

# Edisto River Basin Council

Meeting #11 (Virtual)  
February 17<sup>th</sup>, 2021

## Agenda

### *Meeting Objectives:*

- 1) Learn about DHEC's Safe Yield Calculations
- 2) Hear from RBC Member Jason Thompson Regarding Water Availability
- 3) Review the Updated Surface Water Scenario Results

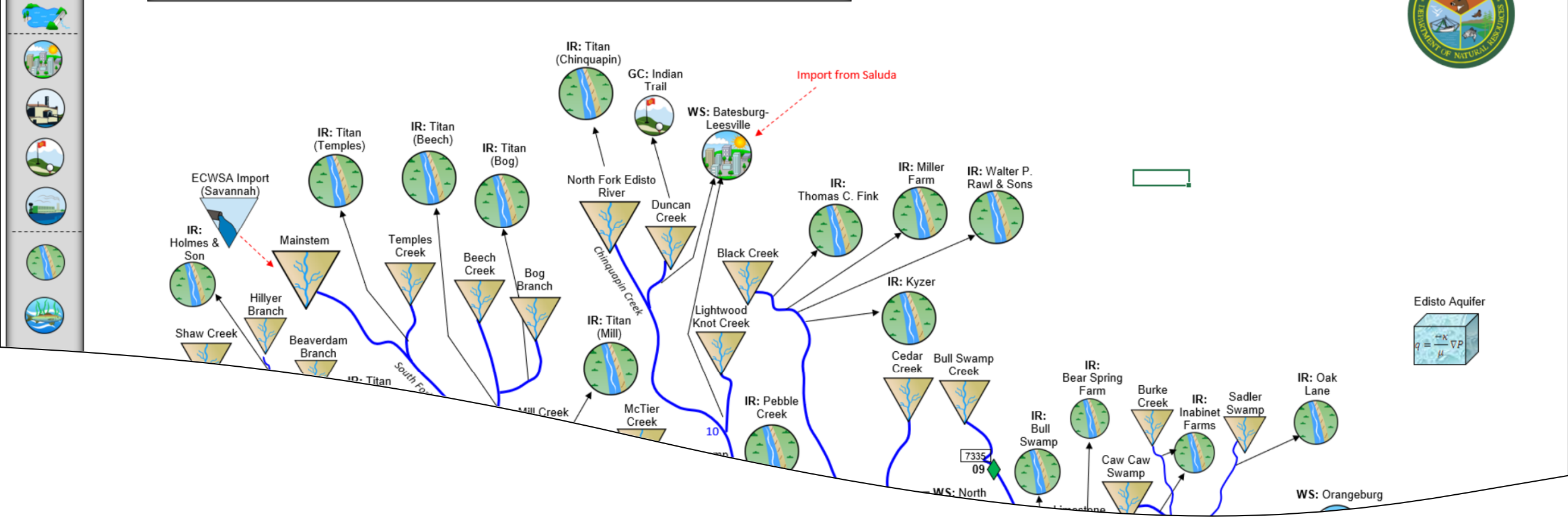
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|---|-------------|
| 1. Call the Meeting to Order (John Boyer, Facilitator)  | 9:00–9:05   |
| a. Review of Meeting Objectives   |             |
| b. Approval of Agenda   |             |
| c. Approval of January 27 <sup>th</sup> Minutes and Summary   |             |
| 2. Public Comment (John Boyer)  | 9:05-9:10   |
| a. Public Comment Period <sup>1</sup>   |             |
| 3. Safe Yield Calculations and Q & A (Alex Butler, SCDHEC)  | 9:10-9:35   |
| 4. Edisto River Basin Council and Water Availability and Q & A<br>(Jason Thompson, Edisto RBC member, Charleston Water) | 9:35-10:35  |
| *Break*   | 10:35-10:45 |
| 5. Review Updated Surface Water Scenario Results and Discussion (John Boyer)  | 10:45-11:55 |
| 6. Meeting Conclusion (John Boyer)  | 11:55-12:00 |



8/4/1931      12/31/2018

Daily Planning       Riparian Water Rights      **Run (Ctrl R)**

AF, AFM, AFD       MG, MGD, CFS       m<sup>3</sup>, m<sup>3</sup>/d, m<sup>3</sup>/s



# Updated Surface Water Scenario Results

# Updates

- **Updates for this set of model runs:**
  - Revisions to demands and sources for select water users (CWS and Cope Station)
  - Added the Canadys Station object and permitted withdrawal to the Full Allocation scenario
  - Strategic nodes (virtual flow gages) were added at the outlet of most HUC 10s
- **Two changes were made to model output:**
  - A 5<sup>th</sup> percentile low flow performance metric was added
  - Low flow percentile plots for all strategic nodes were generated
- **An Unimpaired Flow scenario was run**
- **All scenarios were run with no surface water conditions**

# Strategic Nodes

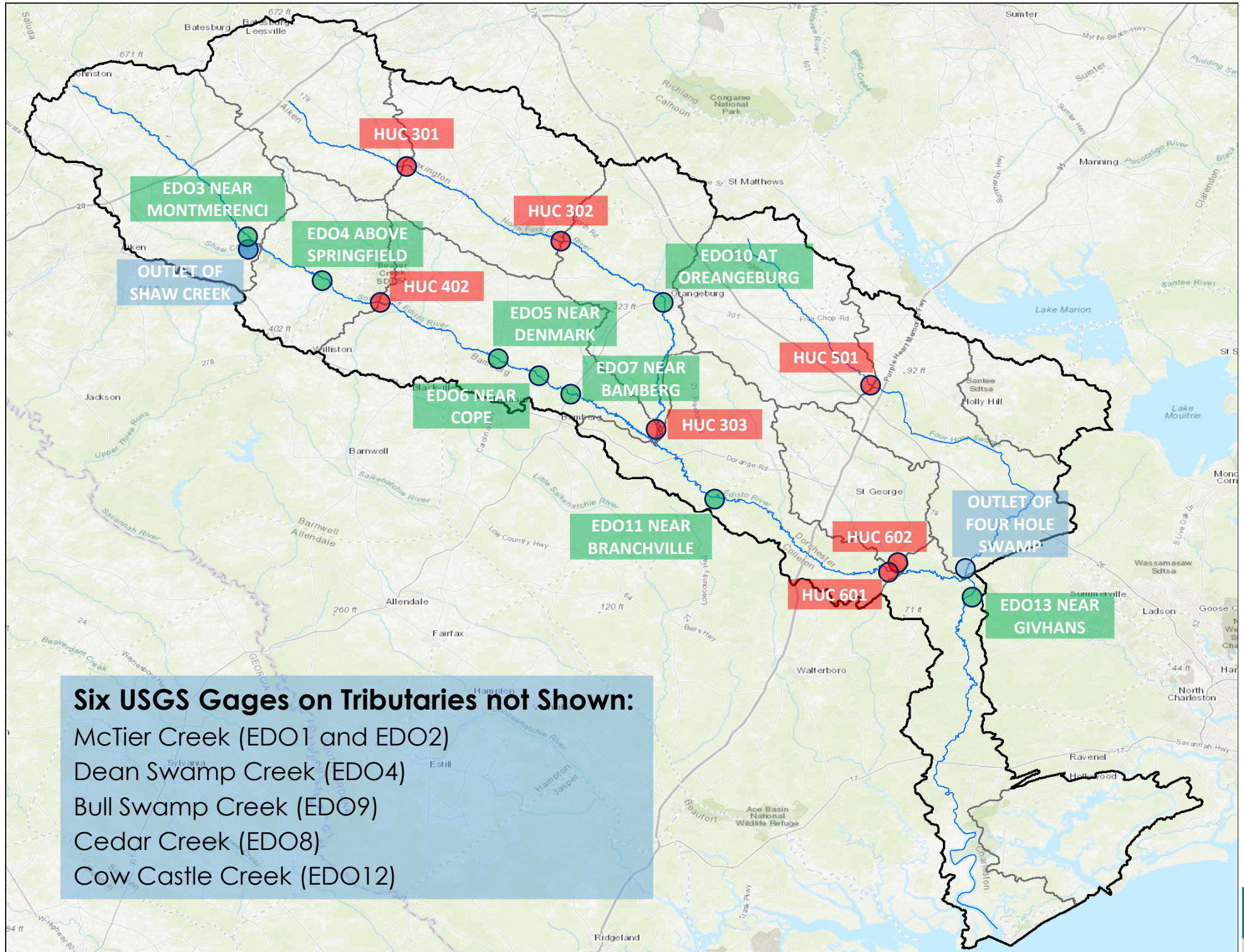
HUC 10 Outlet



USGS Gage (current or inactive)



Other Strategic Nodes



## Six USGS Gages on Tributaries not Shown:

McTier Creek (EDO1 and EDO2)

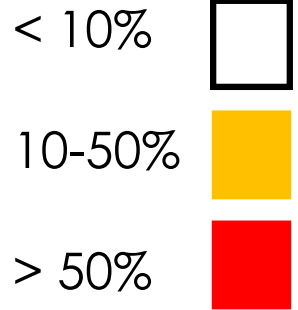
Dean Swamp Creek (EDO4)

Bull Swamp Creek (EDO9)

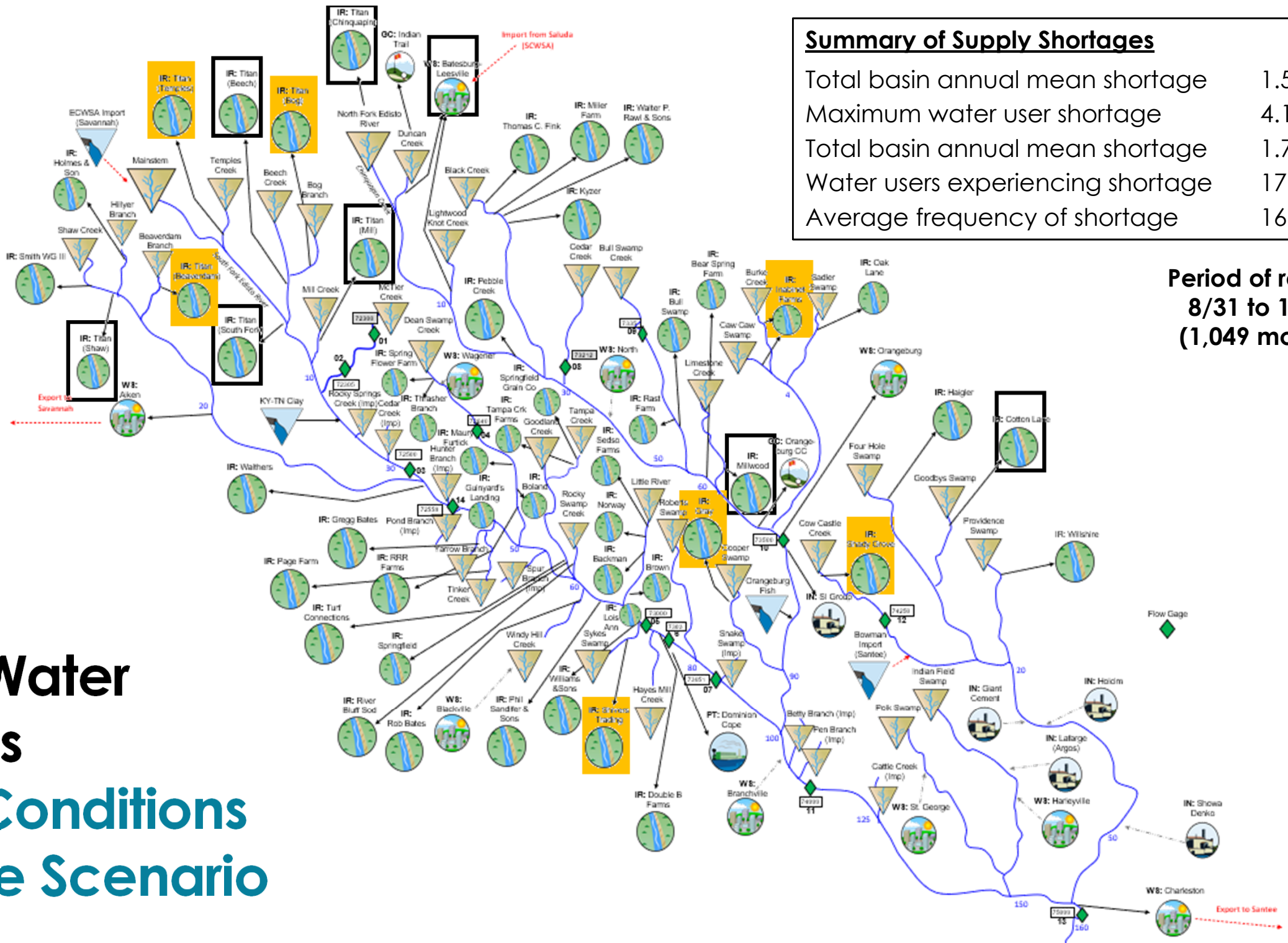
Cedar Creek (EDO8)

Cow Castle Creek (EDO12)

# Frequency of Shortage



# Surface Water Shortages Current Conditions Water Use Scenario

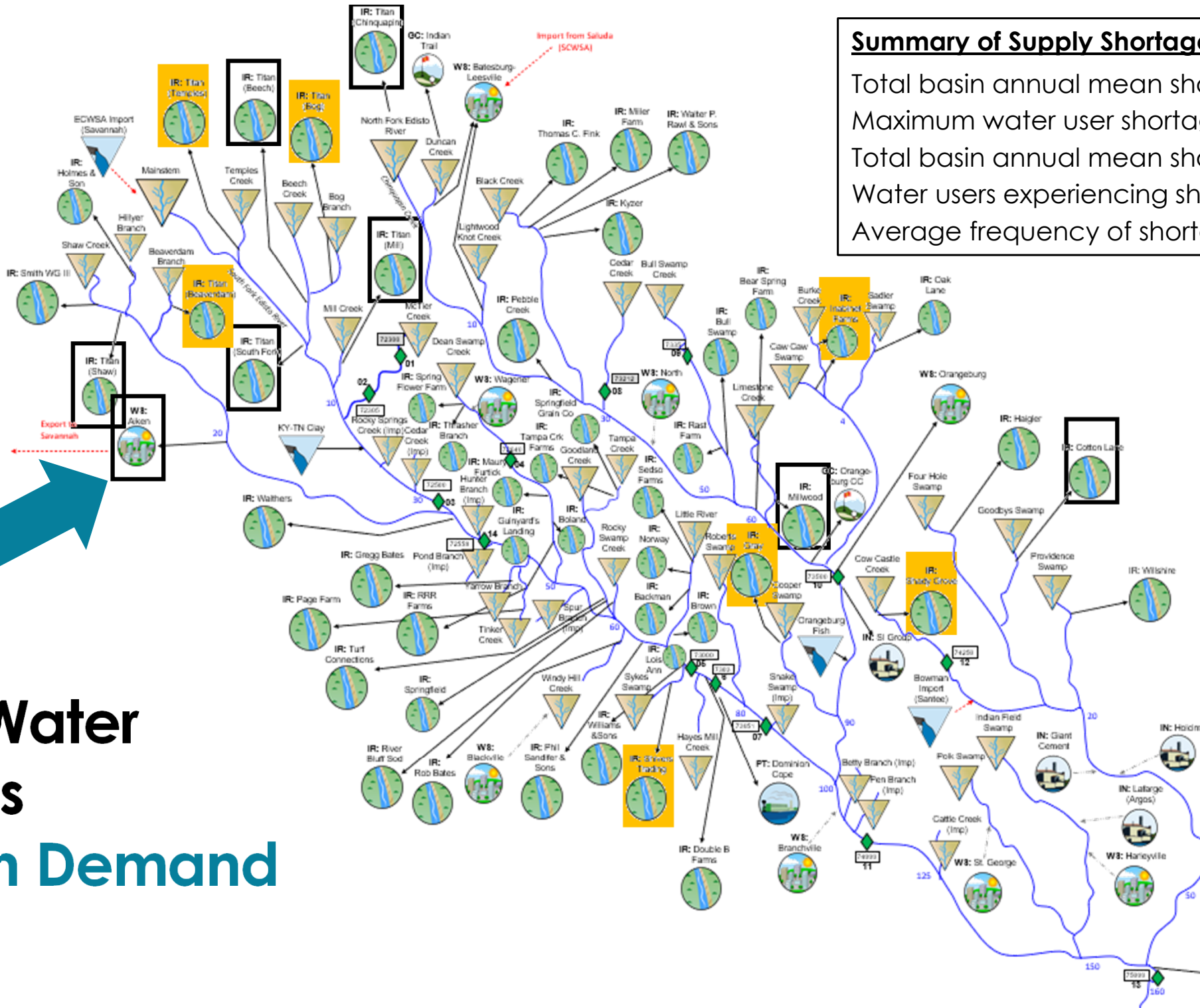
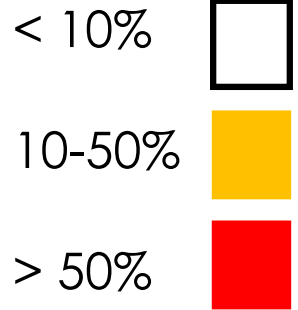


Total basin annual mean shortage	1.5 MGD
Maximum water user shortage	4.1 MGD
Total basin annual mean shortage	1.7%
Water users experiencing shortage	17.6%
Average frequency of shortage	16.7%

**Period of record:  
8/31 to 12/18  
(1,049 months)**



# Frequency of Shortage

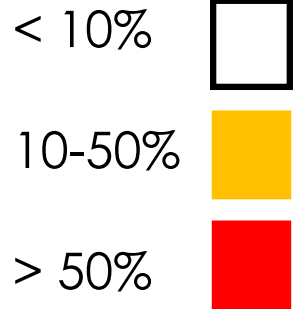


Summary of Supply Shortages	
Total basin annual mean shortage	1.55 MGD
Maximum water user shortage	5.1 MGD
Total basin annual mean shortage	0.7%
Water users experiencing shortage	19.7%
Average frequency of shortage	13.4%

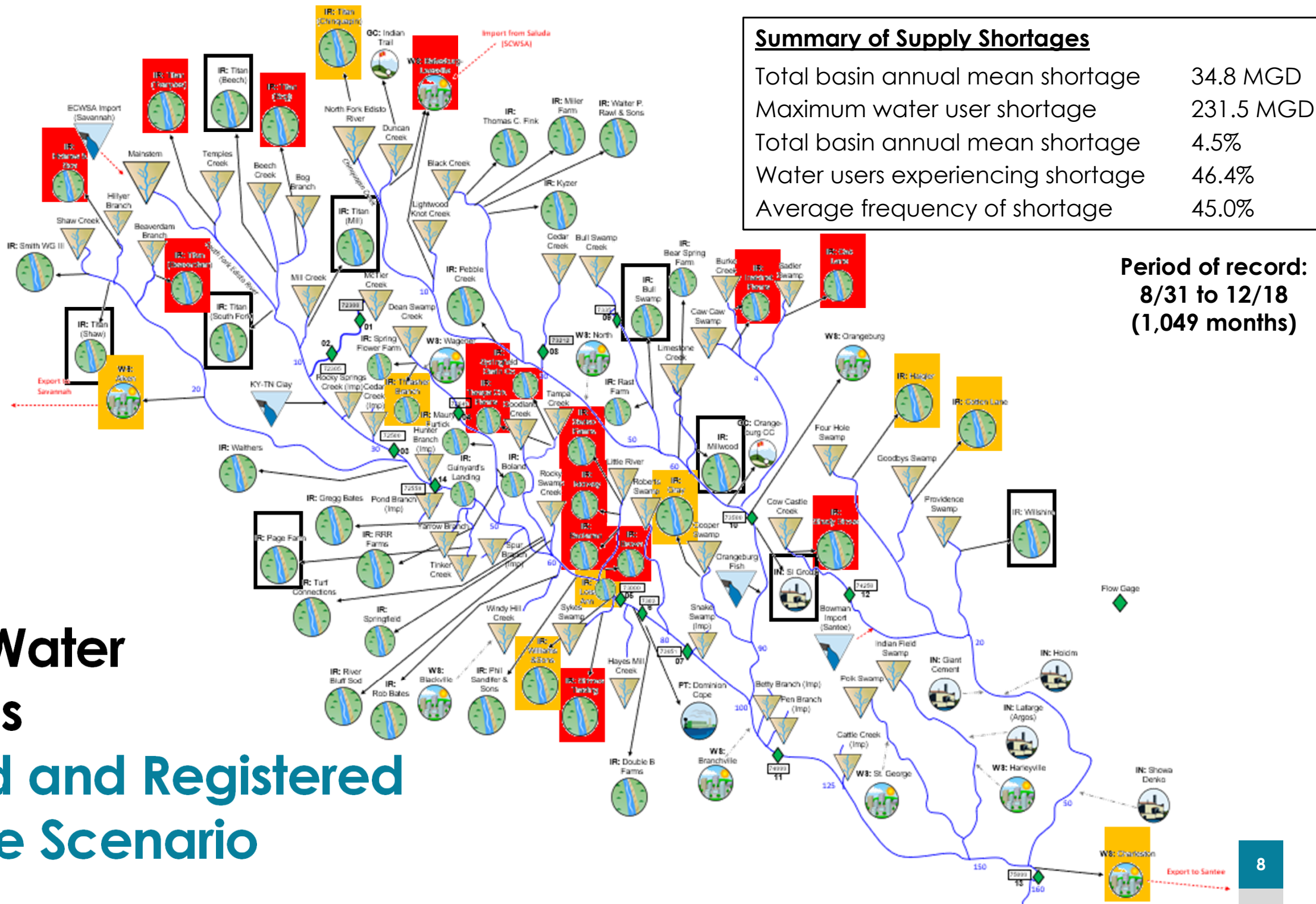
**Period of record:**  
**8/31 to 12/18**  
**(1,049 months)**

# Surface Water Shortages 2070 High Demand Scenario

# Frequency of Shortage



# Surface Water Shortages Permitted and Registered Water Use Scenario



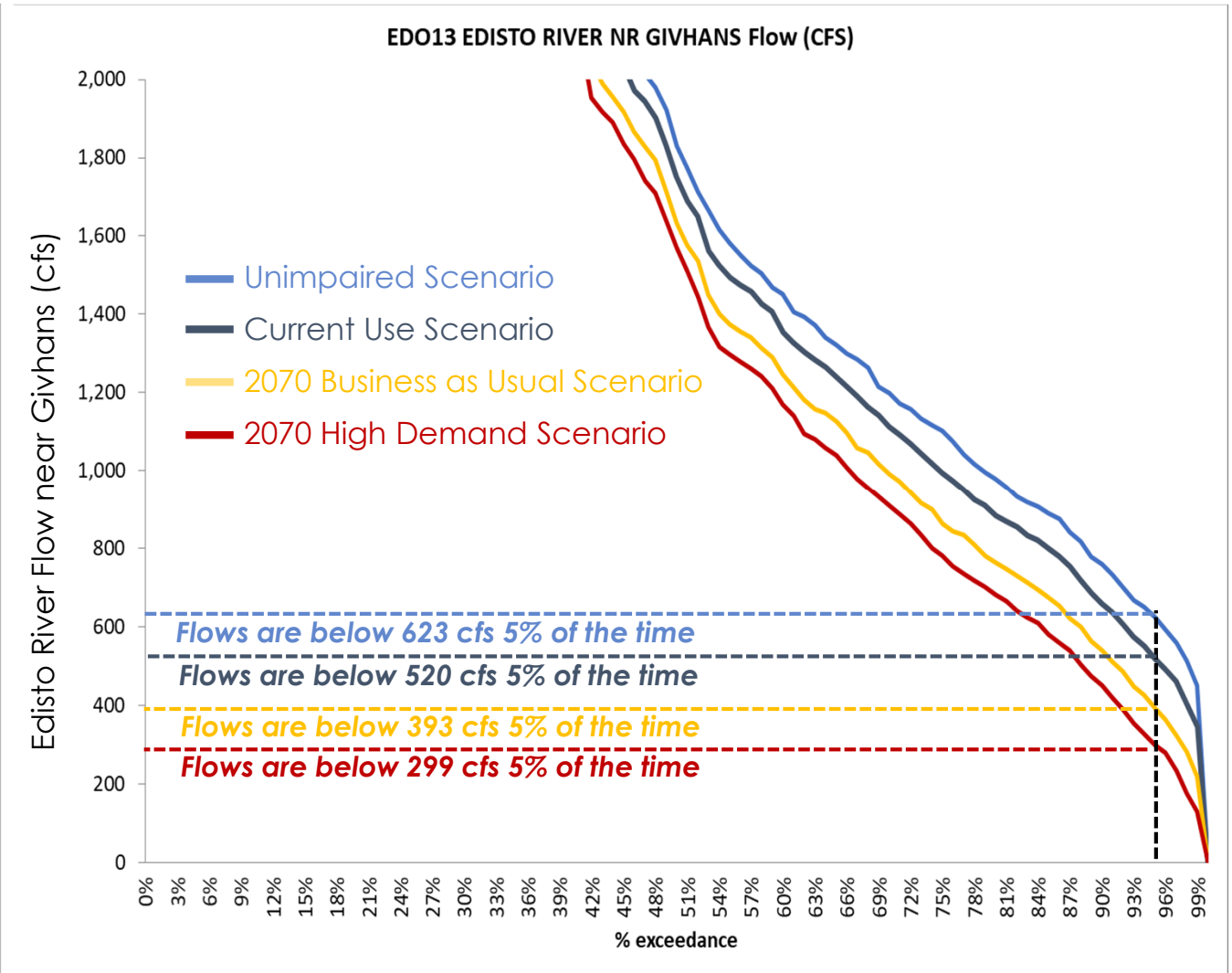
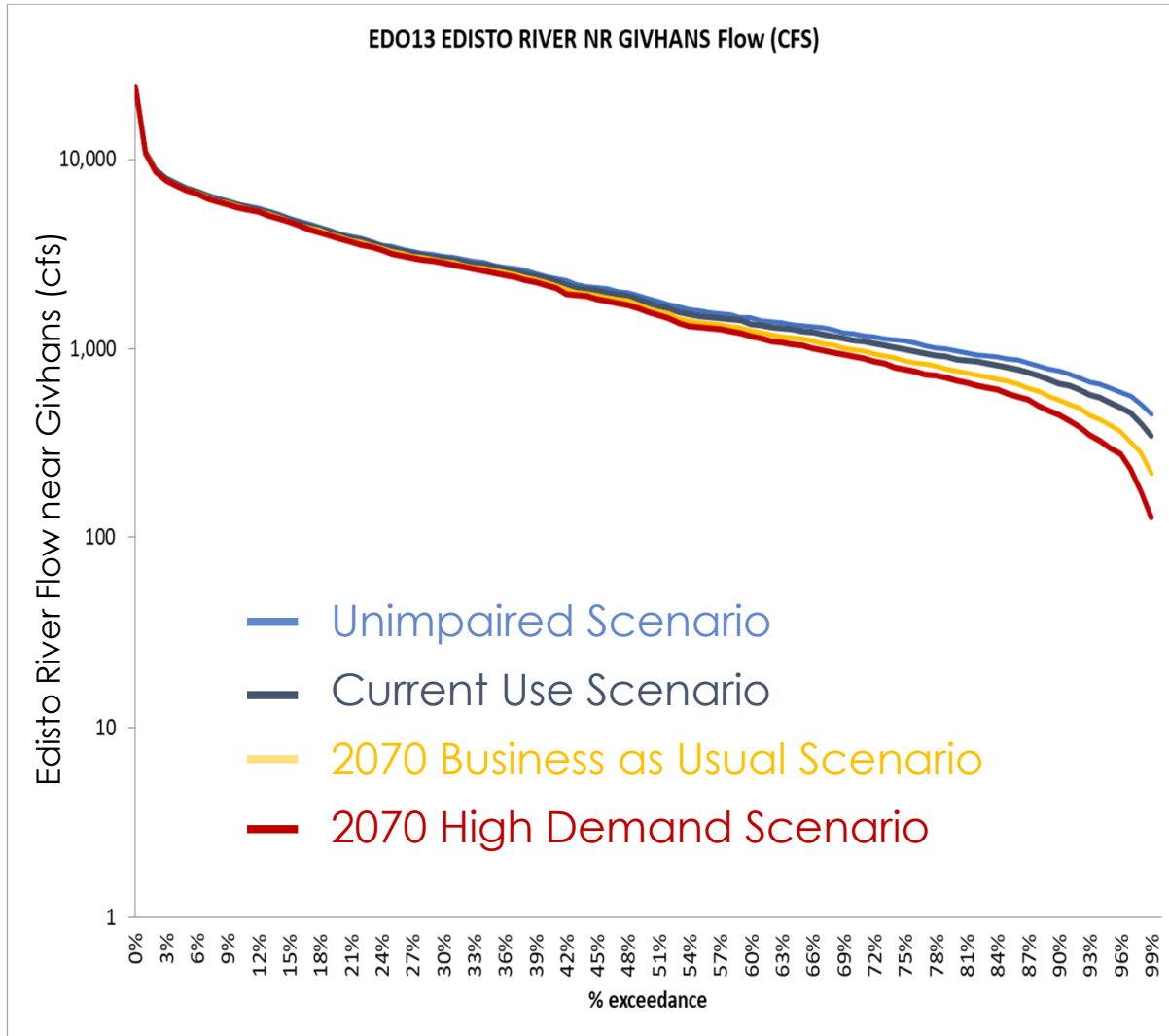


# Results

- A closer look (exceedance graphs, monthly)



Edisto River near Givhans



# Next Edisto RBC Meeting

Wed, Mar 24 (Tentative)

## Informational Topic

- |   |                                |
|---|--------------------------------|
| • Groundwater Availability Assessment – Approach and Modeling | USGS                           |
| • Environmental Flows Study Update                            | TNC, Clemson and Collaborators |

## RBC Discussion