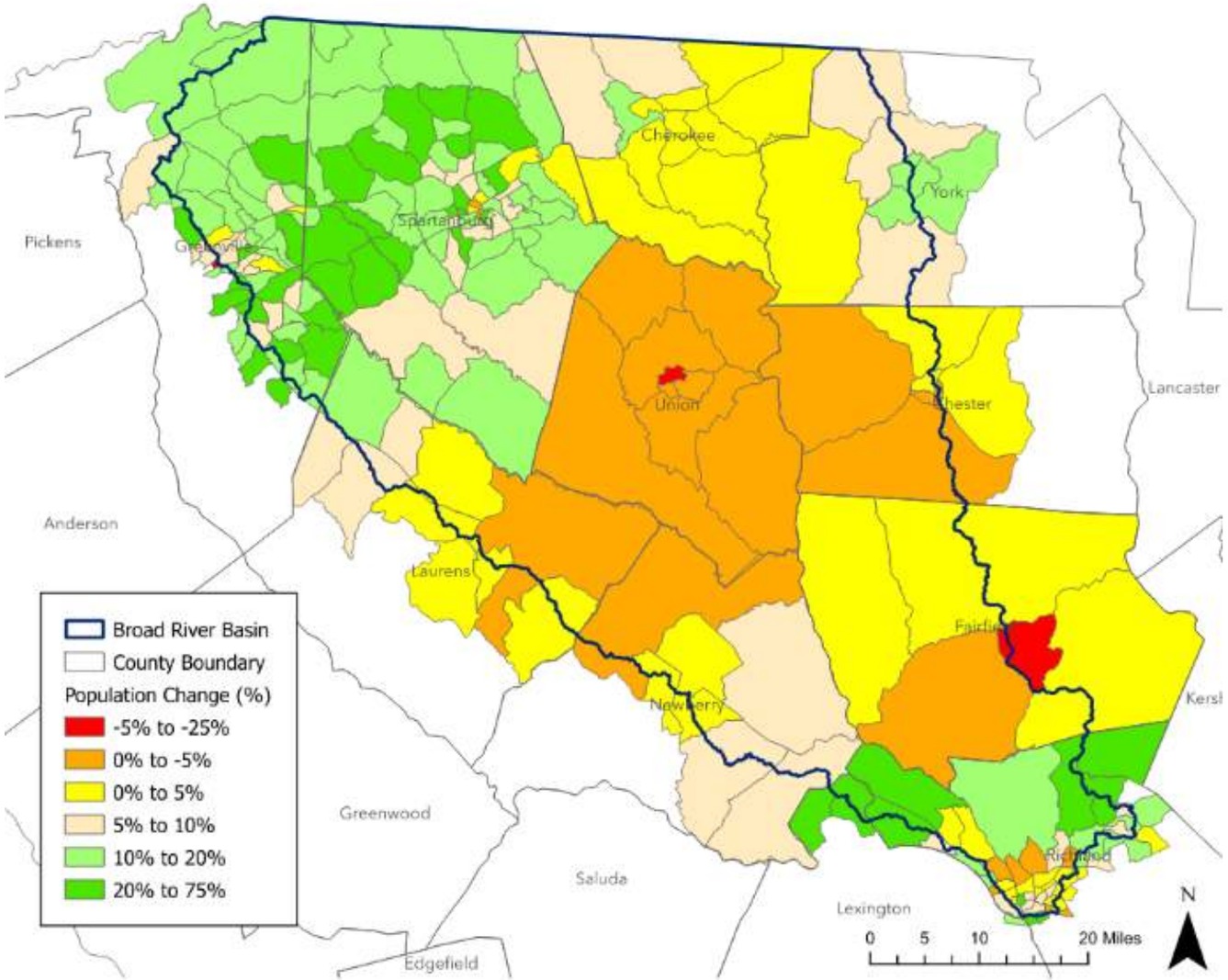
February RBC Meeting Review

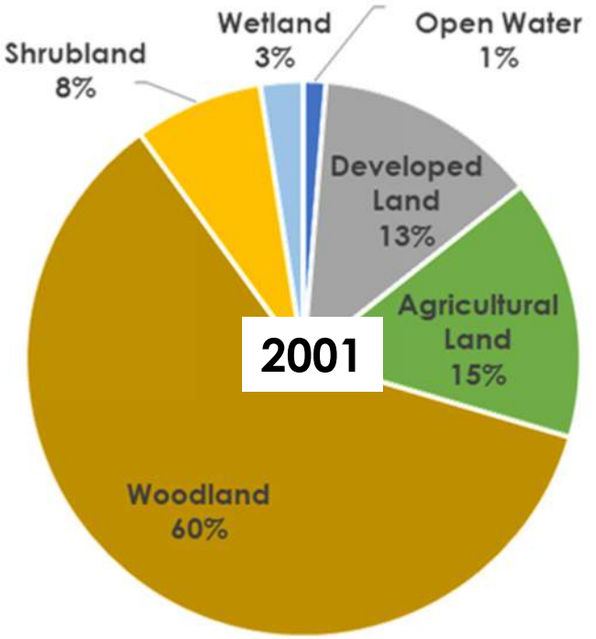
Agenda Item 3

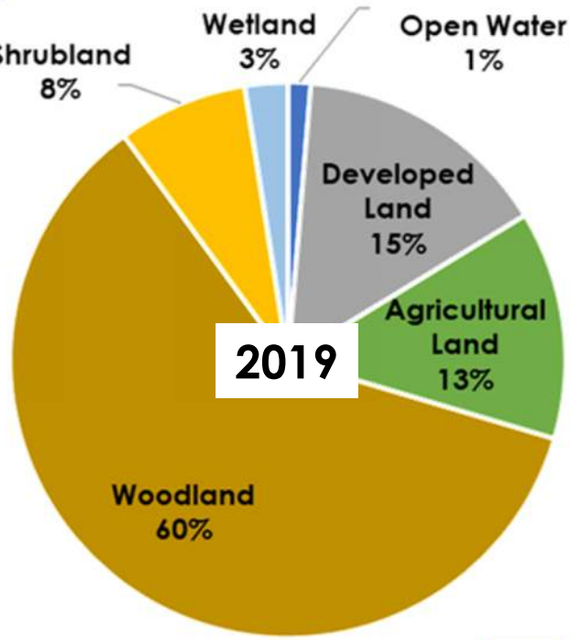
Population Change, 2010-2020



Source: 2010 and 2020 US Census

Land Use Change, 2001-2019





Source: USGS National Land Cover Database

What Effect to Demand Side Reductions of 10, 15 and 20 Percent Have on Reducing Projected Shortages When Applied to Public Water Supply Withdrawals?

2070 High Demand Scenario

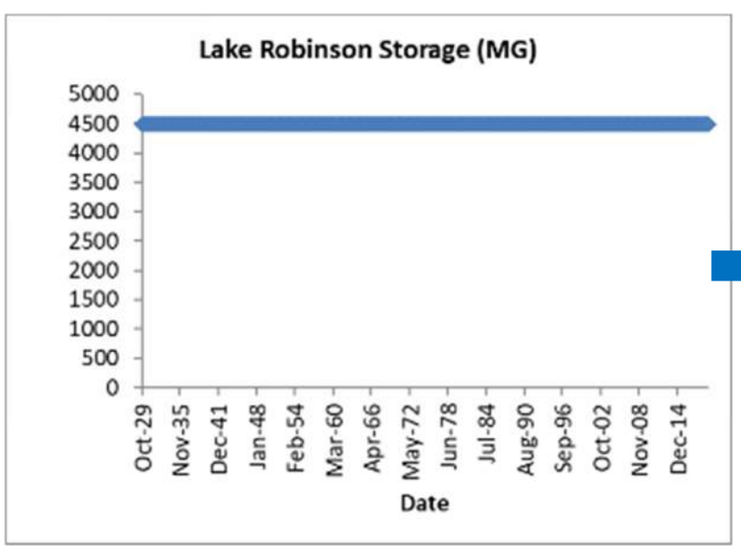
Water User	Frequency of Shortage				Maximum Shortage (MGD)			
	2070 High Demand	10% Demand Reduction	15% Demand Reduction	20% Demand Reduction	2070 High Demand	10% Demand Reduction	15% Demand Reduction	20% Demand Reduction
Gaffney	1.1%	1.0%	1.0%	0.8%	27.8	24.6	22.2	20.7
Spartanburg	0.4%	0.1%	0.1%	0.0%	36.9	19.8	4.8	0.0
SJWD	0.6%	0.4%	0.1%	0.0%	18.3	9.9	5.8	0.0
Greer	7.1%	5.4%	4.3%	3.4%	17.0	14.4	13.1	11.8

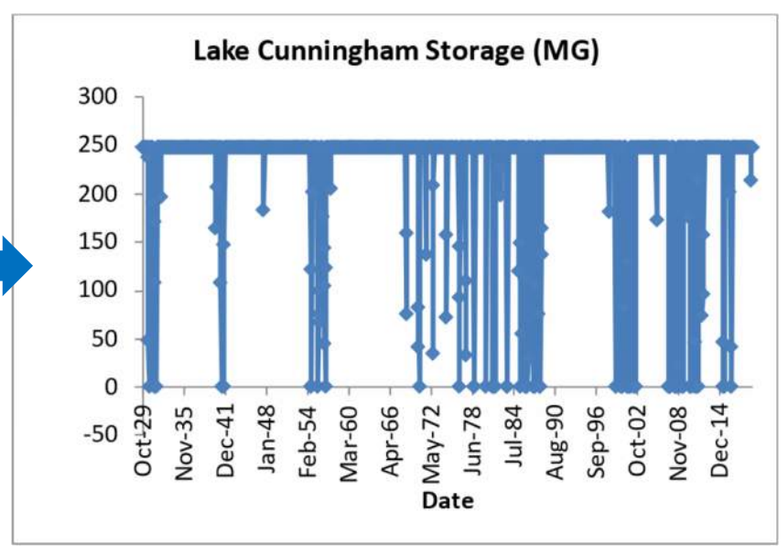
Shortages were evaluated prior to making supply-side adjustments to optimize reservoir operations for 2070 demands.

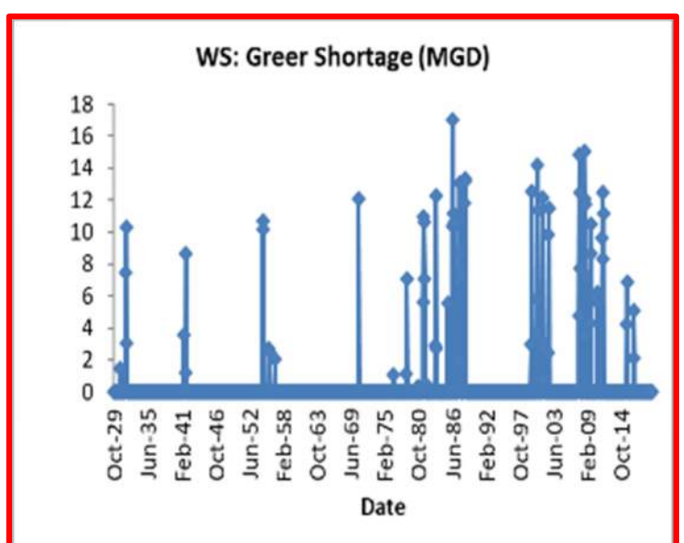
Reservoir Optimization

Example 1 – Greer CPW High Demand 2070 Scenario

- Average demand is **22.4 mgd**
- No reservoir operating or balancing rules in place in the model
- Cunningham draws down with no additional releases from Robinson and results in **water supply shortages**



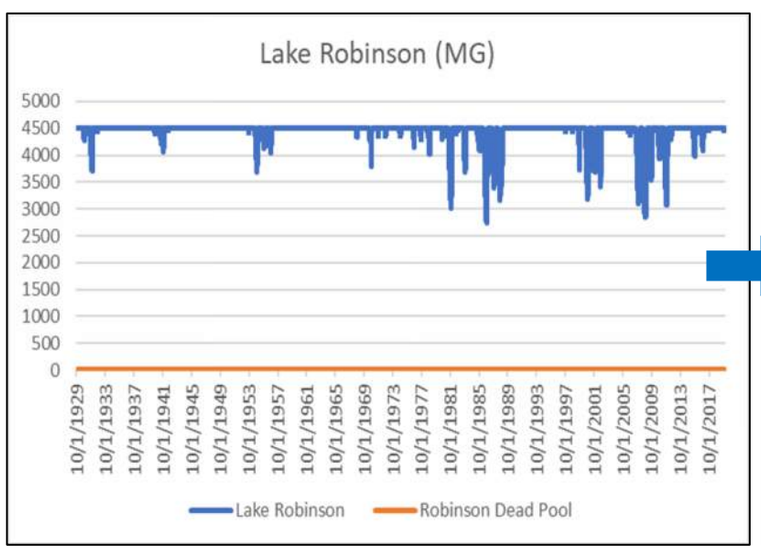


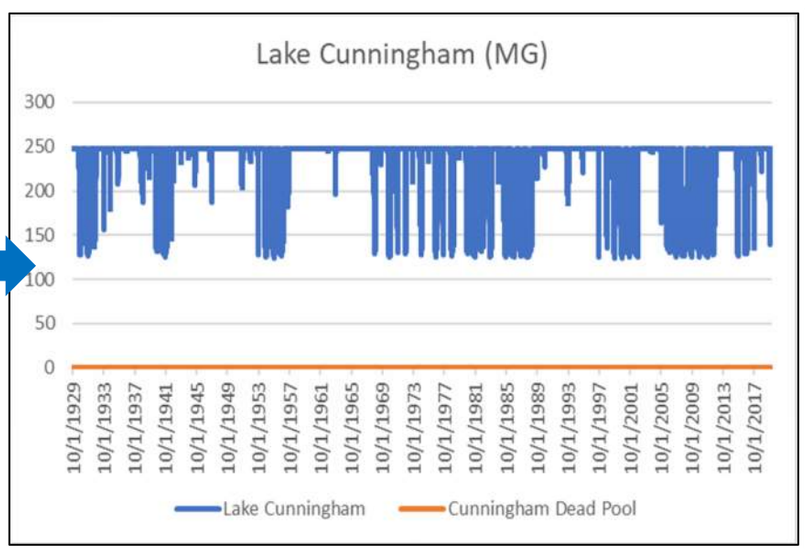


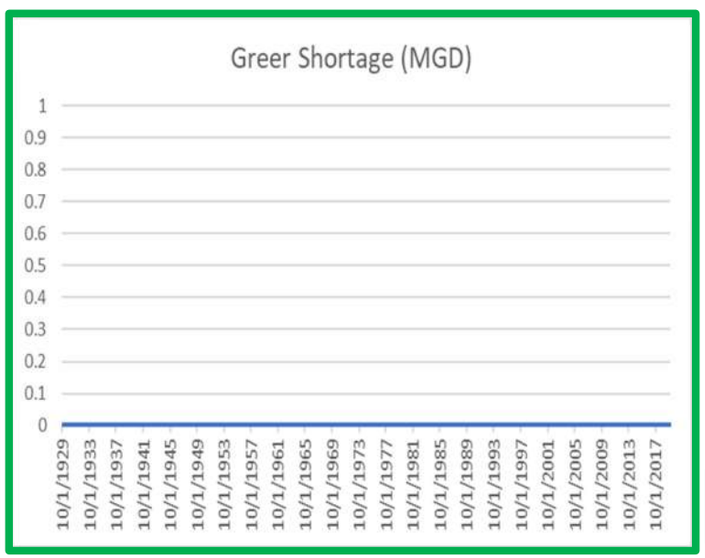
Reservoir Optimization

Example 1 – Greer CPW High Demand 2070 Scenario

- Average demand is **22.4 mgd**
- **Add an operating rule:** Lake Robinson releases 44 cfs when Lake Cunningham drops to 60% full
- Robinson releases enough water to keep Cunningham at least 60% full and results in **no water supply shortages**







Review of Progress Metrics

1. The process to select RBC members is well documented, transparent, and reflects broad-based outreach.

2. RBCs develop a River Basin Plan within two years of RBC formation.

3. RBC meetings adhere to timelines.

4. River Basin Plans are actionable, logical, and address or prevent challenges with a level of detail to be cost-accountable.

5. Information used and generated during the planning process is shared openly, publicly, and is easily accessible.

Review of Progress Metrics

6. RBC meeting agendas are focused and promote efficient and productive meetings.

7. RBC members are able to effectively consider, digest, and understand technical information through presentations, discussion, group learning, and self-study.

8. Decisions are guided by best available science.

9. The use and outcomes of models and other tools to assess water availability and evaluate strategies are appropriately documented.