

South Carolina's Climate Trends and Variability

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 SC Department of Natural Resources



STATION	THERMOMETER			REGISTER			DEW POINT		WIND	WEATHER	RAINFALL	
	TEMP.	WIND	WIND	TEMP.	TEMP.	TEMP.	TEMP.	TEMP.				
30101	58	64	58	64	53	66	54.0	N.E. 2	S.E. 2	Cloudy		
30102	61	73	68	62	59	75	59.2	N. 1	S.E. 2	Fair		
30103	62	57	53	62	57	62	55.7	N.E. 2	N.E. 3	Rain	0.18	
30104	57	57	56	53	57	56	47.2	N.E. 2	N.E. 3	Cloudy		
30105	56	61	57	58	51	61	50.8	N.E. 2	N.E. 3	Cloudy		
30106	58	62	57	58	57	63	53.3	E. 2	N.E. 3	Rain	0.75	
30107	61	61	62	61	62	62	53.7	S. 1	N.E. 2	Rain	1.64	
30108	58	61	61	58	61	63	56.8	N.E. 1	N.E. 2	Rain	2.07	
30109	51	61	59	51	62	58	45.7	N.W. 2	N.W. 3	Fair		
30110	54	65	61	54	65	61	48.3	N.W. 2	N.W. 2	Fair		
30111	52	60	60	52	61	60	48.0	E. 2	S.E. 3	Cloudy		
30112	62	67	63	72	64	55	72	S.E. 2	S.E. 3	Rain	0.55	
30113	63	72	64	63	72	64	58.2	N.W. 1	N.W. 2	Fair		
30114	56	70	64	56	71	64	50.2	N.W. 1	E. 2	Fair		
30115	70	75	70	61	75	70	57.7	S.E. 1	E. 2	Rain	0.35	
30116	67	70	58	67	70	56	63	S. 2	N.W. 4	Rain	0.42	
30117	55	53	49	56	53	43	58	N.W. 3	N.W. 4	Cloudy		
30118	65	66	50	64	66	44	70	S.W. 2	S.W. 4	Fair		
30119	64	65	61	64	65	60	59	N.W. 1	N.W. 3	Cloudy		
30120	48	61	55	48	62	55	62	N.E. 2	S.W. 3	Fair		
30121	52	66	62	53	67	62	45	S. 2	S. 2	Fair		
30122	58	76	69	58	77	65	53	S.W. 1	S.W. 2	Fair		
30123	64	78	70	65	79	69	59	S.W. 1	S.W. 2	Fair		
30124	67	82	73	67	83	73	62	82	W. 1	S.W. 2	Fair	
30125	65	73	66	65	73	66	60	74	N.E. 2	E. 3	Fair	
30126	60	74	71	61	75	71	55	75	E. 1	E. 2	Fair	
30127	70	80	73	71	81	73	65	81	S.W. 1	S. 2	Cloudy	
30128	70	76	68	70	76	65	76	64.8	W. 1	N.W. 2	Rain	0.16
30129	60	75	69	60	76	69	54	76	E. 2	S.E. 2	Fair	
30130	63	75	69	62	75	63	82	61.7	S.W. 1	S.W. 2	Fair	

REMARKS.	Barometer	Thermometer	Winds	Humidity	Weather
1. Cloudy most of the day & at night.					
2. Pleasant and clear day.	Maximum				
3. Cloudy and cold - Rain before daylight.	Minimum				
4. Cloudy and disagreeable day.	Range				
5. Cloudy and unpleasant day.					
6. Cloudy morning Rain after 3 P.M.					
7. Rain all day - very disagreeable.	Thermometer				
8. Rain all day - Heavy and continued showers.	Mean, 7 A.M. 59.20 - 2 P.M.				
9. Clear, cool and cloudless day.	Hottest Day, 24th - 6				
10. Beautiful and pleasant day.					
11. Cloudy most of the day.					
12. Rain most of the day - Bombardment of Sumter!	Thermometer				
13. Cloudless day - Surrender of Fort Sumter!	Mean, 7 A.M. 59.50 - 2 P.M.				
14. Bright & cloudless Sabbath - Evacuation of Sumter!	Maximum, 7 A.M. 71.20				
15. Bright morning Cloudy & Rain after 4 P.M.	Minimum, 7 A.M. 48.20				
16. Rain, disagreeable - but milder after 4 P.M.					
17. Cloudy most of the day - wind high.					
18. Bright and pleasant day - high wind.	Register				
19. Cloudy most of the day - clear after 4 P.M.	Mean Night, 53.76 -				
20. Cloudless and beautiful day.					
21. Beautiful and cloudless Sabbath day.	Dew Point				
22. Clear and delightful day.					
23. Bright and pleasant day.	Mean				
24. Cloudless and warm day.					
25. Clear and pleasant day.	Winds				
26. Bright and cloudless day.	Humid				
27. Cloudy with light shower in morning - clear afterwards.	North 0.				
28. Rain at 4 A.M. - clear & cloudless afterwards.	South east 7.				
29. Cloudless and delightful day.	South west 6.				
30. Warm and cloudless day.	South 3.				
	South east 2.				
	South west 5.				
	East 4.				
	West 3.				
	Weather				
	Fair, 15 days - Cloudy, 7th				
	Prevailing winds -				
	Quantity of				
	Inches				

April 1861
 Charleston Board of Health Daily Weather Observations

from the "remarks" column:
 April 12-"Rain most of the day, Bombardment of Sumter!"
 April 13-"Cloudless day, Surrender of Fort Sumter!"
 April 14-"Bright and cloudless Sabbath, Evacuation of F Sumter!"

What Is The State Climatology Office?

Promote climate and weather awareness and knowledge through the development and delivery of science-based climate services and tools through the coordination, collection, and dissemination of weather and climate-related information and decision-support products.



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Asst. State
Climatologist



Jennifer Simmons
Water Resource
Climatologist



Frank Strait
Severe Weather
Liaison



**Climate
Data
Services**



**Databases
and
Assessments**



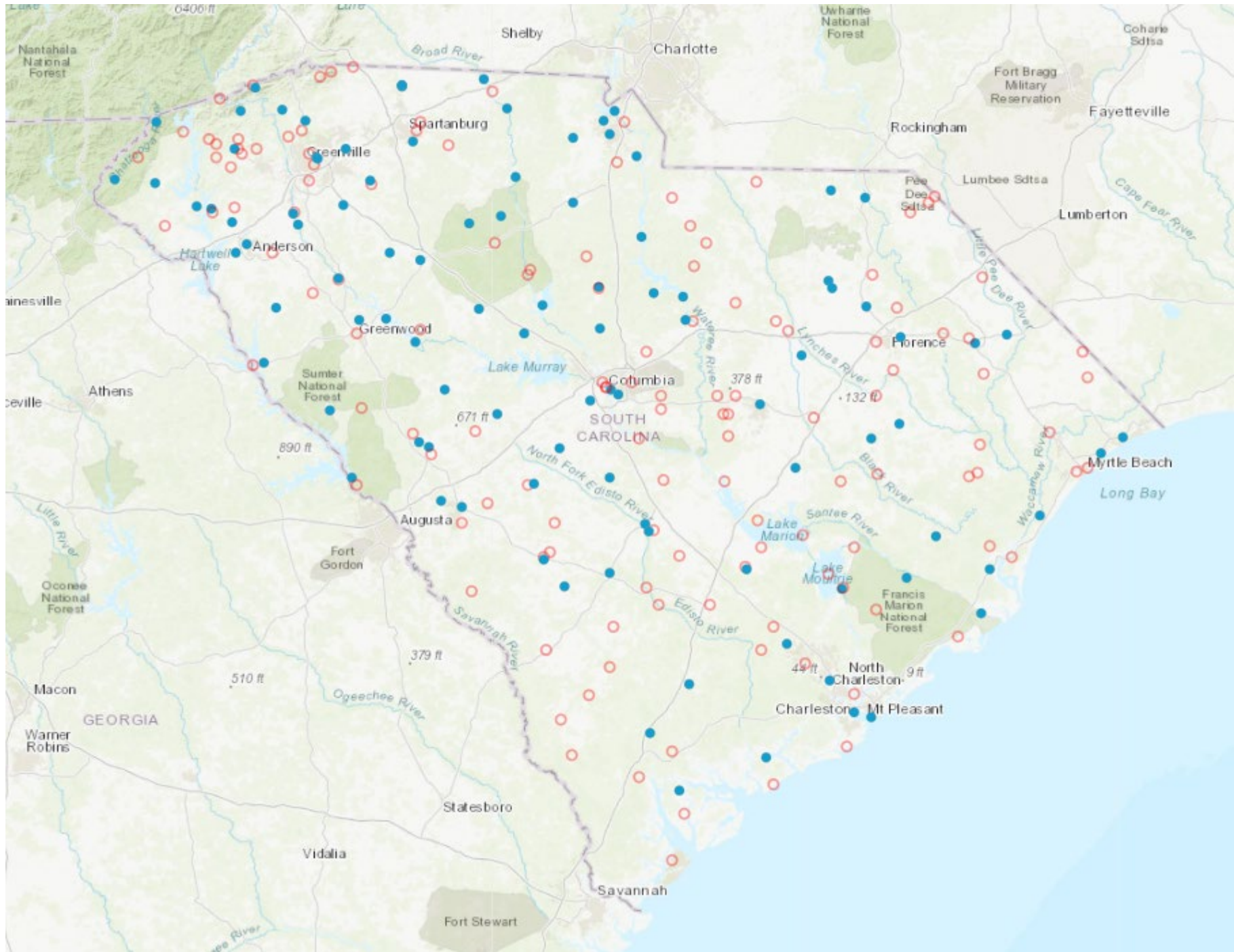
**Outreach
and
Education**



**Drought
Monitoring
and
Response**

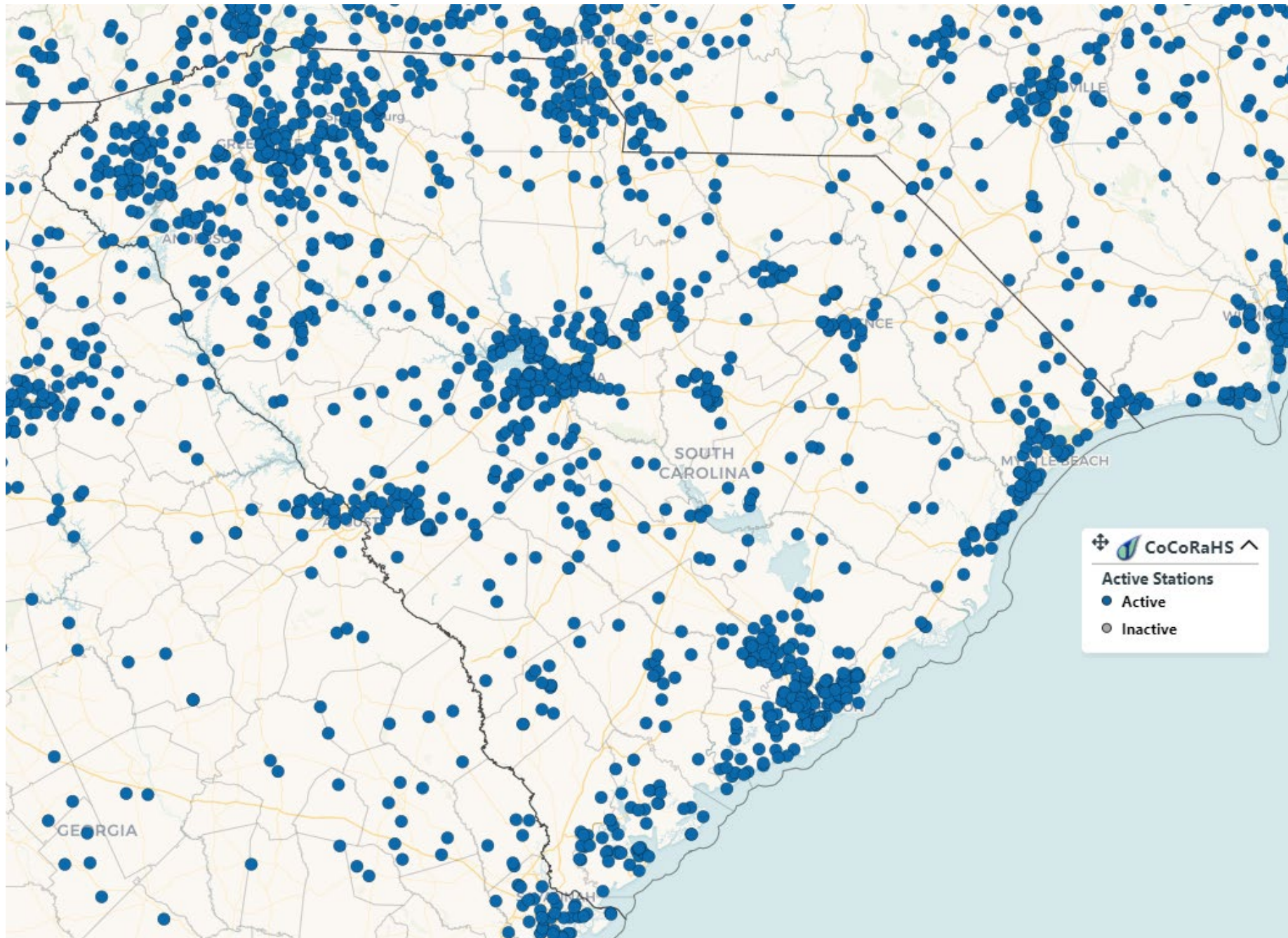


**Severe
Weather
Operations
and
Awareness**



South Carolina NWS Network

- Active
- Closed

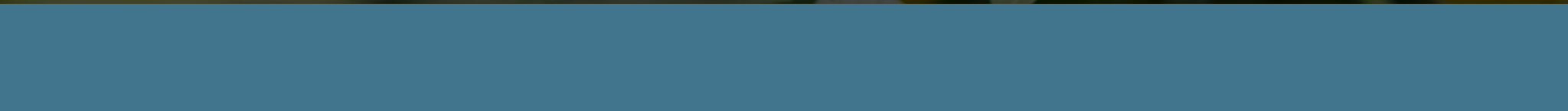


South Carolina CoCoRaHS

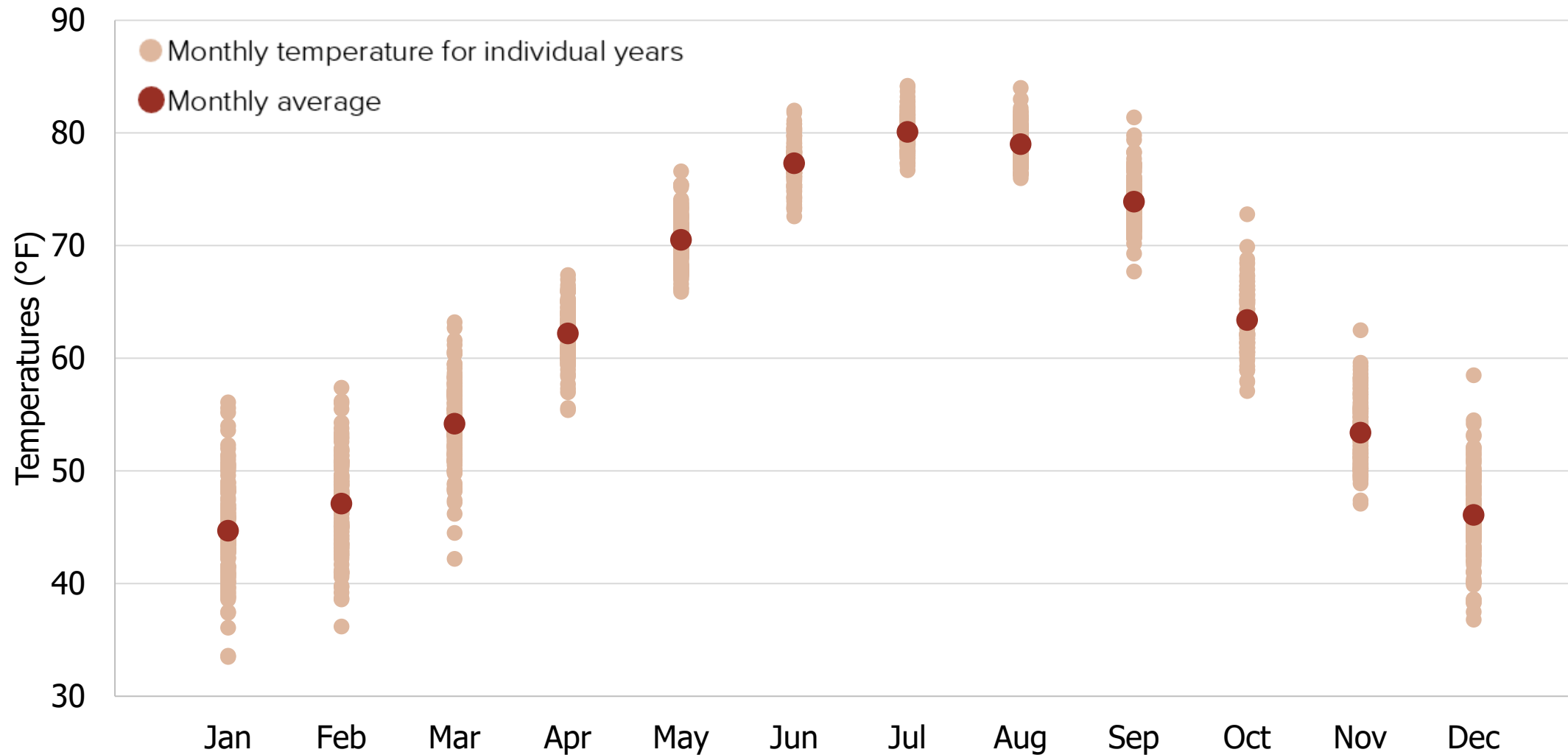
73 observers since 2008
148 observers since 2011
354 observers since 2016



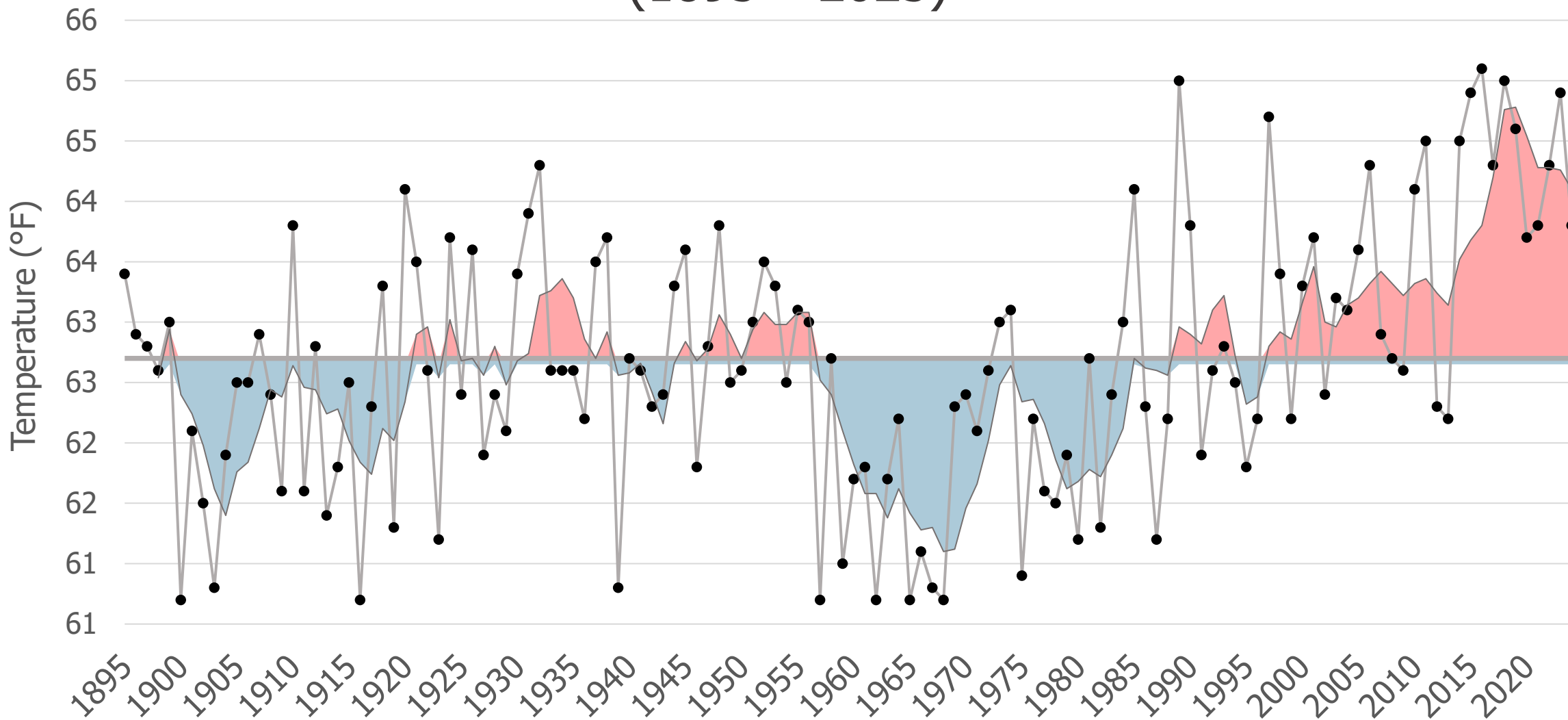
Temperatures



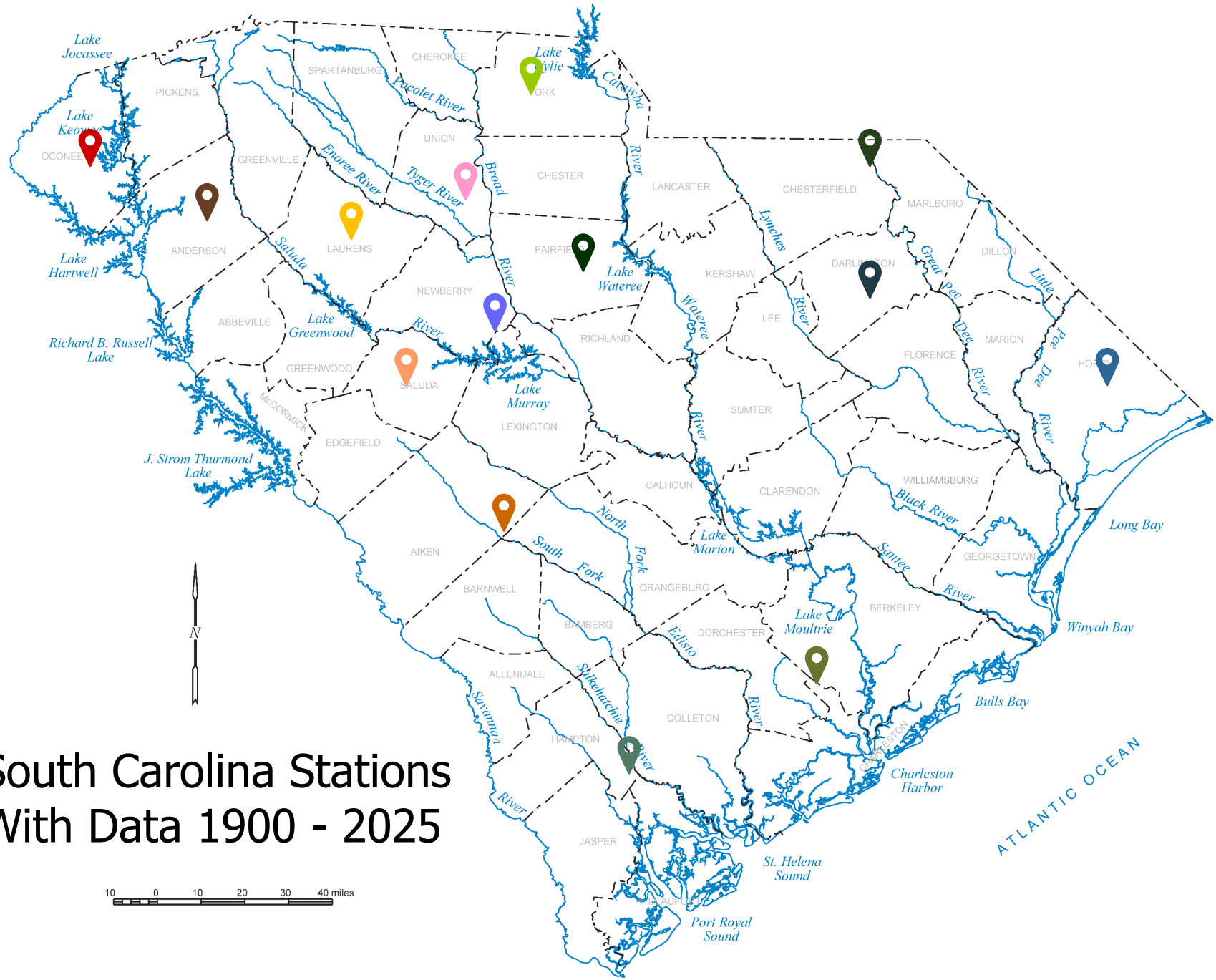
South Carolina Monthly Average Temperature (1895 – 2025)

















South Carolina Annual Average Temperature (1895 – 2025)

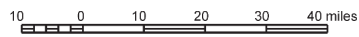


■ Above Average ■ Below Average ● Temperature (°F) — 5-Year Moving Average

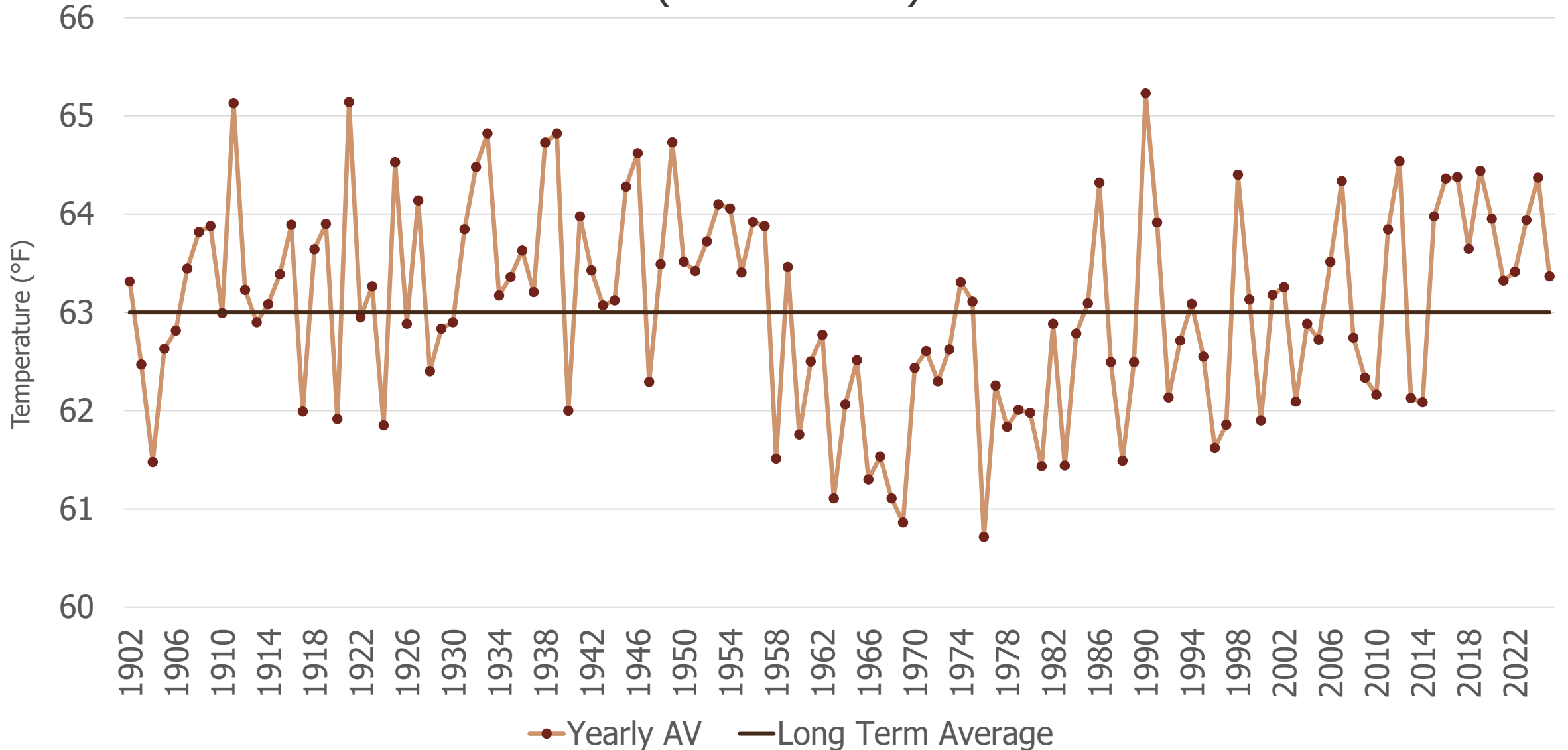


-  Anderson
-  Blackville
-  Cheraw
-  Conway
-  Darlington
-  Laurens
-  Little Mountain
-  Saluda
-  Santuck
-  Summerville
-  Walhalla
-  Winnsboro
-  Winthrop University
-  Yemassee

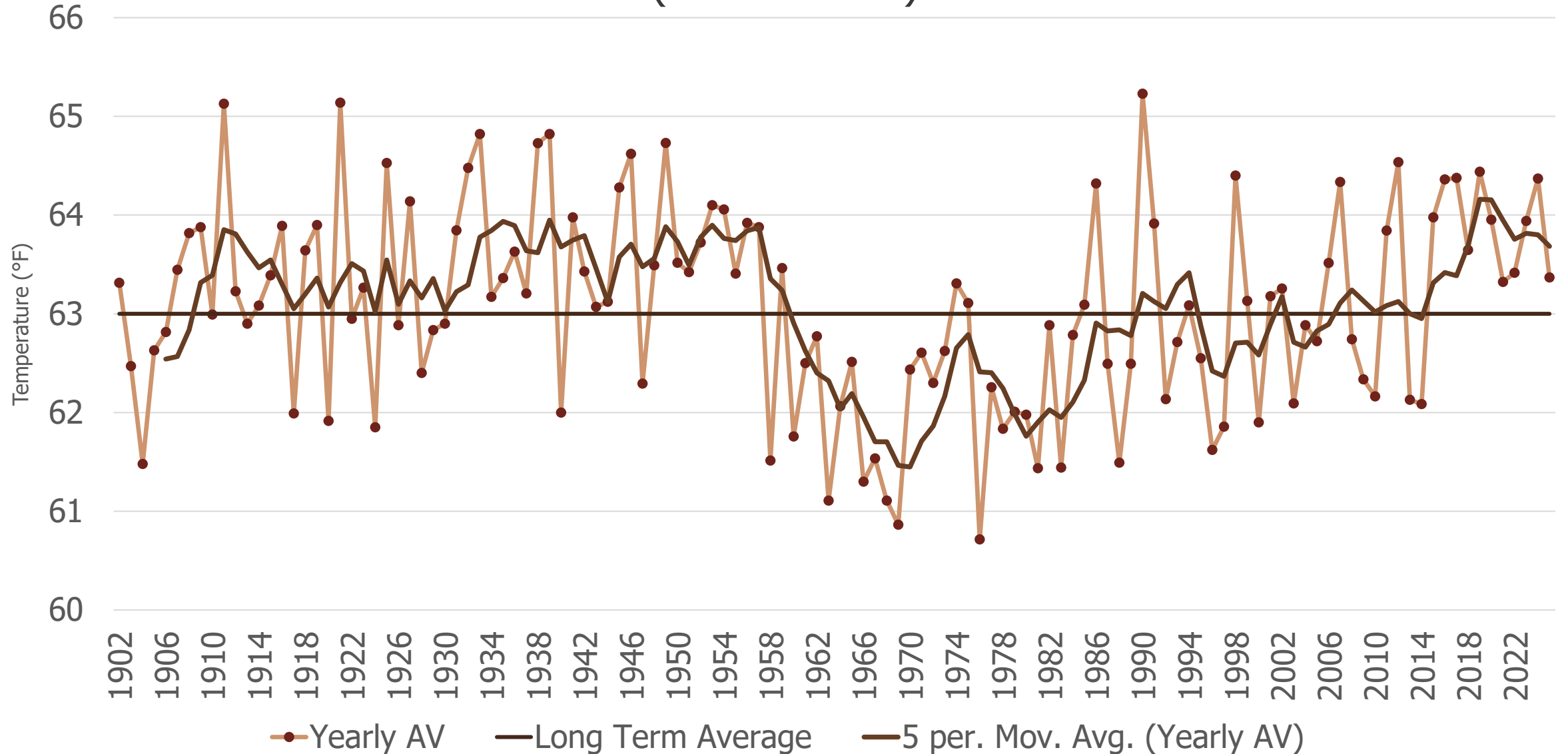
South Carolina Stations With Data 1900 - 2025



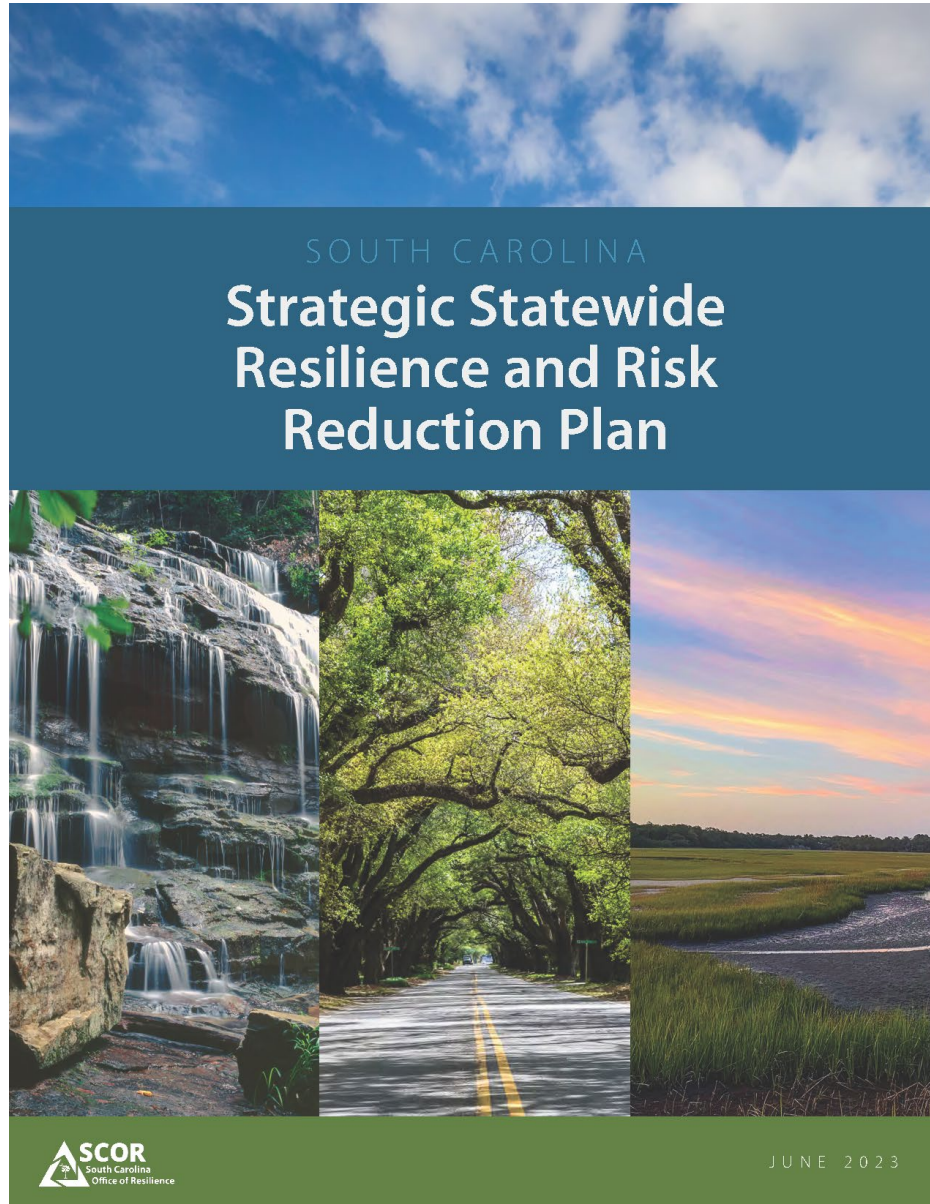
South Carolina Long-Term Stations Annual Average Temperature (1950 – 2025)



South Carolina Long-Term Stations Annual Average Temperature (1950 – 2025)



South Carolina Office of Resilience



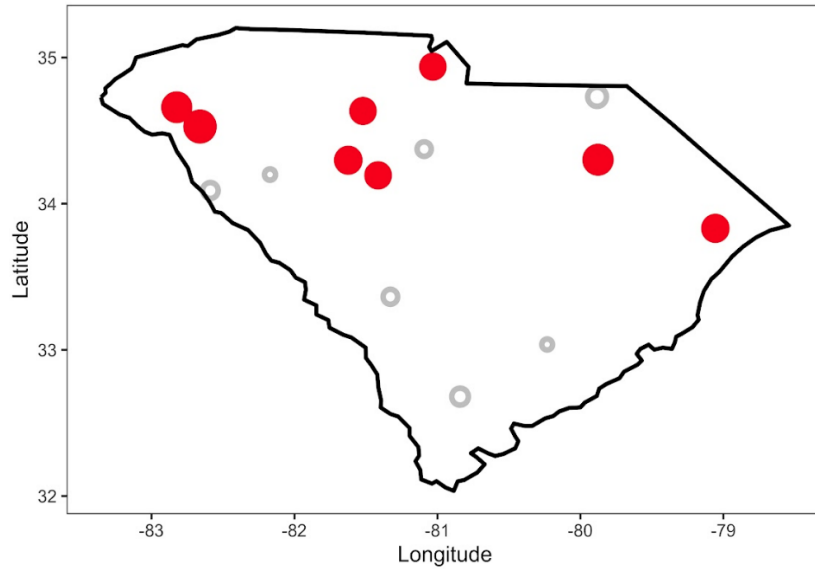
Lead Author:
Greg Carbone, University of South Carolina

Strategic Statewide Resilience and Risk Reduction Plan
4 | CLIMATE TRENDS

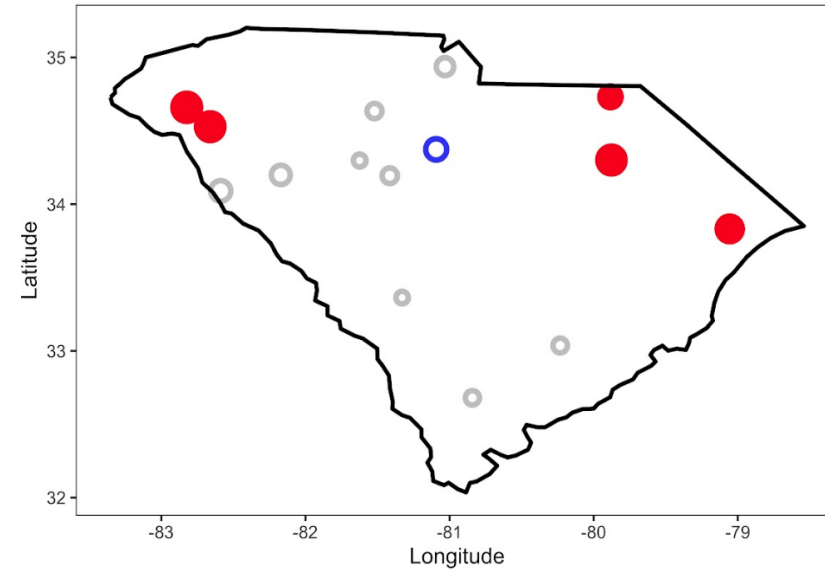


<https://scor.sc.gov/resilience>

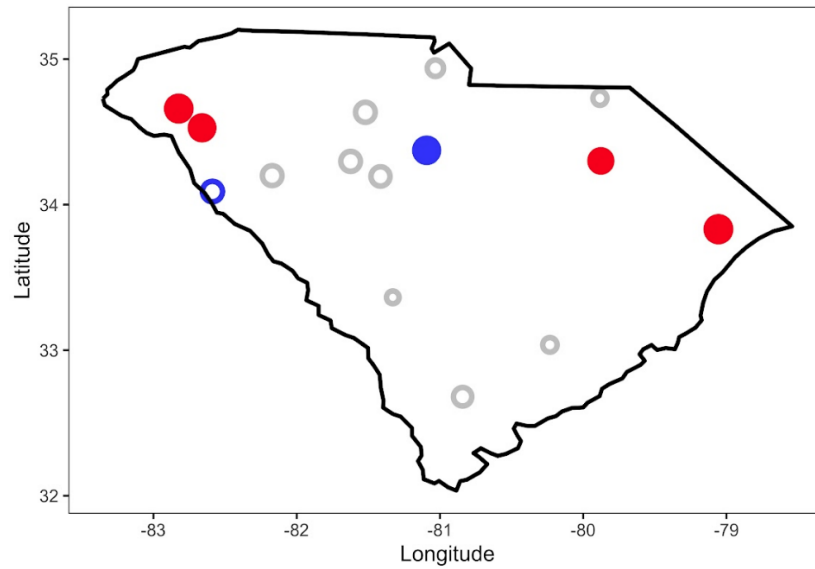
Trend of Maximum Temperature, Spring



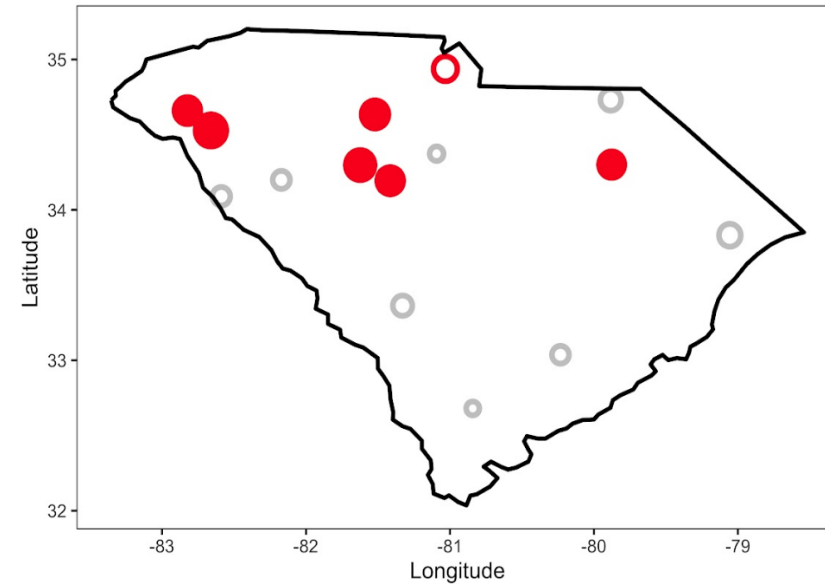
Trend of Maximum Temperature, Summer



Trend of Maximum Temperature, Fall



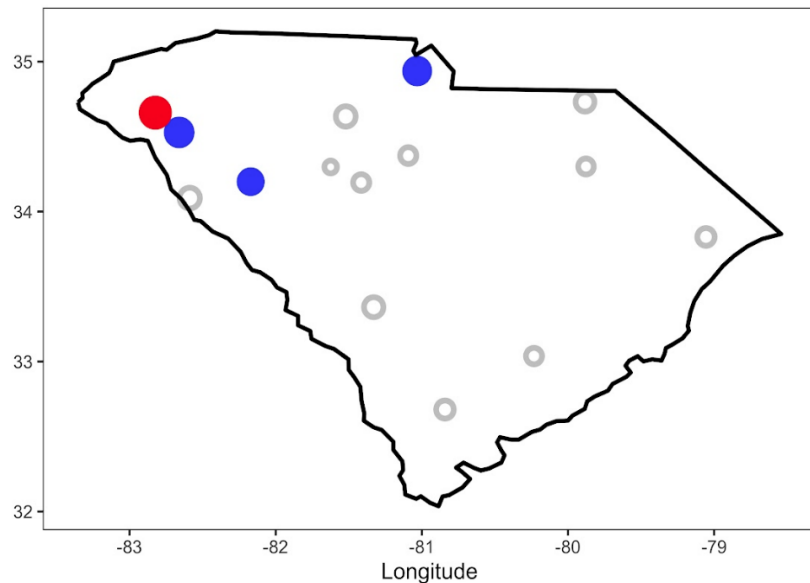
Trend of Maximum Temperature, Winter



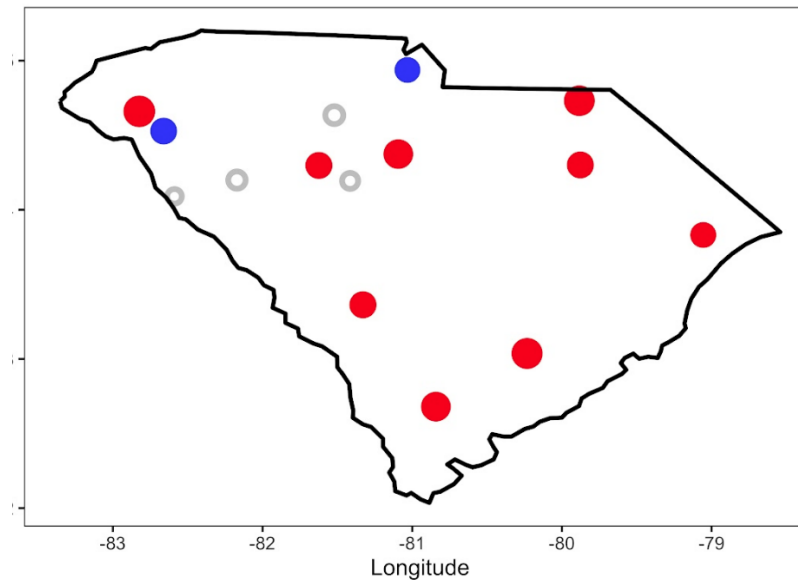
- Statistically-significant decrease
- Decrease

- Increase
- Statistically-significant increase

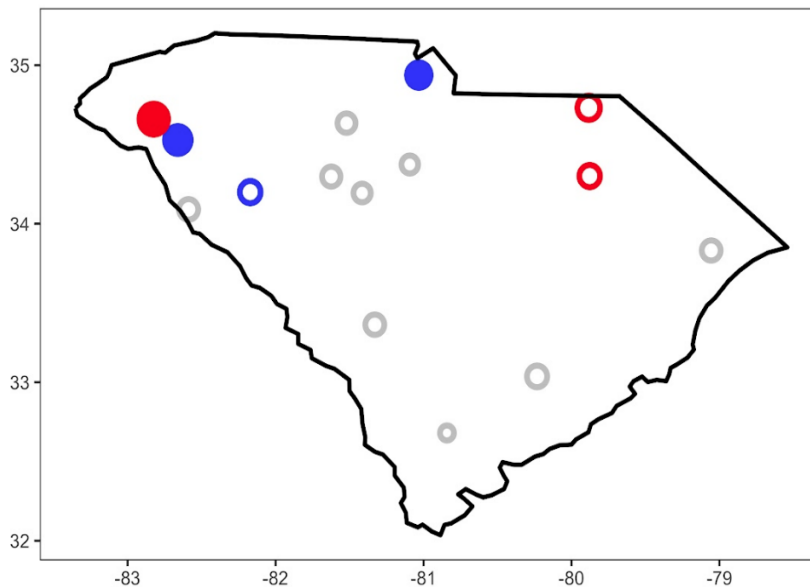
Trend of Minimum Temperature, Spring



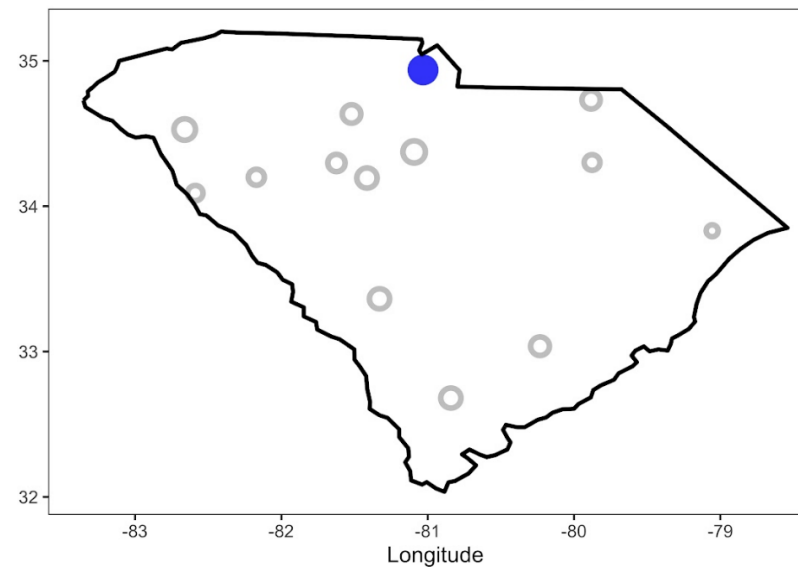
Trend of Minimum Temperature, Summer



Trend of Minimum Temperature, Fall

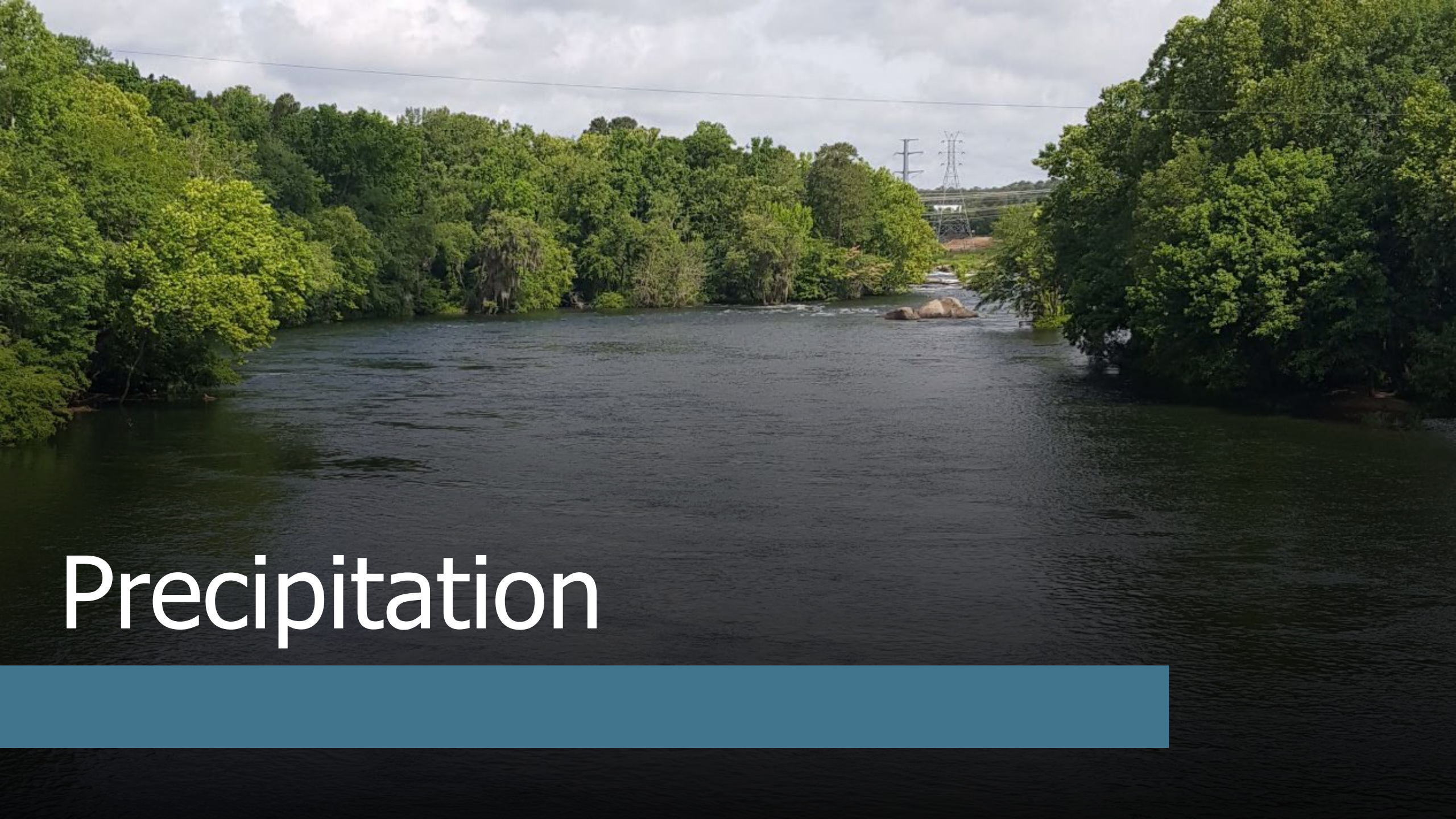


Trend of Minimum Temperature, Winter



- Statistically-significant decrease
- Decrease

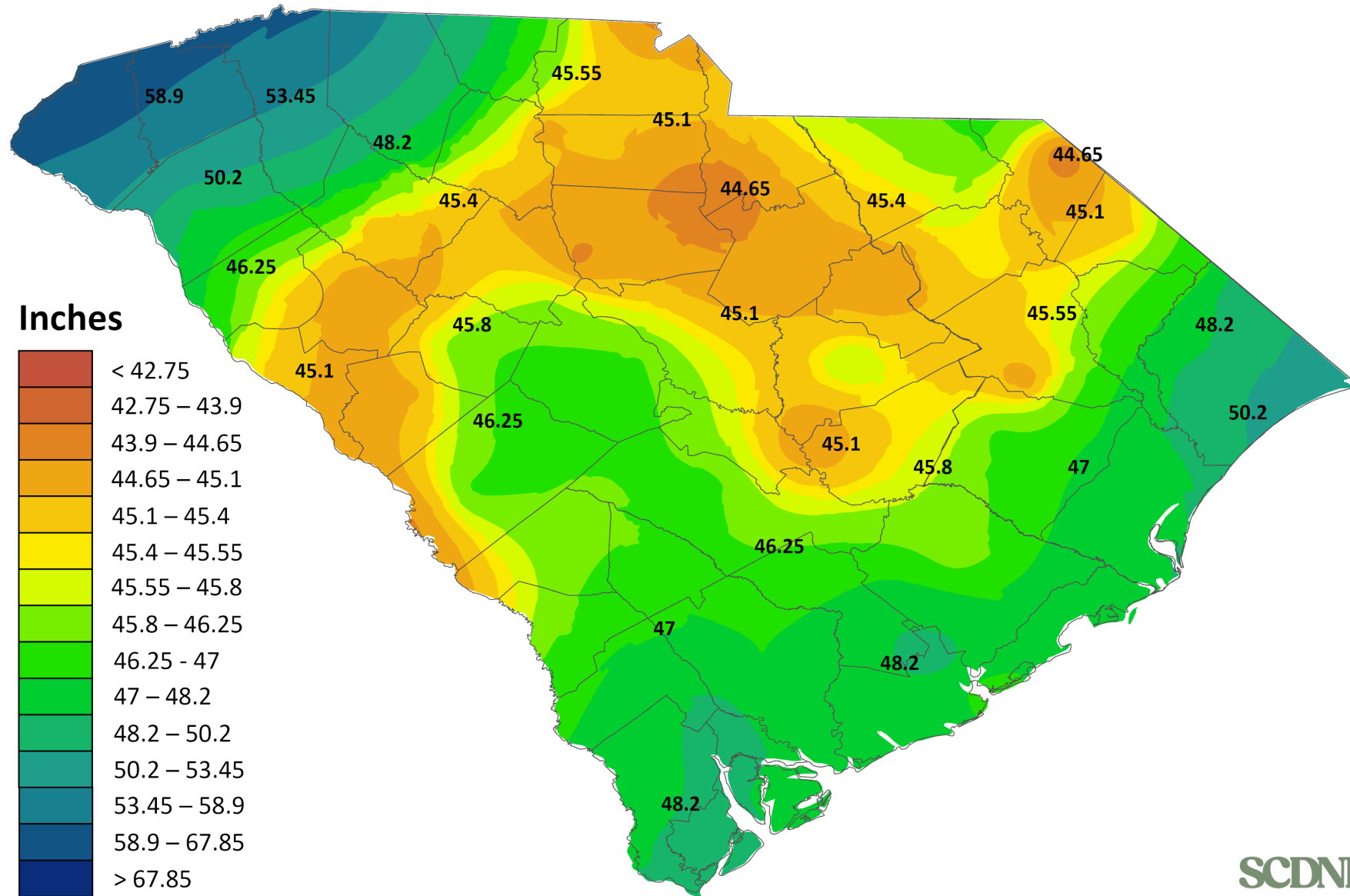
- Increase
- Statistically-significant increase



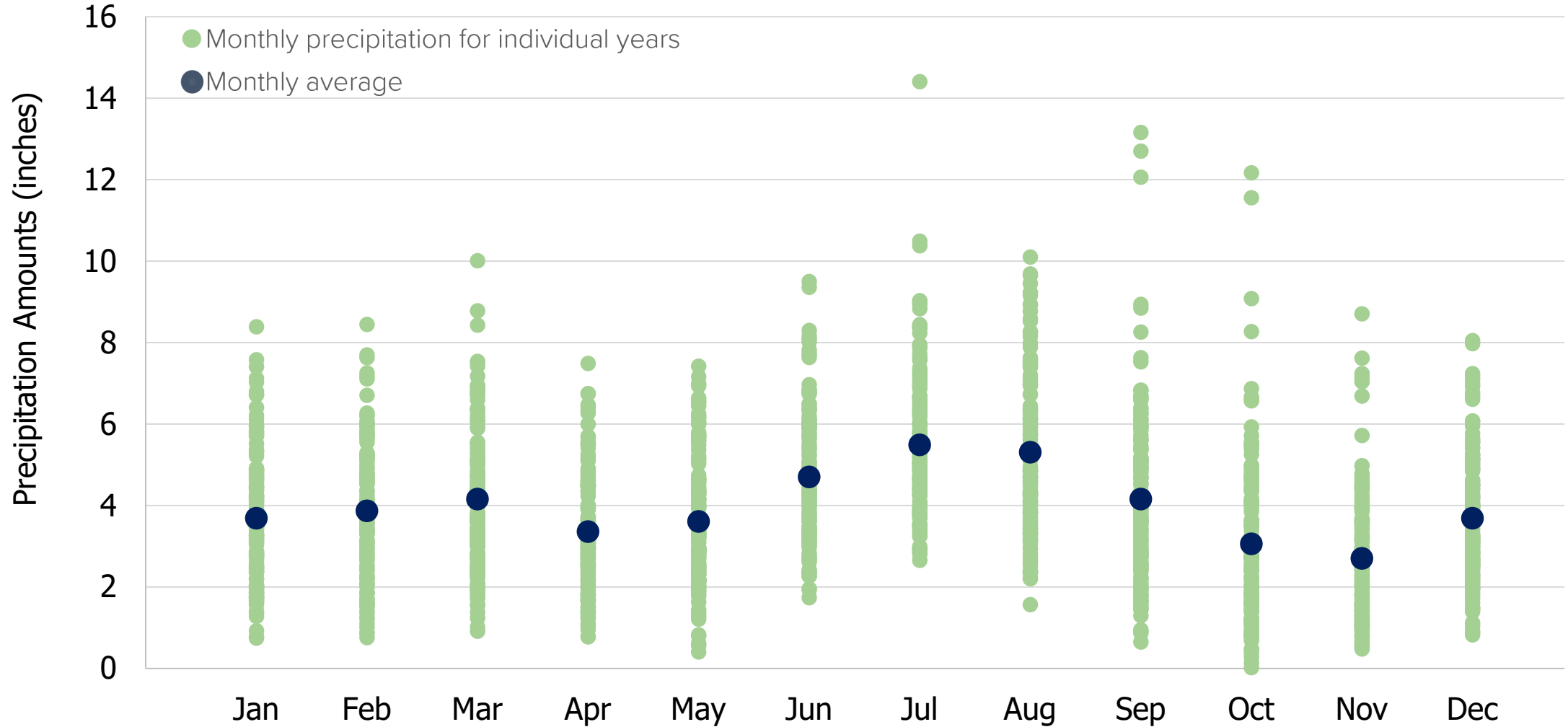
Precipitation



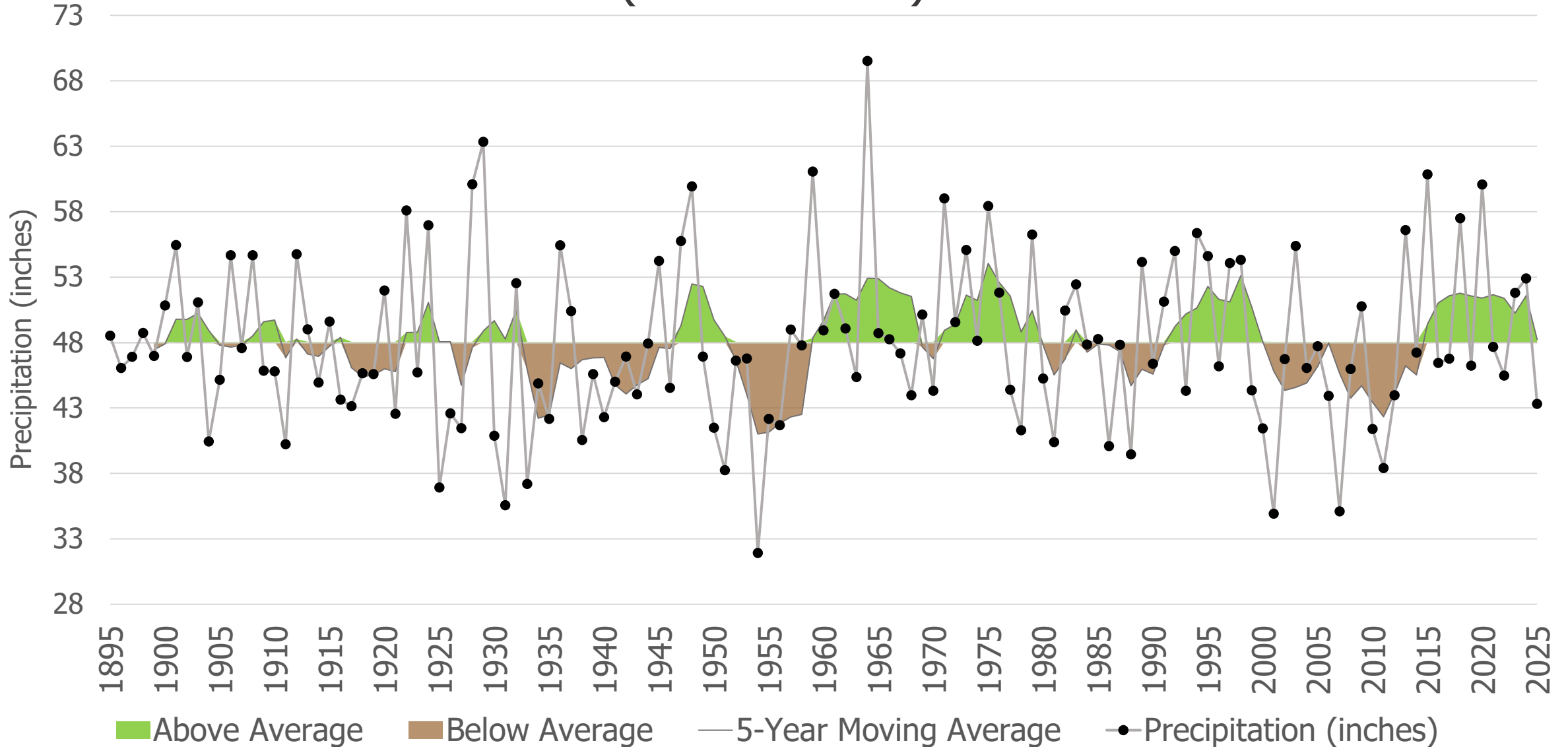
South Carolina Annual Average Precipitation (1950 – 2025)



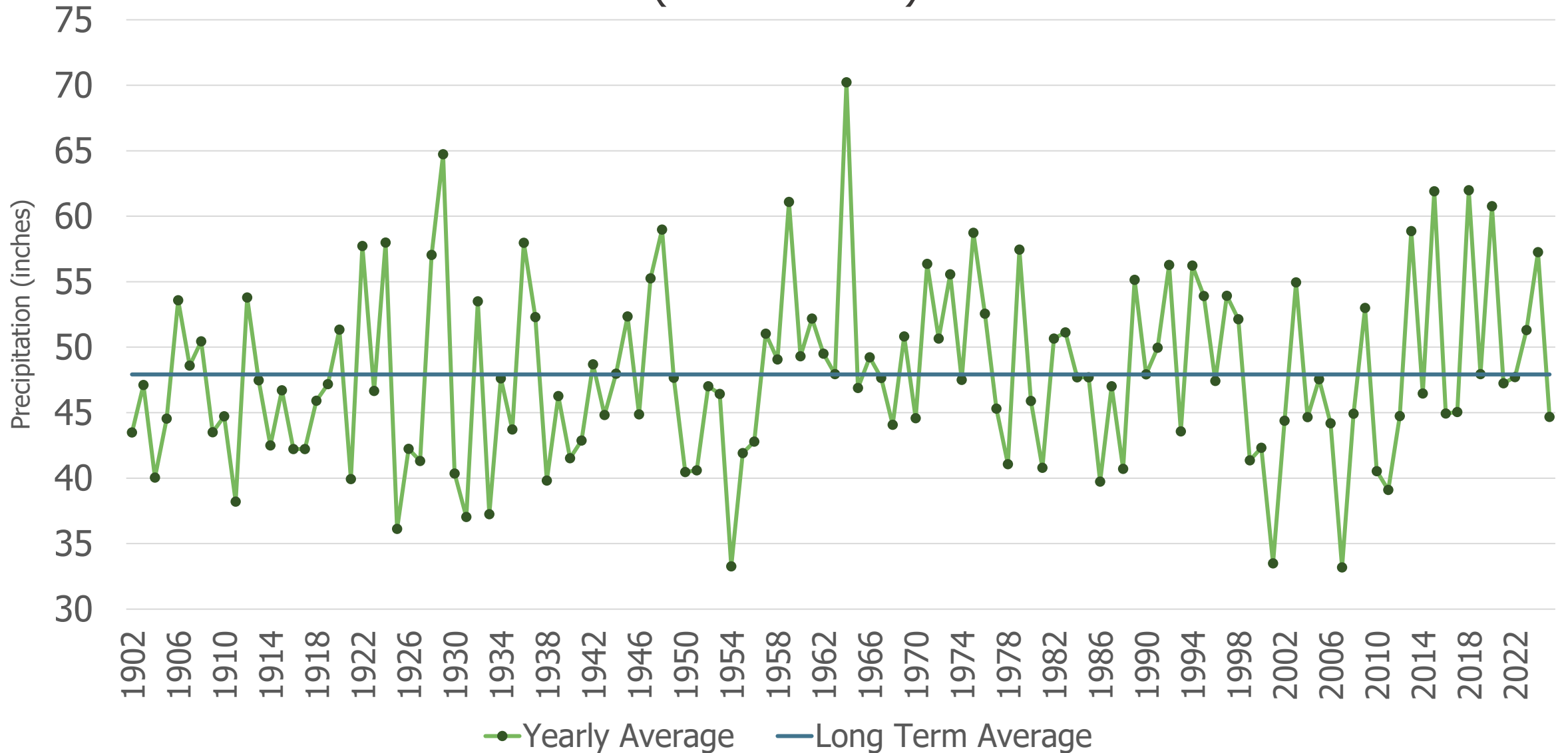
South Carolina Monthly Precipitation (1895 – 2025)



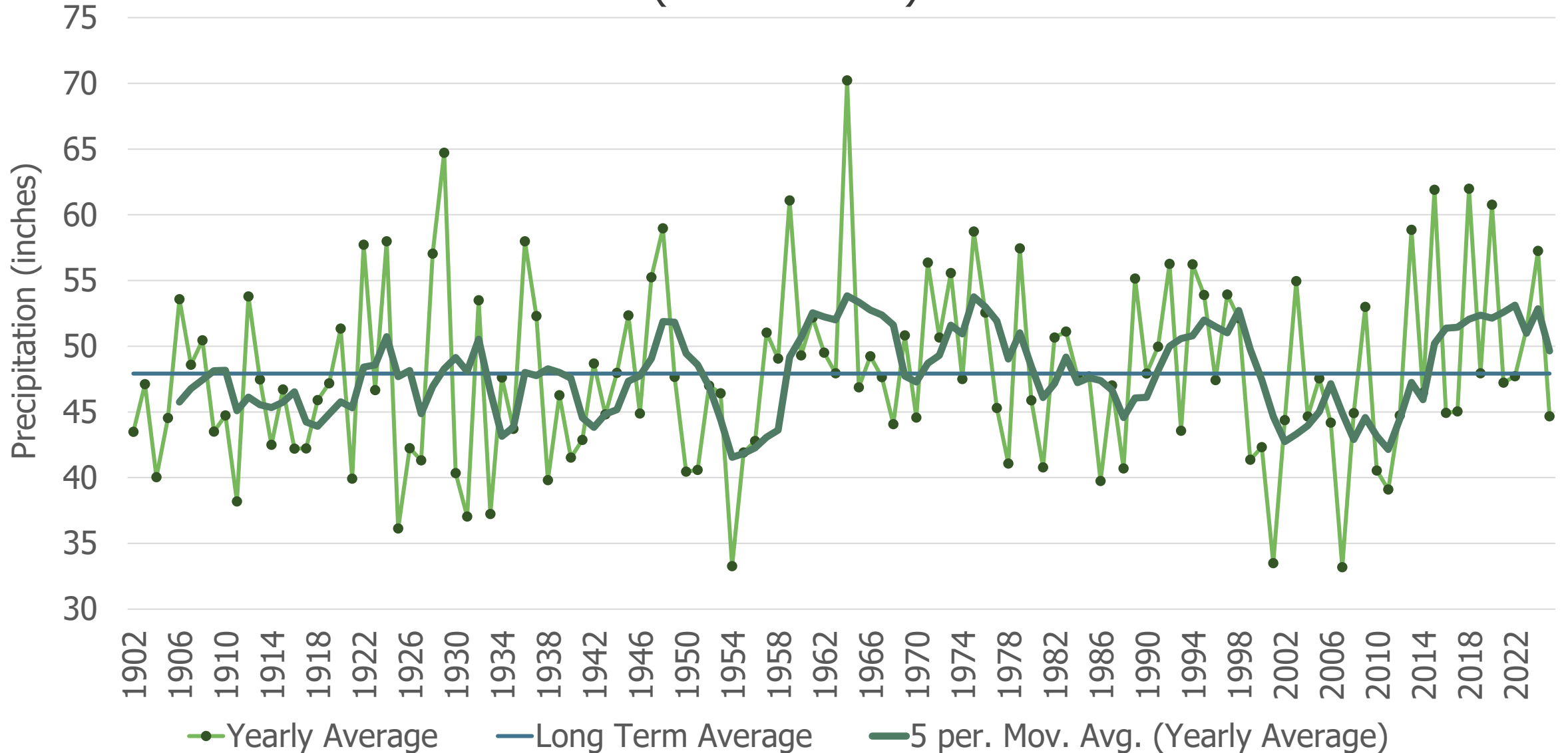
South Carolina Annual Average Precipitation (1895 – 2025)



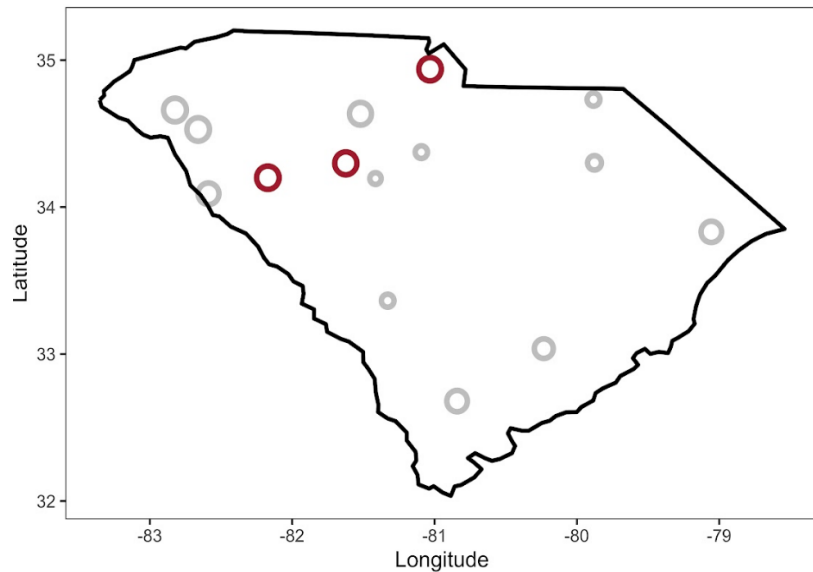
South Carolina Long-Term Stations Annual Average Precipitation (1950 – 2025)



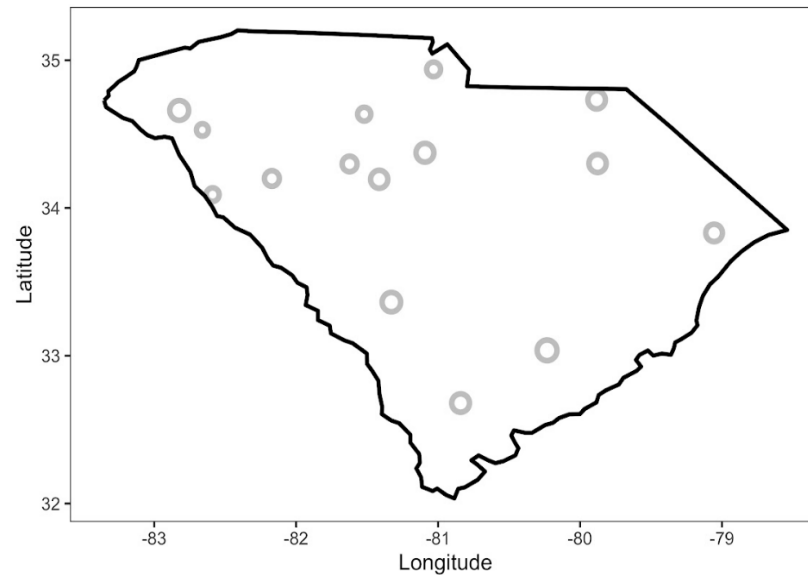
South Carolina Long-Term Stations Annual Average Precipitation (1950 – 2025)



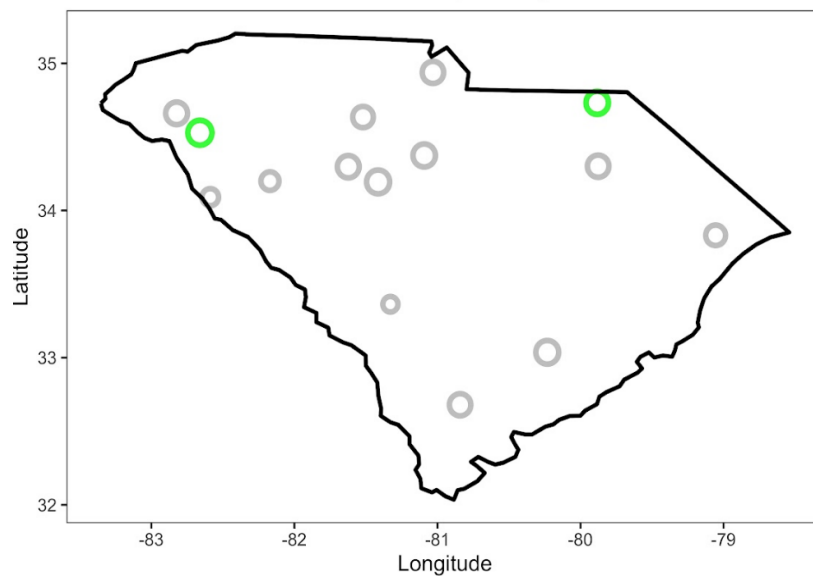
Trend of Precipitation, Winter



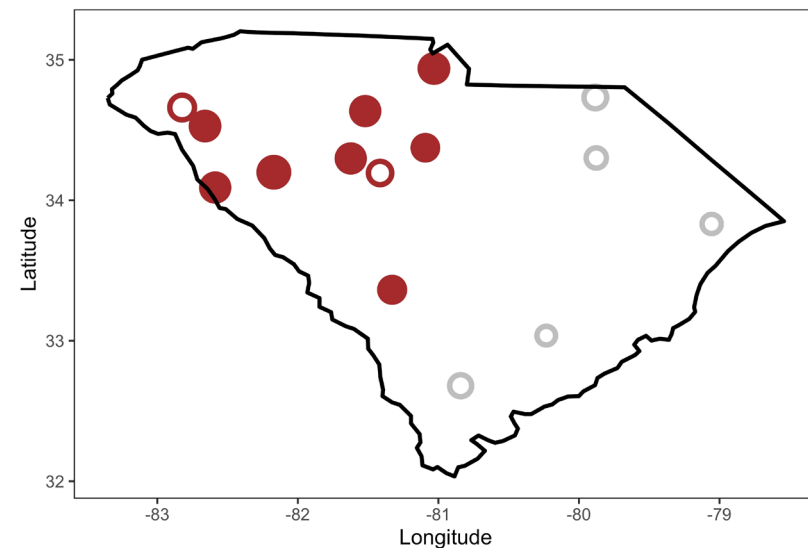
Trend of Precipitation, Spring



Trend of Precipitation, Fall



Trend of Precipitation, Summer



○ Increase

○ Decrease

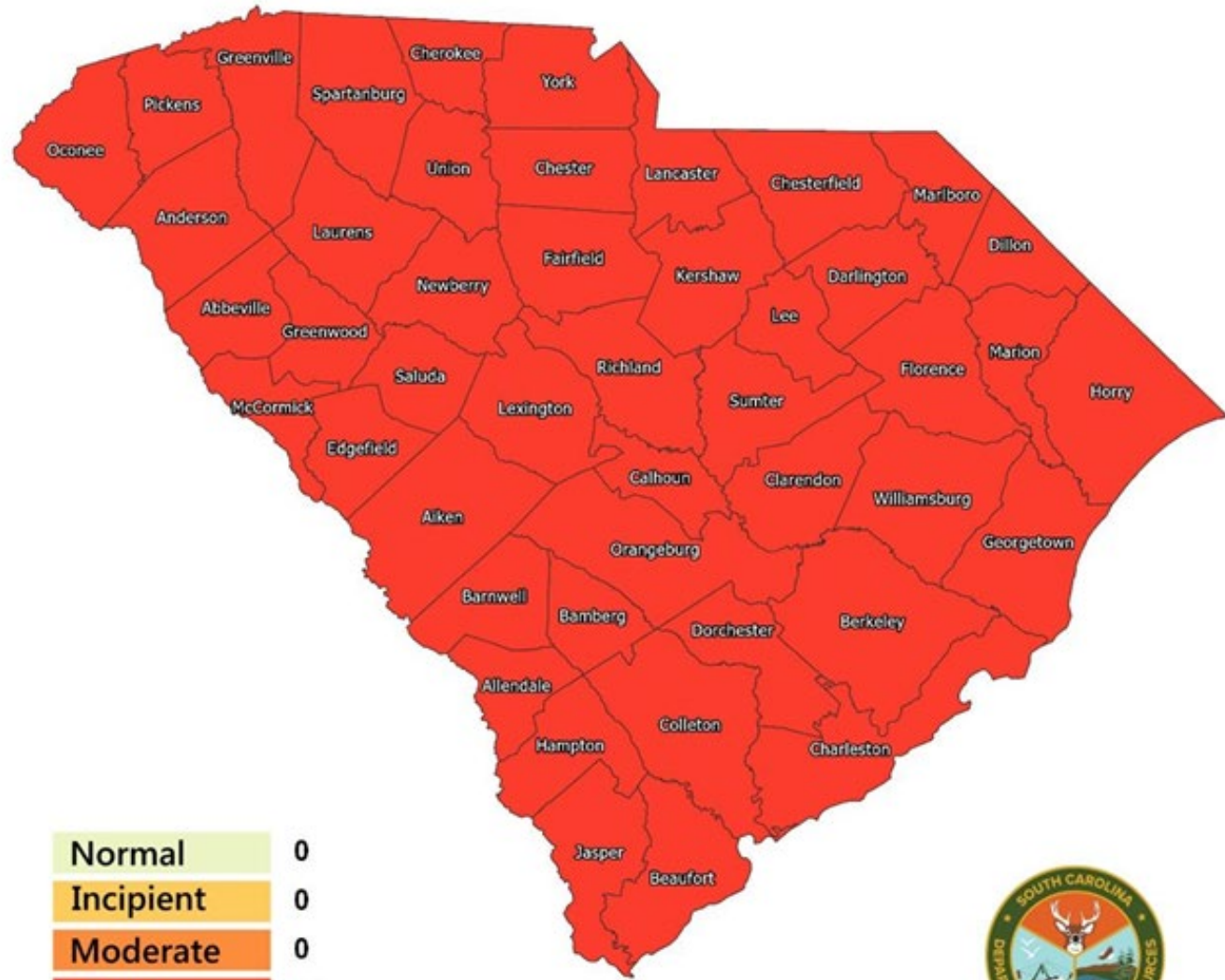
● Statistically-significant decrease

Extreme Precipitation



Waccamaw River, Longs (2018)
Photo by Hope Mizzell

SC Drought Status – April 30, 2026



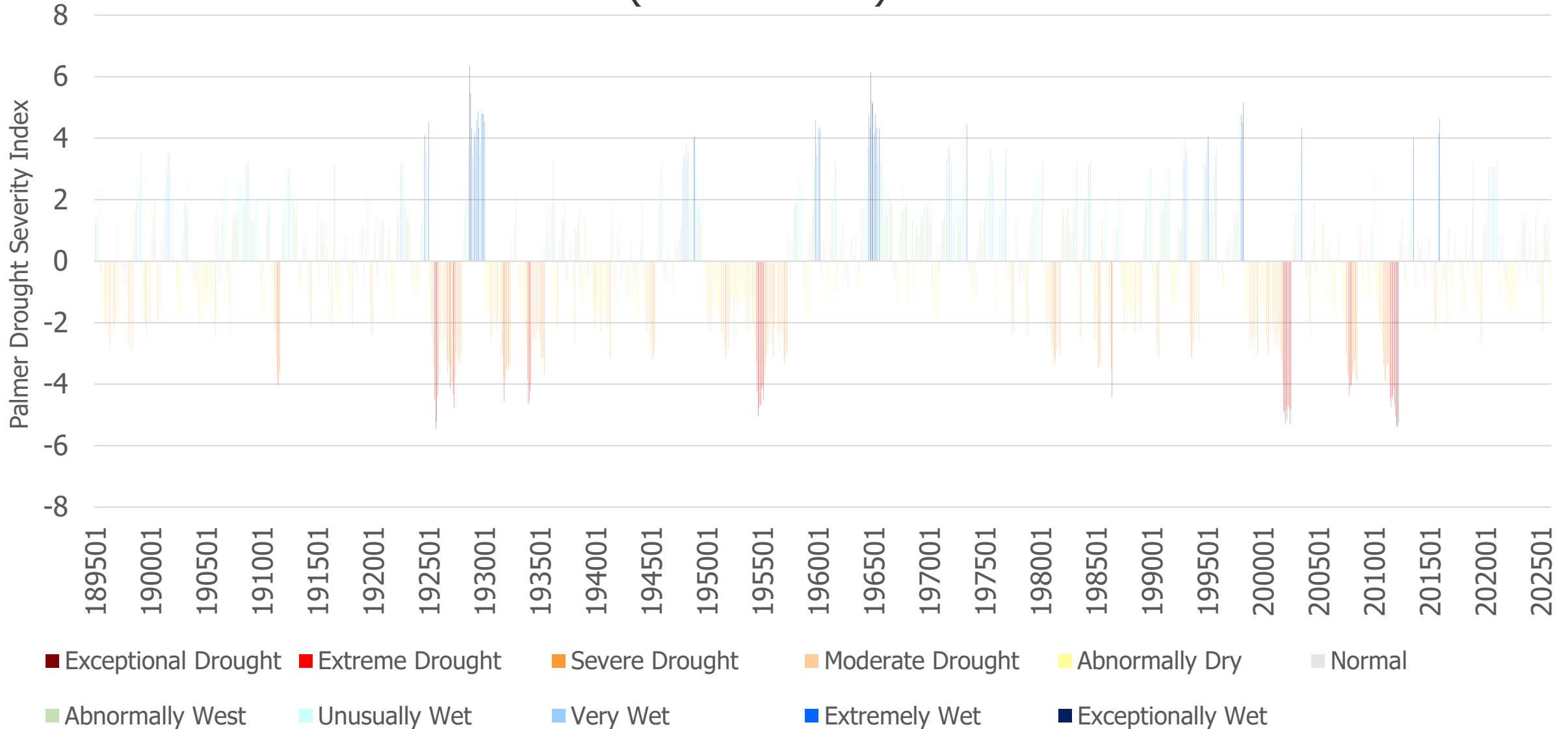
Normal	0
Incipient	0
Moderate	0
Severe	46
Extreme	0

Number of counties in each category.

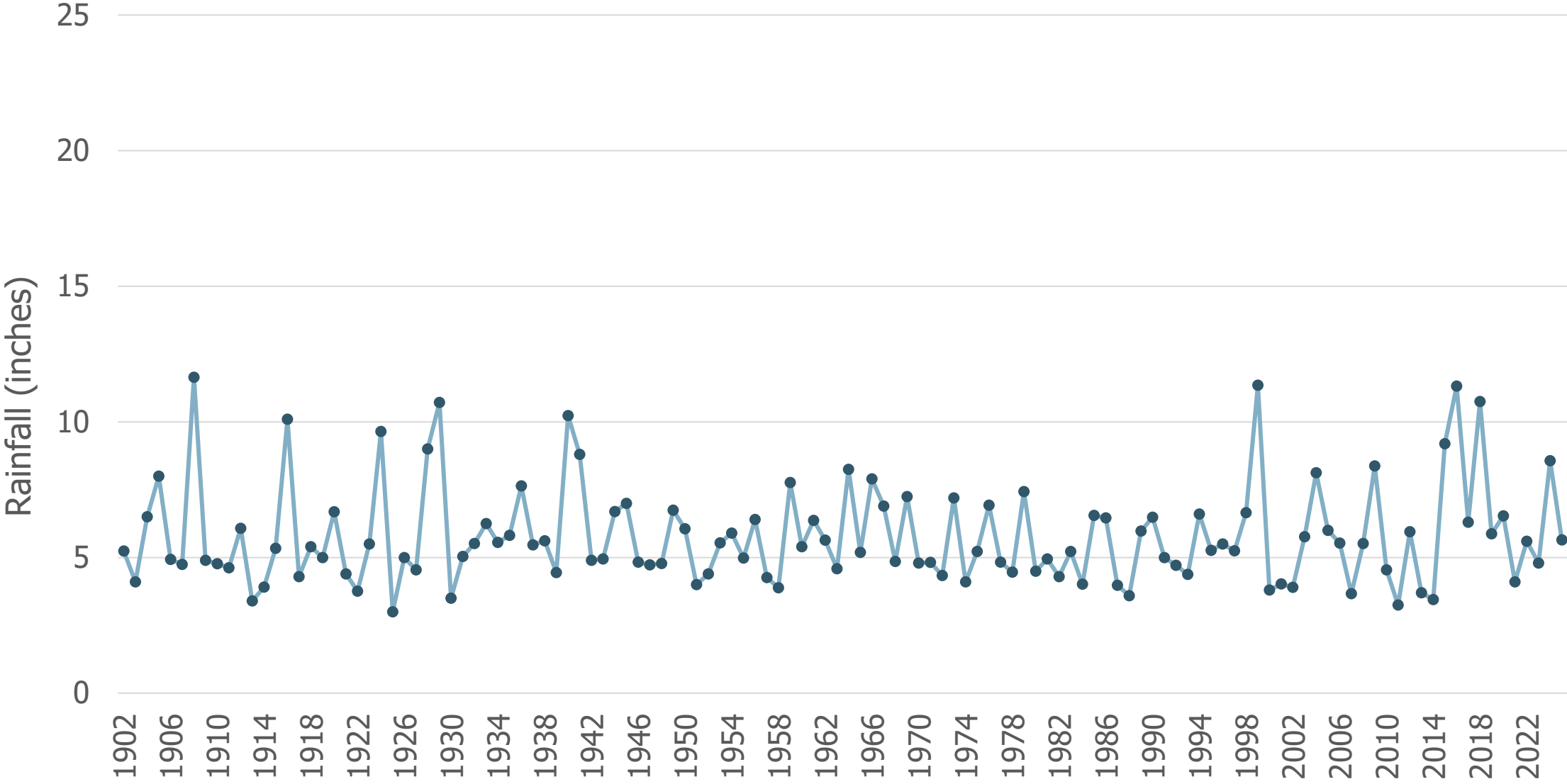


SC Department of Natural Resources
State Climate Office

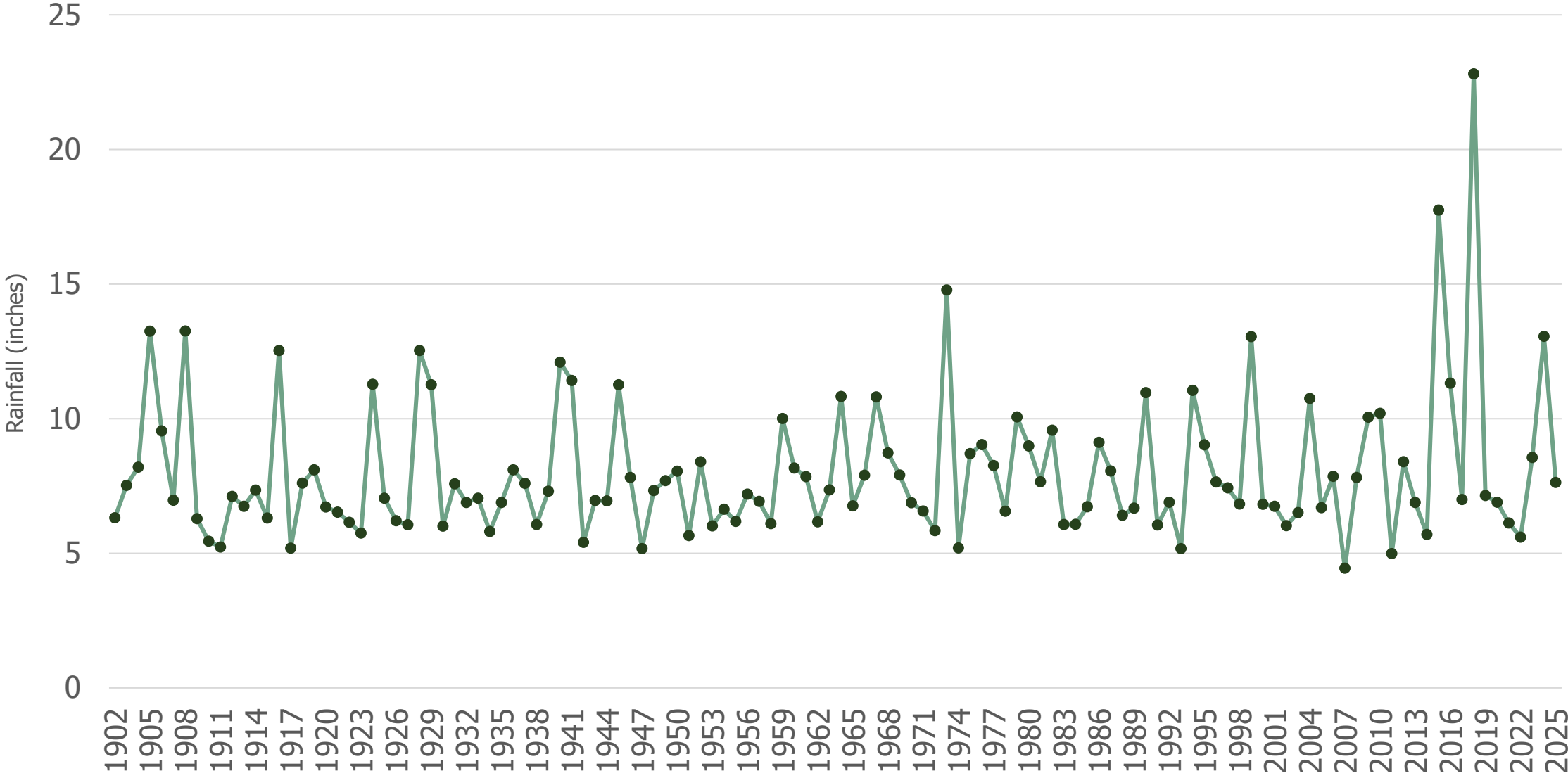
Palmer Drought Severity Index for South Carolina (1895 – 2025)



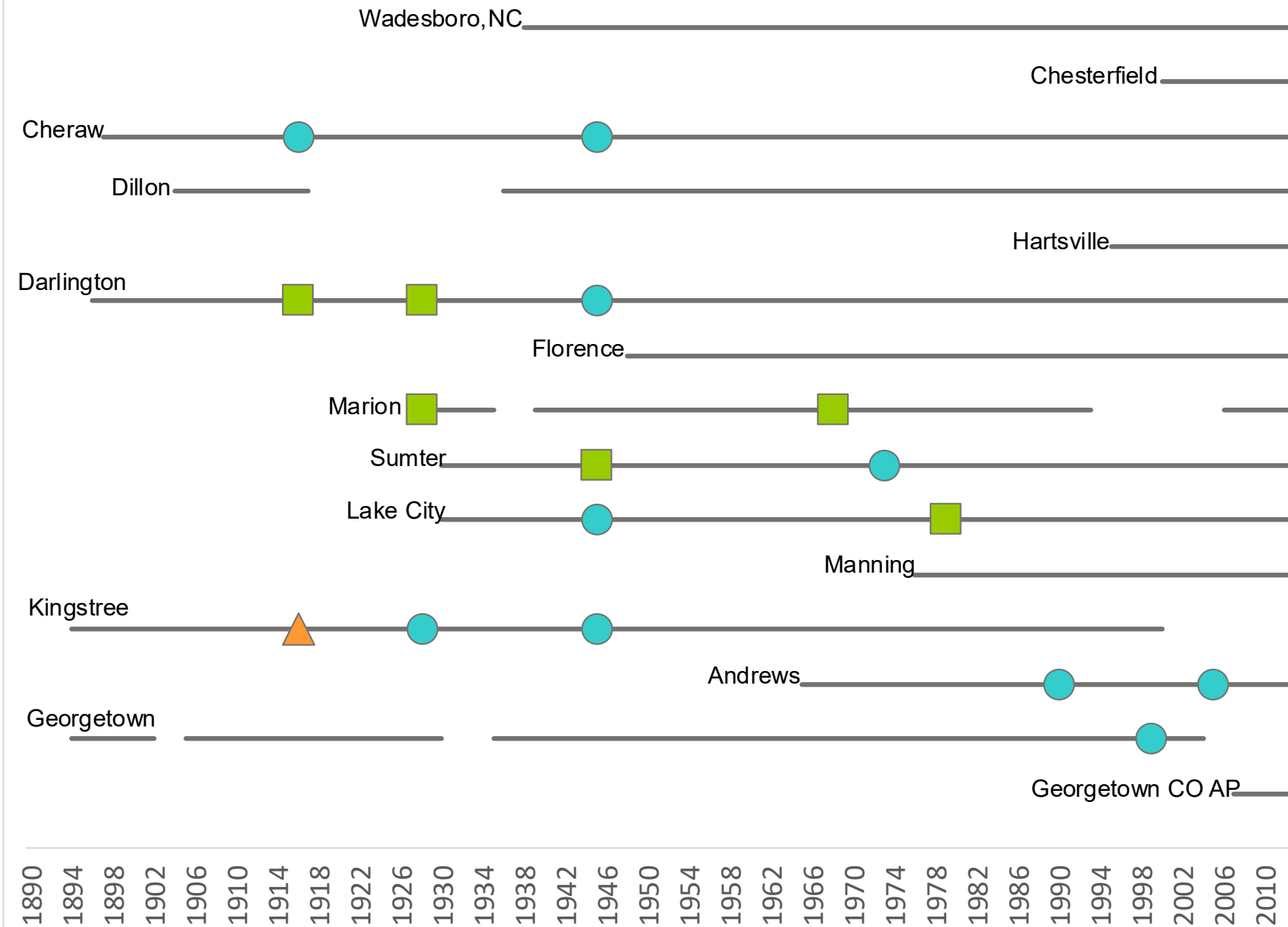
Annual 1-Day Maximum Rainfall Totals from Long-Term Stations in SC (1902 – 2025)



Annual 4-Day Maximum Rainfall Totals from Long-Term Stations in SC (1902 – 2025)



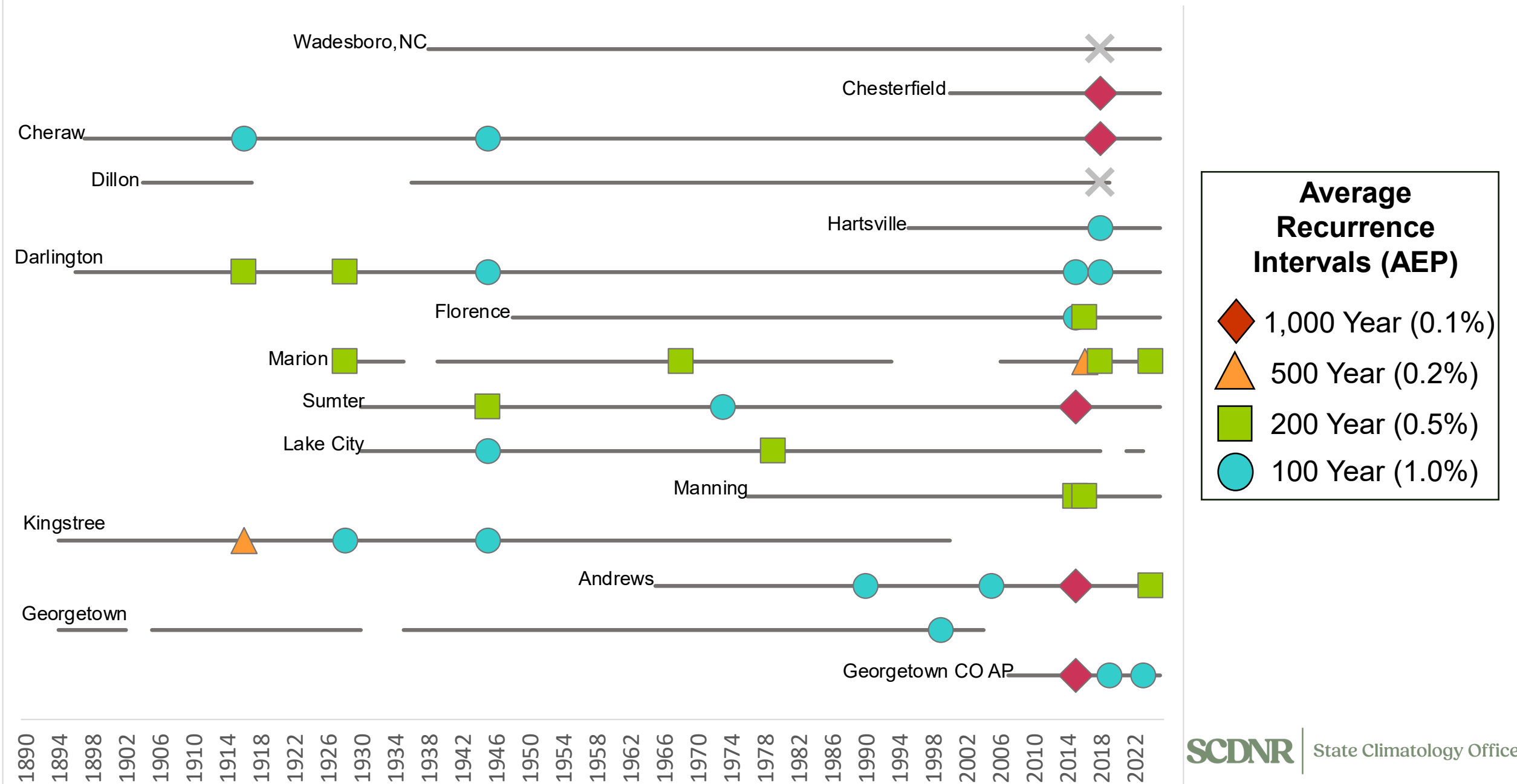
Timeline of 4-Day Rainfall Totals Along The Pee Dee (1890 – 2014)



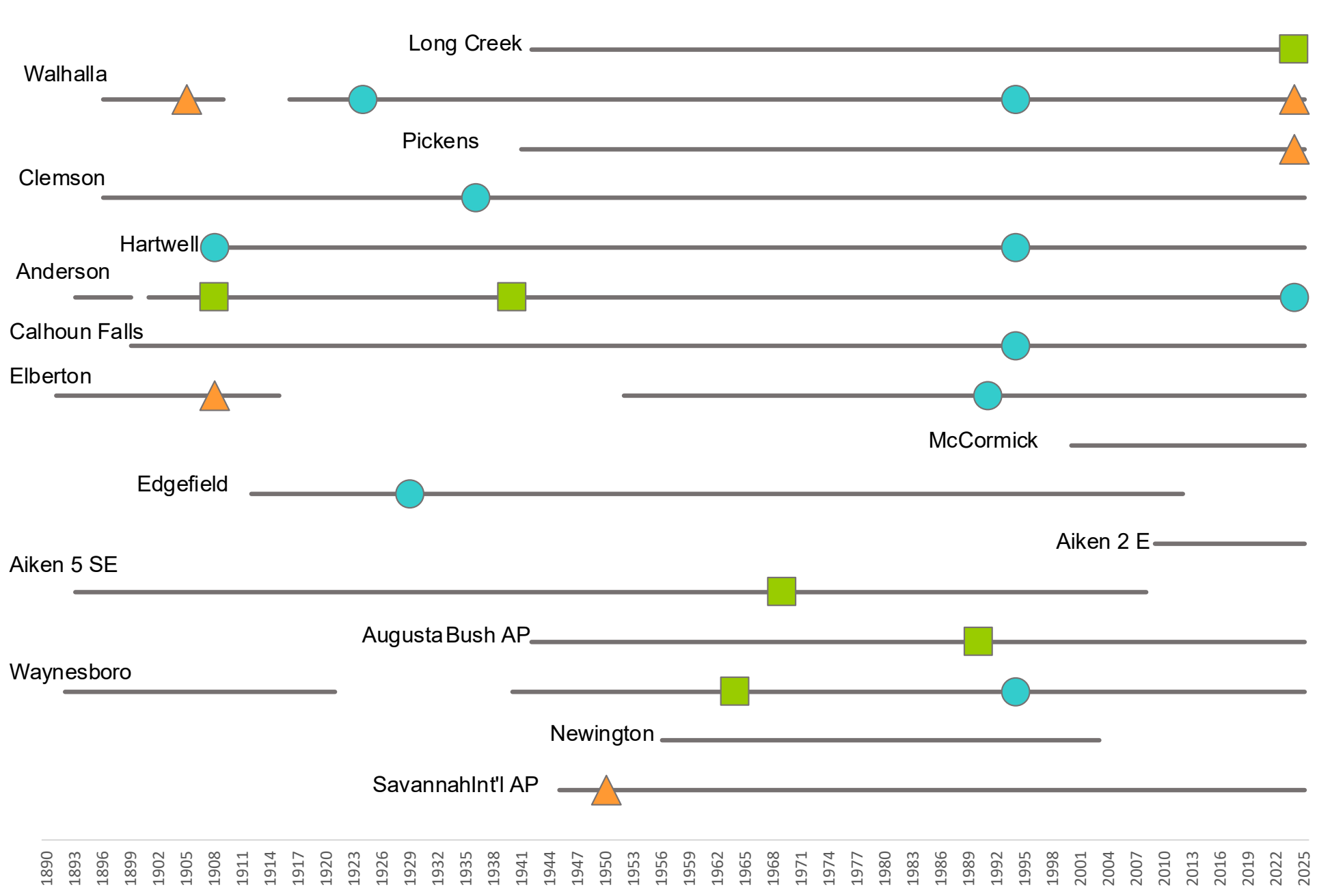
Average Recurrence Intervals (AEP)

- ◆ 1,000 Year (0.1%)
- ▲ 500 Year (0.2%)
- 200 Year (0.5%)
- 100 Year (1.0%)





Timeline of 4-Day Rainfall Totals Along The Pee Dee (1890 – 2025)



Timeline of 4-Day Rainfall Totals Along The Savannah (1890 – 2025)



Average Recurrence Intervals (AEP)

-  1,000 Year (.1%)
-  500 Year (.2%)
-  200 Year (.5%)
-  100 Year (1%)

Contact Information

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Thank you

