



MEMO

To: File
From: Jeff Wennberg, Commissioner of Public Works
Date: August 4, 2016
Re: 2015 Brook Temperature Monitoring

The temperature monitoring program on Moon and other brooks in the City has continued since the last memo to file in 2012. The collected data through 2014 was used for the “third party review” (March, 2015) of the impairment of Moon Brook and all data sets since 2006 are available online.

The HOBOS were deployed in early May and recorded temperatures at 15 minute intervals until early November. Eleven sites were monitored, six on Moon Brook, two on Mussey Brook, two on Tenney Brook and one on Paint Mine Brook. All locations were consistent with locations used in prior years. Approximate locations are shown on the attached map.

According to the NWS monthly average temperatures May, August and September were above the mean for these months since 2006, while June was below. Precipitation was very high in June, low in July and extremely low in August.

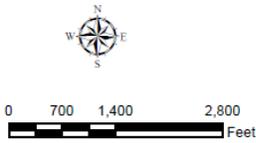
Using 75 degrees Fahrenheit as the maximum sustained temperature for brook trout, the following table gives the number of hours throughout the summer that this was exceeded at each location:

Location	Hours above 75 Deg F
Paint Mine Brook	0.00
Mussey at S Main	0.00
Mussey at Park St	32.00
Moon above Combination Pond	0.00
Moon below Combination Pond	884.00
Moon above Piedmont Pond	68.75
Moon below Piedmont Pond	133.25
Moon at Perry St*	0.00
Moon at Forest St	0.50
Tenney at Swards	181.25
Tenney at Lincoln Ave	105.50

*This is nearest to the only location on Moon Brook downstream of Combination Pond found to be in compliance with Vermont Water Quality Standards in summer 2014.

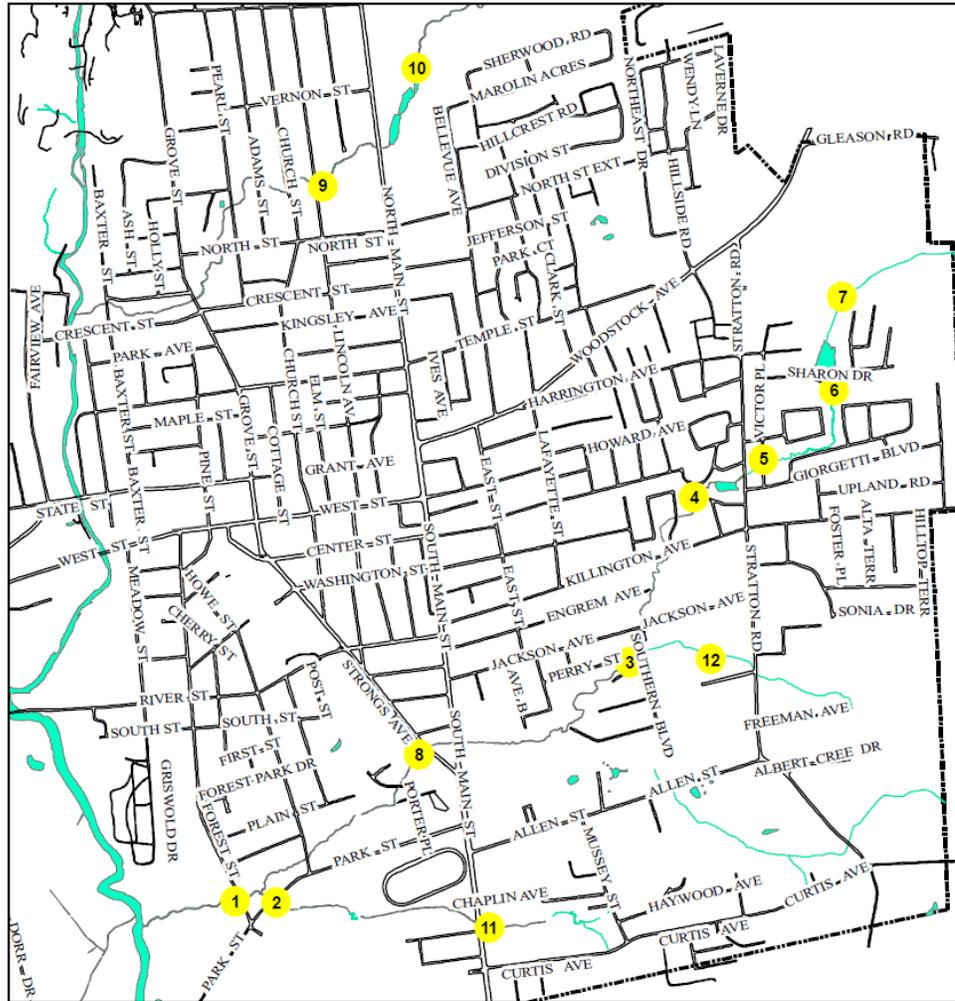
HOBO Temperature Monitoring Locations

- 1-- Moon at Forest
- 2--Mussey at Park St.
- 3--Moon at Perry St.
- 4--Piedmont Pond Outfall
- 5--Above Piedmont Pond
- 6--Combination Pond Outfall
- 7--Above Combination Pond
- 8--Moon at Strongs Ave
- 9--Tenney at Lincoln
- 10--Tenney at Swards
- 11--Mussey at S Main
- 12--Paint Mine Brook



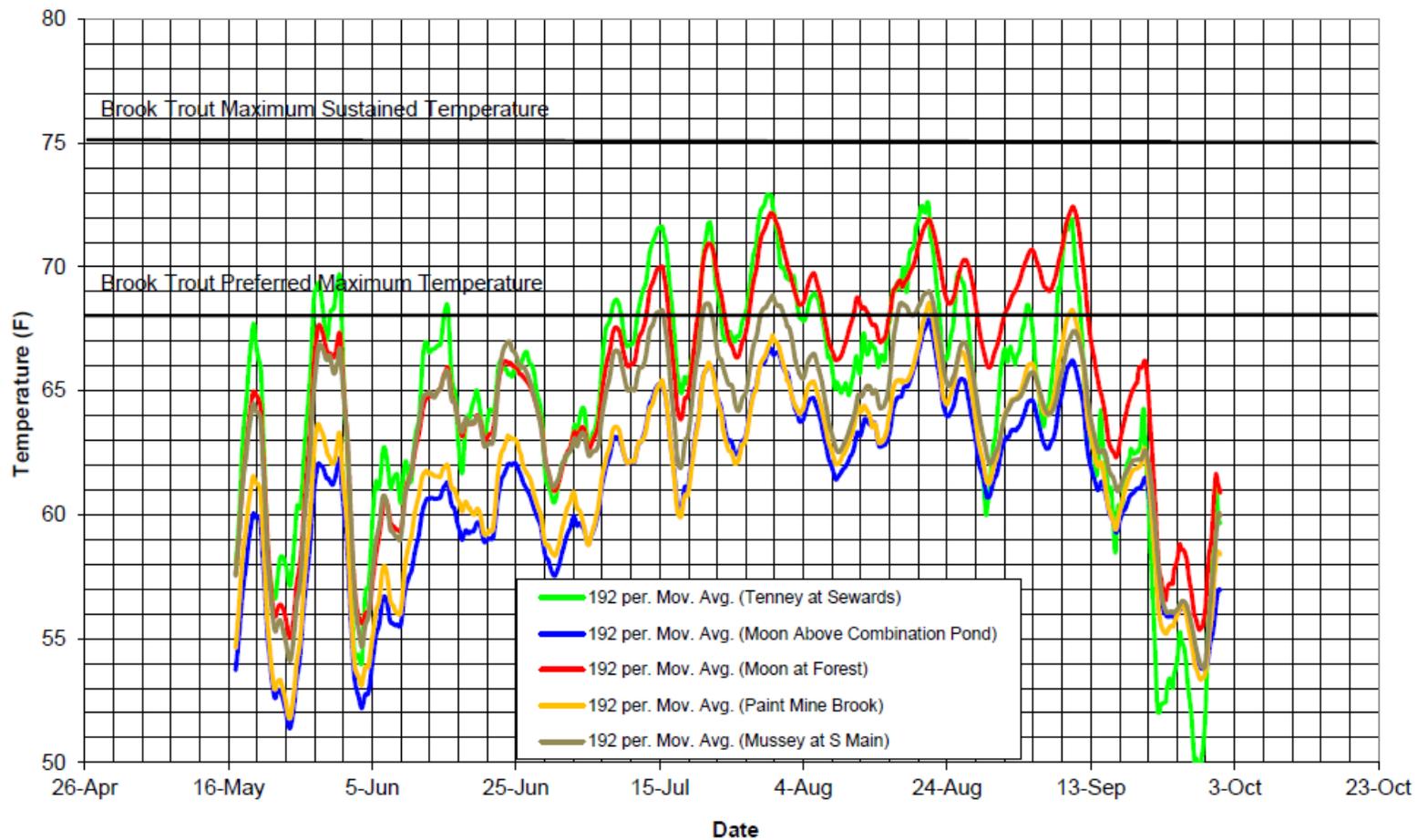
11/19/2014

features and contours based on aerial photos dated December 3, 2001
 This sketch as supplied by DPW shows selected items visible on the aerial photos and may not be complete as to each feature class
 Lot lines are approximate and are not to be used for construction location, property rights conveyance, or other purposes where the locations of such lines are important
 All feature locations are approximate
 Contour lines should not be used for fine grading

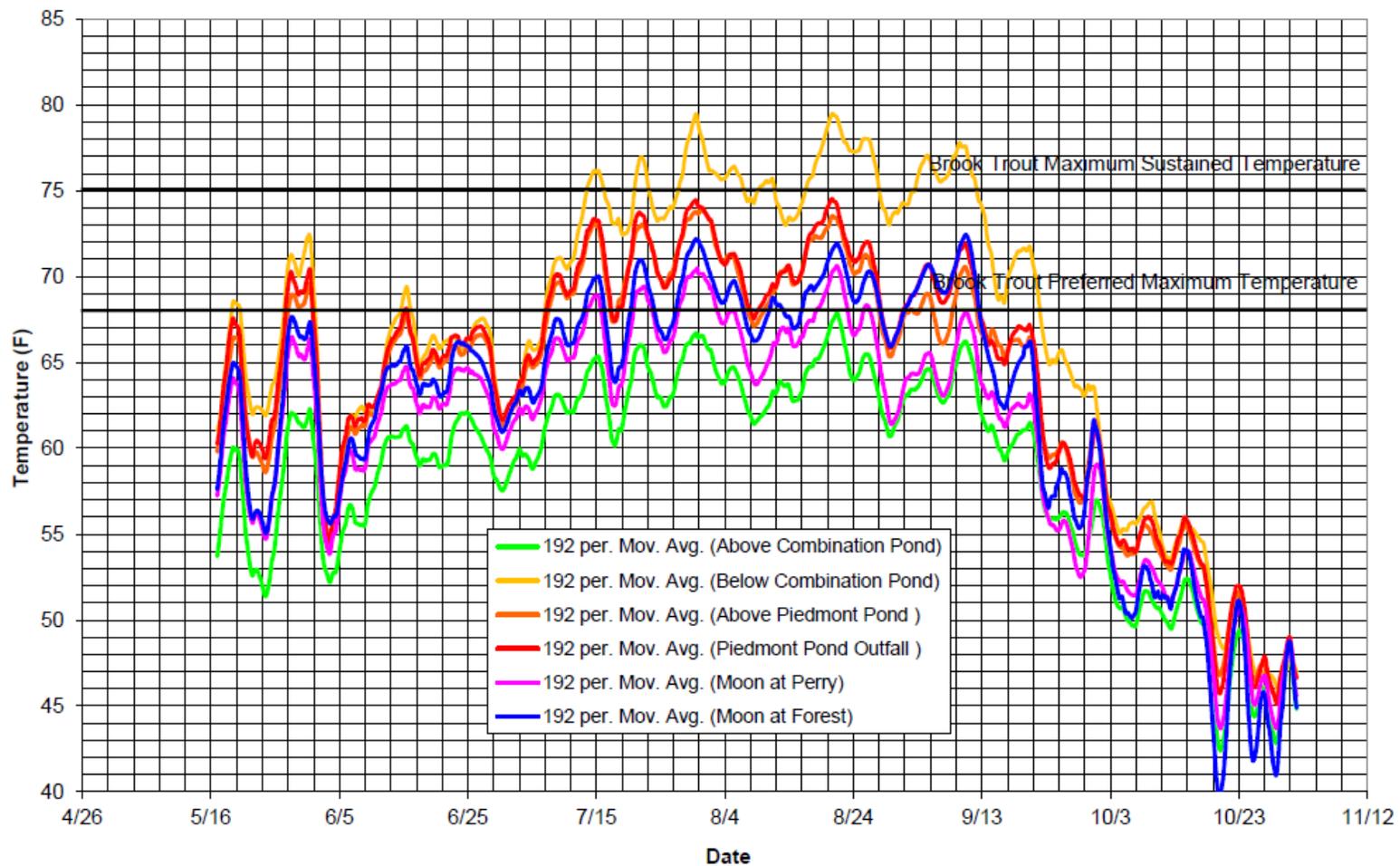


NOTE: Location 8 was not deployed in 2015

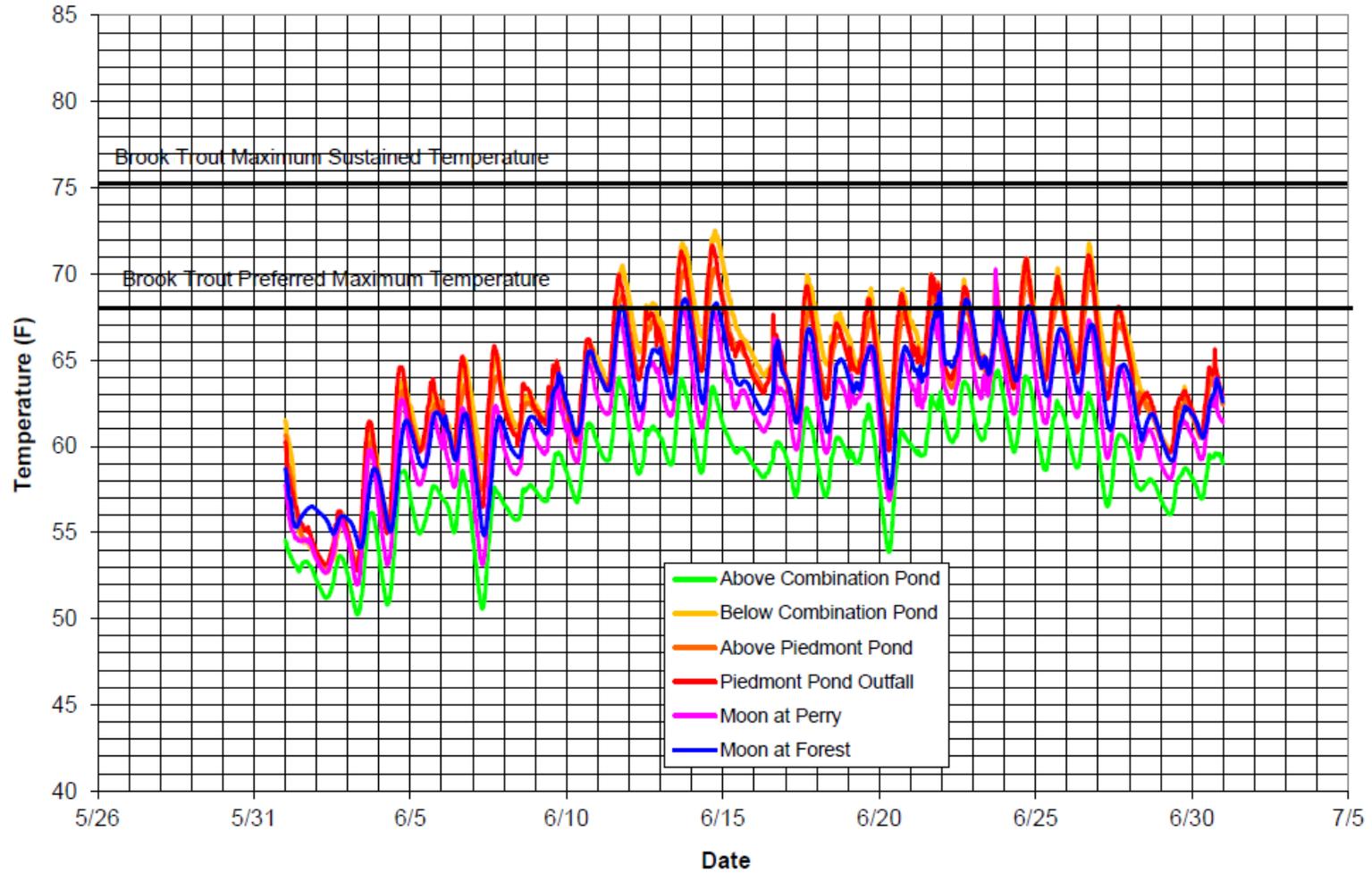
2015 Stream Temperature Comparison 2 Day Trendline



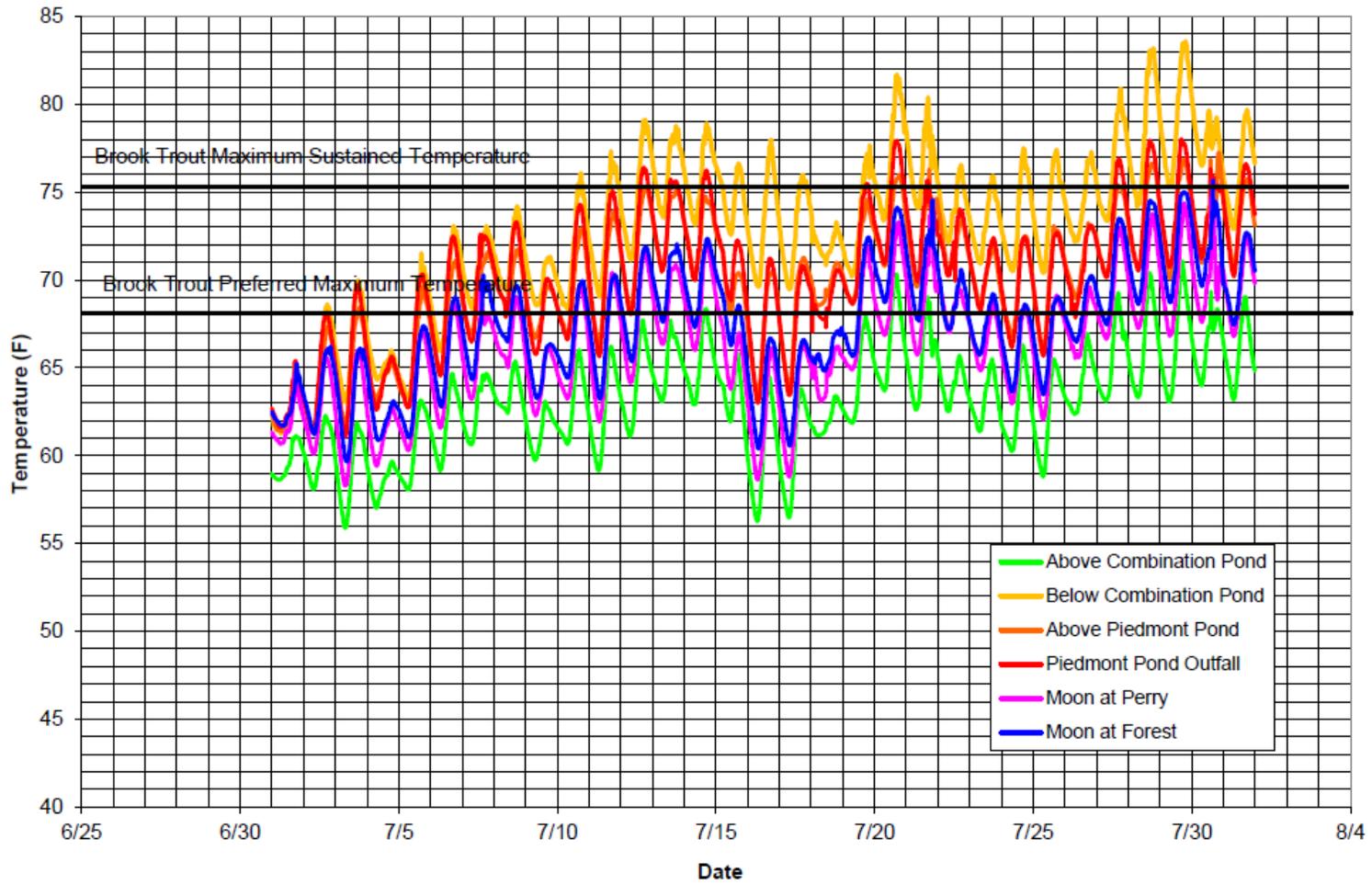
Moon Brook Temperature 2015 With 2 Day Trend Line



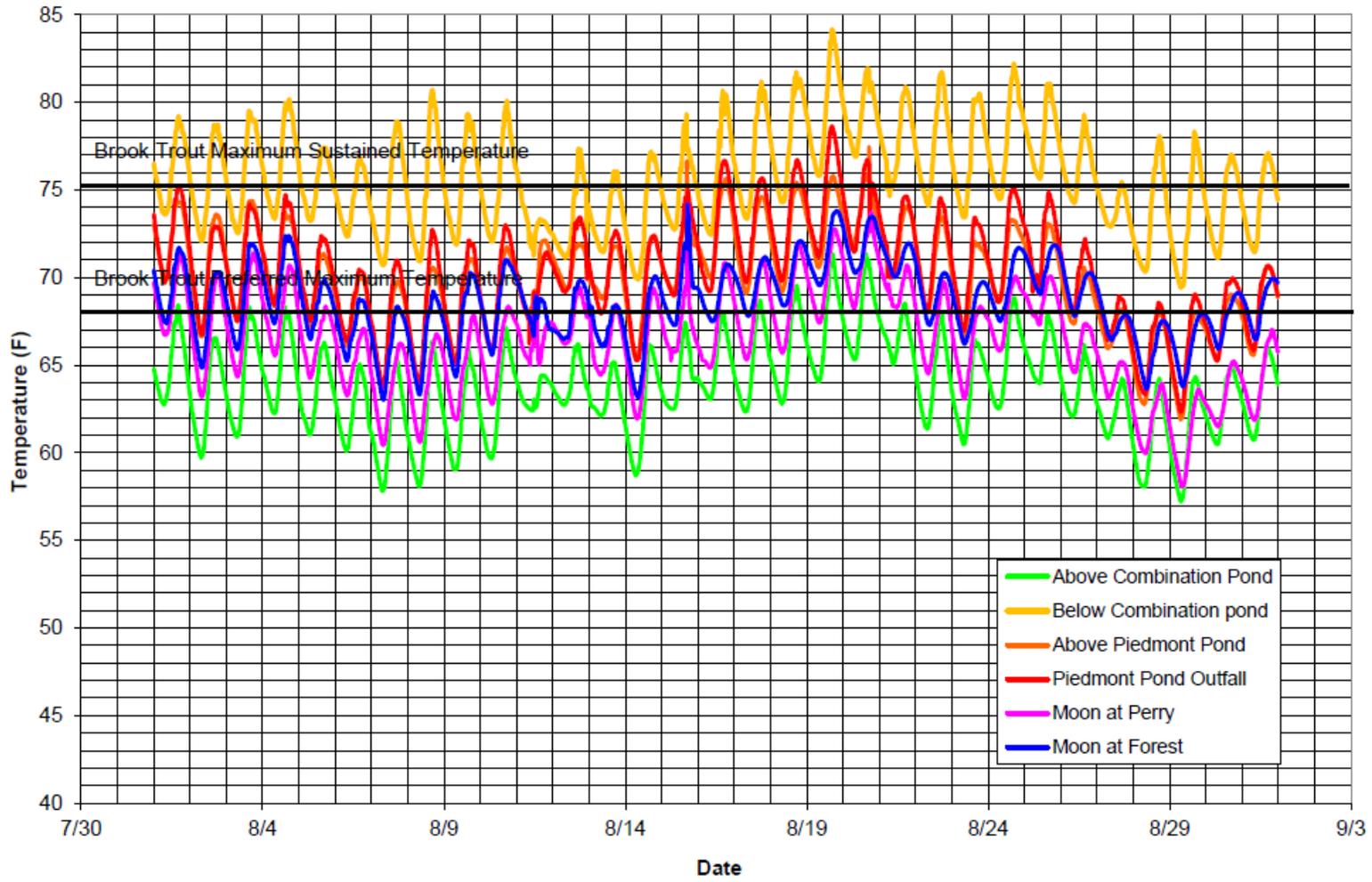
June 2015 Moon Brook Temperature



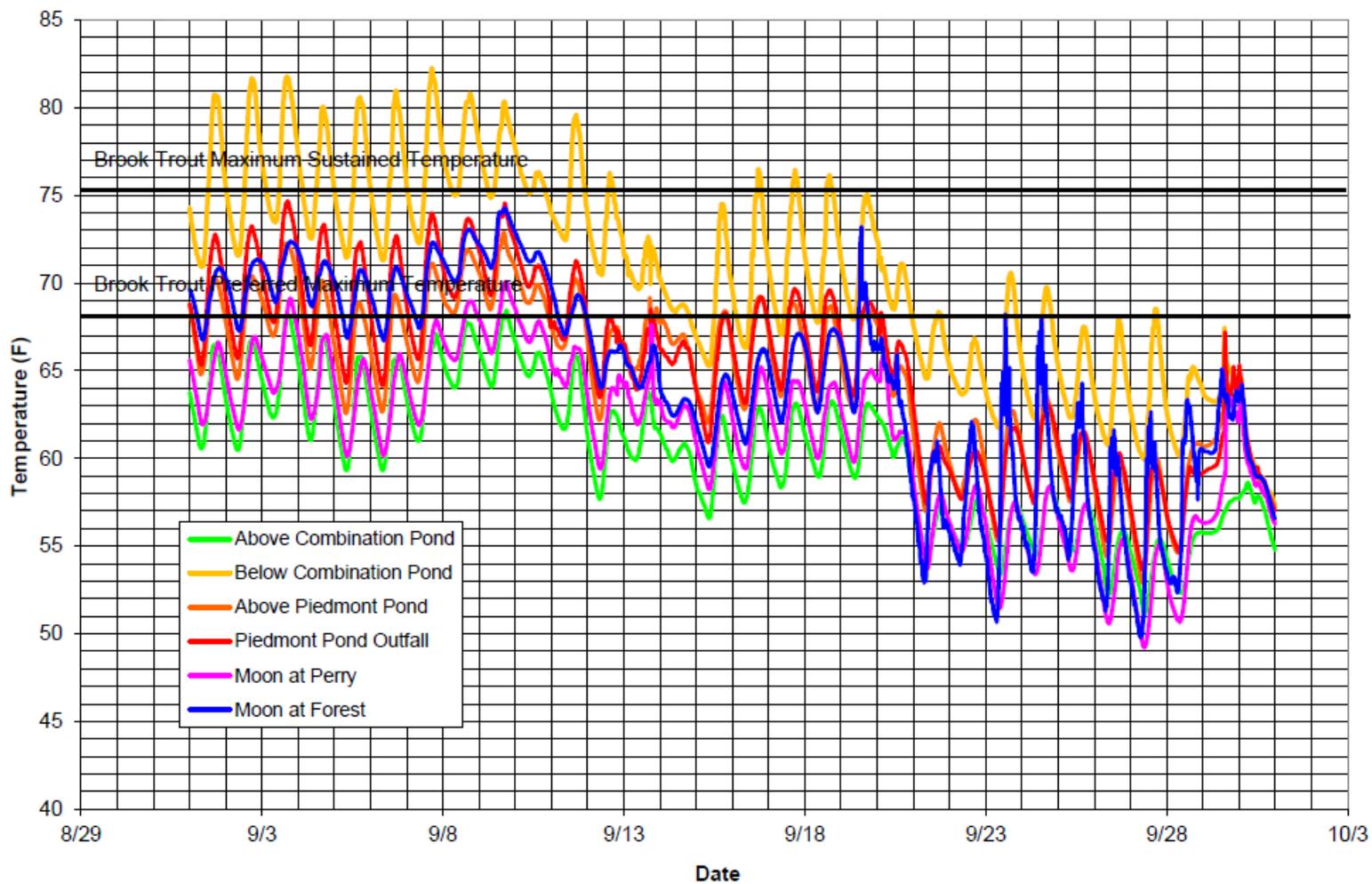
July 2015 Moon Brook Temperature



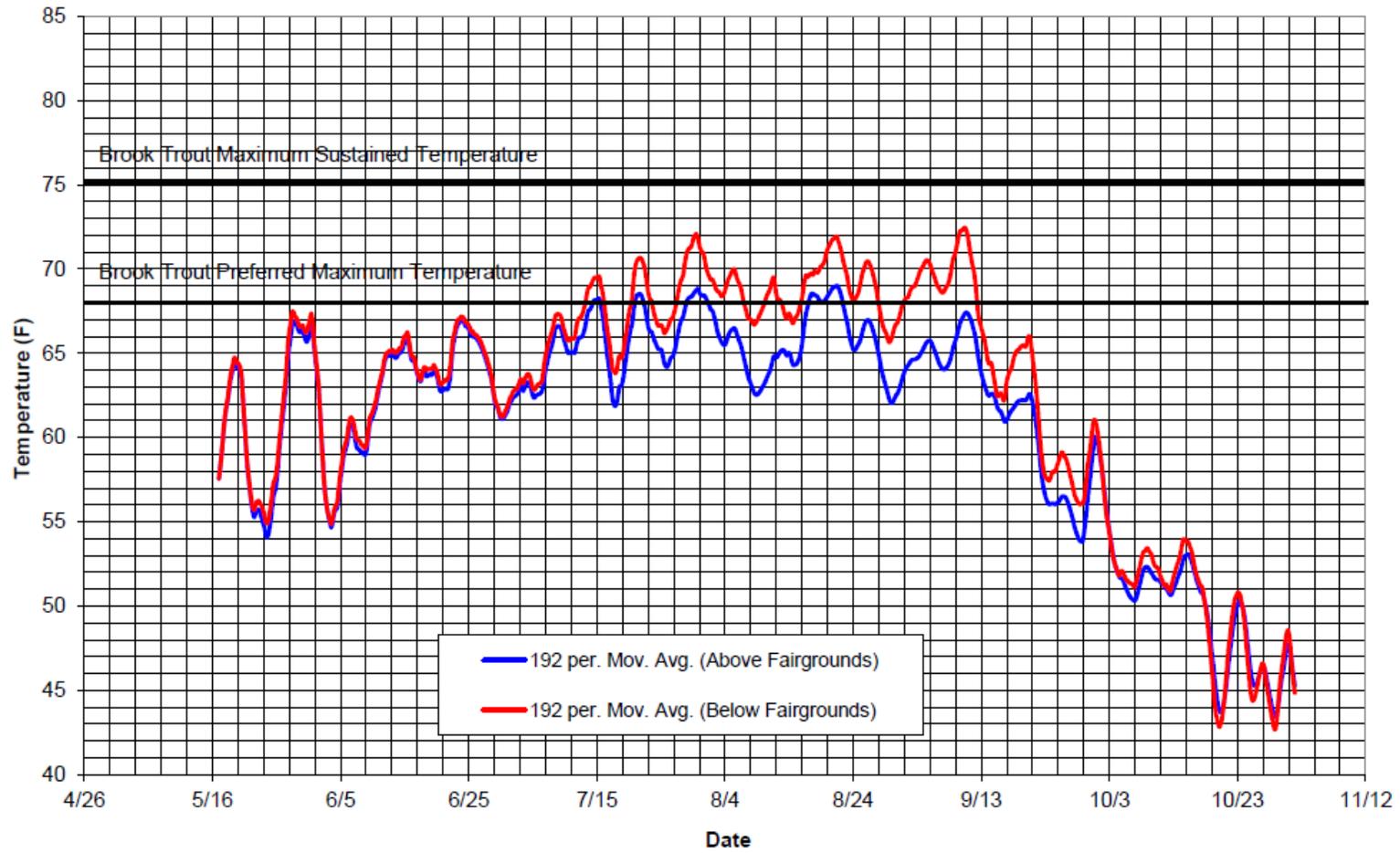
August 2015 Moon Brook Temperature



September 2015 Moon Brook Temperature



2015 Mussey Brook Temperature



2015 Paint Mine Brook Temperature

