# March RBC Meeting Review

*Agenda Item 3*

# The Four Phases of the Planning Process

| | |
|---|---|
| **Phase 1**<br>**Understand Baseline** | • Develop a vision statement and goals<br>• Learn about the basin's water resources and modeling tools<br>• Evaluate water demand projections |
| **Phase 2**<br>**Assess Future Availability** | • Evaluate current and future water availability issues<br>• Identify and quantify potential water shortages through year 2070 for several water demand scenarios |
| **Phase 3**<br>**Develop Strategies** | • Develop and evaluate water management strategies<br>• Recommend and prioritize strategies |
| **Phase 4**<br>**Develop the Plan** | • Develop legislative, policy, technical and planning process recommendations<br>• Prepare the River Basin Plan that includes an implementation plan, Identifies drought response initiatives, and considers public input |

**We Are Here**

# Surface Water Scenarios

- Unimpaired Flow (UIF) Scenario
  - *Naturalized conditions (no surface water withdrawals, discharges, or reservoirs)*
- Current Surface Water Use Scenario
  - *Uses most recent 10-yr average withdrawals (as reported by month) in most cases*
- Permitted and Registered (P&R) Surface Water Use Scenario
  - *Uses current fully-permitted and registered amounts*
- Moderate Water Demand Projection Scenario
  - *Future water demand projection based on moderate growth and normal climate*
- High Water Demand Projection Scenario
  - *Future water demand projection based on high growth and hot/dry climate*

# Upper Savannah River Basin - Summary of Average Annual Surface Water Demands by Scenario

*All values in million gallons per day*

| Surface Water Use Sector | Current Use | 2070 Moderate Demand | 2070 High Demand | Permitted and Registered (P&R) |
|---|---|---|---|---|
| Thermoelectric/ Nuclear Power[1] | 28 | 28 | 31 | 48 |
| Public Water Supply | 59 | 118 | 168 | 284 |
| Industrial | 8.0 | 11 | 20 | 53 |
| Golf Courses | 0.8 | 0.7 | 1.5 | 9.8 |
| Agricultural | 0.21 | 0.24 | 0.45 | 13.0 |
| Mining | 0.27 | 0.16 | 0.51 | 1.0 |
| GA-Side Water Users | 22 | 30 | 30 | 65 |
| Total all Sectors | 118 | 187 | 252 | 470 |

[1] *In this table, demands for thermoelectric/nuclear power represent the NET consumptive amount.*

# Upper Savannah River Basin
## Current Use Scenario

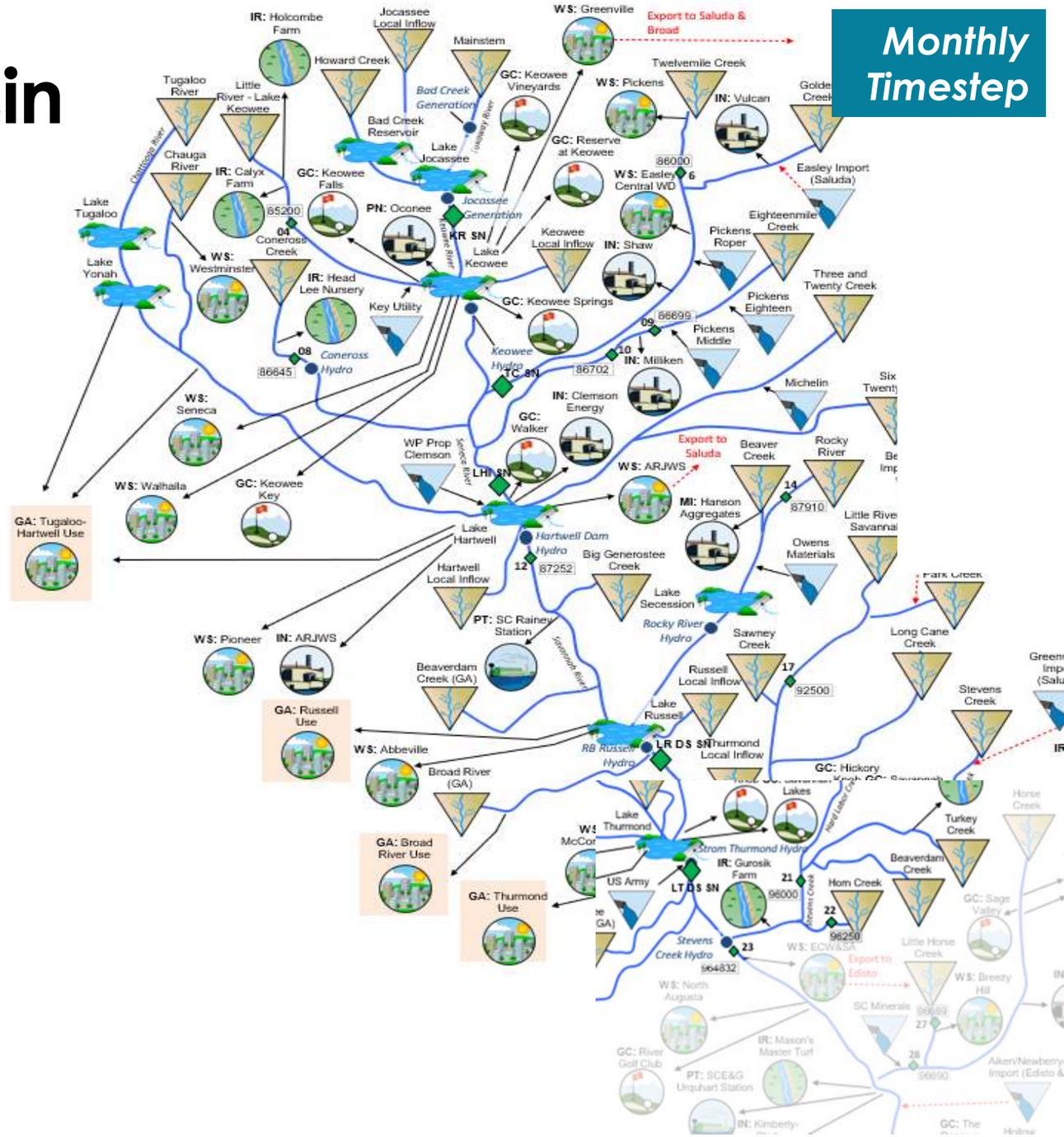
**Monthly Timestep**

**1 Physical Shortage**

### Surface Water Shortage Table

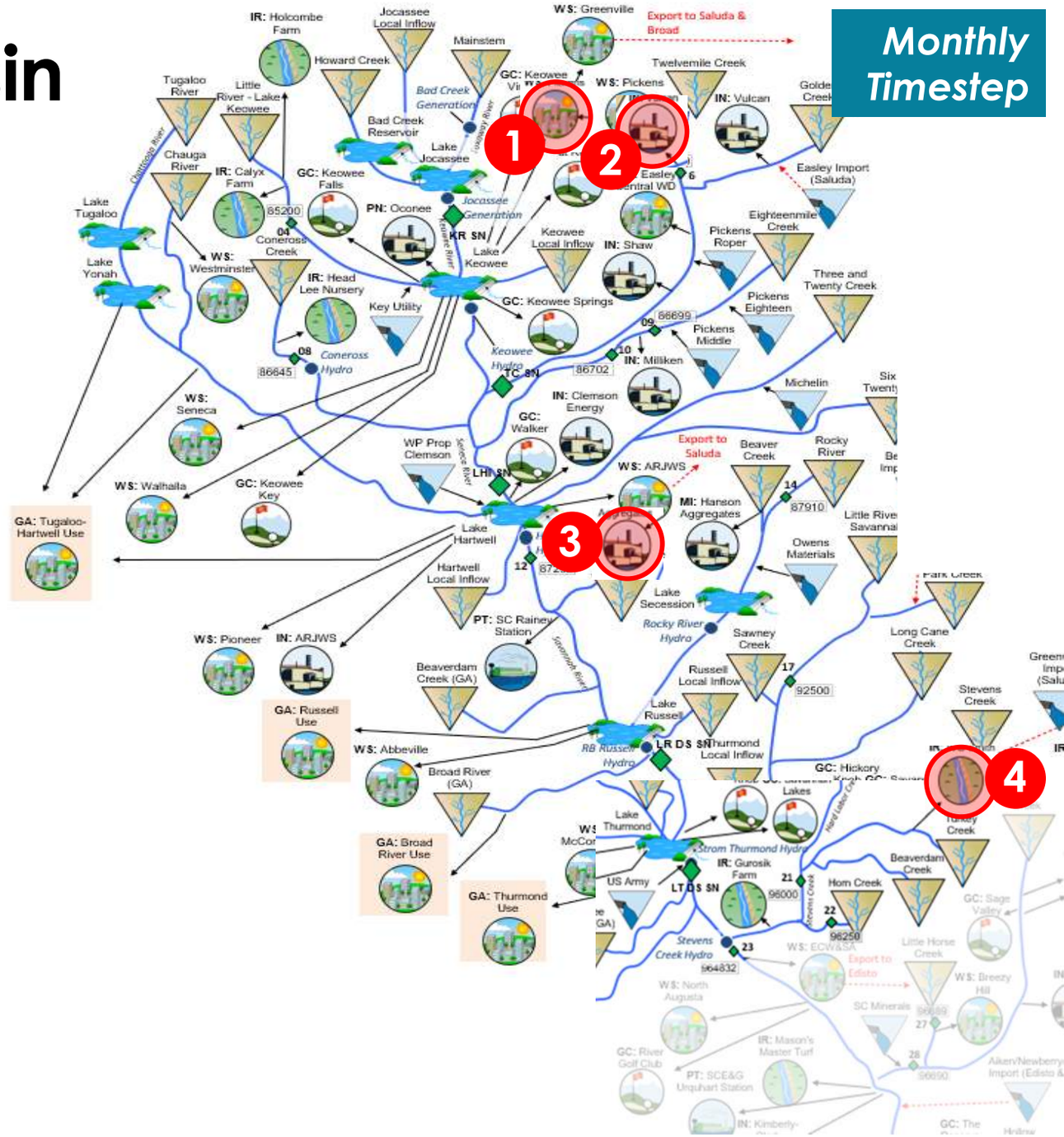
| Map ID | Water User | Max Shortage (MGD) | Frequency of Shortage |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

No Shortages



# Upper Savannah River Basin
## Permitted & Registered Scenario

Monthly Timestep




1 **Physical Shortage**

### Surface Water Shortage Table

| Map ID | Water User | Max Shortage (MGD) | Frequency of Shortage |
|---|---|---|---|
| 1 | WS: Pickens | 4.5 | 7% |
| 2 | IN: Vulcan | 1.3 | 11% |
| 3 | MI: Hanson Aggregates | 0.6 | 3% |
| 4 | IR: WG Smith | 0.1 | 1% |

# Upper Savannah River Basin
## 2070 Moderate Demand Scenario

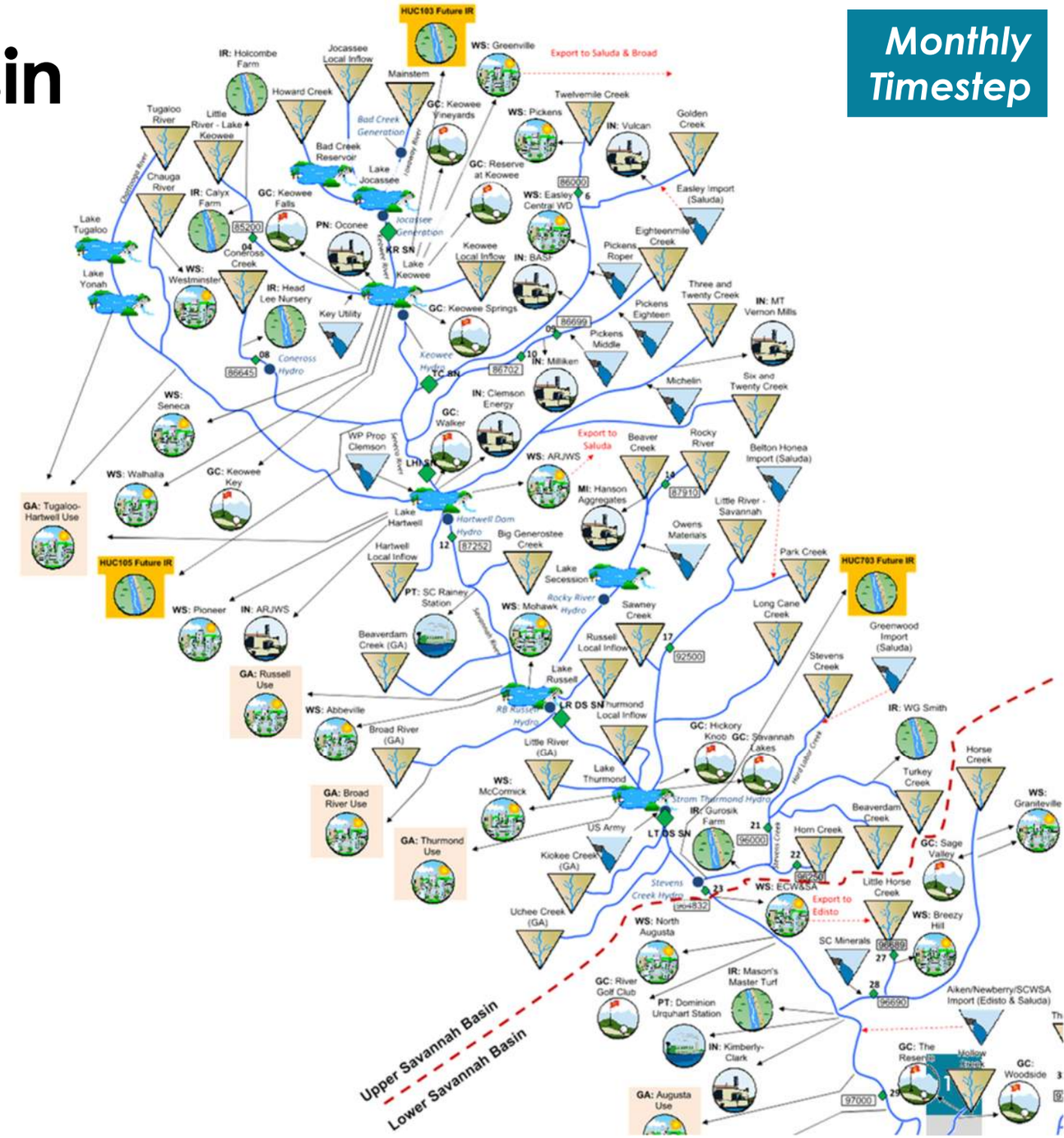
**Monthly Timestep**

**1** **Physical Shortage**

### Surface Water Shortage Table

| Map ID | Water User | Max Shortage (MGD) | Frequency of Shortage |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

No Shortages



# Upper Savannah River Basin
## 2070 High Demand Scenario

**Monthly Timestep**

### 1 Physical Shortage

### Surface Water Shortage Table

| Map ID | Water User | Max Shortage (MGD) | Frequency of Shortage |
|---|---|---|---|
| 1 | WS: Pickens* | 1.0 | 0.4% |
| 2 | IN: Vulcan | 2.5 | 12% |
| 3 | MI: Hanson Aggregates | 0.3 | 1% |

* In the next 3 to 4 years, Pickens will no longer rely on Twelvemile Creek as its source of surface water supply, and will instead withdraw from Lake Keowee, as part of the Pickens Joint Regional Water System, which will include Pickens County Water Authority, City of Pickens, Easley-Central Water District, Six Mile Rural Community Water District, and the City of Liberty.