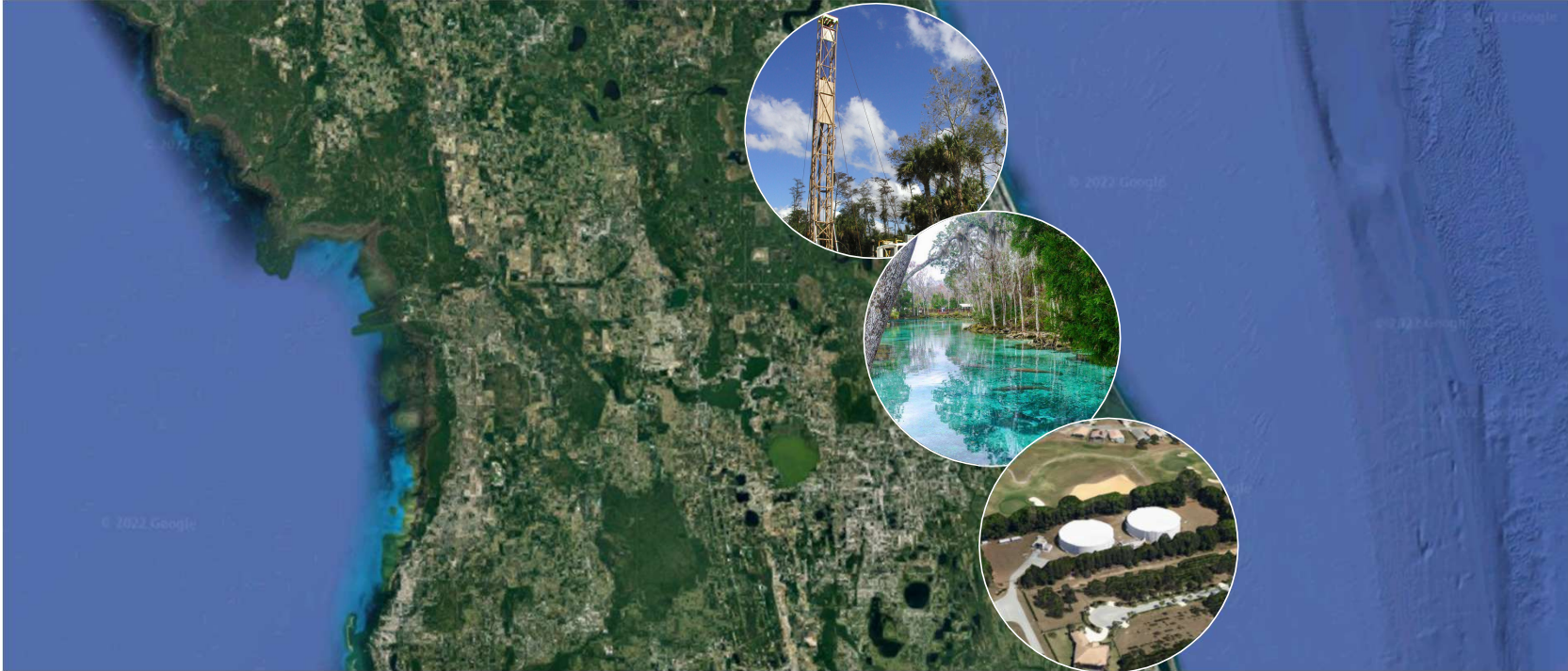


Hazen



**WITHLACOOCHEE
REGIONAL
WATER
SUPPLY
AUTHORITY**

2024 Regional Water Supply Plan Update Summary of Gap Analysis and Opportunities

May 21, 2025

Project Goals and Objectives

- Goal
 - Assist public utilities by identifying regional water supply opportunities across four counties
- Objectives
 - Quantify public water supply demand
 - Assess water conservation and reuse potential
 - Identify water resource availability to meet demand
 - Evaluate economic constraints
- Plan cooperatively funded by SWFWMD
 - In support of 2025 RWSP for Northern Region



Key Project Tasks

Population and Demand Projections

- Update water demand projections through 2045

Water Conservation and Reuse Evaluation

- Estimate conservation potential, **reclaimed availability, potential offsets**

Source Water Assessments

- Evaluate and identify **water resources availability** to meet demand

Water Supply and Treatment Options

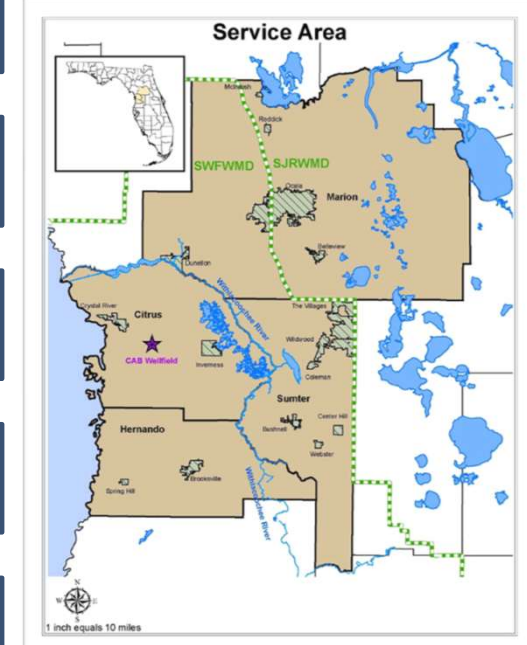
- Identify traditional/alternative **supply availability** and project options

Organization, Funding, & Governance Recommendations

- Recommend Regional Governance Framework for WRWSA

Regional Water Supply Plan

- Provides description of technical analyses and recommendations.



Reclaimed Water Availability

Reclaimed Water Availability

- Surveyed utilities on existing / future conditions
- Wastewater flows = reuse potential
 - **Allocated:** activities with direct potable offsets (irrigation, industrial use, other reuse applications)
 - **Unallocated:** activities that may qualify for recharge credits (RIBs, spray fields, wetlands)
- Key Findings
 - Reuse needs / potential increasing
 - Sumter
 - Growth leader (212%)
 - Citrus may face constraints
 - Reuse demand increasing (144%)
 - Unallocated flow is declining (-35%), greater use of supply
 - Hernando / Marion
 - Moderate reuse growth and large increases in unallocated flows

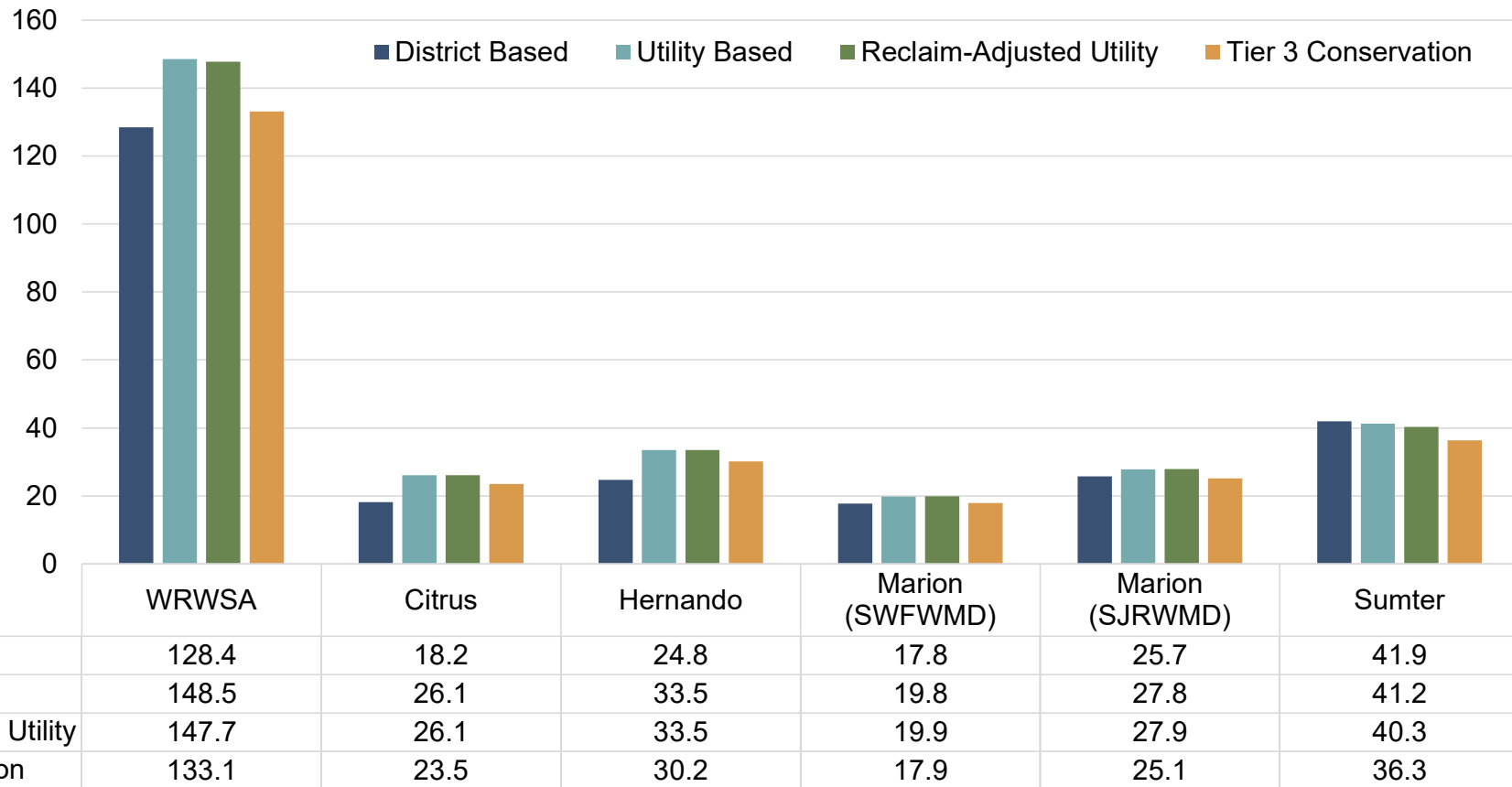
2020-2045 Projected Change Water Demand and Wastewater Flows (MGD)						
County	Potable		Allocated		Unallocated	
	MGD	% Change	MGD	% Change	MGD	% Change
Citrus	5.41	26.1%	1.39	144%	-1.01	-35%
Hernando	12.37	58.6%	0.68	25%	1.96	61%
Sumter	24.25	150.8%	7.93	76%	1.44	212%
Marion (SWFWMD)	7.48	60.5%	0.93	39%	1.62	65%
Marion (SJRWMD)	6.03	27.6%	0.38	29%	0.61	12%
WRWSA	55.55	60.3%	11.31	63%	4.62	32%

Reuse Adjusted Water Demand Projection Scenarios by County (2045)

Constant per capita use assumed in base utility projections

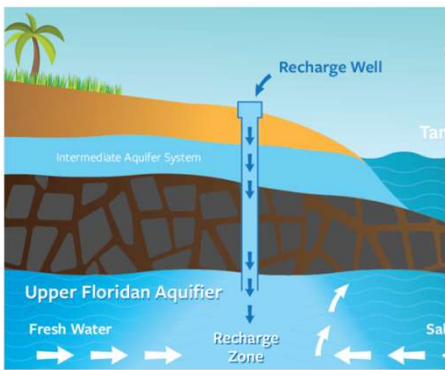
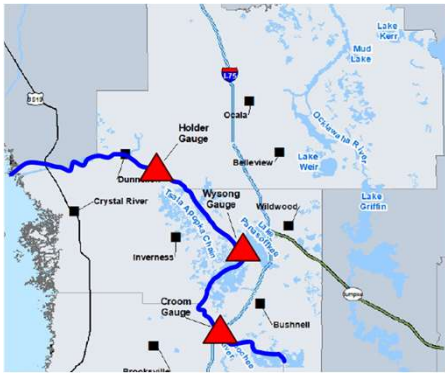
Reclaimed water use adjustments reflect anticipated changes in allocated flows

Utility survey responses support future reclaimed water use estimates



Supply and Demand Gap Analysis

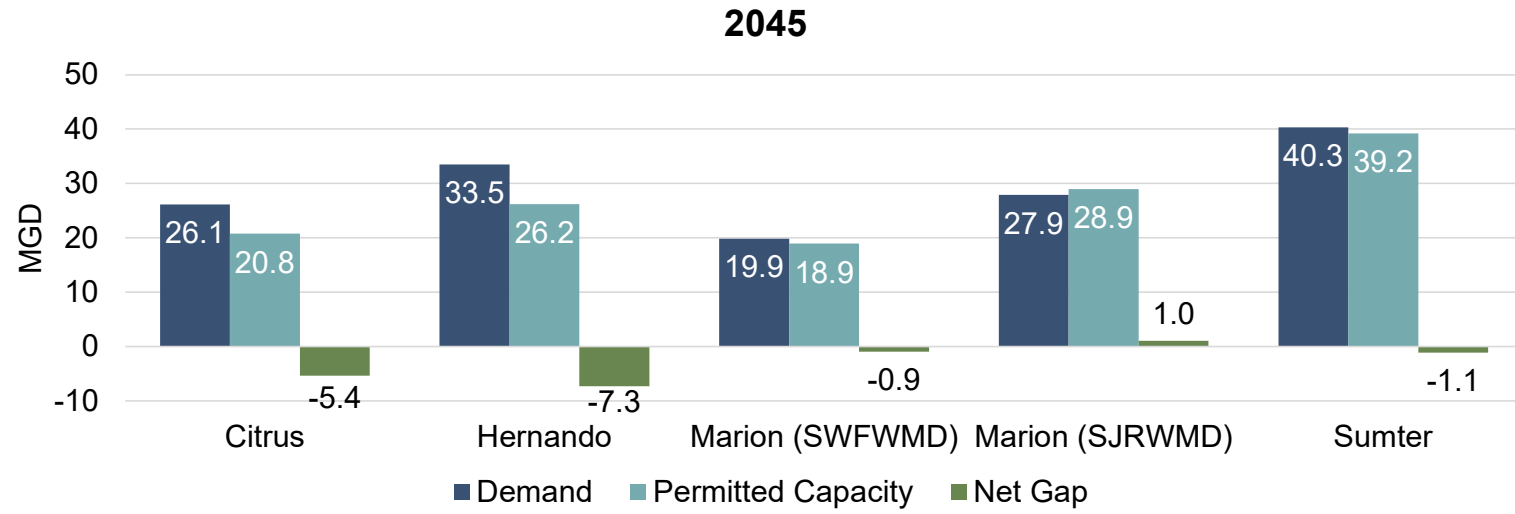
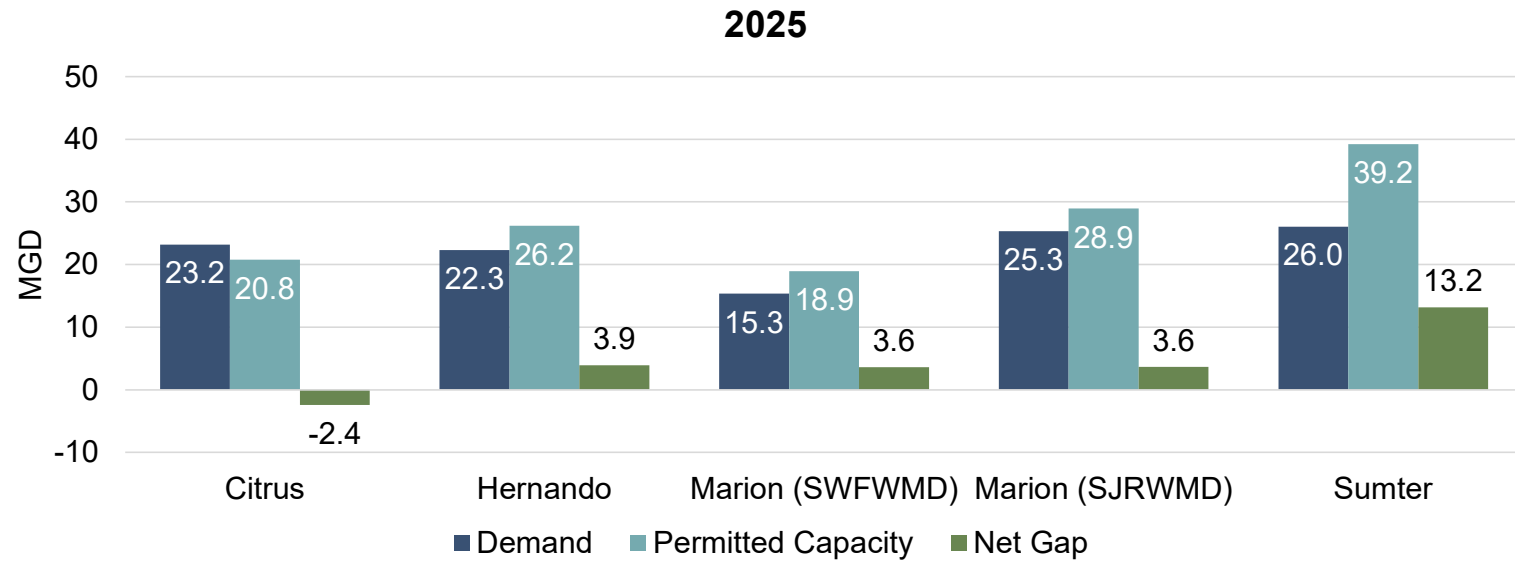
Supply-Demand Gap Analysis



- Comparing spatial location of supply availability vs. demand deficits
- Highlights “mismatched” areas of supply and demand surplus/deficits that may benefit from regional coordination
- Supports identification of regional project corridors

Supply-Demand Gap Analysis based on Current Projects

- Comparing spatial location of supply availability vs. demand deficits
- Highlights “mismatched” areas for potential regional coordination
- Supports identification of regional project corridors



Timing of Supply Need by County

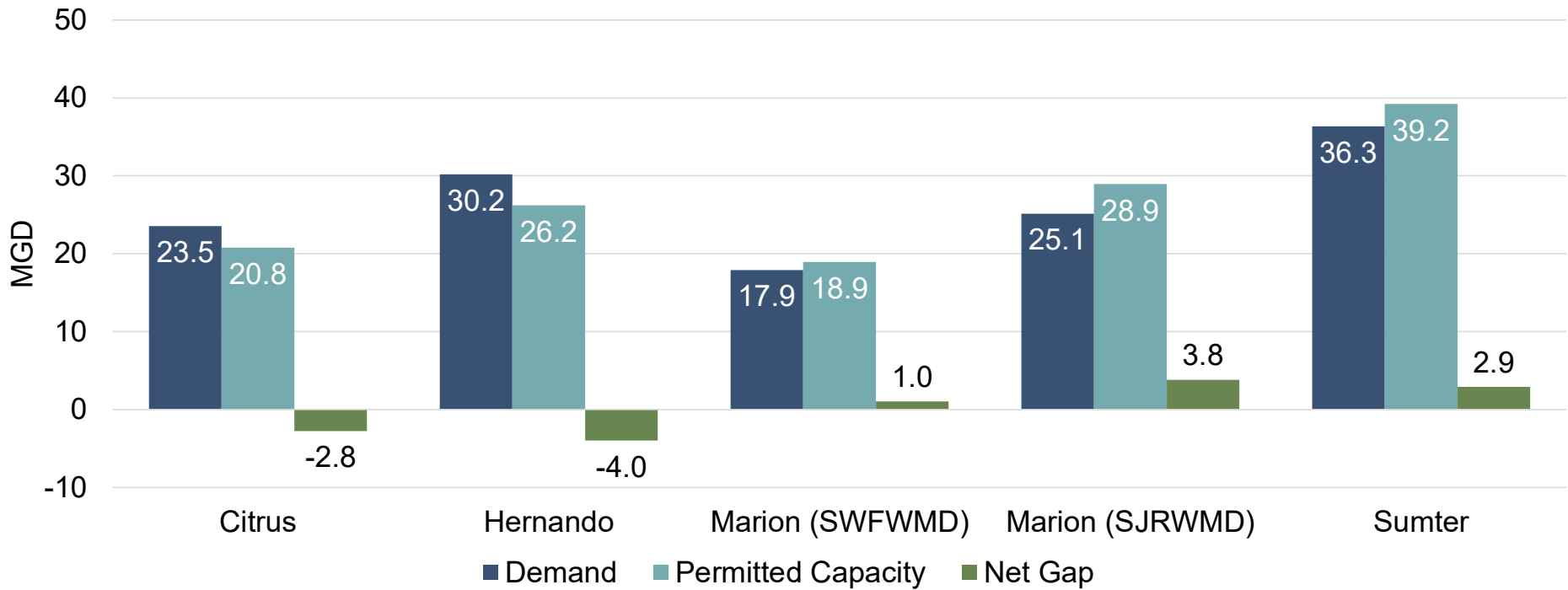
- Unallocated wastewater flows represent potential source to meet future need

County	Permitted Capacity	2045 Unallocated Reuse	Future Need Current Projects					Future Need w/Reuse Credits and Conservation				
			2025	2030	2035	2040	2045	2025	2030	2035	2040	2045
Citrus	20.76	-1.01	-2.42	-3.27	-4.03	-4.73	-5.37	-1.76	-1.79	-1.95	-2.37	-2.78
Hernando	26.93	1.96	3.91	0.44	-2.43	-4.99	-7.30	4.55	2.02	-0.02	-2.11	-3.99
Marion (SWFWMD)	18.93	1.62	3.59	2.65	1.79	0.37	-0.93	4.03	3.65	3.23	2.08	1.03
Marion (SJRWMD)	28.94	0.61	3.64	2.96	2.29	1.67	1.05	4.36	4.56	4.53	4.19	3.81
Sumter	39.22	1.44	13.17	7.39	3.73	0.99	-1.11	13.92	9.35	6.72	4.52	2.88
WRWSA	134.77	4.62	22.63	10.91	2.10	-5.95	-12.93	25.84	18.52	13.25	7.05	1.70

¹Some small utilities are missing permitted capacities; assumed zero surplus/deficit

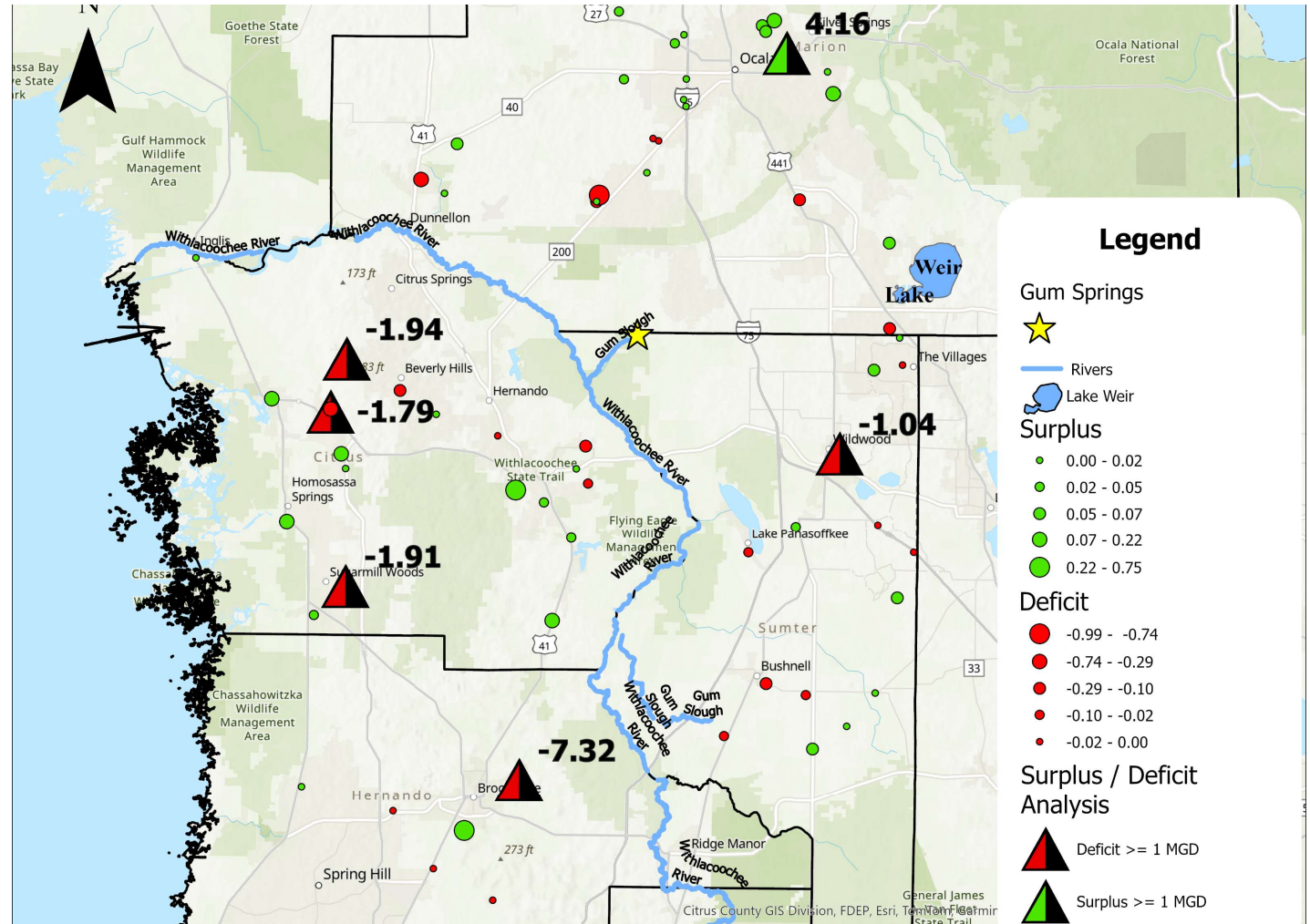
Supply-Demand Gap Analysis with Tier 3 Conservation

2045

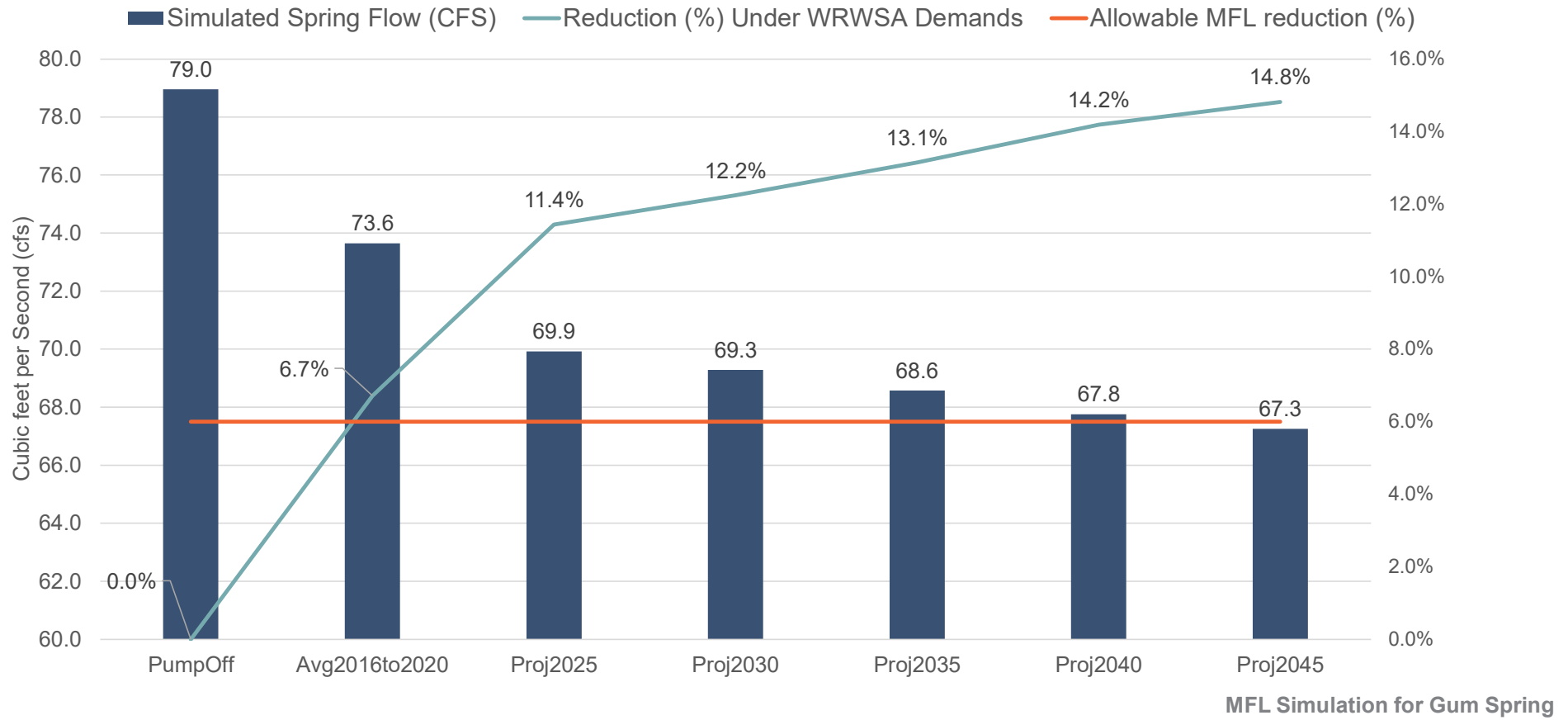


Spatial Gap Analysis – Utility Supply and Demand Deficits

- Highlights “mismatched” areas of availability / need
- Reinforces benefit potential of regional coordination
- 5 permits w/projected deficit > 1 MGD
 - Citrus: 3 (5.82 MGD)
 - Hernando: 1 (7.32 MGD)
- **Other Considerations**
 - Water Quality (PFAS)
 - Reclaimed Availability
 - Proximity to Existing Infrastructure
 - Interconnectivity Feasibility
 - Cost-Sharing Opportunities
 - Regulatory Alignment
 - Long-Term Resiliency
 - Governance & Agreements



Gum Spring



Next Steps

Water Supply and Treatment Options

Potential Project Opportunity Matrix

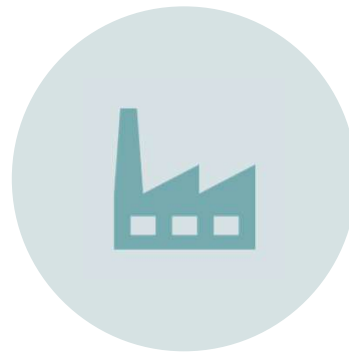
Example Criteria for Project Prioritization

ID	Alternative	Demand Proximity	Reuse Credit Potential	Infrastructure Feasibility	Cost-Sharing Potential	Water Quality Improvement	Regional Benefit
1A	Surface Water Facility (Holder)						
1B	Surface Water Facility(North Sumter)						
1C	Surface Water (Lake Rousseau)						
2A	Lower Floridan Wellfield (Gum Slough)						
2B	Lower Floridan Wellfield (Lake Wier/Silver Springs)						
3A	Aquifer Storage and Recovery (Withlacoochee)						
4A	Coastal Aquifer Recharge (Citrus/Hernando)						
5A	Desalination (Brackish Wells)						
5B	Desal (Ocean Outfall)						

Key Findings to Date



SOME UTILITIES HAVE SURPLUS
UNALLOCATED RECLAIMED
WATER



DEMAND-SUPPLY MISMATCH
EXISTS GEOGRAPHICALLY BY
UTILITY



CONSERVATION AND REUSE
ARE HELPFUL BUT NOT
SUFFICIENT ALONE

Next Steps

- Refine spatial overlay of supply and demand timing
- Identify and screen candidate regional project concepts
- Evaluate benefits to MFL of using alternative water supplies
 - Gum Slough
 - Withlacoochee
- Develop cost estimates for alternative projects
- Coordinate with District and partners (July - September)
- Finalize Report

Questions & Discussion

We welcome your input on next steps and opportunities.

Water
Resource
Caution
Areas

