

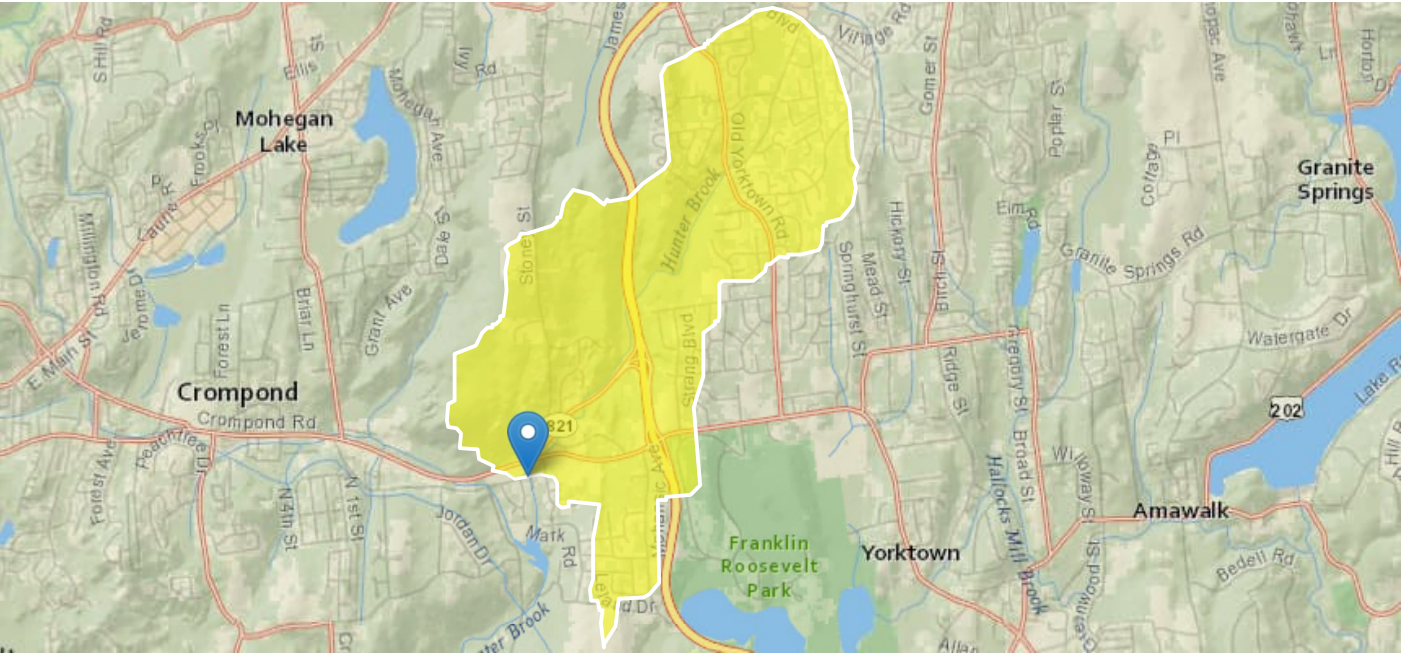
Q&A NO. 2

- Can the flow rates for Hunter Creek be given in CF/S for ordinary High Water and the ordinary water elevations.

The ordinary water elevations are provided on Drawing GN-1 under "Cofferdam Notes". The flow rates used for the design can be obtained through the USGS website via the streamstats application. Attached is the report which was obtained from the streamstats application for the design. The 2-year, 5-year, and 10-year flow rates are 159 cfs, 277 cfs, and 379 cfs, respectively.

StreamStats Report

Region ID: NY
Workspace ID: NY20240212210635372000
Clicked Point (Latitude, Longitude): 41.28934, -73.83493
Time: 2024-02-12 16:06:57 -0500



 Collapse All

➤ Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	598666	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	4573209.9	meters
CSL1085LO	10-85 slope of lower half of main channel in feet per mile.	52.4	feet per mi
DRNAREA	Area that drains to a point on a stream	3.31	square miles
EL1200	Percentage of basin at or above 1200 ft elevation	0	percent
JULAVPRE	Mean July Precipitation	4.6	inches
JUNAVPRE	Mean June Precipitation	4.2	inches
JUNMAXTMP	Maximum June Temperature, in degrees F	78.7	degrees F
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.0995	dimensionless
LENGTH	Length along the main channel from the measuring location extended to the basin divide	4.13	miles
MAR	Mean annual runoff for the period of record in inches	25.9	inches
MAYAVPRE	Mean May Precipitation	4.81	inches

Parameter Code	Parameter Description	Value	Unit
PRJUNAUG00	Basin average mean precip for June to August from PRISM 1971-2000	13.3	inches
SSURGOA	Percentage of area of Hydrologic Soil Type A from SSURGO	0	percent
SSURGOB	Percentage of area of Hydrologic Soil Type B from SSURGO	30.8	percent
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	2.68	percent

➤ Peak-Flow Statistics

Peak-Flow Statistics Parameters [2006 Full Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	3.31	square miles	1.93	996
LAGFACTOR	Lag Factor	0.0995	dimensionless	0.014	6.997
STORAGE	Percent Storage	2.68	percent	0	11.88
MAR	Mean Annual Runoff in inches	25.9	inches	16.03	33.95

Peak-Flow Statistics Flow Report [2006 Full Region 2]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	ASEp	Equiv. Yrs.
80-percent AEP flood	96	ft ³ /s	25.5	25.5	4.8
66.7-percent AEP flood	121	ft ³ /s	25.6	25.6	4.3
50-percent AEP flood	159	ft ³ /s	25.8	25.8	4.4
20-percent AEP flood	277	ft ³ /s	27	27	7.3
10-percent AEP flood	379	ft ³ /s	28.2	28.2	10.1
4-percent AEP flood	533	ft ³ /s	29.9	29.9	13.6
2-percent AEP flood	669	ft ³ /s	31.5	31.5	15.8
1-percent AEP flood	822	ft ³ /s	33.3	33.3	17.6
0.5-percent AEP flood	997	ft ³ /s	35.3	35.3	18.9
0.2-percent AEP flood	1270	ft ³ /s	38.4	38.4	20.1

Peak-Flow Statistics Citations

Lumia, Richard, Freehafer, D.A., and Smith, M.J., 2006, **Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006-5112**, 152 p. (<http://pubs.usgs.gov/sir/2006/5112/>)

➤ Flow-Duration Statistics

Flow-Duration Statistics Parameters [Statewide duration flows excl LongIsI 2014 5220]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	3.31	square miles	3.14	4780
JUNAVPRE	Mean June Precipitation	4.2	inches	3.59	5.33
CENTROIDX	CENTROIDX	598666	meters	166000	658000
CENTROIDY	CENTROIDY	4573209.9	meters	4560000	4920000
CSL1085LO	10-85 slope of lower half of main channel	52.4	feet per mi	1.56	152
LENGTH	Main Channel Length	4.13	miles	0.88	305
MAR	Mean Annual Runoff in inches	25.9	inches	11.6	37.4
SSURGOB	SSURGO Percent Hydrologic Soil Type B	30.8	percent	1.14	65.7
JULAVPRE	Mean July Precipitation	4.6	inches	3.2	5.26
MAYAVPRE	Mean May Precipitation	4.81	inches	3.15	5.68
PRJUNAUG00	Basin average mean precip for June to August	13.3	inches	10.5	15.5
JUNMAXTMP	Maximum June Temperature	78.7	degrees F	68.8	78.8
SSURGOA	SSURGO Percent Hydrologic Soil Type A	0	percent	0.62	51.2
EL1200	Percentage of Basin Above 1200 ft	0	percent	0	100

Flow-Duration Statistics Disclaimers [Statewide duration flows excl LongIsI 2014 5220]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Flow-Duration Statistics Flow Report [Statewide duration flows excl LongIsI 2014 5220]

Statistic	Value	Unit
0.01 Percent Duration	291	ft^3/s
1 Percent Duration	43.9	ft^3/s
5 Percent Duration	19.4	ft^3/s
10 Percent Duration	13.3	ft^3/s
15 Percent Duration	10.4	ft^3/s
20 Percent Duration	8.42	ft^3/s
25 Percent Duration	7.32	ft^3/s
35 Percent Duration	5.48	ft^3/s
50 Percent Duration	3.57	ft^3/s
65 Percent Duration	1.9	ft^3/s
75 Percent Duration	0	ft^3/s
80 Percent Duration	0	ft^3/s

Statistic	Value	Unit
85 Percent Duration	0	ft^3/s
90 Percent Duration	0	ft^3/s
95 Percent Duration	0	ft^3/s
99 Percent Duration	0	ft^3/s
99.99 Percent Duration	0	ft^3/s

Flow-Duration Statistics Citations

Gazoorian, C.L.,2015, Estimation of unaltered daily mean streamflow at ungaged streams of New York, excluding Long Island, water years 1961–2010: U.S. Geological Survey Scientific Investigations Report 2014–5220, 29 p. (<https://pubs.usgs.gov/sir/2014/5220/>)

➤ Bankfull Statistics

Bankfull Statistics Parameters [Bankfull Region 3 SIR2009 5144]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	3.31	square miles	0.42	329

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	3.31	square miles	0.07722	940.1535

Bankfull Statistics Parameters [New England P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	3.31	square miles	3.799224	138.999861

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	3.31	square miles	0.07722	59927.7393

Bankfull Statistics Flow Report [Bankfull Region 3 SIR2009 5144]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIL	PIU
Bankfull Area	72.7	ft^2	29.8	177
Bankfull Depth	2.13	ft	0.914	4.96
Bankfull Streamflow	189	ft^3/s	33.1	1080
Bankfull Width	34	ft	14.4	80.4

Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]

Statistic	Value	Unit
Bieger_D_channel_width	25	ft
Bieger_D_channel_depth	1.58	ft
Bieger_D_channel_cross_sectional_area	40	ft^2

Bankfull Statistics Disclaimers [New England P Bieger 2015]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Bankfull Statistics Flow Report [New England P Bieger 2015]

Statistic	Value	Unit
Bieger_P_channel_width	35.3	ft
Bieger_P_channel_depth	1.79	ft
Bieger_P_channel_cross_sectional_area	63.7	ft^2

Bankfull Statistics Flow Report [USA Bieger 2015]

Statistic	Value	Unit
Bieger_USA_channel_width	18.9	ft
Bieger_USA_channel_depth	1.56	ft
Bieger_USA_channel_cross_sectional_area	32.6	ft^2

Bankfull Statistics Flow Report [Area-Averaged]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIL	PIU
Bankfull Area	72.7	ft^2	29.8	177
Bankfull Depth	2.13	ft	0.914	4.96
Bankfull Streamflow	189	ft^3/s	33.1	1080
Bankfull Width	34	ft	14.4	80.4
Bieger_D_channel_width	25	ft		
Bieger_D_channel_depth	1.58	ft		
Bieger_D_channel_cross_sectional_area	40	ft^2		
Bieger_P_channel_width	35.3	ft		
Bieger_P_channel_depth	1.79	ft		
Bieger_P_channel_cross_sectional_area	63.7	ft^2		
Bieger_USA_channel_width	18.9	ft		
Bieger_USA_channel_depth	1.56	ft		
Bieger_USA_channel_cross_sectional_area	32.6	ft^2		

Mulvihill, C.I., Baldigo, B.P., Miller, S.J. , and DeKoskie, Douglas, 2009, Bankfull Discharge and Channel Characteristics of Streams in New York State: U.S. Geological Survey Scientific Investigations Report 2009-5144, 51 p. (<http://pubs.usgs.gov/sir/2009/5144/>)

Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G., 2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. (https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_campaign=PDFCoverPage)

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Application Version: 4.19.4

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1