

Falls Lake Drought Forecast: Condition as of 06-01-2013

Initial Conditions and Assumptions

- The Initial Lake Conditions :
 - Little River Reservoir = 355 (full)
 - Lake Michie = 341 (full)
 - West Fork Eno Reservoir = 633.0 ft (633 full)
 - Falls Lake Elevation = 251.6 ft (251.5 full)
 - Falls Lake Water Quality Remaining = 100%
 - Falls Lake Water Supply Remaining = 100%
- Annual Average Demand Assumptions
 - Hillsborough - 3 month rolling average demand = 1.13 MGD
 - Durham - 3 month rolling average demand = 27.76 MGD
 - Raleigh - 3 month rolling average demand = 47 MGD
 - Constant Withdrawal from DE Benton WTP [Swift Creek] = 9 MGD
- Discharge Assumptions
 - Cary Return Flow – as % of Cary withdrawal from Jordan Lake
 - 78% total returned = 57% to Neuse basin / 21% to Haw basin
 - 26% to South Cary WRF / 31% to North Cary

USACE Lake Status Link

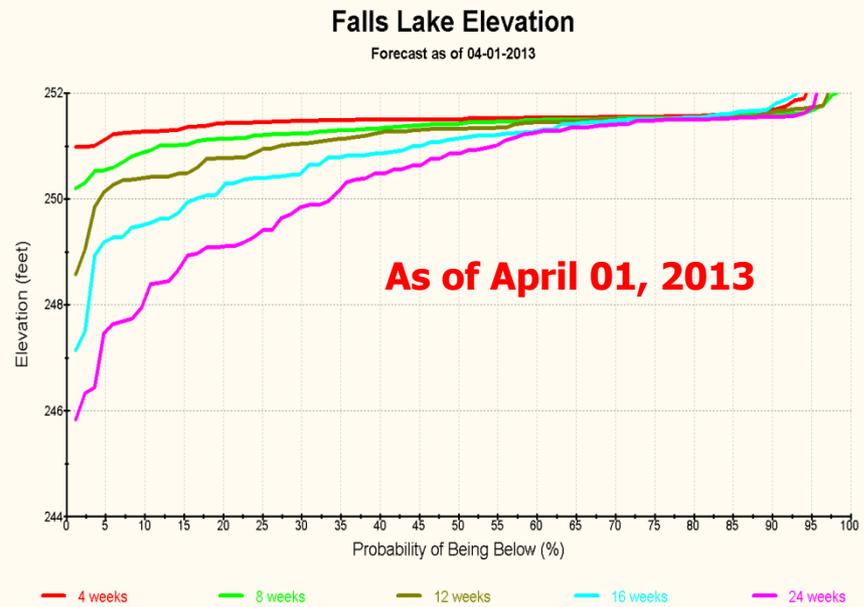
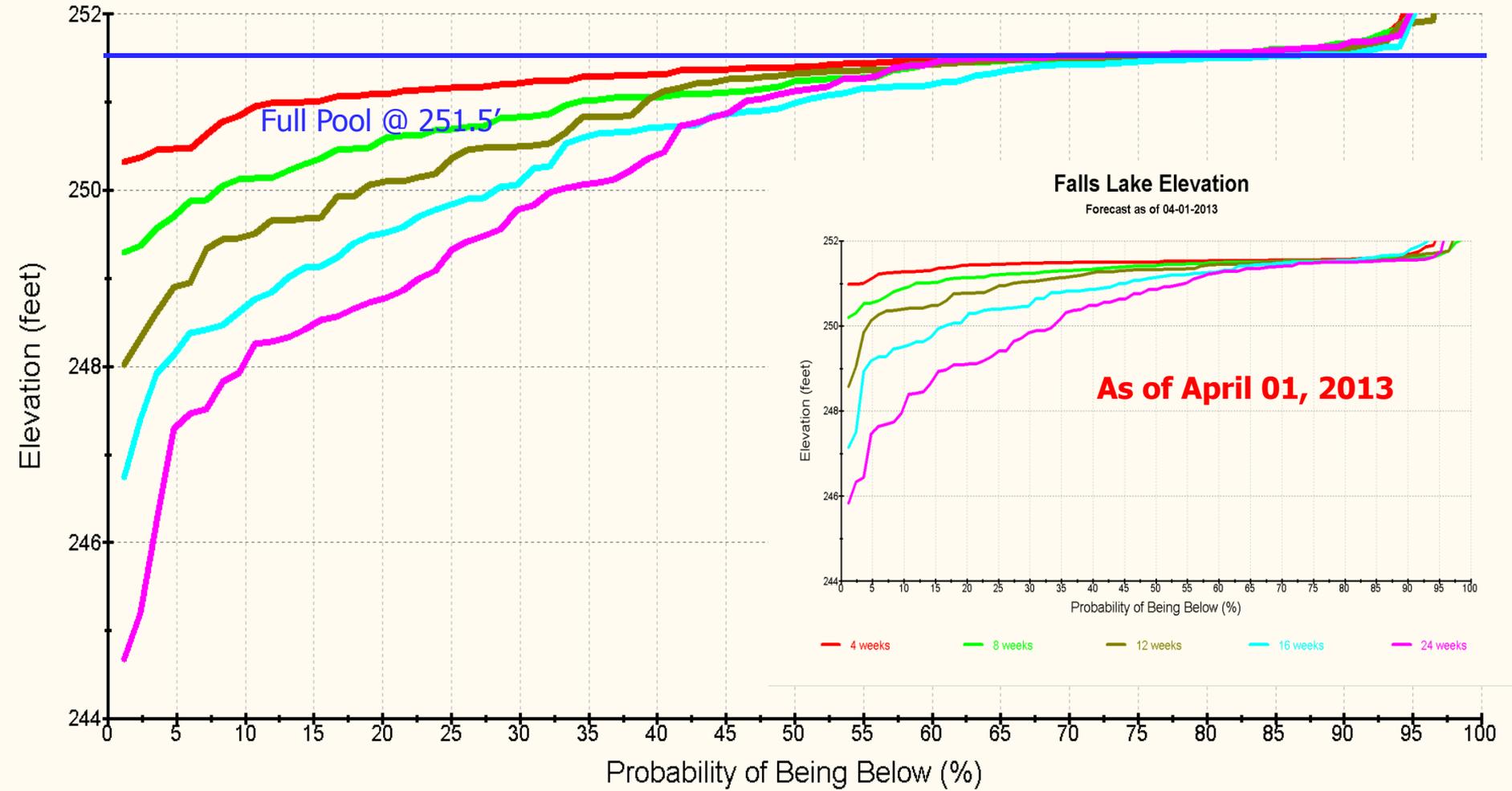
http://epec.saw.usace.army.mil/falls_summ.htm

Date	As of 06-01-2013 Probability of Being Below				
	Falls Elevation: Guide Curve	Falls Elevation:	Falls Lake Water Supply Pool		
	251.50 ft	249.5 ft	80% WS Pool	90% WS Pool	100% WS Pool
July 1	63%	4.8%	above	3.6%	63%
Aug 1	58%	4.8%	3.6%	21%	60%
Sep 1	74%	12%	11%	26%	71%
Oct 1	77%	24%	16%	37%	75%
Nov 1	74%	32%	20%	40%	71%
Dec 1	52%	26%	20%	35%	52%

Date	As of 06-01-2013 Probability of Being Below				
	Falls Elevation: Guide Curve	Falls Elevation:	Falls Lake Water Quality Pool		
	251.50 ft	249.5 ft	80% WQ Pool	90% WQ Pool	100% WQ Pool
July 1	63%	4.8%	above	3.6%	63%
Aug 1	58%	4.8%	8%	27%	62%
Sep 1	74%	12%	20%	36%	77%
Oct 1	77%	24%	32%	48%	78%
Nov 1	74%	32%	42%	51%	76%
Dec 1	52%	26%	36%	43%	52%

Falls Lake Elevation

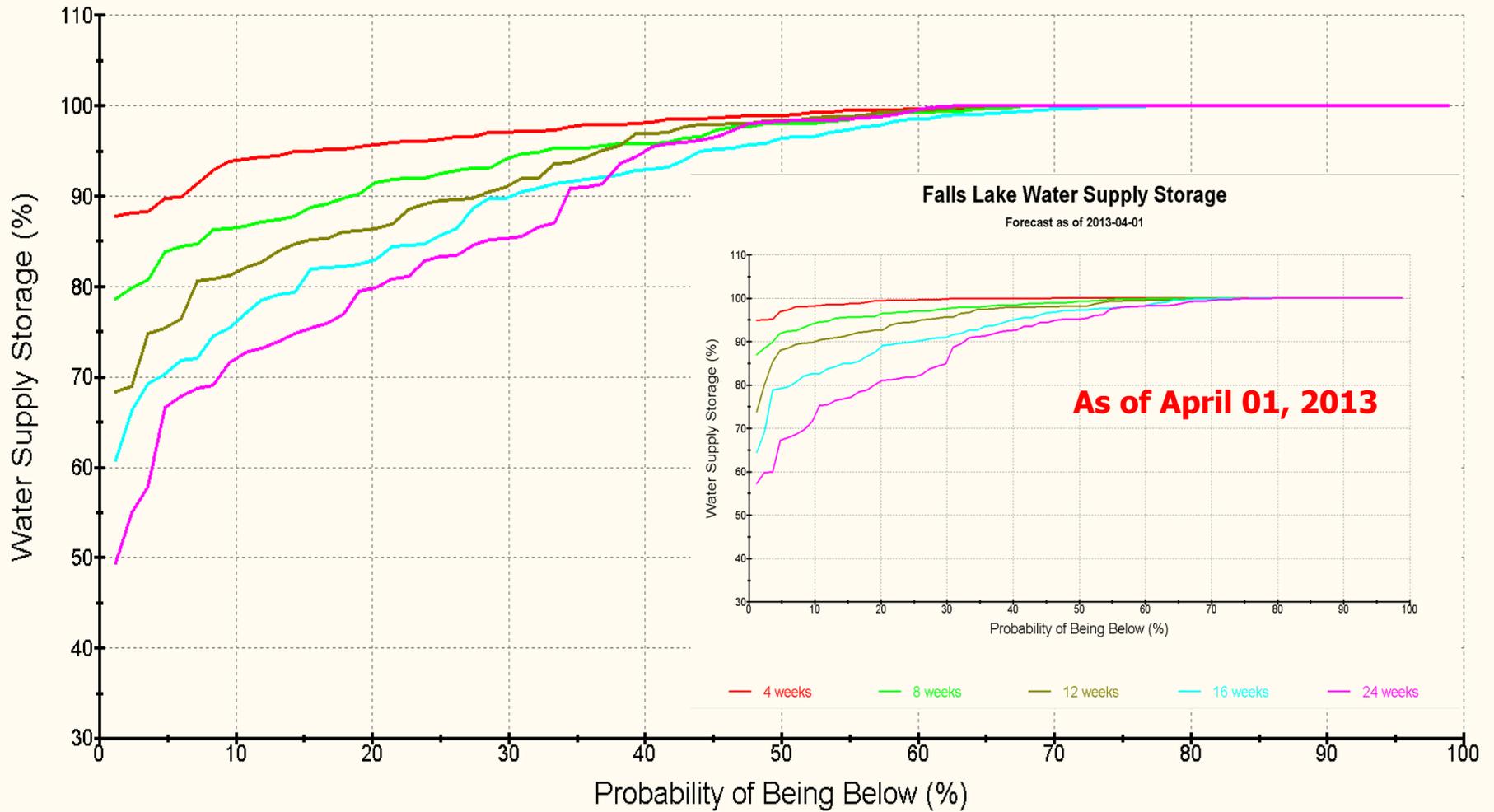
Forecast as of 06-01-2013



— 4 weeks
 — 8 weeks
 — 12 weeks
 — 16 weeks
 — 24 weeks

Falls Lake Water Supply Storage

Forecast as of 2013-06-01



4 weeks

8 weeks

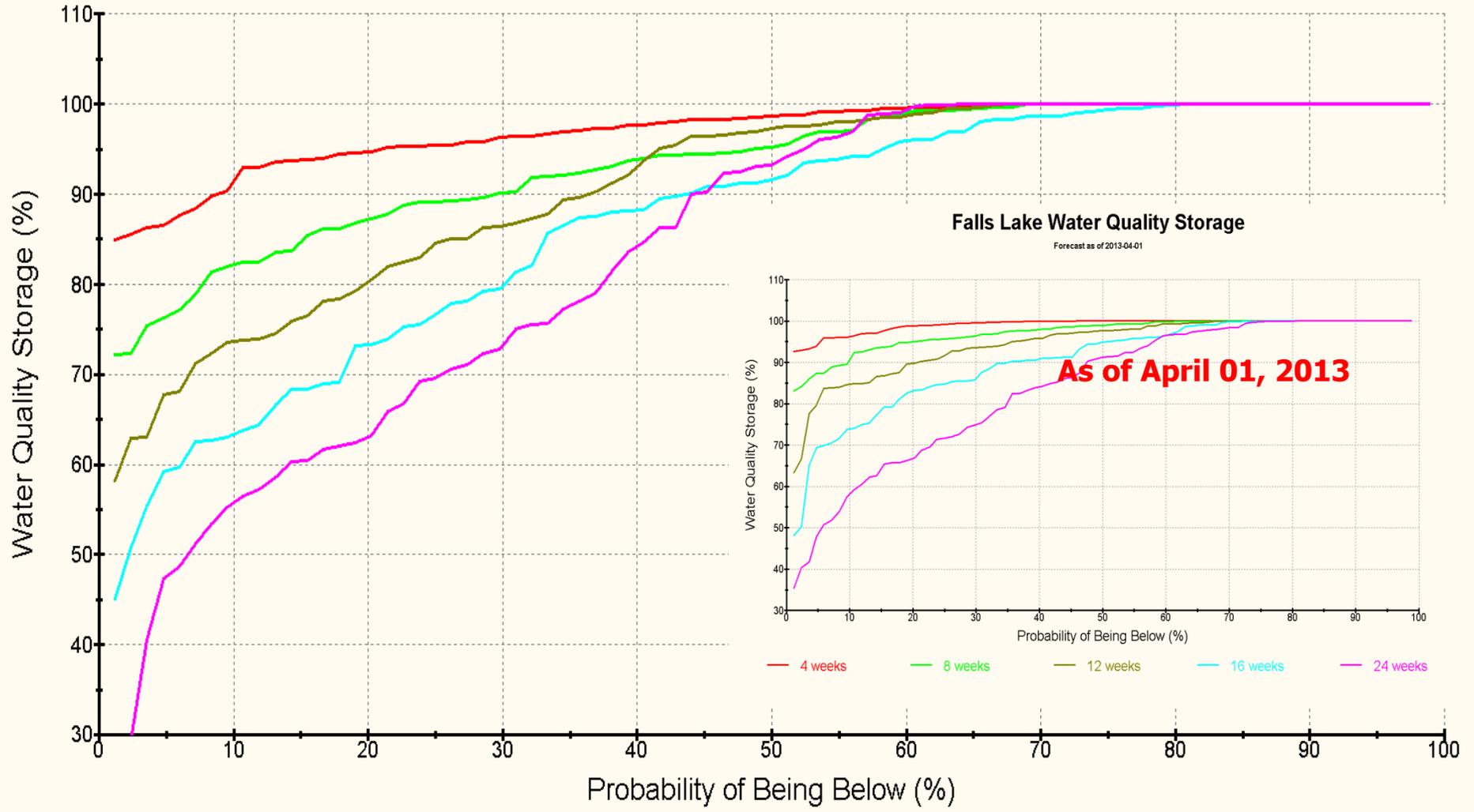
12 weeks

16 weeks

24 weeks

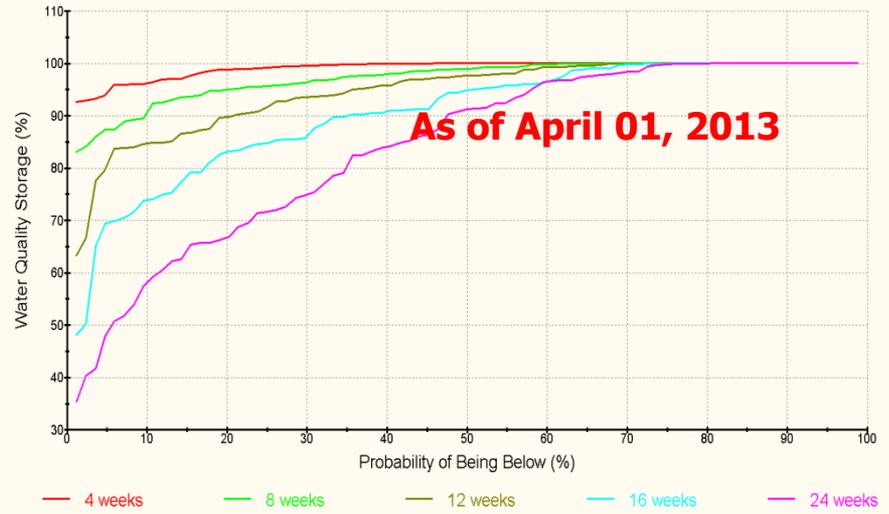
Falls Lake Water Quality Storage

Forecast as of 2013-06-01



Falls Lake Water Quality Storage

Forecast as of 2013-04-01



- 4 weeks
- 8 weeks
- 12 weeks
- 16 weeks
- 24 weeks

Actual Storage % Remaining : 2012 - 2013

