



Northeast River Forecast Center's

Apr 27th Spring Outlook



➤ Brought to you by:

➤ *Edward Capone – Service Coordination Hydrologist*

➤ Overview to Include:

- Stream flow-Groundwater-Soil moisture

Snowpack Conditions --- Ice Jams

- ● Antecedent –Current—Future precipitation forecasts
- ● Short and Medium Range Met Forecasts (significant events)
- ● Flood or Drought Outlook (Near term & Longer term)
- ● State of ENSO – Seasonal Teleconnections

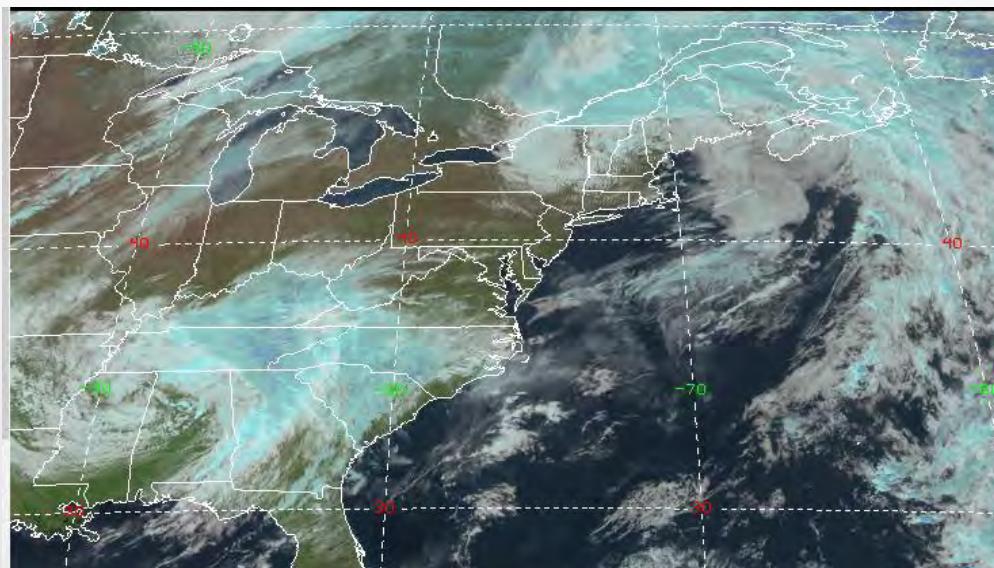
• Fri, Apr 27, 2018 11:00 AM - 11:30 AM EDT

Please join my meeting from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/320666085>

You can also dial in using your phone.
United States: +1 (669) 224-3412

Access Code: 320-666-085



Building a Weather-Ready Nation

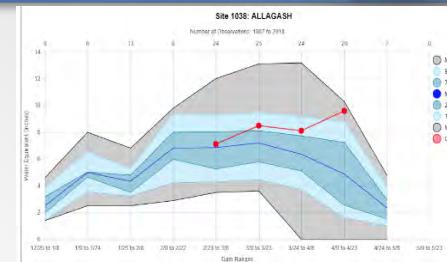


Main Features

Outlook: Pattern change



- Colder than Normal April
- Snowpack remains in place longer – northern watersheds
- Ice movement – releasing in northern Maine
- Couple of wetter/warmer systems current/upcoming
- MMEFS and deterministic models indicate some minor flooding
- Large Scale weather pattern change next week
- “SUDDEN Summer”...beginning of ET season
- CPC indicating near normal to slightly above normal precip in outlook period



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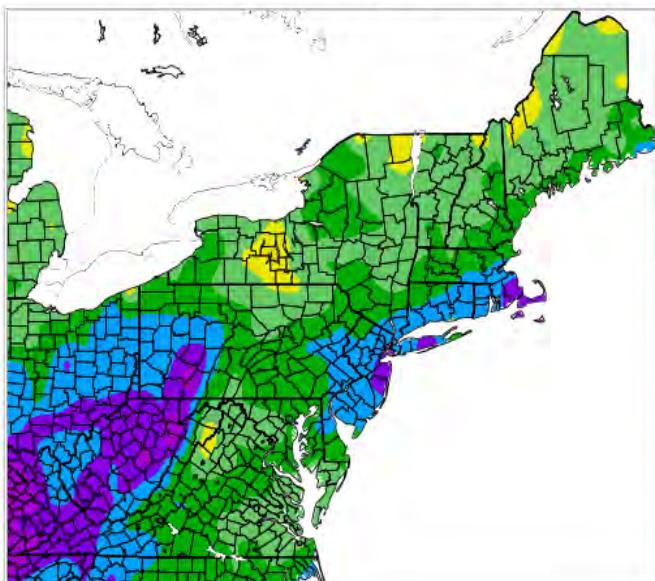
90-day Precipitation



90-day Precipitation

Normal to Above Normal...but Eastern NY into Central/Northern New England -- Below

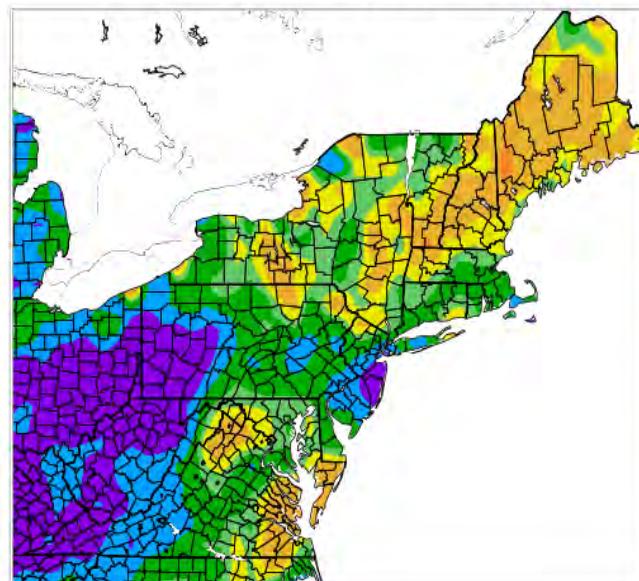
Precipitation (in)
1/26/2018 – 4/25/2018



Generated 4/26/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

Percent of Normal Precipitation (%)
1/26/2018 – 4/25/2018



Generated 4/26/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers



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30-Day (NERCC)

Temperature *Departures* – Precipitation %



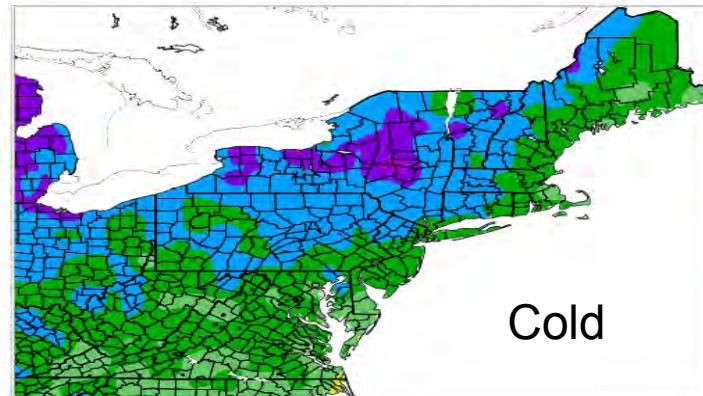
Temperature Departures

Last 30 Days – Many below normal locations

Precipitation -- % of Normal

Last 30 Days – Mainly below normal

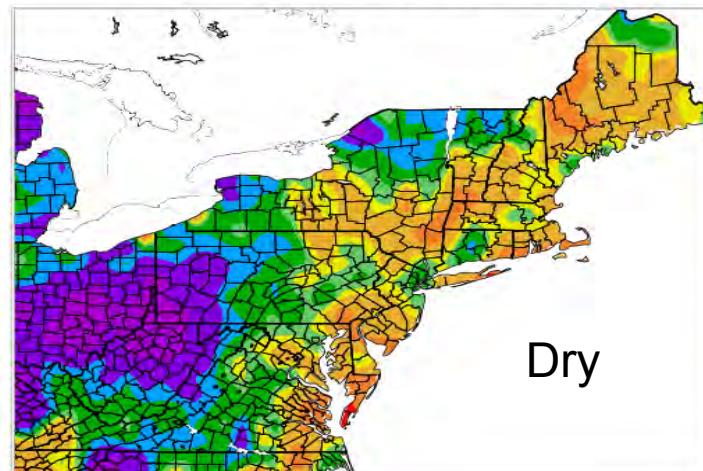
Departure from Normal Temperature (F)
3/27/2018 – 4/25/2018



Generated 4/26/2018 at HPRCC using provisional data

NOAA Regional Climate Centers

Percent of Normal Precipitation (%)
3/27/2018 – 4/25/2018



Generated 4/26/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers



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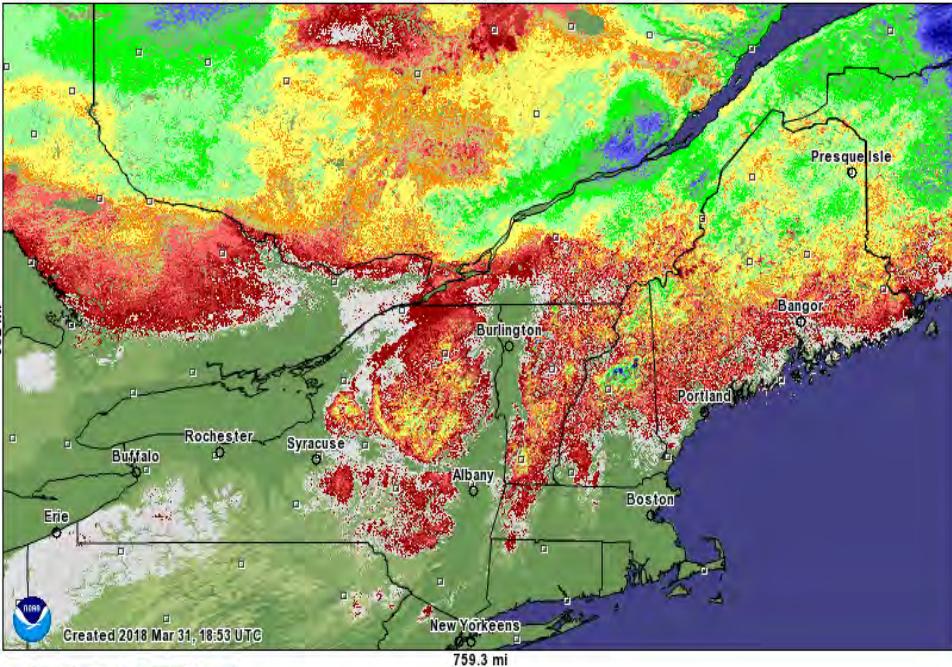


Snow Water Equivalent (SWE) April 13th (left) vs April 27th (right)



Modeled Snow Water Equivalent (Shallow-snow Legend) for 2018 March 31, 12:00 UTC

659.4 mi



Created 2018 Mar 31, 18:53 UTC

Inches of water equivalent

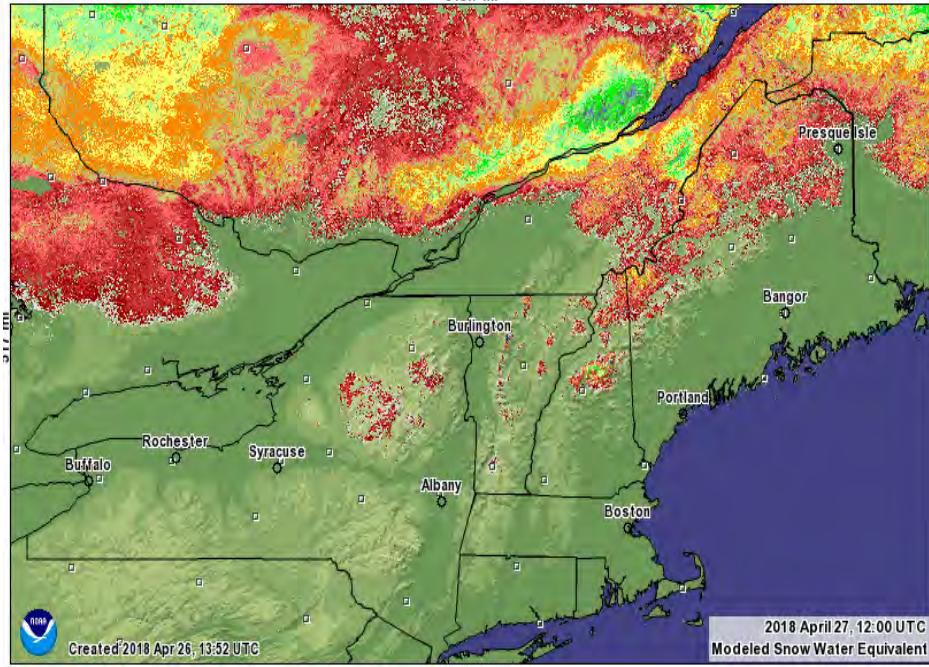
> 18	16 to 18	14 to 16	12 to 14	10 to 12	8 to 10	6 to 8	5 to 6
16	14	12	10	8	6	5	4
to	to	to	to	to	to	to	to
18	16	14	12	10	8	7	6

Elevation in feet

> 13124	11484 to 13124	8203 to 11484	4922 to 8203	1641 to 4922	3 to 1641	< 3
20	18	16	14	12	10	8
to	to	to	to	to	to	to
30	28	26	24	22	20	18

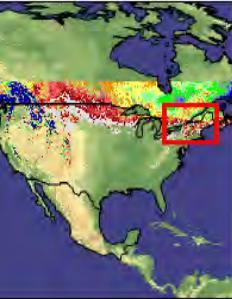
Modeled Snow Water Equivalent forecasted for 2018 April 27, 12:00 UTC

613.7 mi



Created 2018 Apr 26, 13:52 UTC

2018 April 27, 12:00 UTC
Modeled Snow Water Equivalent



Inches of water equivalent

> 18	16 to 18	14 to 16	12 to 14	10 to 12	8 to 10	6 to 8	5 to 6
16	14	12	10	8	6	5	4
to	to	to	to	to	to	to	to
18	16	14	12	10	8	7	6

Elevation in feet

> 13124	11484 to 13124	8203 to 11484	4922 to 8203	1641 to 4922	3 to 1641	< 3
20	18	16	14	12	10	8
to	to	to	to	to	to	to
30	28	26	24	22	20	18

Inches of water equivalent

> 30	28	26	24	22	20	18
20	18	16	14	12	10	8
to	to	to	to	to	to	to
30	28	26	24	22	20	18

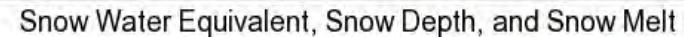
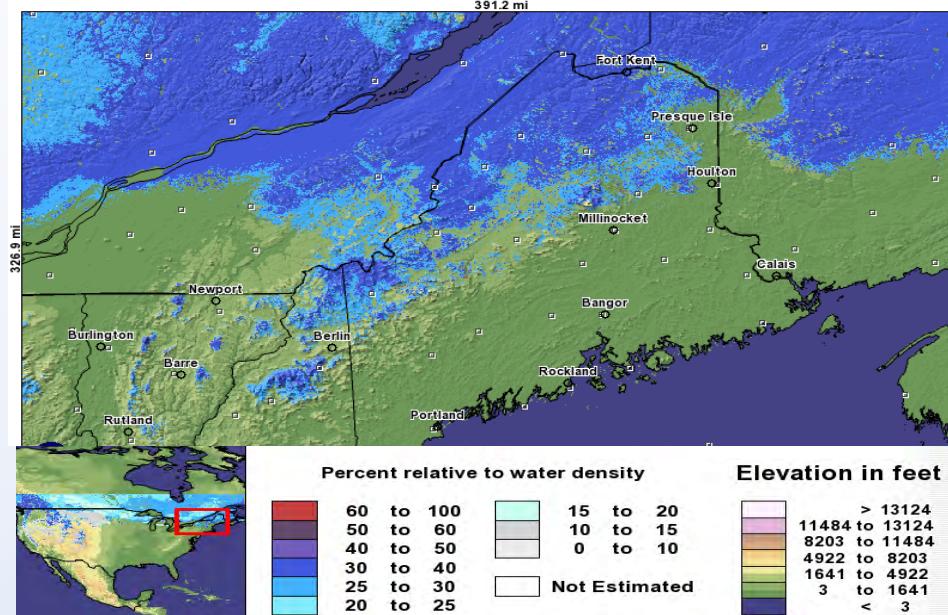
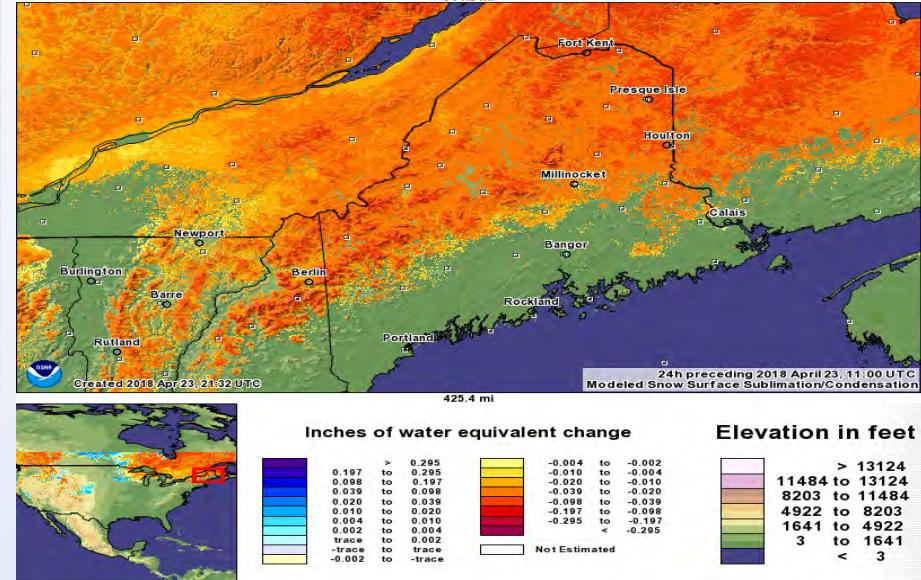
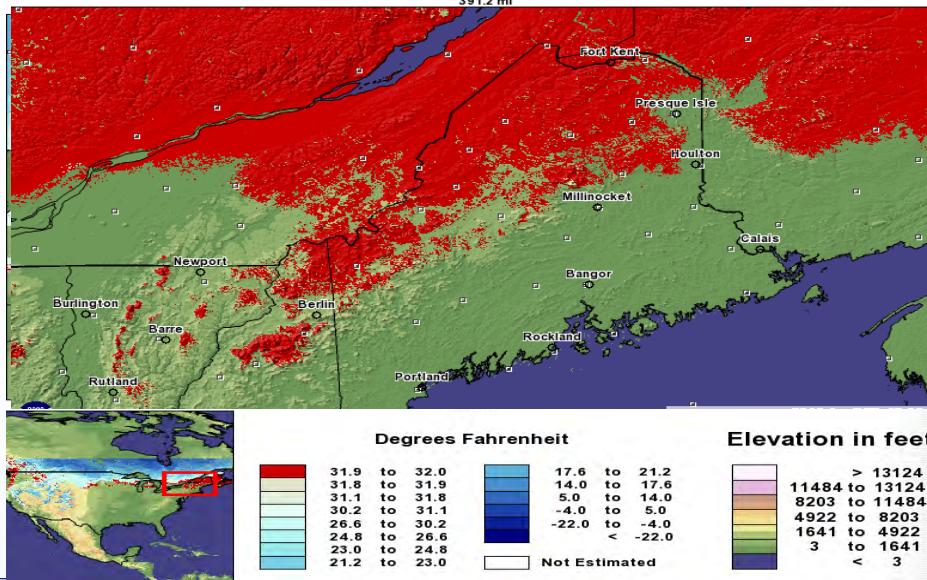
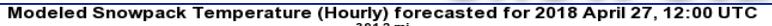
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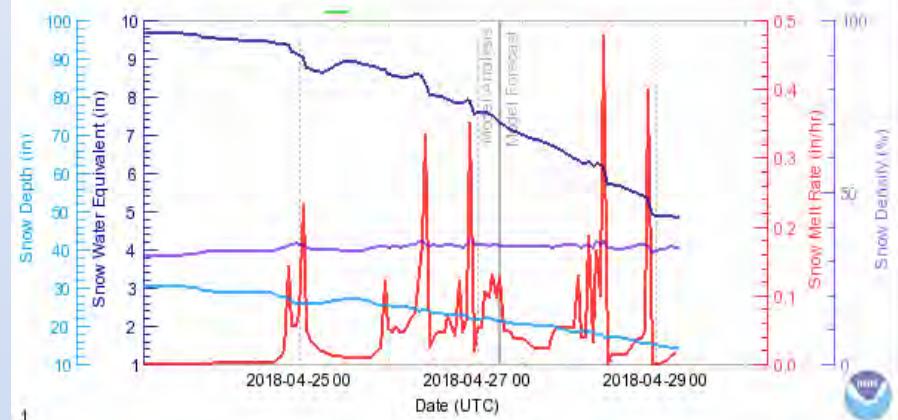
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Snow States April 27th



Modeled and Observed

Station: ALLM1 - R. GAGE ON ALLAGASH RIVER
Latitude: 47.066667 N
Longitude: 69.083333 W
Elevation: 604 Feet
Start Date: 2018-04-23 06 UTC
Stop Date: 2018-04-30 06 UTC
Forest Density: 85%
Land Use: Cool Mixed Forest



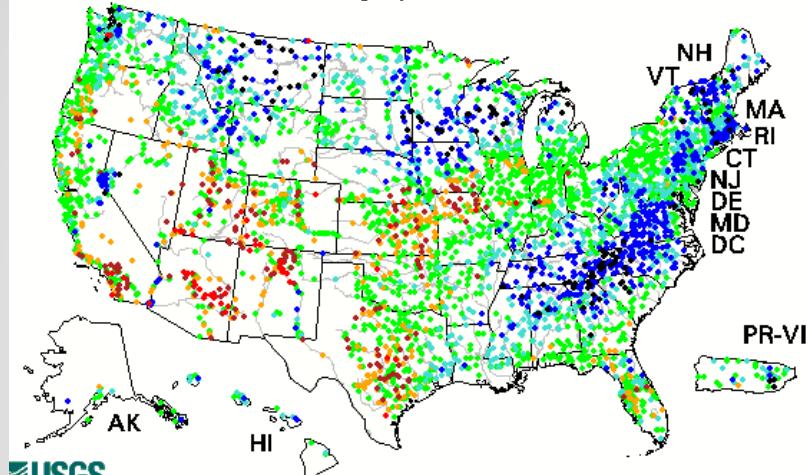


USGS Streamflow Conditions

Daily Average Streamflow



Thursday, April 26, 2018



USGS

Search USGS streamgage

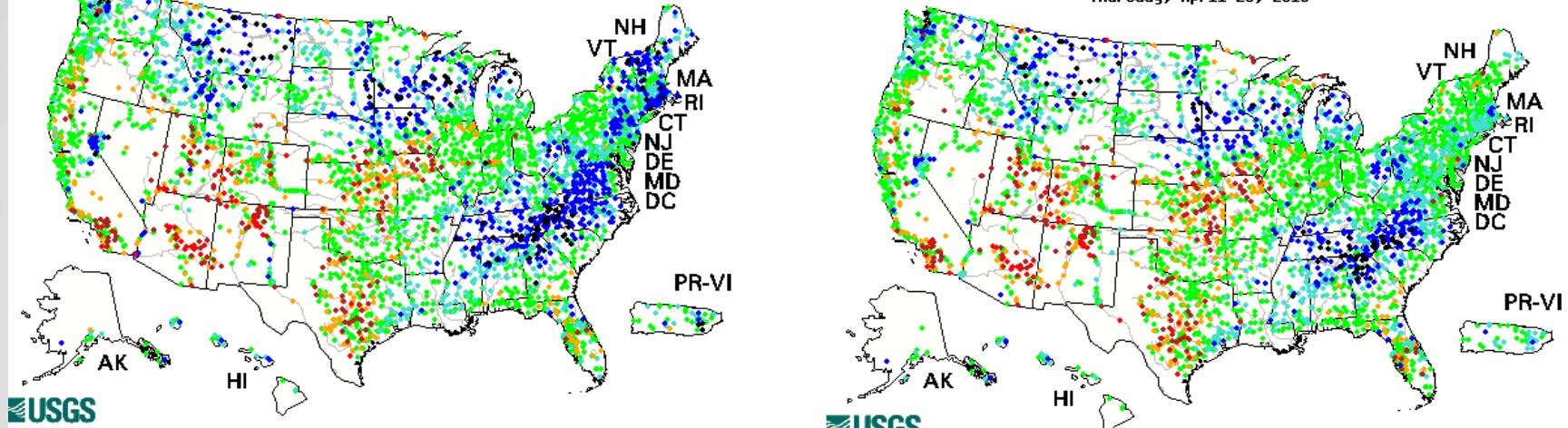
Choose a data retrieval option and select a location on the map

List of all stations in state, State map, or Nearest stations

Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

Thursday, April 26, 2018

Thursday, April 26, 2018



USGS

USGS

Explanation - Percentile classes

Low	<10	10-24	25-75	76-90	>90	High
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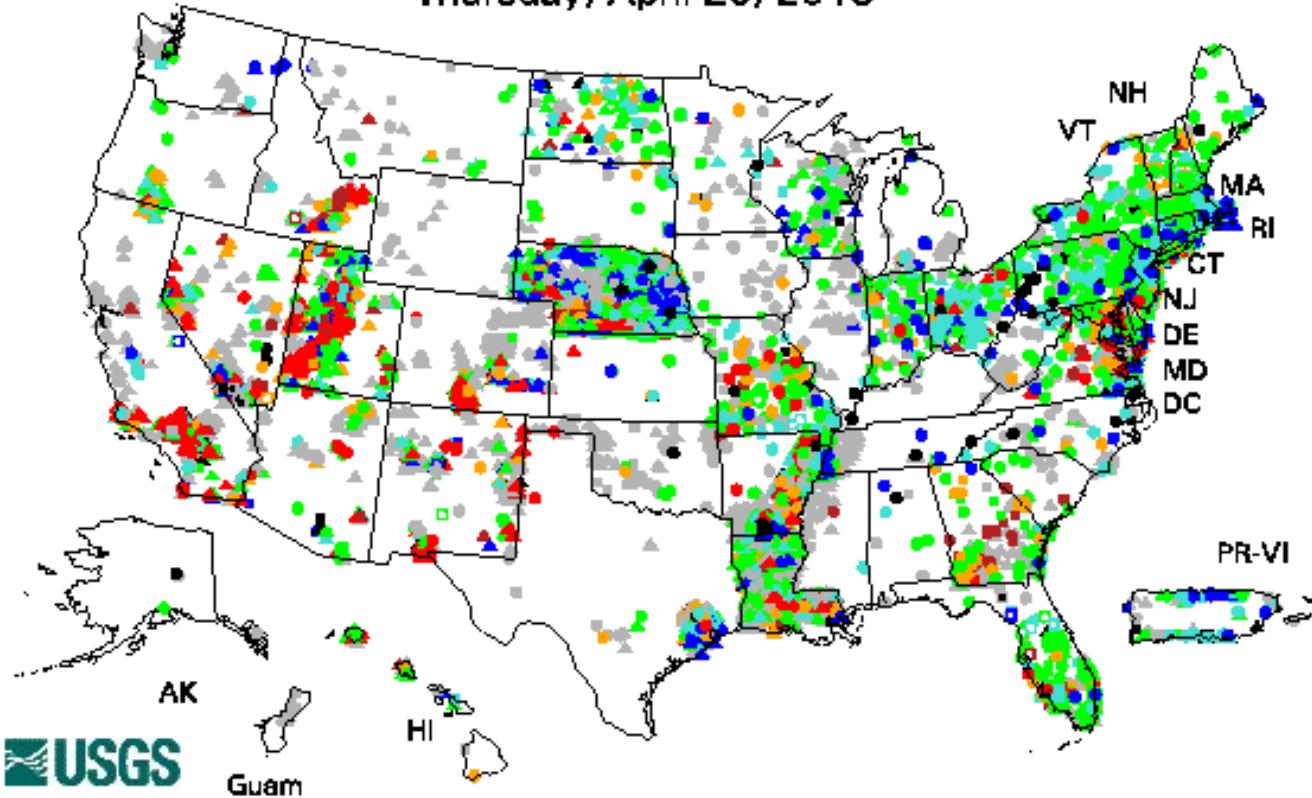
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USGS Groundwater Conditions



Thursday, April 26, 2018



Guam

Explanation - Percentile classes (symbol color based on most recent measurement)

	<10	10-24	25-75	76-90	>90		
Low	Much Below Normal	Below Normal	Normal	Above Normal	Much Above Normal	High	Not Ranked

Wells	Springs
○ Real-Time	■
□ Continuous	□
△ Periodic Measurements	□

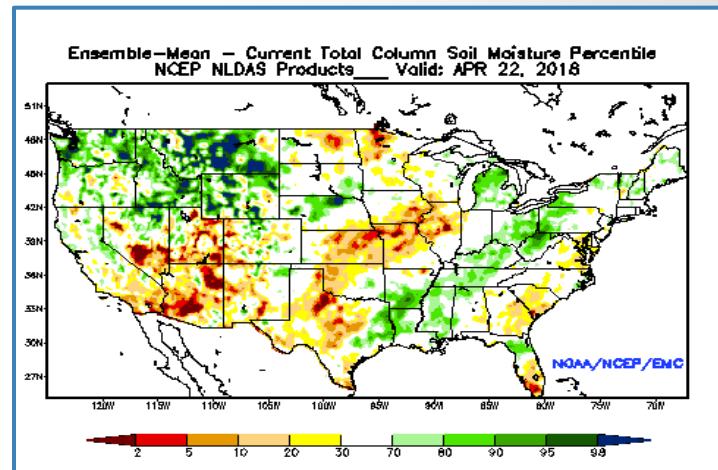
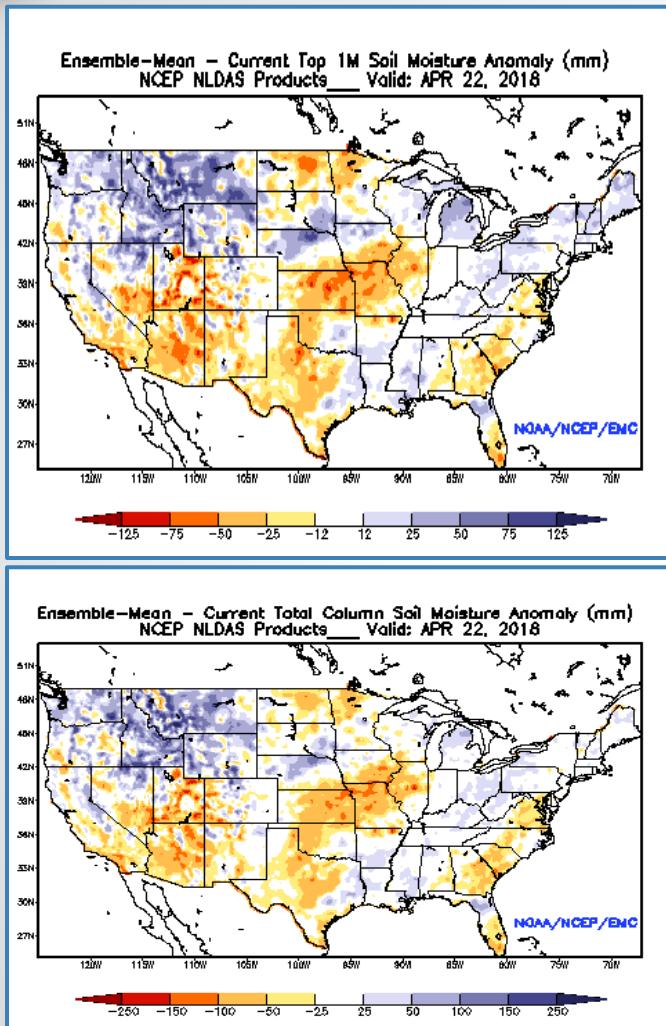


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Soil Moisture Current Conditions

Departures and Percentiles



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Water Supply/Lake Levels

Near and Above Normal



New York City's Water Supply System

April 26, 2018

Total Storage

(% of Capacity)

Current:

99.3

Normal:

98.2

Consumption

(billion gallons)

04/25/18

0.96

Average Precipitation

(inches)

February:

Actual Historical

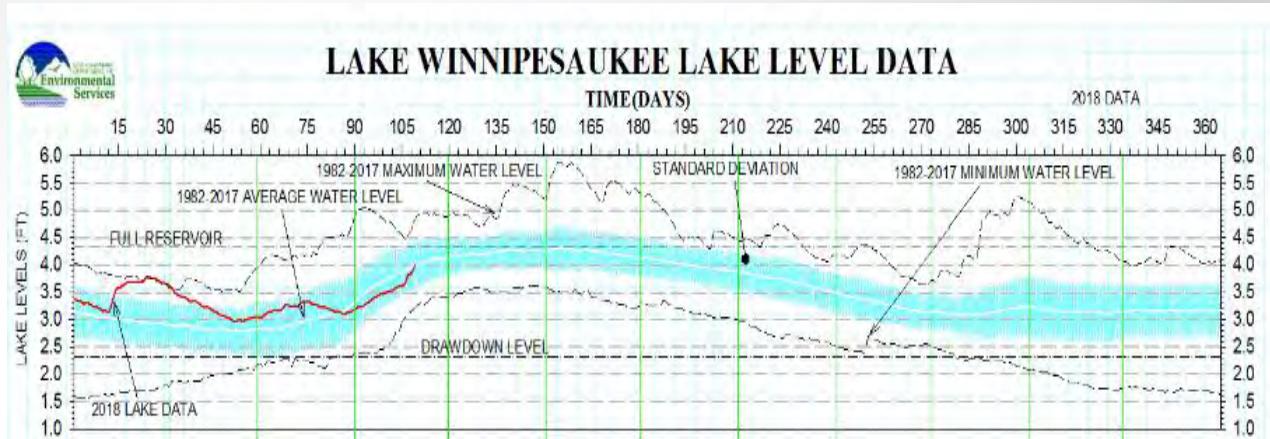
4.38 2.46

March

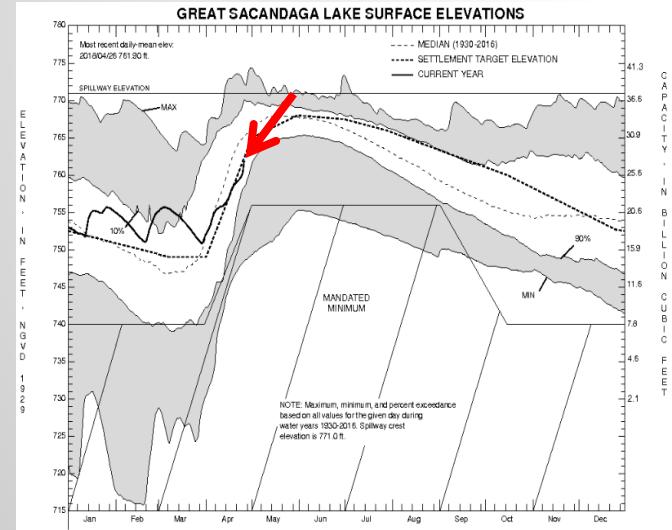
2.76 3.57

April:

3.71 3.04



RESERVOIR LEVELS: The Quabbin Reservoir, the largest water supply source for 47 communities in the Metro Boston area, is currently at 87.8% of its 412 billion-gallon maximum capacity. The 65 billion-gallon Wachusett Reservoir is 92.3% full.



MAINE Reservoirs

Rangley -- Normal
 Mooselookmeguntic -- >Normal
 Richardson -- Normal
 Aziscohos >Normal
 Errol ..Normal
 Flagstaff - > Normal
 Moosehead – NORMAL
 Brassau - > Normal

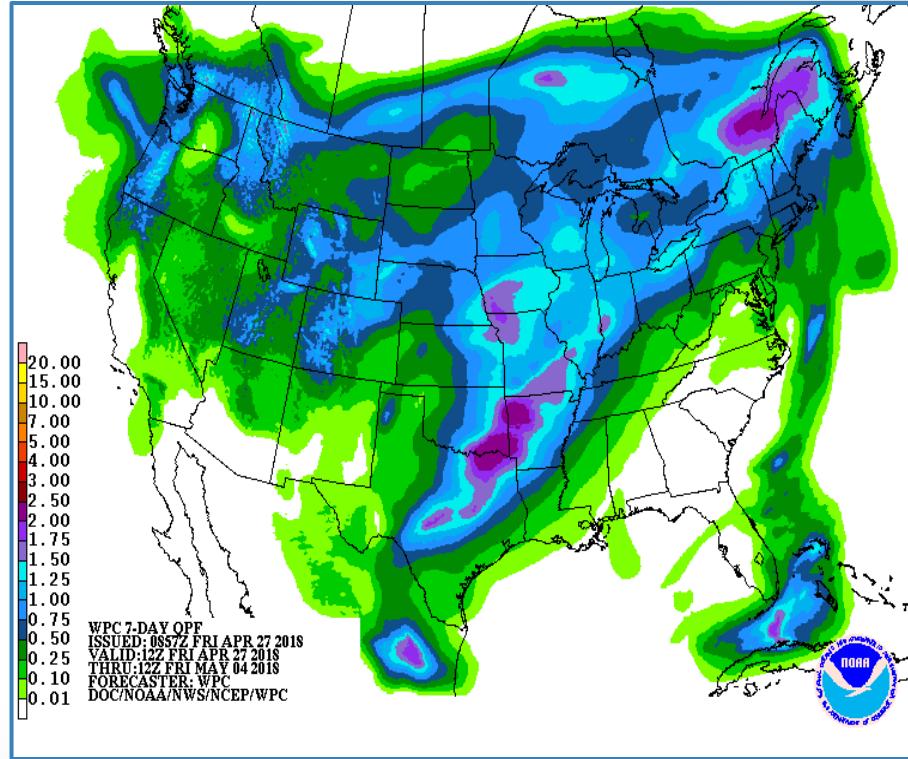
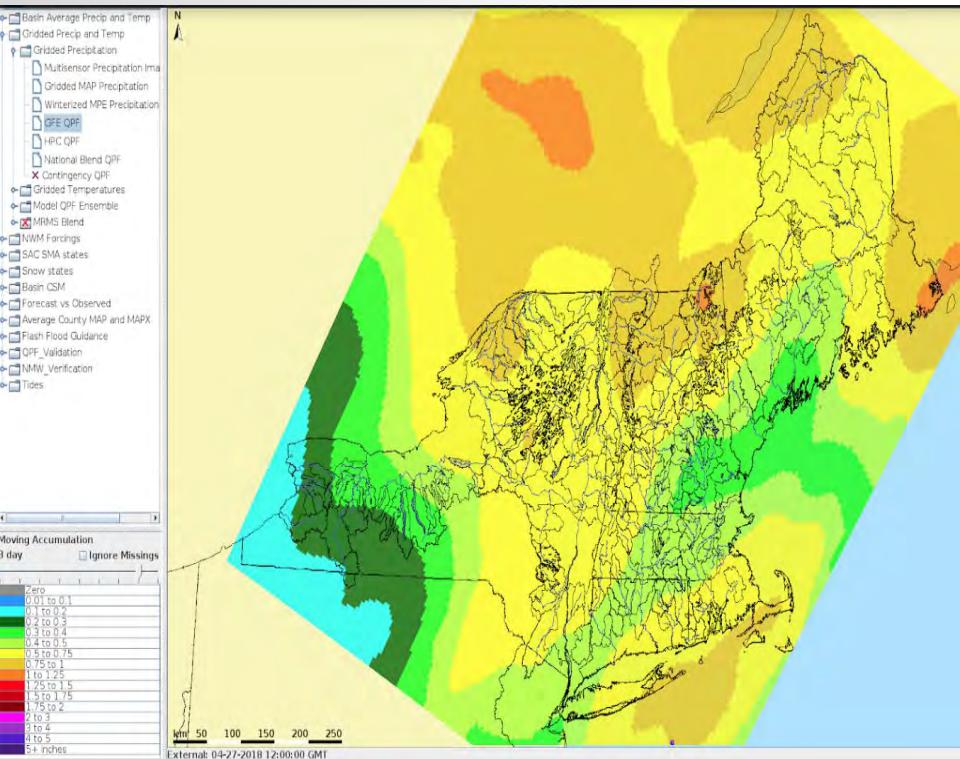


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Precipitation Forecast

2-Day and 7-Day



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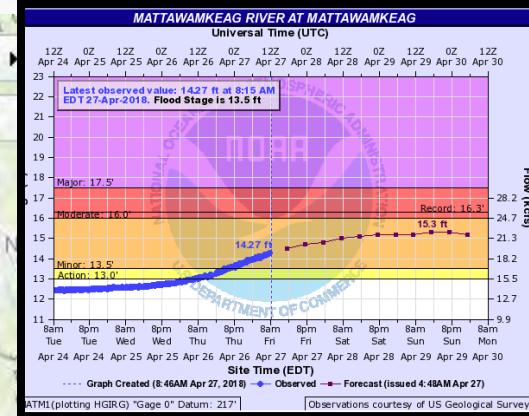
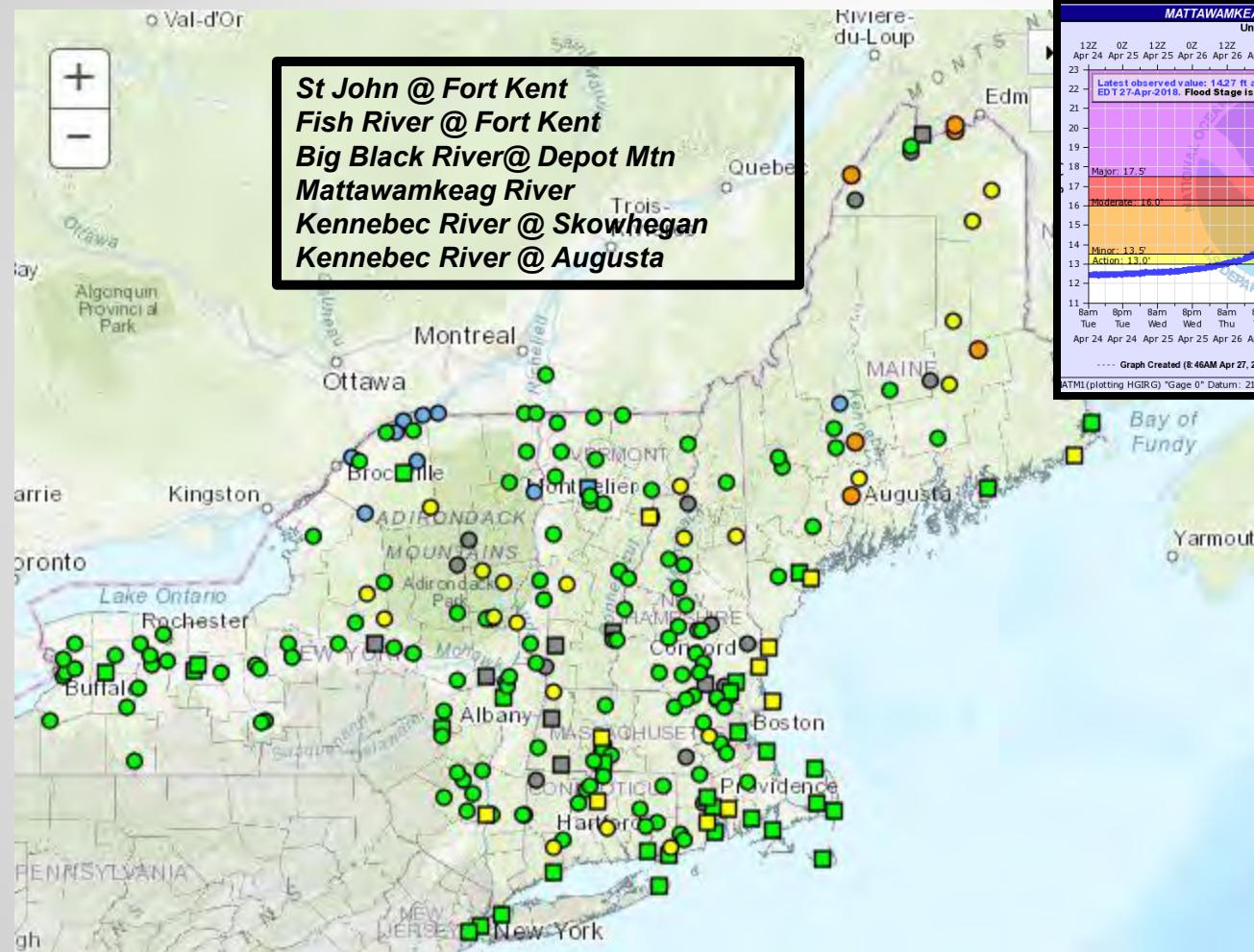
NERFC 72-Hr River Forecast

Minor Riverine Flooding Forecast

Val-d'Or



- St John @ Fort Kent**
- Fish River @ Fort Kent**
- Big Black River@ Depot Mtn**
- Mattawamkeag River**
- Kennebec River @ Skowhegan**
- Kennebec River @ Augusta**



- 0 Gauges: Major Flooding
- 0 Gauges: Moderate Flooding
- 6 Gauges: Minor Flooding
- 32 Gauges: Near Flood Stage
- 155 Gauges: No Flooding
- 11 Flood Category Not Defined
- 0 At or Below Low Water Threshold
- 0 Gauges: Forecasts Are Not Current
- 24 Gauges: No forecast within selected timeframe
- 0 Gauges: Out of Service

Show all locations

Last map update:
04/27/2018 at 08:44:00 am EDT
04/27/2018 at 12:44:00 UTC

What is UTC time?
Map Help

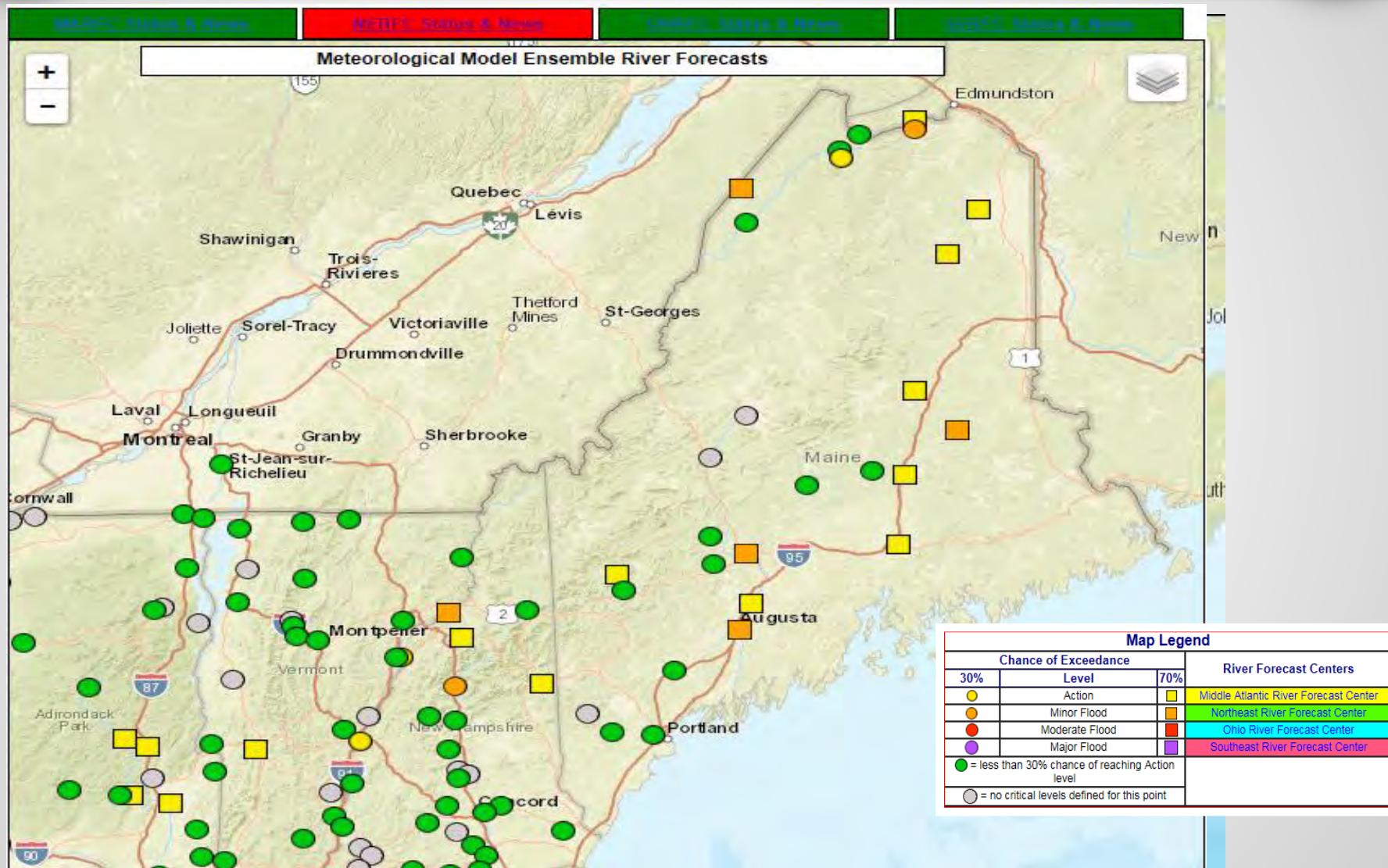


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Short-range Ensemble River Forecasts

<http://www.weather.gov/erh/MMEFS>



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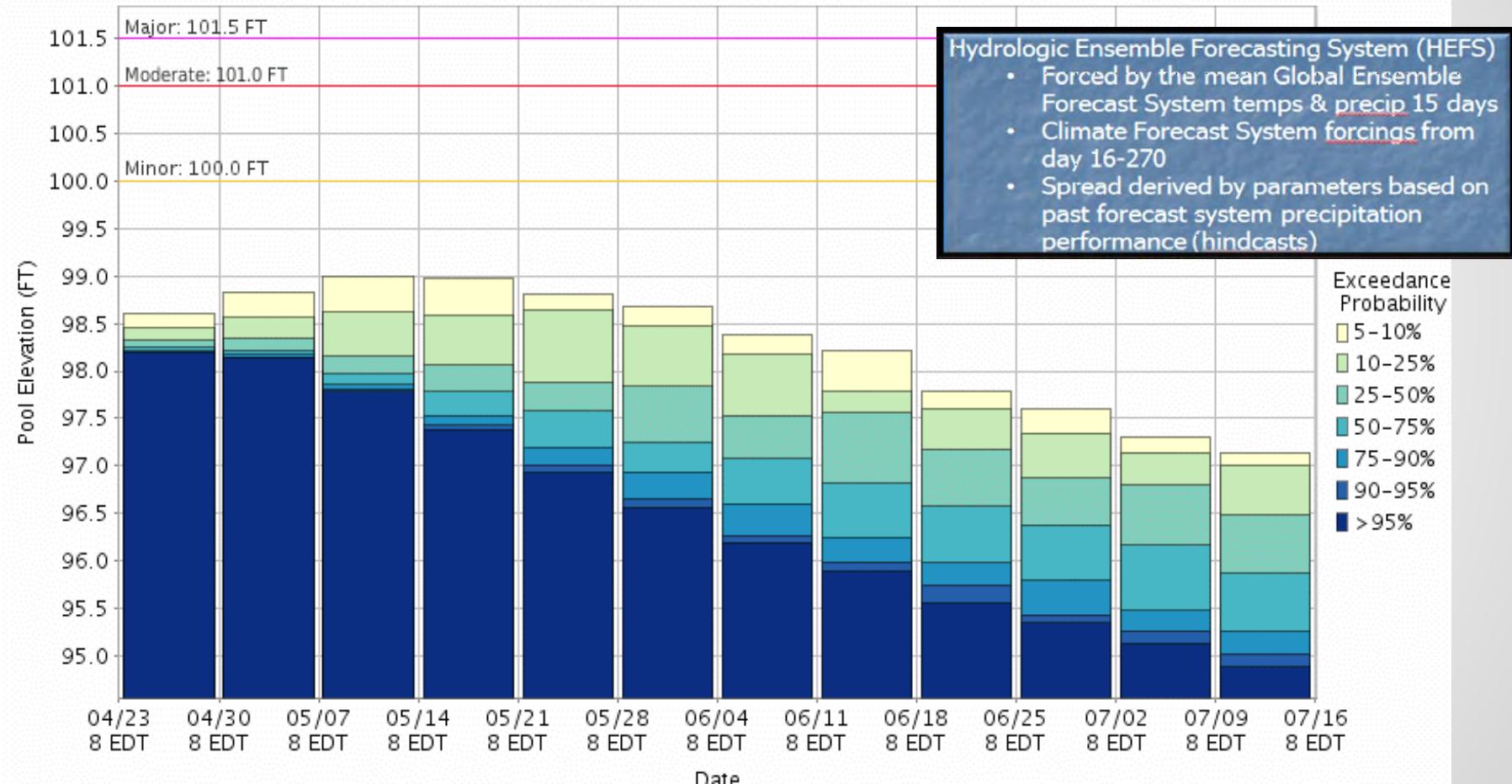


Hydrologic Ensemble Forecast - HEFS

Weekly Chance of Exceeding Pool Elevation at Richelieu River at Rouses Point, NY (ROUN6)

Forecast for the period 04/23/2018 - 07/22/2018

This is a conditional simulation based on the current conditions as of 04/23/2018

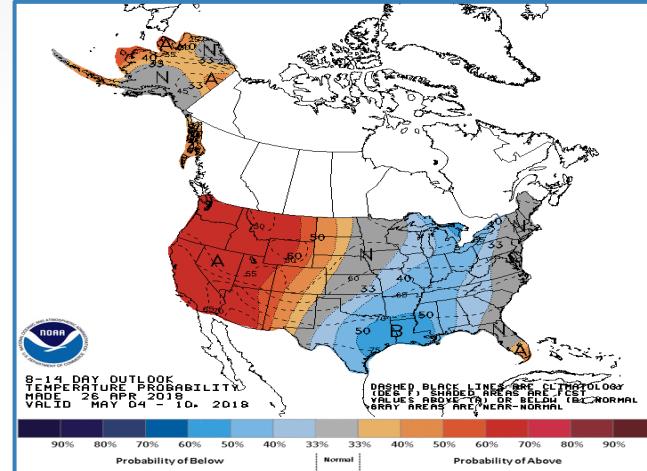
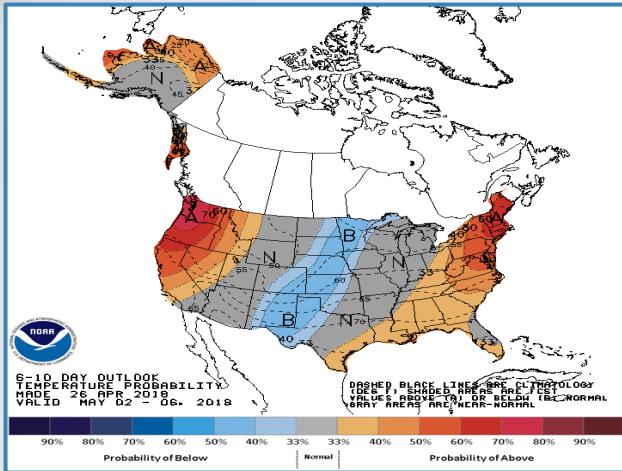


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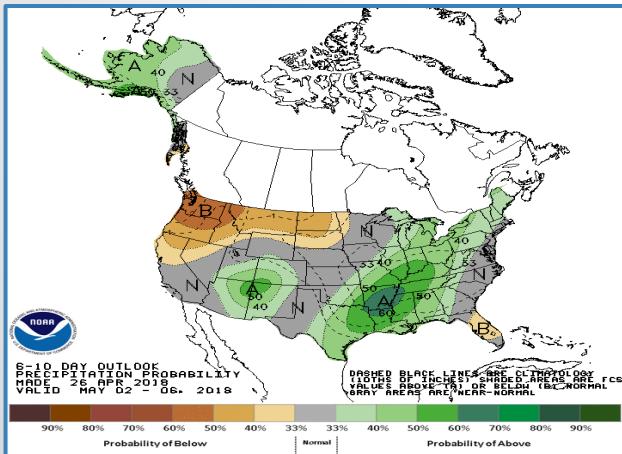


CPC Outlooks

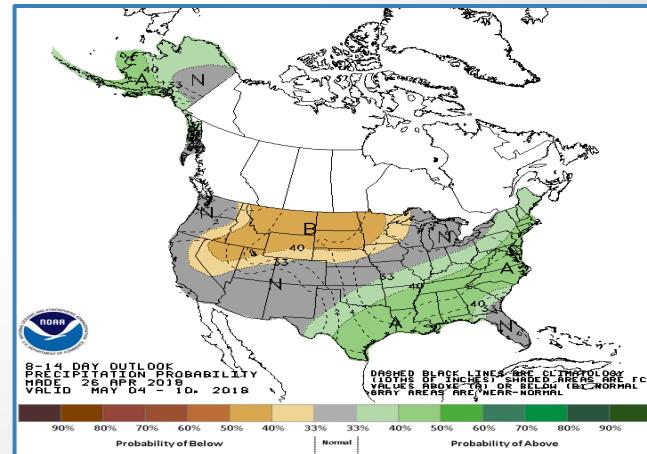
6 to 10 and 8 to 14 day outlooks



6 to 10 day outlooks



8 to 14 day outlooks

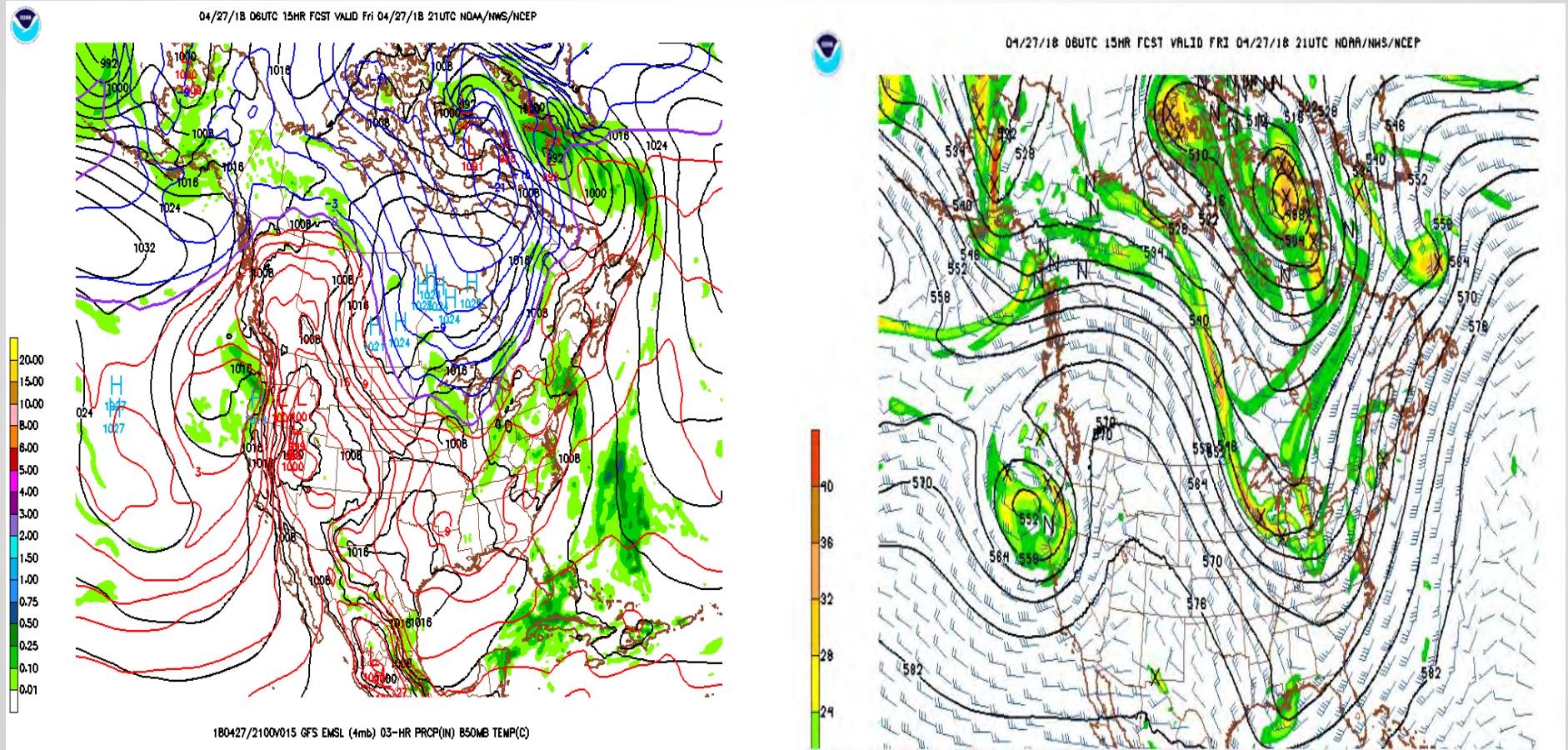


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Quick Shot of Rain

April 27/28



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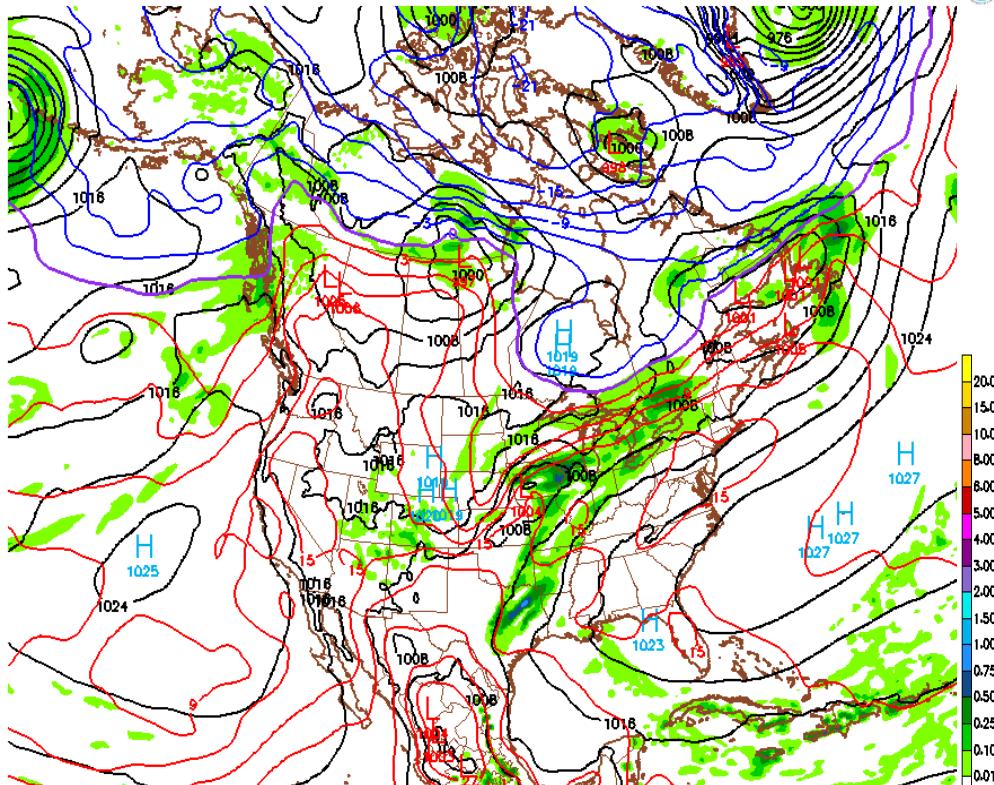


Surface Prognosis – Early May

Warmth next week...then sharp coldfront

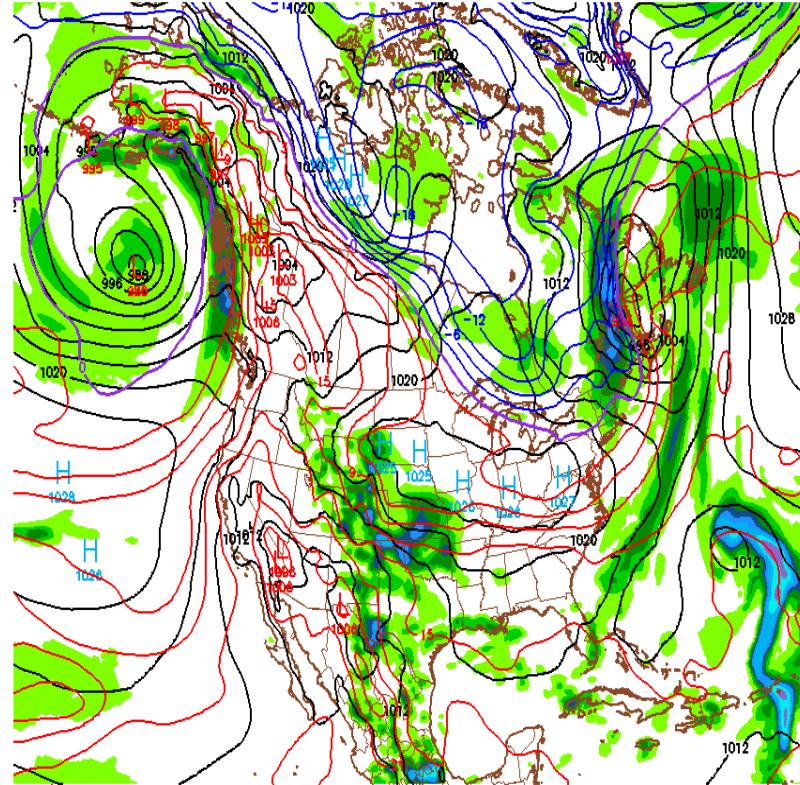


04/27/18 06UTC 159HR FCST VALID Thu 05/03/18 21UTC NOAA/NWS/NCEP



180503/2100/159 GFS EMSL (4mb) 03-HR PRCP(IN) B50MB TEMP(C)

04/27/18 06UTC 284HR FCST VALID Tue 05/08/18 06UTC NOAA/NWS/NCEP



180508/0600/284 GFS EMSL (4mb) 12-HR PRCP(IN) B50MB TEMP(C)



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NERFC Winter Outlook April 27th

Flood Potential -- Valid until May 10th



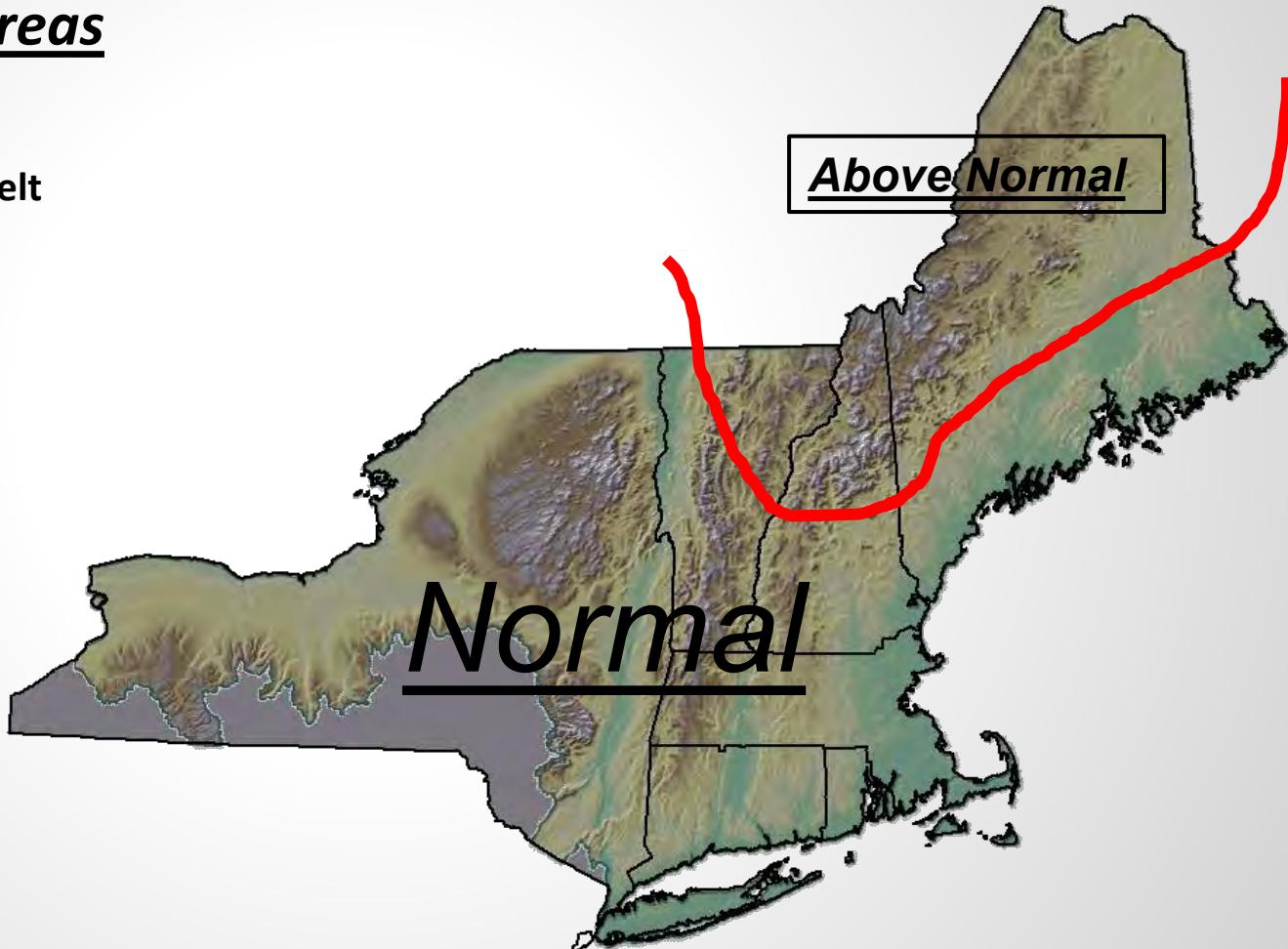
Above Normal Areas

Soil Moisture

River Flows

Some Significant Snow Melt

- Saint John
- Mattawamkeag
- Big Black
- Aroostook
- Piscataquis
- Swift
- Upper Missisquoi
- Pemigewasset
- Upper Connecticut
- Passumpsic

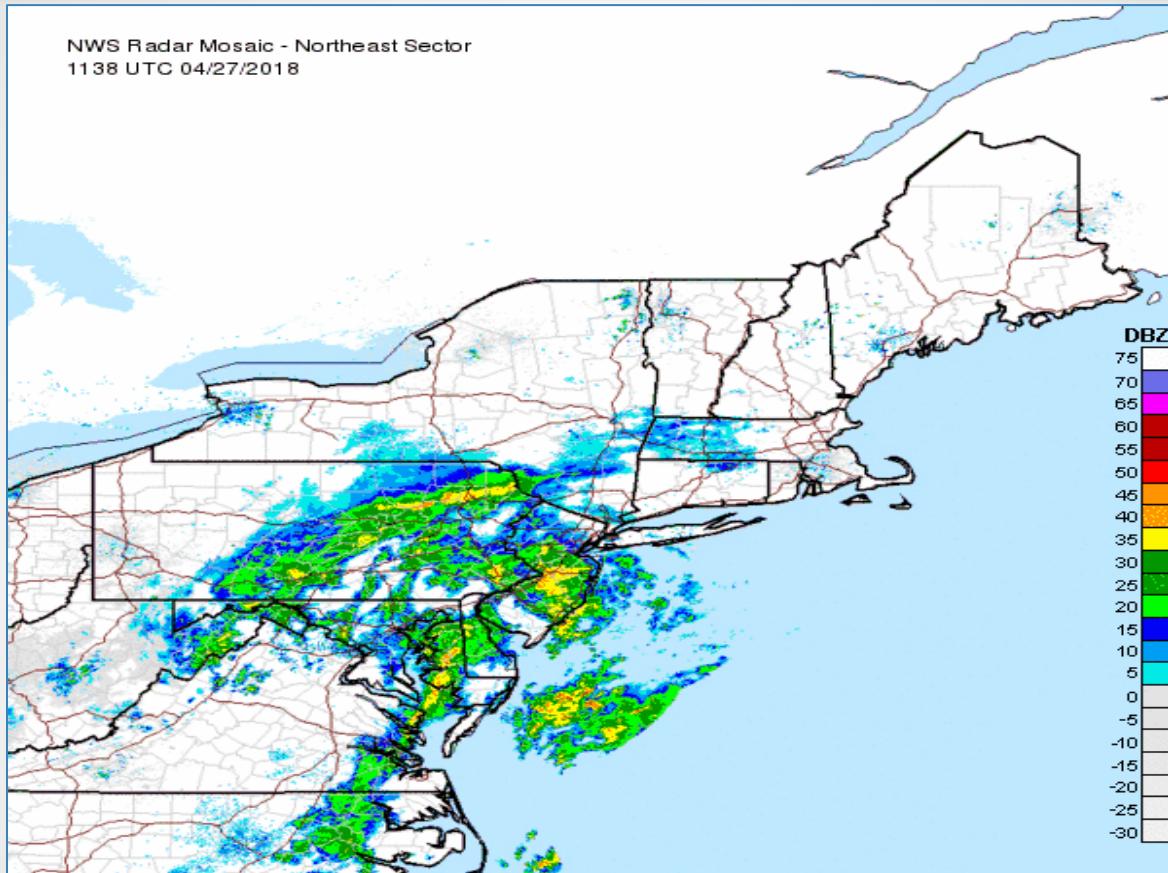


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Northeast River Forecast Center's

Next Outlook: Friday May 18th 2018



*Ed Capone
Service Coordination Hydrologist
NOAA/NWS/Northeast River Forecast Center*



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