28th Annual Environmental Permitting Summer School

Minimum Flows and Levels: Florida's Next Great Water Supply Challenge

Alfred P. Canepa, P.G.

Initiative Director, MFL Development and Prevention and Recovery Strategies

St. Johns River Water Management District

Topics

- MFLs establishment
- MFLs status
- Evaluating if MFLs are met
- Prevention and Recovery Strategies
- Prevention/Recovery status

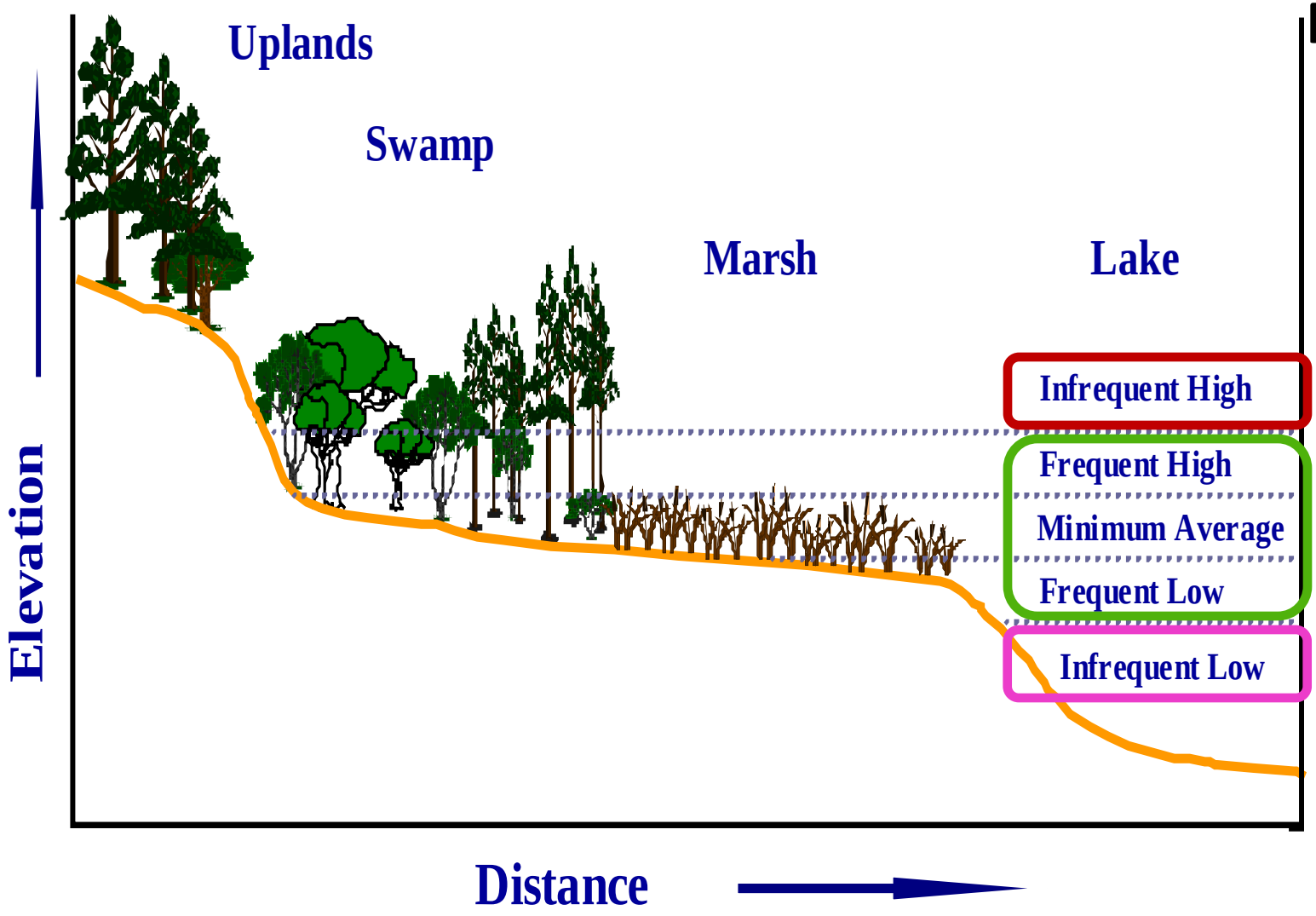
MFLs Establishment Steps

Step 1: Develop recommended MFLs and implementation tools

Step 2: Develop Prevention or Recovery Strategies, if needed

Step 3: Complete MFLs rulemaking process

Lake Floodplain Profile



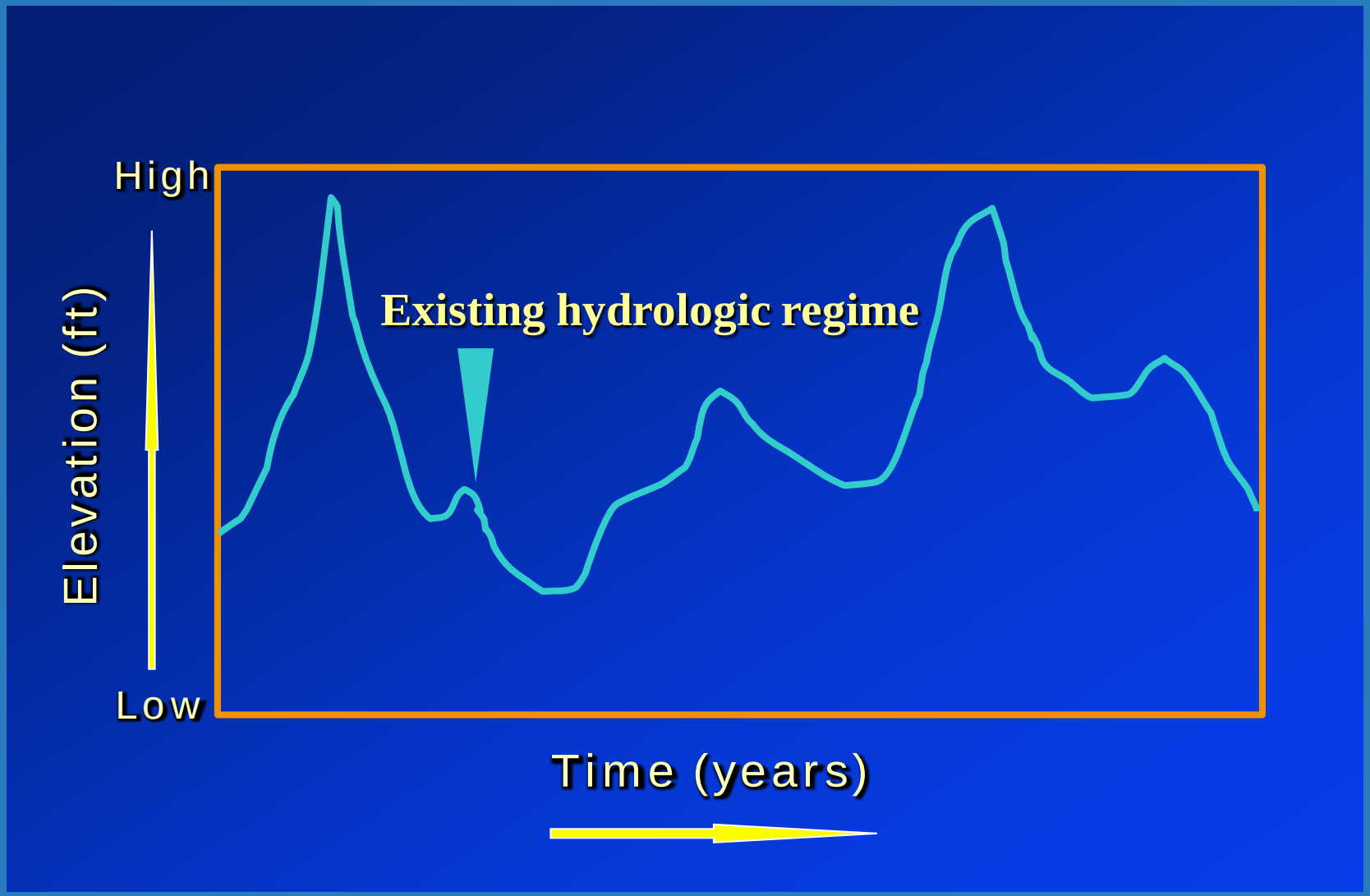
Protection Criteria

Upland Edge

Seasonally Flooded Wetlands

Fish Habitat/ Passage

What is a “hydrologic regime?”



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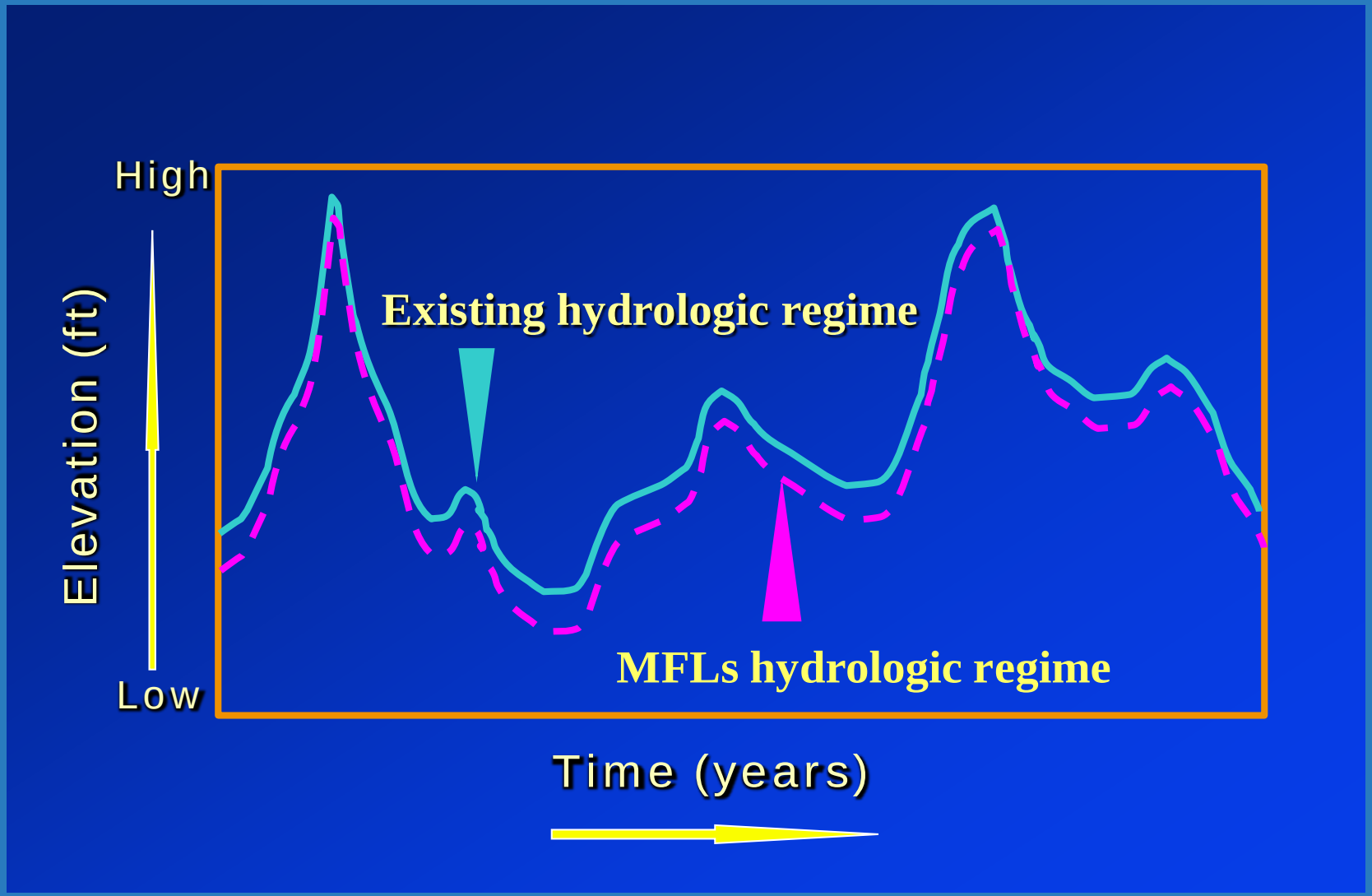
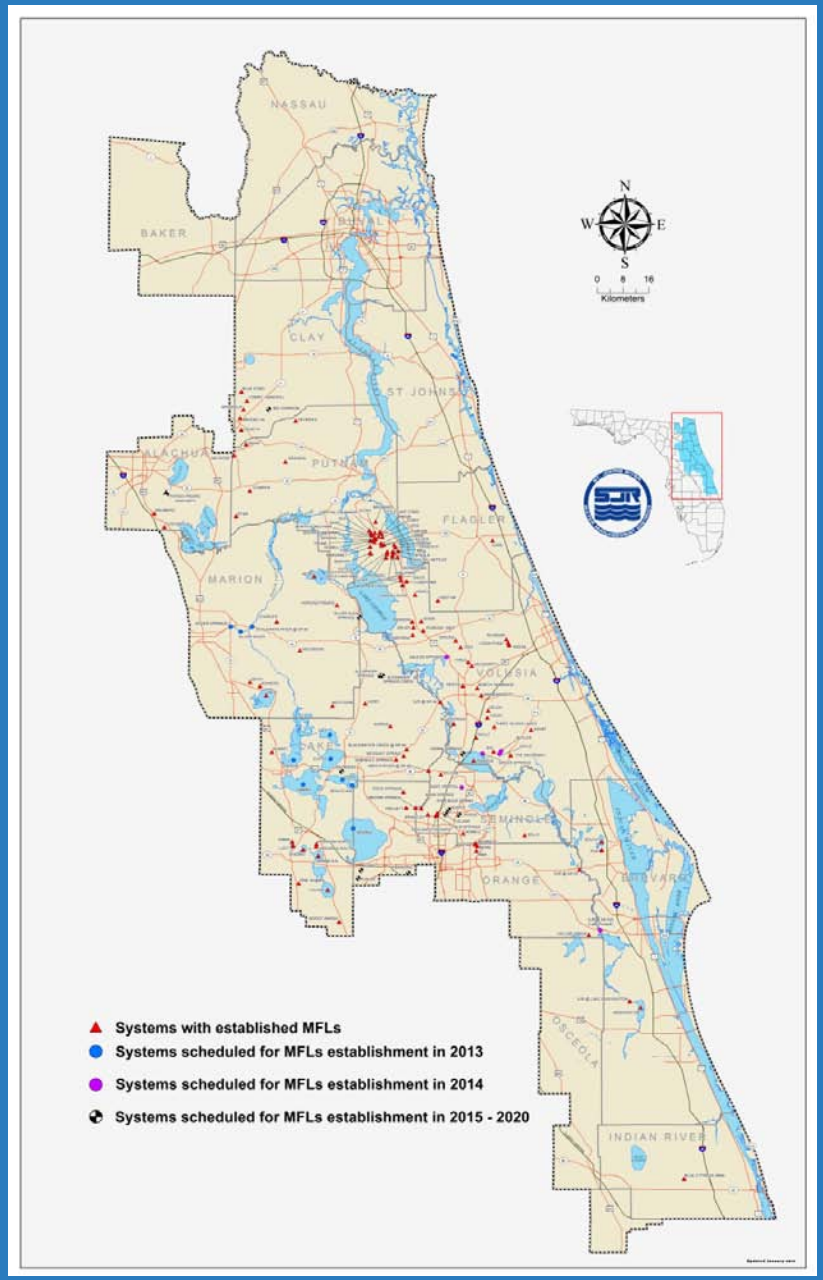


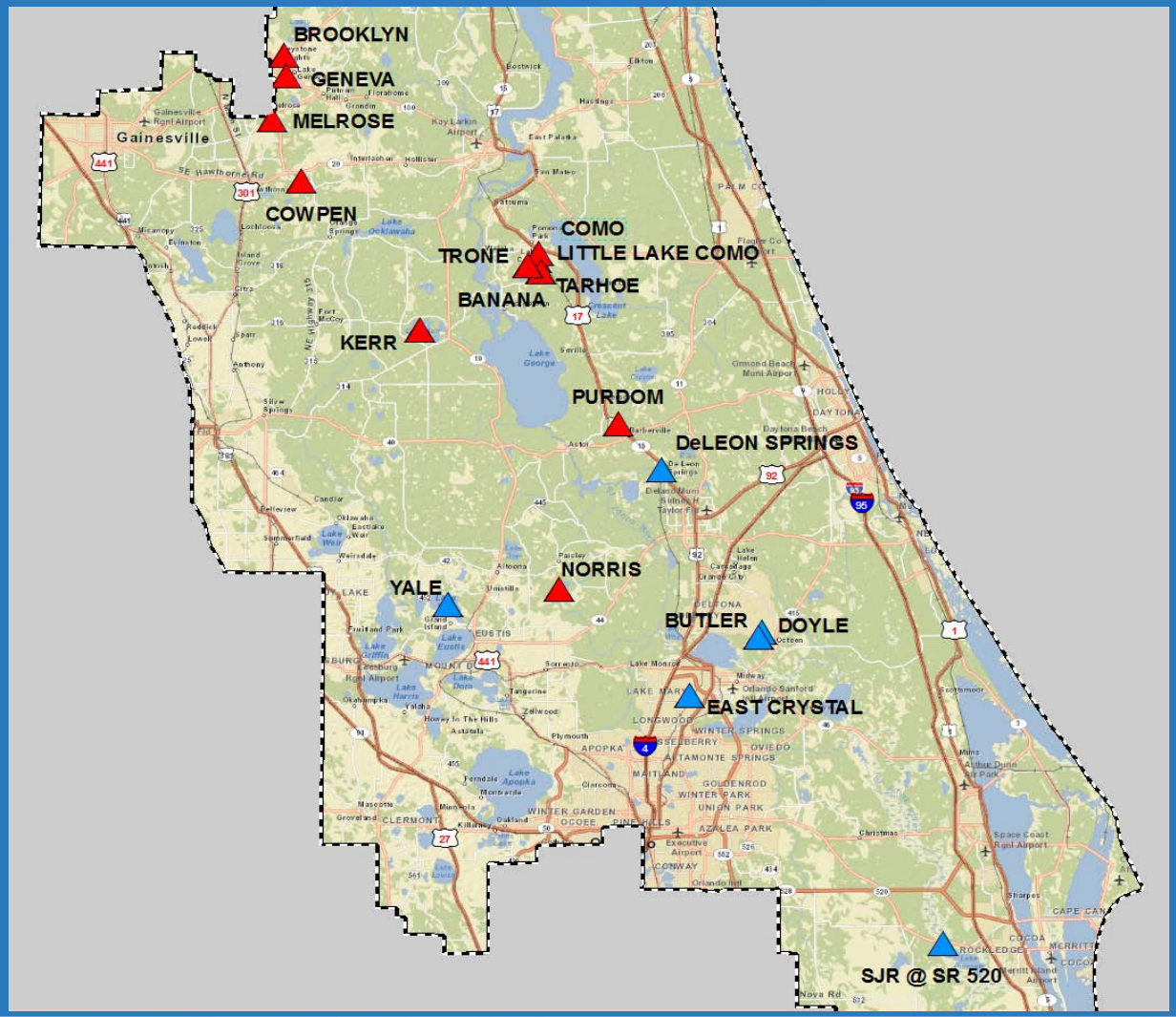
Adopted MFLs

Number of water bodies with MFLs adopted by rule	
Lakes	101
Wetlands	7
Springs	9
Rivers	6
Total	**123**

- **MFLs re-evaluation is an ongoing process**
- **Among the 123 adopted MFLs, 22 are based on re-evaluated values.**



2014 MFLs Priority List and Schedule



How does SJRWMD determine if a lake is meeting its MFLs?

Quantify effect of future water demands on aquifer levels

Groundwater model

Quantify relationship between change in aquifer levels and lake levels

Water budget model

Determine aquifer level needed to achieve MFLs and if those levels will be achieved under future demands

Prevention vs. Recovery

Will MFLs be met under 2035 water demands?

YES → **No action needed**

NO ↓

Are MFLs met under current water demands?

YES → ***Prevention***

NO → ***Recovery***

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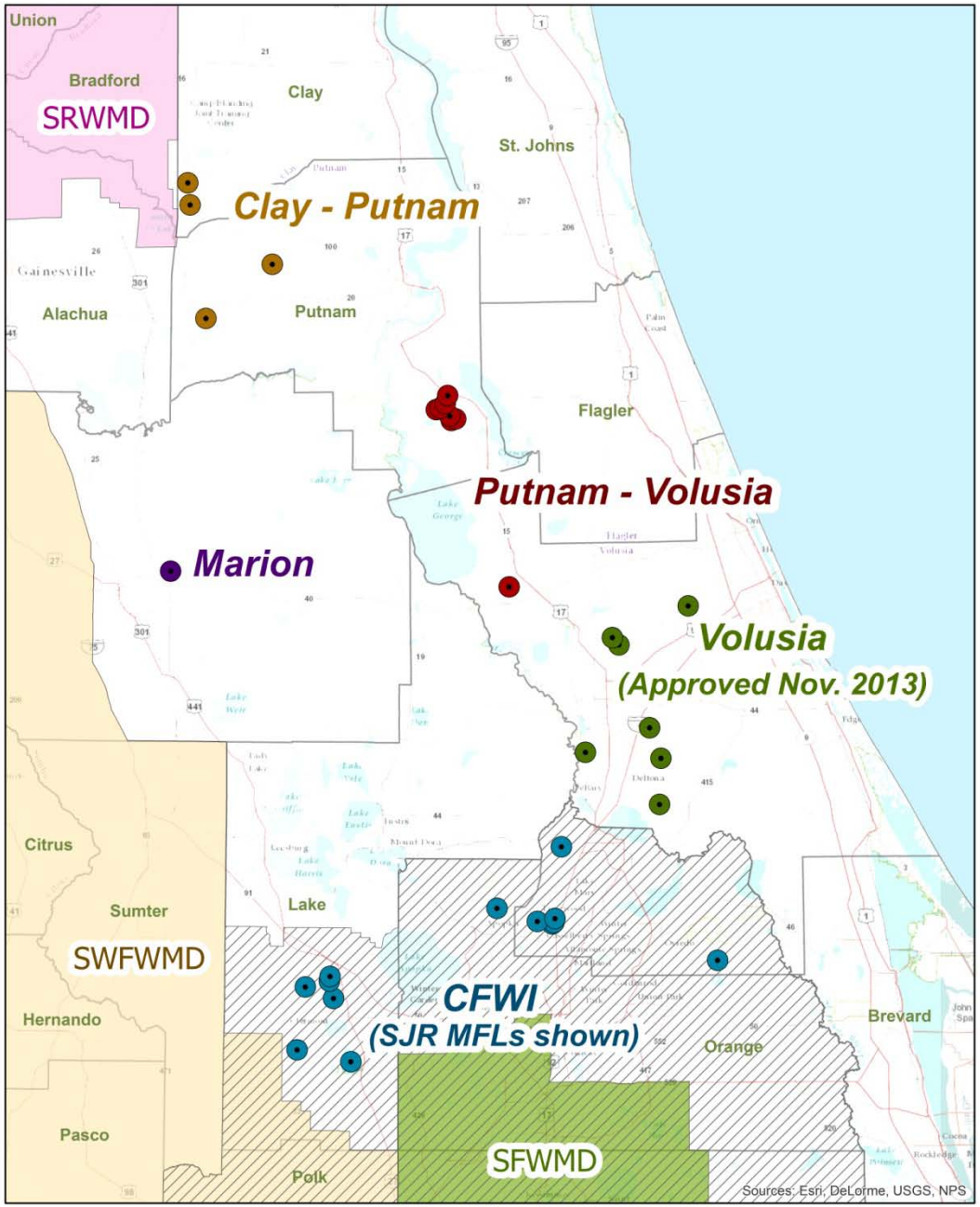
Prevention/Recovery Strategy – SJRWMD Goals

- Equity among users
- Allocation certainty
- Protect infrastructure investments
- Meet MFLs through 2035
- Support regulatory decisions
- Maintain water body function

MFLs in Prevention/ Recovery Process



Key Steps in Developing a Prevention/Recovery Strategy

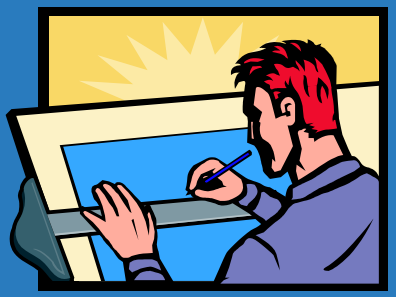
- **Quantify strategy goals**
- **Projects and measures**
- **Implementation**

MFL Prevention/Recovery Strategy – District's Role

Stakeholder Participation

Technical Support to Stakeholders

Engineering Analysis



Cooperative Funding

MFL Prevention/Recovery – Measuring Success

- **All MFLs met under 2035 demands**
- **Achieve MFLs ASAP**
- **Manage cumulative withdrawal effects**
- **Feasible long-term water supply scenario**

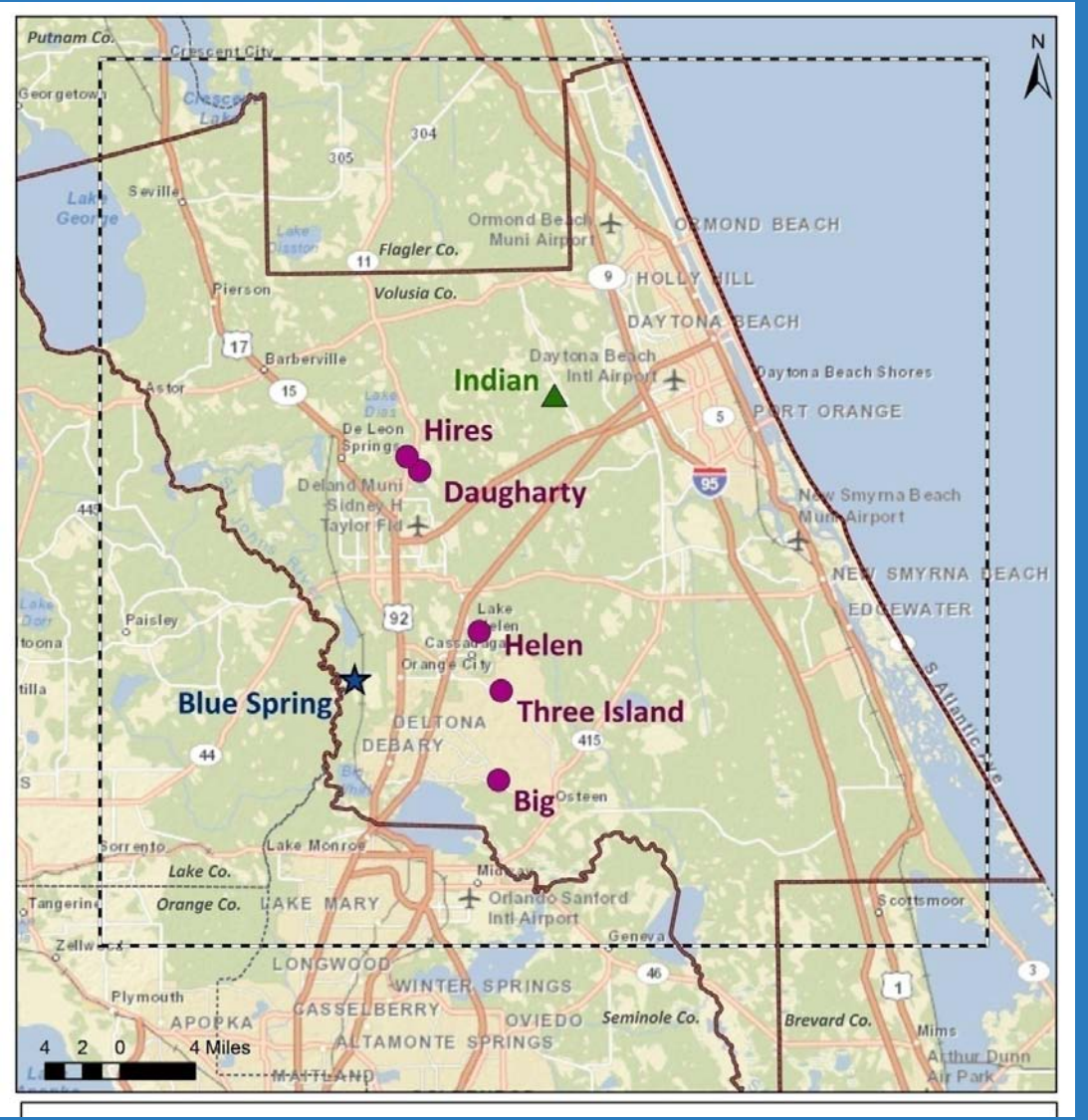
Prevention/Recovery Status

Area	Estimate Strategy Ready for Governing Board Consideration
Volusia	2013 (Board approved)
Clay-Putnam	2015
Marion	2014 (Preliminary components) 2015 (Final)
Putnam-Volusia	2015
CFWI	2016 (after Solutions Planning Team is finished)

Prevention/Recovery Status – Volusia

Strategy

- **Expansion of reclaimed water projects**
- **Enhanced conservation**
- **Approved by Governing Board**
- **Cost-share projects under way**



Prevention/Recovery Projects – West Volusia

- **Conservation – 3 projects**
- **Reuse – 8 projects**
- **Aquifer Recharge – 2 projects**
- **Water Supply – 3 projects**

Estimated Projects Cost $135 million+

Conclusions

- **MFLs – significant factor in water supply planning and water use permitting decision**
- **Development of Prevention/Recovery Strategies – critical and difficult**