SOUTHEASTERN FEDERAL POWER ALLIANCE SAD WATER MANAGEMENT OVERVIEW

Trent Ferguson, P.E.
Water Management
South Atlantic Division

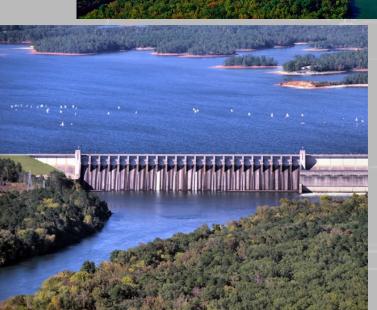
November 11, 2023

















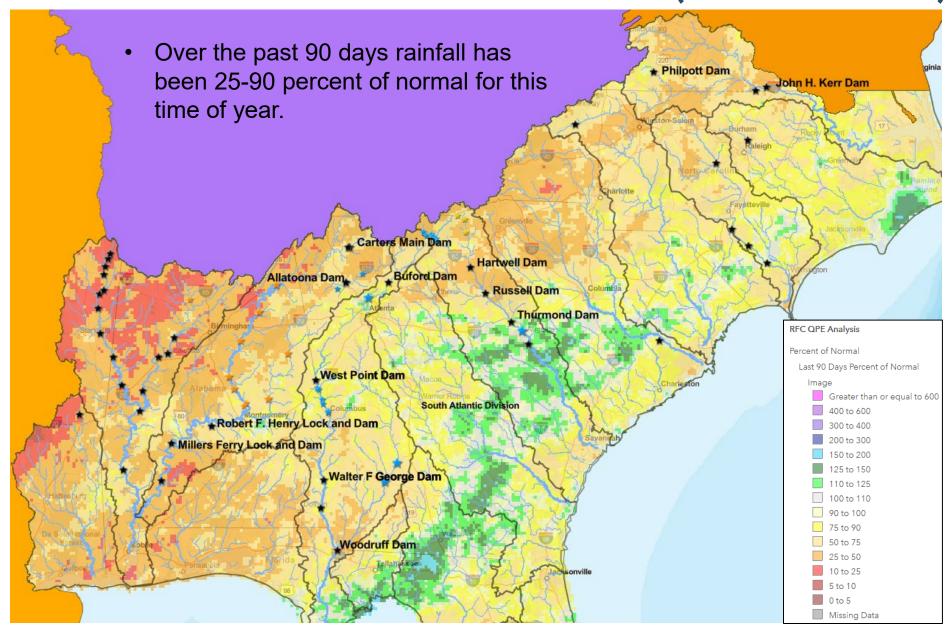


- Rainfall Departure Last 90 Days
- U.S. Drought Monitor
- WPC Three Month Outlook
- Reservoir Status and Projections
 - Mobile District
 - Savannah District
 - Wilmington District
- Questions



RAINFALL DEPARTURE FROM NORMAL (LAST 90 DAYS)

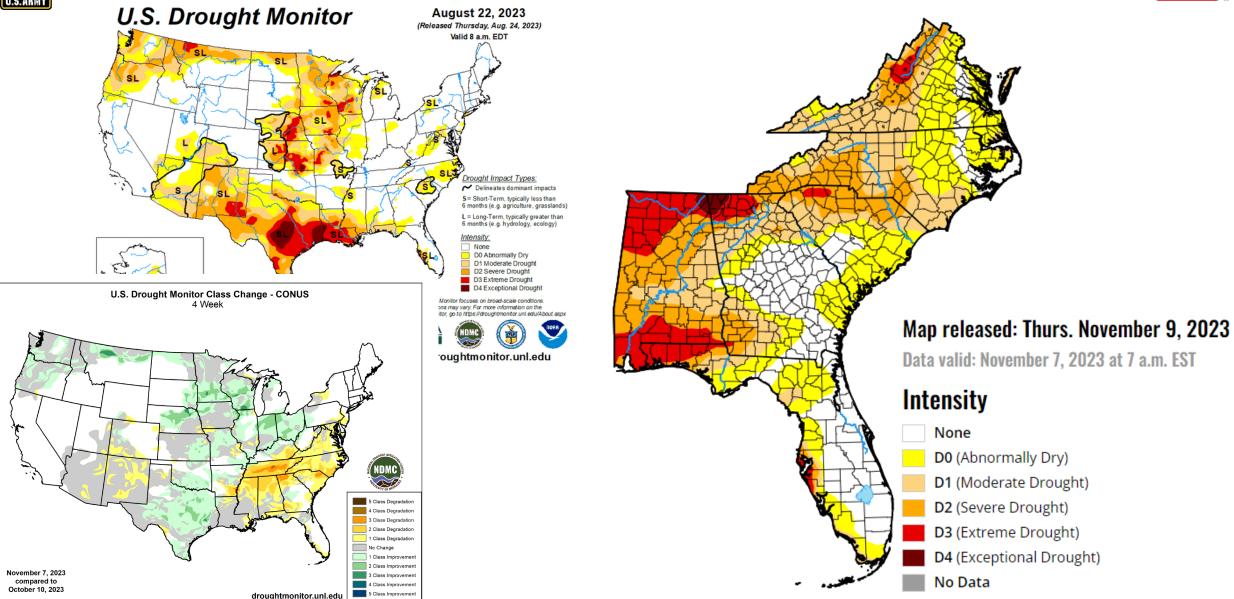






DROUGHT MONITOR (RELEASED 19 OCTOBER 2023)



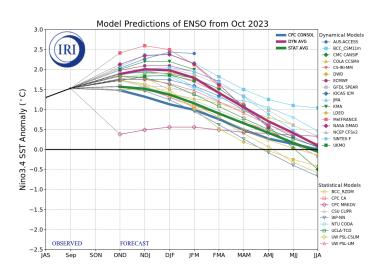




WPC THREE MONTH OUTLOOK



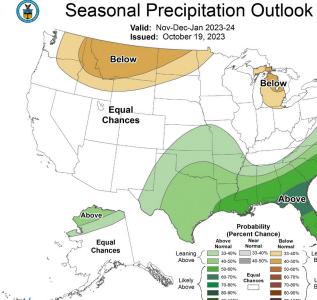
Monthly Precipitation Outlook



Official NOAA CPC ENSO Probabilities (issued Nov. 2023)
based on -0.5°/+0.5°C thresholds in ERSSTV5 Niño-3.4 index

- Currently in El Nino conditions.
- During winter months El Nino typically brings above average rainfall to the southeast
- Hydropower Projects typically fall right along a transition zone where the forecast calls for Equal Chances of above, below or normal rainfall.

 Current forecast represent good chance for recovery for projects.



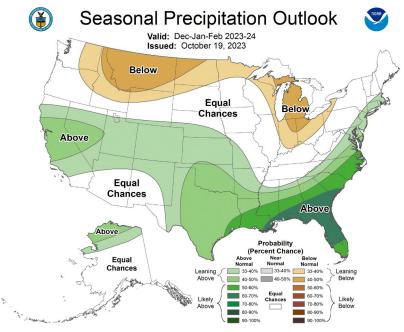
https://iri.columbia.edu/our-expertise/climate/forecasts/enso/current/

MAM

FMA

Season





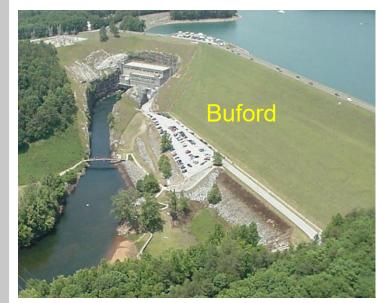
Dec-Jan-Feb

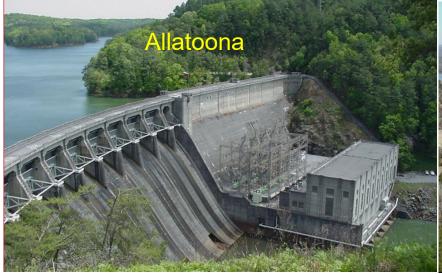
https://www.cpc.ncep.noaa.gov/products/predictions/long_range/

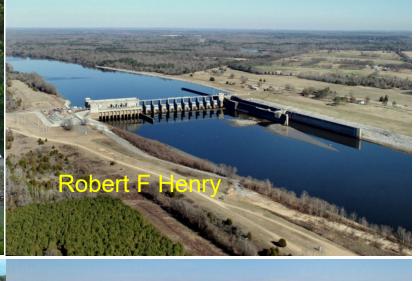


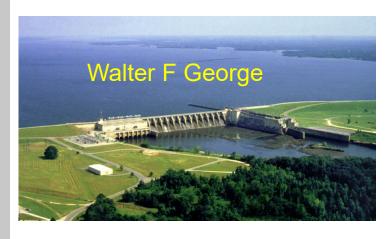
MOBILE DISTRICT



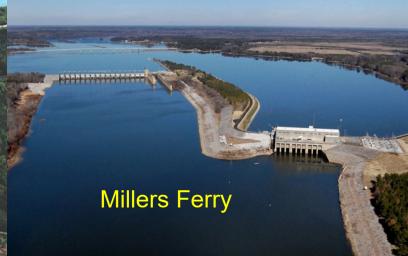






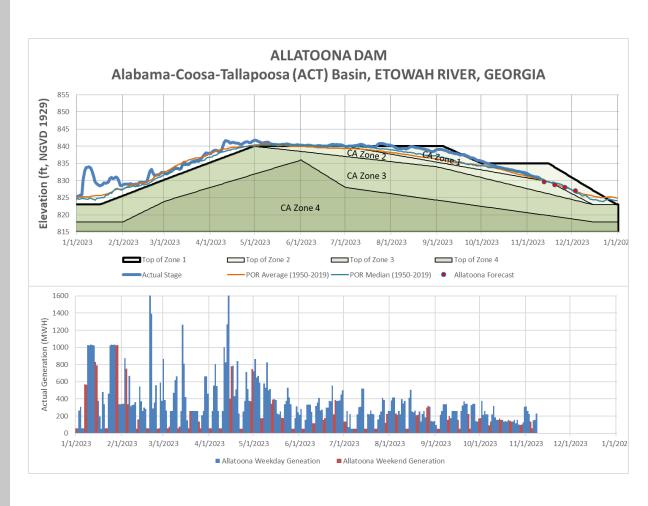


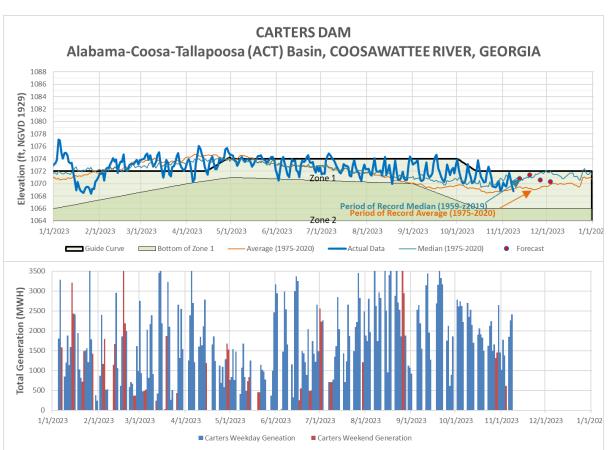




ALABAMA-COOSA-TALLAPOOSA (ACT) UPPER ACT CURRENT CONDITIONS AND FORECAST





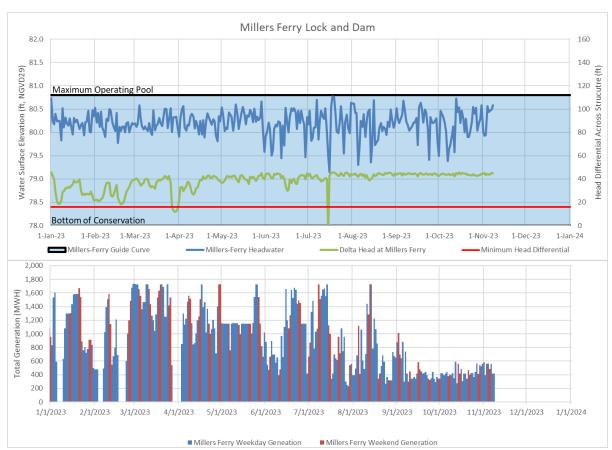




ALABAMA-COOSA-TALLAPOOSA (ACT) LOWER ACT CURRENT CONDITIONS



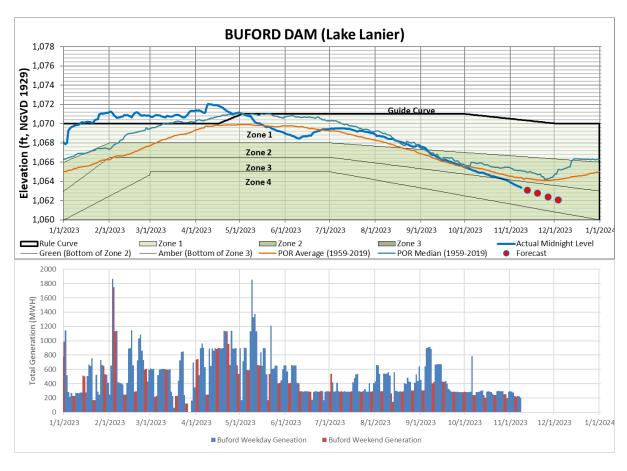


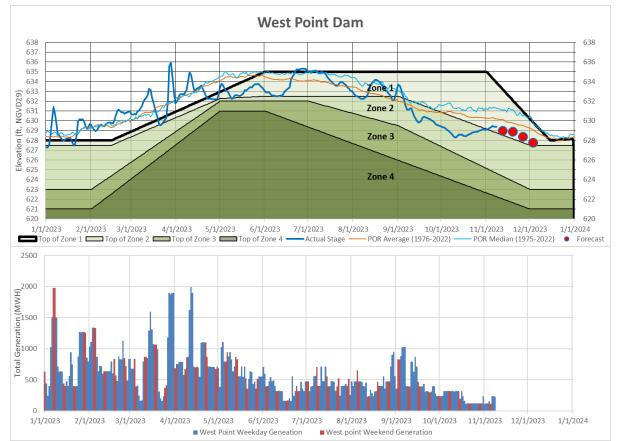




APALACHICOLA-CHATTAHOOCHEE- FLINT (ACF) CURRENT CONDITIONS AND FORECAST



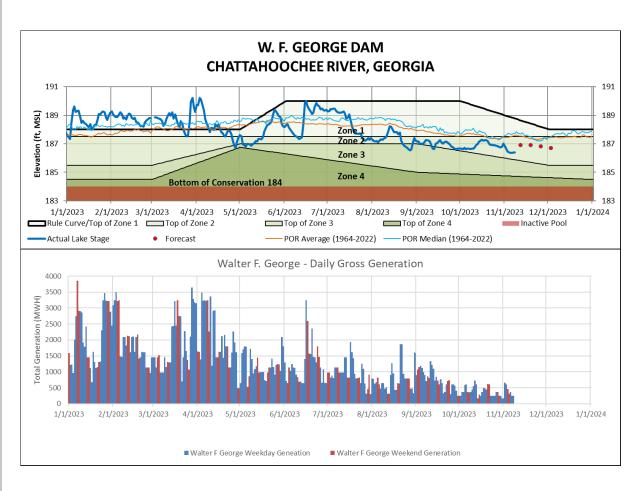


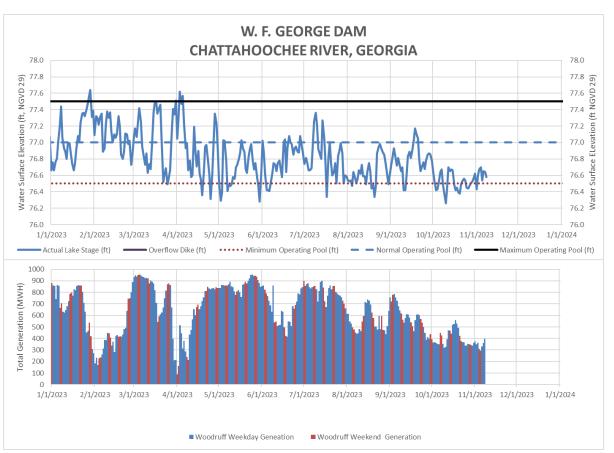




APALACHICOLA-CHATTAHOOCHEE- FLINT (ACF) CURRENT CONDITIONS AND FORECAST CONTINUED









SAVANNAH RIVER BASIN





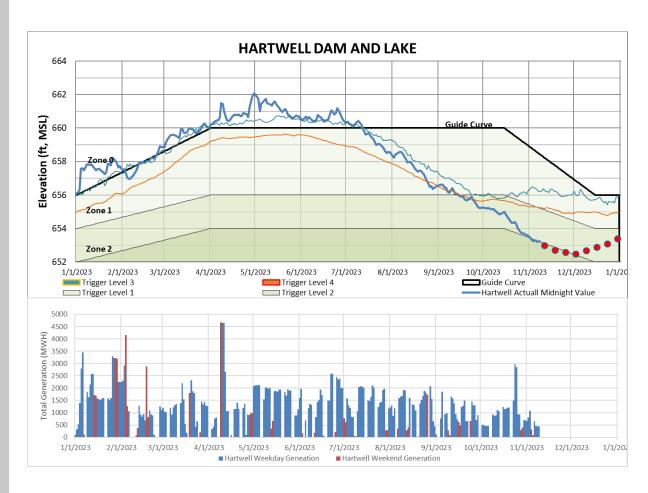


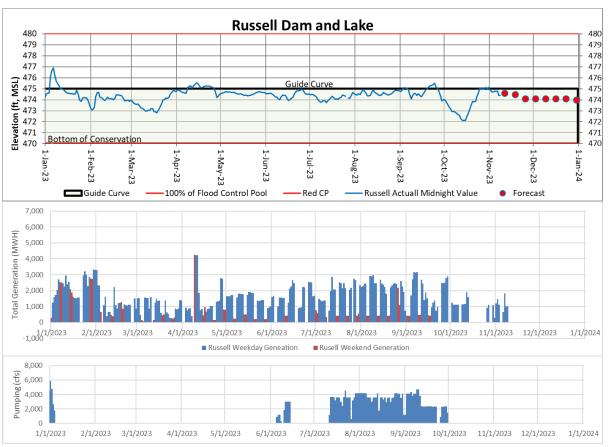
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SAVANNAH RIVER CURRENT CONDITIONS AND FORECAST



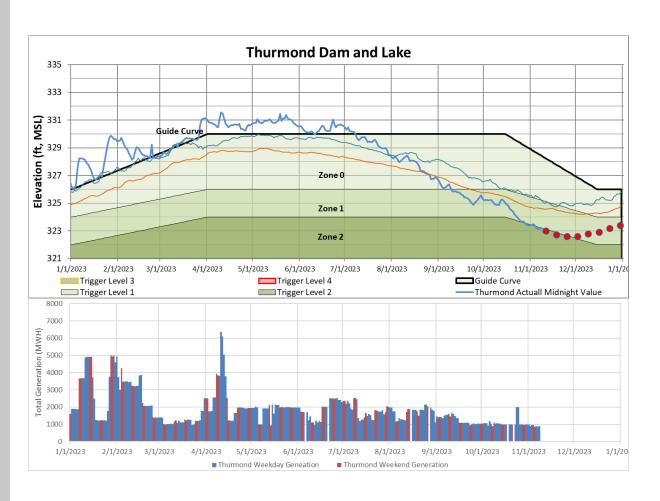






SAVANNAH RIVER CURRENT CONDITIONS AND FORECAST



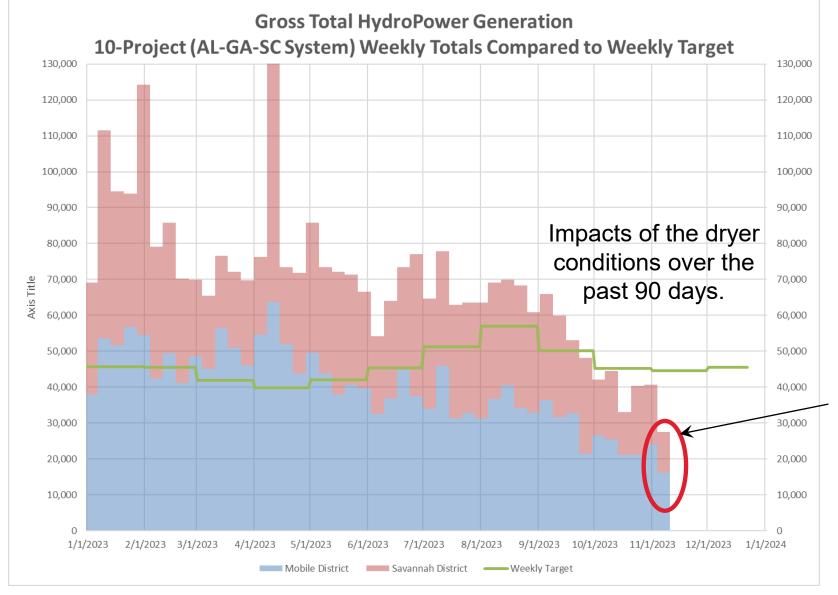


- Savannah River projects are currently in Drought Trigger Level 2.
- Level 2 limits releases at Thurmond Dam to a maximum 3,600 cfs daily average flow (Nov 1 through Jan 31).
- This reduction is causing 5,000-10,000 MW-HR weekly shortage.
- Forecast lake levels have the pools transitioning back to Drought Level 1 within the next ten weeks (Will transition back to 4,200 cfs).



TOTAL GENERATION FOR THE AL-GA-SC SYSTEM





Resents only 5 days of the 7-day period.



LAKE HARTWELL WATER SUPPLYSTORAGE REALLOCATION STUDY



- Study status:
 - Currently going through District Quality Control (DQC)
 - Expected completion April 2024
- Provides additional storage to 4 Users (Anderson, Lavonia, Pioneer, and Curahee)
- Inclusion of return flow credits reduced the total storage required for reallocation from 19,950 to 12,616 acre-ft (~1 percent of conservation pool).
 - Combined withdrawal of requestors is 38 cfs
- Not all return flow is returned to Hartwell, as an example only 7.6 cfs (20%) of the total withdrawal returns to Hartwell.

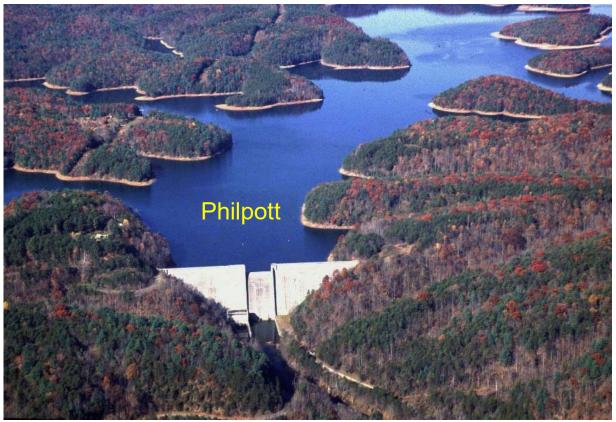




ROANOKE RIVER BASIN



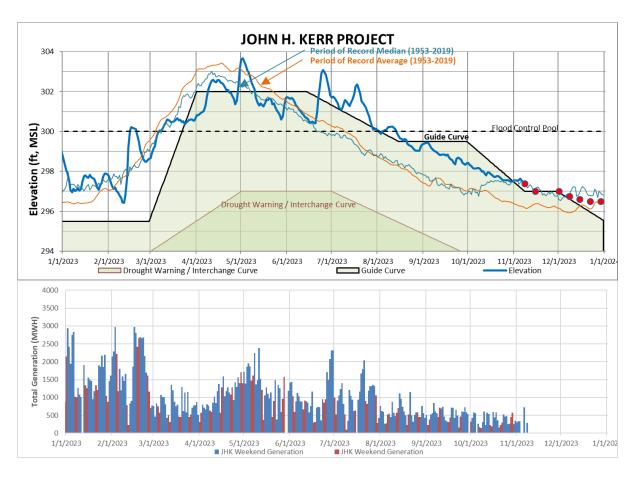


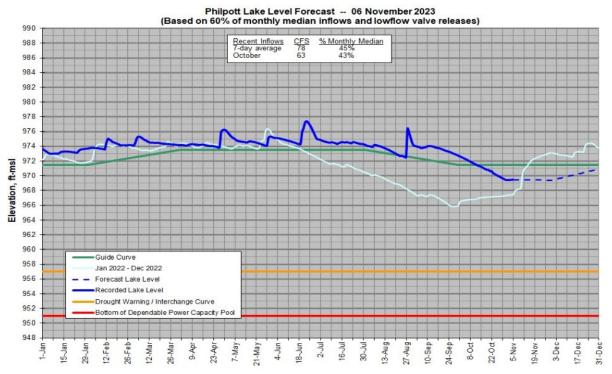




ROANOKE RIVER BASIN CURRENT CONDITIONS AND FORECAST









QUESTIONS



