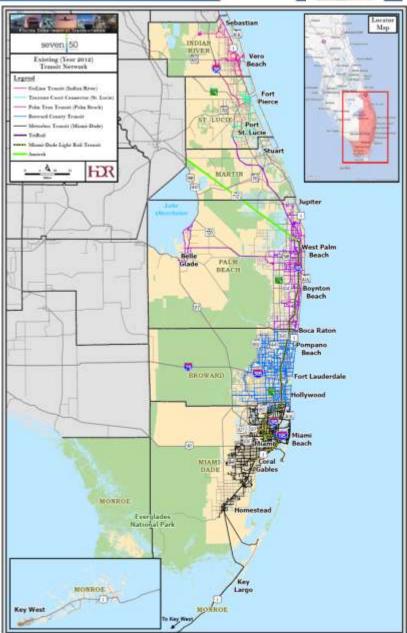


Existing Transportation System





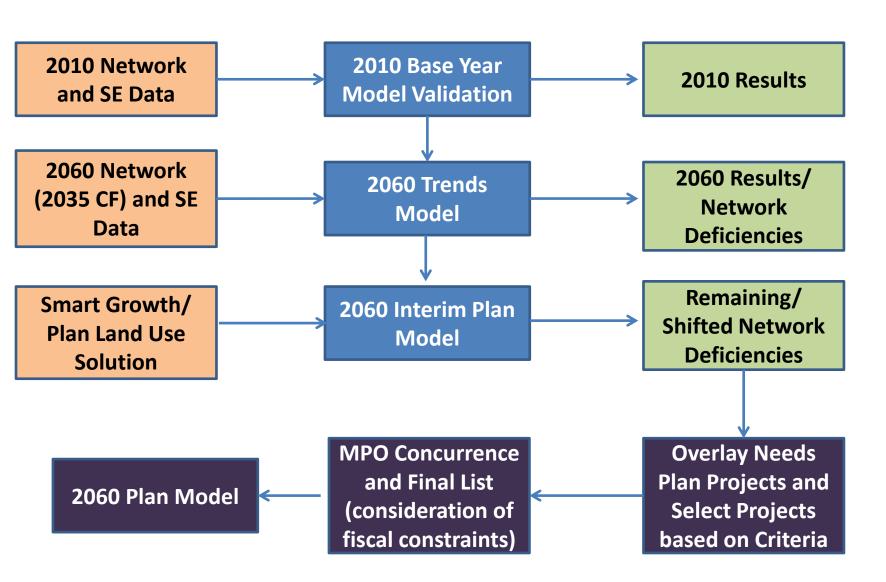




Modeling Process







Modeling Objectives and Challenges





Objectives

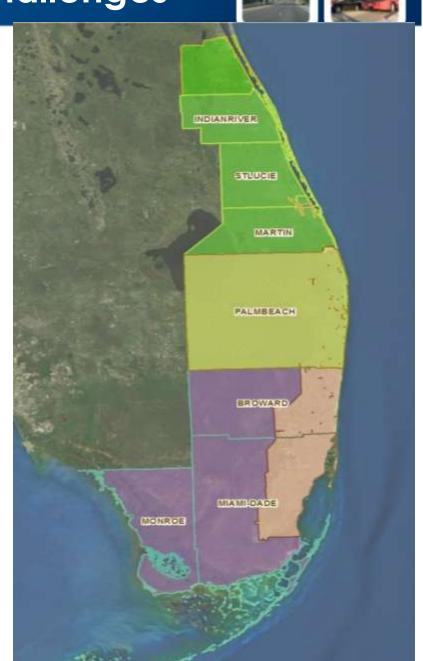
- Network performance (V/C, VMT, VHT, etc.)
- Mode shifts
- Develop the <u>high-level</u> regional solution

Challenges

- Model coverage Monroe County added to SERPM
- Process limitations added simplified transit module to GTCRPM, offline analysis
- Defining projects beyond 2035/ 2040 LRTP
 <u>consensus</u> building
- Model procedures (concern with high volumes)
- Schedule interagency coordination

Technical Guidance

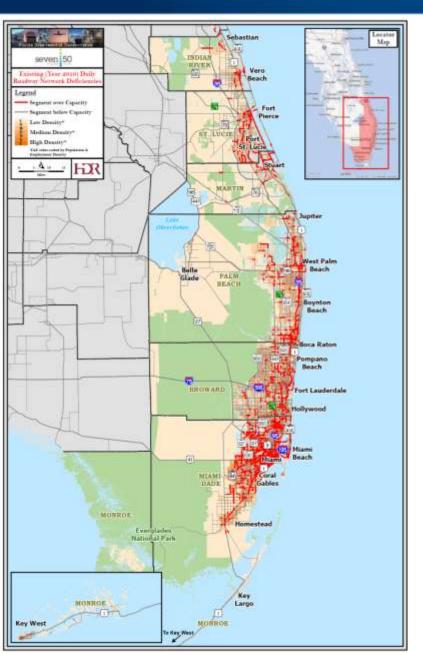
RTTAC



Today's Problems







- Growing congestion

 Longer commute times, lost productivity, increased pollution
- Aging infrastructure

 More maintenance needs, lost vitality
- Limited funding

 Do more with less, identify new funding sources

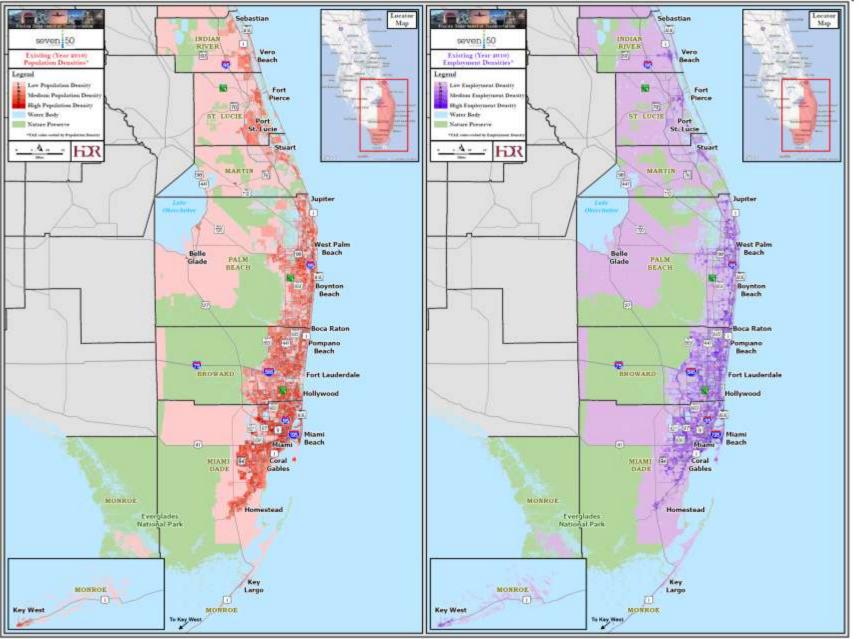
The problems are expected to get worse...

- Population is projected to grow from 6.2M in 2010 to 9.1M by the year 2060
- Employment is projected to grow from 2.9M in 2010 to 5.1M by the year 2060

2010 Pop. and Emp. Densities



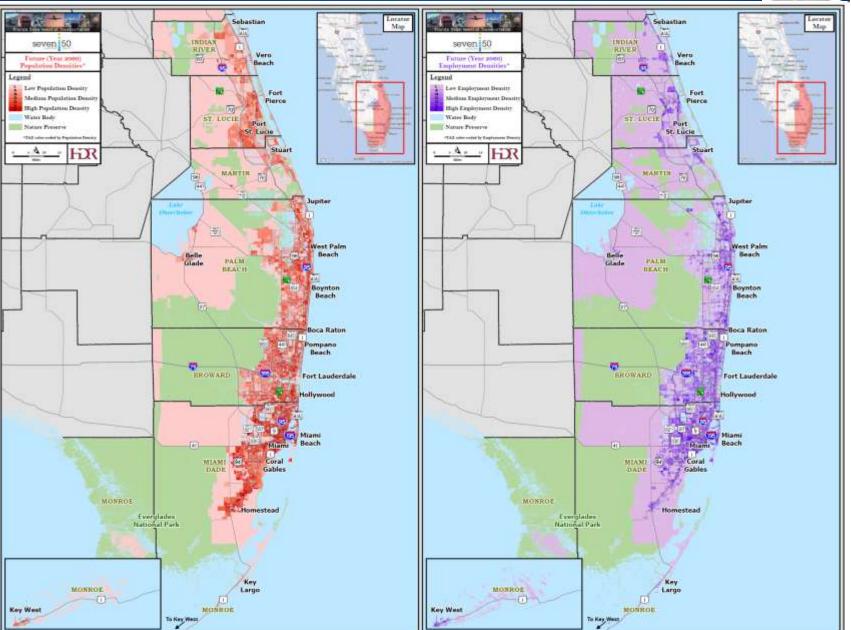




2060 Pop. and Emp. Densities





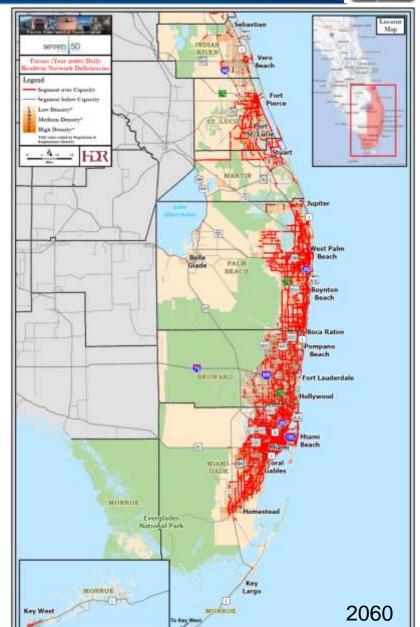


Anticipated Future Roadway Deficiencies









Move Cars or People?



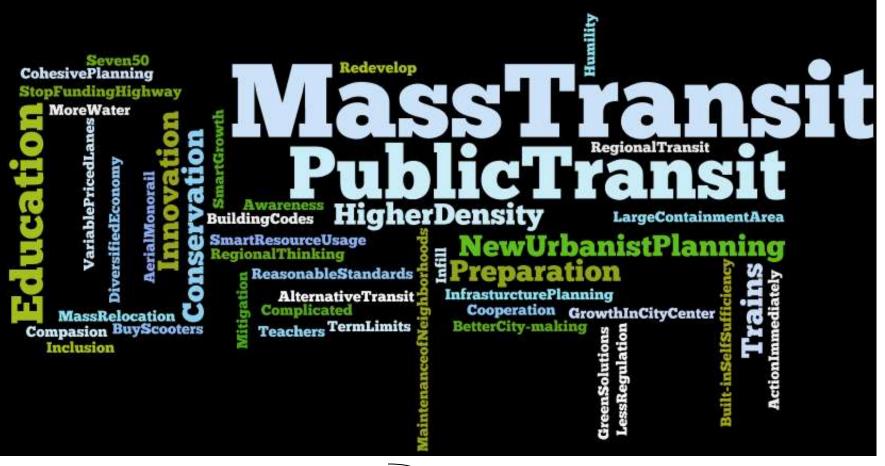




Scenario Planning







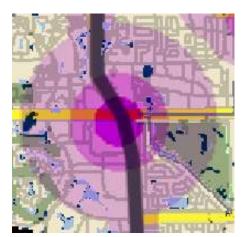
- Trend: Staying the Course
- Plan 1: Suburban Expansion
- Plan 2: Strategic Upgrades
- Plan 3: Region in Motion

How to give what people WANT

Change Agents – Examples

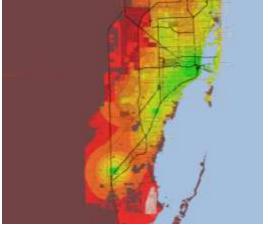






TOD – people expressed desire to live near transit

Sea level rise -15% of Miami-Dade & 59% Monroe County inundated by 2' sea level rise

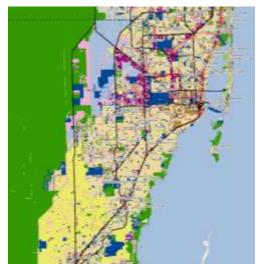


Walkability



Aging population

Land use – built out areas, potential loss of agricultural lands





Online Scenario Builder







Working Towards a Sustainable Solution









- Project will be completed by December 2014
- Visit http://seven50.org/ for more information