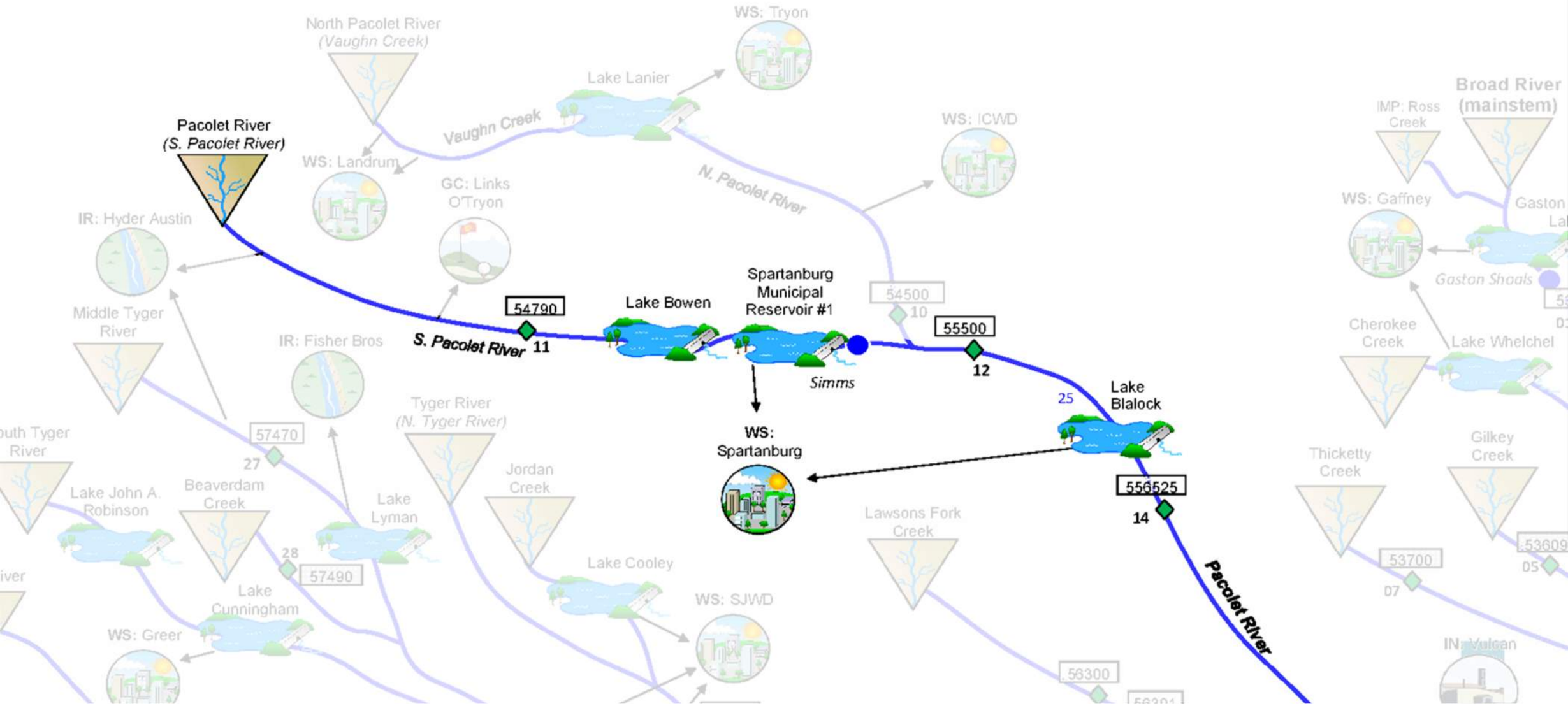
Spartanburg Water System Safe Yield and Summary of Surface Water Results to Date

Agenda Item 5

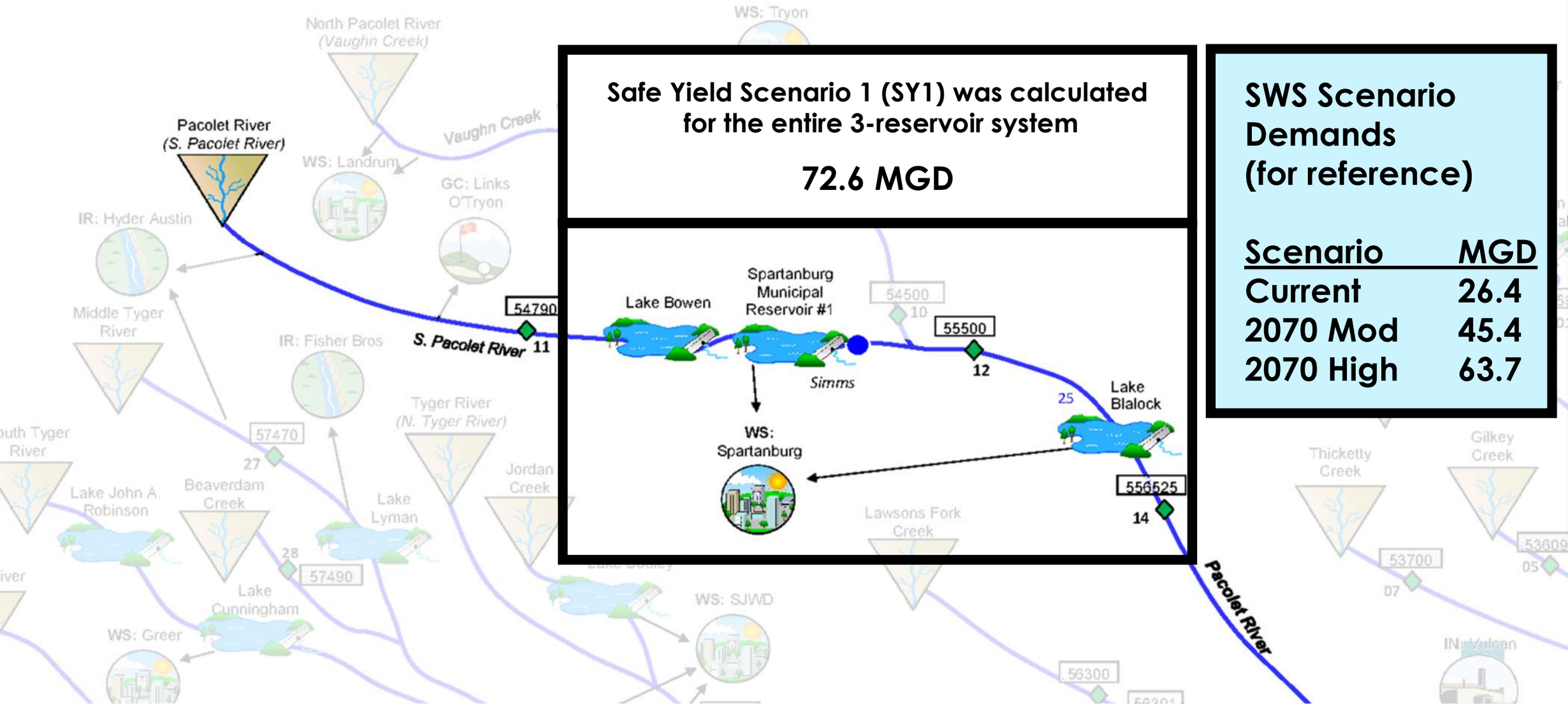
Current Reservoir Safe Yield

- Reservoir Safe Yield is defined as *the Surface Water Supply for a reservoir or system of reservoirs over the simulated hydrologic period of record.*
    - Based on the shallowest intake for an essential water use in a reservoir
    - Uses current reservoir operating rules
    - Based on Current Scenario.
- Planning Framework also calls for calculation of the **Unallocated Reservoir Save Yield** (look for results next month)

Spartanburg Water System Reservoirs



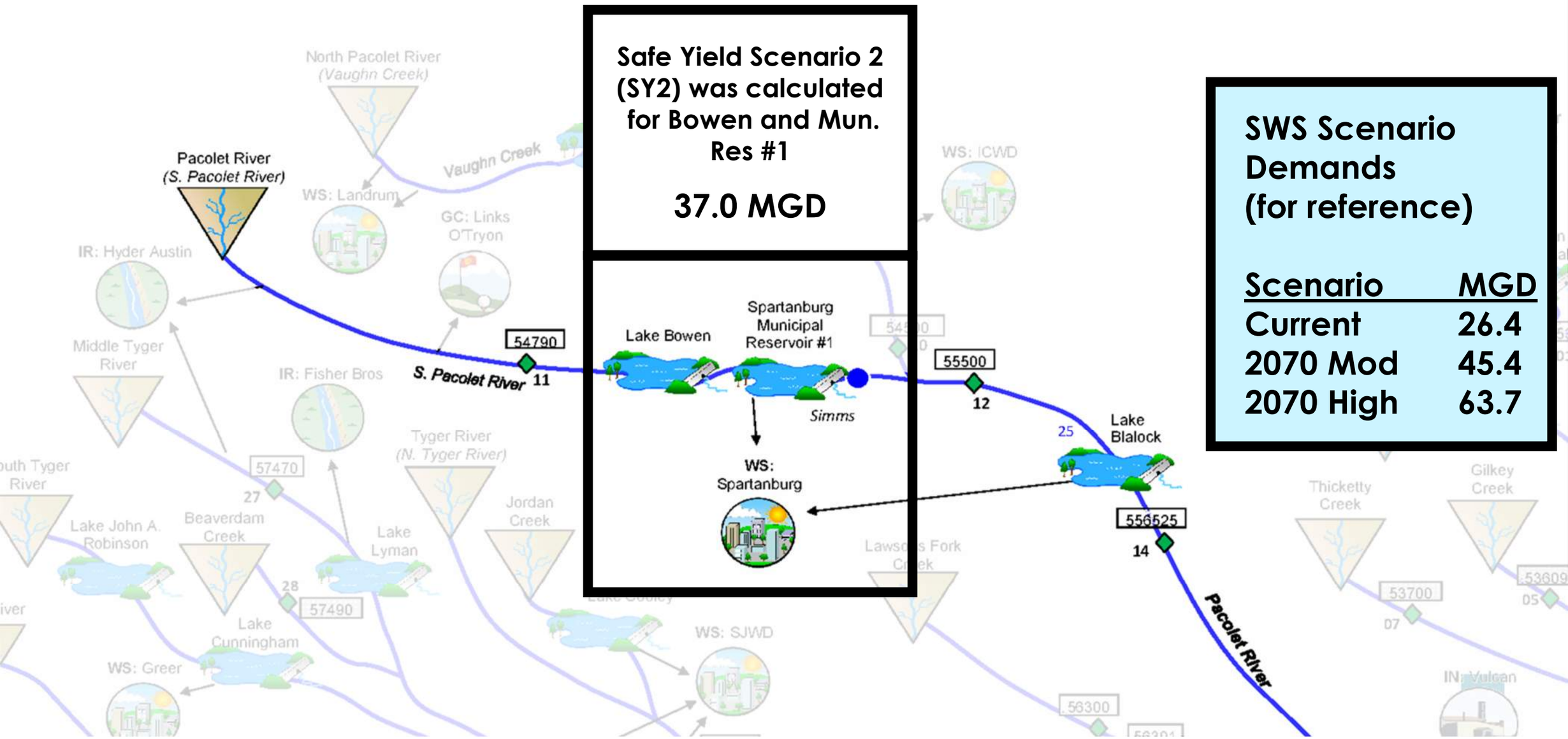
Spartanburg Water System Reservoirs



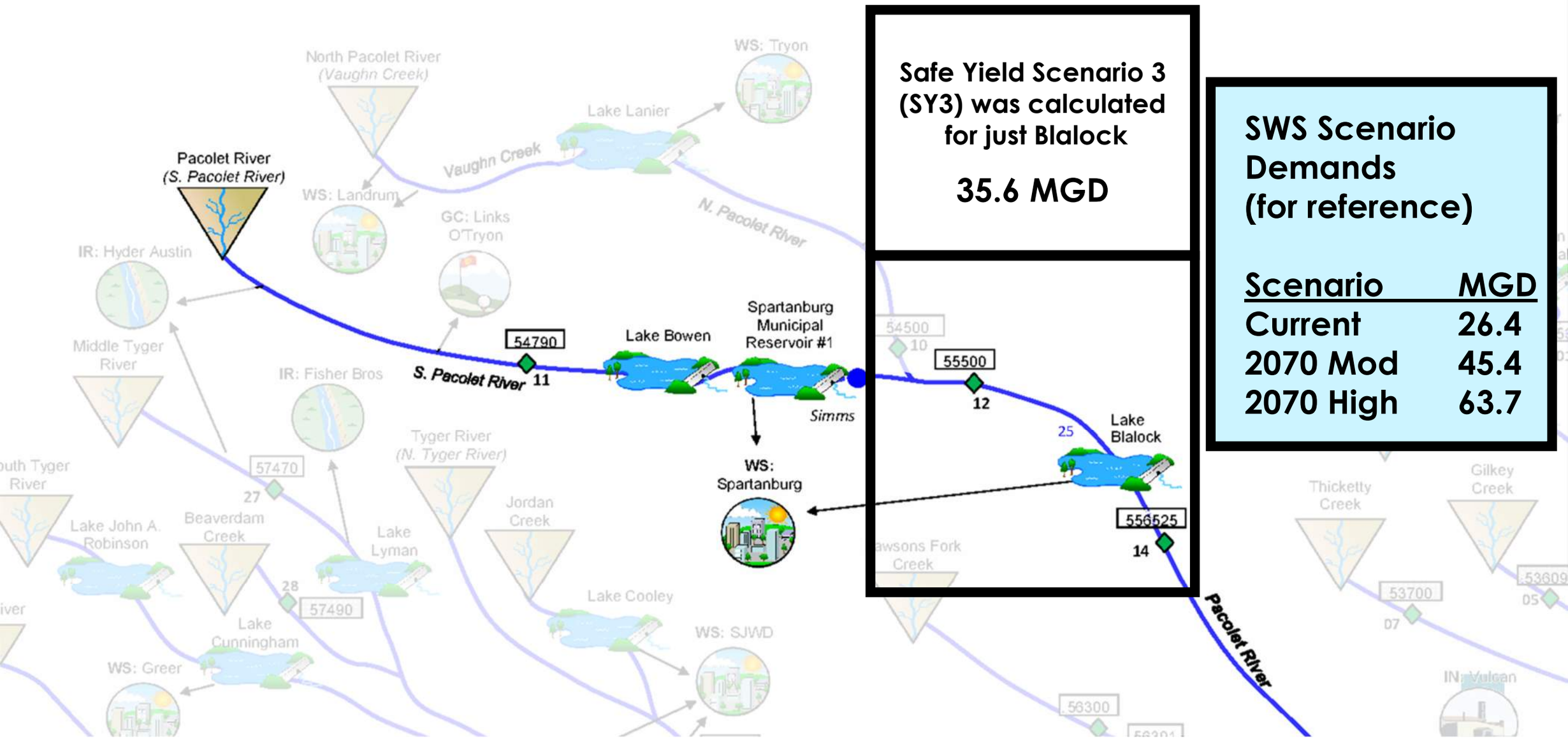
SWS Scenario Demands (for reference)

Scenario	MGD
Current	26.4
2070 Mod	45.4
2070 High	63.7

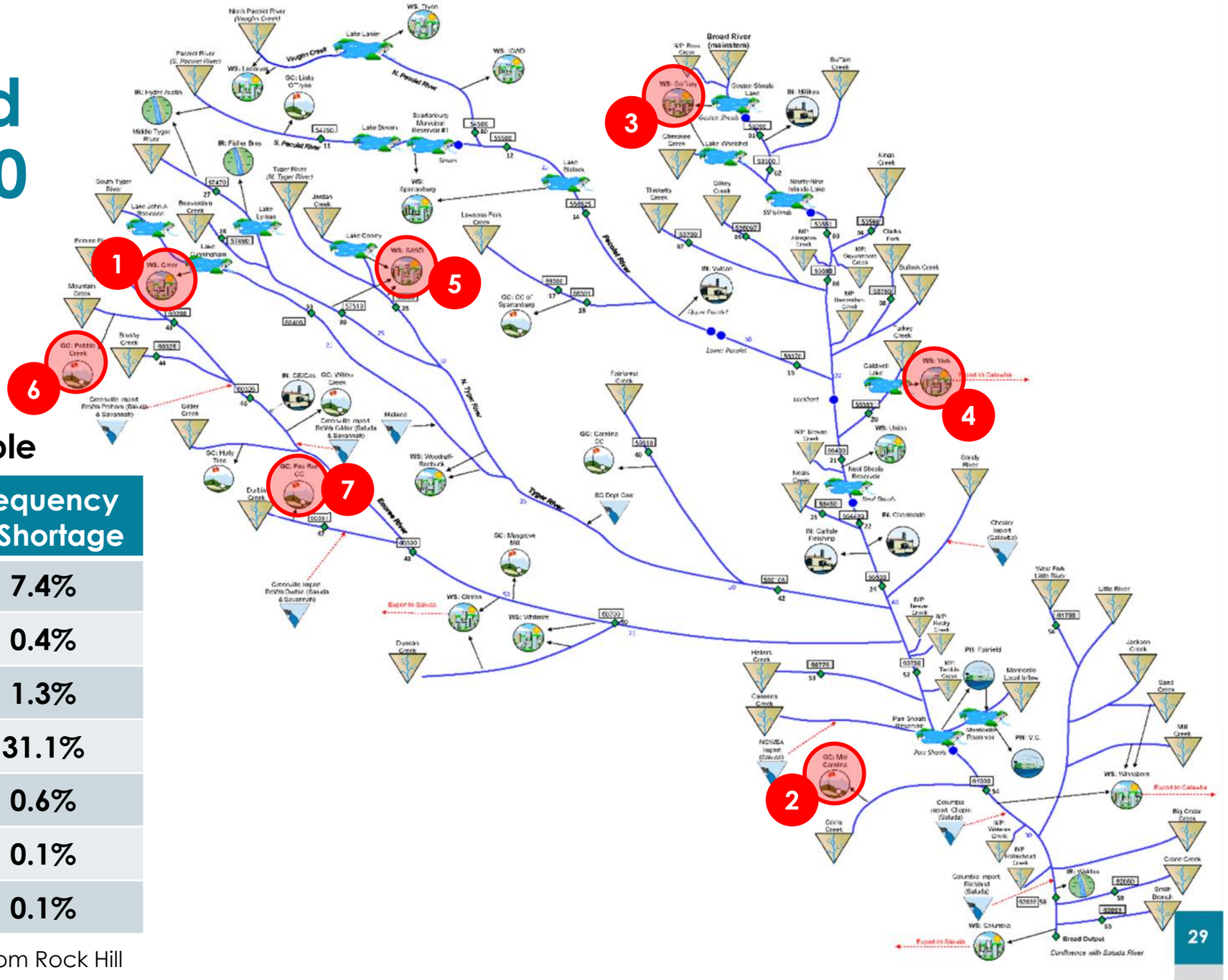
Spartanburg Water System Reservoirs



Spartanburg Water System Reservoirs



High Demand Scenario 2070



Surface Water Shortage Table

Map ID	Water User	Frequency of Shortage
1	WS: Greer	7.4%
2	GC: Mid Carolina	0.4%
3	WS: Gaffney	1.3%
4	WS: York*	31.1%
5	WS: SJWD	0.6%
6	GC: Pebble Creek	0.1%
7	GC: Fox Run	0.1%

* York is now purchasing all their water from Rock Hill

Summary of Average Annual Demands by Scenario (in MGD)

Water Use Sector	Current Use	Moderate Demand 2070	High Demand 2070	Permitted and Registered
Mining	0.1	0.0	0.1	3.9
Agriculture	0.3	0.3	0.3	8.8
Golf Courses	1.3	1.0	1.8	12.3
Industrial/ Manufacturing	3.1	5.7	12.2	14.2
Public Water Supply	92.9	149.2	249.4	640.6
Thermonuclear	711	760	842	864