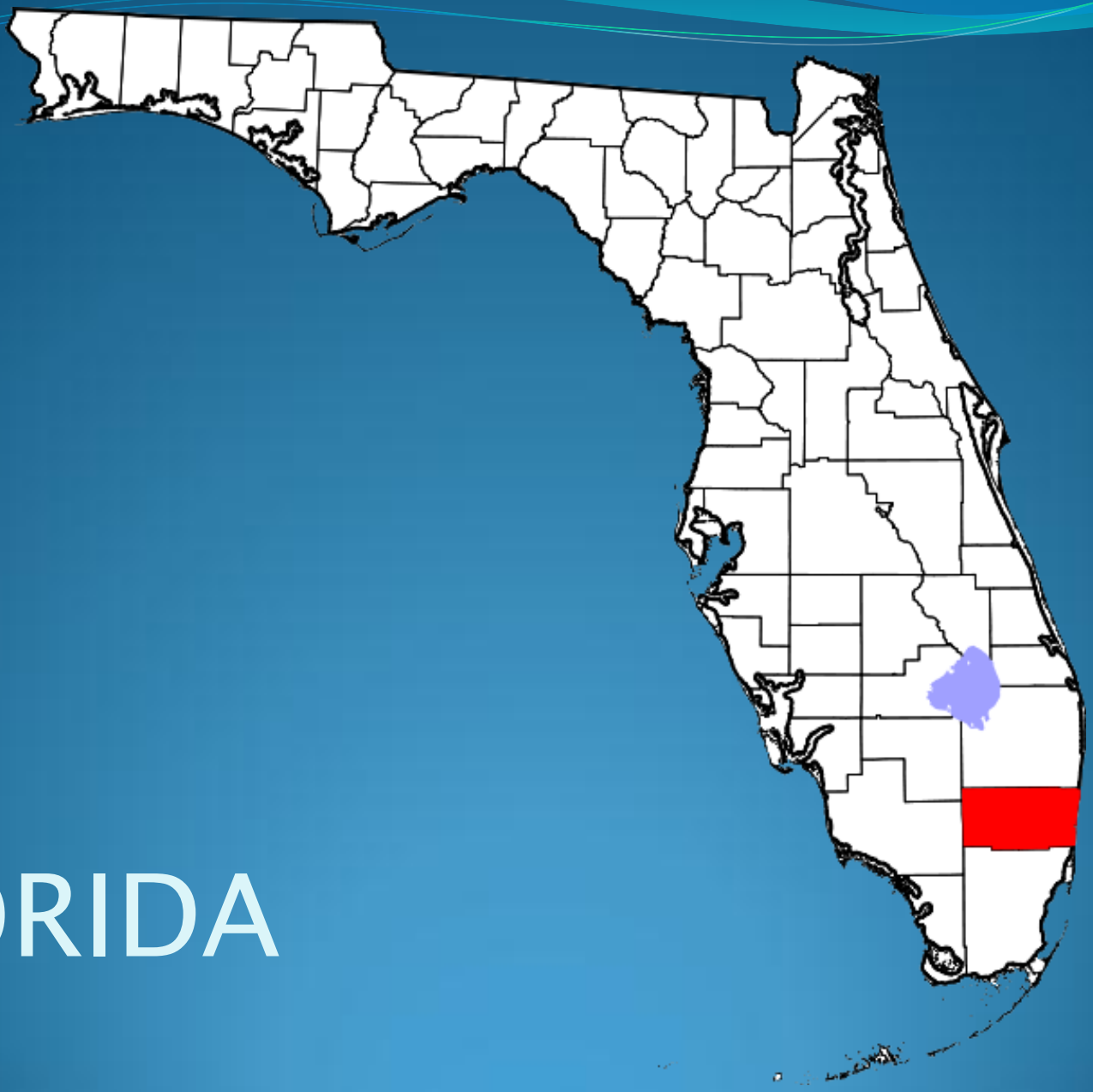
WATER WOES, CASH FLOW WOES AND FUTURE GROWTH

Real water and wastewater costs and its impact on sound municipal planning

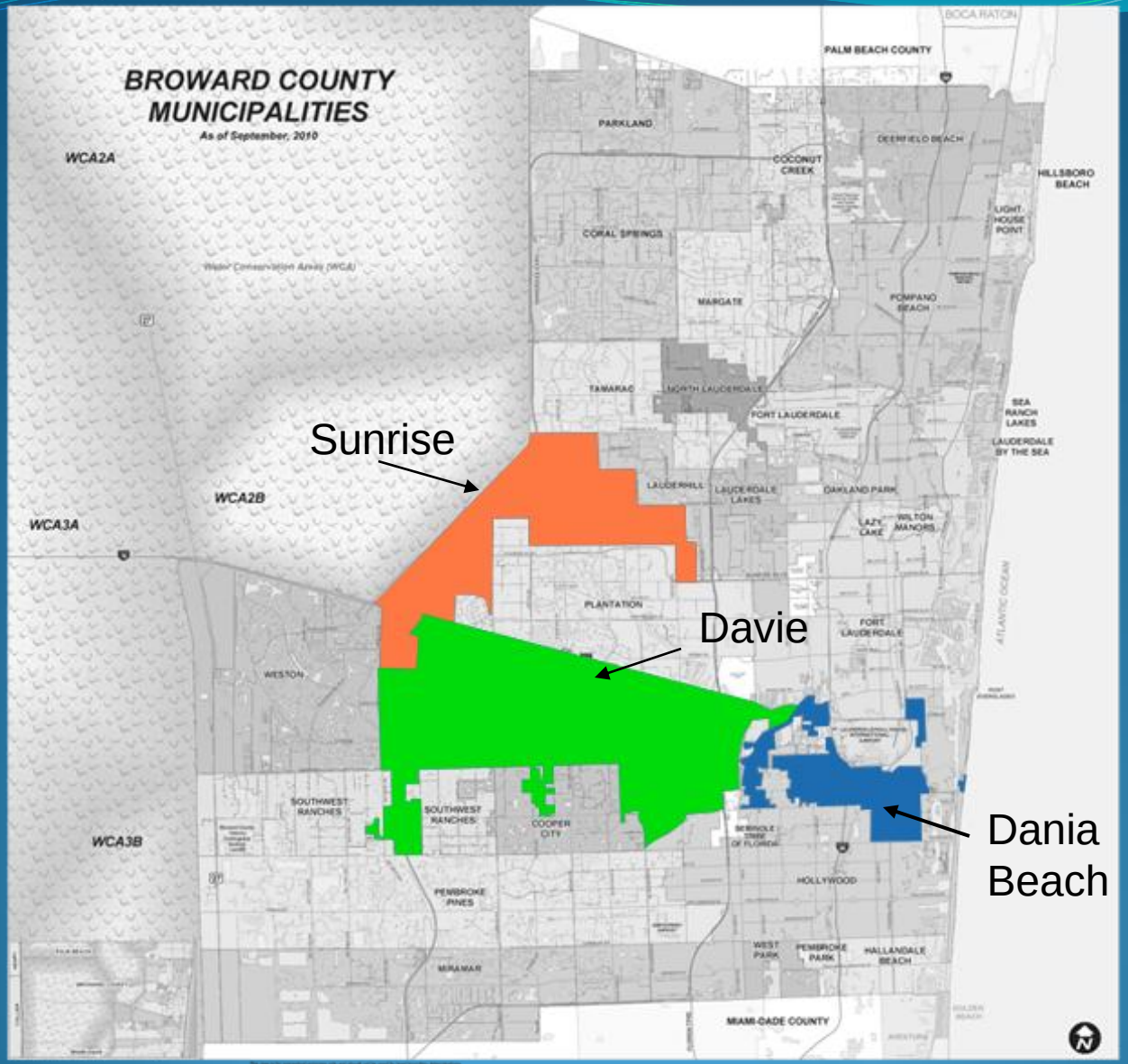
PRESENTERS

- Bob Daniels, Dania Beach
- Tim Broeder, AECOM
- Jo Sesodia, AICP, City of Sunrise
- Marcie Oppenheimer Nolan, AICP, Esq., Becker and Poliakoff, Moderator



FLORIDA

Municipal Boundaries 2010



Freshwater Supply

- Cheap and easily accessible water is gone
- In South Florida almost 2/3 of potable water is used for irrigation
- Costs of alternative water sources are more costly
- Cost of wastewater/reuse add to rate increases

THIS IS THE CURRENT REALITY

How are we integrated into this process?

LEGISLATIVE CHANGES

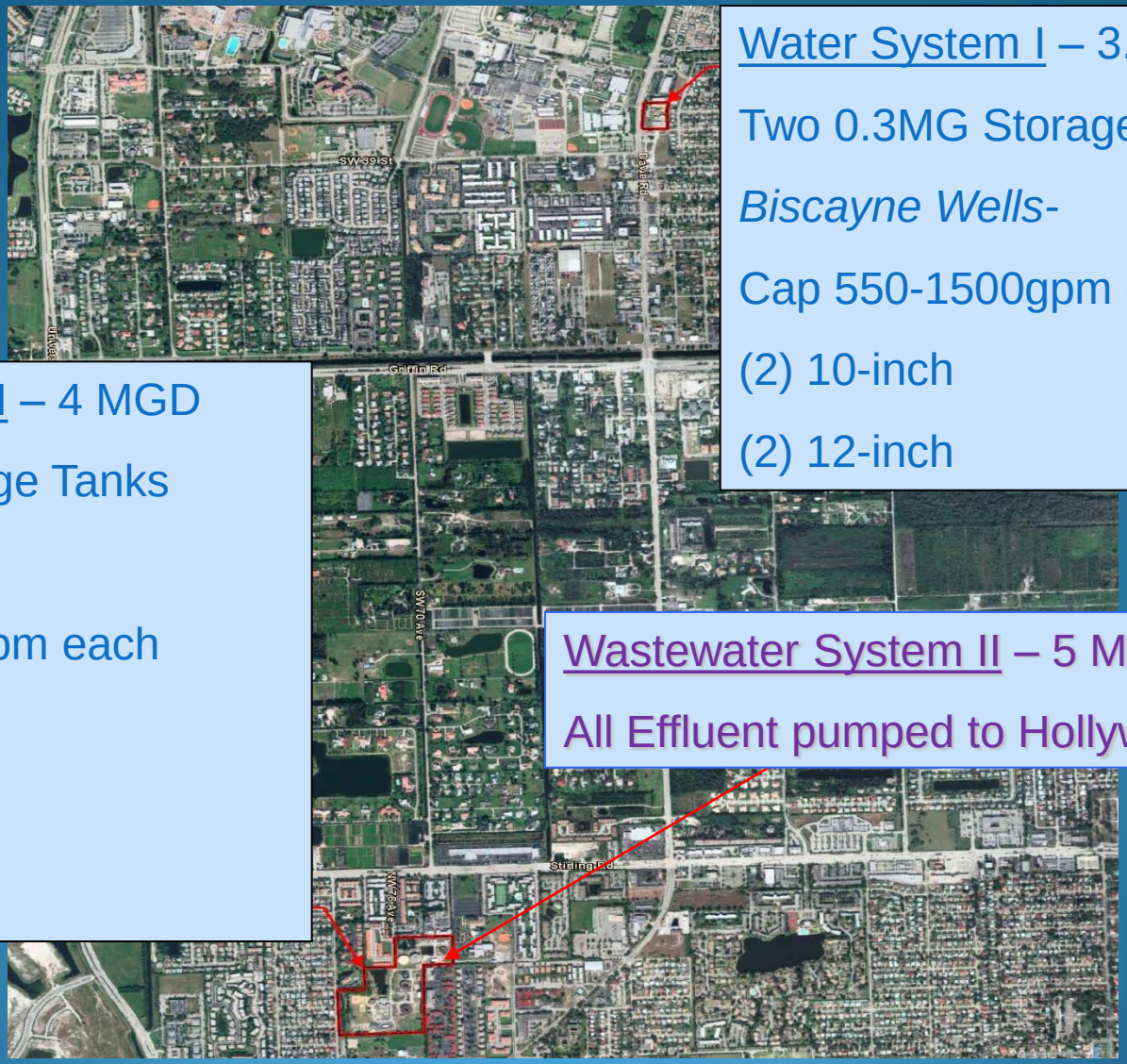
- Lower East Coast Water Supply Plan – 2007
- Regional Water Availability Rule – 2007
- 10 year Water Supply Plan –
- Financial Feasibility – part of LUPA
- Yearly CIP updates – Comprehensive Plan
- Ocean Outfall – chapter 2008-232, F.S.
- Reuse – costs no longer a factor to determine feasibility when applying for CUP

DANIA BEACH

DAVIE

Town of Davie Water Treatment and Water Reclamation Facility

Current Situation
Existing W & WW Systems



Water System I – 3.4 MGD

Two 0.3MG Storage Tanks

Biscayne Wells-

Cap 550-1500gpm each

(2) 10-inch

(2) 12-inch

Water System III – 4 MGD

Two 2MG Storage Tanks

Biscayne Wells-

Cap 550-1500gpm each

(2) 20-inch

(1) 16-inch

(1) 18 inch

Wastewater System II – 5 MGD

All Effluent pumped to Hollywood

Current Situation Town Constructing New Facilities

Capacities

WTP: 6 expandable to 12 MGD

WRF: 3.5 expandable to 7 MGD

Current Situation
Cost of New Facilities

Overall Cost approximately $125,000,000

- Bonds – $46,245,000 already issued
- $45,000,000 issuance scheduled to clos

October 19, 2011

Project Drivers

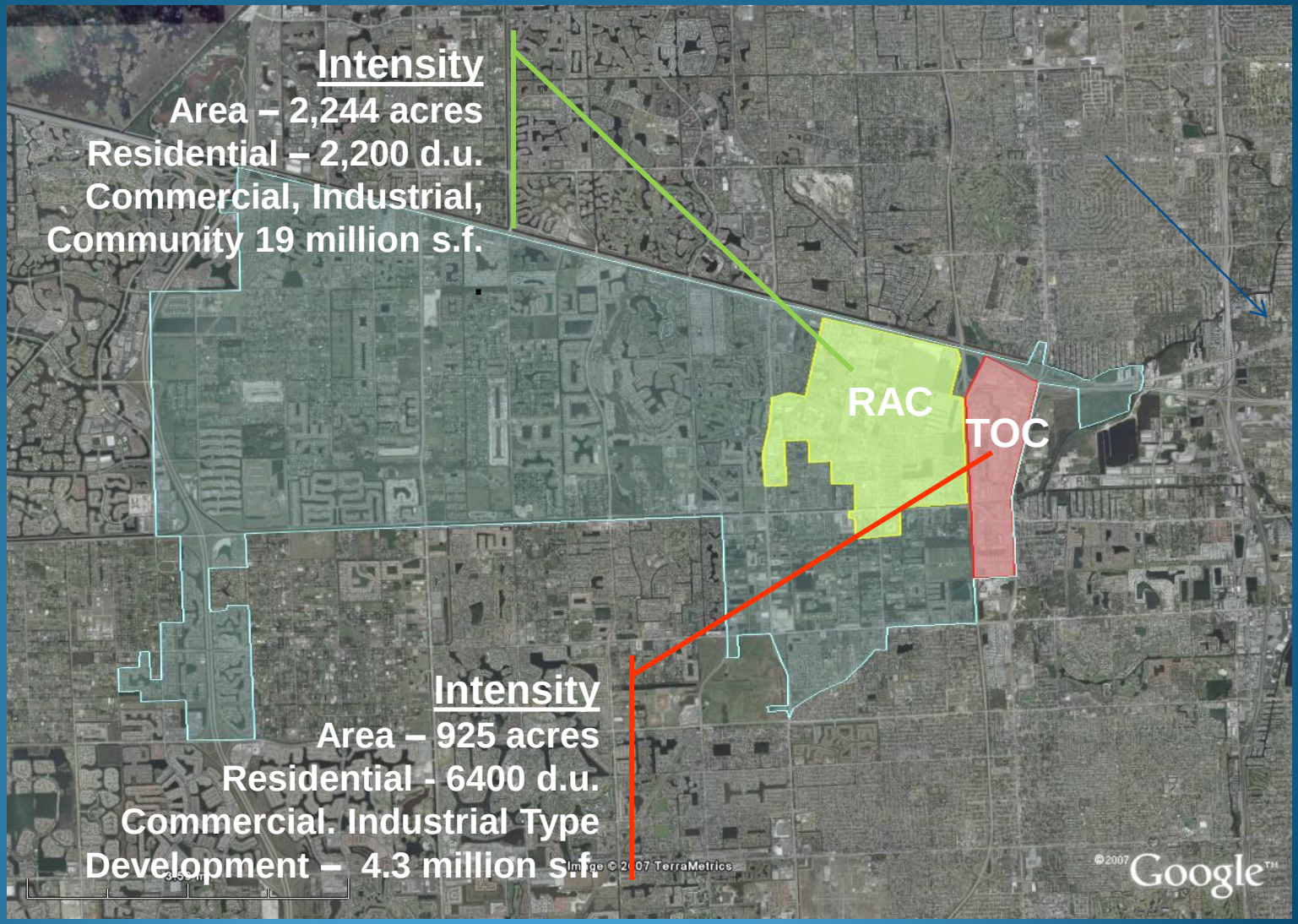
- New Water Rules Significantly reduced Town of Davie Water Supply
- Redevelopment in the TOC and RAC to promote growth within Town

- New Water Treatment and Water Reclamation Facilities required to maintain high quality water services to the Town residents

Project Drivers- Water

- Existing Biscayne Aquifer withdrawl limited to 5.6MGD
- Regional Water Availability Rule – CUP cut back to approx 5 MGD in 2010
- Current water use in Town is 4.4MGD – limited growth without additional water source

Project Drivers – Redevelopment



Project Drivers – Water Reclamation

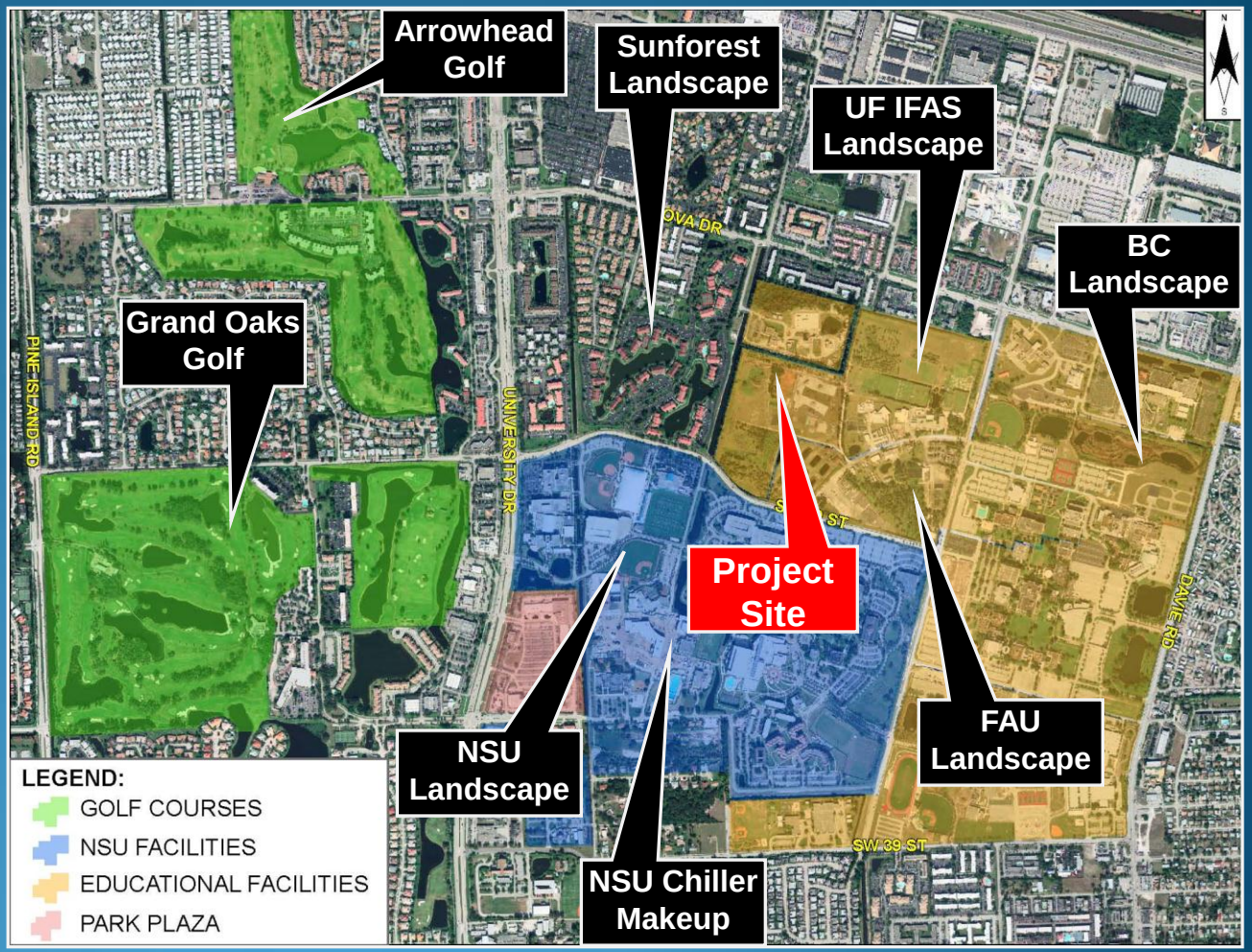
- Effluent disposal to COH limited due to Outfall Legislation
- Reuse – Required for plant expansion (CUP and NPDES)
- Reuse – Required to meet Outfall Legislation Rules (60% of outfall discharge)

Water Reuse

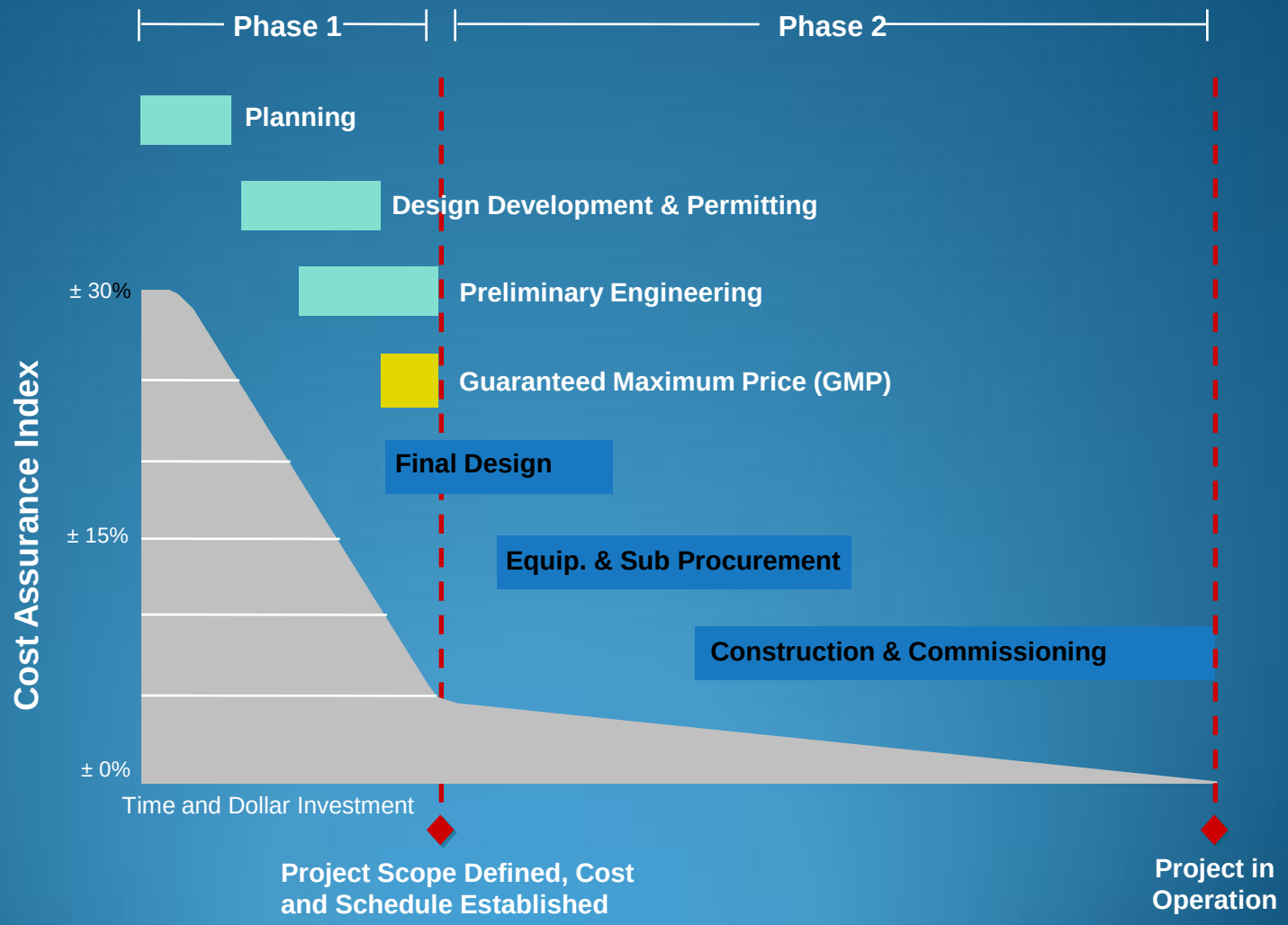
What will the Davie reclaimed water be used for?

- ✓ *Golf course irrigation*
- ✓ *Landscape irrigation*
- ✓ *Chiller makeup water*
- ✓ *Admin Bldg Toilets*
- ✓ *WRF Process*

Equipment



Project Implementation
Two-Phase Design-Build



Project Schedule

- Construction started September 2010
- Commissioning of WTP & WRF in January 2013
- Completion slated for August 2013

Summary

- Town of Davie will experience significant growth due to RAC and TOC redevelopment projects
- Town needs to expand water treatment and reclamation facilities to support growth
- Reclaimed water will be primarily used for irrigation, golf courses, and educational facilities
- Water Treatment and Water Reclamation Facility to be completed by late early 2013

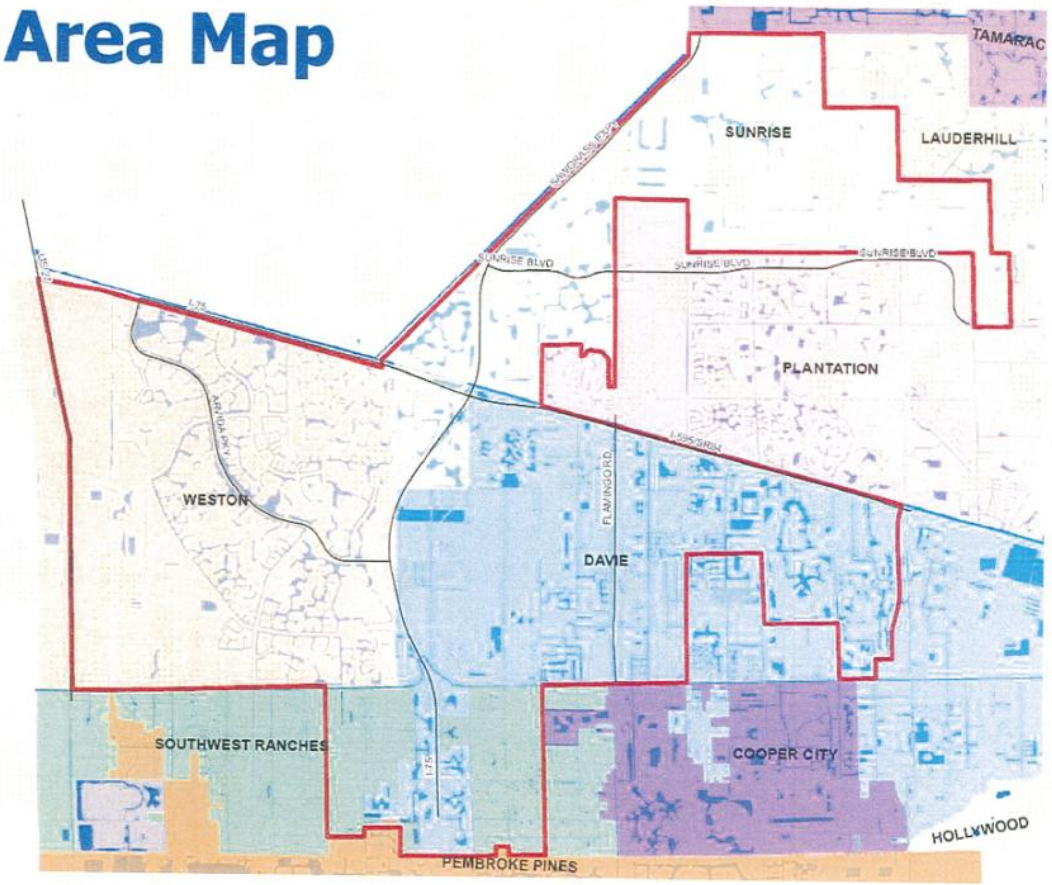
SUNRISE

SUNRISE

Sunrise Utilities Service Area Map

- 70 Square Miles
- Sunrise
- Weston
- SW Ranches
- portions of Davie

- Population Served: Over 220,000



Public Investment

- Renewal and Replacement
- Accommodate Projected Growth
- Regulatory Compliance

	2015	2030	Total
Water Facilities	$ 245,262,000	$ 34,611,000	$ 279,873,000
Wastewater Facilities	$ 194,927,000	$ 151,211,000	$ 346,138,000
Total	**$ 440,189,000**	**$ 185,822,000**	**$ 626,011,000**

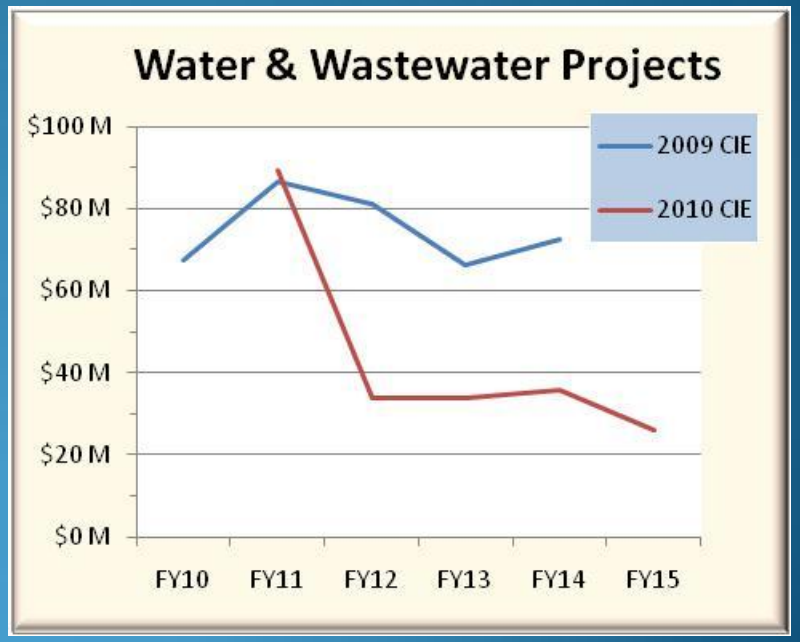
Source: Capital Improvement Plan, Sunrise Utilities Water & Wastewater Master Plan, 2008

Plans and More Plans

- Feb. 2007 LEC Water Supply Plan adopted
- May 2008 20 year CUP approved:
  - Can borrow 2.3 mgd from Biscayne aquifer
  - Must be phased out by 2013.
- Aug 2008 Adopted Water Supply Plan

- Apr. 2009 Utilities Master Plan
- July 2009 City Rate Study
- Sept. 2009 Bond issue
- Dec. 2009 CIE Update FY 2010/14

- Oct. 2010 CIE update FY 2011/15
- 2011 Update Water Supply Plan (draft)
- 2011 Comp. Plan Amendment



Policy Issues

- "Recession Effect" – less demand
- "Conservation Effect" – less revenue
- "Political Effect" – less capacity for rate increases and debt
- Revised Capital Program:
  - Accommodates deferred growth
  - Provide less costly projects

- "Regulatory Effect"
  - DCA and SFWMD requirement to update to Comprehensive Plan will create internal inconsistencies
  - Comp. Plan amendment cycle is not flexible enough for the reality of utility planning

In the past

fat, dumb, and happy

Present Situation

Florida is in the Lead

- Reuse
- Alternative Water Supply
- Ocean Outfall

THIS HAS NOT BEEN CHEAP…..OR PAINLESS

REGULATIONS/PLANS

- Capital Improvement Plans
- Land Use Plan Amendments –
- Comprehensive Plans
- 10 year water supply plans
- Lower East Coast Water Supply Plan
- Consumptive Use Permit (CUP)
- Utility Master Plans (stormwater, potable water, wastewater, reuse)
- Bonding
- Population Projections

Recommendations

- Economics IS the biggest factor
- Education
- Conservation
- One Size Does Not Fit All
- Regional conversations, local decisions
- Integrated planning
- Coordination with Utility Providers

QUESTIONS AND ANSWERS

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