



# Discussion of Next Steps

John Boyer

*Agenda Item 6*



# Next Steps

- Continue to review the preliminary modeling scenario results
- Evaluate **flow-ecology metrics** using SWAM model daily timestep results for each planning scenario

## Other analyses that can be performed at RBC request:

- Determine how often simulated flows under each scenario drop below the Minimum Instream Flows (MIFs) (even though water users in the basin are not subject to them).
- Evaluate additional demand scenarios.
- Evaluate impacts to reservoir levels if historical droughts were longer
- Evaluate safe yield for other reservoirs

As additional information is presented, the RBC should continue to consider if there is reason to establish one or more **Reaches of Interest** or **Surface Water Condition** at any location.

| N. Tyger River below Wellford (15 yrs) |      |
|--|------|
| UIF                                    | 0.5  |
| Current                                | 5.5  |
| 2070 Mod                               | 3.4  |
| 2070 HD                                | 12.9 |
| P&R                                    | 70.2 |

| N. Pacolet River near Fingerville (92 yrs) |     |
|--|-----|
| UIF  | 0   |
| Current                                    | 0.3 |
| 2070 Mod                                   | 1.6 |
| 2070 HD                                    | 3.3 |
| P&R  | 1.9 |

| S. Tyger River below Duncan (21 yrs) |      |
|--------------------------------------|------|
| UIF                                  | 0.5  |
| Current                              | 4.9  |
| 2070 Mod                             | 8.4  |
| 2070 HD                              | 8.4  |
| P&R                                  | 10.7 |

| Middle Tyger River near Lyman (22 yrs) |      |
|--|------|
| UIF                                    | 1.5  |
| Current                                | 6.3  |
| 2070 Mod                               | 19.8 |
| 2070 HD                                | 40.3 |
| P&R                                    | 47.8 |

Years of gage data used to calculate the MIF

| Pacolet River near Saratt (10 yrs) |      |
|------------------------------------|------|
| UIF                                | 4.4  |
| Current                            | 9.9  |
| 2070 Mod                           | 9.2  |
| 2070 HD                            | 9.9  |
| P&R                                | 17.9 |

Percent of days below MIF for the location

| Enoree River near Whitmire (49 yrs) |     |
|-------------------------------------|-----|
| UIF                                 | 6.6 |
| Current                             | 4.5 |
| 2070 Mod                            | 3.5 |
| 2070 HD                             | 3.4 |
| P&R                                 | 7.0 |

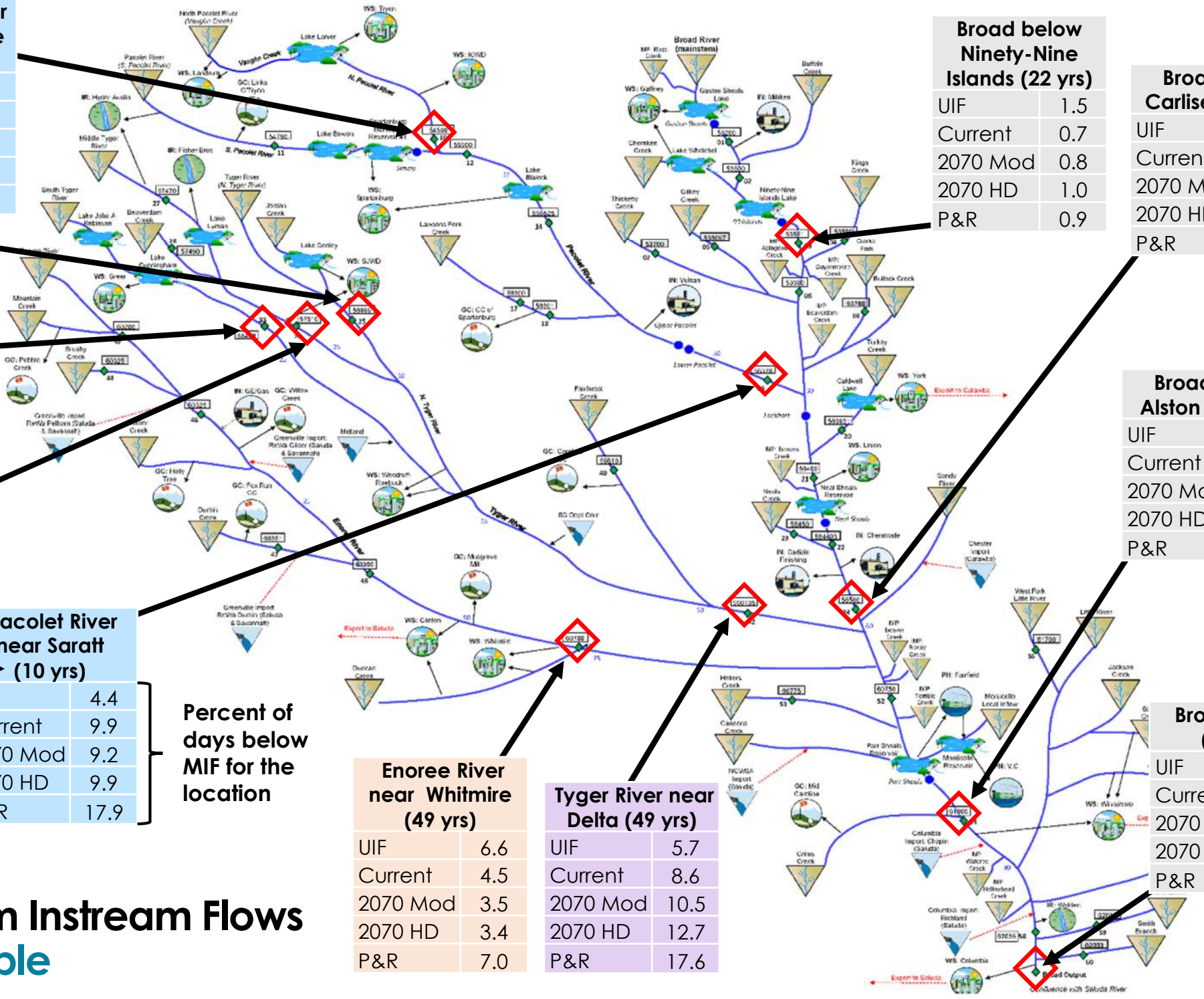
| Tyger River near Delta (49 yrs) |      |
|---------------------------------|------|
| UIF                             | 5.7  |
| Current                         | 8.6  |
| 2070 Mod                        | 10.5 |
| 2070 HD                         | 12.7 |
| P&R                             | 17.6 |

| Broad below Ninety-Nine Islands (22 yrs) |     |
|--|-----|
| UIF                                      | 1.5 |
| Current                                  | 0.7 |
| 2070 Mod                                 | 0.8 |
| 2070 HD                                  | 1.0 |
| P&R                                      | 0.9 |

| Broad near Carlise (84 yrs) |     |
|-----------------------------|-----|
| UIF                         | 4.0 |
| Current                     | 6.1 |
| 2070 Mod                    | 6.6 |
| 2070 HD                     | 7.2 |
| P&R                         | 7.9 |

| Broad near Alston (42 yrs) |     |
|----------------------------|-----|
| UIF                        | 3.7 |
| Current                    | 6.7 |
| 2070 Mod                   | 7.1 |
| 2070 HD                    | 7.7 |
| P&R                        | 9.3 |

| Broad Outlet (11 yrs) |      |
|-----------------------|------|
| UIF                   | 2.9  |
| Current               | 5.8  |
| 2070 Mod              | 6.4  |
| 2070 HD               | 7.6  |
| P&R                   | 10.5 |



# Comparison to Minimum Instream Flows Broad River Basin Example



# Reaches of Interest

Specific stream reaches that may have no identified *Surface Water Shortage* but experience undesired impacts, environmental or otherwise, determined from current or future water-demand scenarios or proposed water management strategies.

Could be related to:

- Recreational flows
- Ecological / in-stream flows
- Designation as a Scenic River
- Other factors

# Surface Water Condition

A limitation, defined by the RBC, on the amount of water that can be withdrawn from a surface water source and which can be applied to evaluate **Surface Water Supply** for planning purposes.

