Overview

Douglas C. Otto, Jr., P. E.

Chief, Hydrology and Hydraulics Branch

- **Drought**
- **Basin Conditions**
- **Reservoir Operations**

Current Conditions

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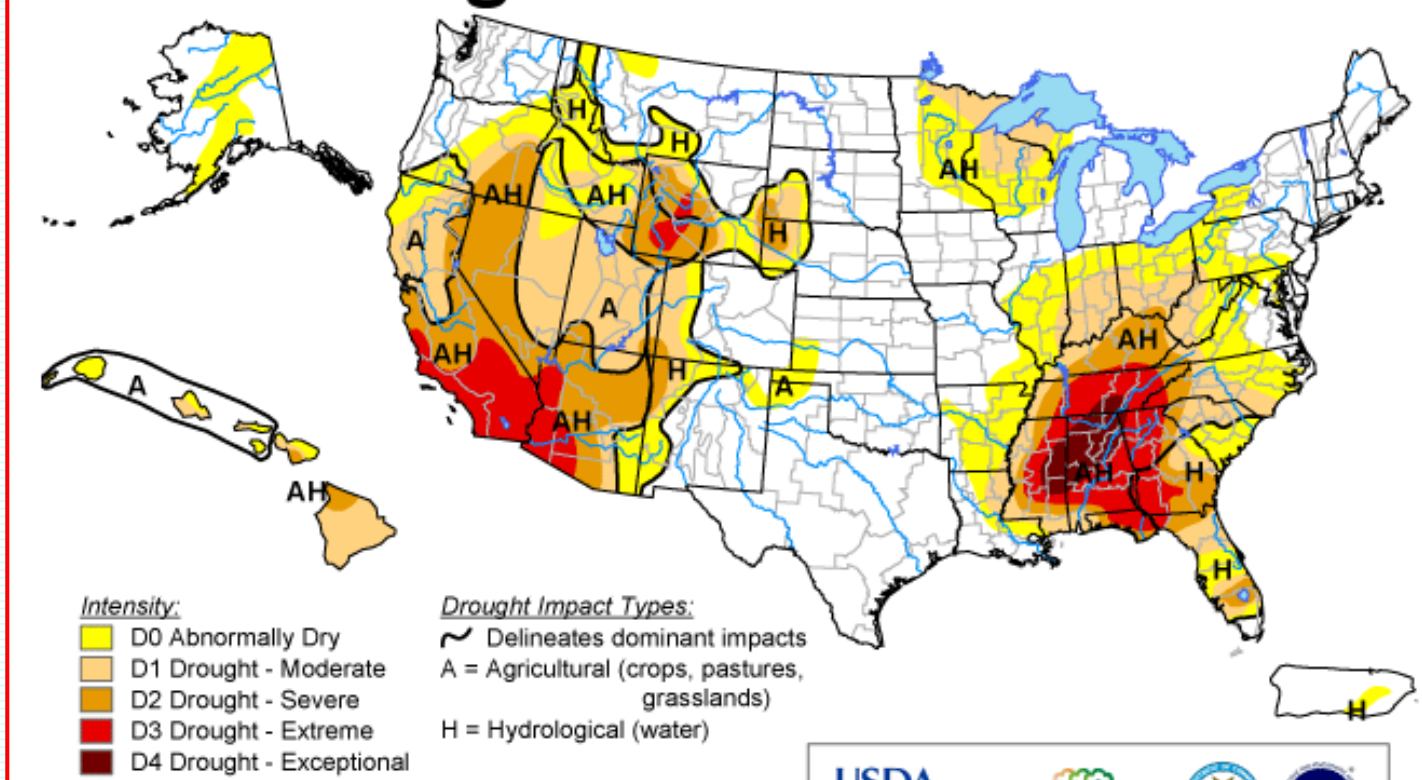

Current Conditions

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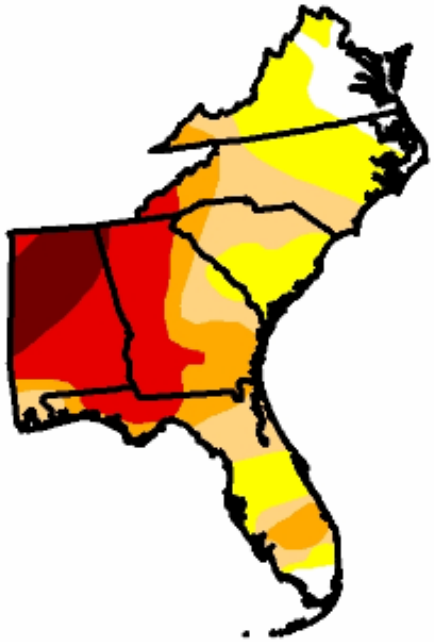
U.S. Drought Monitor

Southeast

June 19, 2007
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	8.3	91.7	66.8	45.0	29.5	8.0
Last Week (06/12/2007 map)	10.9	89.1	66.5	47.0	23.2	7.1
3 Months Ago (03/27/2007 map)	10.7	89.3	30.1	9.7	0.7	0.0
Start of Calendar Year (01/02/2007 map)	52.2	47.8	10.2	1.5	0.0	0.0
Start of Water Year (10/03/2006 map)	47.0	53.0	33.2	0.0	0.0	0.0
One Year Ago (06/20/2006 map)	35.3	64.7	30.9	4.2	0.1	0.0



Intensity:

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

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

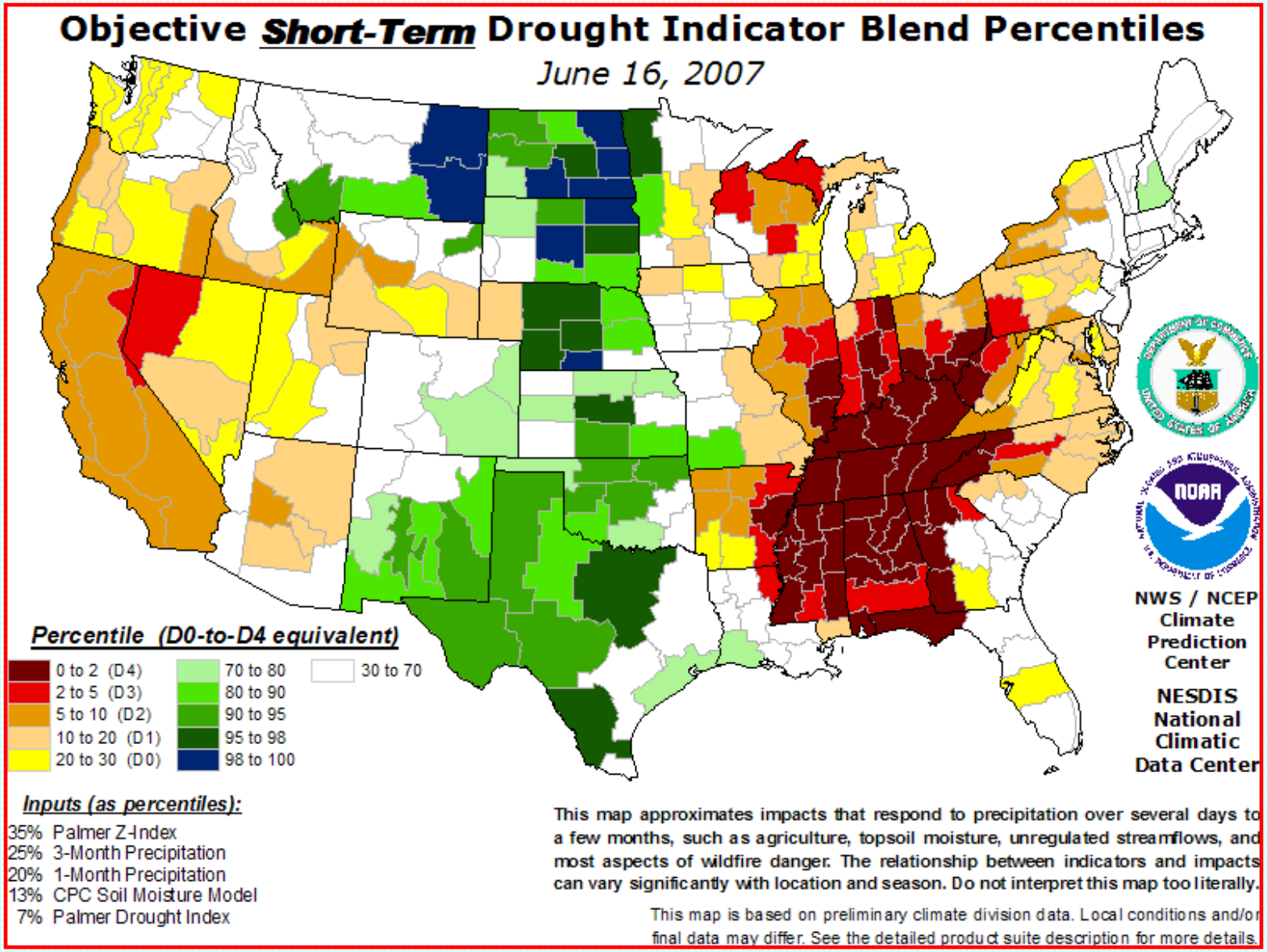
USDA National Drought Mitigation Center

http://drought.unl.edu/dm

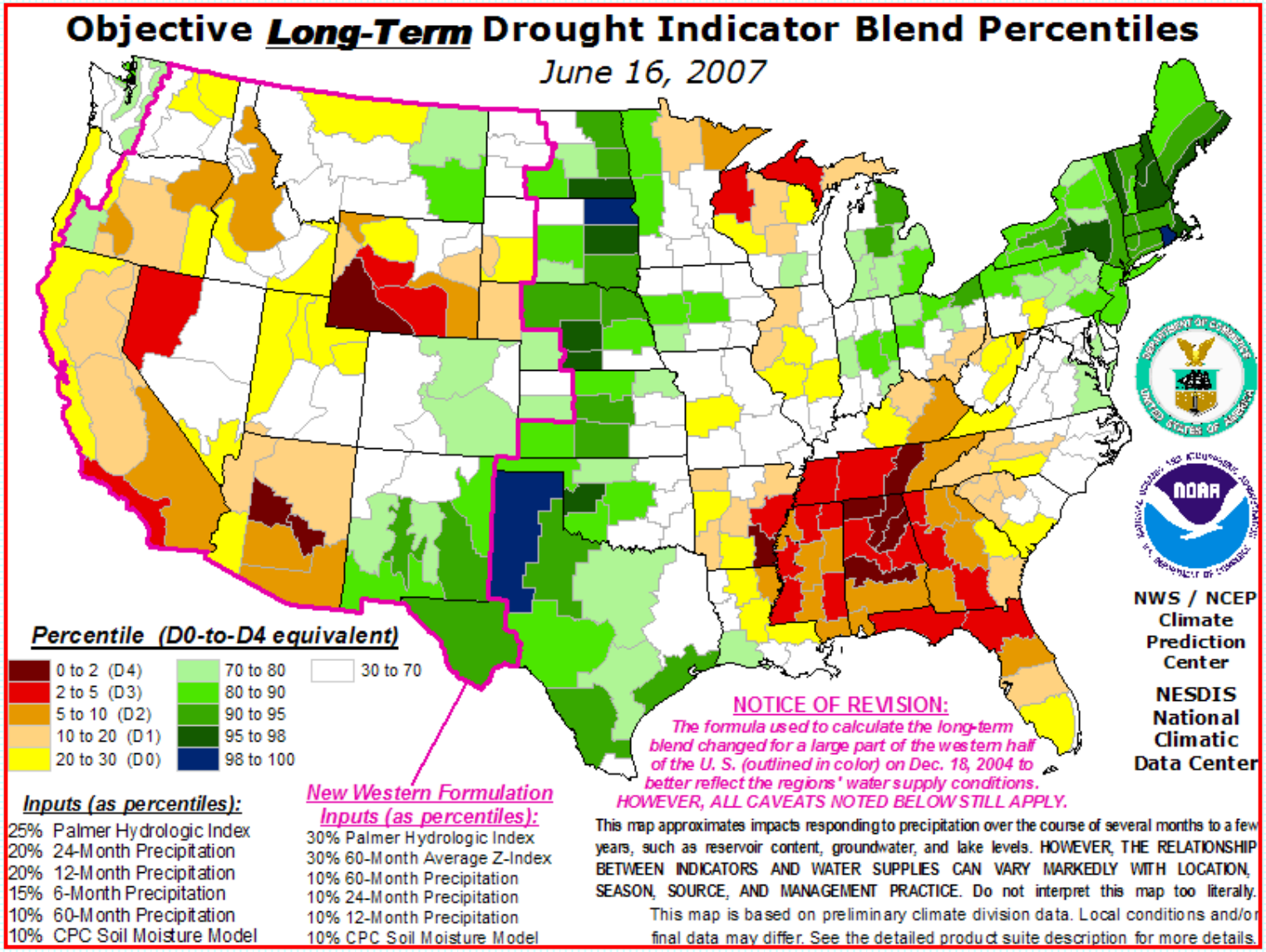
Released Thursday, June 21, 2007

Author: Rich Tinker, Climate Prediction Center, NCEP/NWS/NOAA

Short Term Impacts



Long-Term Impacts



Next 10 Days

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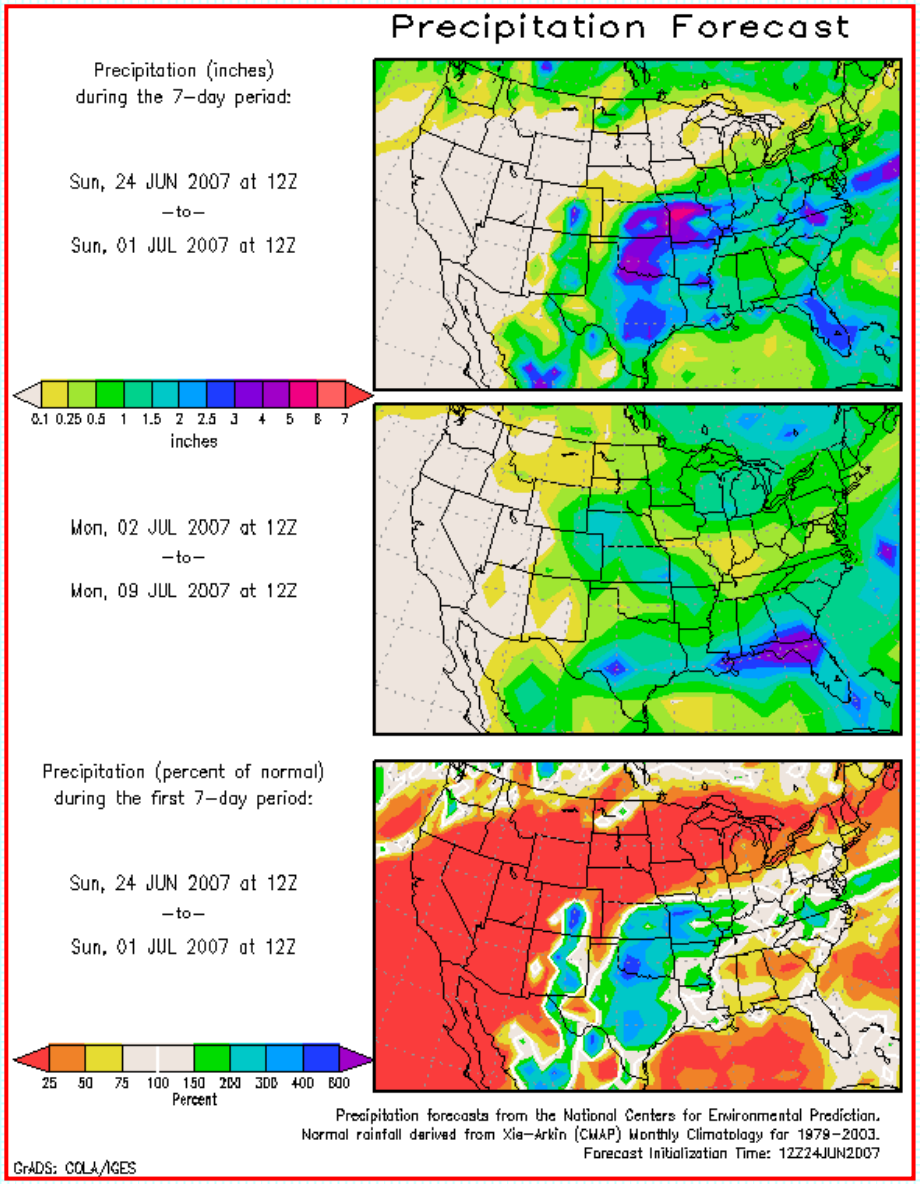

Precipitation Forecast
Precipitation (inches) during the 7-day period:
Sun, 24 JUN 2007 at 12Z
-to-
Sun, 01 JUL 2007 at 12Z
0.1 0.25 0.5 1 1.5 2 2.5 3 4 5 6 7
inches
Mon, 02 JUL 2007 at 12Z
-to-
Mon, 09 JUL 2007 at 12Z
Precipitation (percent of normal) during the first 7-day period:
Sun, 24 JUN 2007 at 12Z
-to-
Sun, 01 JUL 2007 at 12Z
25 50 75 100 150 200 300 400 600
Percent
Precipitation forecasts from the National Centers for Environmental Prediction.
Normal rainfall derived from Xie-Arkin (CMAP) Monthly Climatology for 1979-2003.
Forecast Initialization Time: 12Z24JUN2007
GrADS: COLA/IGES

The Basin

Weiss

H. Neely Henry

Logan Martin

Lay

Mitchell

Walter Bouldin

Jordan

R. F. Henry

Millers Ferry

Claiborne

Carters

Allatoona

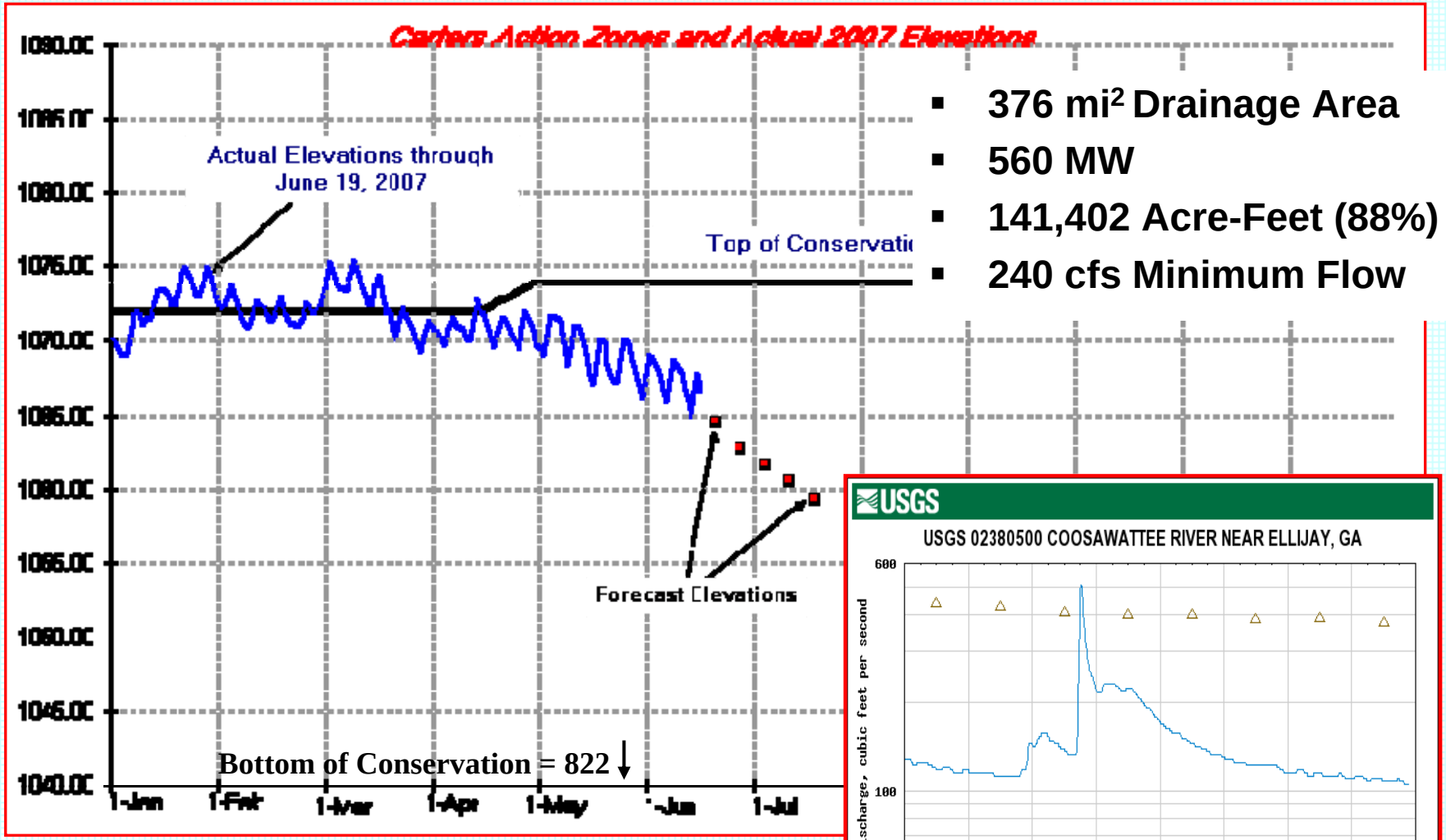
Harris

Martin

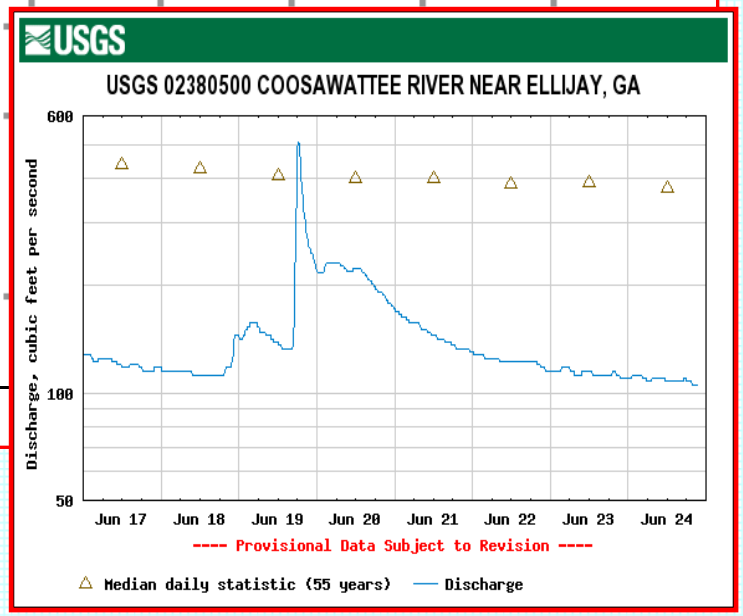
Yates

Thurlow

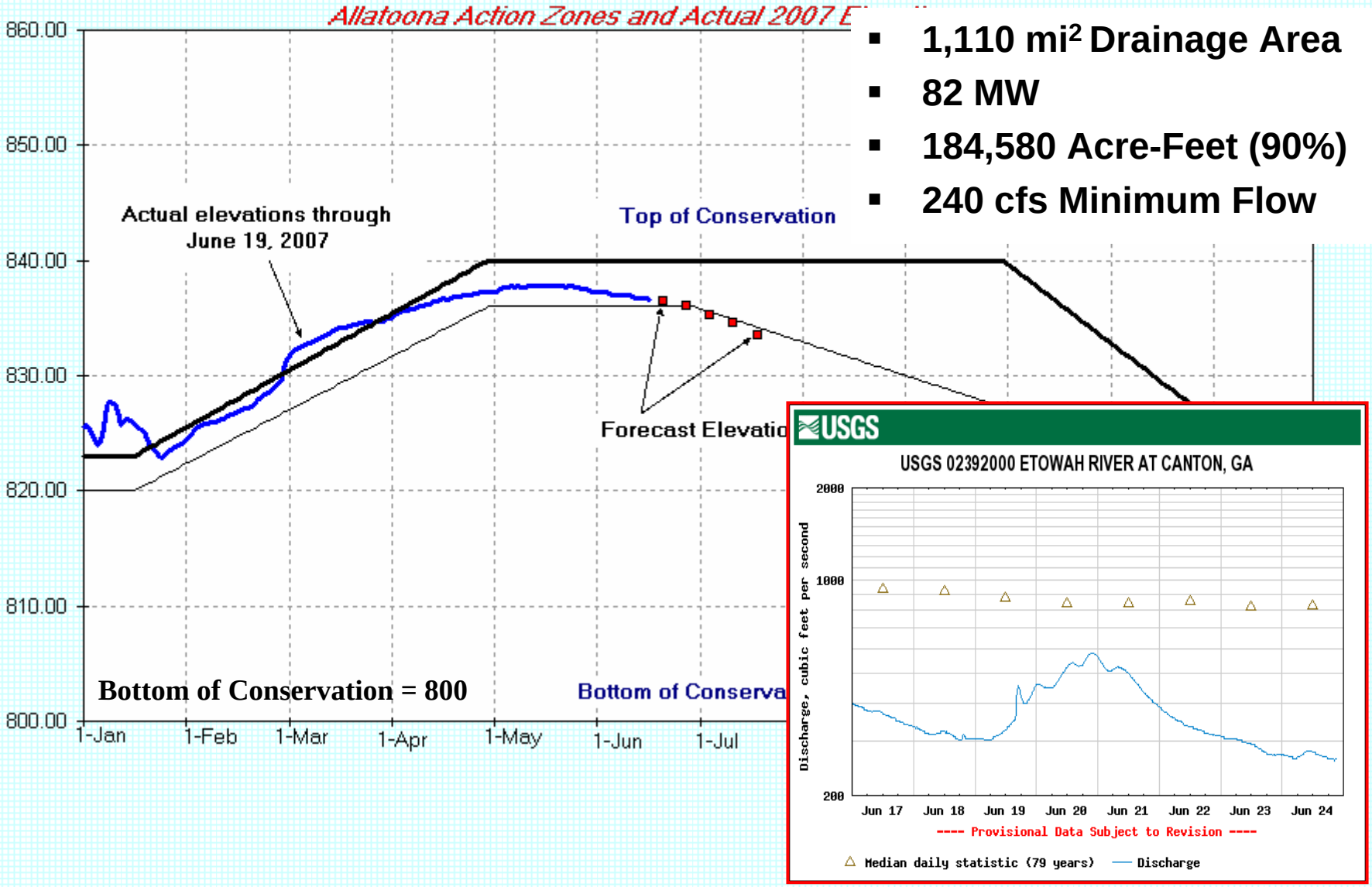
Carters



- 376 mi^2 Drainage Area
- 560 MW
- 141,402 Acre-Feet (88%)
- 240 cfs Minimum Flow

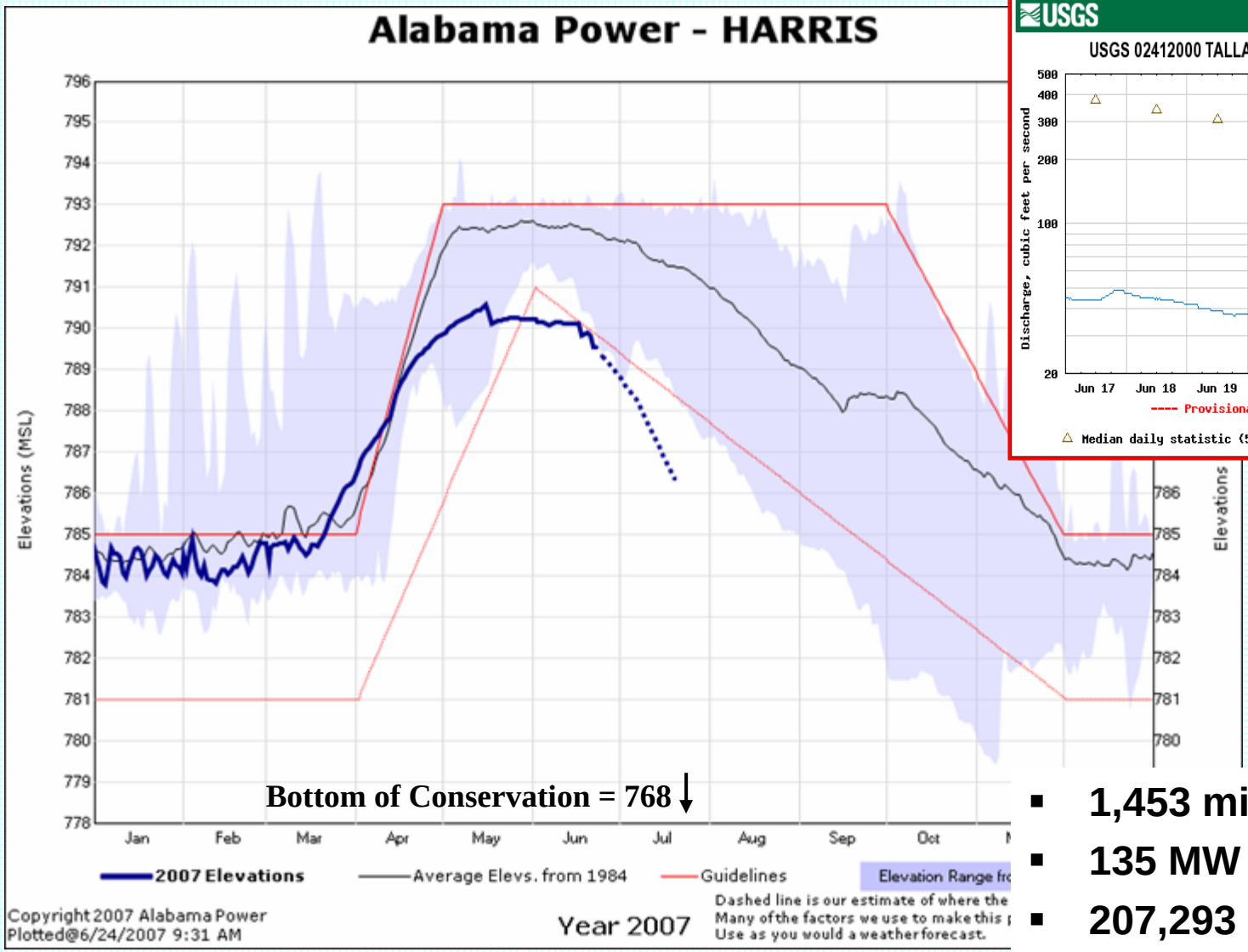


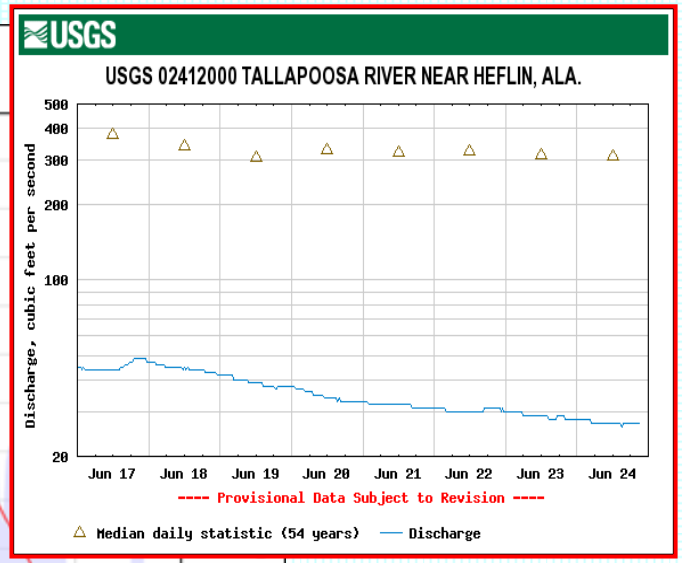
Allatoona



- 1,110 mi^2 Drainage Area
- 82 MW
- 184,580 Acre-Feet (90%)
- 240 cfs Minimum Flow

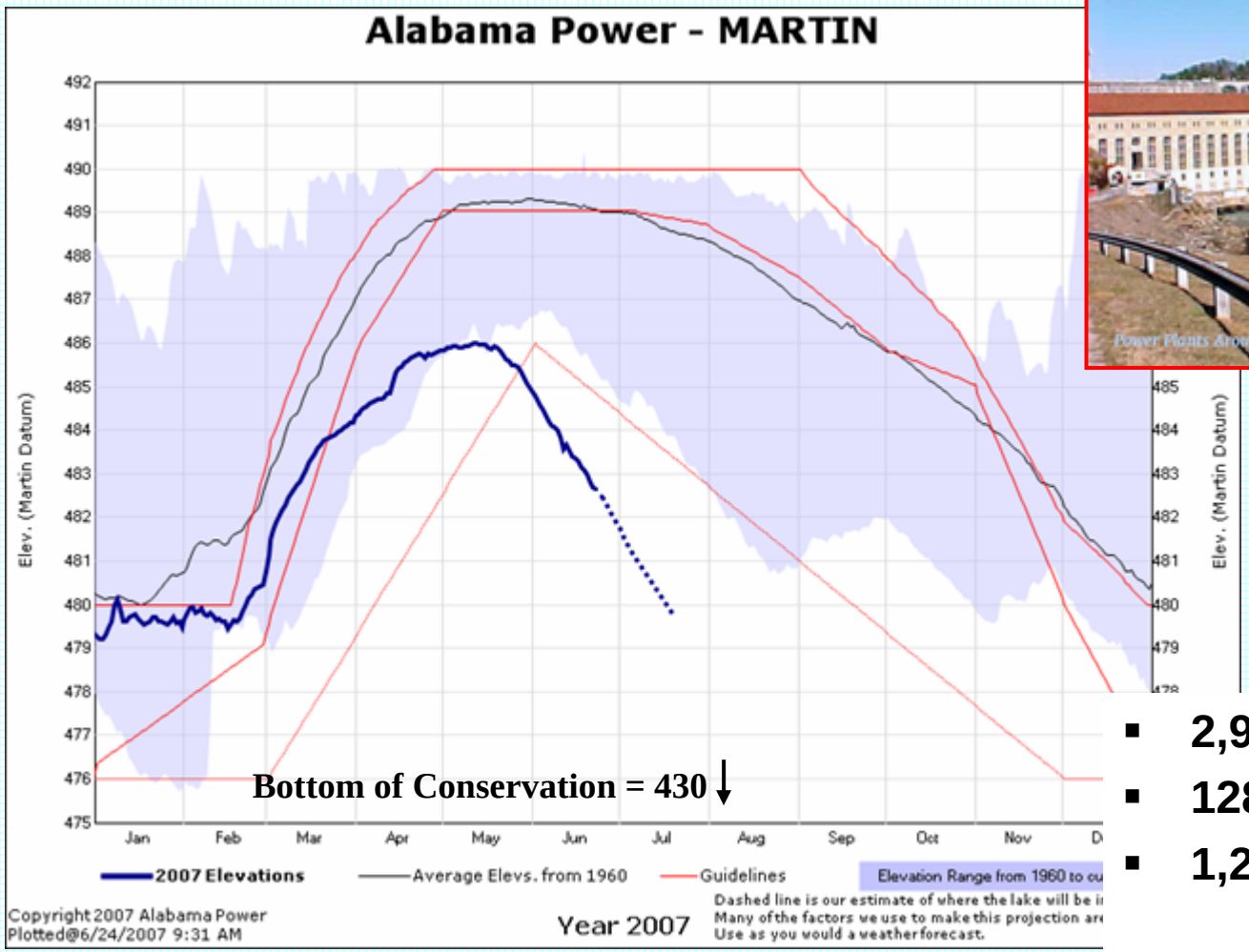
Harris





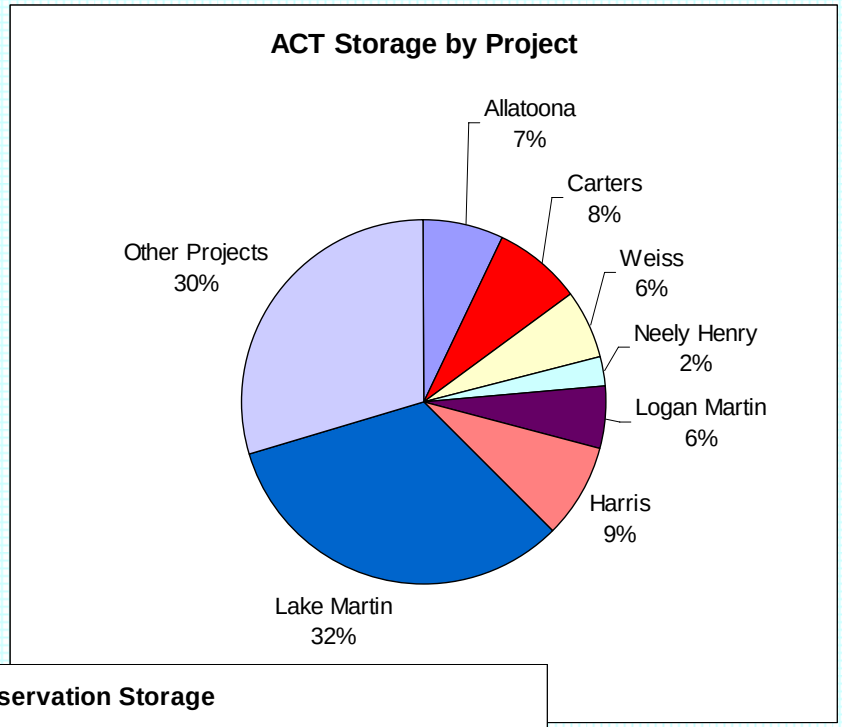
- 1,453 mi² Drainage Area
- 135 MW
- 207,293 Acre-Feet (85%)

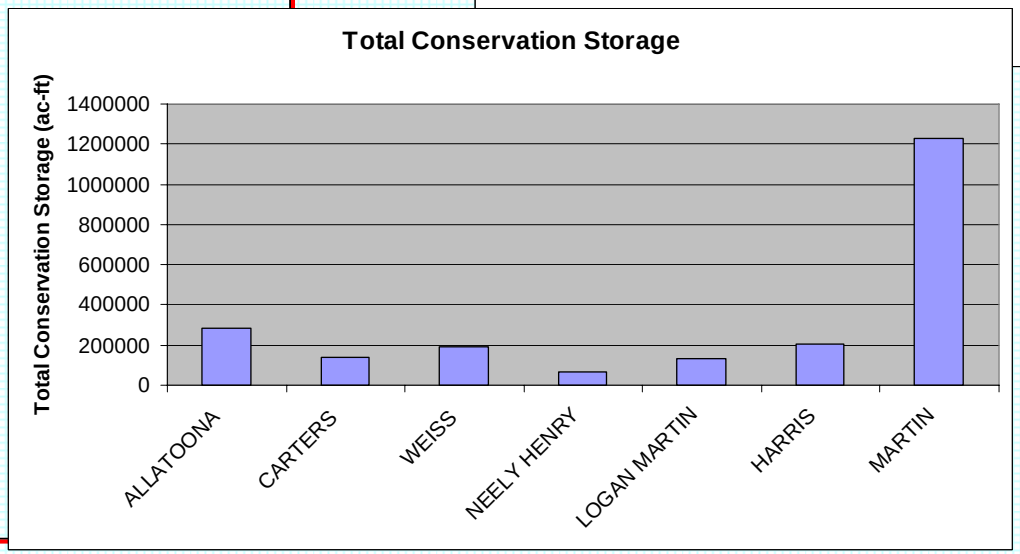
Martin



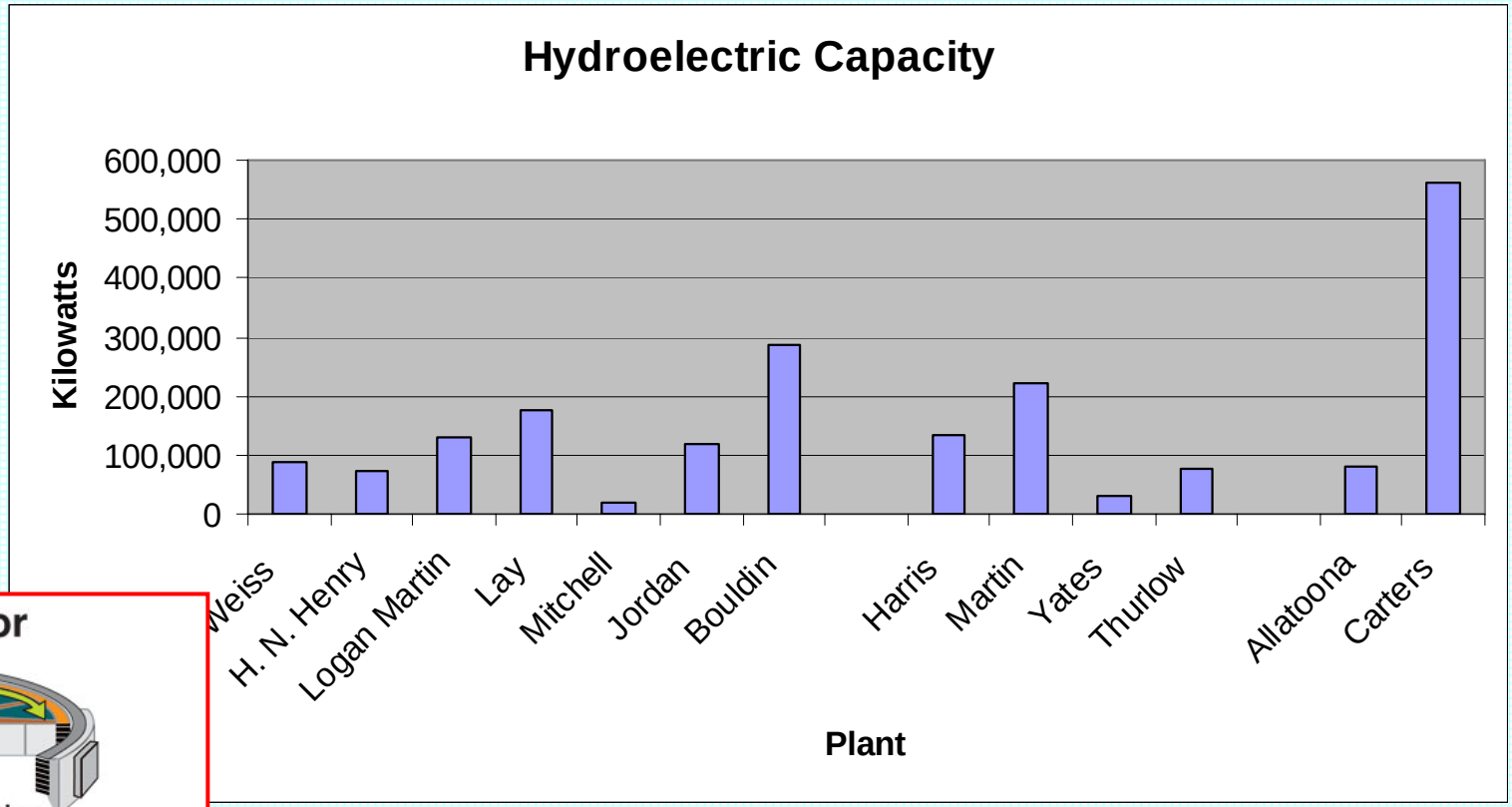
- 2,984 mi² Drainage Area
- 128 MW
- 1,230,588 Acre-Feet (79%)

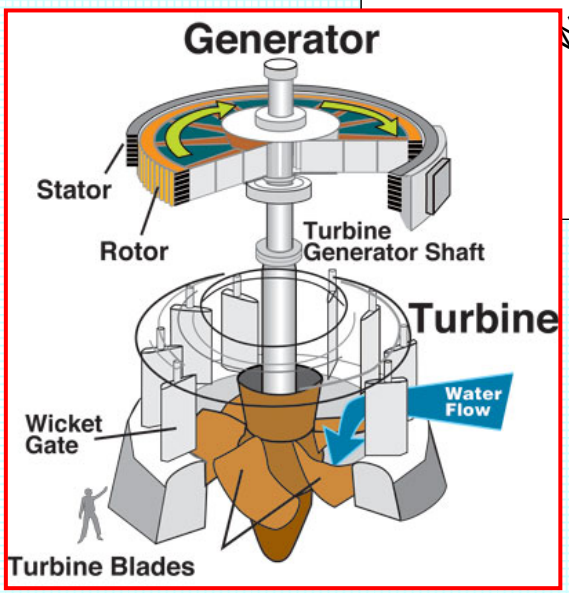
Reservoir Storage





Hydroelectric Power





The Basin

Weiss

H. Neely Henry

Logan Martin

Lay

Mitchell

Walter Bouldin

Jordan

R. F. Henry

Millers Ferry

Claiborne

Carters

Allatoona

Harris

Martin

Yates

Thurlow

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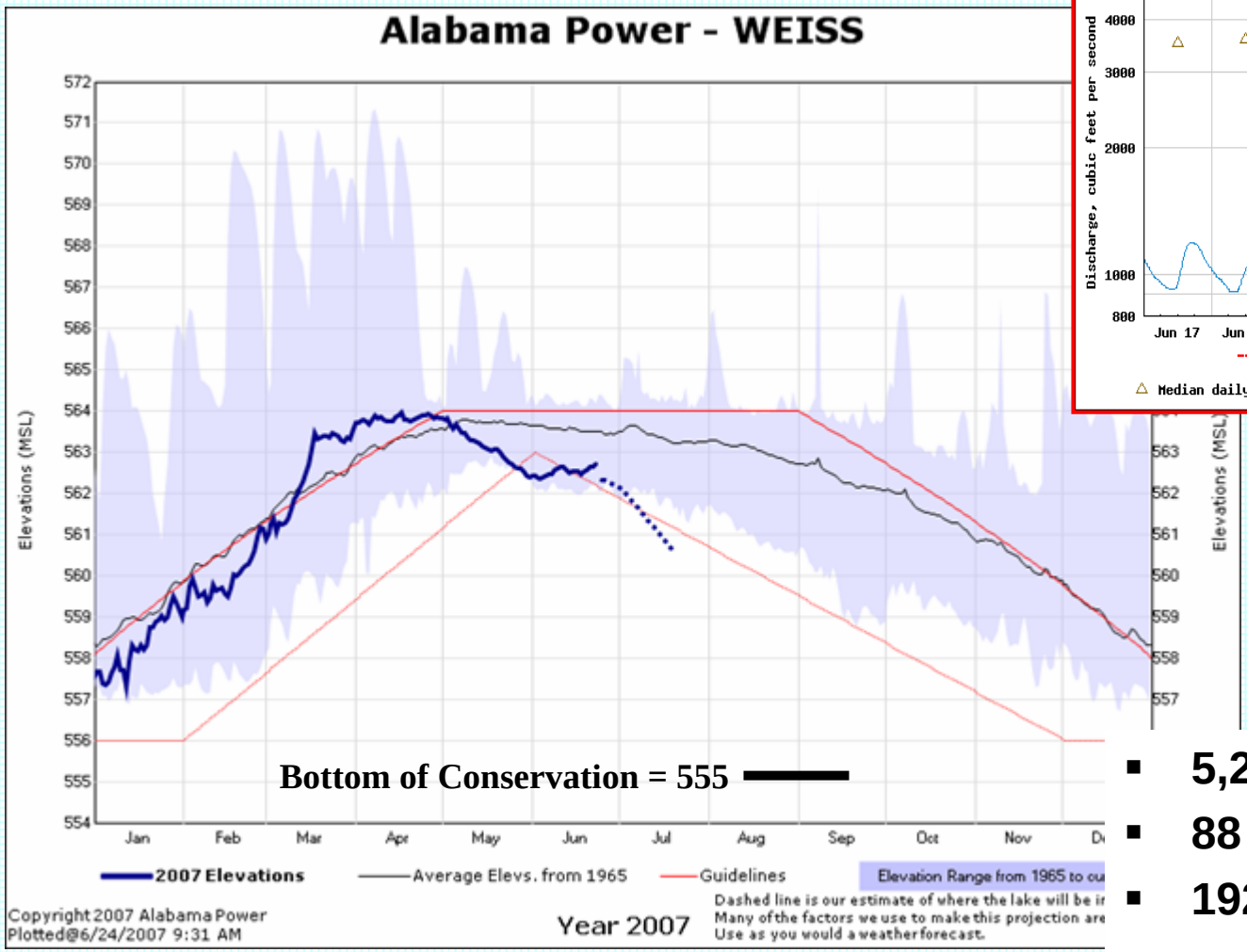
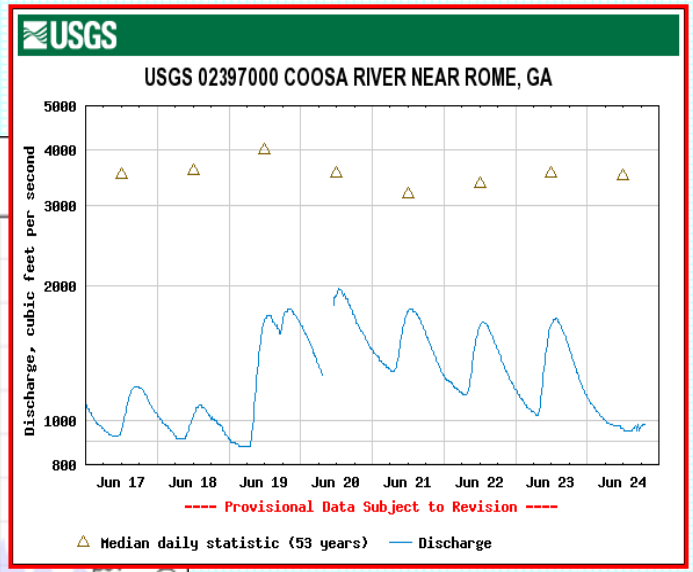
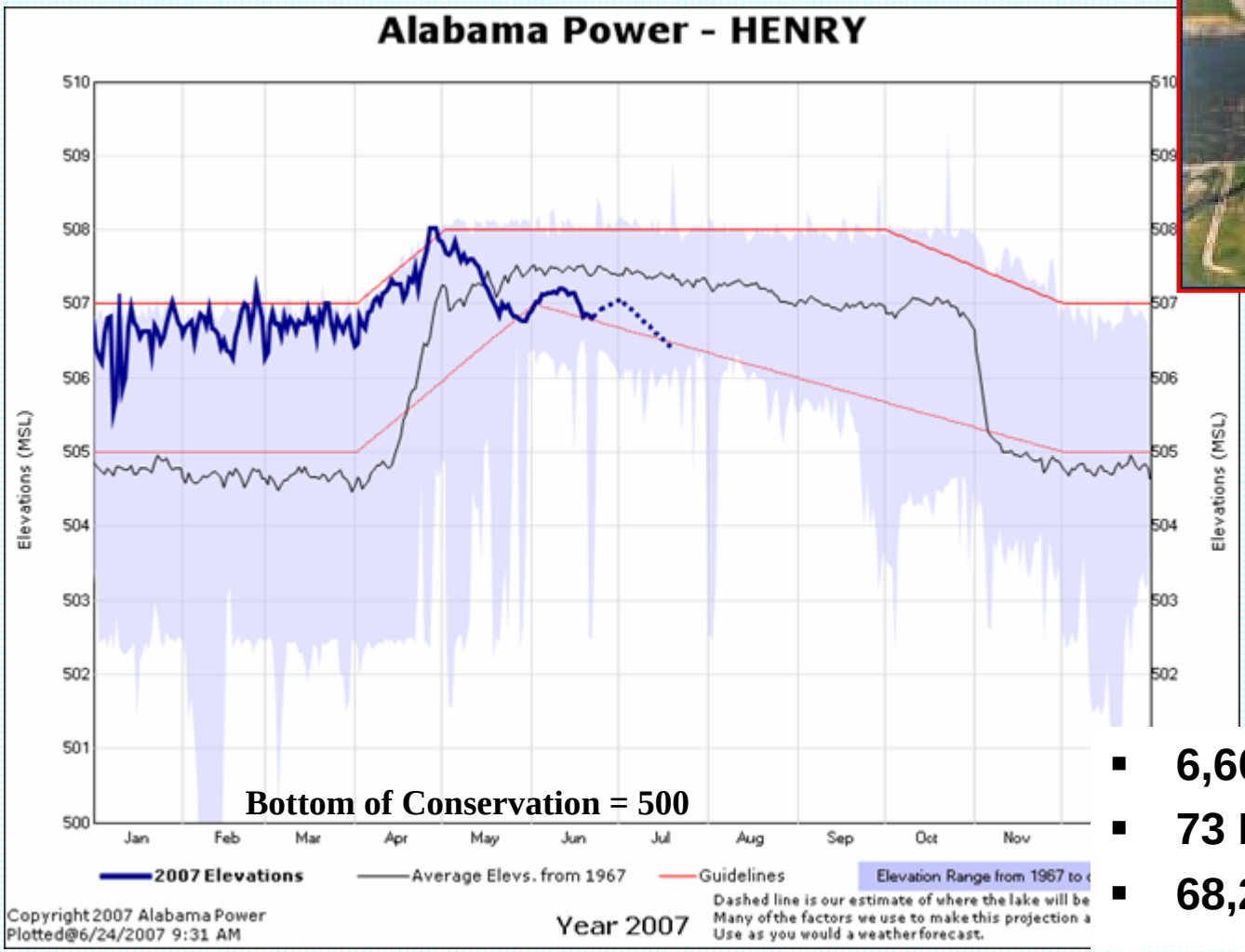




- 5,270 mi² Drainage Area
- 88 MW
- 192,042 Acre-Feet (81%)

H. Neely Henry



- 6,600 mi² Drainage Area
- 73 MW
- 68,255 Acre-Feet (85%)

Logan Martin

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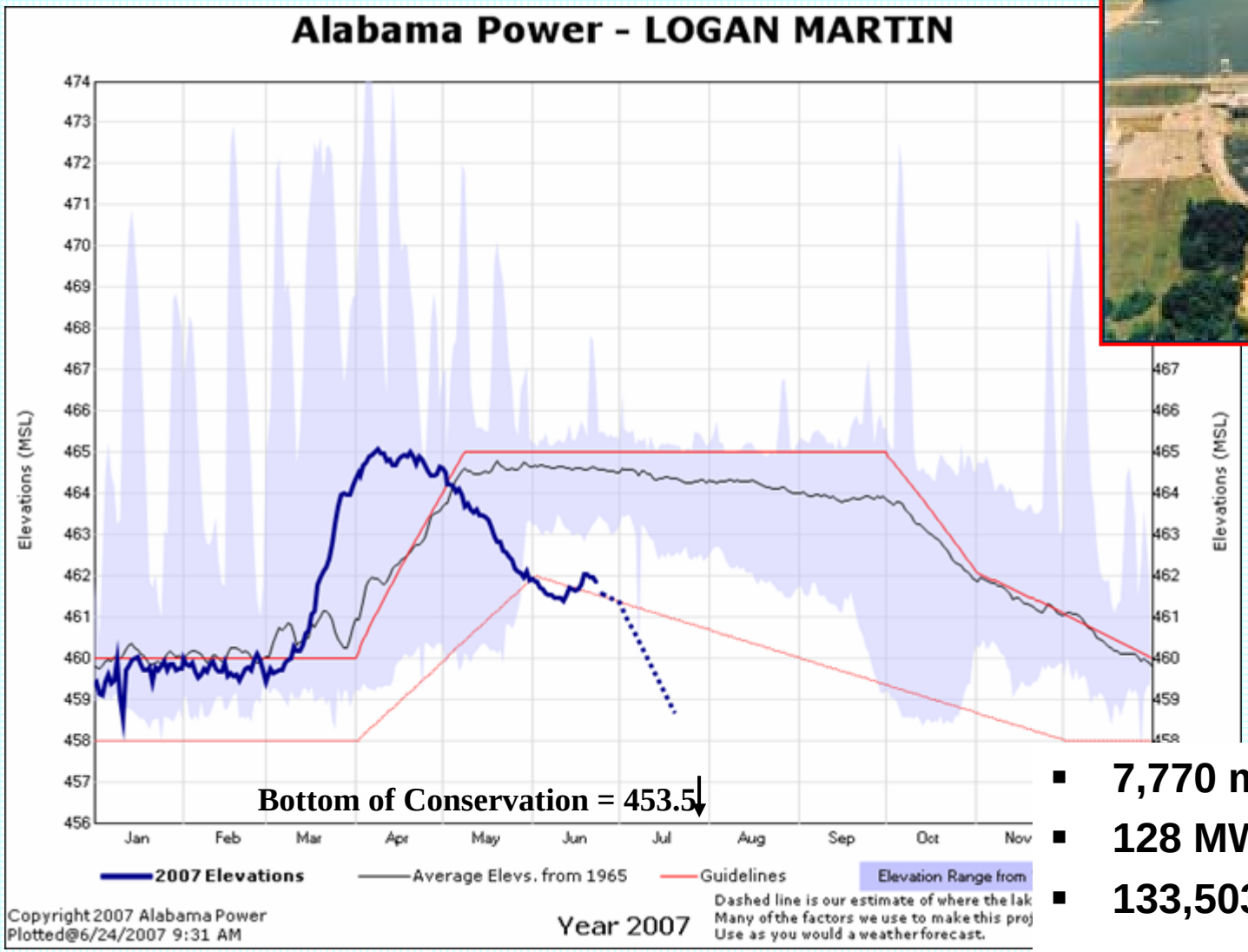
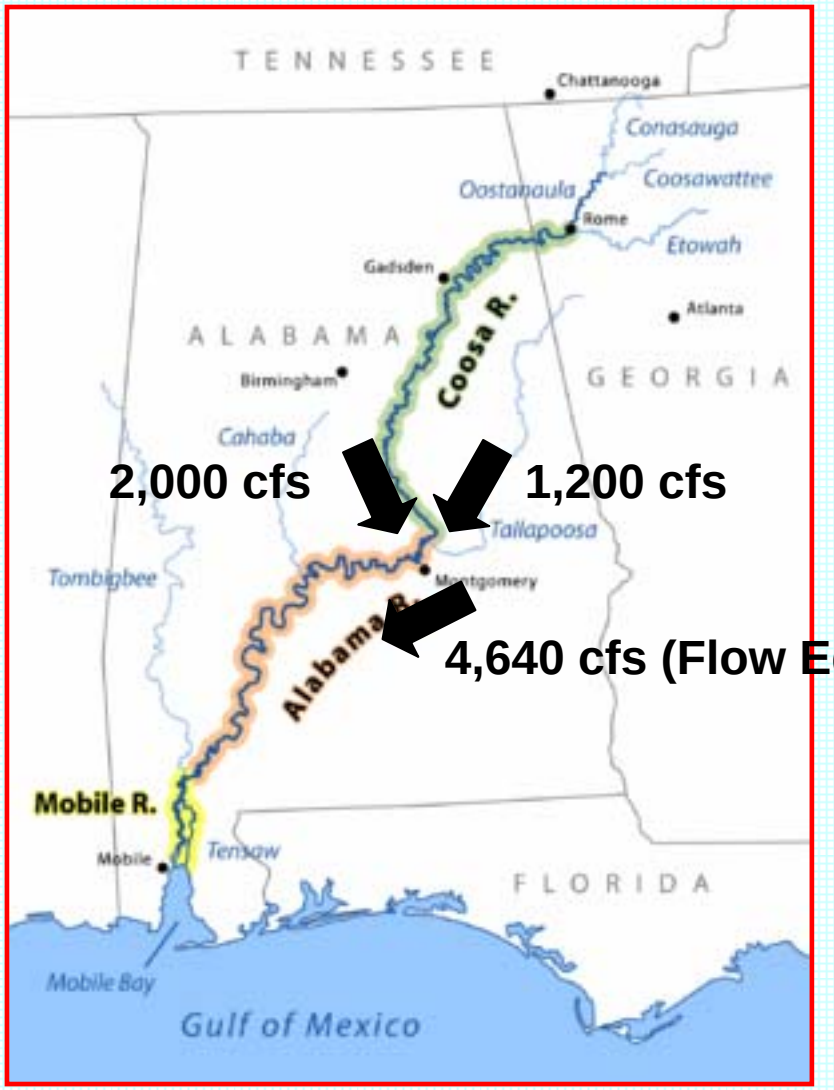


- 7,770 mi² Drainage Area
- 128 MW
- 133,503 Acre-Feet (63%)

Minimum Flow Requirements



- **In addition, individual projects normally have minimum at-site flow requirements**

Jordan Dam, Coosa River

Cahaba River

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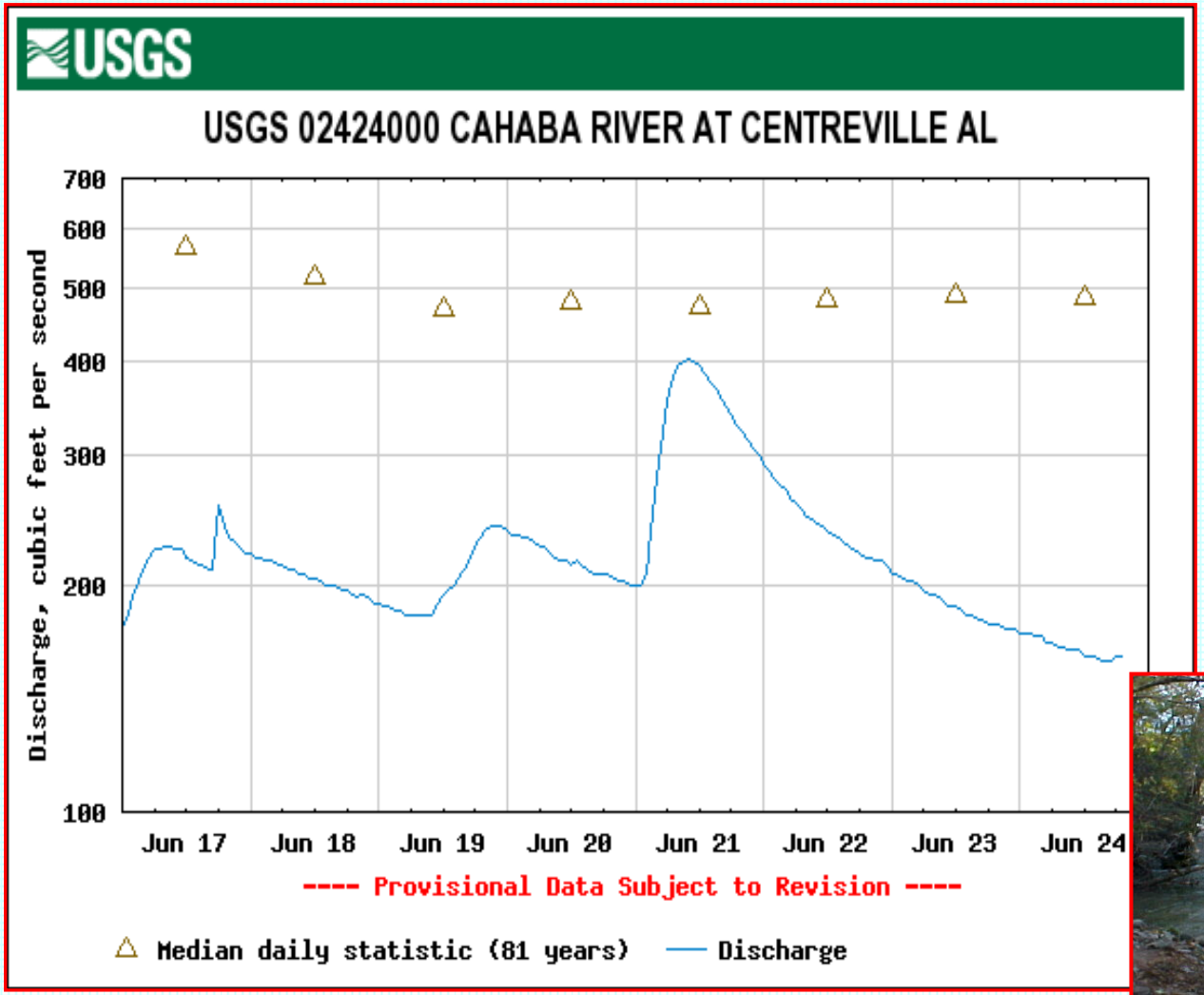
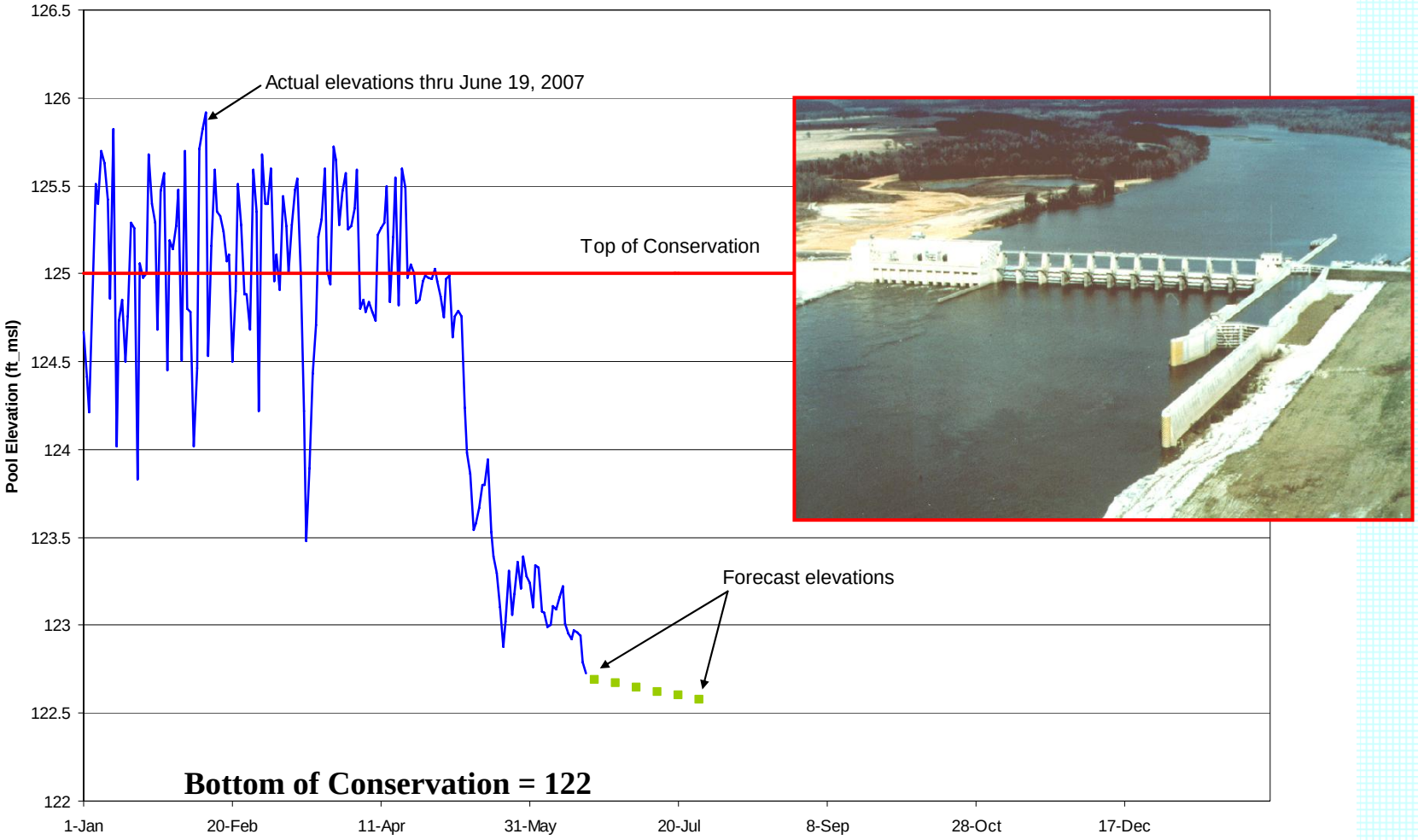


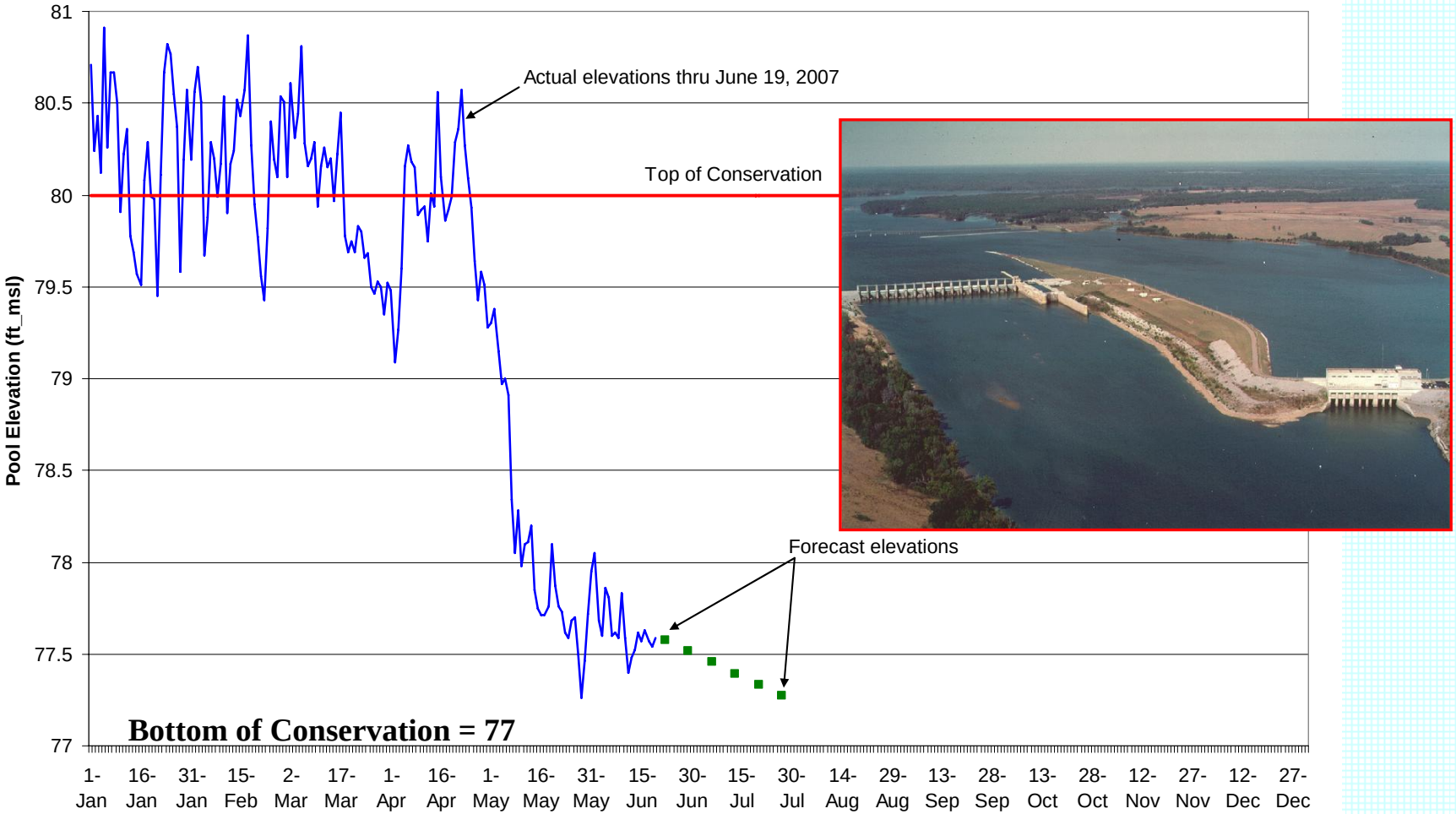
R. F. Henry

RF Henry Actual Elevations and Forecast 2007



Millers Ferry

Millers Ferry Actual Elevation and Forecast 2007



Lower Alabama River

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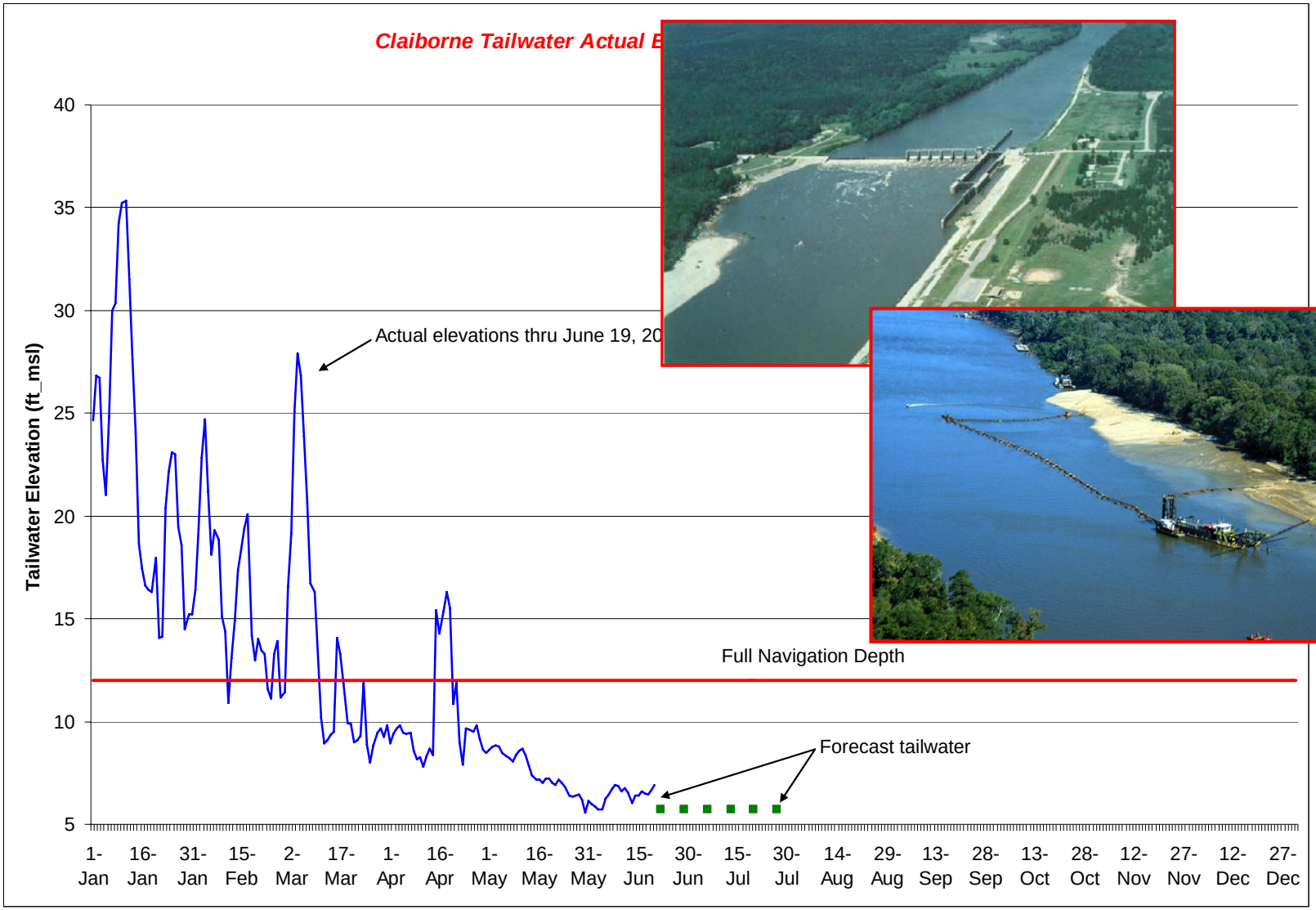


Alabama River

Heavy Pigtoe

Alabama Sturgeon

Tulotoma Snail

Below Jordan

Tulotoma Snail

Weiss

Southern Clubshell

Carters

Triangular Kidneyshell

Goldline Darter

Etowah Darter

Etowah

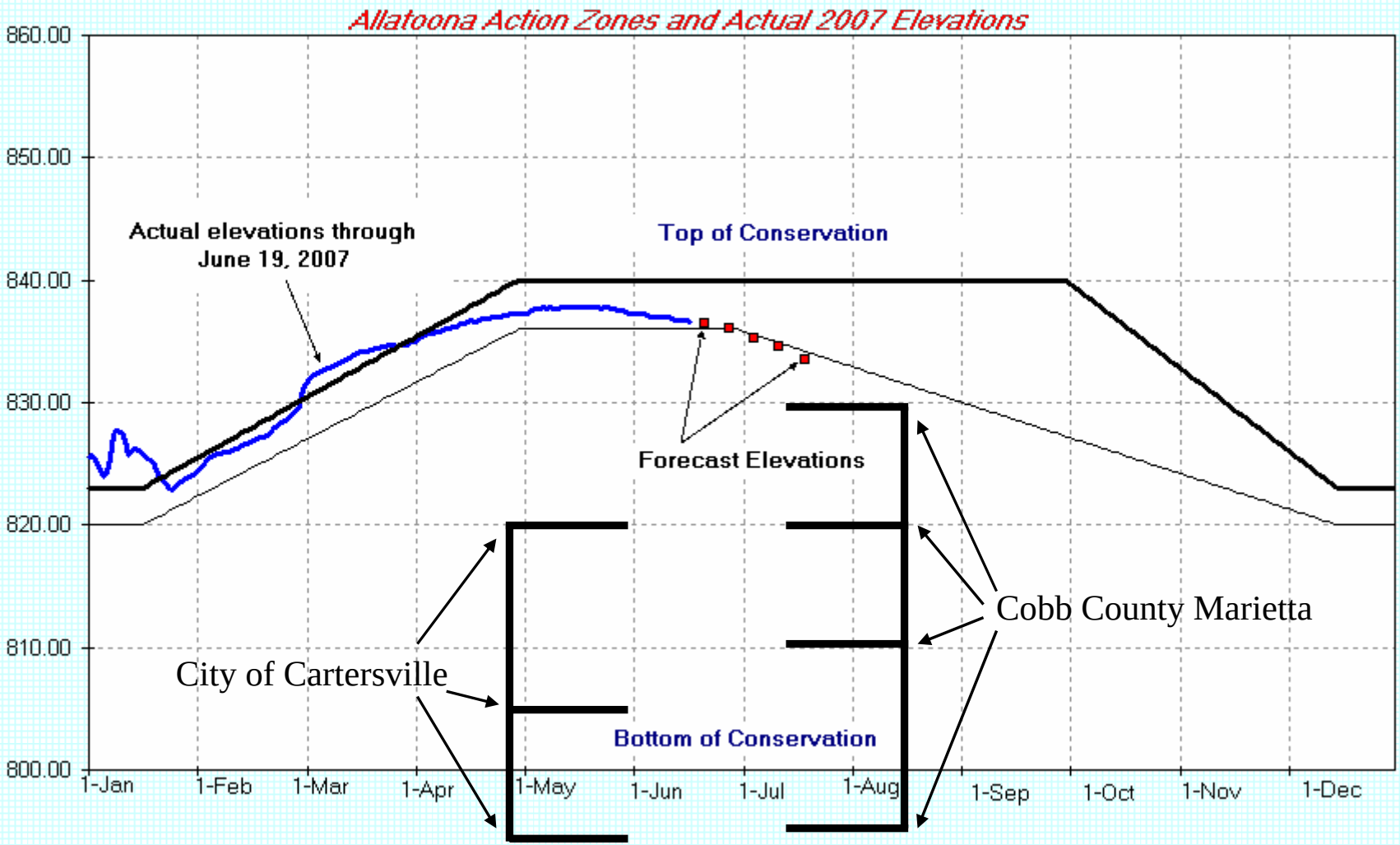
Southern Clubshell

Goldline Darter

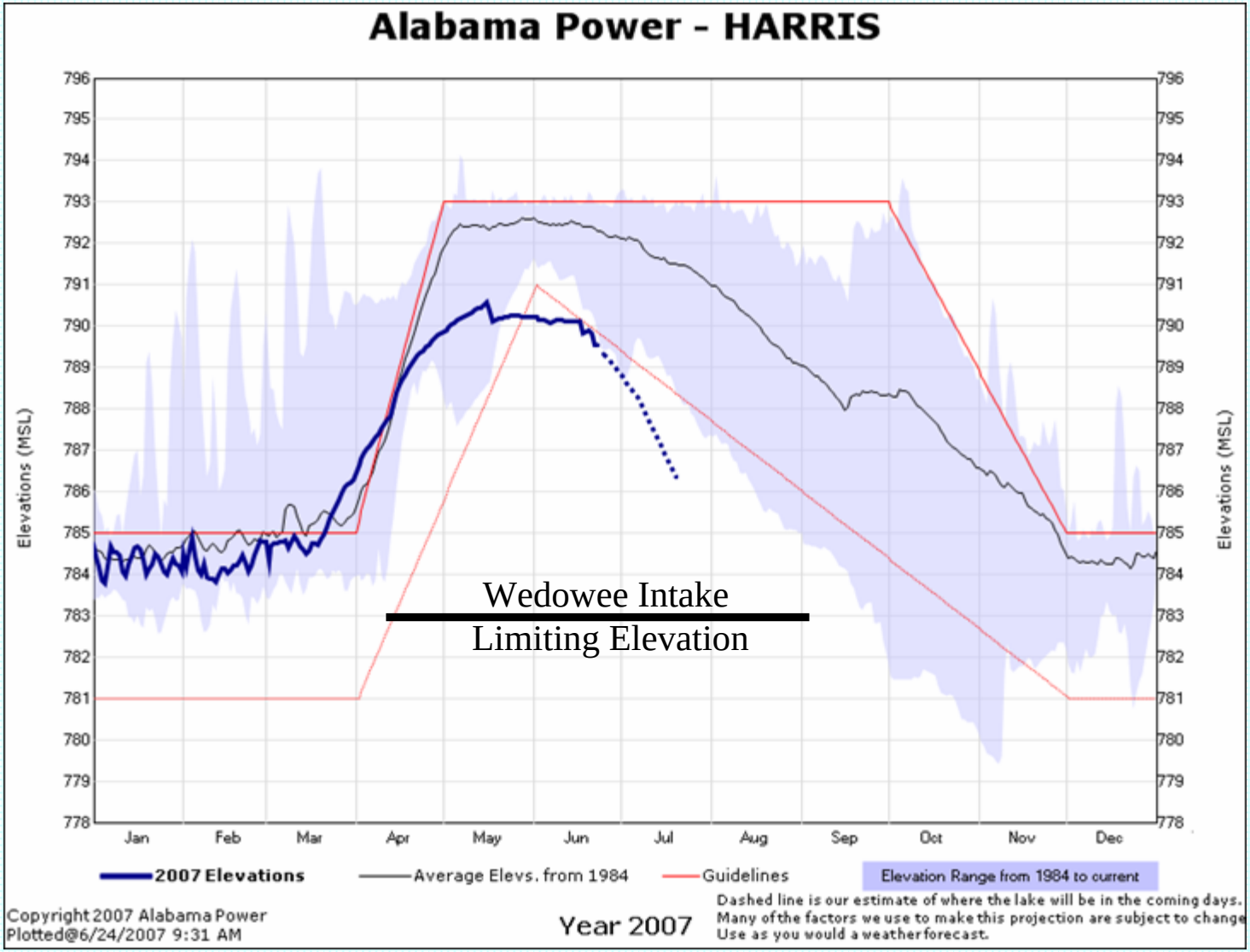
Etowah Darter

Triangular Kidneyshell

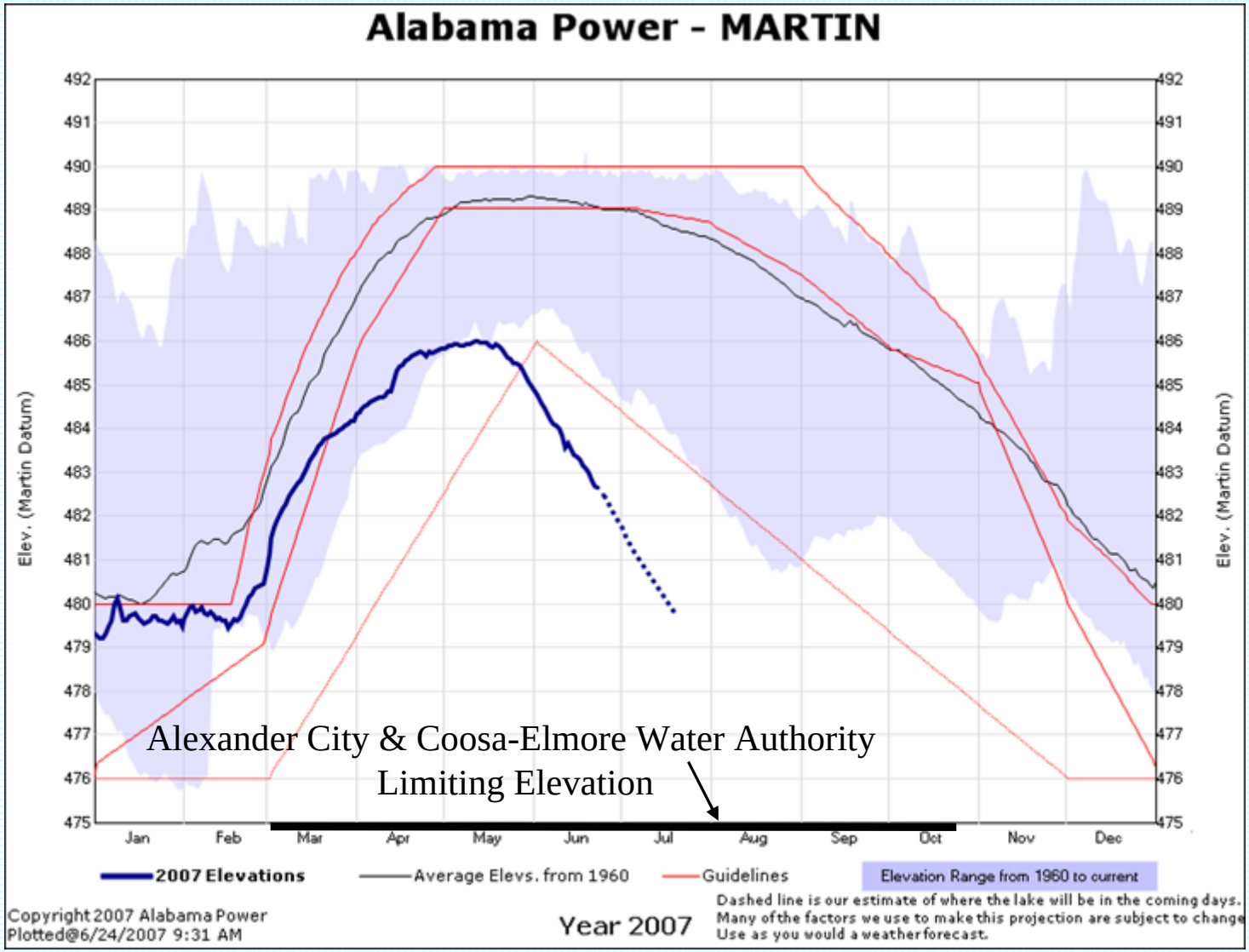
Water Supply Intakes



Water Supply Intakes



Water Supply Intakes



Pulp & Paper Industry

In general:

- **River must be flowing to discharge effluent**
- **20% Flow cutback may be possible thru summer w/ 7 hours minimum flow time**
- **DO may become limiting**

International Paper - Prattville

International Paper – Riverdale Mill

Pulp & Paper Industry

Weyerhaeuser

Alabama River Pulp

- **River Depth, not flow, is limiting factor below Claiborne**
- **Alabama River Pulp Intakes may not function below 5 ½ feet stage**

Questions?

- **US Army Corps of Engineers**

  http://water.sam.usace.army.mil/

- **Alabama Power Company**

  http://www.alabamapower.com/lakes/iframe_lakelevel.asp

- **US Drought Monitor**

  http://www.drought.unl.edu/dm/monitor.html

- **US Geological Survey**

  http://water.usgs.gov/