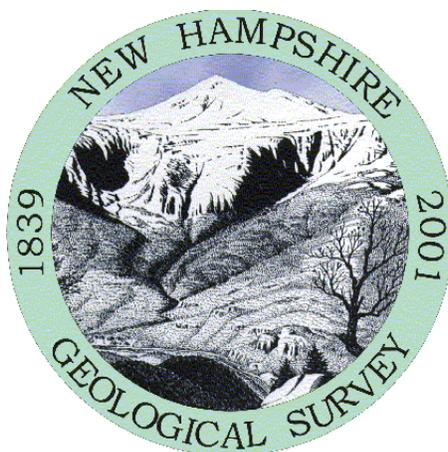


Groundwater Level Monitoring June 2018



**New Hampshire Geological Survey
29 Hazen Drive, PO Box 95
Concord, New Hampshire 03302-0095**

July 23, 2018

GROUNDWATER CONDITIONS SUMMARY

According to the Northeast Regional Climate Center at Cornell University (NRCC), New Hampshire received an average of 3.72 inches of rain during the month of June, which is of -0.72 inches below normal based on the 1981-2010 precipitation records. That represents 84% of normal precipitation for the month (NRCC). Subsequently, on June 26th the National Drought Mitigation Center (NDMC) declared that 45% of New Hampshire was in moderate drought. Moderate short-term drought currently affects 62% of the state, mainly the southern portion, while the rest of the state continues to be abnormally dry (Figure 1).

The New Hampshire Geological Survey's groundwater monitoring network (Figure 1) includes 11 bedrock (Figure 2) and 19 overburden (Figure 3) observation wells, all of which are measured monthly by hand. Using the monthly hand readings, monthly averages and percentile statistics were calculated and are graphically summarized in Figures 1 through 3 and in the following hydrographs. The hydrographs show the following data over a period of three months: (1) current groundwater depths, (2) the monthly average over the period of record (POR) of the well, and (3) color-coded statistical ranges over the POR of the well.

The majority of bedrock wells are below normal to low (Figure 2). The two bedrock wells at Rindge, which fall outside of the drought area, are above normal. Among the bedrock wells in the drought area, the majority are low to below normal. However, the couplet in Concord and the well in Deerfield show normal levels. The majority of overburden wells are also below normal to low (Figure 3). However, groundwater levels in overburden wells in the drought area are dominantly in the normal range, perhaps owing to the large stratified drift aquifers there and the possible delayed response of groundwater recharge.

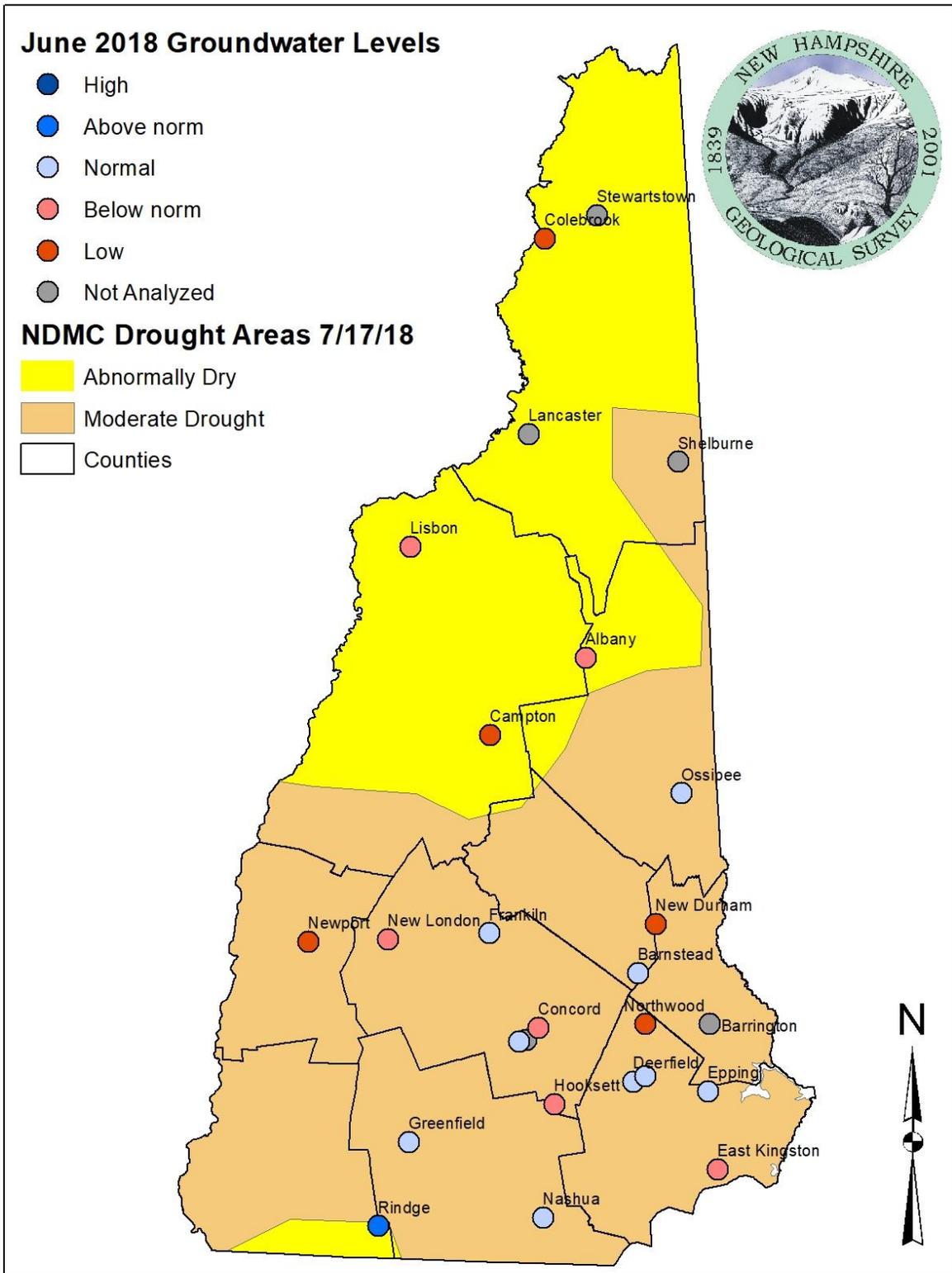


Figure 1. Groundwater Monitoring Network showing June 2018 groundwater levels with respect to drought areas defined by the National Drought Mitigation Center on July 17th.

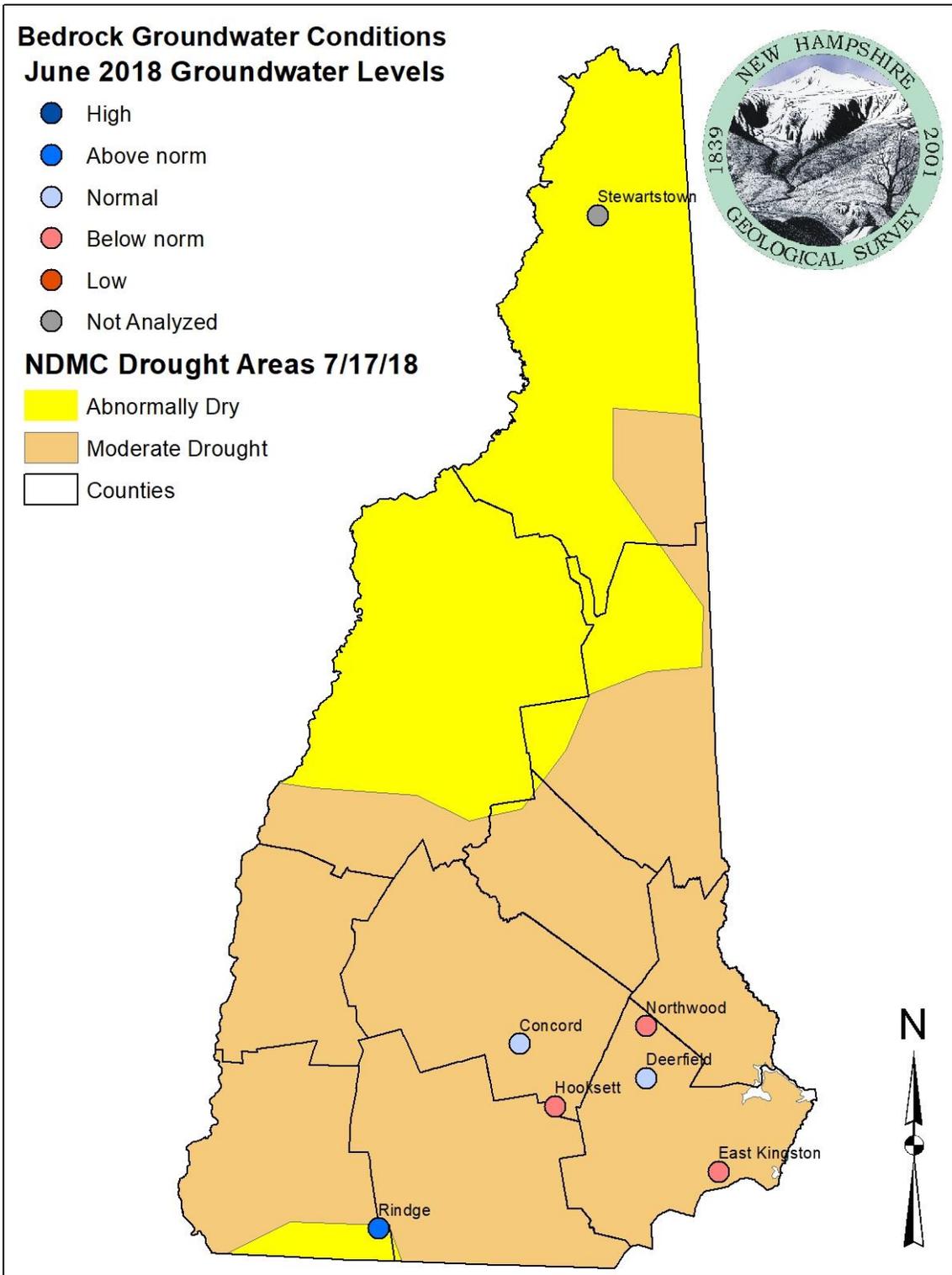


Figure 2. Bedrock wells showing June 2018 groundwater levels with respect to drought areas defined by the National Drought Mitigation Center on July 17th. Note: Points at Kingston, Concord, Stewarttown, and Rindge show coupled bedrock wells.

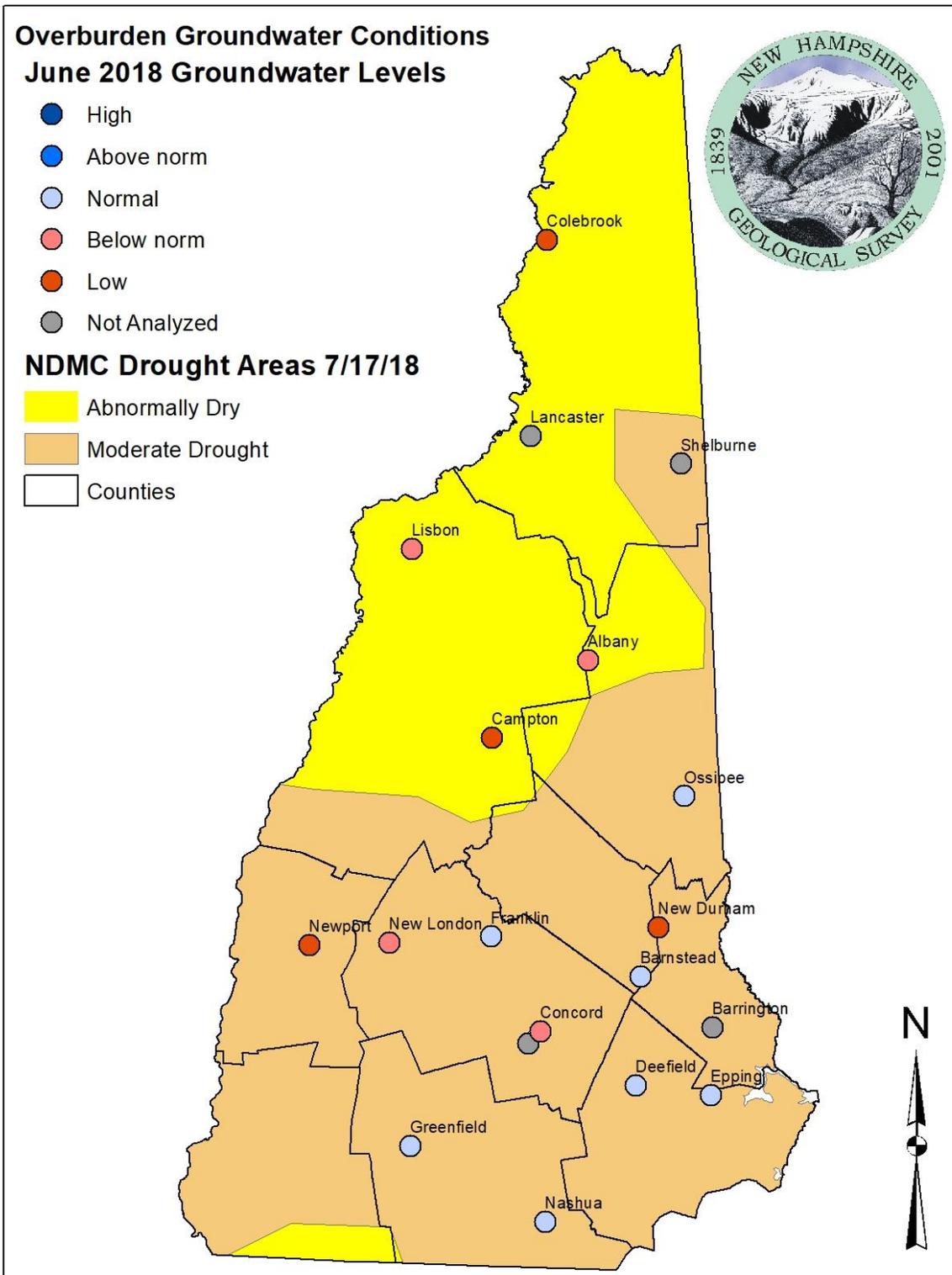
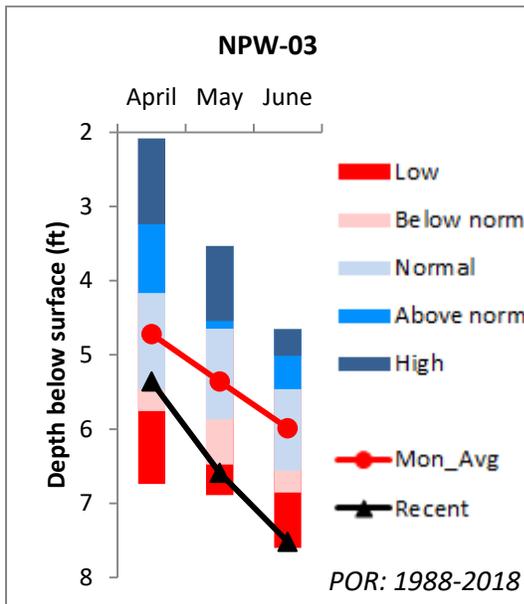
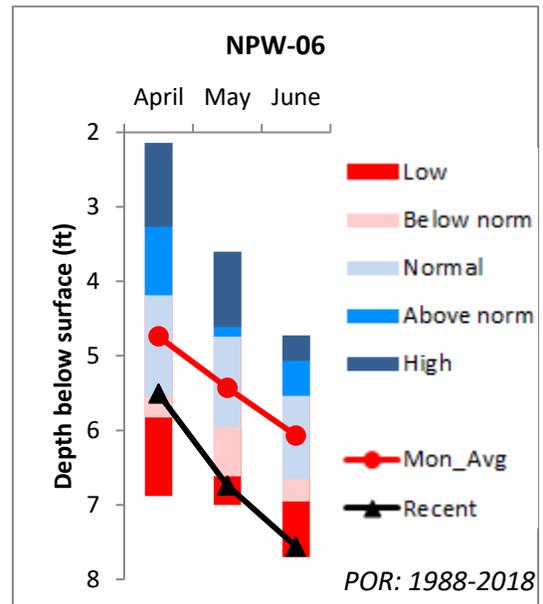


Figure 3. Overburden wells showing June 2018 groundwater levels with respect to drought areas defined by the National Drought Mitigation Center on July 17th. Note: Points at Newport and Albany represent a couplet.

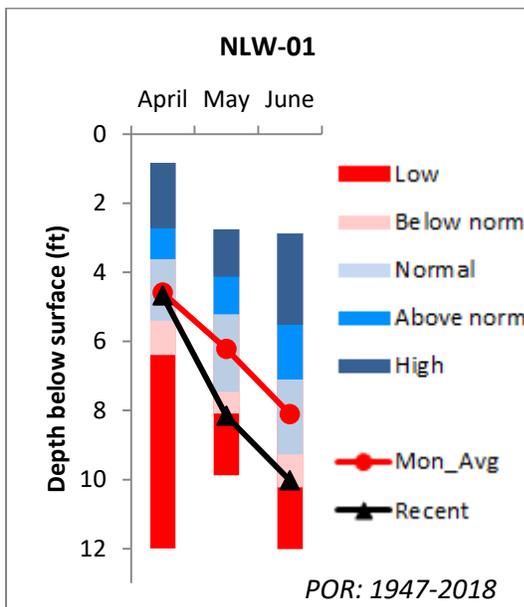
OVERBURDEN WELL HYDROGRAPHS



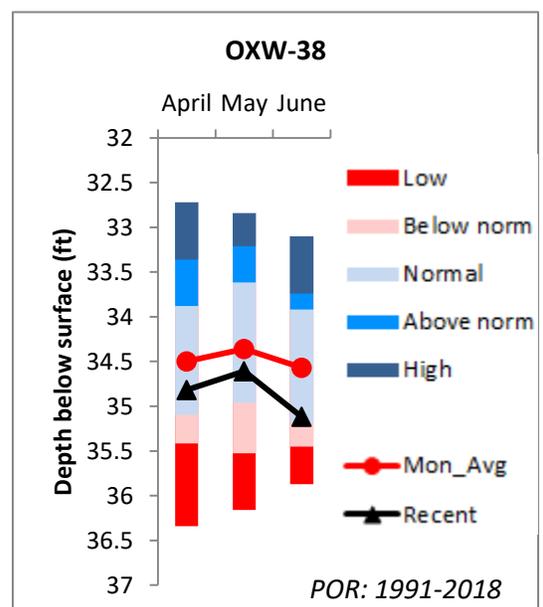
Newport couplet 1



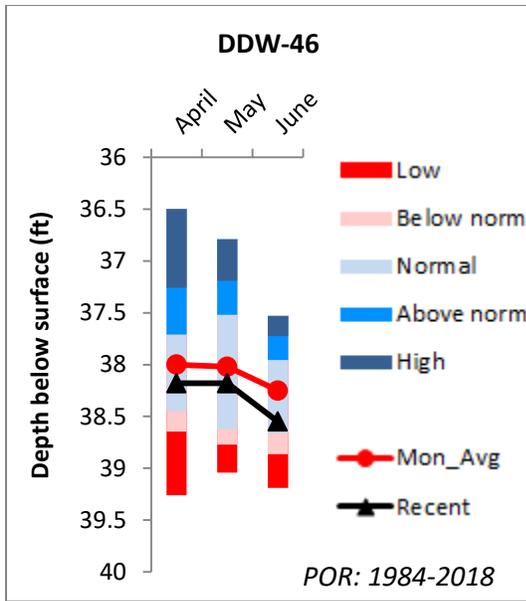
Newport couplet 2



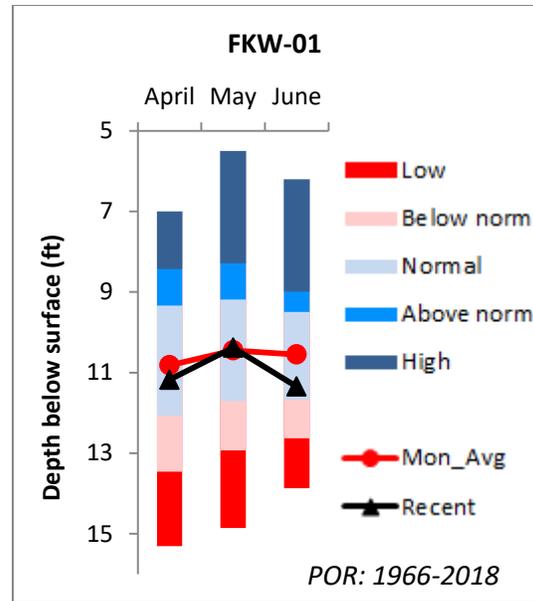
New London



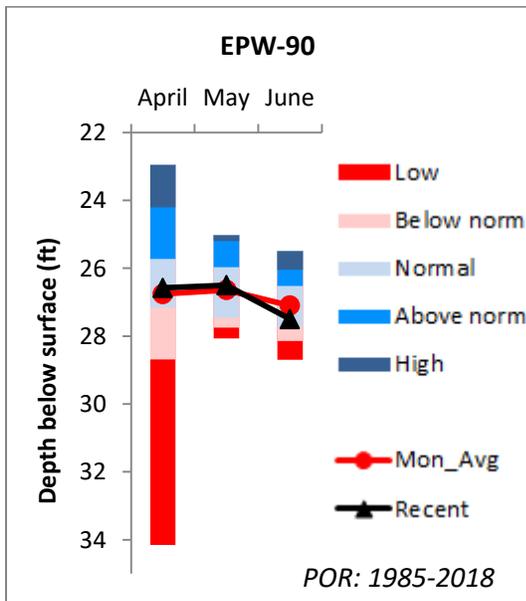
Ossipee



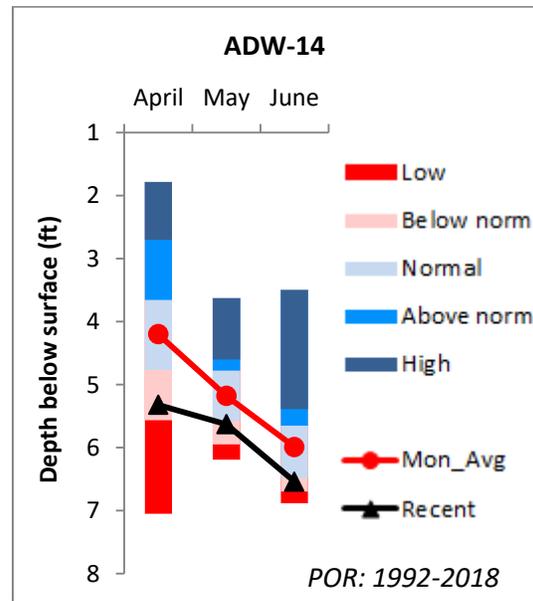
Deerfield



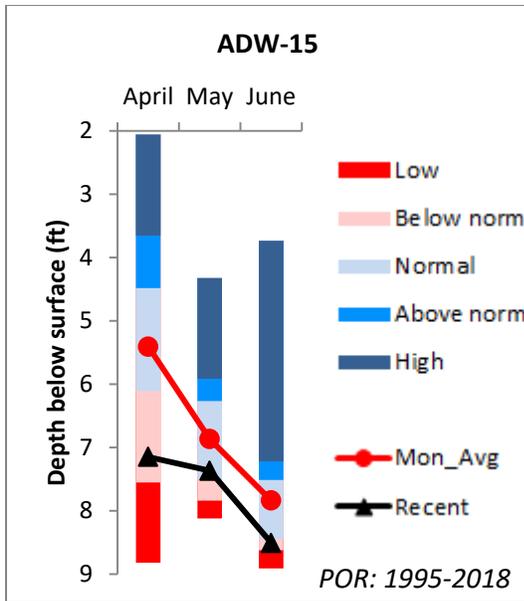
Franklin



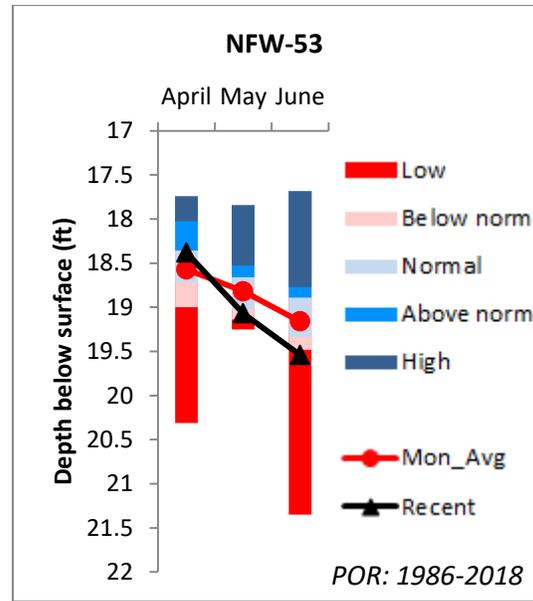
Epping



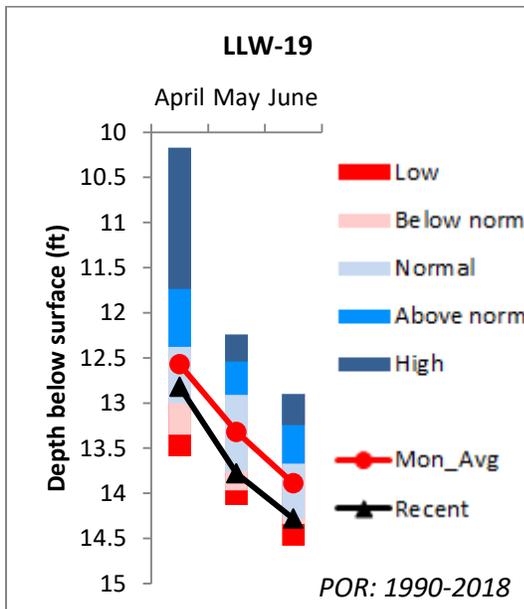
Albany Couplet 1



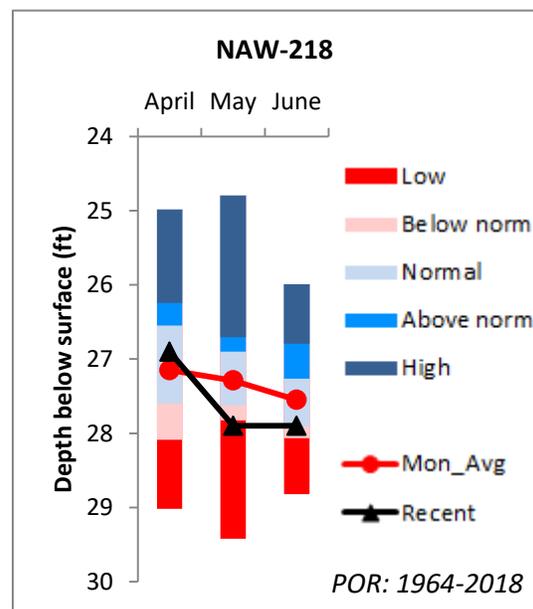
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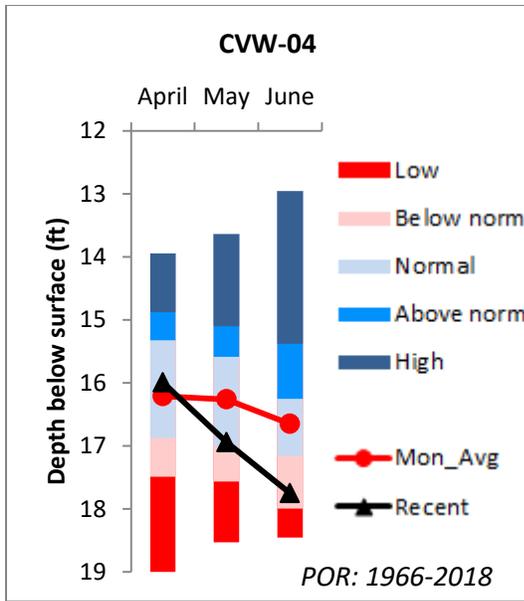
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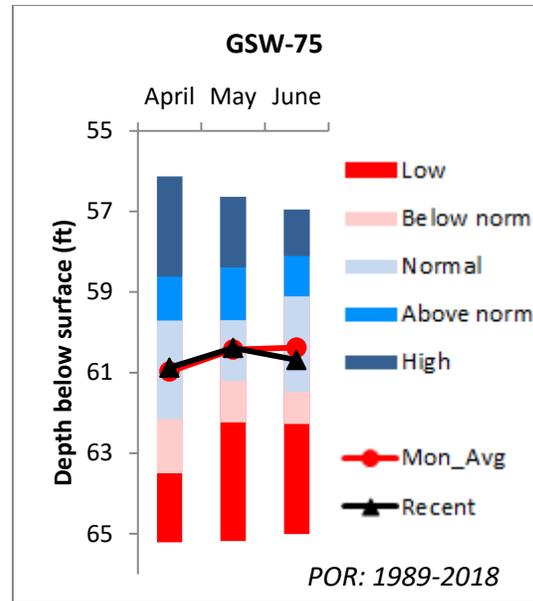
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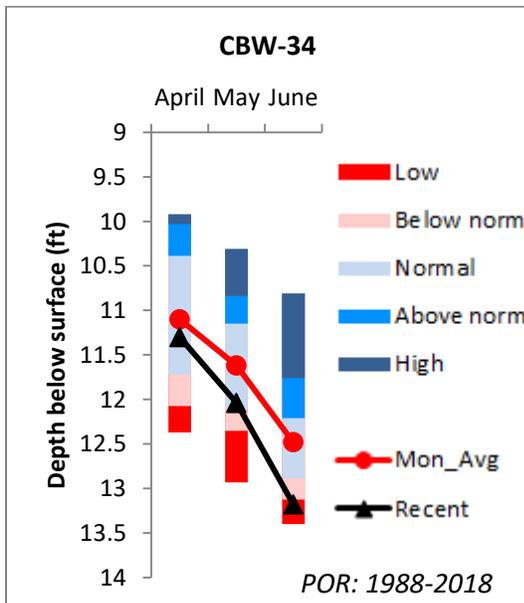
Nashua



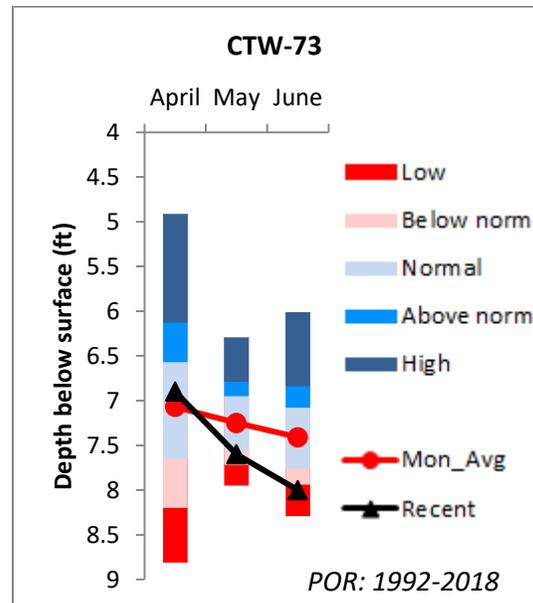
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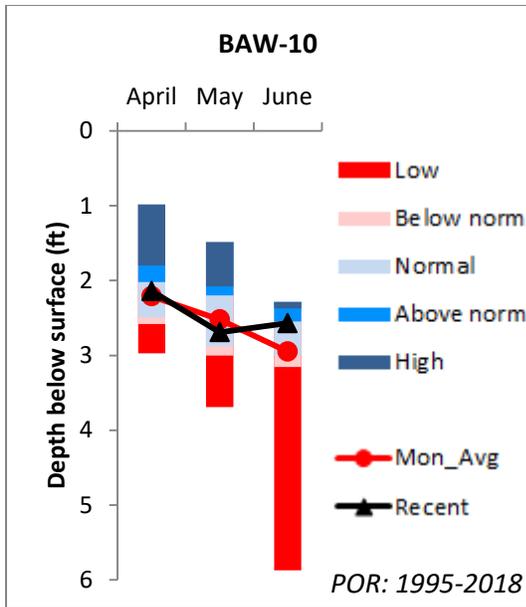
Greenfield



Campton

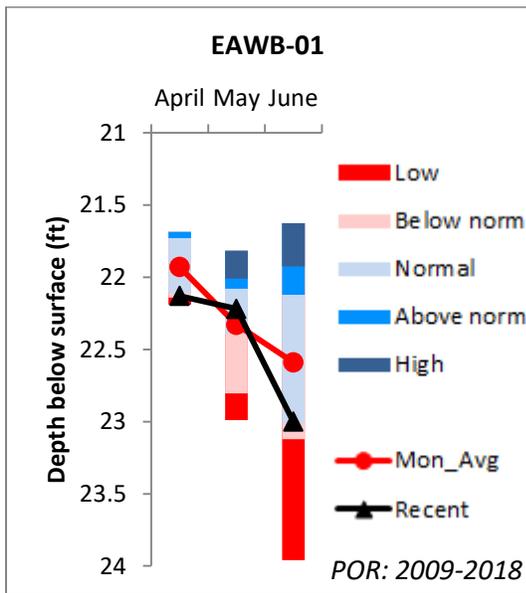


Colebrook

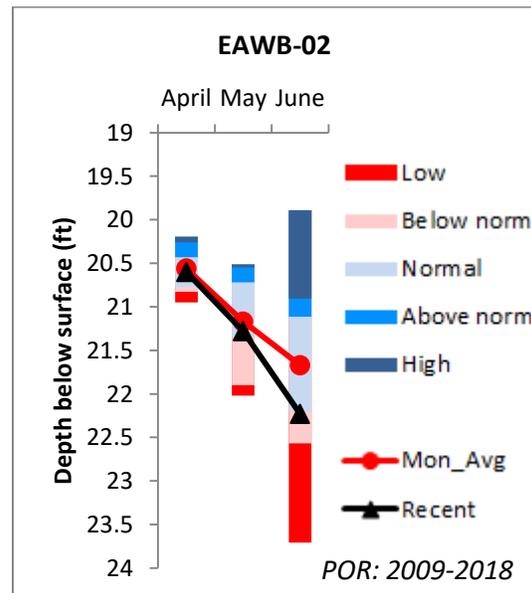


Barnstead

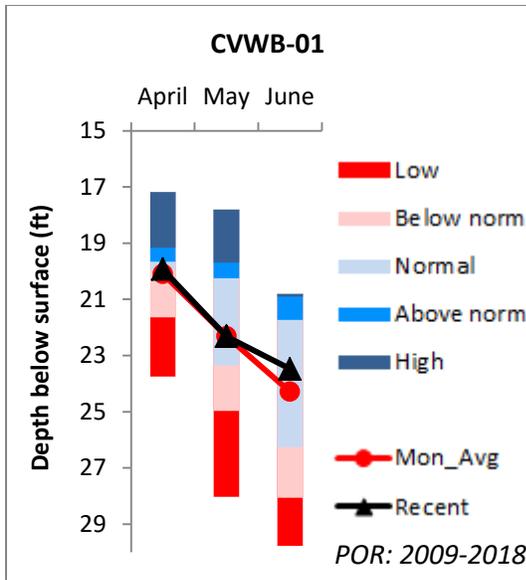
BEDROCK WELL HYDROGRAPHS



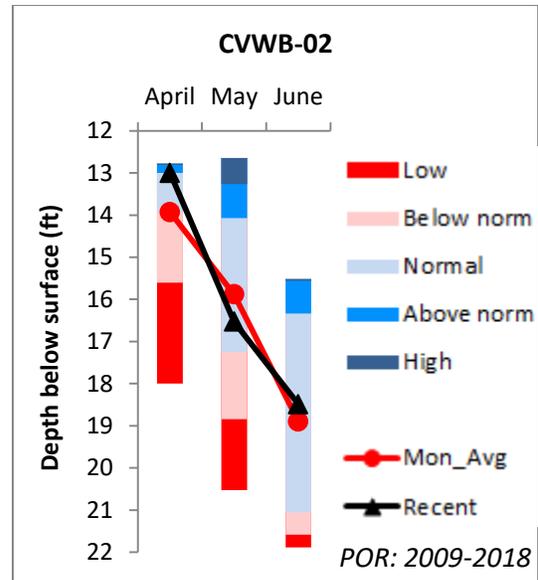
East Kingston Couplet 1



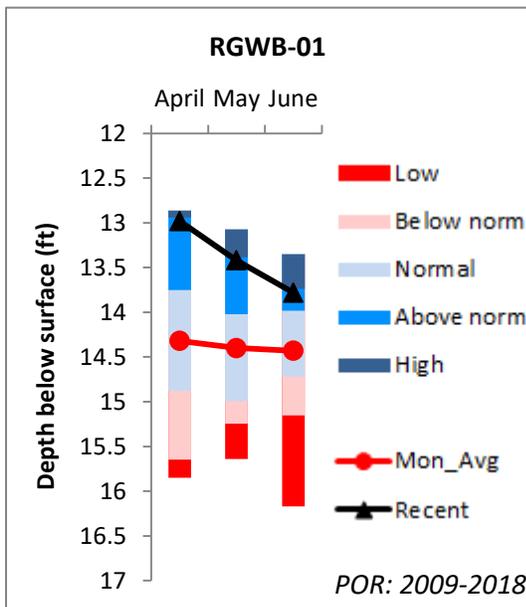
East Kingston Couplet 2



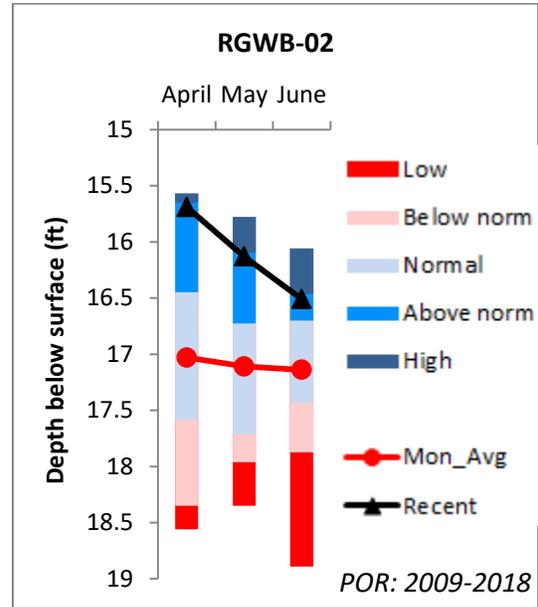
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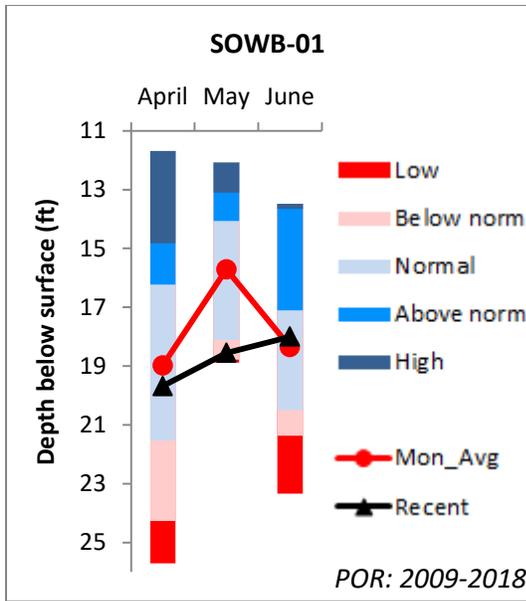
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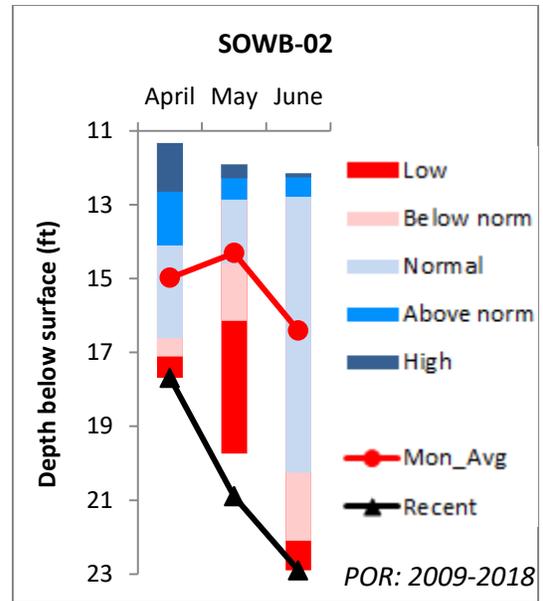
Rindge Couplet 1



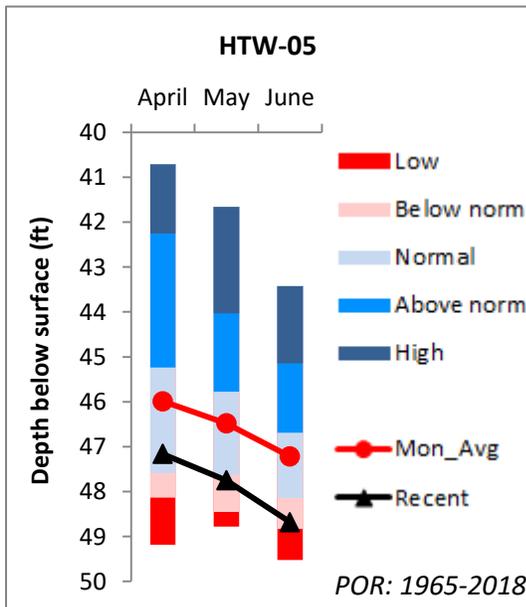
Rindge Couplet 2



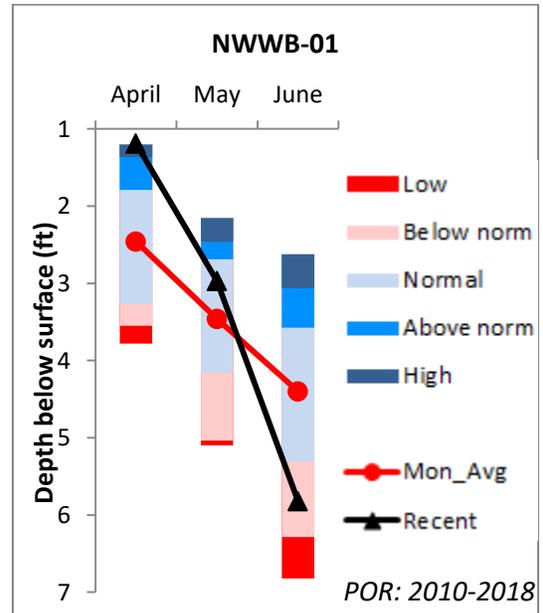
Stewartstown Couplet 1



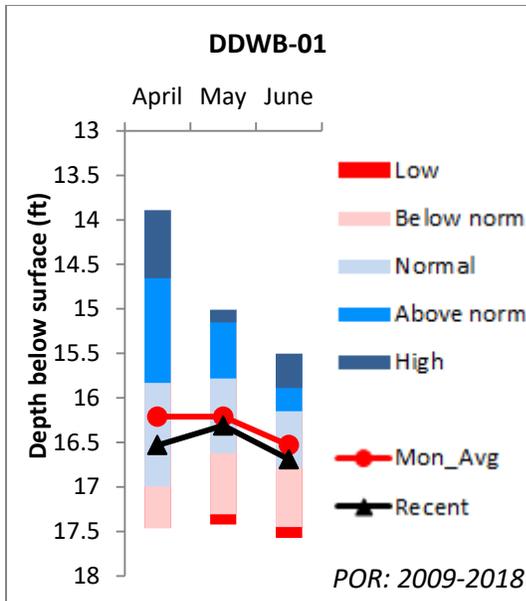
Stewartstown Couplet 2



Hookset



Northwood



Deerfield