

# Development of Water Conservation Model

Water Conservation Summit

June 24, 2010

Melissa Musicaro

Staff Water Conservation Analyst

# Water Conservation

- Source of supply
- Cost effective alternative
- Indoor and outdoor savings

# Water Conservation Model

- Purpose: determine potential water savings from conservation measures to meet demand
- RWSP and utility outreach
- Compare conservation to other alternative supplies
- Reclaimed water projects – budgeted \$48.4 M

# What Does the Model Provide?

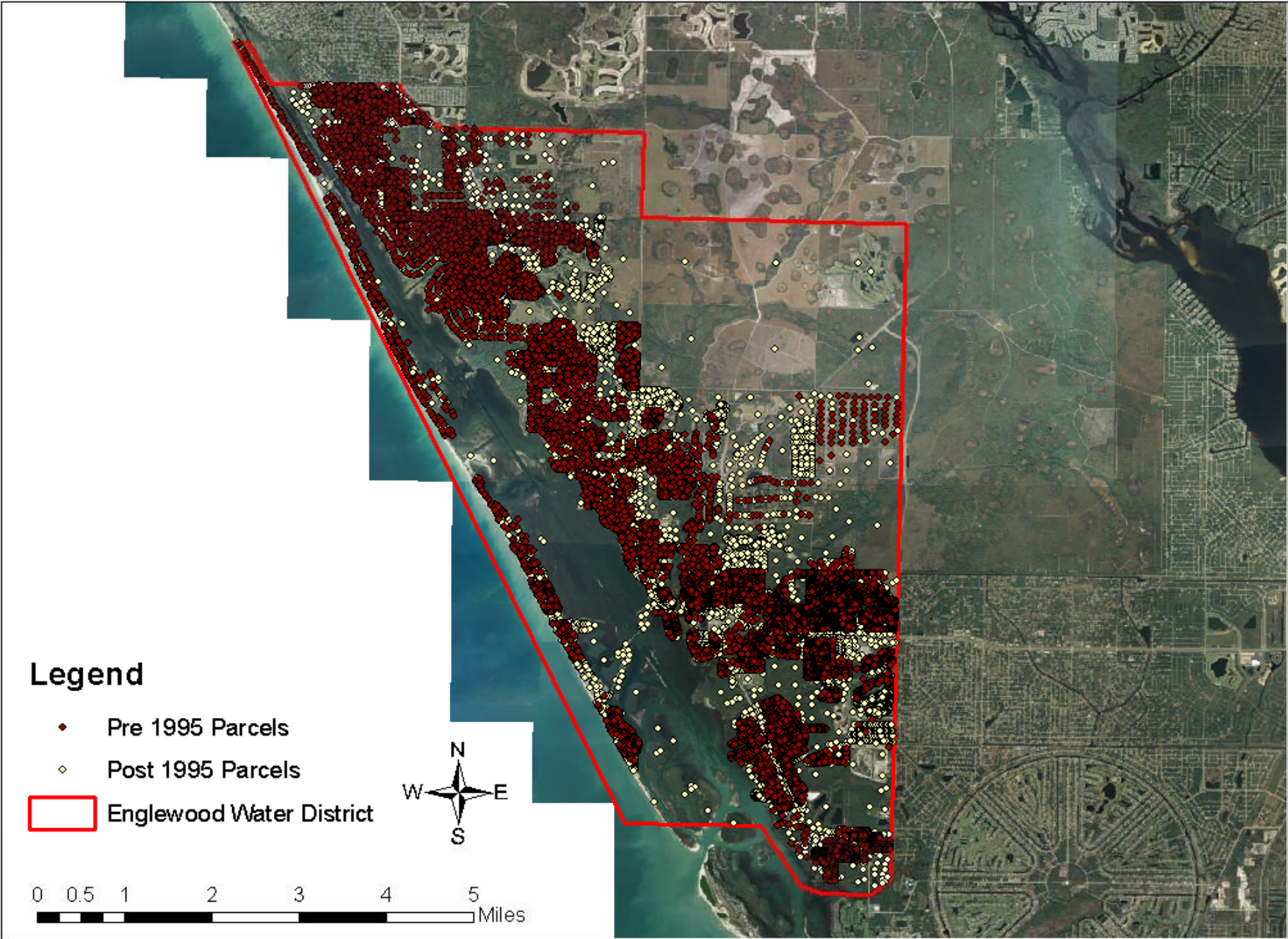
- Potential for utility
  - Type of conservation measures
  - Number of conservation measures
  - Water savings
  - Program costs
  - Cost per Kgal

# Conservation Measures

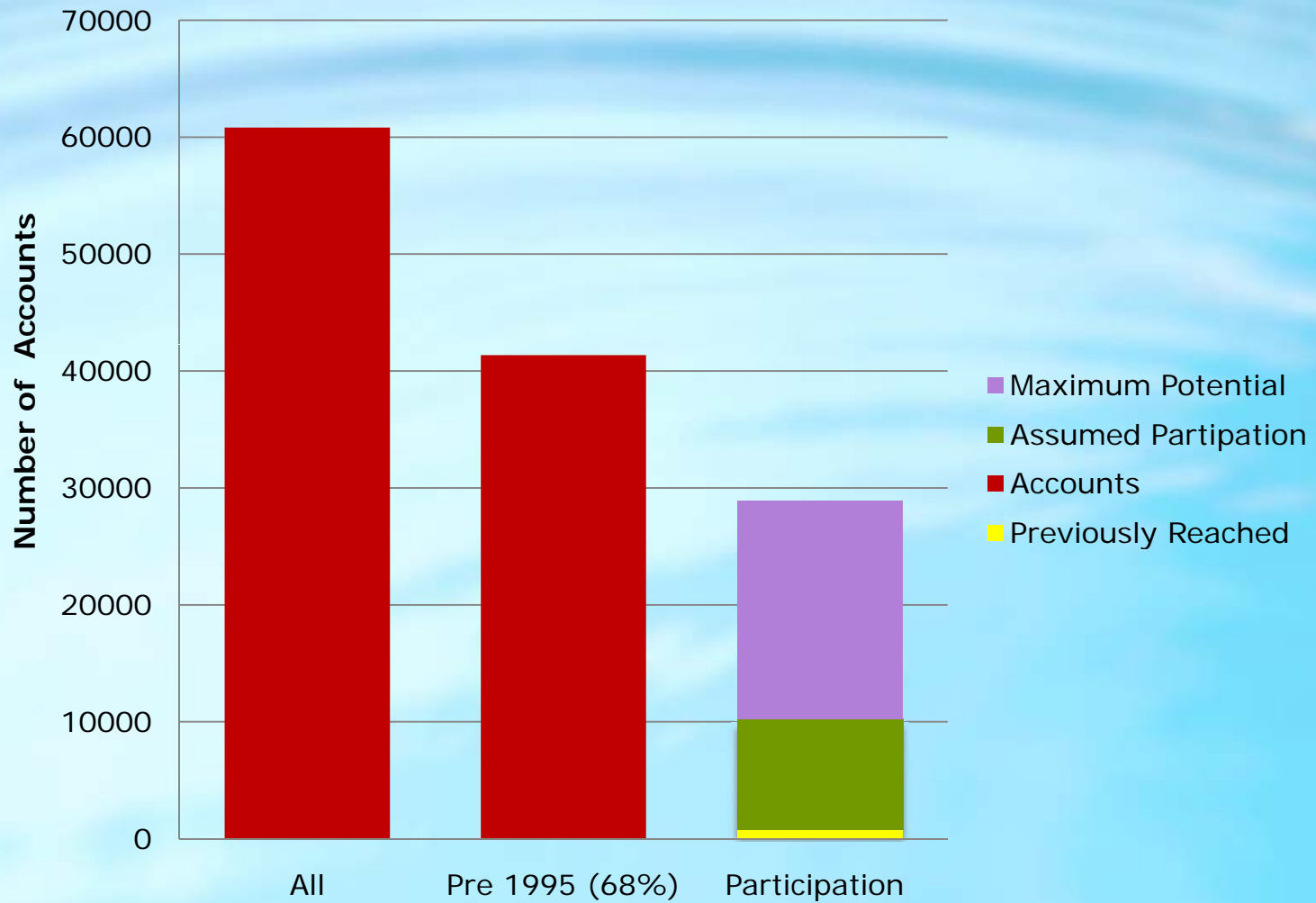
<b>Indoor</b>	<b>Outdoor</b>
<b>Clothes washer</b>	Irrigation evaluation
<b>Plumbing retrofit kit</b>	Large landscape evaluation
<b>Low flow toilet</b>	Soil moisture sensor
<b>Dual-flush toilet</b>	Rain sensor
<b>Low flow Urinal</b>	Water Budget
<b>Waterless urinal</b>	
<b>Pre-rinse spray valve</b>	
<b>ICI facility assessment</b>	

# Data Entry to Model

- Number of accounts (SF, MF, Non-Res)
  - Pre-1995 accounts- GIS parcel data
- Conservation measures
  - Water savings per fixture
  - Cost per fixture
- Conservation measures completed to date



## Number of Accounts Charlotte County Utilities Toilet Rebate



June 24, 2010

# Indoor Conservation Potential

County	2030 Conservation Potential (mgd)	2030 Demand (mgd)	Potential Cost	Cost / Kgal
Charlotte	3.2	17.4	\$16.5 M	\$1.42
Desoto	.07	1.3	\$0.45 M	\$1.78
Manatee	8.7	58.8	\$39 M	\$1.23
Sarasota	9.1	50.1	\$44 M	\$1.33
<b>Total</b>	<b>21.1</b>	<b>127.6</b>	<b>100 M</b>	<b>\$1.31</b>

# Summary

- Cost effective alternative
- District funded programs
  - Conservation - \$.05 - \$2.75 / Kgal
- Conservation model
  - \$.07 - \$2.69 / Kgal

# Next Steps

- Work in progress
- Continue to work together
- Models available for review