



# Working slides from Saluda RBC 9/18 Workshop

For distribution to group for further work/consideration

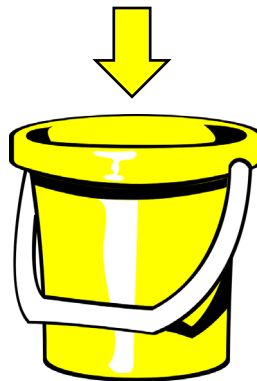
# Green, Yellow, Red Bucket

1. All recommendations need to be clear (not ambiguous) and measurable to benchmark our successful completion/implementation.
2. We should also note key or priority recommendations so it's clear what we as an RBC deem most important.

- **Recommendation needing only minor revision(s)**
- **Clear RBC consensus**



- **Not full RBC support**
- **May revisit to see if consensus can be achieved with revisions**



- **Minimal RBC support**
- **No clear path to consensus**
- **Drop**



# Options for Yellow Bucket Recommendations

**Edisto RBC's Approach:** For certain policy, legislative and regulatory recs, the RBC did not reach consensus but decided to include the rec in the Plan along with a discussion of why it **was supported** or **not supported**.

**Broad RBC's Approach:** Consensus was important to them. If a rec did not have consensus (any member could not “live with” it), it was excluded from the Plan. This only happened for a few recs.

# Additional Option for Yellow Bucket Recs

1. **Edisto**: Include non-consensus items with pro/con notes and pie-chart votes
2. Option: Include non-consensus items with pro/con notes only
3. **Broad**: No inclusion without consensus



# Planning Process Recommendations

# Potential Recommendations for Discussion

## Continued Funding

- To continue positive progress at the state level for ~~watershed~~ **river basin** planning and ~~general environmental protection~~, the RBC calls for a state led assessment of the current funding to SCDES **to support river basin planning**. A memorandum should be prepared explaining the funding needed to support our growing population and critical activities including the funds needed to implement the basin recommendations provided in the plans.

### RBC DISCUSSION NOTES

- Communication between RBCs and DES about funding
- Request that the Legislature continue funding the planning process.
- Seed grant example (GA EPD)
- **FINALIZED AS IS IN THE GREEN BUCKED ON 9/18**



# Potential Recommendations for Discussion

## Building on Resiliency Planning Efforts

- The RBC recommends that as part of the comprehensive planning process that each local jurisdiction across the state consult both the Resilience Plan developed by the South Carolina Office of Resilience, **local Hazard Mitigation Plans**, and the associated river basin plan(s) developed by the RBCs for inclusion within the resilience element as required by the South Carolina Local Government Comprehensive Planning Enabling Act as amended in 2020. **Encourage** land use **regulations and corresponding ordinances be** adjusted to support the resilience element.

### RBC DISCUSSION NOTES

- There was a suggestion to also reference the local Hazard Mitigation Plans in the recommendation
- There was support for this recommendation, however, the RBC elected to revisit it later
- This rec was placed in the green and yellow buckets, recognizing that it may need additional discussion and wordsmithing
- **MODIFIED AS SHOWN AND PLACED IN GREEN BUCKET 9/18.**





# Technical Recommendations



# Questions and Ideas for Discussion (that May Lead to Recs)

## Groundwater Resources

In future planning phases, the RBC recommends understanding the potential impacts of private and community/commercial wells, and how they may affect surface water (especially during droughts) and/or better characterize growth potential.

### RBC DISCUSSION NOTES

- RBC Acknowledges that implementation plan will include opportunity to prioritize.
- **PLACED IN GREEN BUCKET 9/18.**



# Questions and Ideas for Discussion (that May Lead to Recs)

## Water Quality –CDM to consolidate text for discussion at next mtg.

**TECHNICAL:** Consider coordinating with DES to define data gaps and possible avenues for filling gaps in future phases. Identify/restore programs that help educate



**POLICY:** Yellow Bucket (text TBD before further discussion)

- Suggest that SCDES develop a spatial data set for septic tank locations, and age for a baseline understanding for potential failing clusters of septic systems.
- Advocate for state funding to support smaller tributary sampling and other areas without much sampling data (“Adopt a stream” – citizen science approved by USEPA)
- Advocate for more regular funding/monitoring by DES monitoring group: chemical assessments that render reaches to meet designated uses. (Include funding restoration for conservation districts, water Atlas )
- Catalogue water bodies that are and are not regularly monitored
- Encourage nexus with water quantity and its relationships to water quality (similar to habitat suitability relationships) – could include runoff analysis and relationships with sedimentation



**RBC DISCUSSION NOTES 9/18: YELLOW BUCKET, BUT DIVIDED INTO MANAGEABLE PIECES.**

- Divide into two (or more) recommendations: One technical (data gaps), and one on policy.
- **CDM Smith to further develop policy language for discussion at next meeting.**



# Policy/Legislative/Regulatory Recommendations

# Policy, Legislative, or Regulatory Recommendations

## EXAMPLES: Recommendations identified by the Broad RBC:

- The South Carolina Surface Water Withdrawal, Permitting, Use, and Reporting Act should allow for reasonable use criteria to be applied to all surface water withdrawals, like those that currently exist for groundwater withdrawals.
- Laws that allow for regulation of water use need to be enforceable to be effective. The current water law, which grandfathers most water users, can be improved to support effective management of the state's water resources.
- Water law and implementing regulations should not distinguish between registrations and permits. All water users that withdraw above the identified threshold should be required to apply for a water withdrawal permit.
- The Broad RBC or the PPAC should develop a model riparian buffer ordinance for local jurisdictions to consider.
- The water withdrawal permitting process should specifically assess the permit application's alignment with the current River Basin Plan, particularly regarding proposed withdrawals, returns, resource conservation, and drought response.



# Potential Recommendations for Discussion

## Allocation of Surface Water Resources (YELLOW – CONSIDER DIVIDING INTO GENERAL AND SPECIFIC RECOMMENDATIONS ON REVIEW OF PROCEDURES IN OTHER STATES and SPECIFIC ALTERNATIVES, IF ANY.)

- Safe yield is a concept originally developed for reservoirs and groundwater and was later applied to streams and rivers. It is defined as the “amount of water available for withdrawal from a particular surface water source in excess of the minimum instream flow or minimum water level for that surface source” and is the basis for the South Carolina Surface Water Withdrawal, Permitting Use, and Reporting Act. This terminology has led to lawsuits and is not grounded in science, nor does it account for the flashiness of the river system. Keeping ‘safe yield’ as a basis for our surface water allocations could result in additional lawsuits, dewatering, and/or over allocation. ~~This concept should be eliminated from state law and~~ **SCDES/RBCs/Other (TBD in implementation) should study peer states/basins for information and alternative methods for allocating surface water resources to inform specific science-based recommendations in the State Water Plan (report to legislature in advance by X).**

### RBC DISCUSSION NOTES

- This rec was placed in the yellow bucket to be discussed later when the RBC considers recommendations about surface water law and regulation.



# Notes

- Remove safe yield as a metric as a means of implementing regulations – rely instead on minimum instream flows (to be revised based on best available science)
- Concern about removing entirely – consider replacing
- Concern about opening up an act revisions without clear alternative.
- Safe Yield Work Group (DHEC): “There could be marginal improvements but they were unlikely to result in any substantial change.”

# Potential Recommendations for Discussion

Can likely get to green – need clear language, motivations

## Land/Water Management Laws, Regulations, Policies, and Manuals

- The RBC recommends that SCDES perform a benchmark analysis of our statewide water law, regulations, policies and manuals including but not limited to, riparian buffer protection, aquatic resource alterations, mass grading construction activity review, other land disturbance activities, and the Storm Water Management BMP Field Manual. Documents should then be updated to incorporate recommendations from each of the basin councils and industry standards, providing examples to assist recommendations that are directed at municipalities – should focus on managing runoff, encouraging infiltration, and reducing sedimentation

### RBC DISCUSSION NOTES 9/18

- Reconfigured title to emphasize the land/water nexus (earlier suggested all-encompassing water policy).
- This recommendation remained in the yellow bucket on 9/18 for further discussion. Agreed that it can likely get to green with clear language are articulated motivations.



# Potential Recommendations for Discussion

## Revisions of Stormwater Mitigation and Groundwater Recharge Strategies

The RBC requests a call to action to each local jurisdiction within the basin to review their ordinances and design guidelines and consider inclusion of the following stormwater mitigation and groundwater recharge strategies:

- a. Riparian Buffers - A vegetated area of land that is adjacent to a body of water. Riparian buffer help filter pollutants from runoff, reduces erosion, stabilizes streambanks, reduces flooding, and provides valuable riverside habitat for native plant and animal species.
- b. Green Infrastructure - The Water Infrastructure Improvement Act of 2019 by the 115th Congress defines green infrastructure as "the range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspire stormwater and reduce flows to sewer systems or to surface waters."
- c. Tree ordinances that evaluate tree canopy coverage as a stormwater mitigation tool. Consideration to the Green Infrastructure Center and the US Forest Service's Southern Region Trees 2 Offset H2O studies as a starting point is recommended.

### RBC DISCUSSION NOTES

- This rec was placed in the yellow bucket to be discussed later.





**THE RBC did not address the following slides on 9/18. Focused on the ones above, and comments on Chapters 4 and 8.**

# Questions and Ideas for Discussion (that May Lead to Recs)

## Water Utility Policies

- **The RBC encourages utilities to build resilience to ensure adequate quantity of water through identification of alternative sources including interconnections.**
- **The RBC encourages consideration of regionalization opportunities among water utilities.** Regionalization is one tool to better manage the availability of water resources and build resilience.
- What recent policy changes/performance changes has each water utility already implemented within the basin that could be considered as a basin wide recommendation?

### RBC DISCUSSION NOTES

- During discussion, the RBC identified and expressed support for establishing interconnections and for regionalization. CDM Smith will draft these into more formal recommendations for further RBC consideration.



# Questions and Ideas for Discussion (that May Lead to Recs)

## Flow Statistics

Is there value in a periodic review of basin flow characteristics (over a more condensed recent past ~30ish years)?

Does 7Q10 really make sense as we plan for the future, especially as we consider the distant (75+ year) past data?

Stream and river systems change over time, if we are incorporating stream data within the 7Q10 analysis that experienced significant change (installation of a dam, channel straightening, significant land use change) are we really getting an understanding of what could be the future flow?

Use of median flow rather than mean for water allocation...

### RBC DISCUSSION NOTES

- There was discussion regarding a recommendation about focusing the analysis using hydrologic data from only the past 30-years, recognizing that land use changes and climate trends over the last 30 or so years may be more useful for modeling purposes, than using hydrologic data from 30-90 years ago.
- The September RBC meeting will resume with this discussion.





# Other Questions that May Lead to Recommendations

# Questions and Ideas for Discussion (that May Lead to Recs)

## Data (SEE IDEAS ON NEXT SLIDE)

What data are we missing?

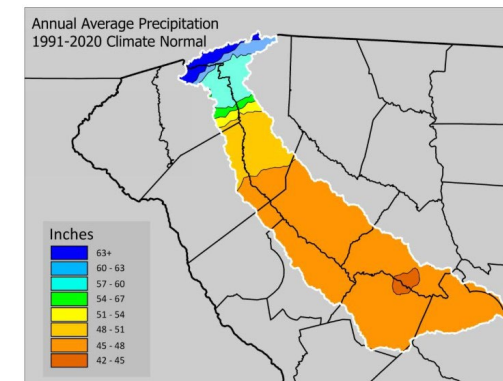
What data gaps do we have and how can we improve upon our data collection and analysis to be a better-informed RBC (and even beyond the Saluda basin to assist with statewide decision making)?

How can we maximize this data collection with stakeholders to consider cost and time implications?

# Questions and Ideas for Discussion (that May Lead to Recs)

## Potential Data Gaps to Fill:

- More USGS gauges – where?
  - Better understanding of agricultural resilience with their farm ponds?
  - Better understanding of the “non-consumptive” users and the quantity returned to the system?
  - What data in SWAM is the most inaccurate? How can we fix that through better data gathering?
  - How can we think forward about water quality concerns and gathering data that benefits both quality and quantity implications and is more efficient?
  - Data transparency for allocated versus used for water permit holders
- Data transparency for both groundwater and surface water withdrawal reporting with a clear list of who is compliant for users withdrawing greater than 3 MGM.
  - Would data from those withdrawing less than 3 MGM be helpful?
  - More sampling? – what and where?
  - A lot of gaps in this report – how often could this be updated? Needed? Changes to it?  
<https://des.sc.gov/sites/des/files/media/document/Safe%20Yield%20Report.pdf>
  - We have little data on flow characteristics, and the tributaries midway and lower in the basin have substantially lower annual rainfall than the headwaters (see map).



# Questions and Ideas for Discussion (that May Lead to Recs)

## Data

Could SCDES improve upon the SC Watershed atlas to include additional permit/registration information including violations, consent orders, consent decrees, for public consumption and transparency?

# Questions and Ideas for Discussion (that May Lead to Recs)

## Collaboration

Did we experience anything with the recent drought this summer and subsequent heavy rains from Debby that should aid us in considering any specific recommendations?

Cross basin collaboration. Who, what frequency, intent – we talked about this at the June meeting but need to further develop.



# Questions and Ideas for Discussion (that May Lead to Recs)

## Collaboration

What is the RBC's role and SCDES's role in education and citizen science initiatives and how can those be funded? How can we build off existing success (like adding CMOR to Adopt-A-Stream?)

- CoCoRaHS? – promote this citizen science tool? It's already being widely used in SC – not sure who is already promoting this <https://maps.cocorahs.org/>
- Photo comparison with QR coded sign? <https://www.chronolog.io/> Consider pilot at Unity Park with City of Greenville/Friends of the Reedy River.
- Statewide educational strategy? – We could consider endorsing several specific educational tools and determine our role in getting the word out (<https://www.projectwet.org/>)
- The city of Greenville has a stormwater credit policy (NOTE – Friends of the Reedy River is going to help them update this policy during the FY24/25 fiscal year. The current policy endorses several educational tools – I'm sure that list will be updated.  
<https://www.greenvillesc.gov/DocumentCenter/View/1265/Stormwater-Fee-Credit-Policy-PDF?bidId=>

# Questions and Ideas for Discussion (that May Lead to Recs)

## Land Use

Could a land use analysis be performed to determine the breakdown of zoning (by type and municipality) including unzoned acreage and then assign projected increases in water demand based on projected land use conversion trends?

Very generally – what needs to be a state statute versus a regulation?

Model ordinances – who could create a list of these for other municipalities to consider – could be a good collaboration with the South Carolina Chapter of the American Planning Association?

Example: Green Space Program Ordinance – Beaufort County  
<https://beaufortcountysc.gov/archives/county-government/administration/ordinances/2022/39.pdf>

# Questions and Ideas for Discussion (that May Lead to Recs)

## Riparian Water Rights

We could consider benchmarking SC protection for riparian buffers to similar states – figure out where we fit, and we should take steps to get ourselves to being the best in the southeast?

Rethinking our regulated riparian water rights.

- How do we want to respond to the changing demands and the existing expectations from current users?
- How does the regulated part need to advance? Both overreaching and inadequate legal response will produce social turmoil and will not balance private values and public values. Is there a way to balance this?

# Questions and Ideas for Discussion (that May Lead to Recs)

## The South Carolina Surface Water Withdrawal, Permitting Use, and Reporting Act

The Act does not treat new users and pre-2011 users the same. This is detrimental for several reasons including the basis that it is not standard across the board (could lead to litigation) and could cause issues down the road for future economic development purposes. Fees should be standard, allowed withdrawal should be consistent, and reporting should provide the state and RBCs with the data required to make informed decisions.

What can be done to eliminate the inconsistency?

# Questions and Ideas for Discussion (that May Lead to Recs)

## The South Carolina Surface Water Withdrawal, Permitting Use, and Reporting Act

**Idea:** For agricultural users perhaps pilot a meter tracker so we better understand withdrawal – could incentivize this program. That could help determine changes to the registration system or leading to agricultural users becoming part of the permitting system.

What could conversion to a permitted system for agricultural users look like? How could we pilot?

What would it mean to require agricultural users to have a contingency plan and to include farm ponds in that plan? What could the data gathered do for us to help us better understand farm resiliency and where we have redundancy during times of drought? How are farm ponds being filled (from groundwater?)

# Questions and Ideas for Discussion (that May Lead to Recs)

## The South Carolina Surface Water Withdrawal, Permitting Use, and Reporting Act

Could SCDES work with basins statewide to develop a permit system that works for everyone and eliminates grandfathered water users? Is there data available to show that a permit system or a revised registration process would be more protective of agricultural water access as we plan for the future?

Is SCDES able to administer/enforce the regulations (both permit and registered users) as they are required today? If not, why?

# Questions and Ideas for Discussion (that May Lead to Recs)

## The South Carolina Surface Water Withdrawal, Permitting Use, and Reporting Act

Could SCDES work with agricultural economists to better understand the potential future demands for agricultural and how that impacts how we should adjust the registration process?

Upstream water withdrawals that are grandfathered, unregistered, or unpermitted are not required to leave enough water for downstream users – this is an inherent flaw in the registration process. Changes to the registration process could satisfy several interests groups, benefiting all in the long term.

How do the agricultural representatives on the RBC that are grandfathered feel about the post-2011 requirements for agricultural users? What could be changed?





# Upcoming Meeting Schedule



# Saluda RBC Meeting #18

Wed, October 30, 2024

*Meeting location LCWSA Office, Laurens*

## Discussion Topics

- Introduce Chapters 5 and 6 (and maybe 7)
- Continue discussion and development of Policy, Regulatory and Legislative Recommendations
- Begin development of Implementation Plan (time permitting)