

Drivers and Incentives for Alternative Water Supply Development in Florida

Mike Coates, P.G.

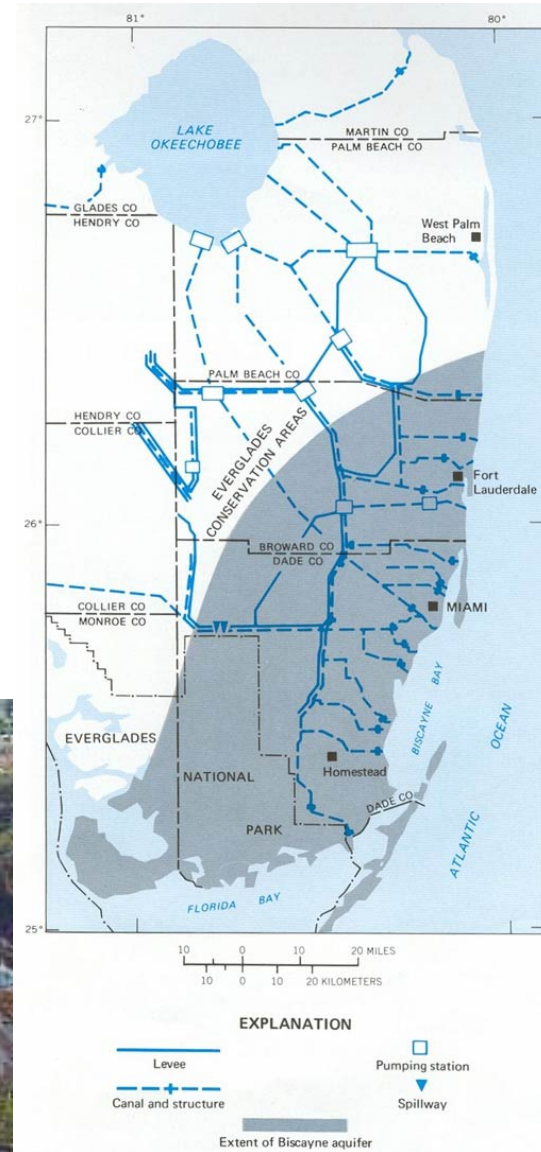
Deputy Director

Peace River Manasota Regional Water
Supply Authority

Alternative Water Supply

F.S. 373.019(1) “Alternative water supplies” means salt water; brackish surface and groundwater; surface water captured predominately during wet-weather flows; sources made available through the addition of new storage capacity for surface or groundwater, water that has been reclaimed after one or more public supply, municipal, industrial, commercial, or agricultural uses; the downstream augmentation of water bodies with reclaimed water; stormwater; and any other water supply source that is designated as nontraditional for a water supply planning region in the applicable regional water supply plan.

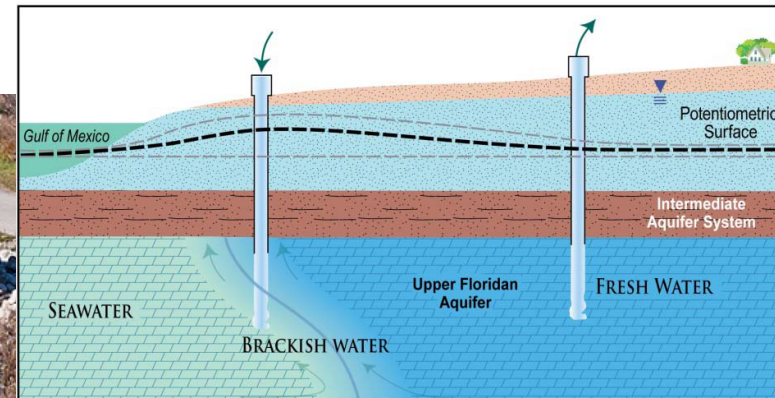
What's NOT an Alternative Supply



What is Alternative Water Supply

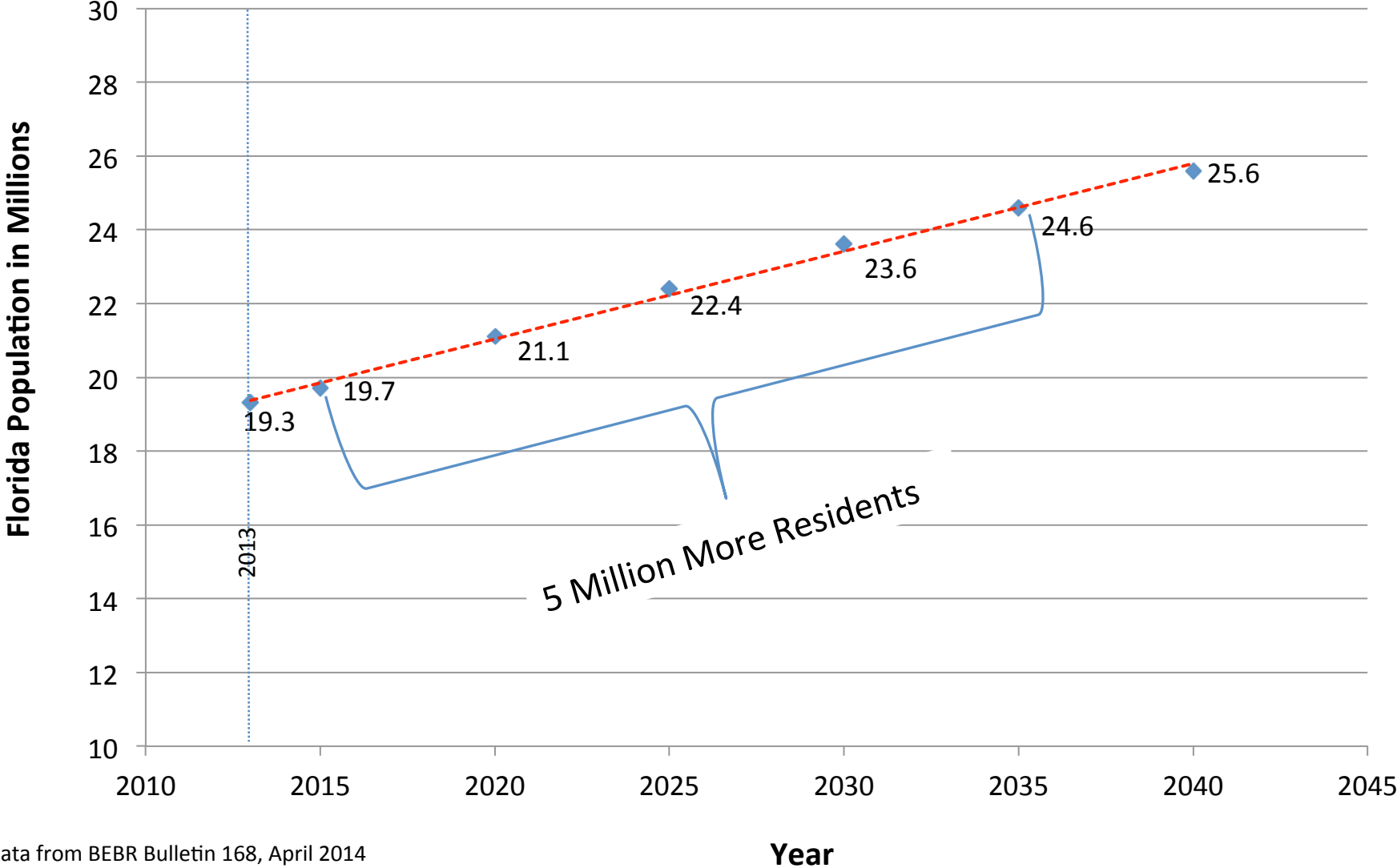


Plug in your
Favorite Supply
Idea Here





Florida 2015-2040 Population Projections

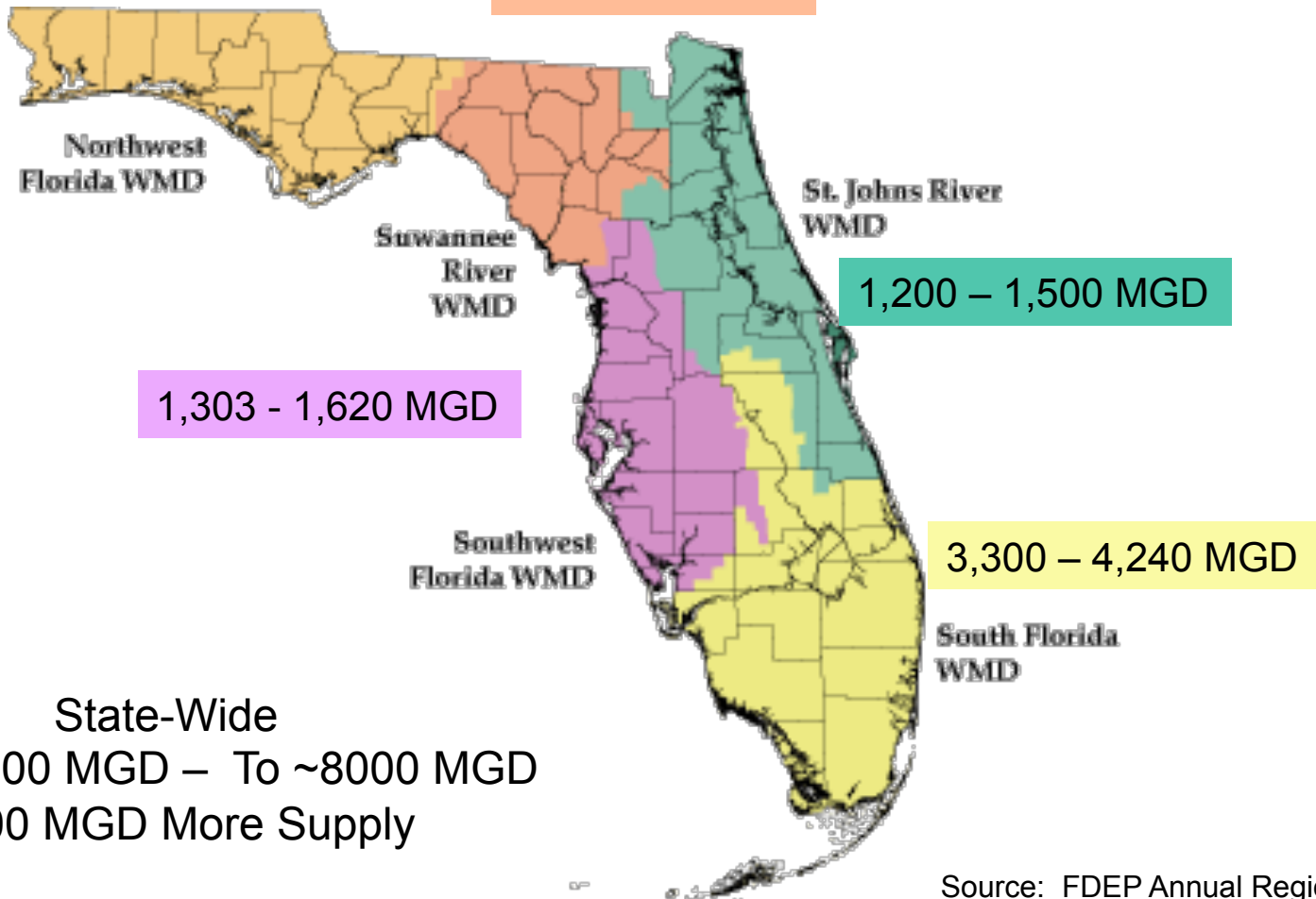


Data from BEBR Bulletin 168, April 2014

Water Use Changes 2010-2035

357 – 417 MGD

256 – 269 MGD



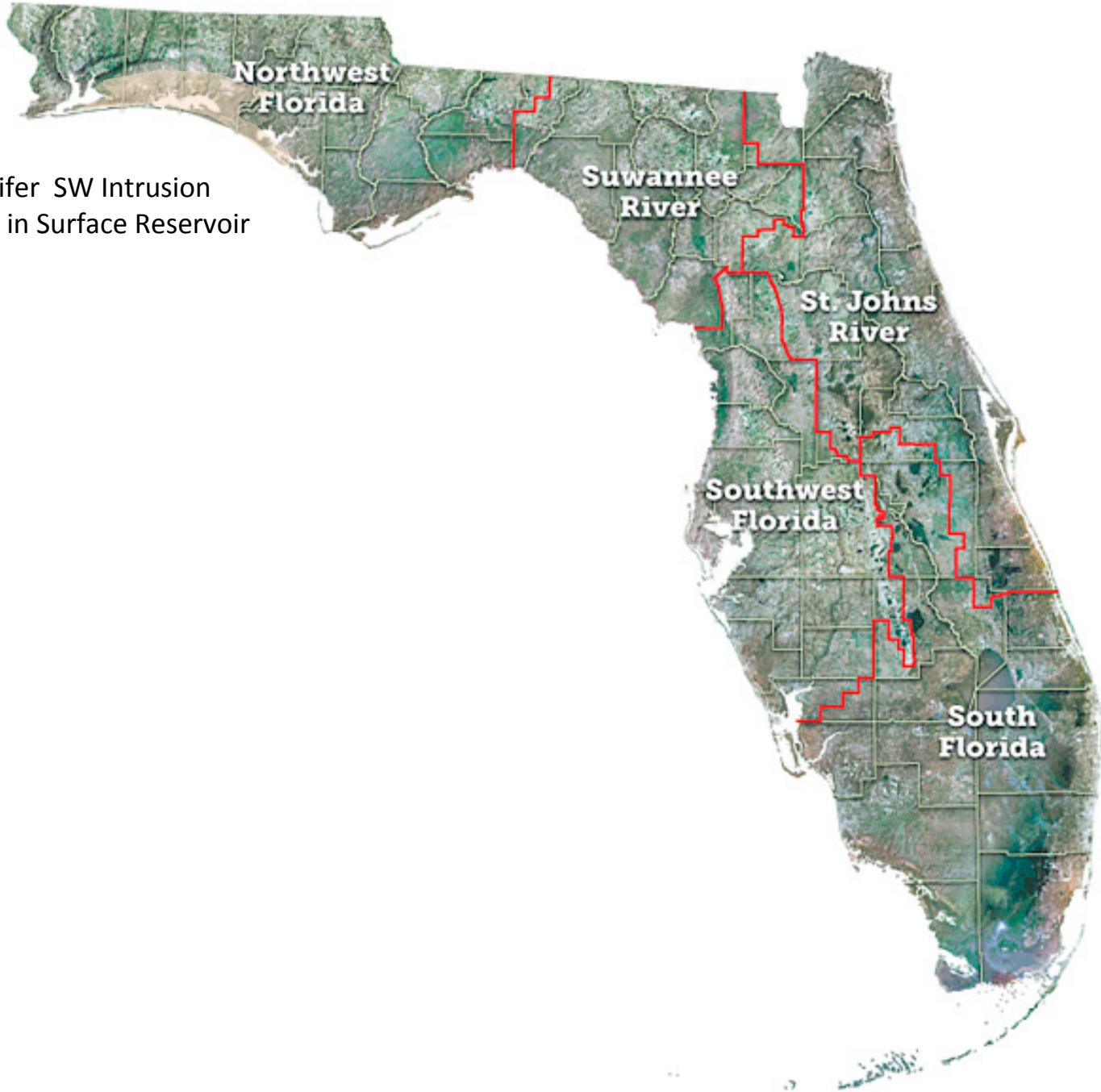
State-Wide
From ~6,400 MGD – To ~8000 MGD
1,600 MGD More Supply

Source: FDEP Annual Regional Water Supply Planning, December 2014

It's Not This Easy







Northwest
Florida

Suwannee
River

St. Johns
River

Southwest
Florida

South
Florida

NW Florida

Floridan Aquifer SW Intrusion
SW Intrusion in Surface Reservoir



**Northwest
Florida**

**Suwannee
River**

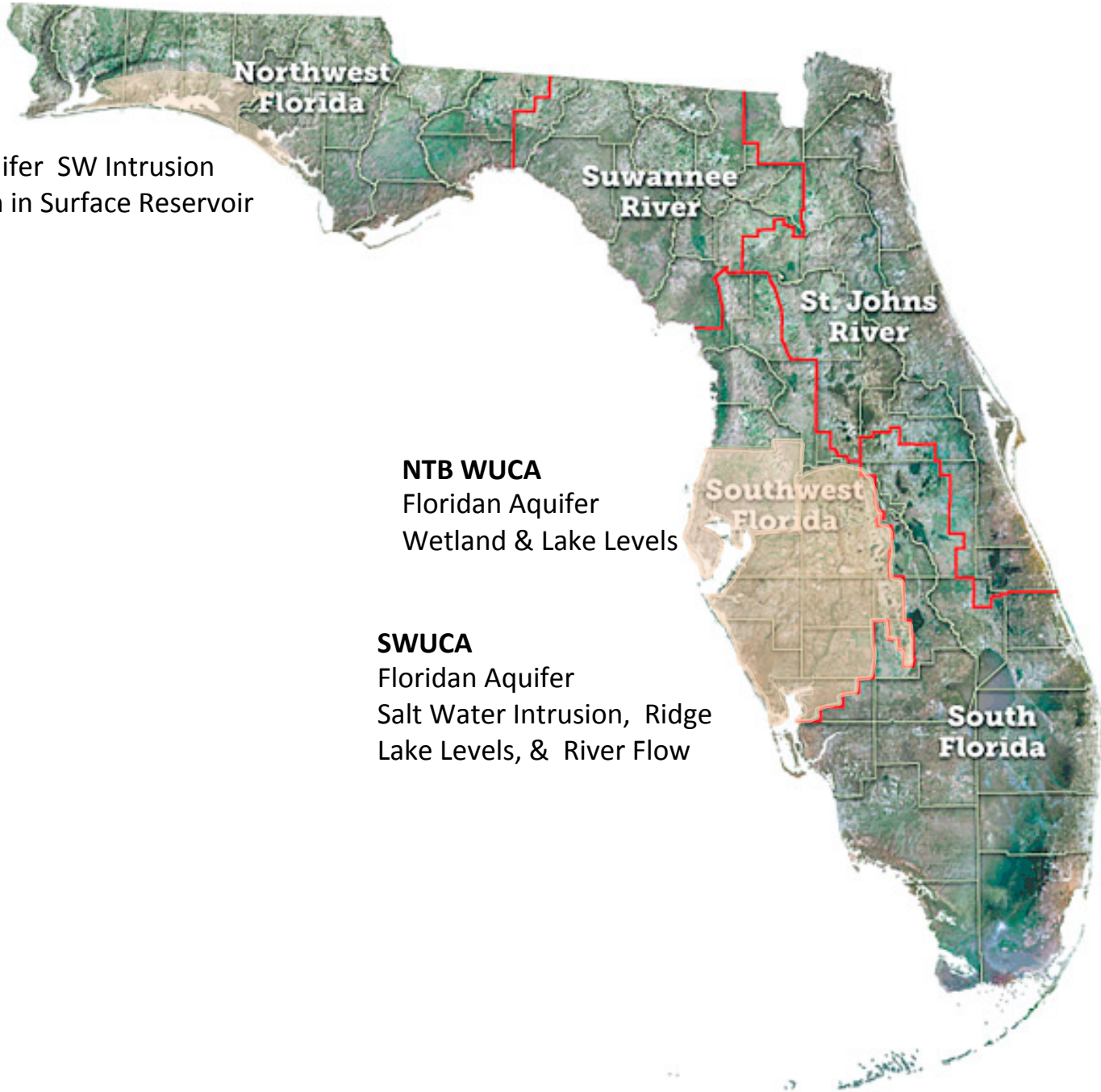
**St. Johns
River**

**Southwest
Florida**

**South
Florida**

NW Florida
Floridan Aquifer SW Intrusion
SW Intrusion in Surface Reservoir

NTB WUCA
Floridan Aquifer
Wetland & Lake Levels



**Northwest
Florida**

**Suwannee
River**

**St. Johns
River**

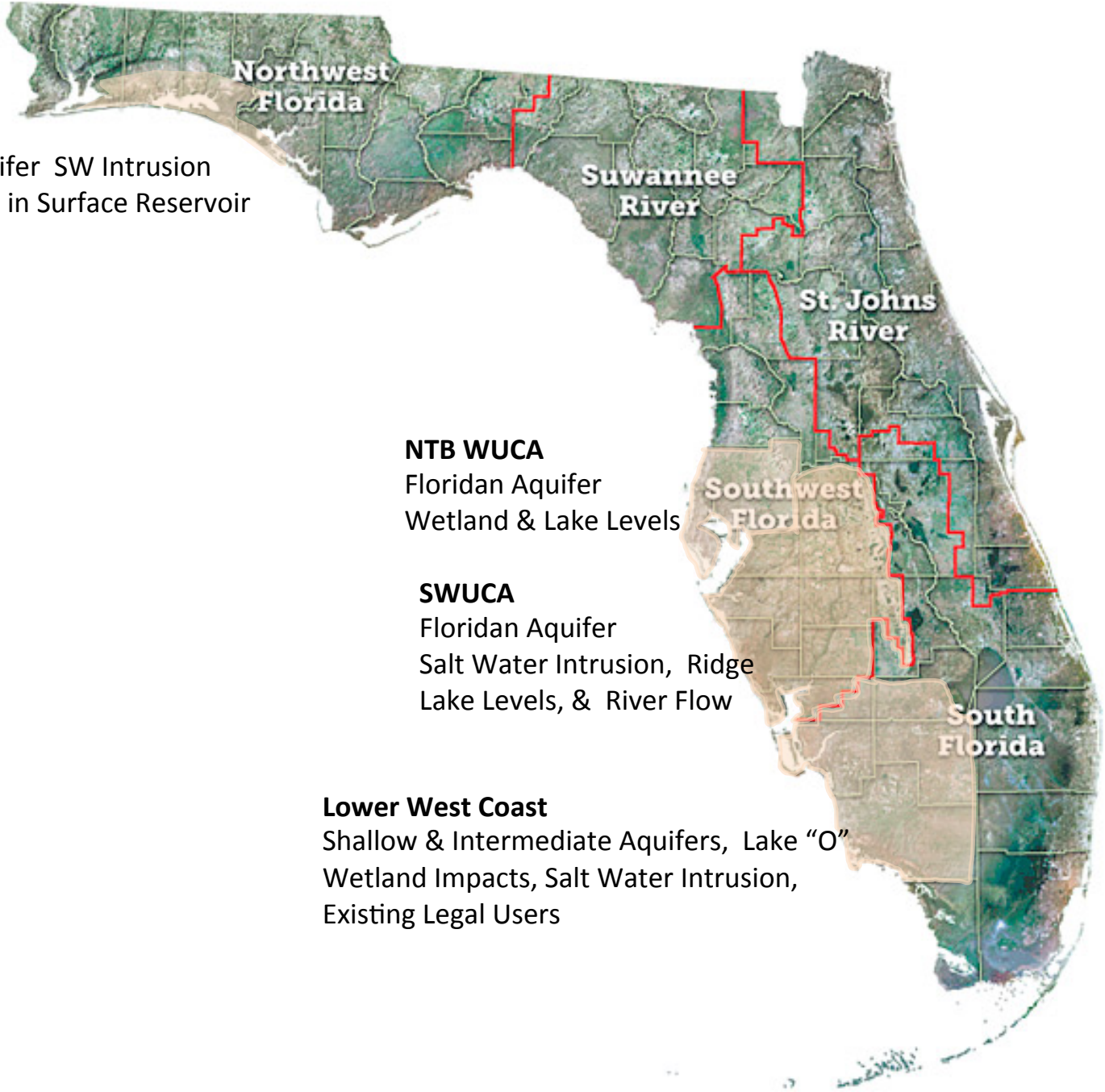
**Southwest
Florida**

**South
Florida**

NW Florida
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SW Intrusion in Surface Reservoir

NTB WUCA
Floridan Aquifer
Wetland & Lake Levels

SWUCA
Floridan Aquifer
Salt Water Intrusion, Ridge
Lake Levels, & River Flow



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Florida**

**Suwannee
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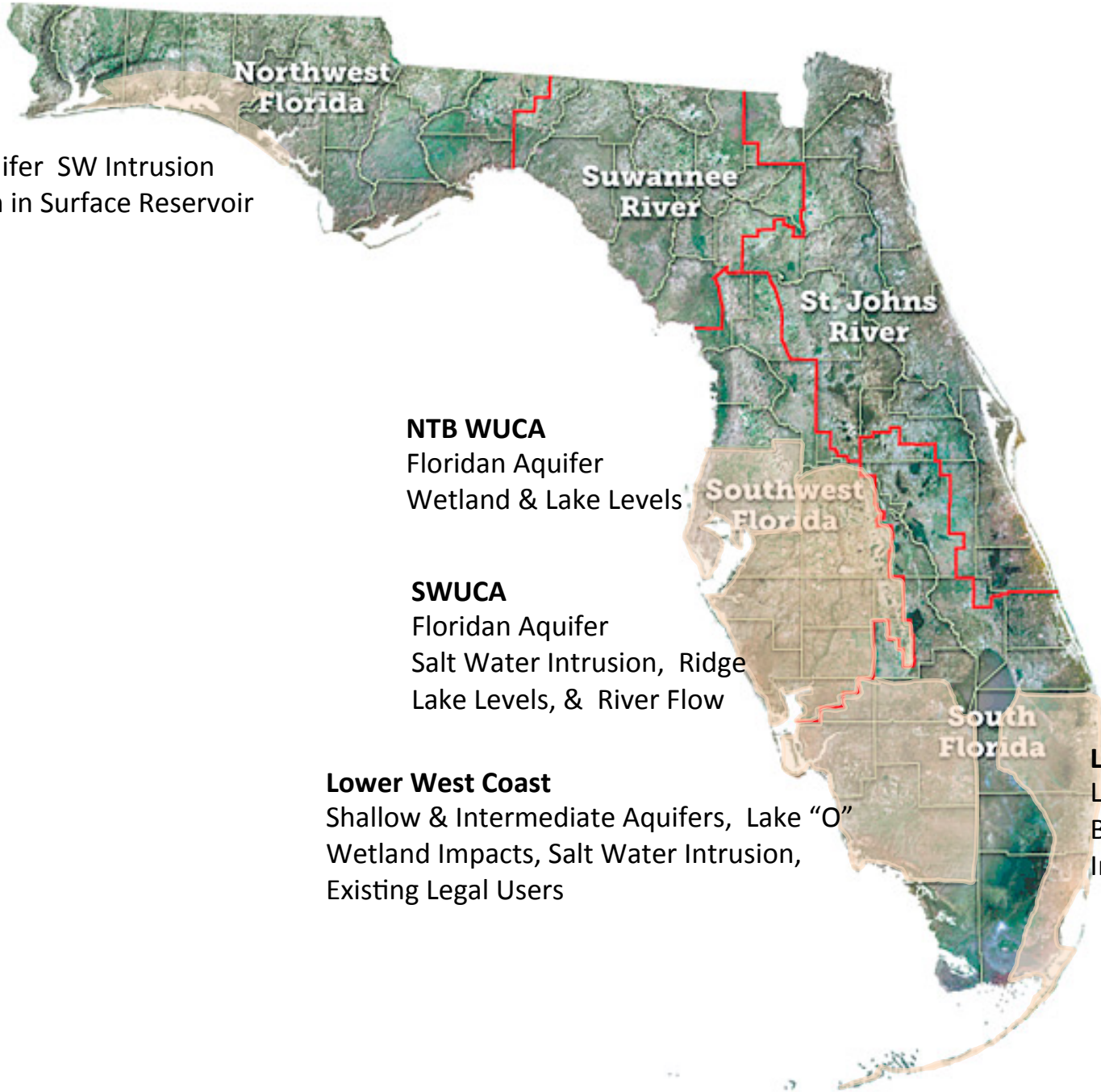
Floridan Aquifer
Wetland & Lake Levels

SWUCA

Floridan Aquifer
Salt Water Intrusion, Ridge
Lake Levels, & River Flow

Lower West Coast

Shallow & Intermediate Aquifers, Lake "O"
Wetland Impacts, Salt Water Intrusion,
Existing Legal Users



NW Florida

Floridan Aquifer SW Intrusion
SW Intrusion in Surface Reservoir

NTB WUCA

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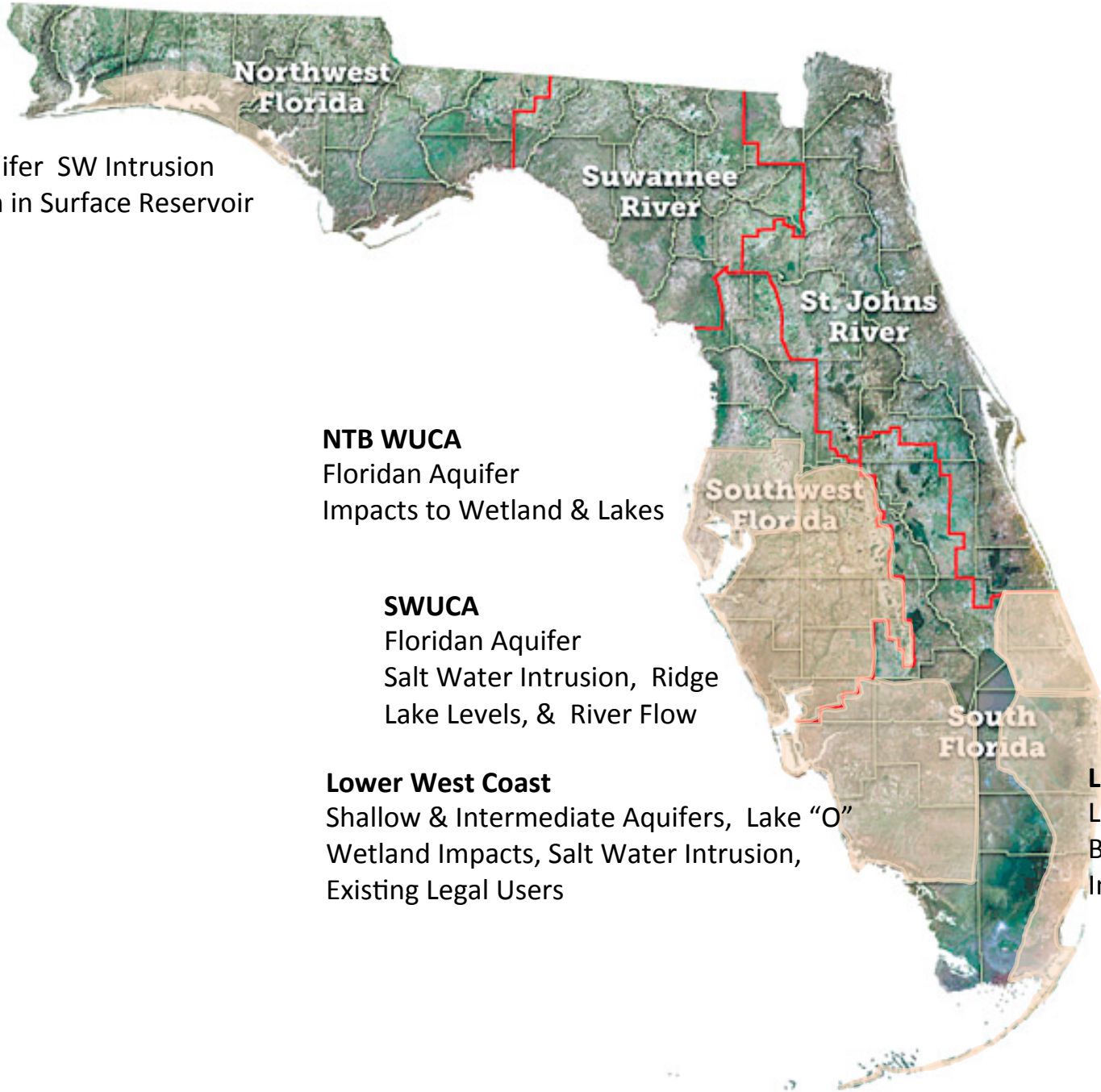
Floridan Aquifer
Salt Water Intrusion, Ridge
Lake Levels, & River Flow

Lower West Coast

Shallow & Intermediate Aquifers, Lake "O"
Wetland Impacts, Salt Water Intrusion,
Existing Legal Users

Lower East Coast

Lake Okeechobee &
Biscayne Aquifer
Impacts to Everglades



NW Florida

Floridan Aquifer SW Intrusion
SW Intrusion in Surface Reservoir

NTB WUCA

Floridan Aquifer
Impacts to Wetland & Lakes

SWUCA

Floridan Aquifer
Salt Water Intrusion, Ridge
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Lower West Coast

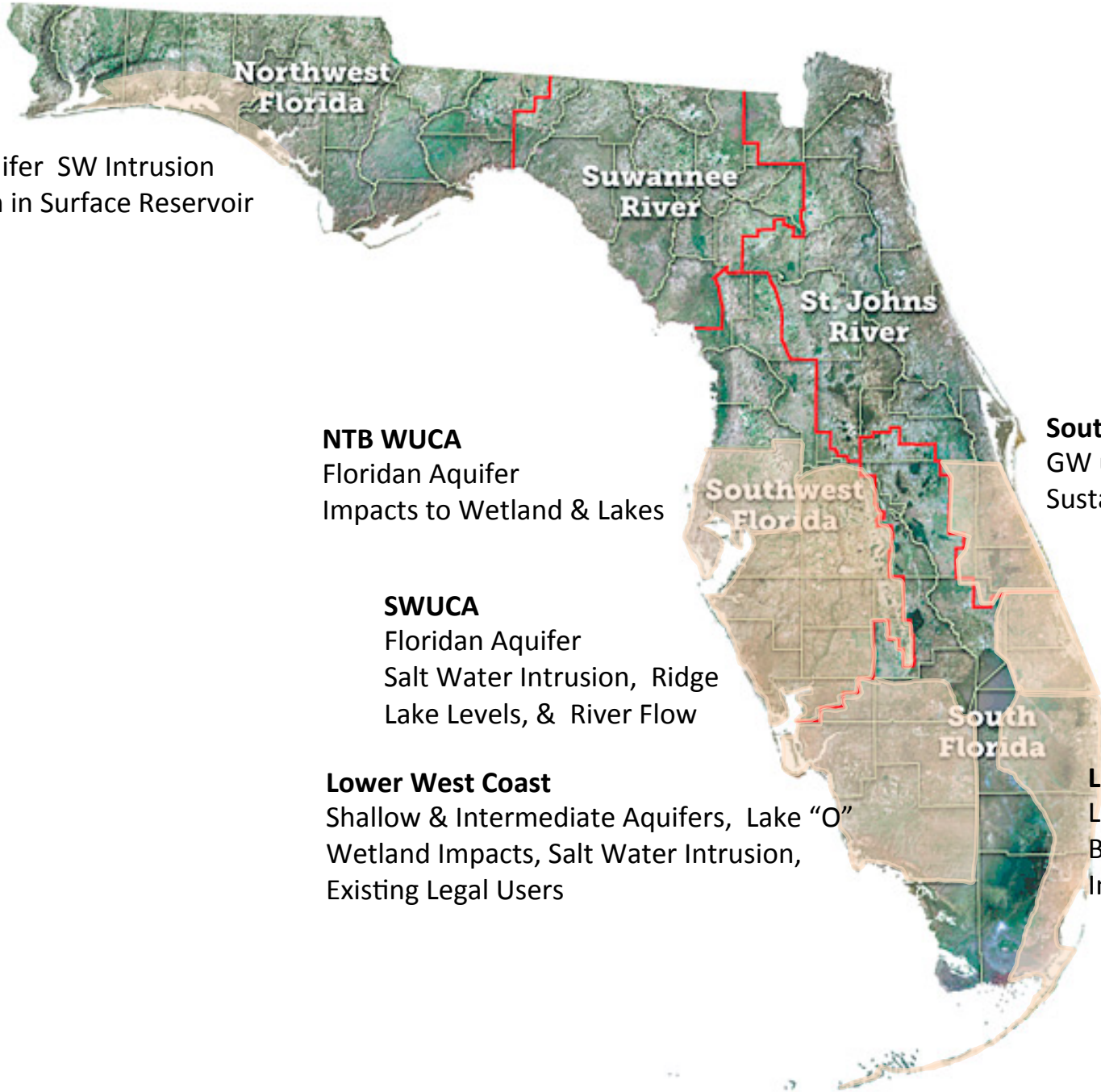
Shallow & Intermediate Aquifers, Lake "O"
Wetland Impacts, Salt Water Intrusion,
Existing Legal Users

Upper East Coast

Lake Okeechobee &
Surficial Aquifer
Wetlands, Saltwater
Intrusion

Lower East Coast

Lake Okeechobee &
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Impacts to Everglades



Northwest
Florida

Suwannee
River

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Southwest
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South
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Floridan Aquifer SW Intrusion
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NTB WUCA
Floridan Aquifer
Impacts to Wetland & Lakes

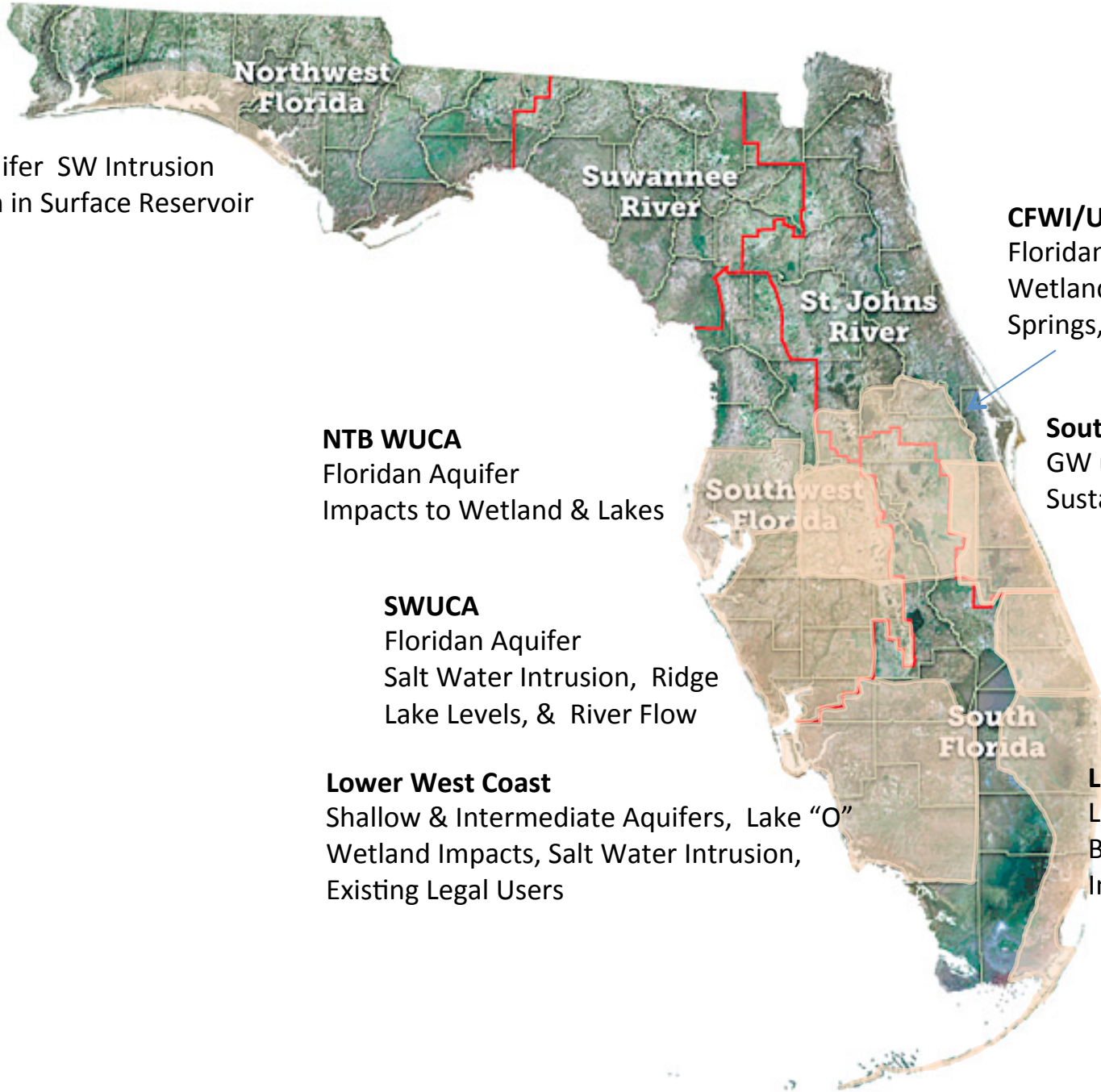
SWUCA
Floridan Aquifer
Salt Water Intrusion, Ridge
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Wetland Impacts, Salt Water Intrusion,
Existing Legal Users

South SJRWMD
GW use at/near
Sustainable limits

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Wetlands, Saltwater
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Lake Okeechobee &
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Impacts to Everglades



Northwest Florida

Suwannee River

St. Johns River

Southwest Florida

South Florida

NW Florida
Floridan Aquifer SW Intrusion
SW Intrusion in Surface Reservoir

CFWI/Upper Kissimmee
Floridan Aquifer
Wetland, Lake Levels,
Springs, SWUCA

NTB WUCA
Floridan Aquifer
Impacts to Wetland & Lakes

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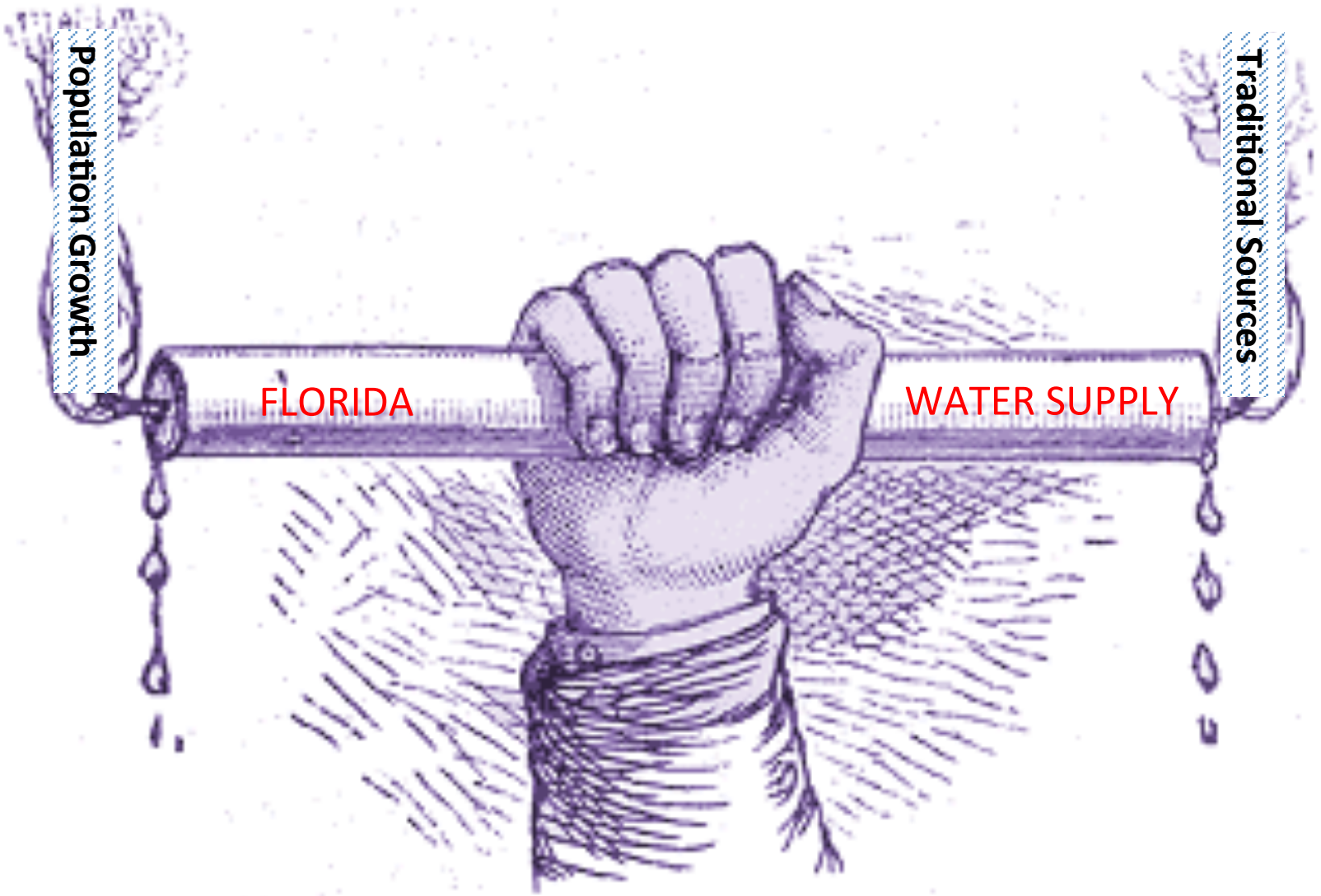
Lower East Coast
Lake Okeechobee &
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Impacts to Everglades

Population Growth

Traditional Sources

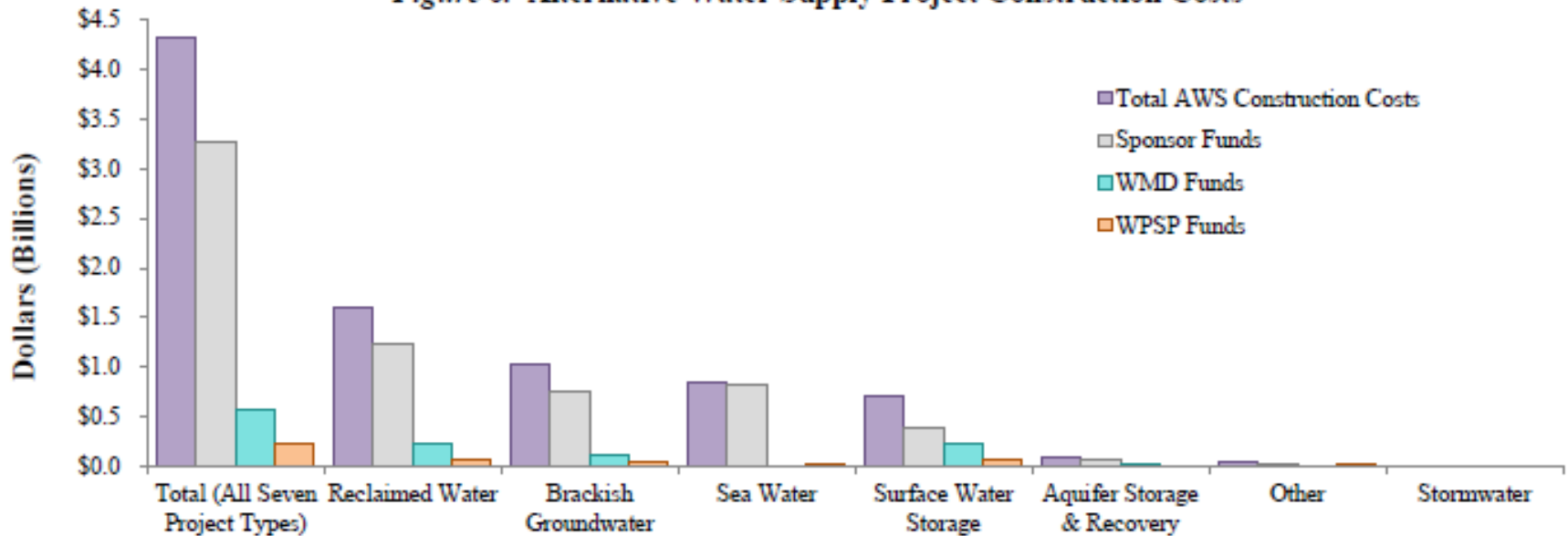
FLORIDA

WATER SUPPLY



Financial

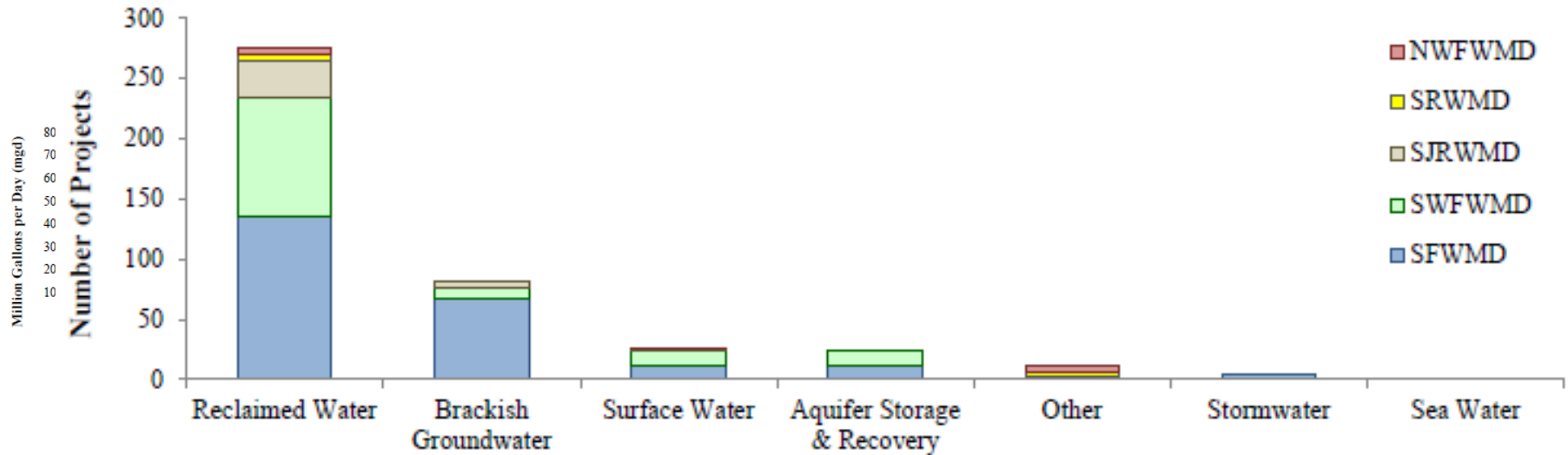
Figure 6. Alternative Water Supply Project Construction Costs



- \$4.3B in AWS Projects since 2006
- \$790M in State & WMD Funding

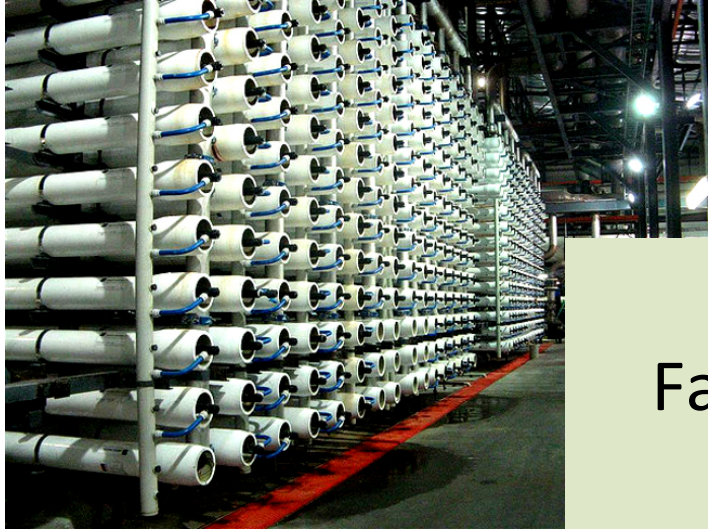
Regulatory

Figure 4. Alternative Water Supply Projects Funded Since Fiscal Year 2006



- 20-Year WUP/CUP for AWS
- Streamlined Permitting Process
- 426 AWS Projects
- 439 MGD Additional Supply

On-Tap Today



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Favorite Supply
Idea Here

