

Historical Perspective on Georgia Droughts



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UGA Agricultural Climatologist

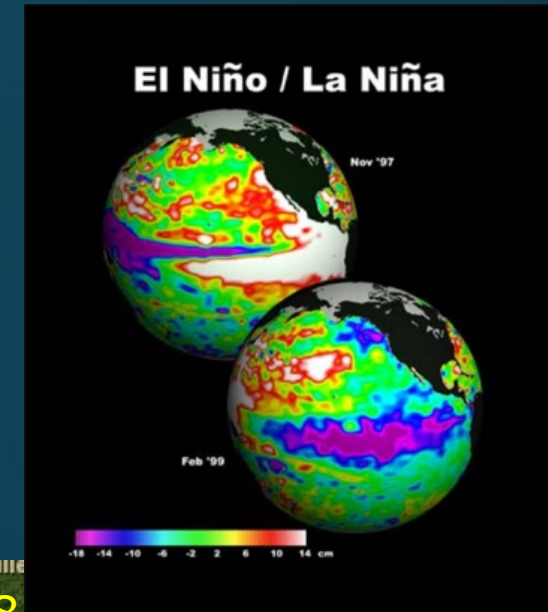
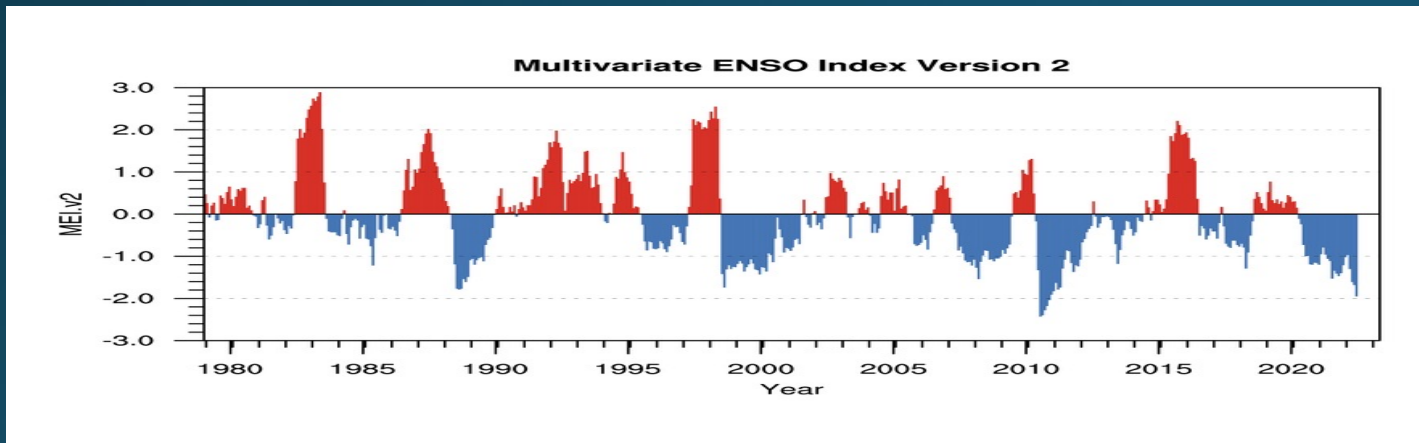
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706-542-7186

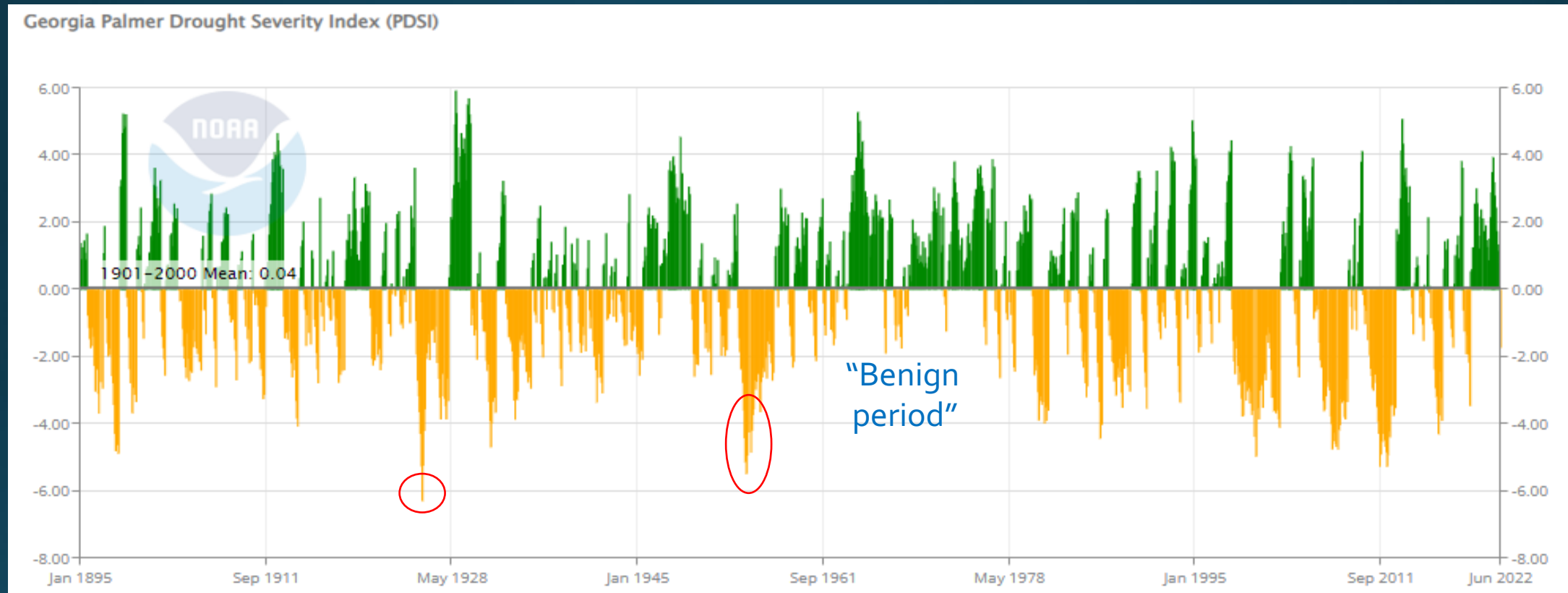
Causes of drought in Georgia

- Lack of tropical storms (up to 40% of summer rain comes from tropics)
- La Niña (lack of winter recharge)
- Longer term climate trends

Drought is a natural part of GA climate

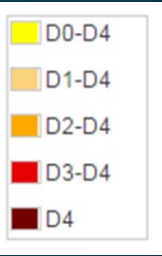


Georgia drought over time (1895-present)



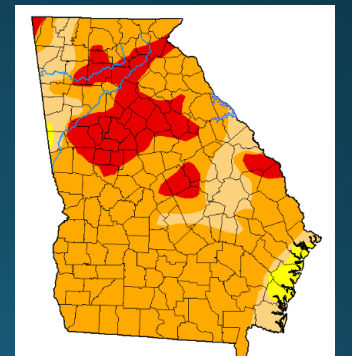
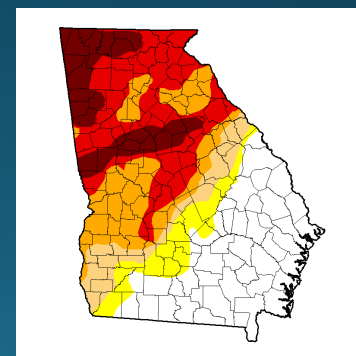
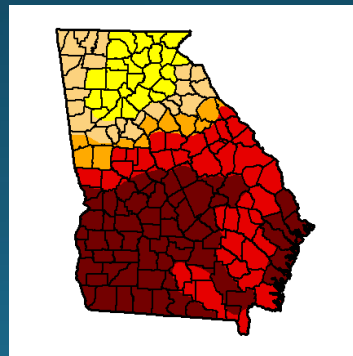
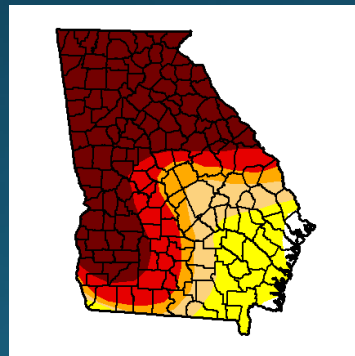
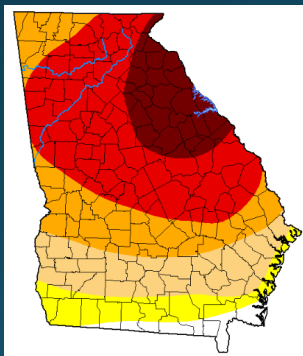
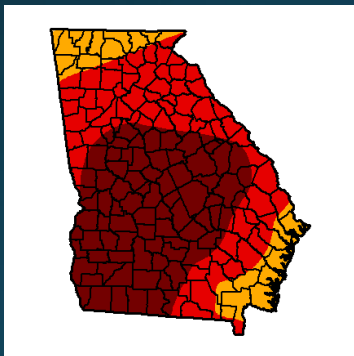
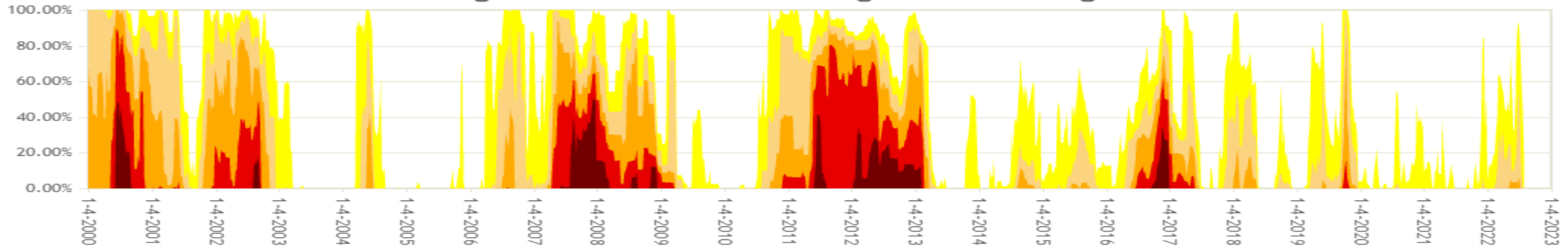
<https://www.ncdc.noaa.gov/cag>

Drought trends over time



2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020 2022

Georgia Percent Area in U.S. Drought Monitor Categories



Impacts from recent droughts

1998-2002 Drought:

Long drought caused multi-year crop yield reductions and issues with reservoir levels

GEORGIA DROUGHT MANAGEMENT PLAN

- 1) DROUGHT DECLARATION PROCESS
- 2) AGENCIES and ORGANIZATIONS
- 3) PRE-DROUGHT STRATEGIES
- 4) DROUGHT RESPONSES
- 5) DROUGHT INDICATORS and TRIGGERS
- 6) CLIMATE DIVISIONS MAP

March 26, 2003

- Statewide drought plan developed using input from roughly 60 agencies and individuals (adopted in 2005)
- Drought plan based on 9 climate divisions using 10 indicators for each CD
- Indicators based on streamflow, groundwater level, PSDI level, or others unique to each CD
- Drought response was listed as levels 1-4 with increasing levels of water conservation at each level

Impacts from recent droughts

2007-2009 Drought:

Precursors in 2006 in SE with fires, rapid growth in summer 2007 with August 2007 experiencing many days of 100+ F weather



- Rapid increase in drought response level from 1 to 2 to 4 with almost no time in level 3
- Concern about Atlanta running out of water
- Severe economic consequences on green industry (landscapers etc.) due to lack of access to water, exacerbated by economic depression


Impacts from recent droughts

2011-2013 Drought:

Predicted in advance due to La Nina forecast for summer 2012

20110617-1

City of Americus
"A Shining City on a Hill"



Mayor Barry Blount
City of Americus
101 W. Lamar St.
Americus, Ga. 31709
229-924-4411

RECEIVED
Environmental Protection Division
JUN 17 2011
DIRECTOR'S OFFICE

F. Allen Barnes
EPD Director
Georgia EPD
2 Martin Luther King Jr. Dr. S.E.
Suite 1152 East Tower
Atlanta, Ga 30334-9000

RE: Permit # GA2610000

Sirs;

This is a formal letter of request for variance from the current Georgia Water Stewardship Act requirements. The City of Americus has always followed outdoor water use restriction guidelines set by The State of Georgia, however we believe that with the current exceptional drought conditions in Southwest Georgia requesting a variance at this time would be a proactive measure.

Lately, The City of Americus Water Department has experienced longer than normal run times on our high service pumps. We are averaging run times of

Mayor
Barry Blount

Councilmembers

Walton Grant
District 6

Eloise Paschal
District 2

Lou Chase
District 3

Lorenzo Johnson
District 5

Juanita F. Wilson
District 1

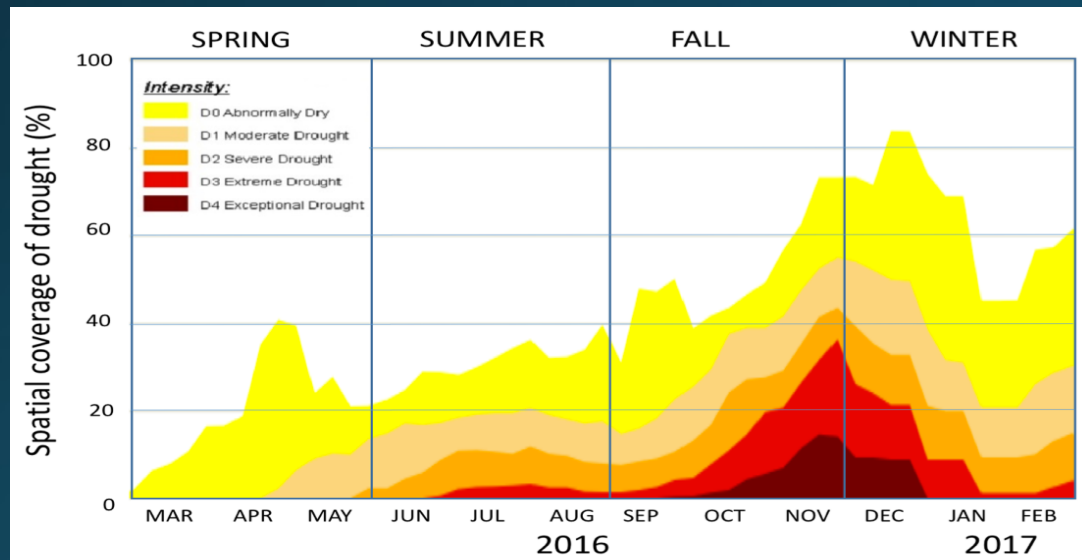
Carla G. Cook
District 4

- Drought began in SW Georgia in summer 2011
- Some cities like Americus requested variances from Drought plan due to local lack of water availability in June 2011
- Use of state drought plan was dropped
- Less media coverage since worst area of drought was south of Atlanta media market, but it was worse in central GA than the 2007-2009 drought

Impacts from recent droughts

2016-2017 Drought:

Flash drought started in NW Georgia and NE Alabama as dry spell that hit right at corn pollination

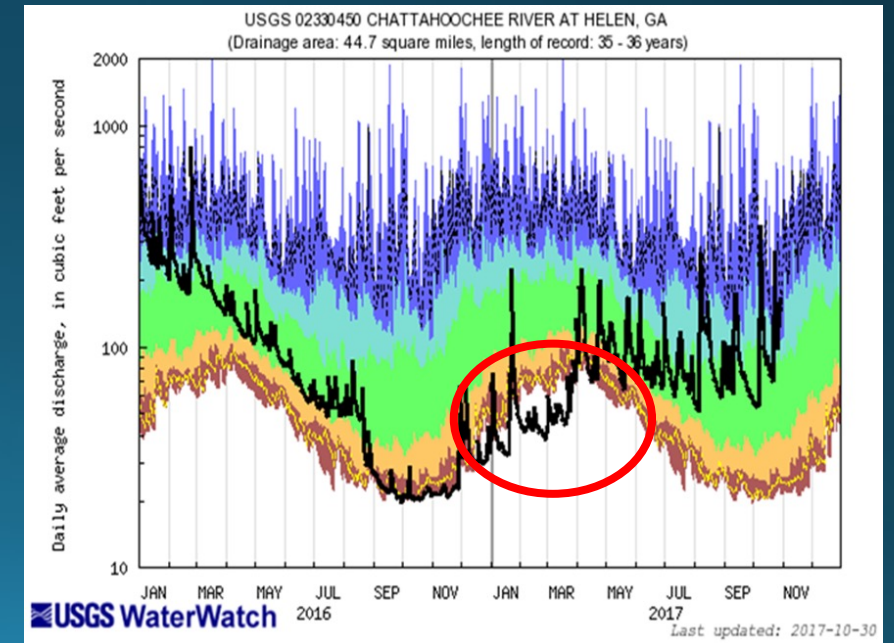


- Drought started quietly and caused limited damage to crops as well as lowering reservoir levels
- Drought intensified quickly in fall as extremely warm temperatures increased evaporation
- Rain in late November reduced some impacts

Impacts from recent droughts

2016-2017 Drought:

Forest fires became widespread and threatened locations like Gatlinburg TN, lingering water shortages into spring 2017



Impacts from recent droughts

2019 Drought:

Started as a flash drought with only agricultural impacts but strengthened in fall with another period of very hot weather

