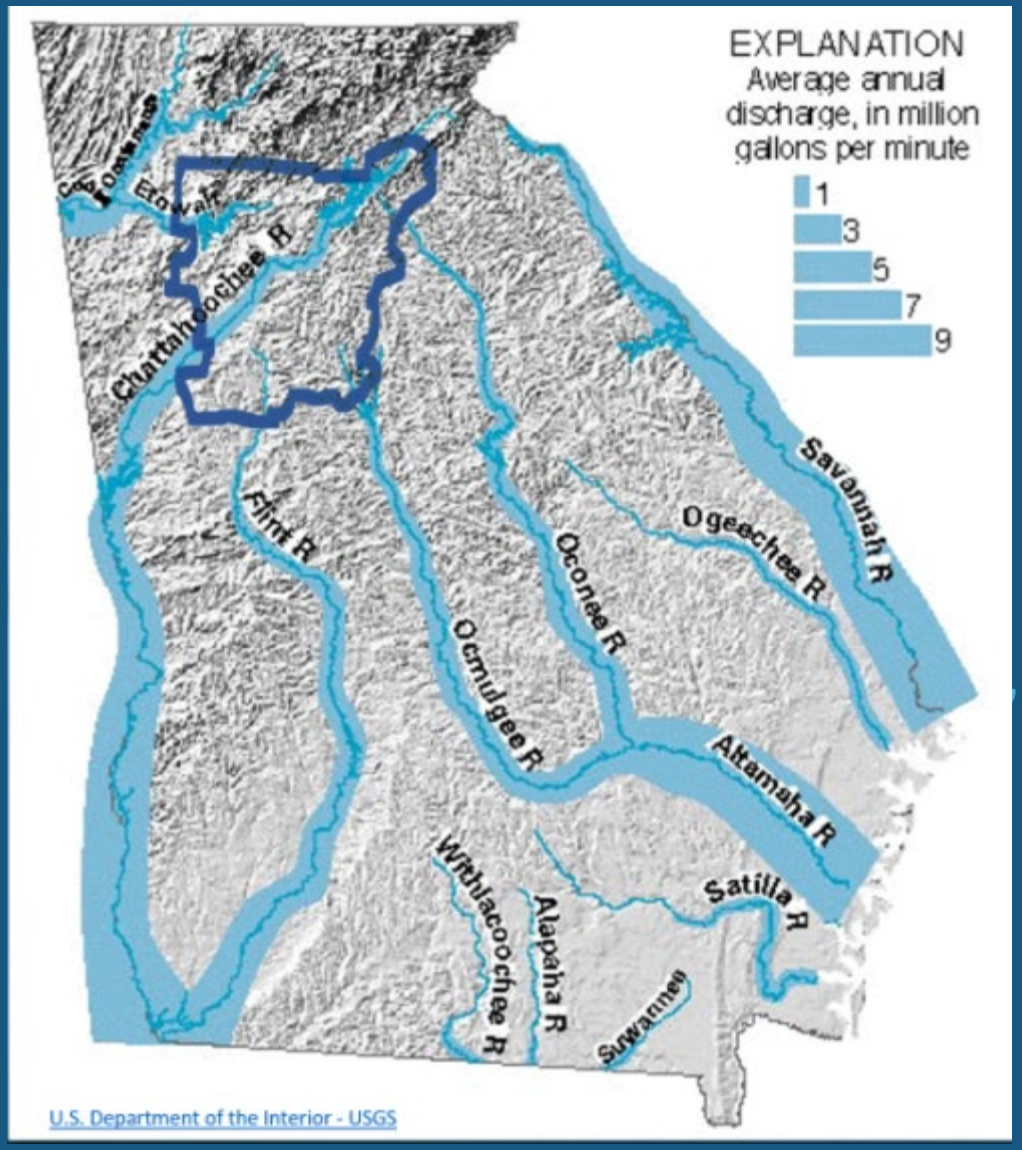
Metro Atlanta and the US Drought Monitor

February 4, 2020

Katherine Zitsch, PE, BCEE


EXPLANATION
Average annual discharge, in million gallons per minute
1
3
5
7
9
Chattahoochee R
Flint R
Ocmulgee R
Oconee R
Ogeechee R
Savannah R
Altamaha R
Satilla R
Withlacoochee R
Alapaha R
Suwannee
U.S. Department of the Interior - USGS

Allatoona Dam

Courtesy: Stephen Weiss

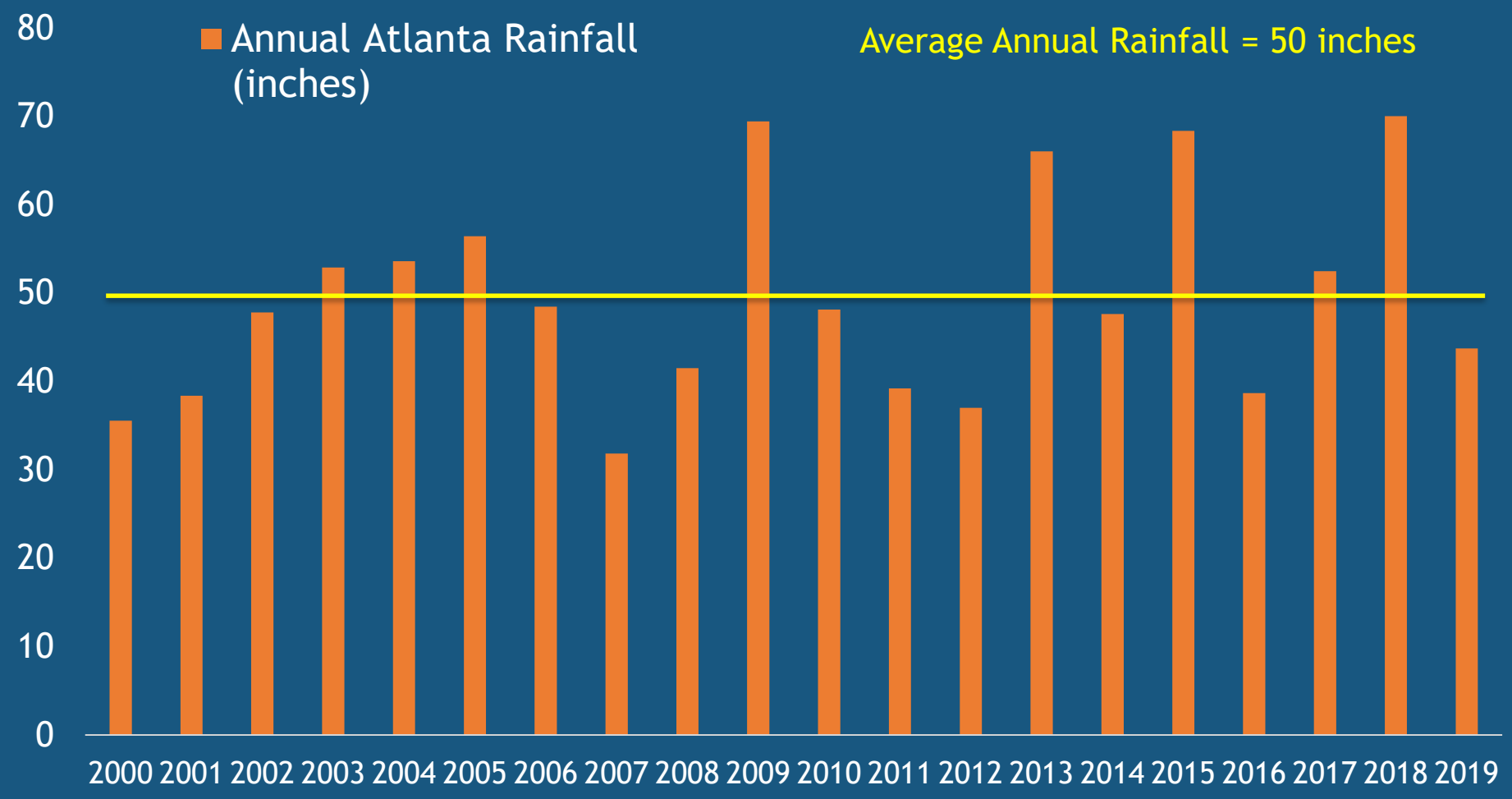
~80% of our Water Supply is from Corps Reservoirs and Related Rivers

Water Resources in Metro North Georgia

- The region is underlain by granite bedrock
- Groundwater use is limited

98% of Our Water is Supplied through Surface Water Sources

Cycles of Flood and Drought



Drought Monitor Helps Us As An Education Tool

WHAT IS THE METRO WATER DISTRICT? | LATEST WATER STATS | CONSERVE OUR WATER | PROTECT OUR WATER | WATER LITIGATION

Home > Latest Water Stats > U.S. Drought Monitor

U.S. Drought Monitor

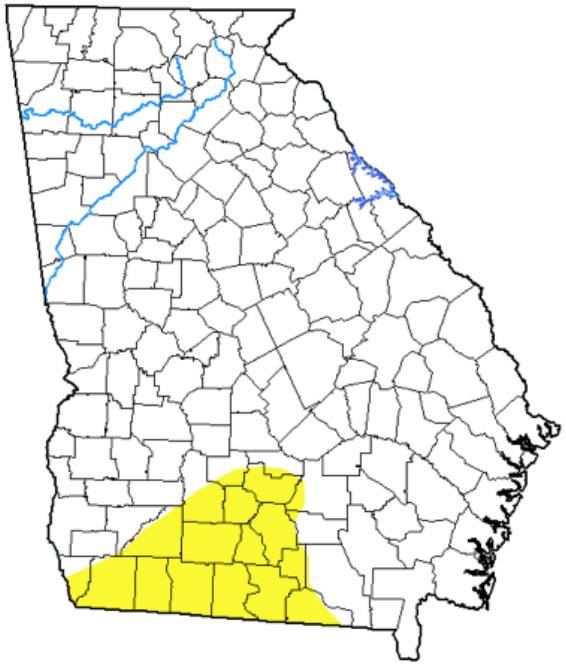
U.S. Drought Monitor

Georgia

January 28, 2020

(Released Thursday, Jan. 30, 2020)

Valid 7 a.m. EST



Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

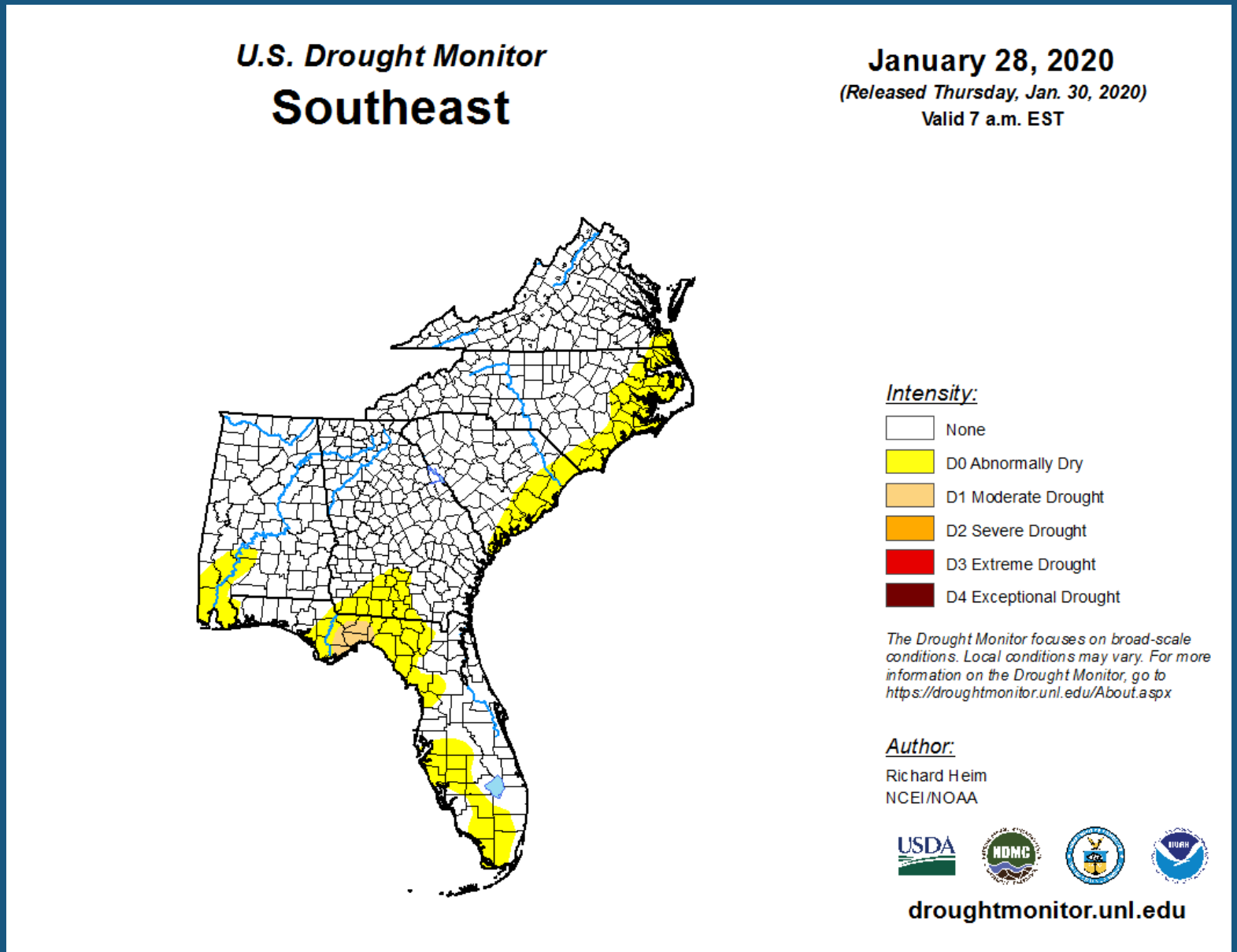
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

Author:

Richard Heim
NCEI/NOAA

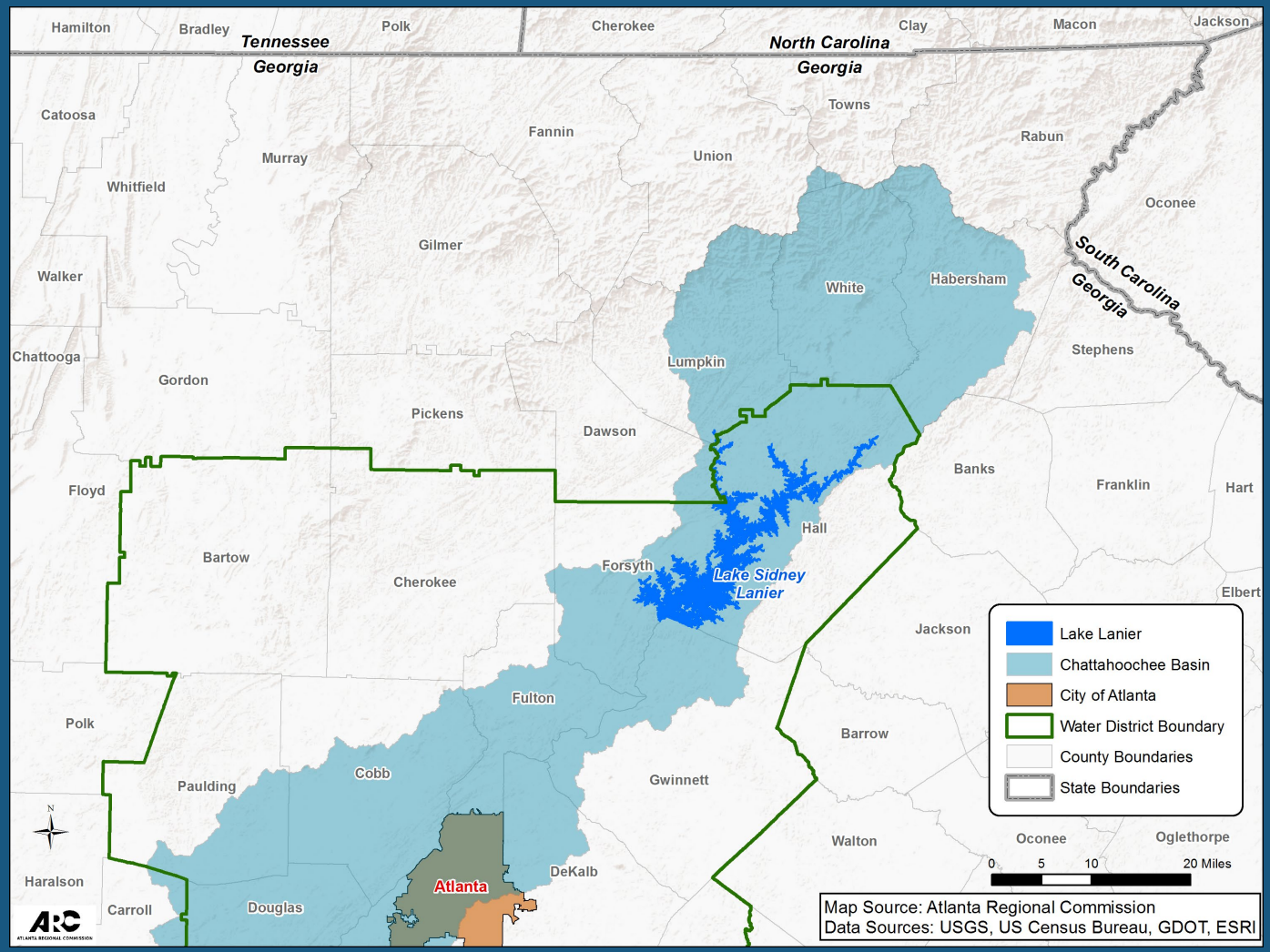
droughtmonitor.unl.edu

And Helps Us See the Bigger Picture

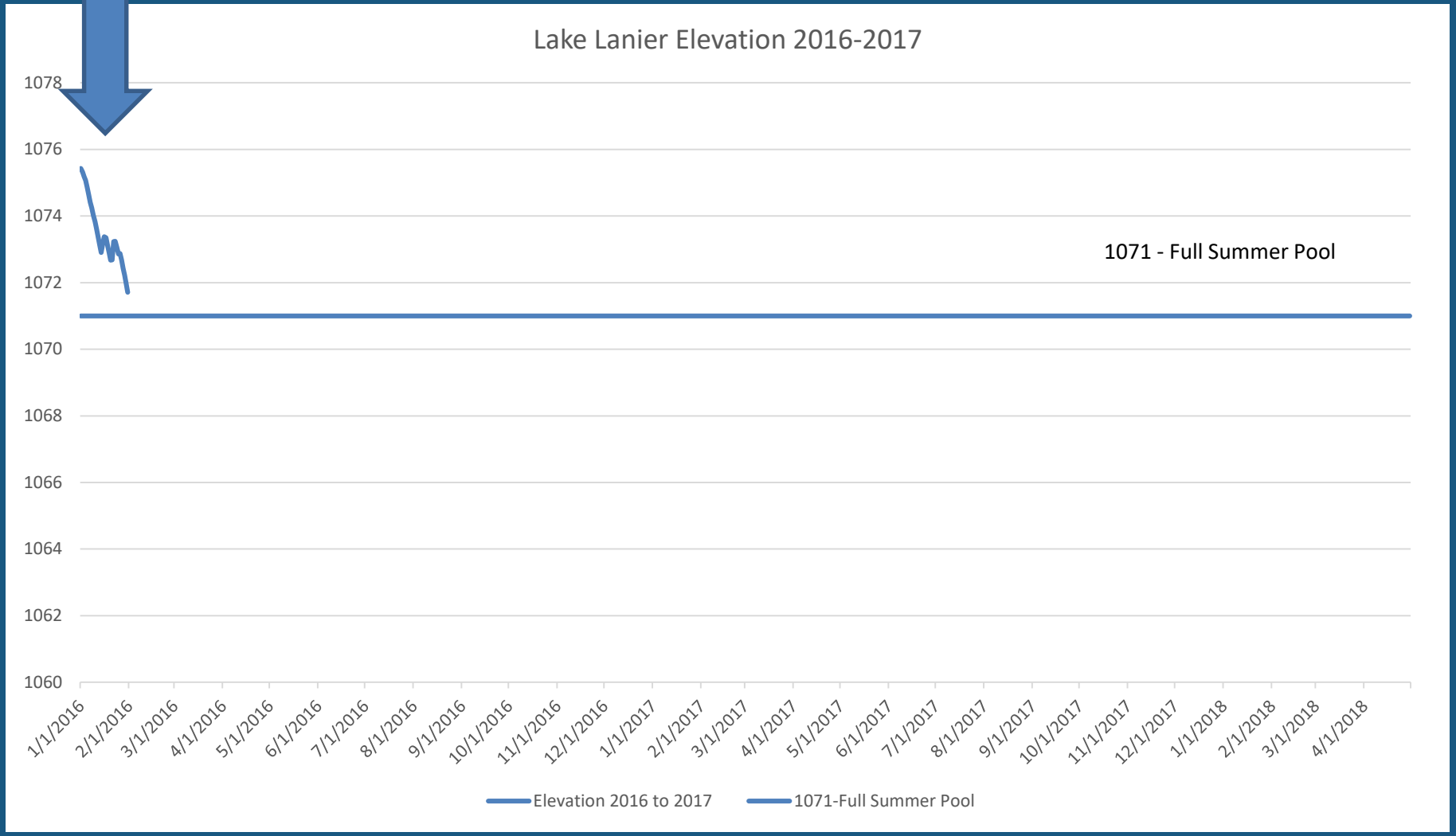


… but the Drought Monitor Can Also Cause Its Own Challenges

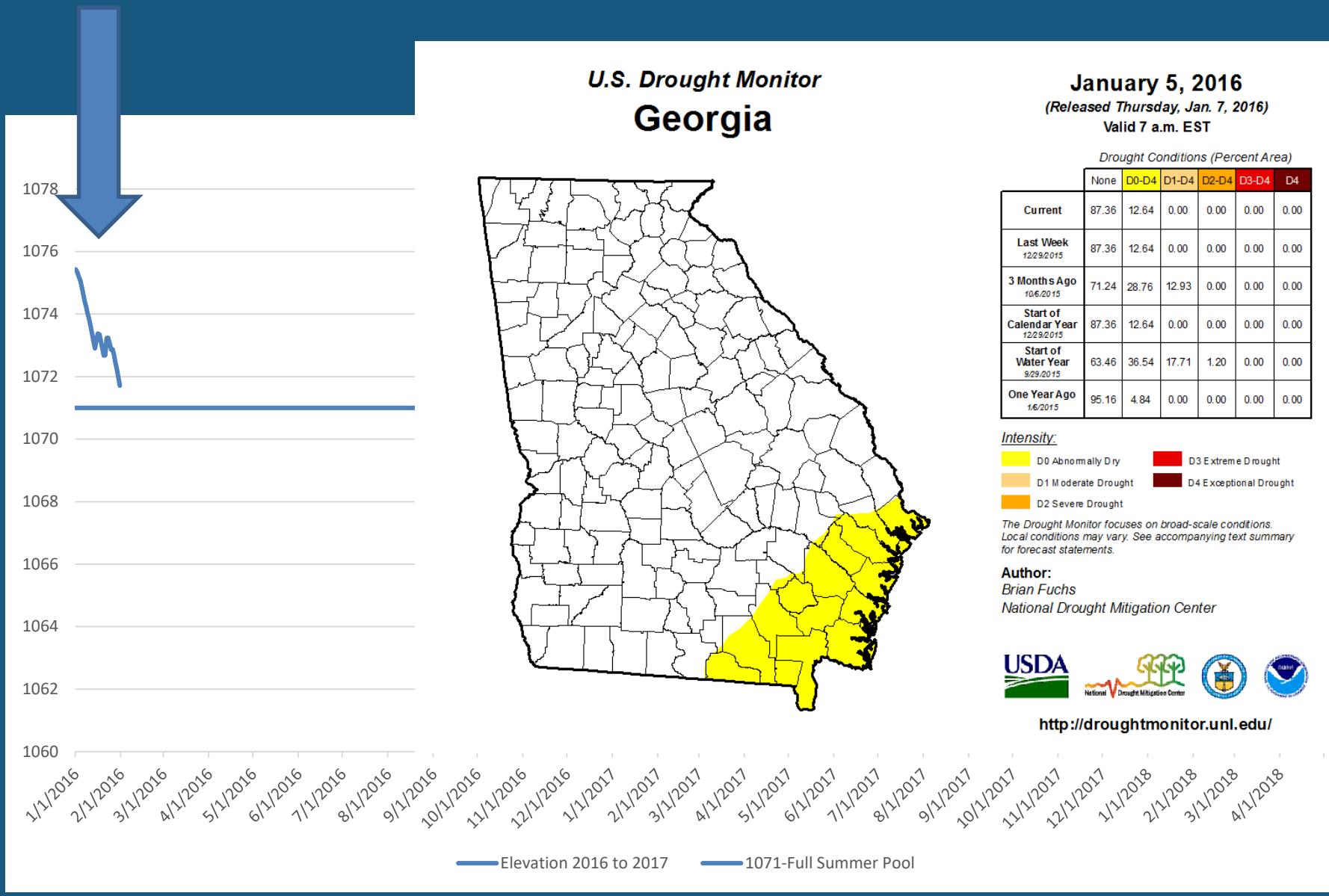
Lake Lanier Watershed



Jan 2016 – Lake Lanier Above Full Pool



Jan 2016 – Lake Lanier Above Full Pool



U.S. Drought Monitor

Georgia

January 5, 2016

(Released Thursday, Jan. 7, 2016)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	87.36	12.64	0.00	0.00	0.00	0.00
Last Week *12/29/2015*	87.36	12.64	0.00	0.00	0.00	0.00
3 Months Ago *10/6/2015*	71.24	28.76	12.93	0.00	0.00	0.00
Start of Calendar Year *12/29/2015*	87.36	12.64	0.00	0.00	0.00	0.00
Start of Water Year *9/29/2015*	63.46	36.54	17.71	1.20	0.00	0.00
One Year Ago *1/6/2015*	95.16	4.84	0.00	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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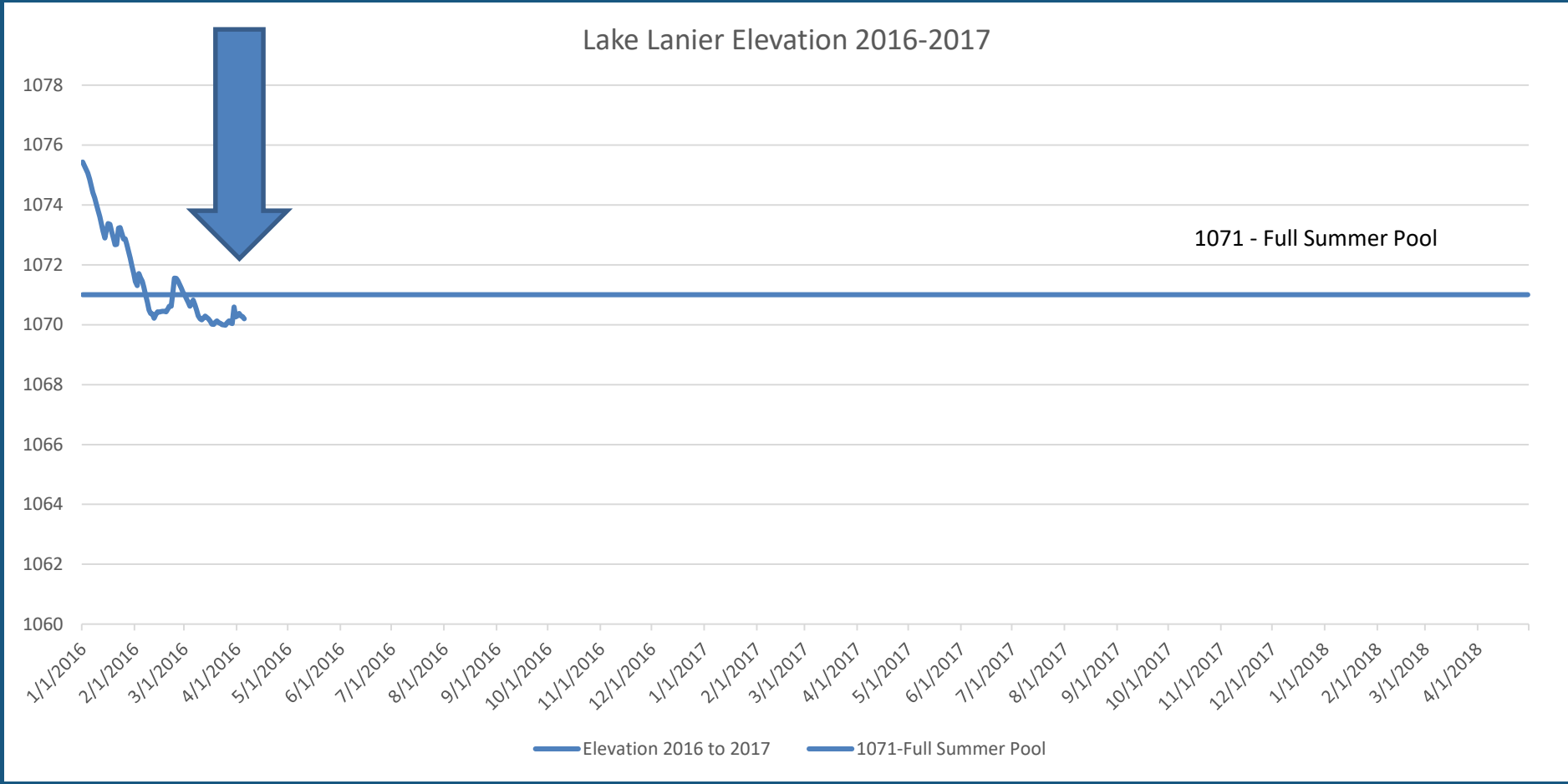
Author:
Brian Fuchs
National Drought Mitigation Center

http://droughtmonitor.unl.edu/

April 2016


Lake Lanier Elevation 2016-2017
1078
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1071 - Full Summer Pool
1/1/2016
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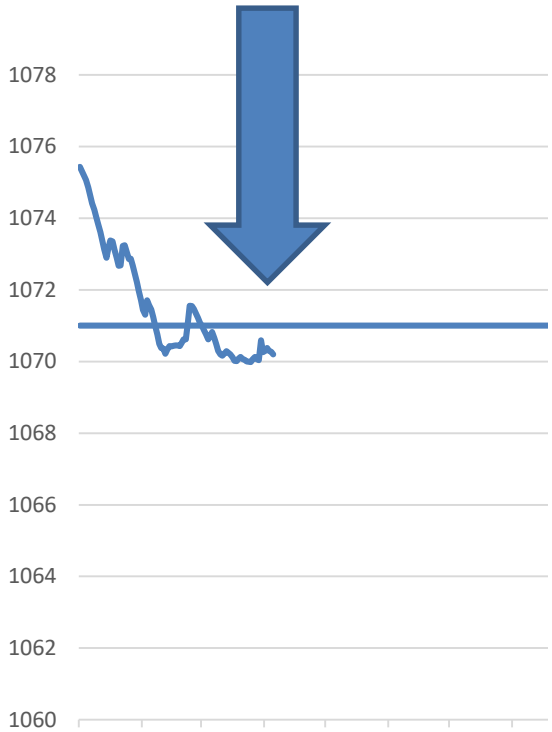
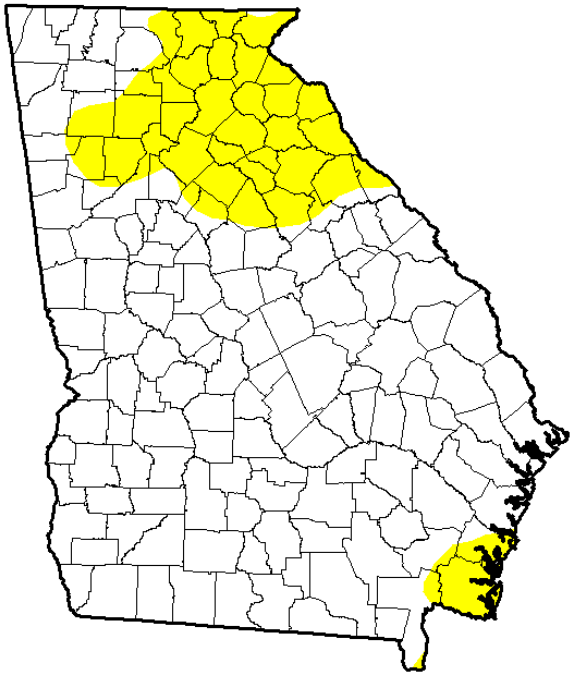
Elevation 2016 to 2017
1071-Full Summer Pool

April 2016





April 5, 2016

(Released Thursday, Apr. 7, 2016)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	81.27	18.73	0.00	0.00	0.00	0.00
Last Week 3/29/2016	68.57	31.43	0.00	0.00	0.00	0.00
3 Months Ago 1/5/2016	87.36	12.64	0.00	0.00	0.00	0.00
Start of Calendar Year 12/29/2015	87.36	12.64	0.00	0.00	0.00	0.00
Start of Water Year 9/29/2015	63.46	36.54	17.71	1.20	0.00	0.00
One Year Ago 4/7/2015	51.17	48.83	2.27	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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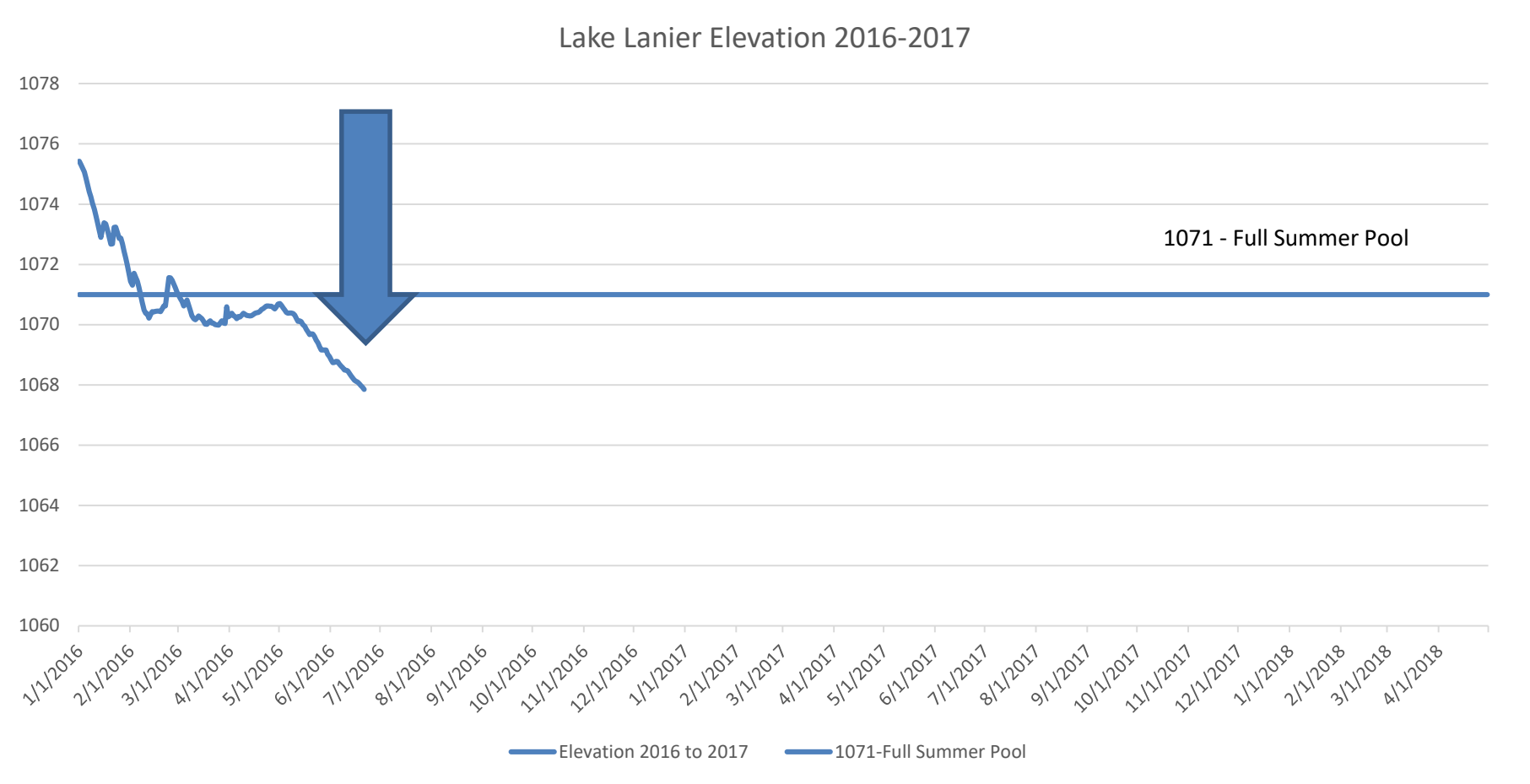
Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

http://droughtmonitor.unl.edu/

1/1/2016 2/1/2016 3/1/2016 4/1/2016 5/1/2016 6/1/2016 7/1/2016 8/1/2016 9/1/2016 10/1/2016 11/1/2016 12/1/2016 1/1/2017 2/1/2017 3/1/2017 4/1/2017 5/1/2017 6/1/2017 7/1/2017 8/1/2017 9/1/2017 10/1/2017 11/1/2017 12/1/2017 1/1/2018 2/1/2018 3/1/2018 4/1/2018

Elevation 2016 to 2017 — 1071-Full Summer Pool

June 2016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Elevation 2016 to 2017
1071-Full Summer Pool

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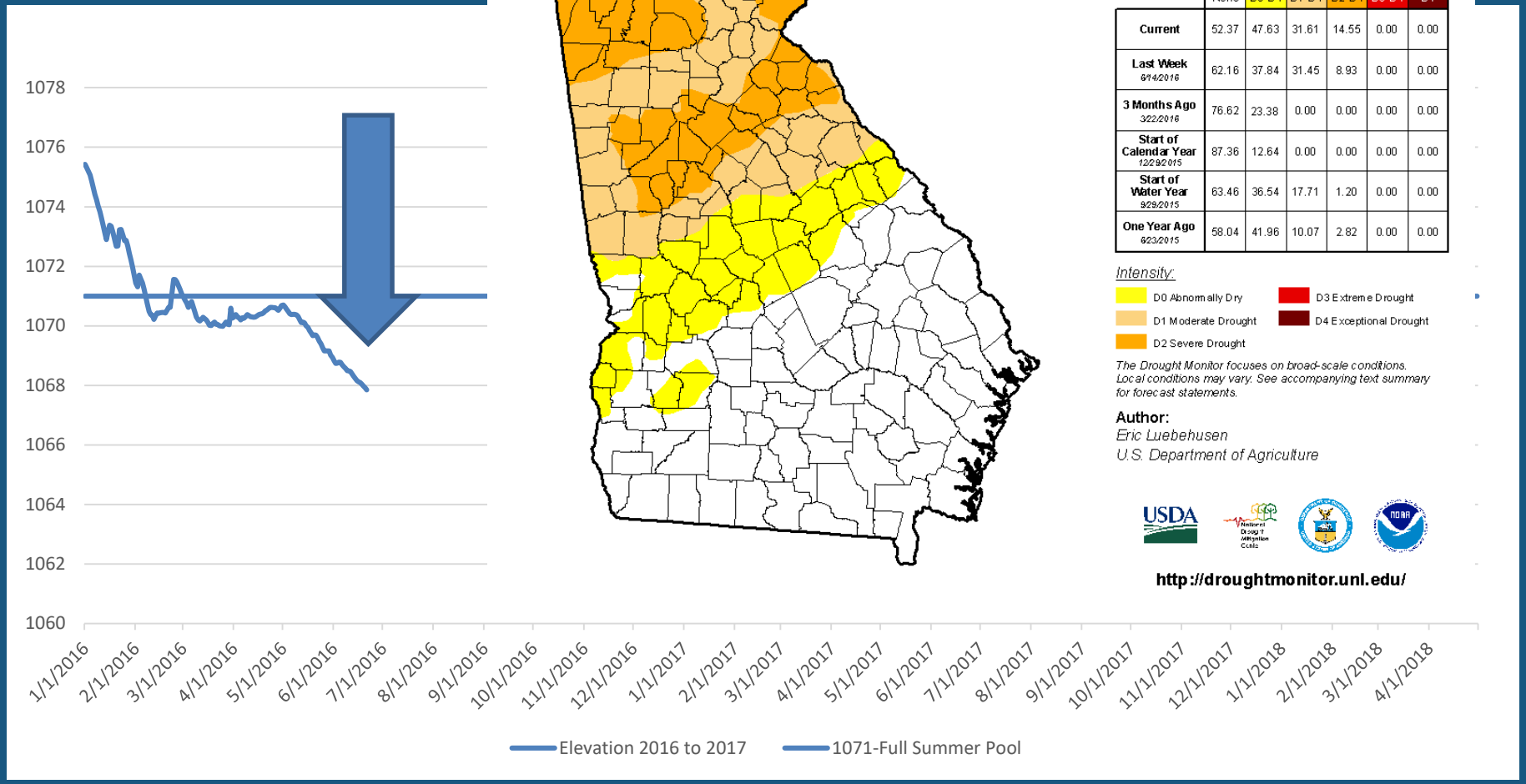
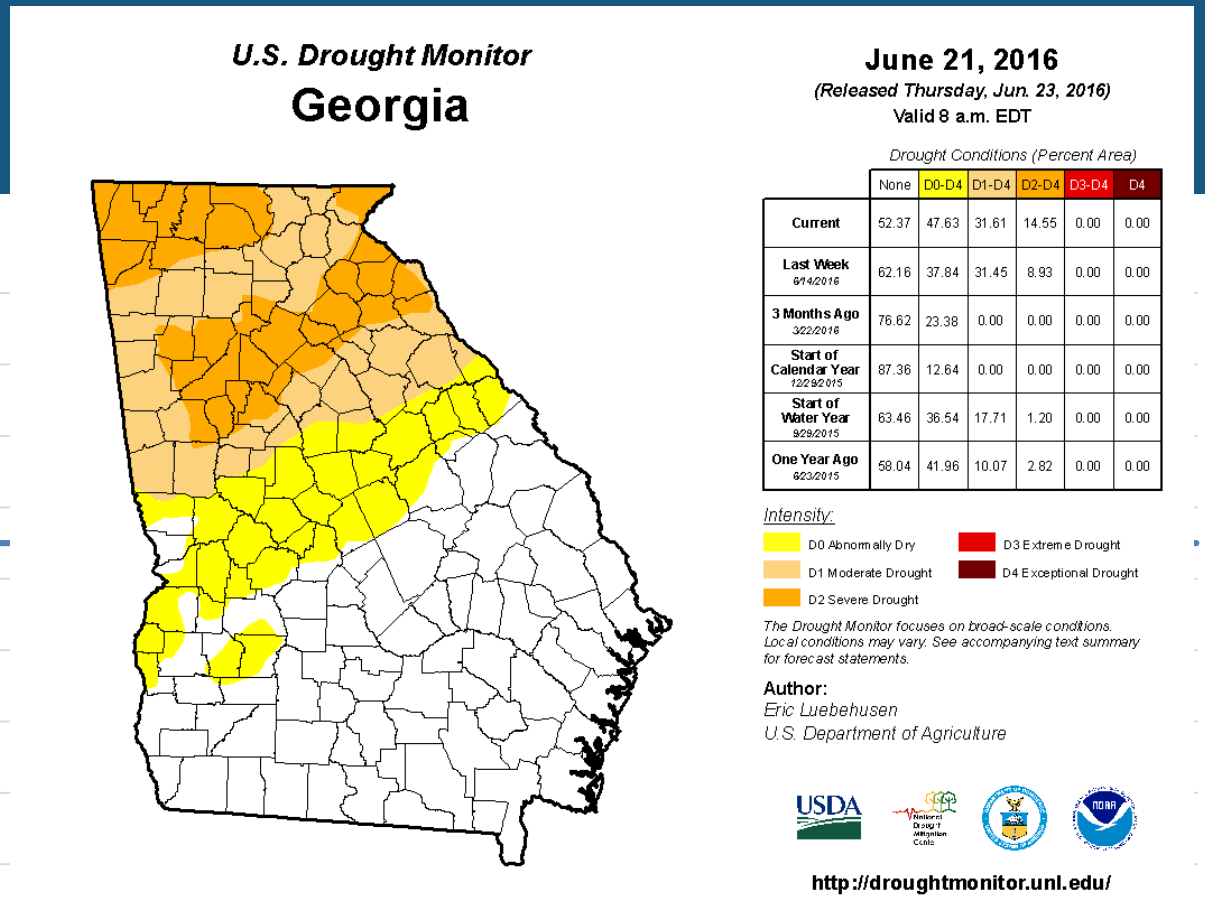
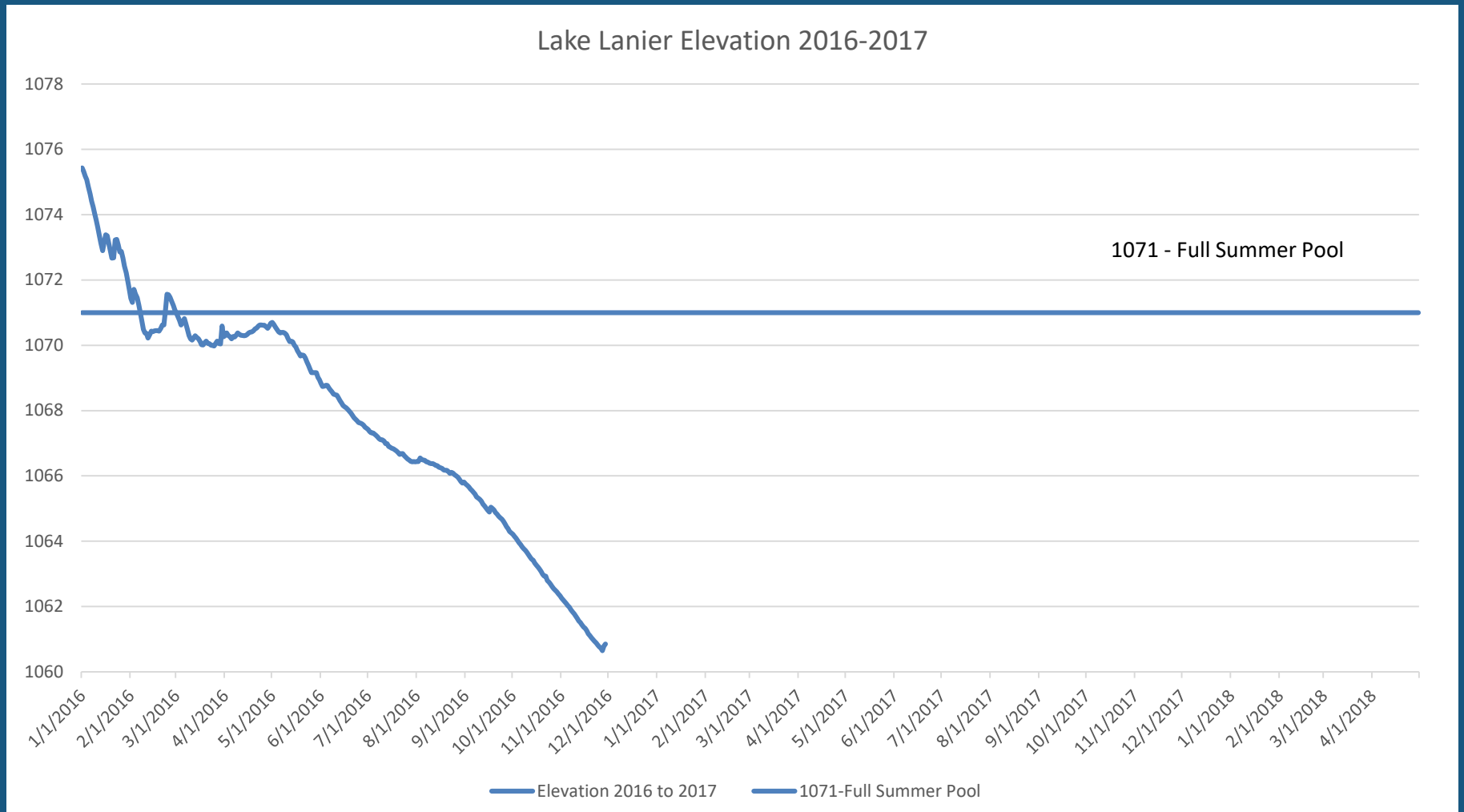


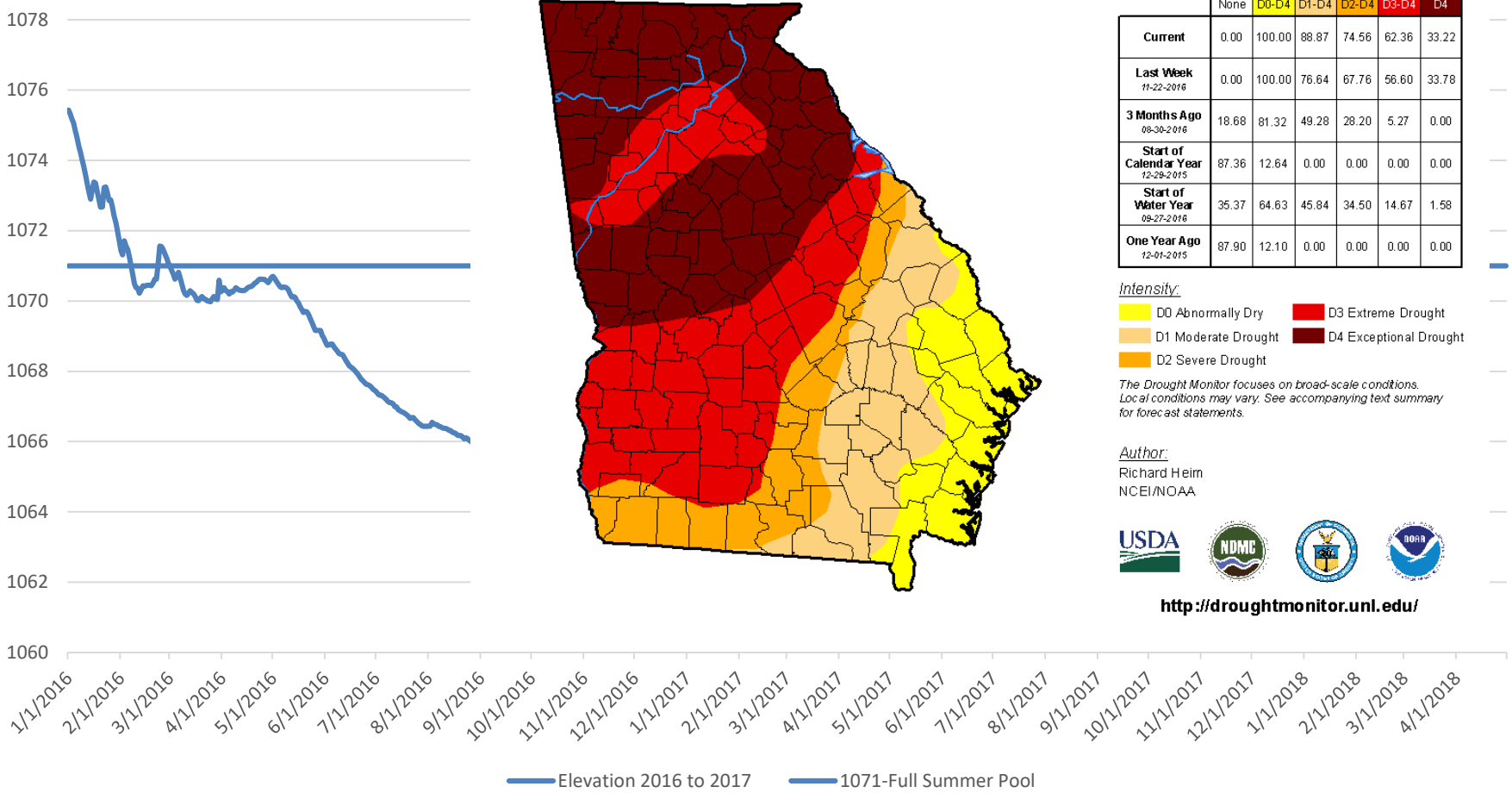


	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	52.37	47.63	31.61	14.55	0.00	0.00
Last Week 6/14/2016	62.16	37.84	31.45	8.93	0.00	0.00
3 Months Ago 3/22/2016	76.62	23.38	0.00	0.00	0.00	0.00
Start of Calendar Year 12/29/2015	87.36	12.64	0.00	0.00	0.00	0.00
Start of Water Year 9/29/2015	63.46	36.54	17.71	1.20	0.00	0.00
One Year Ago 6/23/2015	58.04	41.96	10.07	2.82	0.00	0.00

November 2016

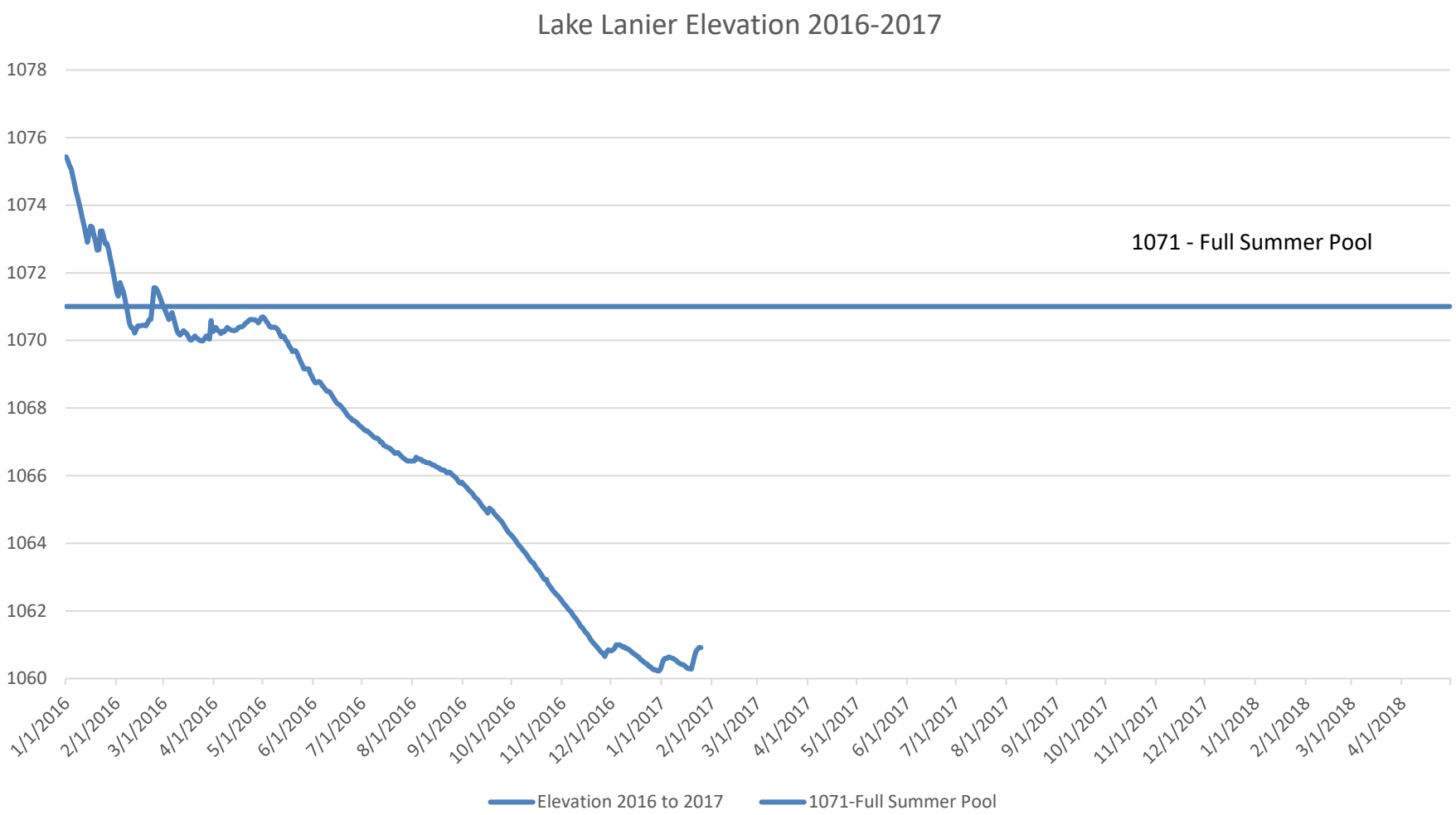


November 2016



	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	88.87	74.56	62.36	33.22
Last Week 11-22-2016	0.00	100.00	76.64	67.76	56.60	33.78
3 Months Ago 08-30-2016	18.68	81.32	49.28	28.20	5.27	0.00
Start of Calendar Year 12-29-2015	87.36	12.64	0.00	0.00	0.00	0.00
Start of Water Year 09-27-2016	35.37	64.63	45.84	34.50	14.67	1.58
One Year Ago 12-01-2015	87.90	12.10	0.00	0.00	0.00	0.00

January 2017



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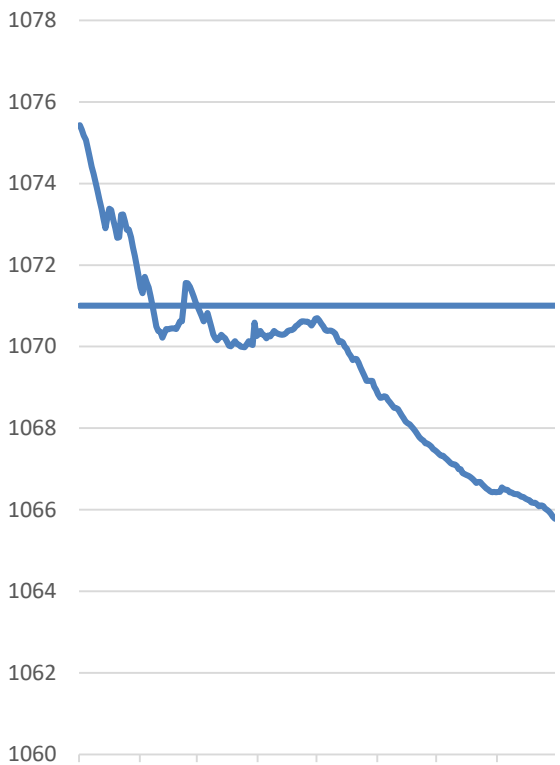

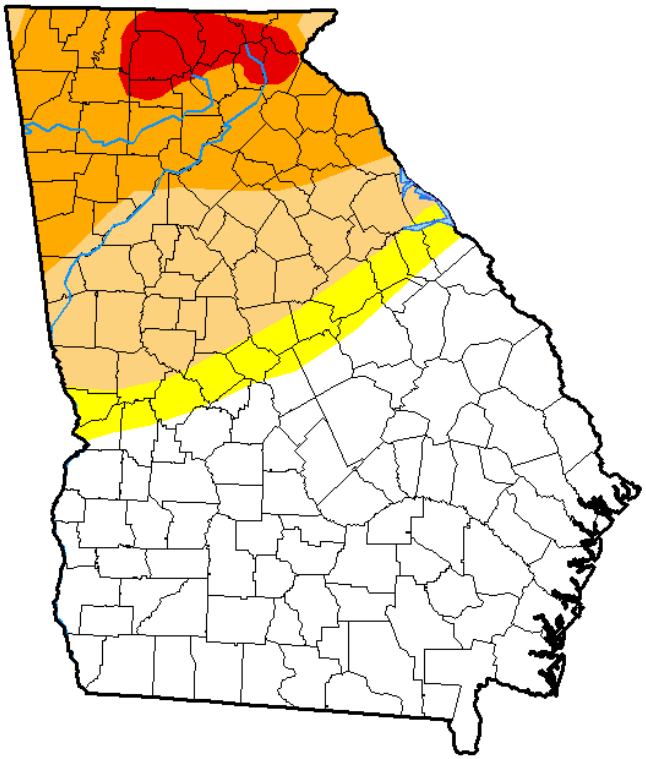

U.S. Drought Monitor

Georgia

January 24, 2017

(Released Thursday, Jan. 26, 2017)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	57.64	42.36	36.22	19.58	3.57	0.00
Last Week *01-17-2017*	11.44	88.56	48.34	34.43	19.28	0.00
3 Months Ago *10-25-2016*	33.95	66.05	57.89	49.92	33.67	12.13
Start of Calendar Year *01-03-2017*	11.31	88.69	73.48	39.33	19.28	0.00
Start of Water Year *09-27-2016*	35.37	64.63	45.84	34.50	14.67	1.58
One Year Ago *01-26-2016*	87.40	12.60	0.00	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

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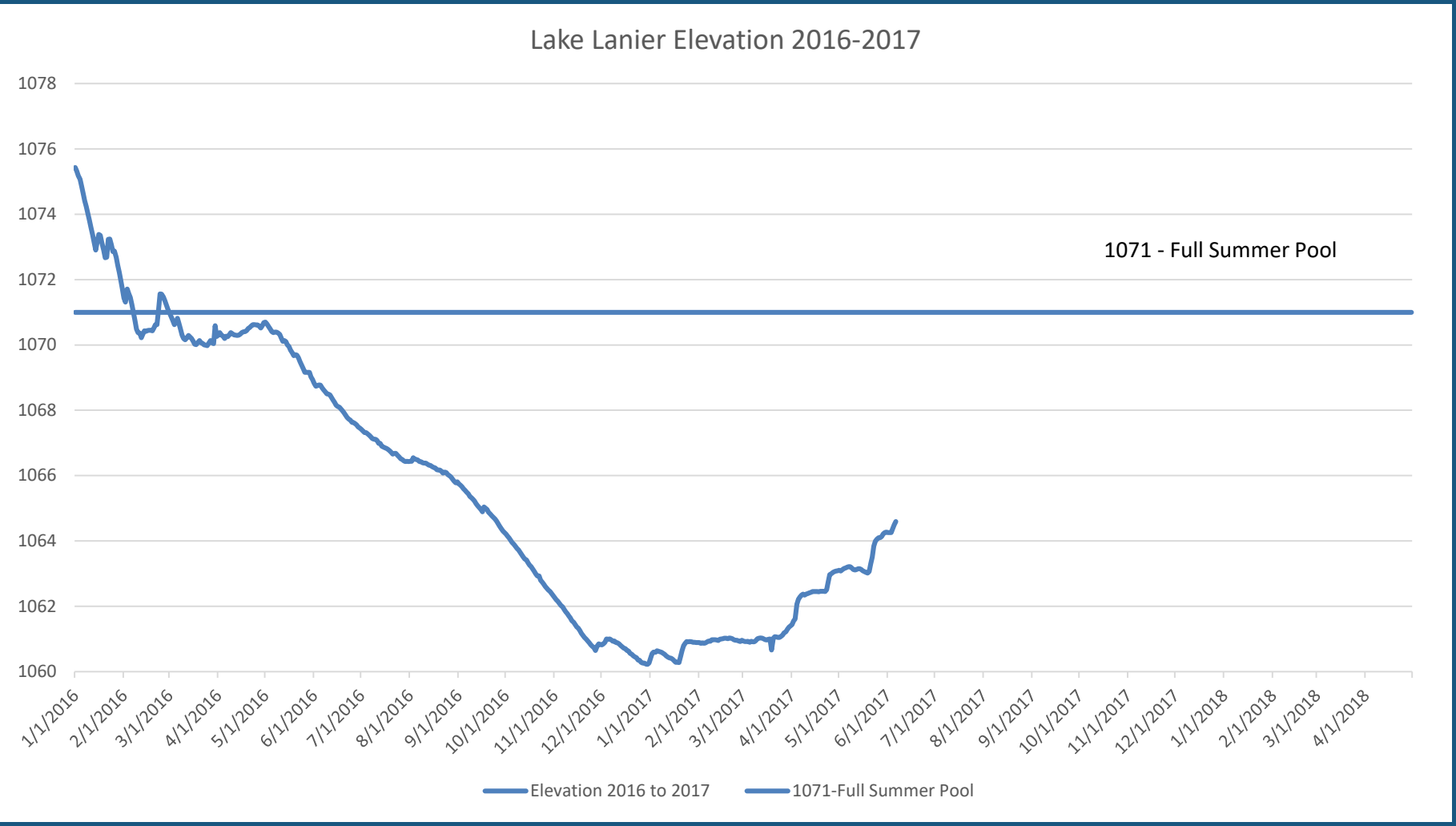
Elevation 2016 to 2017 — 1071-Full Summer Pool

June 2017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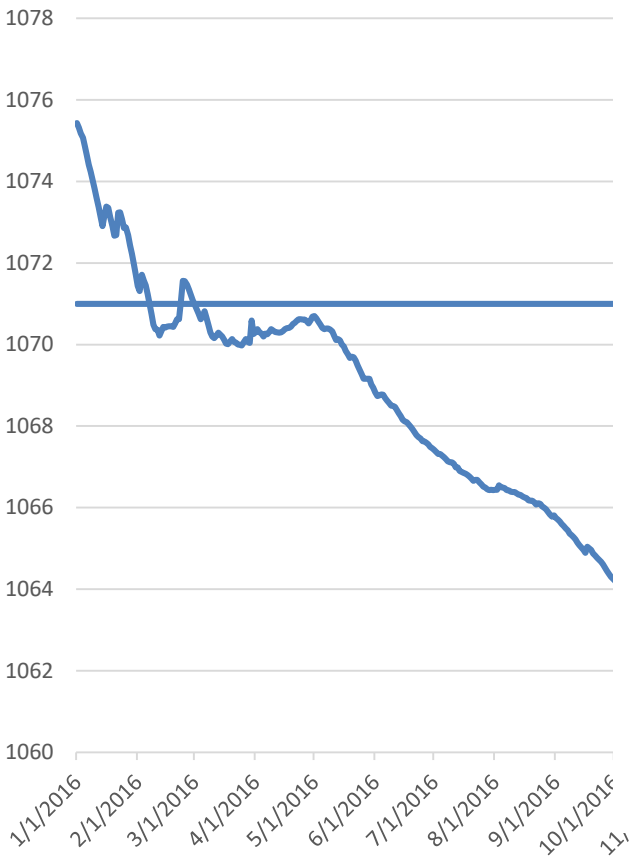

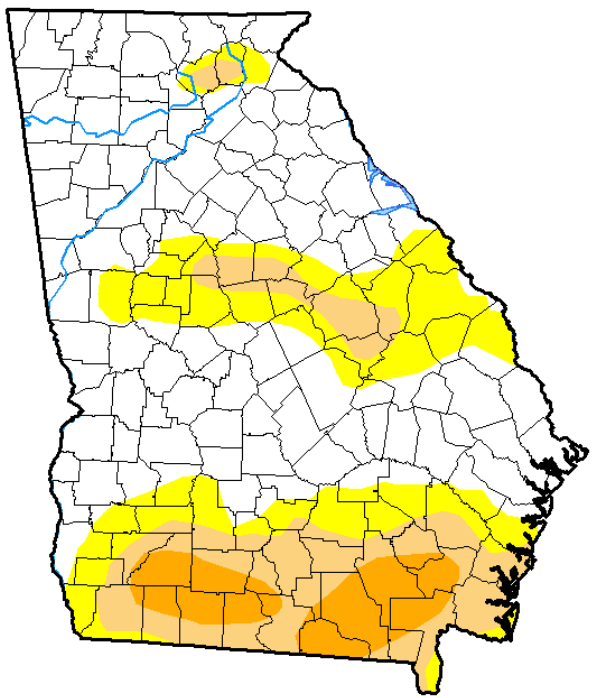

June 6, 2017

(Released Thursday, Jun. 8, 2017)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	59.69	40.31	21.10	7.20	0.00	0.00
Last Week 05-30-2017	45.17	54.83	33.29	17.49	0.00	0.00
3 Months Ago 03-07-2017	66.26	33.74	27.56	19.39	8.69	0.00
Start of Calendar Year 01-03-2017	11.31	88.69	73.48	39.33	19.28	0.00
Start of Water Year 09-27-2016	35.37	64.63	45.84	34.50	14.67	1.58
One Year Ago 06-07-2016	64.71	35.29	27.96	4.06	0.00	0.00

Intensity:

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- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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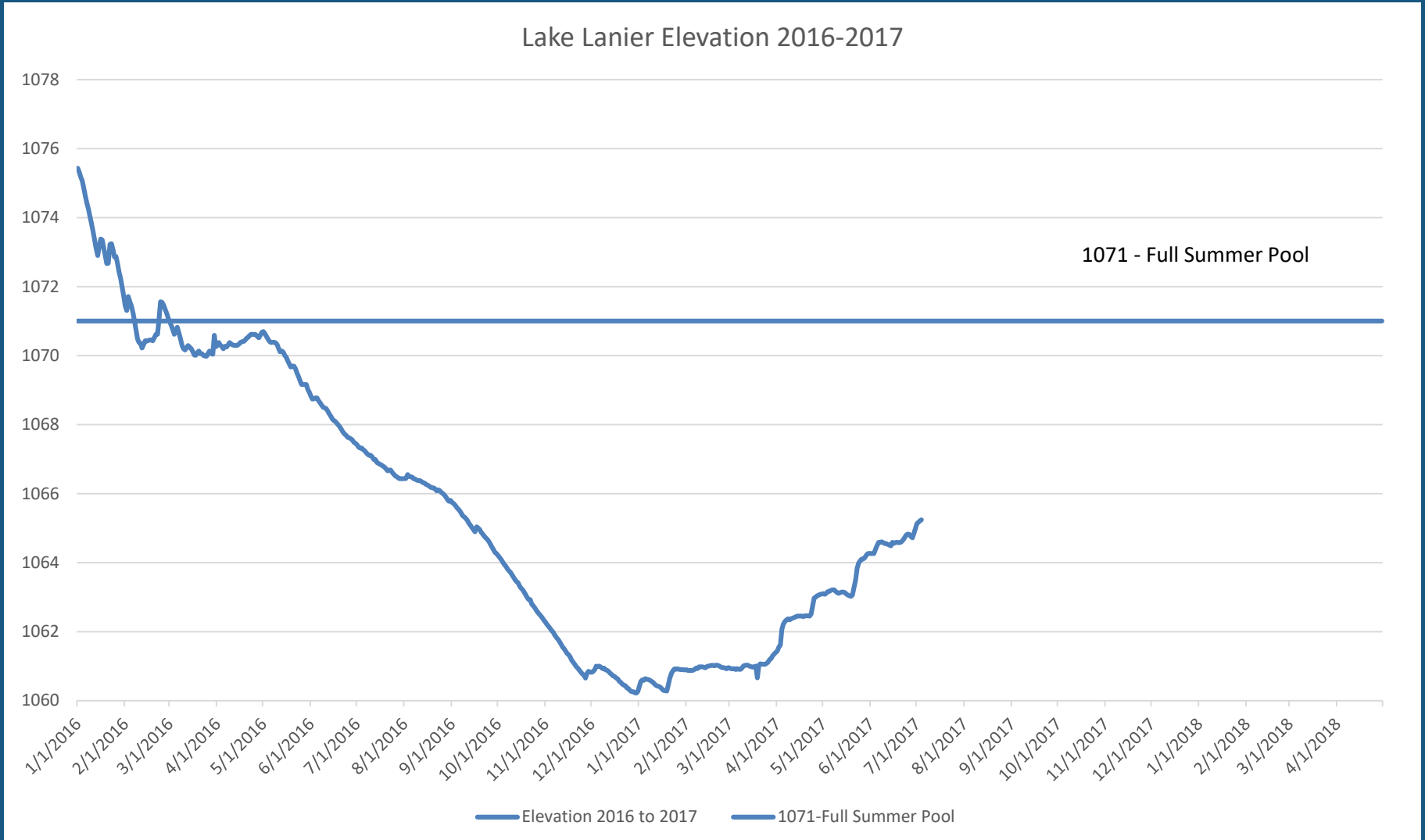
Author:
Deborah Bathke
National Drought Mitigation Center

http://droughtmonitor.unl.edu/

Elevation 2016 to 2017 — 1071-Full Summer Pool

July 2017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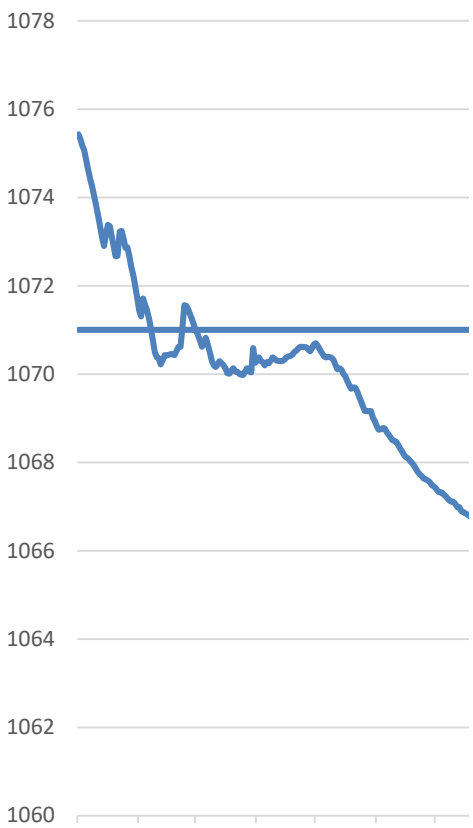
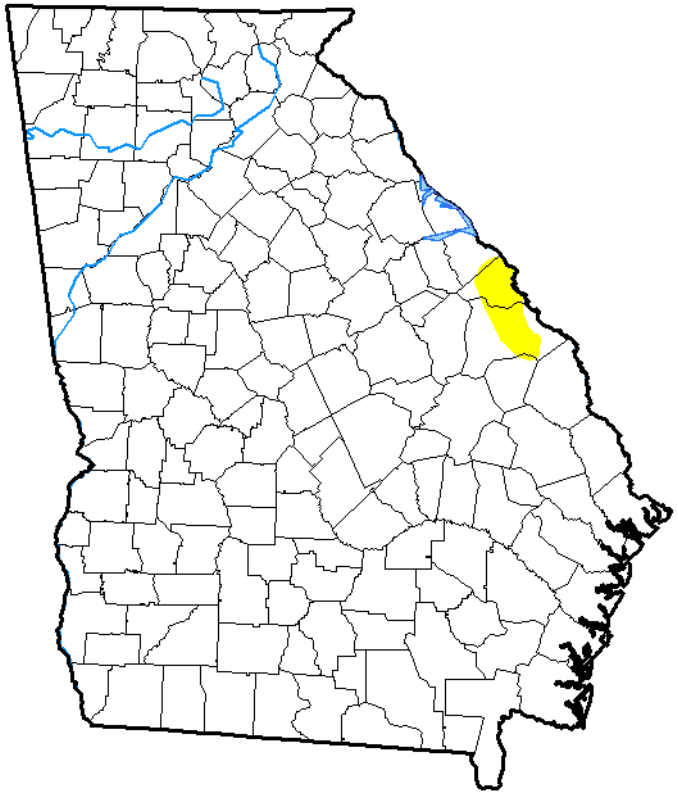
Elevation 2016 to 2017
1071-Full Summer Pool

July 2017





U.S. Drought Monitor
Georgia

July 4, 2017
(Released Thursday, Jul. 6, 2017)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	98.97	1.03	0.00	0.00	0.00	0.00
Last Week 06-27-2017	75.85	24.15	0.19	0.00	0.00	0.00
3 Months Ago 04-04-2017	1.09	98.91	29.94	15.05	4.16	0.00
Start of Calendar Year 01-03-2017	11.31	88.69	73.48	39.33	19.28	0.00
Start of Water Year 09-27-2016	35.37	64.63	45.84	34.50	14.67	1.58
One Year Ago 07-05-2016	51.69	48.31	33.76	28.12	6.77	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
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Author:
David Simeral
Western Regional Climate Center

http://droughtmonitor.unl.edu/

1/1/2016 2/1/2016 3/1/2016 4/1/2016 5/1/2016 6/1/2016 7/1/2016 8/1/2016 9/1/2016 10/1/2016 11/1/2016 12/1/2016 1/1/2017 2/1/2017 3/1/2017 4/1/2017 5/1/2017 6/1/2017 7/1/2017 8/1/2017 9/1/2017 10/1/2017 11/1/2017 12/1/2017 1/1/2018 2/1/2018 3/1/2018 4/1/2018

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Georgia

January 28, 2020

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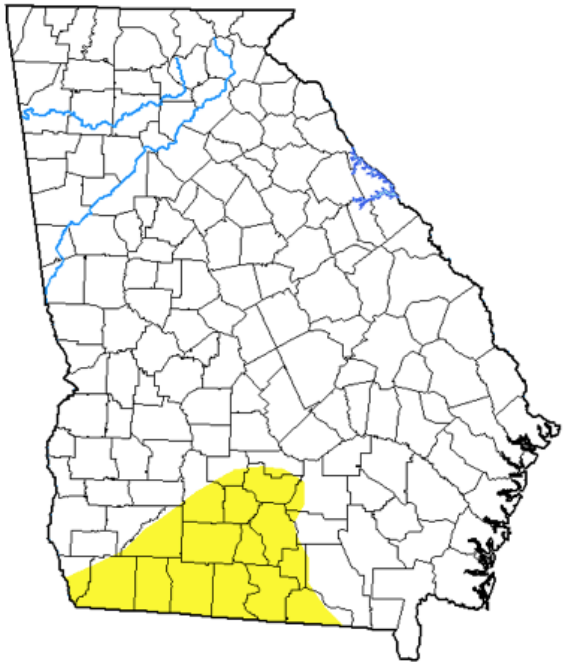

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… but the Drought Monitor Can Also Cause Its Own Challenges