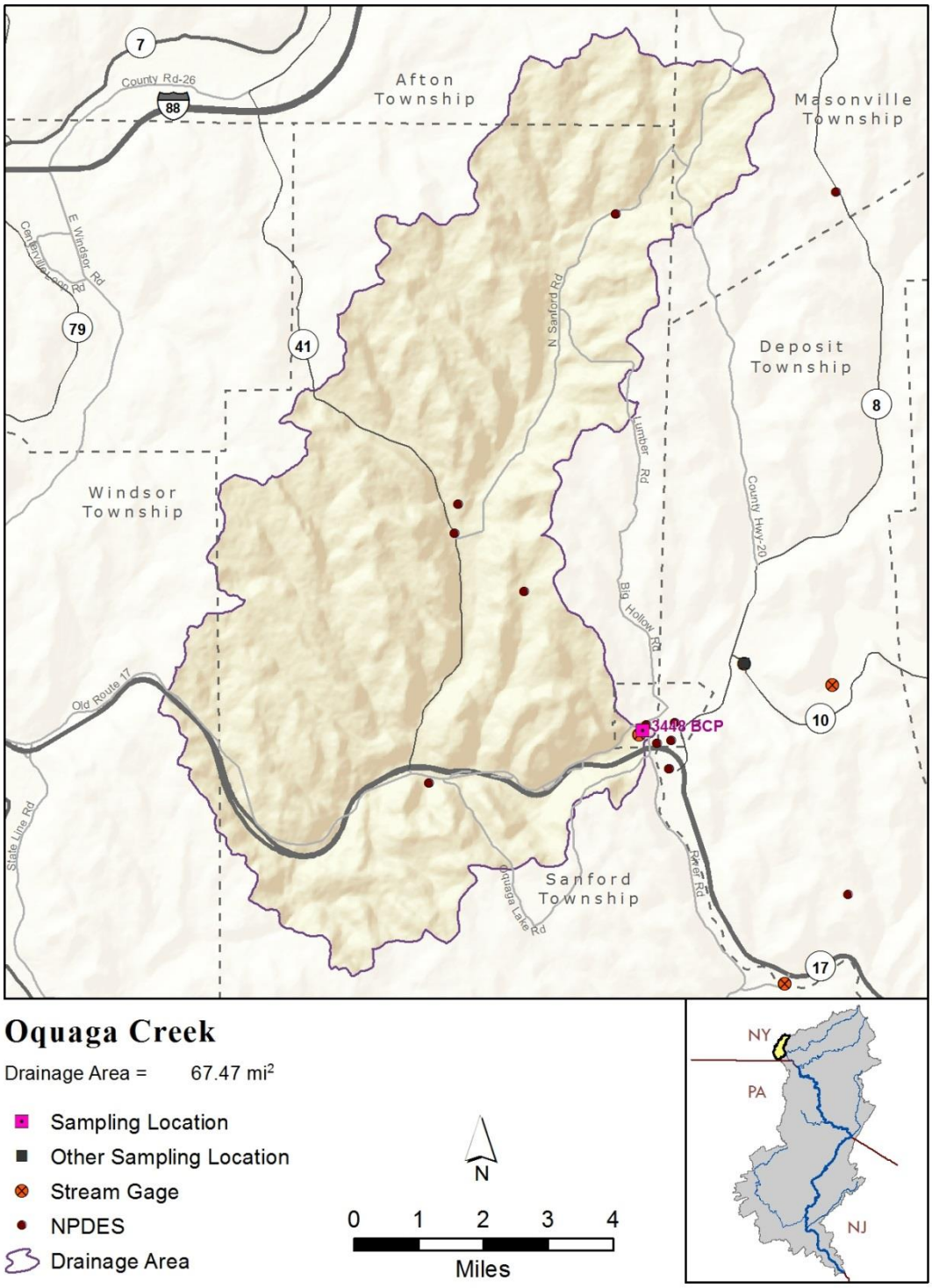
West Branch Delaware River and Tributaries

3448 BCP Oquaga Creek, NY



3448 BCP Oquaga Creek at Mill St., Deposit, NY

Broome County, NY. USGS Site No. 01426000.

Latitude 42.059381 Longitude -75.426851 by Map Interpolation NAD83 decimal degrees.

Population of Watershed: 2000: 1,346 2010: 1,303

Drainage Area: 67.94 square miles, tributary to West Branch Delaware River Zone W (West Branch)

EWQ definition currently underway by USGS/NPS, anticipated Completion by 2018

This tributary to the West Branch Delaware River was added to the list of control points because of necessity to establish baseline water quality conditions prior to potential natural gas development activities.

Nearest upstream Interstate Control Point: None; compare with West Branch Delaware River at Stilesville, which is sited just below Cannonsville Reservoir (NYSDEC has data for Cannonsville release water quality)

Nearest downstream receiving Interstate Control Point: West Branch Delaware River at Hale Eddy.

Known dischargers within watershed: Undefined

Watershed is 85.5 % forested; urban land cover is 0.8%. 100% glaciated. No carbonate rock. Mean annual precipitation 44.5 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics:

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
6,659.47	304.55	165.92	107.14	83.37	51.45	29.06	13.36	2.27

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	11.5
M30D2Y (ft^3/s)	15.2
M7D10Y (ft^3/s)	5.51
M30D10Y (ft^3/s)	7.26
M90D10Y (ft^3/s)	11.1

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	124
QAH (ft^3/s)	32.6
BF10YR (ft^3/s)	50.1
BF25YR (ft^3/s)	44.9
BF50YR (ft^3/s)	41.9

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	2,590
PK5 (ft^3/s)	4,320
PK10 (ft^3/s)	5,700
PK50 (ft^3/s)	9,330
PK100 (ft^3/s)	11,100
PK500 (ft^3/s)	16,100

Existing Water Quality: 3448 BCP Oquaga Creek, NY (Insufficient Data)

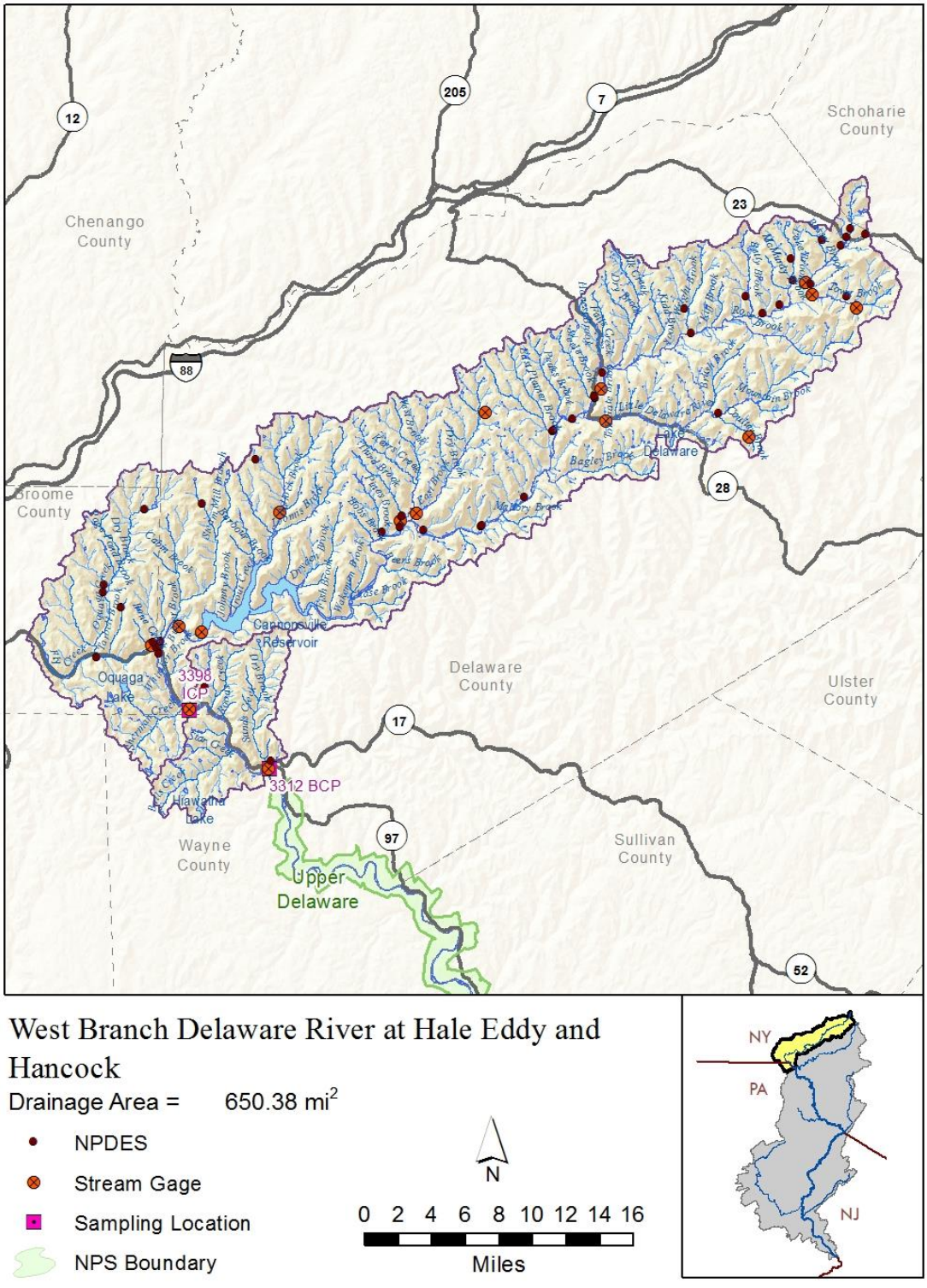
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, mg/L, total	14	20.2	16.3	24.7	USGS 2013-2015
Ammonia as N, mg/L, total *	11	0.01	<0.01	0.01	USGS 2013-2015 (6/11 ND)
Barium, Dissolved mg/L	11	0.028	0.022	0.032	USGS 2013-2015
Boron, Dissolved µg/L	11	9.2	7.4	11.0	USGS 2013-2015
Bromide, Dissolve mg/L	9	0.03	0.01	0.03	USGS 2013-2015
Calcium, mg/L, dissolved	11	7.30	6.12	9.57	USGS 2013-2015
Carbon Dioxide, Total mg/L	11	2.0	1.6	2.9	USGS 2013-2015
Chloride, mg/L, dissolved	11	18.7	13.6	29.3	USGS 2013-2015
Dissolved Oxygen, mg/L *	11	9.9	9.6	11.0	USGS 2013-2015 mid-day
Dissolved Oxygen Saturation, %	11	105	100	106	USGS 2013-2015 mid-day
Fecal Coliform, #/100 ml *					No data available
Hardness as CaCo3, mg/L, Total	11	26.6	22.8	35.8	USGS 2013-2015
Iron, Dissolved µg/L	11	34.7	29.1	80.2	USGS 2013-2015
Lithium, Dissolved µg/L	11	0.46	0.35	0.69	USGS 2013-2015 (1/11 ND)
Magnesium, Dissolved mg/L	11	2.12	1.79	2.85	USGS 2013-2015
Manganese, Dissolved µg/L	11	9.52	8.37	11.50	USGS 2013-2015
Nitrate as N, Dissolved mg/L	11	0.216	0.160	0.271	USGS 2013-2015
Nitrate + Nitrite as N, Dissolved, mg/L *	11	0.217	0.161	0.271	USGS 2013-2015
Nitrite as N, Dissolved mg/L	11	0.001	0.001	0.002	USGS 2013-2015 (3/11 ND)
Nitrogen as N, Organic, Total mg/L	11	0.13	0.09	0.24	USGS 2013-2015 (5/11 ND)
Nitrogen as N, Total, mg/L *	11	0.37	0.30	0.44	USGS 2013-2015
Nitrogen, Kjeldahl as N, Total mg/L	11	0.13	0.09	0.24	USGS 2013-2015
Organic Carbon, Dissolved, mg/L					No data available
Orthophosphate as P, Dissolved mg/L	11	<0.004	<0.004	<0.004	USGS 2013-2015 (10/11 ND)
pH *	11	7.3	7.2	7.4	USGS 2013-2015 mid-day
Phosphorus as P, Total mg/L *	11	<0.02	<0.02	<0.02	USGS 2013-2015 (11/11 ND)
Potassium, Dissolved mg/L	11	0.96	0.75	1.06	USGS 2013-2015
Silica, Dissolved mg/L	11	2.74	2.02	3.85	USGS 2013-2015
Sodium, Dissolved mg/L	11	11.6	8.33	16.5	USGS 2013-2015
Specific Conductance, µS/cm	11	110	95	161	USGS 2013-2015
Strontium, Dissolved mg/L	11	0.032	0.026	0.042	USGS 2013-2015
Sulfate, Dissolved mg/L	11	6.21	5.20	6.79	USGS 2013-2015
Temperature, Water, Degrees C	11	17.6	14.0	18.9	USGS 2013-2015 mid-day
Total Dissolved Solids, mg/L	11	77	61	97	USGS 2013-2015
Total Suspended Solids, mg/L *					No data available
Turbidity, NTU	11	0.9	0.6	2.4	USGS 2013-2015

The concentrations shown above are based upon seasonal May through September mid-day grab samples. Additional data are available for non-seasonal October through April targets. For parameters that vary throughout each day (CO2, DO, DO%, pH, water temperature) these values best represent daily maximum concentrations.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

It is recommended that two more years of monitoring are necessary for EWQ definition: samples should be taken bi-weekly (twice per month) during the May through September period, which would add 20 results to the N listed for each parameter.

3398 ICP West Branch Delaware River at Hale Eddy



3398 ICP West Branch Delaware River at Hale Eddy

USGS Site Number 01426500; Latitude 42.002798 Longitude -75.383867 by GPS NAD83 decimal degrees
Drainage Area: 595.6 square miles, Delaware River Zone W (West Branch)
Population of Watershed: 2000: 22,075 2010: 22,598 Change: -43 (-3.2%)

EWQ definition completed by USGS and DRBC/NPS 2011, EWQ contains USGS data

This site was added to the list of interstate control points because of necessity to establish baseline water quality conditions prior to potential natural gas development activities.

Nearest upstream Interstate Control Point: None
Nearest downstream receiving Interstate Control Point: 3312 ICP West Branch Delaware River at Hancock.
Tributaries to Upstream Reach: major tributary 3448 BCP Oquaga Creek, NY; Cannonsville Reservoir, NY; small tributaries 340.4 Hungry Hollow; Sherman Creek, NY/PA; Whitaker Brook, NY; Butler Brook, NY; Cold Spring Creek, NY.

Known upstream dischargers and sources of water quality change include: Cannonsville Reservoir; Town of Deposit. Stream flow at this site is controlled and dominated by releases from Cannonsville.

Watershed is 79.2 % forested; urban land cover is 0.8%. 100% glaciated. No carbonate rock. Mean annual precipitation 42.7 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics:

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
35,200	2,150	1,150	720	545	412	251	129	18.0

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	107
M30D2Y (ft^3/s)	136
M7D10Y (ft^3/s)	61.4
M30D10Y (ft^3/s)	75.5
M90D10Y (ft^3/s)	106

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	1,030
QAH (ft^3/s)	274
BF10YR (ft^3/s)	379
BF25YR (ft^3/s)	338
BF50YR (ft^3/s)	314

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	16,200
PK5 (ft^3/s)	25,700
PK10 (ft^3/s)	33,200
PK50 (ft^3/s)	53,100
PK100 (ft^3/s)	63,100
PK500 (ft^3/s)	90,300

Existing Water Quality: 3398 ICP West Branch Delaware River at Hale Eddy

Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, mg/L, total	46	18.20	15.10	26.00	2006,2007,2010,2011 USGS/SRMP
Ammonia as N, mg/L, total *	45	0.03	0.02	0.03	2006,2007,2010,2011 USGS/SRMP
Calcium, mg/L, dissolved	24	6.40	6.02	6.72	2006,2007 USGS
Chloride, mg/L, dissolved	24	10.65	9.70	12.60	2006,2007 USGS
Chloride, mg/L, Total	23	11.37	10.67	12.23	2010,2011 SRMP
Dissolved Oxygen, mg/L *	20	11.05	10.30	11.30	2010,2011 SRMP (grab samples mid-day)
Dissolved Oxygen Saturation, %	20	98.00	97.00	99.00	2010,2011 SRMP (grab samples mid-day)
Fecal Coliform, #/100 ml *	23	14.00	6.00	26.00	2010,2011 SRMP (NPS UPDE Lab)
Hardness as CaCo3, mg/L, Total	47	23.00	22.00	24.00	2006,2007,2010,2011 USGS/SRMP
Magnesium, mg/L, Dissolved	24	1.56	1.48	1.65	2006,2007 USGS
Nitrate as N, mg/L, Dissolved	24	0.48	0.35	0.63	2006,2007 USGS
Nitrate + Nitrite as N, Total, mg/L *	23	0.33	0.28	0.39	2010,2011 SRMP (ANSP Lab)
Nitrogen as N, Dissolved, mg/L	23	0.67	0.49	0.76	2006,2007 USGS
Nitrogen as N, Total, mg/L *	23	0.54	0.45	0.60	2010,2011 SRMP (ANSP Lab)
Nitrogen, Kjeldahl as N, mg/L	23	0.20	0.14	0.24	2010,2011 SRMP (ANSP Lab)
Organic Carbon, Dissolved, mg/L	24	1.85	1.70	2.50	2006,2007 USGS
pH, standard units *	20	7.61	7.45	7.82	2010,2011 SRMP (grab samples mid-day)
Phosphate as P, Total mg/L	23	0.0044	0.0037	0.0072	2010,2011 SRMP (ANSP Lab) MDL .002
Phosphorus as P, Total mg/L *	32	0.0091	0.0072	0.0124	2007,2010,2011 USGS/SRMP
Specific Conductance, µS/cm	20	77.00	71.00	90.00	2010,2011 SRMP (grab samples mid-day)
Sulfate as SO4, Dissolved mg/L	24	7.05	6.30	7.80	2006,2007 USGS
Temperature, Water, Degrees C	48	10.70	9.90	12.20	2006,2007,2010,2011 USGS/SRMP grabs
Total Dissolved Solids, mg/L	23	47.15	46.55	48.95	2010,2011 SRMP (ANSP Lab)
Total Suspended Solids, mg/L *	23	2.00	1.55	3.20	2010,2011 SRMP (no stormwater samples)
Turbidity, NTU	42	1.63	1.44	5.10	2006,2007,2010,2011 USGS/SRMP

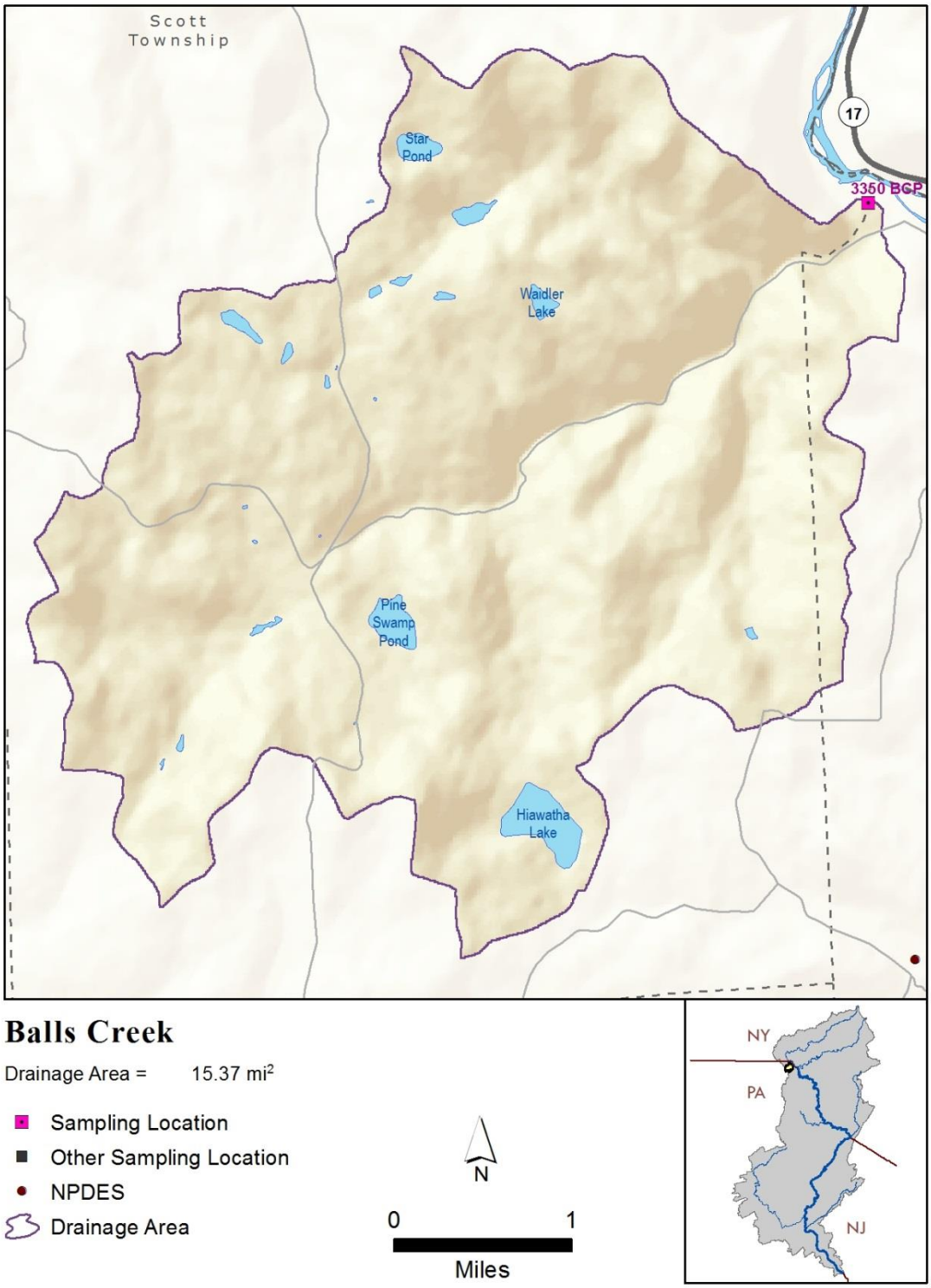
Two-tailed confidence limits were used for these EWQ targets.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

USGS Site Number: 01426500

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

3350 BCP Balls Creek, PA



3350 BCP Balls Creek at Penn-York Road, PA

Wayne County, Pennsylvania. Latitude 41.968210 Longitude -75.335956 NAD83 decimal degrees.
USGS Site No. 01426700
Watershed Population: 2000: 242 2010: 215 Change: -27 (-11.2%)
Drainage Area: 15.42 square miles, tributary to West Branch Delaware River Zone W (West Branch)

EWQ definition by USGS/NPS, partial data set only (n=11 May-September values)

This tributary to the West Branch Delaware River was added to the list of control points because of necessity to establish baseline water quality conditions prior to potential natural gas development activities.

Nearest upstream Interstate Control Point: 3398 ICP West Branch Delaware River at Hale Eddy
Nearest downstream receiving Interstate Control Point: 3312 ICP West Branch Delaware River at Hancock
Known dischargers within watershed: Undefined

Watershed is 86.9 % forested; urban land cover is 0.13%. 100% glaciated. No carbonate rock. Mean annual precipitation 44.1 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (estimated using USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
1,653.36	65.68	34.21	23.02	17.82	11.08	5.95	2.75	0.43

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	2.01
M30D2Y (ft^3/s)	2.80
M7D10Y (ft^3/s)	0.81
M30D10Y (ft^3/s)	1.15
M90D10Y (ft^3/s)	1.89

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	27.30
QAH (ft^3/s)	6.43
BF10YR (ft^3/s)	11.20
BF25YR (ft^3/s)	10.00
BF50YR (ft^3/s)	9.35

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	681
PK5 (ft^3/s)	1170
PK10 (ft^3/s)	1570
PK50 (ft^3/s)	2630
PK100 (ft^3/s)	3170
PK500 (ft^3/s)	4640

Existing Water Quality: 3350 BCP Balls Creek, PA (Insufficient Data)

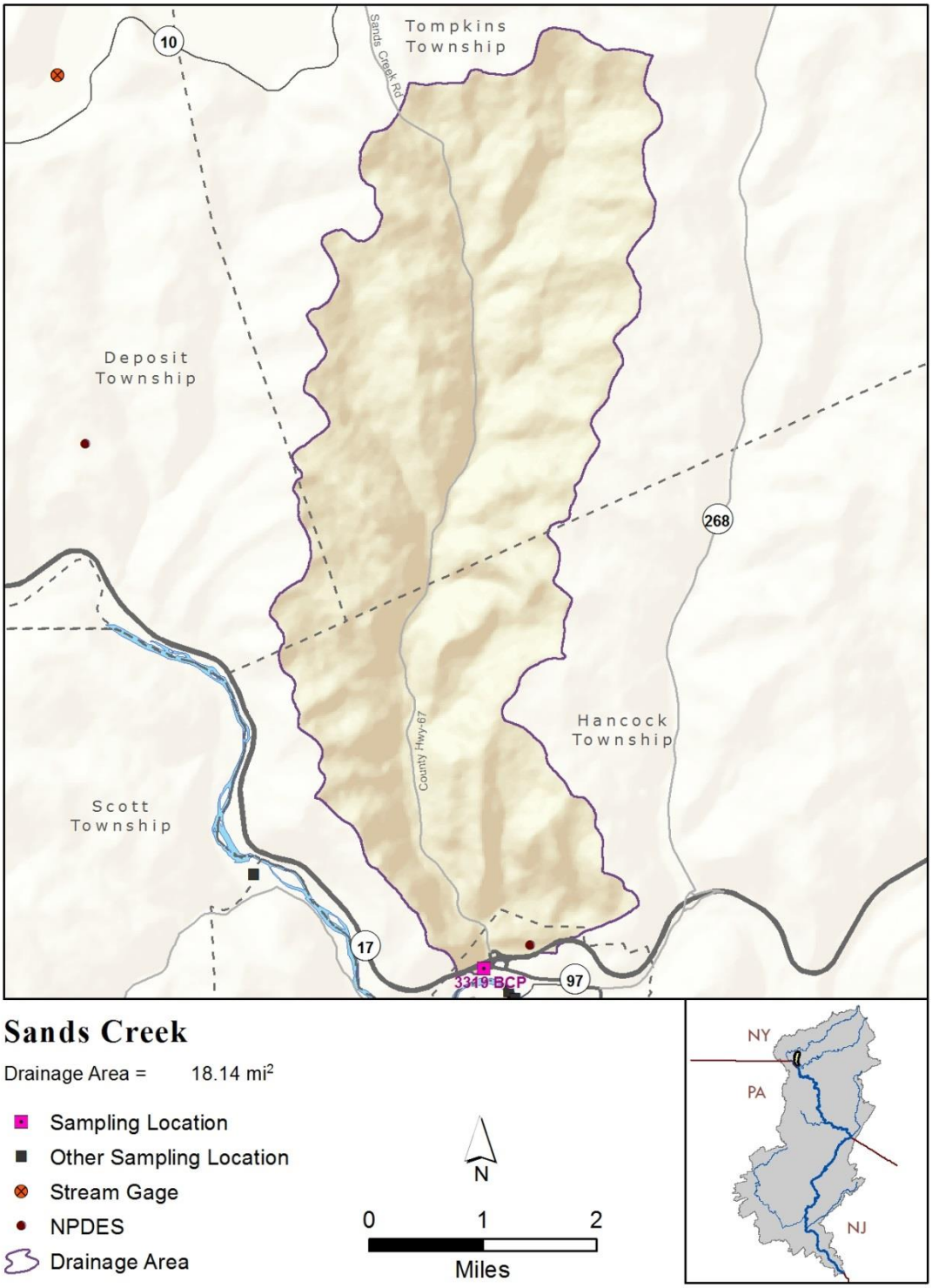
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, mg/L, total	13	20	17.8	25.0	USGS 2012-2015
Ammonia as N, mg/L, dissolved *	11	<0.01	<0.01	<0.01	USGS 2012-2015 (7/11 non-detect)
Barium, Dissolved µg/L	11	25.2	21.0	27.0	USGS 2012-2015
Boron, Dissolved µg/L	11	6.0	4.9	6.4	USGS 2012-2015
Bromide, Dissolved mg/L	9	<0.03	<0.03	<0.03	USGS 2012-2015 (7/9 non-detect)
Calcium, mg/L, dissolved	11	7.4	6.06	8.22	USGS 2012-2015
Carbon Dioxide, Total mg/L	10	1.2	0.7	1.9	USGS 2012-2015 mid-day
Chloride, mg/L, dissolved	11	2.74	2.25	4.32	USGS 2012-2015
Dissolved Oxygen, mg/L *	11	9.3	9.0	10.4	USGS 2012-2015 mid-day
Dissolved Oxygen Saturation, %	11	100	97	102	USGS 2012-2015 mid-day
Fecal Coliform, #/100 ml *					No data
Fluoride, Dissolved mg/L	11	0.04	0.04	0.05	USGS 2012-2015
Hardness as CaCo3, mg/L, Total	11	24.1	19.7	26.4	USGS 2012-2015
Iron, Dissolved µg/L	11	20.6	5.8	40.8	USGS 2012-2015
Lithium, Dissolved µg/L	11	0.61	0.26	0.79	USGS 2012-2015 (1/10 non-detect)
Magnesium, mg/L, Dissolved	11	1.36	1.10	1.45	USGS 2012-2015
Manganese, Dissolved µg/L	11	1.85	1.20	2.56	USGS 2012-2015
Nitrate as N, mg/L, Dissolved	11	0.196	0.141	0.228	USGS 2012-2015 by algorithm
Nitrate + Nitrite as N, Dissolved mg/L *	11	0.196	0.141	0.228	USGS 2012-2015
Nitrite as N, Dissolved mg/L	11	<0.001	<0.001	<0.001	USGS 2012-2015 (11/11 non-detect)
Nitrogen as N, Total, mg/L *	11	0.31	0.24	0.35	USGS 2012-2015 by algorithm
Nitrogen, Kjeldahl as N, Total mg/L	11	0.11	0.08	0.16	USGS 2012-2015
Nitrogen, Organic, Total mg/L	11	0.11	0.08	0.14	USGS 2012-2015 by algorithm
pH, standard units *	11	7.5	7.3	7.7	USGS 2012-2015 mid-day
Phosphate as P, Dissolved mg/L	11	0.007	0.005	0.009	USGS 2012-2015
Phosphorus as P, Total mg/L *	11	<0.02	<0.02	0.03	USGS 2012-2015 (7/11 non-detect)
Potassium, Dissolved mg/L	11	0.82	0.65	0.87	USGS 2012-2015
Silica, Dissolved mg/L	11	3.16	2.96	3.42	USGS 2012-2015
Sodium, Dissolved mg/L	11	2.94	2.50	3.51	USGS 2012-2015
Specific Conductance, µS/cm @25C	11	66	51	73	USGS 2012-2015
Strontium, Dissolved µg/L	11	26.1	21.3	29.6	USGS 2012-2015
Sulfate as SO4, Dissolved mg/L	11	4.93	4.59	5.10	USGS 2012-2015
Temperature, Water, Degrees C	11	18.6	13.6	20.4	USGS 2012-2015 mid-day
Total Dissolved Solids, mg/L	11	41	33	53	USGS 2012-2015
Total Suspended Solids, mg/L *					No data
Turbidity, NTU	10	0.7	0.3	1.2	USGS 2012-2015

The concentrations shown above are based upon seasonal May through September mid-day grab samples. Additional data are available for non-seasonal October through April targets. For parameters that vary throughout each day (CO2, DO, DO%, pH, water temperature) these values best represent daily maximum concentrations.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

It is recommended that two more years of monitoring are necessary for full EWQ definition: samples should be taken bi-weekly (twice per month) during the May through September period, which would add 20 more results to the N listed for each parameter.

3319 BCP Sands Creek, NY



3319 BCP Sands Creek at Main St., Hancock, NY

Delaware County, New York. Latitude 41.956401 Longitude -75.296558 NAD83 decimal degrees.
USGS Site No. 01426997.
Watershed Population: 2000: 259 2010: 265 Change: +6 (+2.4%)
Drainage Area: 18.17 square miles, tributary to West Branch Delaware River Zone W (West Branch)

EWQ definition by USGS/NPS, partial data set only (n=11 May-September values)

This tributary to the West Branch Delaware River was added to the list of control points because of necessity to establish baseline water quality conditions prior to potential natural gas development activities.

Nearest upstream Interstate Control Point: 3398 ICP West Branch Delaware River at Hale Eddy
Nearest downstream receiving Interstate Control Point: 3312 ICP West Branch Delaware River at Hancock
Known dischargers within watershed: Undefined

Watershed is 89.5 % forested; urban land cover is 0.32%. 100% glaciated. No carbonate rock. Mean annual precipitation 42.8 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (estimated using USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
1,940.45	72.63	40.11	24.75	19.06	11.94	6.64	2.95	0.53

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	2.22
M30D2Y (ft^3/s)	3.09
M7D10Y (ft^3/s)	0.90
M30D10Y (ft^3/s)	1.26
M90D10Y (ft^3/s)	2.08

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	30.60
QAH (ft^3/s)	6.89
BF10YR (ft^3/s)	12.50
BF25YR (ft^3/s)	11.20
BF50YR (ft^3/s)	10.40

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	834
PK5 (ft^3/s)	1430
PK10 (ft^3/s)	1910
PK50 (ft^3/s)	3180
PK100 (ft^3/s)	3820
PK500 (ft^3/s)	5560

3319 BCP Sands Creek, NY (Insufficient Data)

Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, mg/L, total	13	17.3	14.5	22.2	USGS 2012-2015
Ammonia as N, mg/L, dissolved *	13	<0.01	<0.01	<0.01	USGS 2012-2015 (8/13 non-detect)
Barium, Dissolved µg/L	13	48.5	41.1	52.5	USGS 2012-2015
Boron, Dissolved µg/L	13	5.8	5.2	6.5	USGS 2012-2015
Bromide, Dissolved mg/L	11	0.03	0.011	0.03	USGS 2012-2015 (7/9 non-detect)
Calcium, mg/L, dissolved	13	5.93	4.83	7.09	USGS 2012-2015
Carbon Dioxide, Total mg/L	13	1.0	0.8	1.7	USGS 2012-2015 mid-day
Chloride, mg/L, dissolved	13	11.0	5.8	15.3	USGS 2012-2015
Dissolved Oxygen, mg/L *	13	9.6	9.5	10.3	USGS 2012-2015 mid-day
Dissolved Oxygen Saturation, %	13	102	99	103	USGS 2012-2015 mid-day
Fecal Coliform, #/100 ml *					No data
Fluoride, Dissolved mg/L	13	0.04	0.04	0.05	USGS 2012-2015
Hardness as CaCo3, mg/L, Total	13	20.5	17.0	24.7	USGS 2012-2015
Iron, Dissolved µg/L	12	18.7	9.5	47.1	USGS 2012-2015
Lithium, Dissolved µg/L	13	0.37	0.26	0.51	USGS 2012-2015 (1/10 non-detect)
Magnesium, mg/L, Dissolved	13	1.36	1.18	1.63	USGS 2012-2015
Manganese, Dissolved µg/L	13	2.50	1.73	3.17	USGS 2012-2015
Nitrate as N, mg/L, Dissolved	13	0.099	0.079	0.137	USGS 2012-2015 by algorithm
Nitrate + Nitrite as N, Dissolved mg/L *	13	0.099	0.08	0.137	USGS 2012-2015
Nitrite as N, Dissolved mg/L	13	<0.001	<0.001	<0.001	USGS 2012-2015 (11/13 non-detect)
Nitrogen as N, Total, mg/L *	12	0.230	0.190	0.270	USGS 2012-2015 by algorithm
Nitrogen, Kjeldahl as N, Total mg/L	12	0.115	0.090	0.180	USGS 2012-2015
Nitrogen, Organic, Total mg/L	12	0.07	0.07	0.11	USGS 2012-2015 by algorithm
pH, standard units *	13	7.5	7.4	7.5	USGS 2012-2015 mid-day
Phosphate as P, Dissolved mg/L	13	0.004	<0.004	0.006	USGS 2012-2015 (5/13 non-detect)
Phosphorus as P, Total mg/L *	12	<0.02	<0.02	<0.02	USGS 2012-2015 (11/12 non-detect)
Potassium, Dissolved mg/L	13	0.62	0.56	0.70	USGS 2012-2015
Silica, Dissolved mg/L	13	3.35	2.89	3.50	USGS 2012-2015
Sodium, Dissolved mg/L	13	7.72	5.09	9.52	USGS 2012-2015
Specific Conductance, µS/cm @25C	13	80	66	103	USGS 2012-2015
Strontium, Dissolved µg/L	13	22.4	19.0	26.7	USGS 2012-2015
Sulfate as SO4, Dissolved mg/L	13	5.04	4.11	5.52	USGS 2012-2015
Temperature, Water, Degrees C	13	17.1	14.8	18.9	USGS 2012-2015 mid-day
Total Dissolved Solids, mg/L	13	50	37	57	USGS 2012-2015
Total Suspended Solids, mg/L *					No data
Turbidity, NTU	11	0.7	0.2	1.0	USGS 2012-2015

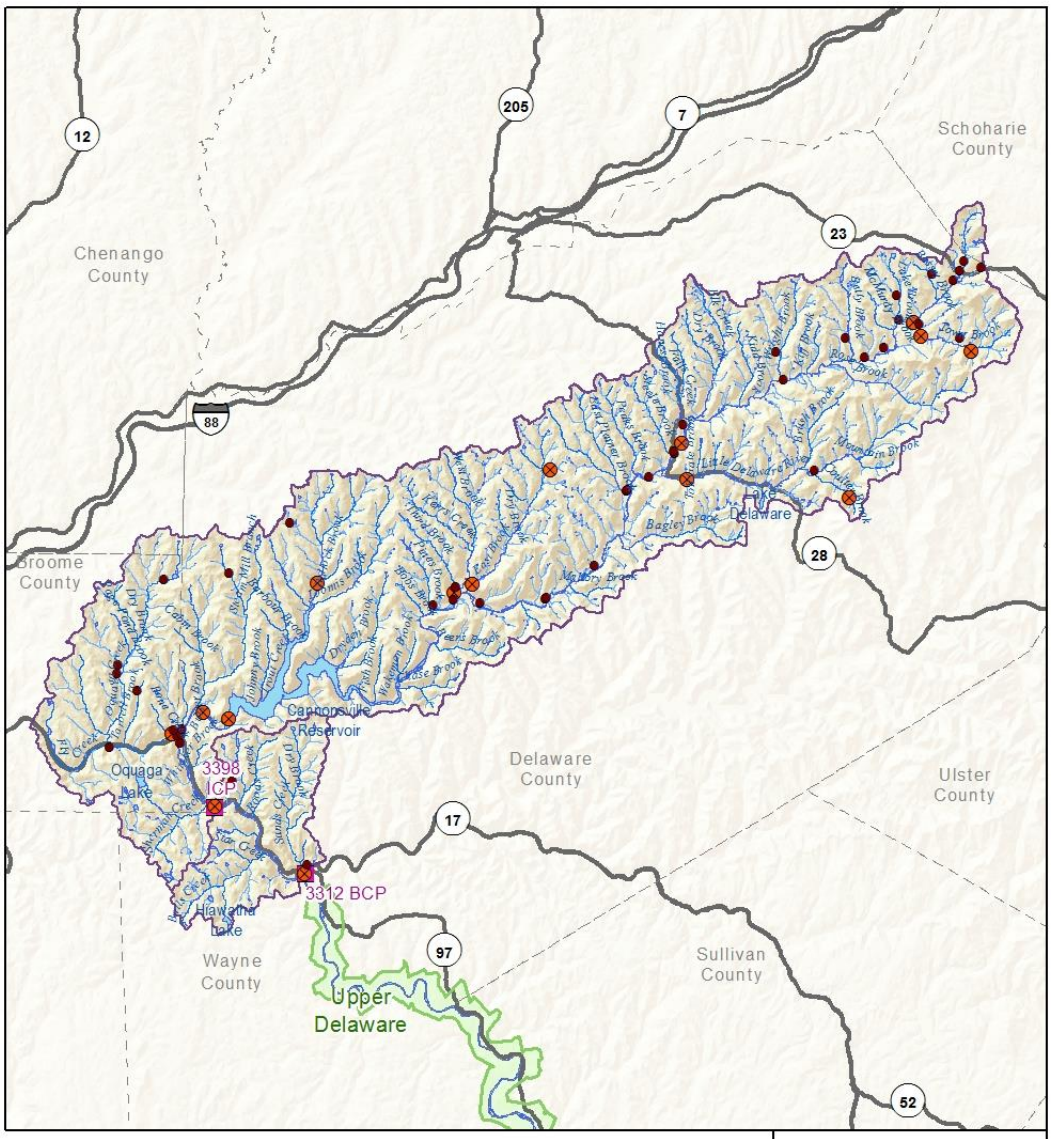
The concentrations shown above are based upon seasonal May through September mid-day grab samples. Additional data are available for non-seasonal October through April targets. For parameters that vary throughout each day (CO2, DO, DO%, pH, water temperature) these values best represent daily maximum concentrations.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

It is recommended that two more years of monitoring are necessary for full EWQ definition: samples should be taken bi-weekly (twice per month) during the May through September period, which would add 20 more results to the N listed for each parameter.

Upper Delaware Scenic and Recreational River: Outstanding Basin Waters

3312 ICP West Branch Delaware River at Rt. 191 Bridge, Hancock



West Branch Delaware River at Hale Eddy and Hancock

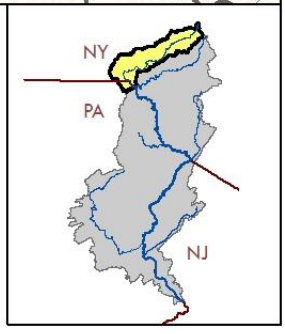
Drainage Area = 650.38 mi^2

- NPDES
- Stream Gage
- Sampling Location
- NPS Boundary

N

0 2 4 6 8 10 12 14 16

Miles



3312 ICP West Branch Delaware River at Rt. 191 Bridge, Hancock

Latitude 41.952500 Longitude -75.291206 by GPS, NAD83 decimal degrees
USGS Site Number 01427000; PADEP Site Number WQN0104; NYSDEC Site Number 14041001
Watershed Population: 2000: 23,212 2010: 23,774 Change: +562 (+2.4%)
Drainage Area: 650 square miles, West Branch Delaware River DRBC Zone W (West Branch)

Site Specific EWQ defined 2006-2011

This site is located near the northern boundary of the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 3312 ICP West Branch Delaware River at Hale Eddy
Nearest downstream Interstate Control Point: 3216 ICP Delaware River at Lordville
Tributaries to Upstream Reach: 338.5 Roods Ck, NY; 337.1 Travis Brook, NY; 336.1 Faulkner Brook, PA; 3350 BCP Balls Creek, PA; 3319 BCP Sands Creek NY.
Known dischargers within watershed: Undefined

Watershed is 80 % forested; urban land cover is 0.82%. 100% glaciated. No carbonate rock. Mean annual precipitation 42.74 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (calculated from Hale Eddy Gage):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
38,453.78	2,348.74	1,256.30	786.55	595.38	450.08	274.20	140.92	19.66

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	121
M30D2Y (ft^3/s)	153
M7D10Y (ft^3/s)	70.4
M30D10Y (ft^3/s)	85.9
M90D10Y (ft^3/s)	120

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	1,120
QAH (ft^3/s)	303
BF10YR (ft^3/s)	418
BF25YR (ft^3/s)	373
BF50YR (ft^3/s)	346

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	17,500
PK5 (ft^3/s)	27,700
PK10 (ft^3/s)	35,800
PK50 (ft^3/s)	57,300
PK100 (ft^3/s)	68,000
PK500 (ft^3/s)	97,100

Existing Water Quality: 3312 ICP West Branch Delaware River at Rt. 191 Bridge, Hancock

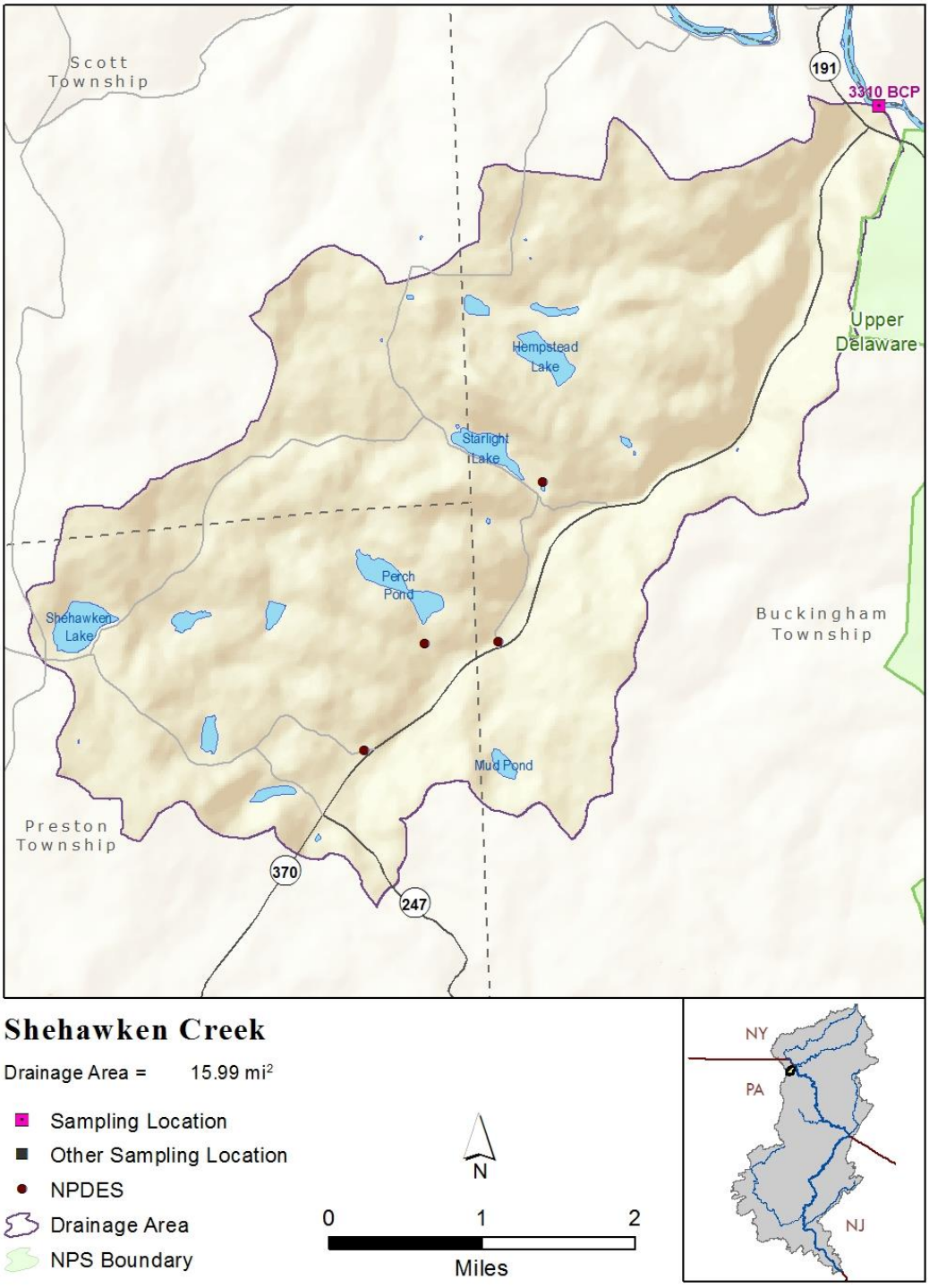
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	61	15.00	14.30	15.60	1999-2011 SRMP, PADEP, NYSDEC
Aluminum, Dissolved mg/L	15	0.0020	0.0010	0.0044	2009,2010 SRMP
Ammonia-nitrogen as N, Total mg/L *	60	0.014	0.011	0.016	1999-2011 SRMP, PADEP, NYSDEC
Barium, Dissolved mg/L	15	0.019	0.016	0.022	2009,2010 SRMP
Calcium, Dissolved mg/L	42	6.34	6.06	6.63	1999-2010 PADEP, SRMP
Calcium, Total mg/L	34	6.64	6.40	6.95	1999-2009 PADEP, NYSDEC
Chloride, Total mg/L	50	12.45	11.80	12.70	2005-2011 SRMP, NYSDEC
Dissolved Oxygen mg/L mid-day*	57	10.20	9.99	10.60	1999-2011 SRMP, PADEP, NYSDEC, USGS
Dissolved Oxygen Saturation % mid-day	30	98.00	97.00	99.00	2009-2011 SRMP
Enterococcus #/100 ml	10	33.50	6.00	80.00	2008 SRMP (INSUFFICIENT DATA)
E. coli #/100 ml	10	24.00	4.00	60.00	2008 SRMP (INSUFFICIENT DATA)
Fecal Coliform #/100 ml *	47	30.00	20.00	52.00	1999-2011 SRMP, PADEP, NYSDEC
Hardness as CaCO3, Total mg/L	61	23.58	22.60	24.40	1999-2011 SRMP, PADEP, NYSDEC
Iron, Dissolved µg/L	37	27.0	21.0	32.0	1999-2011 PADEP
Iron, Total µg/L	34	128.00	104.00	177.00	1999-2011 PADEP, NYSDEC
Magnesium, Dissolved mg/L	42	1.67	1.60	1.75	1999-2010 SRMP, PADEP
Magnesium, Total mg/L	34	1.73	1.63	1.81	1999-2009 PADEP, NYSDEC
Manganese, Dissolved µg/L	42	15.20	11.20	18.70	1999-2010 SRMP, PADEP
Manganese, Total µg/L	34	39.80	31.60	45.50	1999-2009 PADEP, NYSDEC
Nitrate as N, Total mg/L	31	0.11	0.08	0.34	1999-2008 PADEP, NYSDEC
Nitrate+Nitrite as N, Total mg/L *	53	0.36	0.32	0.42	2005-2011 SRMP, NYSDEC
Nitrogen as N, Total mg/L *	60	0.56	0.51	0.60	2004-2011 SRMP, PADEP
Nitrogen, Kjeldahl as N, Total mg/L	53	0.18	0.17	0.21	2005-2011 SRMP, NYSDEC
pH, units mid-day*	70	7.58	7.50	7.66	1999-2011 SRMP, NYSDEC, PADEP
Phosphate as P, Total mg/L	59	0.006	0.004	0.010	2002-2011 SRMP, PADEP
Phosphorus as P, Total mg/L *	66	0.010	0.009	0.012	1999-2011 SRMP, PADEP, NYSDEC
Potassium, Dissolved mg/L	15	0.88	0.73	0.95	2009-2010 SRMP
Sodium, Dissolved mg/L	15	6.89	6.10	7.63	2009-2010 SRMP
Specific Conductance µS/cm	70	89.40	86.00	92.30	1999-2011 SRMP, NYSDEC, PADEP
Strontium, Dissolved mg/L	15	0.019	0.018	0.022	2009-2010 SRMP
Sulfate, Total mg/L	15	6.04	5.38	6.16	2009-2010 SRMP
Temperature, Water Deg. C mid-day	63	13.30	12.50	14.60	1999-2011 SRMP, PADEP, NYSDEC
Total Dissolved Solids (TDS) mg/L	74	52.57	51.30	54.40	1999-2011 SRMP, PADEP, NYSDEC
Total Suspended Solids (TSS) mg/L *	61	2.10	2.00	2.95	1999-2011 SRMP, PADEP, NYSDEC
Turbidity NTU	40	1.61	1.11	2.73	2005-2011 SRMP, NYSDEC

Two-tailed confidence limits were used for these EWQ targets.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

3310 BCP Shehawken Creek, PA



3310 BCP Shehawken Creek, PA

Wayne County, PA. Latitude 41.941995 Longitude -75.287805 by GPS NAD83 decimal degrees
USGS Site No. 01427110
Watershed Population: 2000: 290 2010: 290 Change: 0 (0.0%)
Drainage Area: 15.97 square miles, tributary to West Branch Delaware River Zone W (West Branch)

EWQ definition by USGS/NPS, partial data set only (n=11 May-September values)

This tributary to the West Branch Delaware River was added to the list of control points because of necessity to establish baseline water quality conditions prior to potential natural gas development activities.

Nearest upstream Interstate Control Point: 3312 ICP West Branch Delaware River at Hancock
Nearest downstream Interstate Control Point: 3216 ICP Delaware River at Lordville
Known dischargers within watershed: Undefined

Watershed is 82.4 % forested; urban land cover is 0.37%. 100% glaciated. No carbonate rock. Mean annual precipitation 44.1 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (estimated using USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
1,718.98	67.49	35.01	23.74	18.43	11.62	6.32	2.96	0.48

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	1.94
M30D2Y (ft^3/s)	2.72
M7D10Y (ft^3/s)	0.78
M30D10Y (ft^3/s)	1.11
M90D10Y (ft^3/s)	1.84

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	28.0
QAH (ft^3/s)	6.59
BF10YR (ft^3/s)	11.3
BF25YR (ft^3/s)	10.1
BF50YR (ft^3/s)	9.37

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	677
PK5 (ft^3/s)	1170
PK10 (ft^3/s)	1560
PK50 (ft^3/s)	2630
PK100 (ft^3/s)	3160
PK500 (ft^3/s)	4650

3310 BCP Shehawken Creek, PA (Insufficient Data)

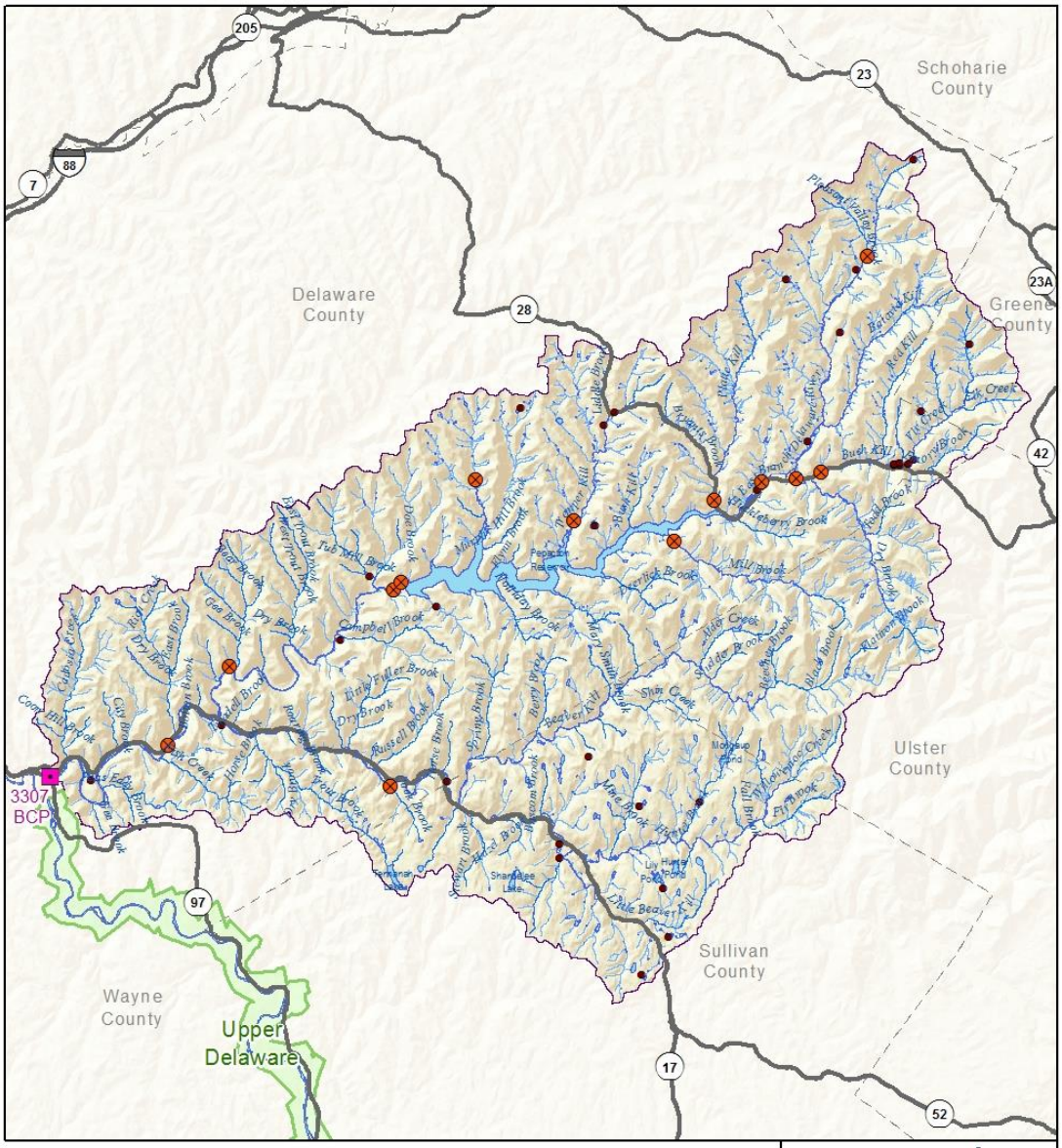
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, mg/L, total	15	20	17.4	23.6	USGS 2012-2015
Ammonia as N, mg/L, dissolved *	12	<0.01	<0.01	0.01	USGS 2012-2015 (6/12 ND)
Barium, Dissolved µg/L	12	20.0	16.8	21.8	USGS 2012-2015
Boron, Dissolved µg/L	12	6.7	5.7	7.0	USGS 2012-2015
Bromide, Dissolved mg/L	10	<0.03	<0.015	0.03	USGS 2012-2015 (6/10 ND)
Calcium, mg/L, dissolved	12	7.79	6.52	8.33	USGS 2012-2015
Chloride, mg/L, dissolved	12	6.88	6.03	8.78	USGS 2012-2015
Dissolved Oxygen, mg/L mid-day *	12	9.6	9.4	10.3	USGS 2012-2015
Dissolved Oxygen Saturation, % mid-day	12	102.5	98	106	USGS 2012-2015
Fecal Coliform, #/100 ml *					No data
Fluoride, Dissolved mg/L	12	0.04	0.04	0.05	USGS 2012-2015
Hardness as CaCo3, mg/L, Total		24.7	20.6	26.6	USGS 2012-2015
Iron, Dissolved µg/L	12	9.7	4.5	23.1	USGS 2012-2015 (1/12 ND)
Lithium, Dissolved µg/L	12	0.44	0.22	0.55	USGS 2012-2015 (1/12 ND)
Magnesium, mg/L, Dissolved	12	1.29	1.05	1.39	USGS 2012-2015
Manganese, Dissolved µg/L	12	1.72	1.6	2.11	USGS 2012-2015
Nitrate as N, mg/L, Dissolved	12	1.14	0.901	1.41	USGS 2012-2015 by algorithm
Nitrate + Nitrite as N, Dissolved mg/L *	12	0.259	0.203	0.319	USGS 2012-2015
Nitrite as N, Dissolved mg/L	12	<0.001	<0.001	<0.001	USGS 2012-2015 (12/12 ND)
Nitrogen as N, Total, mg/L *	12	0.39	0.32	0.46	USGS 2012-2015 by algorithm
Nitrogen, Kjeldahl as N, Total mg/L	12	0.13	0.10	0.18	USGS 2012-2015 (1/12 ND)
Nitrogen, Organic, Total mg/L	12	0.12	0.10	0.18	USGS 2012-2015 by algorithm
pH, standard units mid-day *	11	7.8	7.5	8.1	USGS 2012-2015
Phosphate as P, Dissolved mg/L	12	0.01	0.007	0.012	USGS 2012-2015
Phosphorus as P, Total mg/L *	12	<0.02	<0.02	<0.02	USGS 2012-2015 (9/12 ND)
Potassium, Dissolved mg/L	12	0.93	0.82	0.99	USGS 2012-2015
Silica, Dissolved mg/L	12	2.52	2.4	2.76	USGS 2012-2015
Sodium, Dissolved mg/L	12	5.28	4.54	5.87	USGS 2012-2015
Specific Conductance, µS/cm @25C	12	82	73	86	USGS 2012-2015
Strontium, Dissolved µg/L	12	27.9	23.8	31.6	USGS 2012-2015
Sulfate as SO4, Dissolved mg/L	12	4.35	4.1	4.83	USGS 2012-2015
Temperature, Water, Degrees C mid-day	12	17.8	16.5	19.3	USGS 2012-2015
Total Dissolved Solids, mg/L	12	49	37	55	USGS 2012-2015
Total Suspended Solids, mg/L *					No data
Turbidity, NTU	12	0.6	0.2	0.9	USGS 2012-2015

The concentrations shown above are based upon seasonal May through September mid-day grab samples. Additional data are available for non-seasonal October through April targets. For parameters that vary throughout each day (CO2, DO, DO%, pH, water temperature) these values best represent daily maximum concentrations.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

It is recommended that two more years of monitoring are necessary for full EWQ definition: samples should be taken bi-weekly (twice per month) during the May through September period, which would add 20 more results to the N listed for each parameter.

3307 BCP East Branch Delaware River at Rt. 97, Hancock



3307 BCP East Branch Delaware River at Rt. 97, Hancock

Delaware County, New York. Latitude 41.952817 Longitude -75.277121 by GPS, NAD83 decimal degrees
USGS Site Number 01421500 (Fish Eddy Gage) NYSDEC Site Number 14031001
Watershed Population: 2000: 17,165 2010: 16537 Change: -628 (-3.7%)
Drainage Area: 856 square miles, tributary to Delaware River Zone 1A

Site Specific EWQ defined 2006-2011

This site is located near the northern boundary of the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 3312 ICP West Branch Delaware River at Hale Eddy
Nearest downstream Interstate Control Point: 3216 ICP Delaware River at Lordville
Known dischargers within watershed: Undefined

Watershed is 91.8% forested; urban land cover is 0.59%. 100% glaciated. No carbonate rock. Mean annual precipitation 43.9 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (calculated from Fish Eddy Gage):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
55,700	3,110	1,600	974	756	598	400	241	68

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	225
M30D2Y (ft^3/s)	275
M7D10Y (ft^3/s)	146
M30D10Y (ft^3/s)	167
M90D10Y (ft^3/s)	224

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	1,590
QAH (ft^3/s)	466
BF10YR (ft^3/s)	626
BF25YR (ft^3/s)	563
BF50YR (ft^3/s)	526

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	21,800
PK5 (ft^3/s)	34,300
PK10 (ft^3/s)	44,300
PK50 (ft^3/s)	70,600
PK100 (ft^3/s)	83,700
PK500 (ft^3/s)	119,000

Existing Water Quality: 3307 BCP East Branch Delaware River at Rt. 97, Hancock

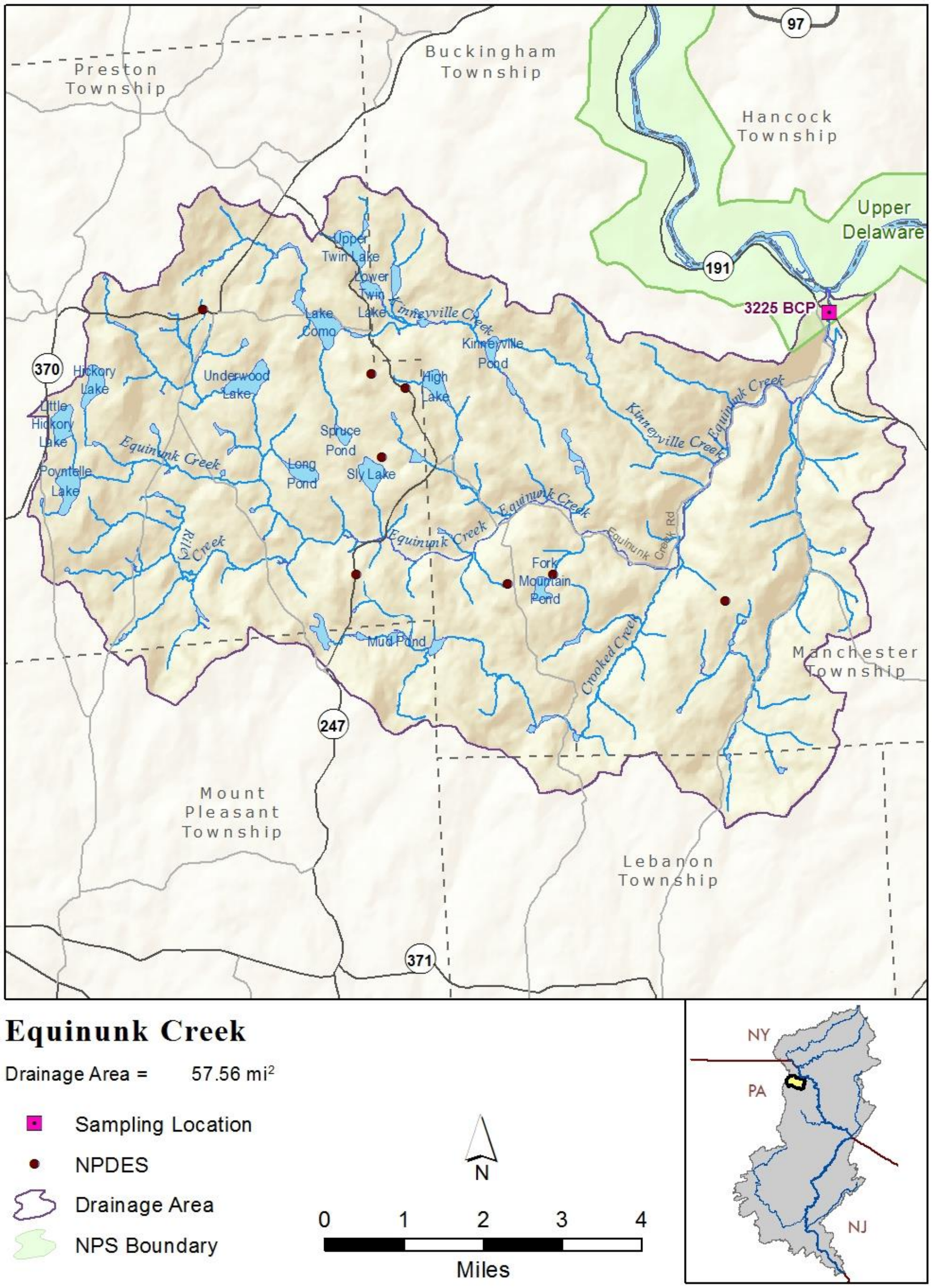
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	80	13.6	12.6	15.0	2005-2011 SRMP, USGS, NYSDEC
Aluminum, Dissolved mg/L	15	0.003	0.002	0.005	2009-2010 SRMP
Ammonia-Nitrogen as N, Total mg/L *	79	0.016	0.011	0.020	2005-2011 SRMP, USGS, NYSDEC
Barium, Dissolved mg/L	15	0.019	0.018	0.023	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	45	5.54	5.26	5.90	2006-2010 SRMP, USGS
Chloride, Dissolved mg/L	30	6.65	5.30	7.50	2006-2007 USGS
Chloride, Total mg/L	50	8.73	7.80	9.50	2005-2011 SRMP, NYSDEC
Dissolved Oxygen (DO) mg/L mid-day*	44	9.20	8.90	9.70	2005-2011 SRMP, NYSDEC, USGS
Dissolved Oxygen Saturation % mid-day	30	98.0	96.0	98.0	2009-2011 SRMP
Enterococcus #/100ml	11	100	2	240	2008 SRMP (Insufficient N for EWQ)
Escherichia coli #/100ml	11	10	3	130	2008 SRMP (Insufficient N for EWQ)
Fecal coliform #/100ml *	38	18	12	30	2005,2009-2011 SRMP, NYSDEC
Hardness as CaCO3, Total mg/L	80	20	18	21	2005-2011 SRMP, USGS, NYSDEC
Magnesium, Dissolved mg/L	45	1.08	1.02	1.15	2006-2010 SRMP, USGS
Manganese, Dissolved µg/L	15	8.3	5.6	10.3	2009-2010 SRMP archived samples
Nitrate as N, Dissolved mg/L	30	0.28	0.21	0.31	2006-2007 USGS
Nitrate+Nitrite as N, Total mg/L *	55	0.14	0.13	0.17	2005-2011 SRMP, NYSDEC
Nitrogen as N, Dissolved mg/L	29	0.39	0.25	0.48	2006-2007 USGS
Nitrogen as N, Total mg/L *	48	0.29	0.26	0.32	2007-2011 SRMP
Nitrogen, Kjeldahl as N, Total mg/L	55	0.16	0.14	0.17	2005-2011 SRMP, NYSDEC
Organic Carbon, Dissolved mg/L	30	1.9	1.5	2.6	2006-2007 USGS
pH, units mid-day*	42	7.61	7.55	7.70	2005, 2009-2011 SRMP, NYSDEC
Phosphate as P, Total mg/L	44	0.003	0.002	0.003	2008-2011 SRMP
Phosphorus as P, Total mg/L *	64	0.006	0.005	0.007	2005-2011 SRMP, USGS, NYSDEC
Potassium, Dissolved mg/L	15	0.57	0.46	0.63	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	5.17	4.24	5.97	2009-2010 SRMP archived samples
Specific Conductance µS/cm	42	70.4	65.0	76.0	2005, 2009-2011 SRMP, NYSDEC
Strontium, Dissolved mg/L	15	0.021	0.019	0.023	2009-2010 SRMP archived samples
Sulfate, Total mg/L	15	5.28	5.00	5.59	2009-2010 SRMP archived samples
Sulfate as SO4, Dissolved mg/L	30	5.95	5.70	6.10	2006-2007 USGS
Temperature, Water degrees C mid-day	61	17.3	16.8	18.4	2005-2011 SRMP, USGS, NYSDEC
Total Dissolved Solids (TDS) mg/L	50	38.26	35.85	42.20	2005-2011 SRMP, NYSDEC
Total Suspended Solids (TSS) mg/L *	50	1.47	1.25	2.25	2005-2011 SRMP, NYSDEC
Turbidity NTU	64	2.34	1.20	5.54	2005-2011 SRMP, USGS, NYSDEC

Two-tailed confidence limits were used for these EWQ targets.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

3225 BCP Equinunk Creek at Rt. 191



3225 BCP Equinunk Creek at Rt. 191

Wayne County, Pennsylvania. Latitude 41.853253 Longitude -75.224885 by GPS NAD83 decimal degrees.
USGS Site No. 01427203
Watershed Population: 2000: 1,136 2010: 1,002 Change: -134 (-11.8%)
Drainage Area: 57.7 square miles, tributary to Delaware River Zone 1A

Site Specific EWQ defined 2006-2011

This watershed is tributary to the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 3312 ICP West Branch Delaware River at Hancock
Nearest downstream Interstate Control Point: 3216 ICP Delaware River at Lordville
Known dischargers within watershed: Undefined

Watershed is 85% forested; urban land cover is 0.46%. 100% glaciated. No carbonate rock. Mean annual precipitation 44.2 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
5,837	254.5	131.4	89.5	69.8	43.1	23.7	11.1	1.67

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	9.14
M30D2Y (ft^3/s)	12.2
M7D10Y (ft^3/s)	4.28
M30D10Y (ft^3/s)	5.70
M90D10Y (ft^3/s)	8.80

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	103
QAH (ft^3/s)	26.5
BF10YR (ft^3/s)	41.7
BF25YR (ft^3/s)	37.3
BF50YR (ft^3/s)	34.8

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	2,050
PK5 (ft^3/s)	3,440
PK10 (ft^3/s)	4,560
PK50 (ft^3/s)	7,530
PK100 (ft^3/s)	9,030
PK500 (ft^3/s)	13,200

Existing Water Quality: 3225 BCP Equinunk Creek at Rt. 191, PA

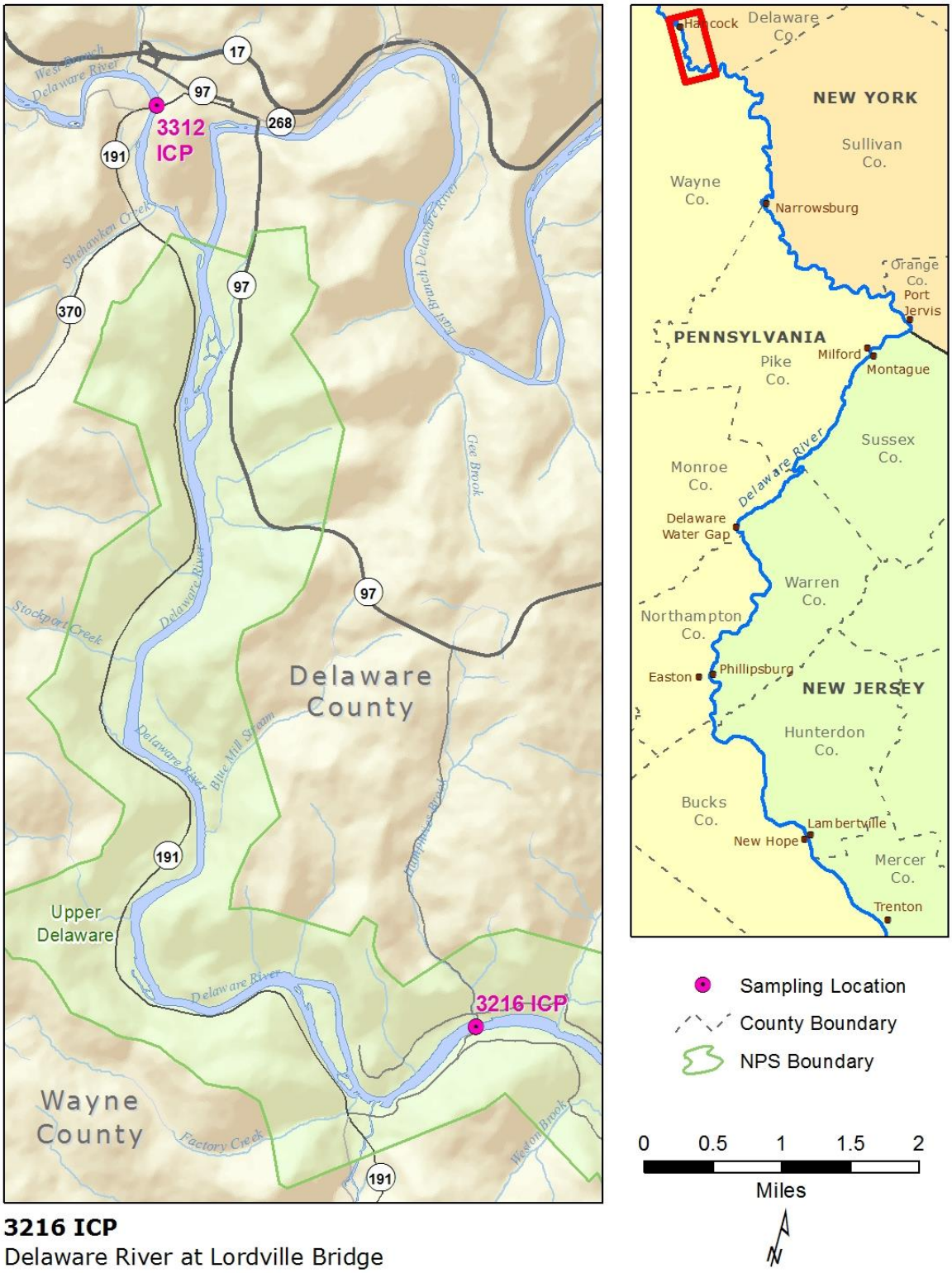
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	54	17.25	14.90	19.40	2006-2011 SRMP
Aluminum, Dissolved, mg/L	15	0.0023	0.0014	0.0044	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	51	0.010	0.008	0.011	2006-2011 SRMP
Barium, Dissolved mg/L	15	0.017	0.016	0.019	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	15	6.35	5.71	7.51	2009-2010 SRMP archived samples
Chloride, Total mg/L	54	4.83	4.23	5.18	2006-2011 SRMP
Dissolved Oxygen (DO) mg/L *	52	9.25	9.00	9.50	2001-2011 SRMP, USGS
Dissolved Oxygen Saturation %	42	97	96	98	2001-2011 SRMP, USGS
Enterococcus #/100ml	12	21	8	32	2007 SRMP
Escherichia coli #/100ml	12	21	4	30	2007 SRMP
Fecal coliform #/100ml *	66	22	18	32	2006-2011 SRMP
Hardness as CaCO3, Total mg/L	54	22.6	20.00	24.00	2006-2011 SRMP
Magnesium, Dissolved mg/L	15	0.94	0.79	1.02	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	8.20	4.90	10.10	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	44	0.049	0.044	0.062	2007-2011 SRMP
Nitrogen as N, Total mg/L *	44	0.210	0.198	0.223	2007-2011 SRMP
Nitrogen, Kjeldahl as N, Total mg/L	44	0.157	0.140	0.173	2007-2011 SRMP
pH units *	52	7.54	7.48	7.59	2001-2011 SRMP, USGS
Phosphate as P, Total mg/L	44	0.004	0.004	0.005	2007-2011 SRMP
Phosphorus as P, Total mg/L *	44	0.008	0.007	0.009	2007-2011 SRMP
Potassium, Dissolved mg/L	15	0.67	0.54	0.85	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	2.87	2.55	3.40	2009-2010 SRMP archived samples
Specific Conductance µS/cm	52	66.5	62.0	71.0	2001-2011 SRMP, USGS
Strontium, Dissolved mg/L	15	0.020	0.018	0.025	2009-2010 SRMP archived samples
Sulfate, Total mg/L	15	4.87	4.26	4.97	2009-2010 SRMP archived samples
Temperature, Water, degrees C	52	17.75	16.70	18.60	2001-2011 SRMP, USGS
Total Dissolved Solids (TDS) mg/L	54	39.05	36.55	40.10	2006-2011 SRMP
Total Suspended Solids (TSS) mg/L *	48	1.05	0.75	1.45	2006-2011 SRMP
Turbidity NTU	53	1.42	0.85	5.00	2006-2011 SRMP

Two-tailed confidence limits were used for these EWQ targets.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

3216 ICP Delaware River at Lordville



3216 ICP
Delaware River at Lordville Bridge

3216 ICP Delaware River at Lordville

USGS Site No. 01427207 – discharge and water temperature continuous monitor.
Latitude 41.867739 Longitude -75.213816 NAD83 decimal degrees
Watershed Population figures were not calculated for main-stem Delaware River sites.
Drainage Area: 1,590 square miles, Delaware River Zone 1A

Site Specific EWQ defined 2006-2011, DRBC/NPS Scenic Rivers Monitoring Program

This site is located in the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 3312 ICP West Branch Delaware River at Hancock
Nearest downstream Interstate Control Point: 3126 ICP Delaware River at Kellams Bridge
Known dischargers within watershed: Undefined
Tributaries to upstream reach: 3310 BCP Shehawken Creek, PA; 3307 BCP East Branch Delaware River, NY; 3225 BCP Equinunk Creek, PA; small tributary 322.0 Factory Creek, PA.

No Stream Stats web site data available (drainage area too large to calculate on web site).

Flow Statistics (2007-2014 gage record):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
126,000	6,490	3,510	2,410	1,940	1,570	1,190	927	391

Existing Water Quality: 3216 ICP Delaware River at Lordville

Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	62	13.85	13.20	14.40	2006-2011 SRMP
Aluminum, Dissolved mg/L	15	0.002	0.002	0.004	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	59	0.011	0.010	0.012	2006-2011 SRMP
Barium, Dissolved mg/L	15	0.019	0.017	0.022	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	15	5.57	5.23	6.02	2009-2010 SRMP archived samples
Chloride, Total mg/L	62	9.88	9.38	10.50	2006-2011 SRMP
Dissolved Oxygen (DO) mg/L *	58	9.40	9.20	9.50	2006-2011 SRMP
Dissolved Oxygen Saturation %	40	97	96	98	2007-2011 SRMP
Enterococcus #/100ml	21	10	4	19	2007-2008 SRMP
Escherichia coli #/100ml	21	6	4	11	2007-2008 SRMP
Fecal Coliform #/100ml *	66	12	10	19	2006-2011 SRMP
Hardness as CaCO3, Total mg/L	62	21.10	20.20	23.00	2006-2011 SRMP
Magnesium, Dissolved mg/L	15	1.40	1.23	1.52	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	9.40	5.00	12.20	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	52	0.22	0.19	0.26	2007-2011 SRMP
Nitrogen as N, Total mg/L *	52	0.41	0.37	0.45	2007-2011 SRMP
Nitrogen, Kjeldahl as N, Total (TKN) mg/L	52	0.18	0.16	0.19	2007-2011 SRMP
pH units *	50	7.61	7.57	7.69	2006-2011 SRMP
Phosphate as P, Total mg/L	52	0.0028	0.0024	0.0032	2007-2011 SRMP
Phosphorus as P, Total mg/L *	52	0.0070	0.0062	0.0080	2007-2011 SRMP
Potassium, Dissolved mg/L	15	0.72	0.58	0.81	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	6.19	5.09	6.26	2009-2010 SRMP archived samples
Specific Conductance µS/cm	50	76.5	71.0	78.0	2006-2011 SRMP
Strontium, Dissolved mg/L	15	0.019	0.018	0.021	2009-2010 SRMP archived samples
Sulfate, Total mg/L	15	5.39	5.30	5.87	2009-2010 SRMP archived samples
Temperature, Water degrees C	50	16.8	15.9	17.7	2006-2011 SRMP
Total Dissolved Solids (TDS) mg/L	62	43.95	42.20	45.80	2006-2011 SRMP
Total Suspended Solids (TSS) mg/L *	57	1.90	1.35	3.50	2006-2011 SRMP
Turbidity NTU	52	4.14	1.59	6.00	2006-2011 SRMP

Two-tailed confidence limits were used for EWQ targets.

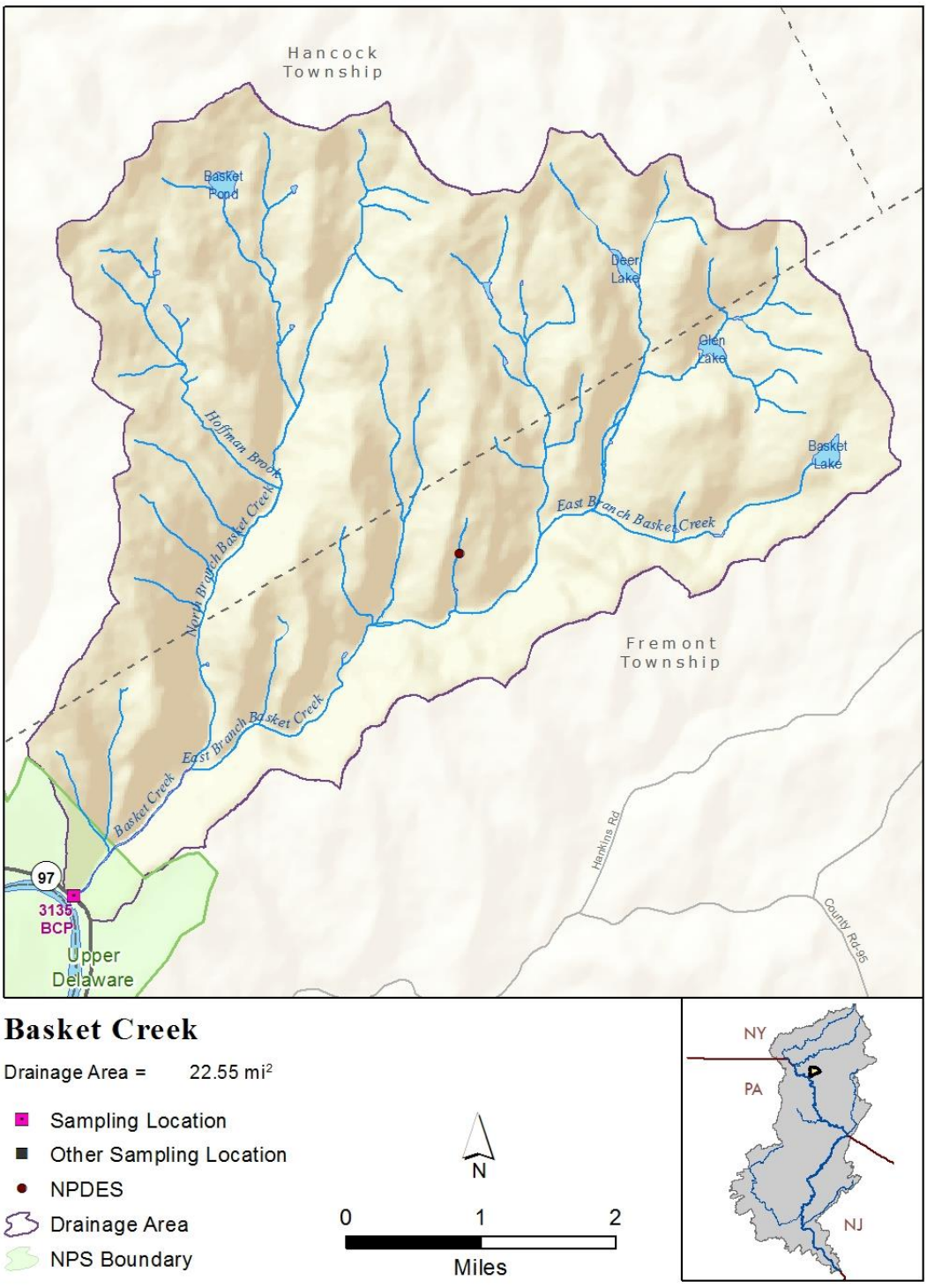
* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Data Sources:

SRMP: DRBC/NPS Scenic Rivers Monitoring Program; USGS: U.S. Geological Survey; PADEP: Pennsylvania Department of Environmental Protection; NYSDEC: New York State Department of Environmental Control

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

3135 BCP Basket Creek above Rt. 97, NY



3135 BCP Basket Creek above Rt. 97, NY

Sullivan County, New York. USGS Site No. 01427280, Latitude 41.844846 Longitude -75.113525 NAD83 decimal degrees
Watershed Population: 2000: 240 2010: 226 Change: -14 (-5.8%)
Drainage Area: 22.6 square miles, tributary to Delaware River Zone 1A

EWQ definition by USGS/NPS, partial data set only (n=11 May-September values)

This watershed is tributary to the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 3216 ICP Delaware River at Lordville
Nearest downstream Interstate Control Point: 3126 ICP Delaware River at Kellams Bridge
Known dischargers within watershed: Undefined

Watershed is 93.6% forested; urban land cover is 0.03%. 100% glaciated. No carbonate rock. Mean annual precipitation 44.5 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
2,437	100.3	57.1	35.6	27.7	16.96	9.58	4.27	0.79

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	3.66
M30D2Y (ft^3/s)	4.97
M7D10Y (ft^3/s)	1.61
M30D10Y (ft^3/s)	2.16
M90D10Y (ft^3/s)	3.46

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	41.6
QAH (ft^3/s)	10.3
BF10YR (ft^3/s)	17.6
BF25YR (ft^3/s)	15.8
BF50YR (ft^3/s)	14.8

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	988
PK5 (ft^3/s)	1,690
PK10 (ft^3/s)	2,250
PK50 (ft^3/s)	3,740
PK100 (ft^3/s)	4,439
PK500 (ft^3/s)	6,530

Existing Water Quality: 3135 BCP Basket Creek, NY (Insufficient Data)

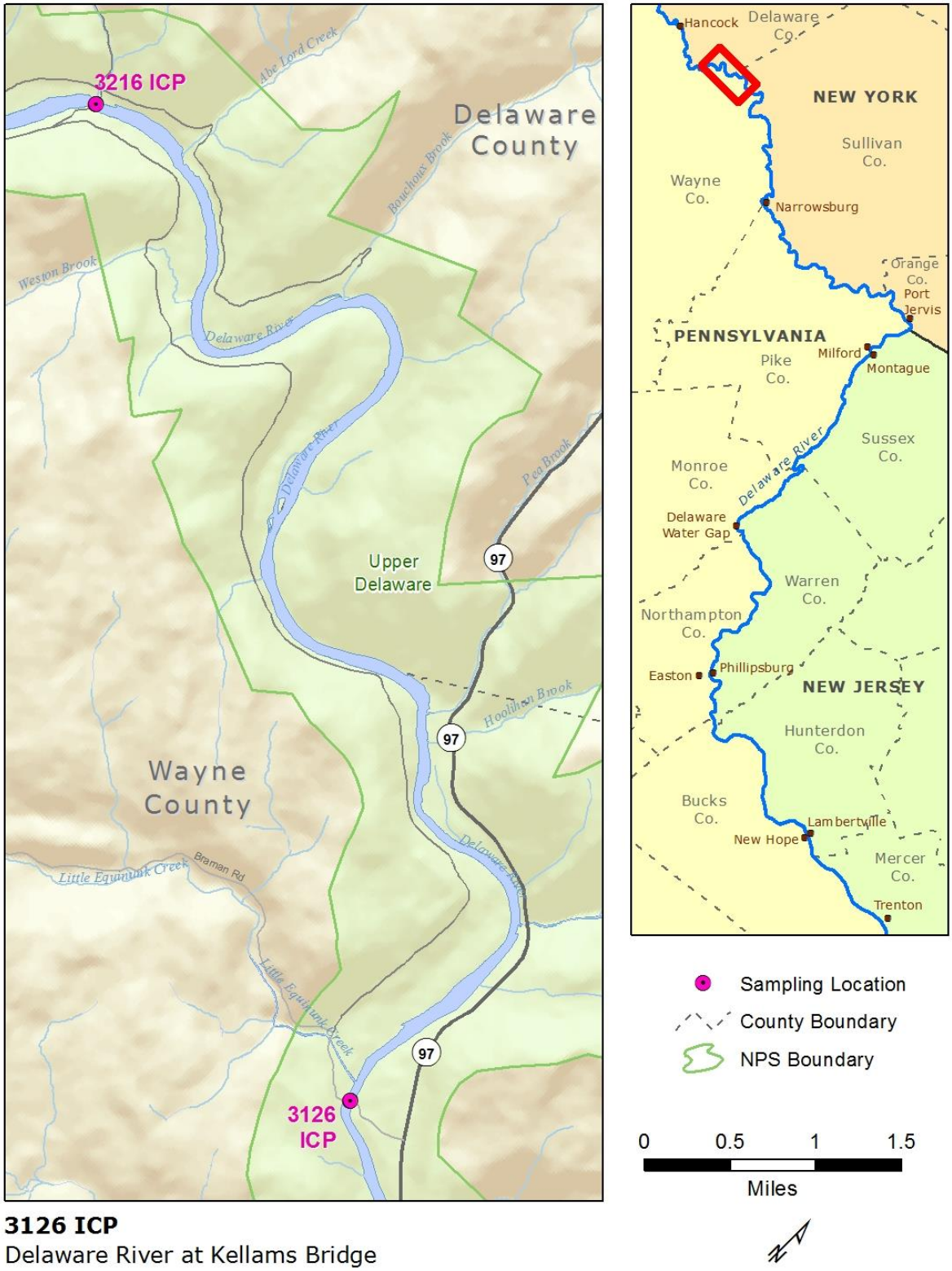
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	15	19.1	16.2	20.3	USGS 2012-2015
Ammonia as N, Dissolved mg/L *	12	<0.01	<0.01	<0.01	USGS 2012-2015 (10/12 ND)
Barium, Dissolved µg/L	12	32.5	30.0	34.1	USGS 2012-2015
Boron, Dissolved µg/L	12	5.2	4.5	5.5	USGS 2012-2015
Bromide, Dissolved mg/L	10	<0.03	<0.01	<0.03	USGS 2012-2015 (9/10 ND)
Calcium, Dissolved mg/L	14	7.68	6.44	8.88	USGS 2012-2015
Carbon Dioxide, Total mg/L	12	0.9	0.7	1.0	USGS 2012-2015 mid-day
Chloride, Dissolved mg/L	14	5.05	3.80	7.38	USGS 2012-2015
Chloride, Total mg/L					No Data
Dissolved Oxygen, mg/L *	12	9.95	9.50	10.40	USGS 2012-2015 mid-day
Dissolved Oxygen Saturation, %	12	102	101	104	USGS 2012-2015 mid-day
Fecal Coliform, #/100 ml *					No Data
Fluoride, Dissolved mg/L	12	<0.04	<0.04	<0.04	USGS 2012-2015
Hardness as CaCo3, Total mg/L	14	23.5	20.0	27.2	USGS 2012-2015
Iron, Dissolved µg/L	12	5.9	4.0	12.7	USGS 2012-2015
Lithium, Dissolved µg/L	12	0.58	0.42	0.70	USGS 2012-2015
Magnesium, Dissolved mg/L	14	1.045	0.907	1.210	USGS 2012-2015
Manganese, Dissolved µg/L	12	2.79	2.12	3.60	USGS 2012-2015
Nitrate as N, Dissolved mg/L	14	0.246	0.168	0.305	USGS 2012-2015 by algorithm
Nitrate + Nitrite as N, Dissolved mg/L *	12	0.246	0.201	0.278	USGS 2012-2015
Nitrogen as N, Total, mg/L *	12	0.350	0.300	0.390	USGS 2012-2015 by algorithm
Nitrogen, Kjeldahl as N, Total mg/L	12	0.095	0.07	0.12	USGS 2012-2015 (2/12 ND)
pH, standard units *	12	7.65	7.50	7.80	USGS 2012-2015 mid-day
Phosphate as P, Dissolved mg/L	12	0.005	0.004	0.007	USGS 2012-2015
Phosphorus as P, Total mg/L *	12	<0.02	<0.02	<0.02	USGS 2012-2015 (11/12 ND)
Potassium, Dissolved mg/L	14	0.61	0.53	0.69	USGS 2012-2015
Silica, Dissolved mg/L	14	2.56	2.05	2.78	USGS 2012-2015
Sodium, Dissolved mg/L	14	3.49	2.87	4.69	USGS 2012-2015
Specific Conductance, µS/cm	14	66	61	75	USGS 2012-2015
Strontium, Dissolved µg/L	12	28.7	25.7	33.8	USGS 2012-2015
Sulfate as SO4, Dissolved mg/L	14	4.29	3.87	4.74	USGS 2012-2015
Temperature, Water, Degrees C	14	17.6	15.3	19.5	USGS 2012-2015 mid-day
Total Dissolved Solids, mg/L	12	38.5	34.0	45.0	USGS 2012-2015
Total Suspended Solids, mg/L *					No Data
Turbidity, NTU	12	0.55	0.20	1.00	USGS 2012-2015

The concentrations shown above are based upon seasonal May through September mid-day grab samples. Additional data are available for non-seasonal October through April targets. For parameters that vary throughout each day (CO2, DO, DO%, pH, water temperature) these values best represent daily maximum concentrations.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

This table will be updated by DRBC and NPS with two more years of monitoring necessary for full EWQ definition: samples will be taken bi-weekly (twice per month) during the May through September periods of 2016-2017, adding 20 more results to the N listed for each parameter.

3126 ICP Delaware River at Kellams Bridge



3126 ICP
Delaware River at Kellams Bridge

3126 ICP Delaware River at Kellams Bridge

This location is also known as Little Equinunk Bridge.
No USGS or State monitoring sites. Latitude 41.823501 Longitude -75.113582 by GPS NAD83 decimal degrees.
Watershed Population figures were not calculated for main-stem Delaware River sites.
Drainage Area: 1,670 square miles, Delaware River Zone 1A

Site Specific EWQ defined 2007-2011, DRBC/NPS Scenic Rivers Monitoring Program

This site is located in the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 3216 ICP Delaware River at Lordville
Nearest downstream Interstate Control Point: 3037 ICP Delaware River at Callicoon
Known dischargers within watershed: Undefined
Tributaries to upstream reach: Small tributaries 321.0 Humphries Brook, NY; 320.4 Abe Lord Brook, NY; 319.5 Weston Brook, PA; 318.3 Bouchoux Brook, NY; 316.0 Pea Brook, NY; 314.3 Hoolihan Brook, NY; Major tributary 3135 BCP Basket Creek, NY..

No Stream Stats web site data available (drainage area too large to calculate on web site).

Flow Statistics (calculated):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
61,233	6,816	3,676	2,531	2,027	1,638	1,239	973	411

Existing Water Quality: 3126 ICP Delaware River at Kellams Bridge

Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	61	13.70	13.40	14.40	2006-2011 SRMP
Aluminum, Dissolved mg/L	15	0.003	0.002	0.005	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	60	0.011	0.010	0.013	2006-2011 SRMP
Barium, Dissolved mg/L	15	0.018	0.016	0.021	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	15	5.60	4.93	6.07	2009-2010 SRMP archived samples
Chloride, Total mg/L	61	9.65	9.30	10.40	2006-2011 SRMP
Dissolved Oxygen (DO) mg/L *	52	9.15	8.80	9.50	2006-2011 SRMP
Dissolved Oxygen Saturation %	40	98.00	97.00	98.00	2007-2011 SRMP
Enterococcus #/100ml	23	41	5	220	2007-2008 SRMP
Escherichia coli #/100ml	23	4	3	9	2007-2008 SRMP
Fecal Coliform #/100ml *	64	8	6	16	2006-2011 SRMP
Hardness as CaCO3, Total mg/L	61	21.60	19.80	23.20	2006-2011 SRMP
Magnesium, Dissolved mg/L	15	1.34	1.19	1.48	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	5.70	3.40	9.60	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	57	0.203	0.173	0.225	2007-2011 SRMP
Nitrogen as N, Total mg/L *	57	0.385	0.366	0.427	2007-2011 SRMP
Nitrogen, Kjeldahl as N, Total (TKN) mg/L	57	0.176	0.164	0.193	2007-2011 SRMP
Phosphate as P, Total mg/L	57	0.003	0.002	0.003	2007-2011 SRMP
pH units *	44	7.74	7.68	7.80	2006-2011 SRMP
Phosphorus as P, Total mg/L *	57	0.007	0.006	0.008	2007-2011 SRMP
Potassium, Dissolved mg/L	15	0.70	0.60	0.85	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	5.63	5.00	6.25	2009-2010 SRMP archived samples
Specific Conductance µS/cm	44	77	69	80	2006-2011 SRMP
Strontium, Dissolved mg/L	15	0.020	0.017	0.022	2009-2010 SRMP archived samples
Sulfate, Total mg/L	15	5.34	5.25	5.58	2009-2010 SRMP archived samples
Temperature degrees C	44	17.70	16.80	18.90	2006-2011 SRMP
Total Dissolved Solids (TDS) mg/L	61	42.98	42.20	44.00	2006-2011 SRMP
Total Suspended Solids (TSS) mg/L *	58	1.4	1.08	1.85	2006-2011 SRMP
Turbidity NTU	46	3.42	1.34	5.97	2006-2011 SRMP

Two-tailed confidence limits were used for EWQ targets.

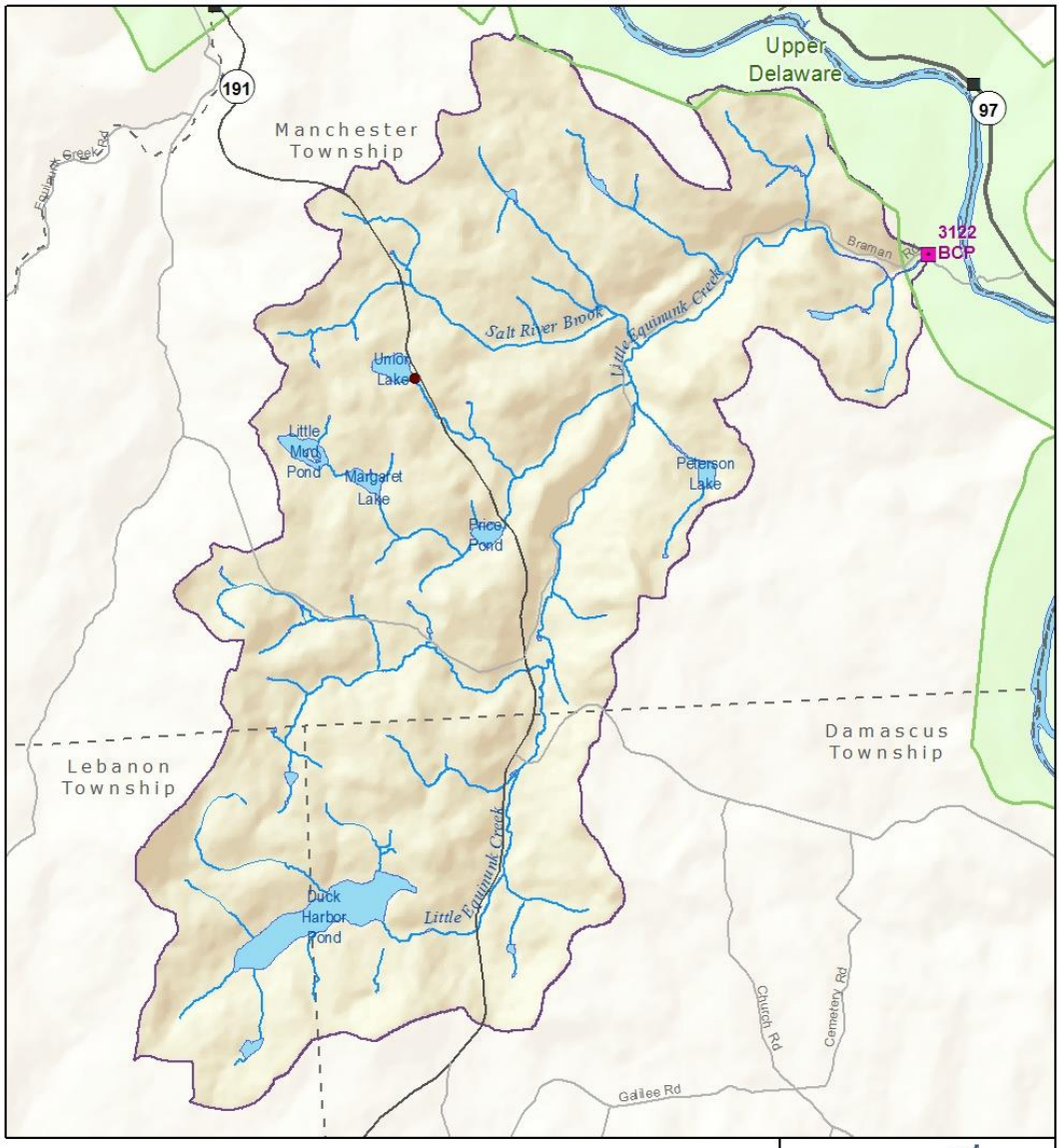
* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Data Sources:

SRMP: DRBC/NPS Scenic Rivers Monitoring Program; USGS: U.S. Geological Survey; PADEP: Pennsylvania Department of Environmental Protection; NYSDEC: New York State Department of Environmental Control

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

3122 BCP Little Equinunk Creek, PA



Little Equinunk Creek

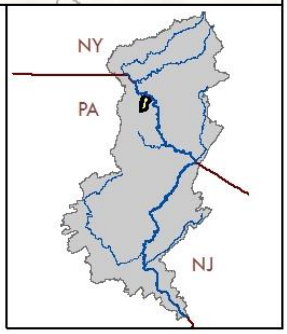
Drainage Area = 25.02 mi²

- Sampling Location
- Other Sampling Location
- NPDES
- Drainage Area
- NPS Boundary

N

0 1 2

Miles



3122 BCP Little Equinunk Creek at CR1018, PA

Wayne County, PA. USGS Site No. 01427300, Latitude 41.826213 Longitude -75.120188 NAD83
Watershed Population: 2000: 640 2010: 613 Change: -27 (-4.2%)
Drainage Area: 24.6 square miles, tributary to Delaware River Zone 1A

EWQ definition by USGS/NPS, partial data set only (n=11 May-September values)

This watershed is tributary to the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 3126 ICP Delaware River at Kellams Bridge
Nearest downstream Interstate Control Point: 3037 ICP Delaware River at Callicoon
Known dischargers within watershed: Undefined

Watershed is 85.4% forested; urban land cover is 1.13%. 100% glaciated. No carbonate rock. Mean annual precipitation 42.9 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
2,701.62	98.87	49.37	34.06	26.45	16.45	8.52	3.78	0.49

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	3.06
M30D2Y (ft^3/s)	4.23
M7D10Y (ft^3/s)	1.27
M30D10Y (ft^3/s)	1.77
M90D10Y (ft^3/s)	2.89

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	41.9
QAH (ft^3/s)	9.78
BF10YR (ft^3/s)	17.0
BF25YR (ft^3/s)	15.2
BF50YR (ft^3/s)	14.1

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	1,010
PK5 (ft^3/s)	1,720
PK10 (ft^3/s)	2,300
PK50 (ft^3/s)	3,840
PK100 (ft^3/s)	4,610
PK500 (ft^3/s)	6,750

Existing Water Quality: 3122 BCP Little Equinunk Creek, PA (Insufficient Data)

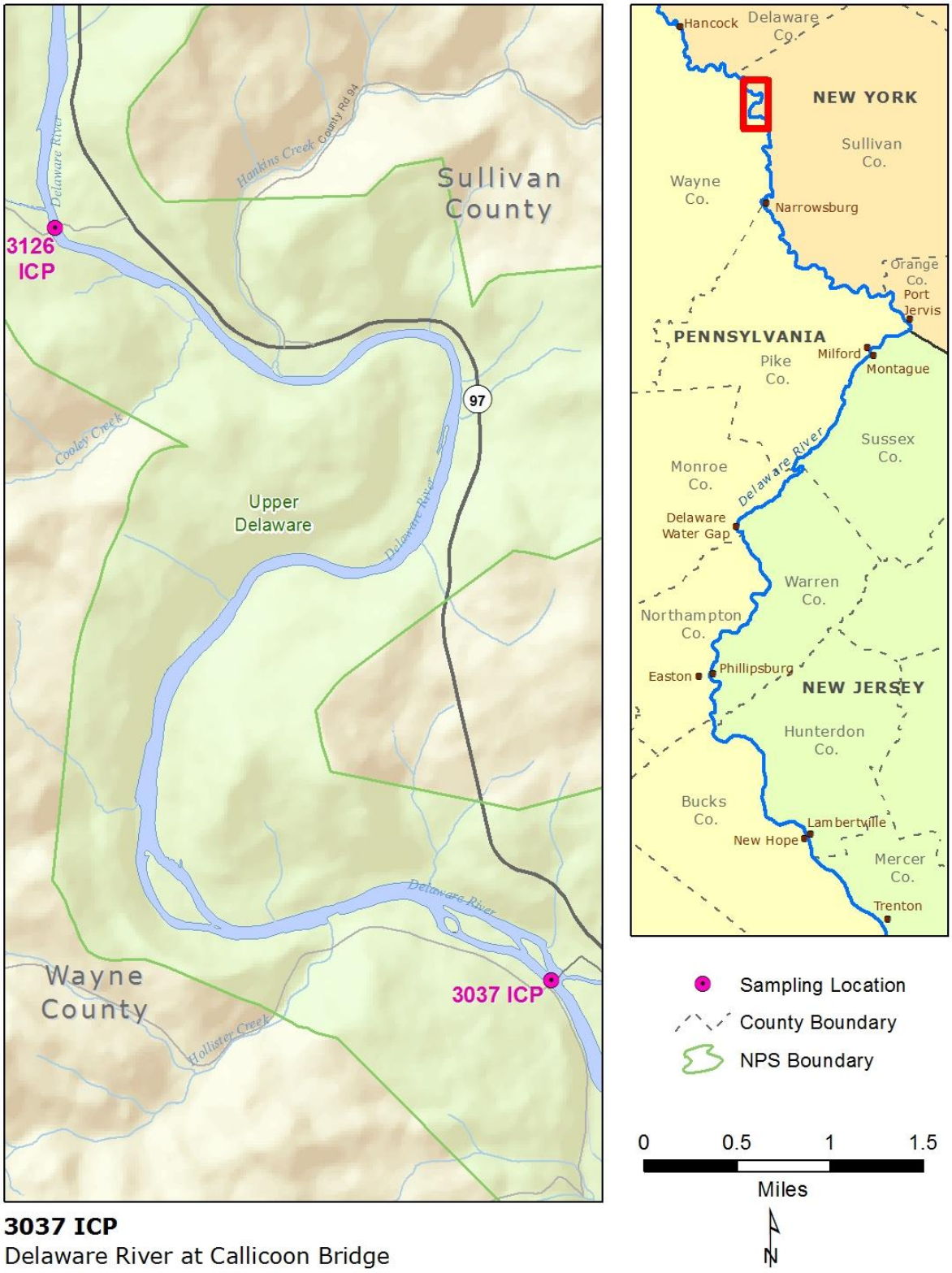
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	10	18.2	16.0	22.2	USGS 2012-2015
Ammonia as N, Dissolved mg/L *	10	<0.01	<0.01	0.02	USGS 2012-2015 (5/10 ND)
Barium, Dissolved µg/L	10	25.6	23.1	26.9	USGS 2012-2015
Boron, Dissolved µg/L	10	5.7	5.2	6.5	USGS 2012-2015
Bromide, Dissolved mg/L	8	0.026	0.011	0.03	USGS 2012-2015 (4/8 ND)
Calcium, Dissolved mg/L	10	6.79	5.42	7.55	USGS 2012-2015
Carbon Dioxide, Total mg/L	10	0.9	0.8	1.0	USGS 2012-2015 mid-day
Chloride, Dissolved mg/L	10	3.88	3.12	4.66	USGS 2012-2015
Dissolved Oxygen, mg/L *	11	9.5	9.2	10.5	USGS 2012-2015 mid-day
Dissolved Oxygen Saturation, %	11	101	99	103	USGS 2012-2015 mid-day
Fecal Coliform, #/100 ml *					No Data
Fluoride, Dissolved mg/L	10	<0.04	<0.04	0.05	USGS 2012-2015
Hardness as CaCo3, Total mg/L	10	21.2	16.8	23.6	USGS 2012-2015
Iron, Dissolved µg/L	10	20.2	13.0	50.9	USGS 2012-2015
Lithium, Dissolved µg/L	10	0.6	0.1	0.71	USGS 2012-2015 (2/10 ND)
Magnesium, Dissolved mg/L	10	1.003	0.794	1.14	USGS 2012-2015
Manganese, Dissolved µg/L	10	2.63	1.91	3.86	USGS 2012-2015
Nitrate as N, Dissolved mg/L	10	0.186	0.126	0.278	USGS 2012-2015 by algorithm
Nitrate + Nitrite as N, Dissolved mg/L *	10	0.187	0.126	0.278	USGS 2012-2015
Nitrite as N, Dissolved mg/L	10	<0.001	<0.001	0.002	USGS 2012-2015 (6/10 ND)
Nitrogen as N, Total, mg/L *	10	0.35	0.26	0.56	USGS 2012-2015 by algorithm
Nitrogen, Kjeldahl as N, Total mg/L	10	0.17	0.14	0.25	USGS 2012-2015 (2/12 ND)
Nitrogen, Organic, Total mg/L	10	0.16	0.14	0.25	USGS 2012-2015 by algorithm
pH, standard units *	11	7.6	7.5	7.6	USGS 2012-2015 mid-day
Phosphate as P, Dissolved mg/L	10	0.009	0.006	0.009	USGS 2012-2015
Phosphorus as P, Total mg/L *	10	<0.02	<0.02	0.03	USGS 2012-2015 (8/10 ND)
Potassium, Dissolved mg/L	10	0.8	0.66	0.86	USGS 2012-2015
Silica, Dissolved mg/L	10	2.05	1.62	2.18	USGS 2012-2015
Sodium, Dissolved mg/L	10	3.1	2.3	3.62	USGS 2012-2015
Specific Conductance, µS/cm	11	60	49	71	USGS 2012-2015
Strontium, Dissolved µg/L	10	28.8	22.8	29.8	USGS 2012-2015
Sulfate as SO4, Dissolved mg/L	10	3.66	3.33	4.17	USGS 2012-2015
Temperature, Water, Degrees C	11	17.9	13.9	19.7	USGS 2012-2015 mid-day
Total Dissolved Solids, mg/L	10	38	32	55	USGS 2012-2015
Total Suspended Solids, mg/L *					No Data
Turbidity, NTU	10	0.75	0.2	1.8	USGS 2012-2015

The concentrations shown above are based upon seasonal May through September mid-day grab samples. Additional data are available for non-seasonal October through April targets. For parameters that vary throughout each day (CO2, DO, DO%, pH, water temperature) these values best represent daily maximum concentrations.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

This table will be updated by DRBC and NPS with two more years of monitoring necessary for full EWQ definition: samples will be taken bi-weekly (twice per month) during the May through September periods of 2016-2017, adding 20 more results to the N listed for each parameter.

3037 ICP Delaware River at Callicoon Bridge



3037 ICP
Delaware River at Callicoon Bridge

3037 ICP Delaware River at Callicoon Bridge

USGS Site No. 01427510. Latitude 41.764722 Longitude -75.061667 by GPS NAD83 decimal degrees
PADEP Site No. WQN 0185. NYSDEC Site No. 14010053.
Watershed Population figures were not calculated for main-stem Delaware River sites.
Drainage Area: 1,710 square miles, Delaware River Zone 1A

Site Specific EWQ defined 1999-2011 with DRBC/NPS SRMP, PADEP, NYSDEC & USGS Data.

This site is located in the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 3126 ICP Delaware River at Kellams Bridge
Nearest downstream Interstate Control Point: 2984 ICP Delaware River at Damascus/Cochecton Bridge
Known dischargers within watershed: Undefined
Tributaries to upstream reach: Major tributary 3122 BCP Little Equinunk Creek, PA; small tributaries 311.1 Cooley Creek, PA; 310.6 Hankins Creek, NY; 304.7 Hollister Creek, PA.

No Stream Stats web site data available (drainage area too large to calculate on web site).

Flow Statistics (1975-2014) Delaware River at Callicoon gage data:

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
127,000	6,470	3,320	2,030	1,570	1,340	1,100	843	312

Existing Water Quality: 3037 ICP Delaware River at Callicoon Bridge

Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	70	14.75	14.00	15.00	1999-2011 SRMP, PADEP, NYSDEC
Aluminum, Dissolved mg/L	15	0.003	0.002	0.005	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	69	0.014	0.010	0.016	1999-2011 SRMP, PADEP, NYSDEC
Barium, Dissolved mg/L	14	0.021	0.018	0.030	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	42	6.23	5.91	6.55	2009-2010 SRMP archived samples
Calcium, Total mg/L	34	6.59	6.31	6.77	1999-2009 PADEP, NYSDEC
Chloride, Total mg/L	60	10.40	9.70	10.90	2005-2011 SRMP, PADEP, NYSDEC
Dissolved Oxygen (DO) mg/L *	52	9.10	9.00	9.40	2005-2011 SRMP, NYSDEC
Dissolved Oxygen Saturation %	33	97.0	97.0	98.0	2007-2011 SRMP
Enterococcus #/100ml	34	11.5	7	50	2008, 2010, 2011 SRMP
Escherichia coli #/100ml	34	7.5	5	11	2007-2008 SRMP
Fecal Coliform #/100ml *	53	16	8	20	1999-2011 SRMP, PADEP, NYSDEC
Hardness as CaCO3, Total mg/L	71	22.43	21.10	23.80	1999-2011 SRMP, PADEP, NYSDEC
Iron, Dissolved µg/L	28	25	21	29	1999-2009 PADEP, NYSDEC
Iron, Total µg/L	34	72.5	61.0	121.0	1999-2009 PADEP, NYSDEC
Magnesium, Dissolved mg/L	42	1.38	1.30	1.46	1999-2010 SRMP archived samples
Magnesium, Total mg/L	34	1.45	1.37	1.51	1999-2009 PADEP, NYSDEC
Manganese, Dissolved µg/L	42	8.95	7.60	10.90	1999-2010 SRMP, PADEP, NYSDEC
Manganese, Total µg/L	34	21.64	17.50	29.00	1999-2009 PADEP, NYSDEC
Nitrate as N, Total mg/L	31	0.065	0.054	0.180	1999-2008 PADEP, NYSDEC
Nitrate+Nitrite as N, Total mg/L *	55	0.217	0.202	0.250	2005-2011 SRMP, NYSDEC
Nitrogen as N, Total mg/L *	63	0.395	0.365	0.430	2005-2011 SRMP, PADEP
Nitrogen, Kjeldahl as N, Total (TKN) mg/L	55	0.189	0.173	0.211	2005-2011 SRMP, NYSDEC
pH units *	78	7.66	7.59	7.75	1999-2011 SRMP, PADEP, NYSDEC
Phosphate as P, Total mg/L	64	0.008	0.005	0.010	2002-2011 SRMP, PADEP
Phosphorus as P, Total mg/L *	78	0.013	0.009	0.016	1999-2011 SRMP, NYSDEC, PADEP, USGS
Potassium, Dissolved mg/L	14	0.80	0.61	1.02	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	14	6.38	4.82	7.37	2009-2010 SRMP archived samples
Specific Conductance µS/cm	78	78	76	83	1999-2011 SRMP, NYSDEC, PADEP
Strontium, Dissolved mg/L	14	0.024	0.017	0.030	2009-2010 SRMP archived samples
Sulfate, Total mg/L	14	5.60	5.24	5.88	2009-2010 SRMP archived samples
Temperature, Water Degrees C	81	18.5	17.8	19.7	1999-2011 SRMP, NYSDEC, PADEP
Total Dissolved Solids (TDS) mg/L	84	47.13	45.47	50.00	1999-2011 SRMP, NYSDEC, PADEP
Total Suspended Solids (TSS) mg/L *	67	2.00	1.80	2.80	1999-2011 SRMP, NYSDEC, PADEP
Turbidity NTU	48	1.87	1.34	4.00	2005-2011 SRMP, NYSDEC

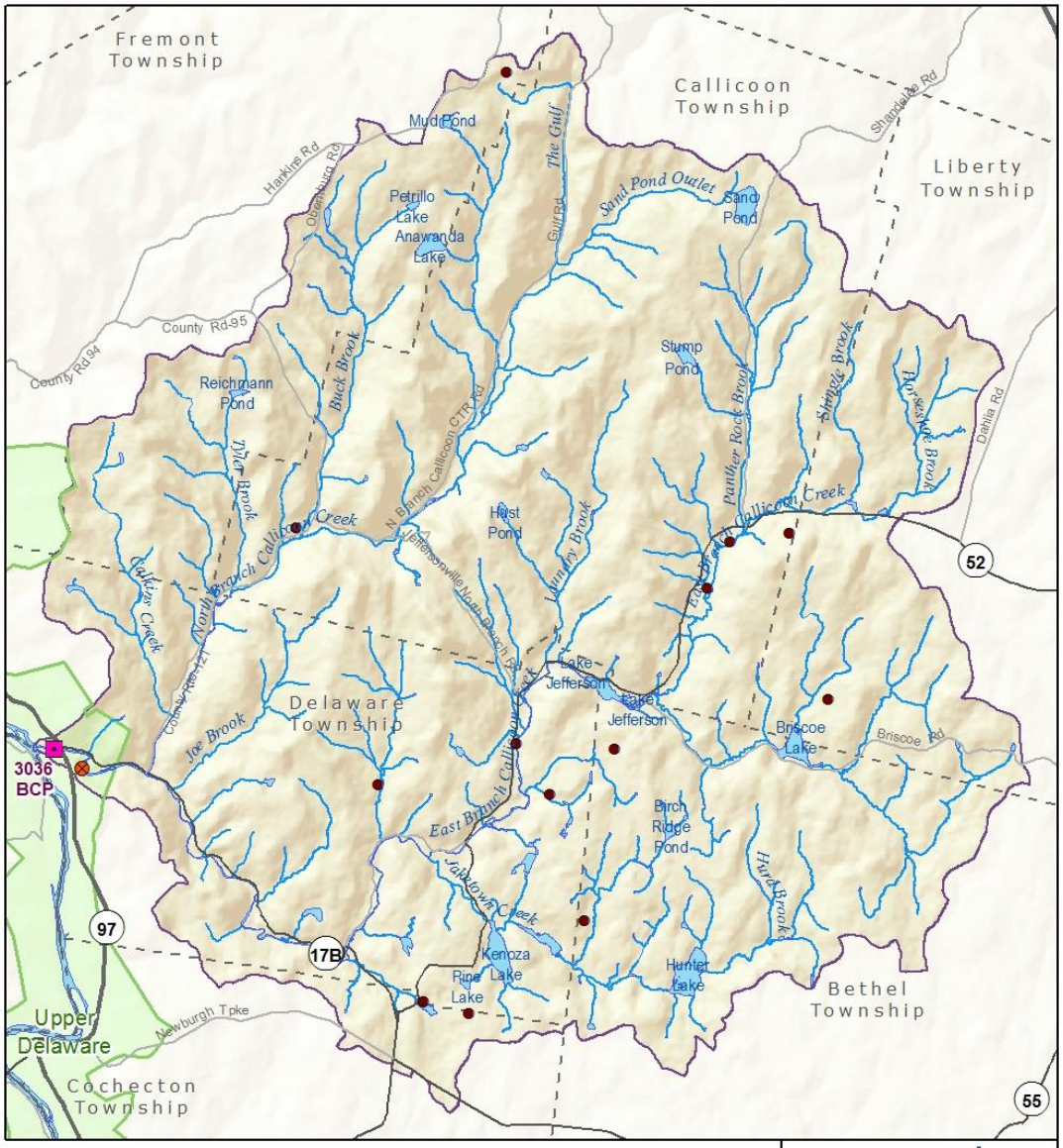
Two-tailed confidence limits were used for EWQ targets.

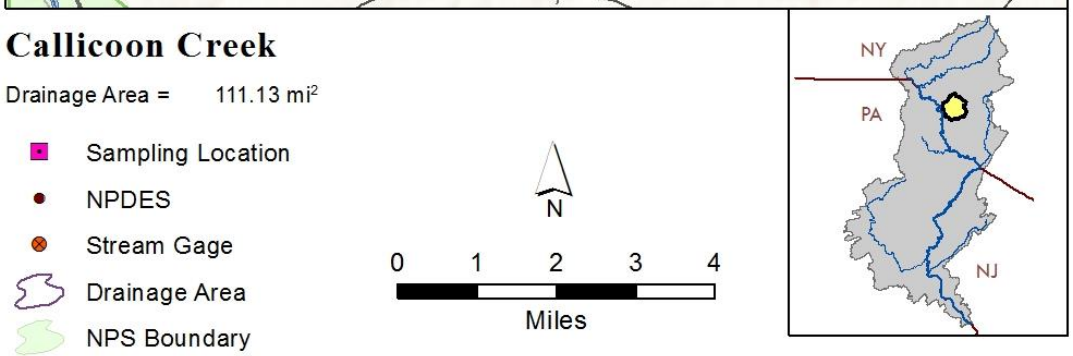
* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Data Sources: SRMP: DRBC/NPS Scenic Rivers Monitoring Program; USGS: U.S. Geological Survey ; PADEP: Pennsylvania Department of Environmental Protection; NYSDEC: New York State Department of Environmental Control

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

3036 BCP Callicoon Creek at Creamery Rd





3036 BCP Callicoon Creek at Creamery Rd

Sullivan County, NY. Latitude 41.764454 Longitude -75.055499 by GPS NAD83 decimal degrees.
USGS Site No. 01427500; NYSDEC Site No. 14011301.
Watershed Population: 2000: 6,512 2010: 6,448 Change: -64 (-1.0%)
Drainage Area: 111 square miles, tributary to Delaware River Zone 1A

Site Specific EWQ defined 2001-2011 with DRBC/NPS SRMP, NYSDEC & USGS Data.

This watershed is tributary to the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters.
Portions of the Callicoon Creek watershed are classified as Impaired by NYSDEC (2012 Integrated List).

Nearest upstream Interstate Control Point: 3037 ICP Delaware River at Callicoon
Nearest downstream Interstate Control Point: 2984 ICP Delaware River at Damascus/Cochecton Bridge
Known dischargers within watershed: Undefined

Watershed is 72% forested; urban land cover is 1.65%. 100% glaciated. No carbonate rock. Mean annual precipitation 44.8 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
11,104	495	269	178	140	90.8	54.1	25.9	4.88

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	16.4
M30D2Y (ft^3/s)	21.8
M7D10Y (ft^3/s)	7.86
M30D10Y (ft^3/s)	10.7
M90D10Y (ft^3/s)	16.1

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	197
QAH (ft^3/s)	53.7
BF10YR (ft^3/s)	75.6
BF25YR (ft^3/s)	67.4
BF50YR (ft^3/s)	62.6

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	3,770
PK5 (ft^3/s)	6,230
PK10 (ft^3/s)	8,180
PK50 (ft^3/s)	13,400
PK100 (ft^3/s)	16,000
PK500 (ft^3/s)	23,100

Existing Water Quality: 3036 BCP Callicoon Creek at Creamery Rd

Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	55	19.32	17.60	22.40	2005-2011 SRMP, NYSDEC
Aluminum, Dissolved, mg/L	15	0.005	0.002	0.006	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	54	0.018	0.014	0.020	2005-2011 SRMP, NYSDEC, USGS
Barium, Dissolved mg/L	15	0.040	0.033	0.046	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	24	8.18	7.01	9.91	2001,2007 USGS,2009-2010 SRMP archv
Chloride, Total mg/L	46	17.25	15.20	18.90	2005-2011 SRMP, NYSDEC
Dissolved Oxygen (DO) mg/L *	46	9.30	9.00	9.80	2001-2011 SRMP,NYSDEC, USGS
Dissolved Oxygen Saturation %	32	98	96	100	2001-2011 SRMP, USGS
Enterococcus #/100ml	34	46	16	120	2008, 2010, 2011 SRMP
Escherichia coli #/100ml	34	41	24	70	2008, 2010, 2011 SRMP
Fecal coliform #/100ml *	38	94	60	140	2005 NYSDEC, 2008-2011 SRMP
Hardness as CaCO3, Total mg/L	57	28.2	26.0	32.2	2001-2011 SRMP, NYSDEC
Magnesium, Dissolved mg/L	15	1.66	1.33	1.91	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	4.3	3.4	9.2	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	48	0.346	0.279	0.387	2005-2011 SRMP, NYSDEC
Nitrogen as N, Total mg/L *	44	0.646	0.590	0.690	2001-2011 SRMP, USGS
Nitrogen, Kjeldahl as N, Total mg/L	50	0.279	0.242	0.309	2001-2011 SRMP, NYSDEC, USGS
pH units *	44	7.94	7.81	8.14	2001-2011 SRMP, NYSDEC,USGS
Phosphate as P, Total mg/L	42	0.023	0.019	0.028	2008-2011 SRMP
Phosphorus as P, Total mg/L *	59	0.034	0.024	0.036	2001-2011 SRMP, NYSDEC, USGS
Potassium, Dissolved mg/L	15	1.40	1.23	1.69	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	10.03	8.78	11.91	2009-2010 SRMP archived samples
Specific Conductance µS/cm	44	113.5	106.0	128.0	2001-2011 SRMP, NYSDEC, USGS
Strontium, Dissolved mg/L	15	0.043	0.034	0.048	2009-2010 SRMP archived samples
Sulfate, Total mg/L	21	6.50	5.90	7.13	2005 NYSDEC, 2009-2010 SRMP archived
Temperature, Water, degrees C	47	18.2	17.1	19.4	2001-2011 SRMP,NYSDEC, USGS
Total Dissolved Solids (TDS) mg/L	50	64.07	60.82	68.98	2001-2011 SRMP,NYSDEC, USGS
Total Suspended Solids (TSS) mg/L *	57	1.85	1.45	2.00	2005-2011 SRMP, NYSDEC, USGS
Turbidity NTU	45	1.22	0.88	2.00	2001-2011 SRMP,NYSDEC, USGS

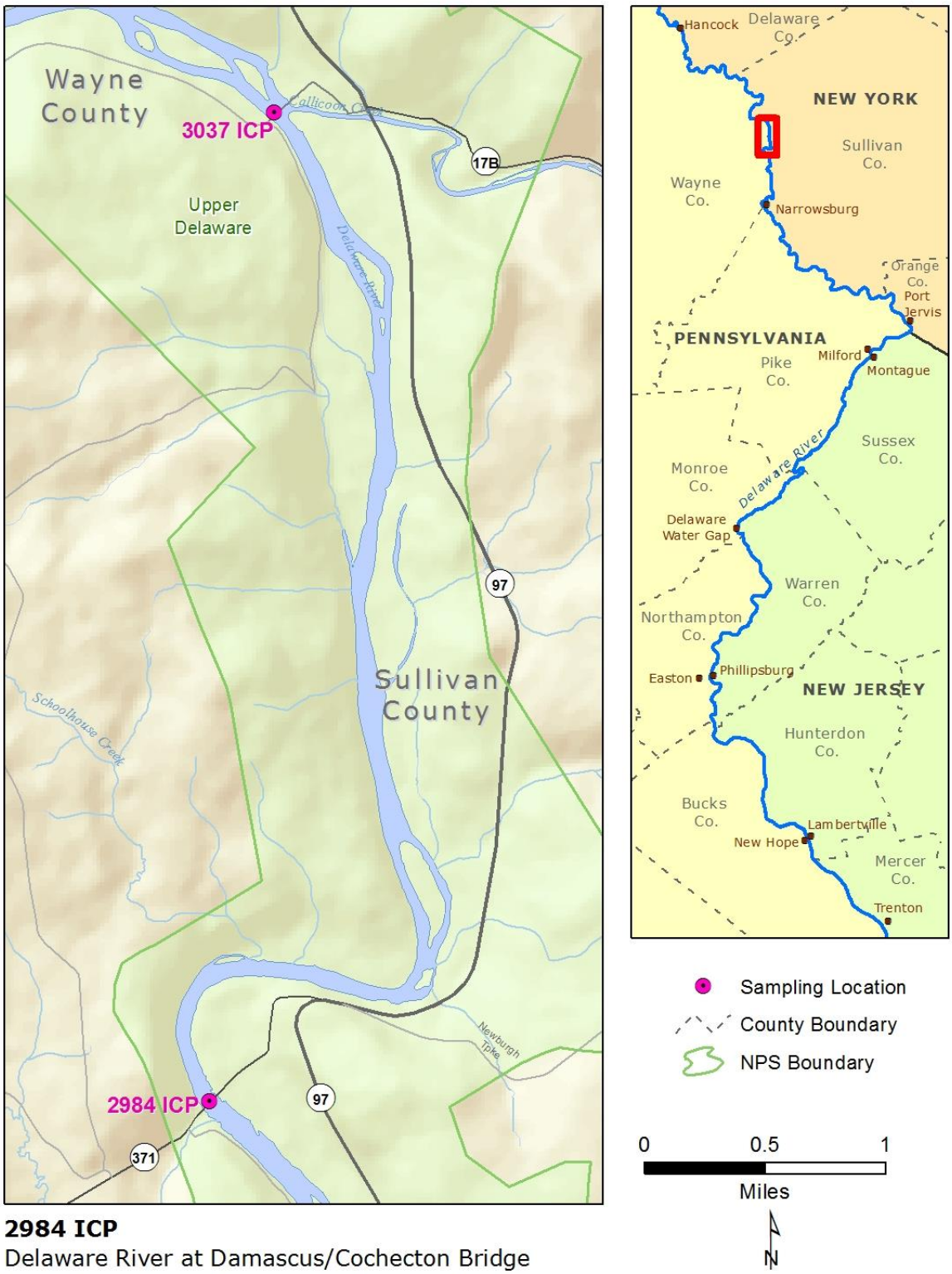
Two-tailed confidence limits were used for these EWQ targets.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Data Sources: SRMP: DRBC/NPS Scenic Rivers Monitoring Program; USGS: U.S. Geological Survey; PADEP: Pennsylvania Department of Environmental Protection; NYSDEC: New York State Department of Environmental Control

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2984 ICP Delaware River at Damascus/Cochecton Bridge



2984 ICP
Delaware River at Damascus/Cochecton Bridge

2984 ICP Delaware River at Damascus/Cochecton Bridge

Latitude 41.704993 Longitude -75.066787 by GPS NAD83 decimal degrees.
No other agencies monitor this site
Watershed Population figures were not calculated for main-stem Delaware River sites.
Drainage Area: 1,840 square miles, Delaware River Zone 1A

Site Specific EWQ defined 2006-2011 by the DRBC/NPS Scenic Rivers Monitoring Program.

This site is located in the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 3037 ICP Delaware River at Callicoon
Nearest downstream Interstate Control Point: 2899 ICP Delaware River at Narrowsburg
Known dischargers within watershed: Undefined
Tributaries to upstream reach: Major tributary 3036 BCP Callicoon Creek, NY; small tributary 299.0 Schoolhouse Creek, PA.

No Stream Stats web site data available (drainage area too large to calculate on web site).

Flow Statistics (Calculated):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
128,396	6,551	3,356	2,052	1,597	1,365	1,122	852	315

Existing Water Quality: 2984 ICP Delaware River at Damascus/Cochecton Bridge

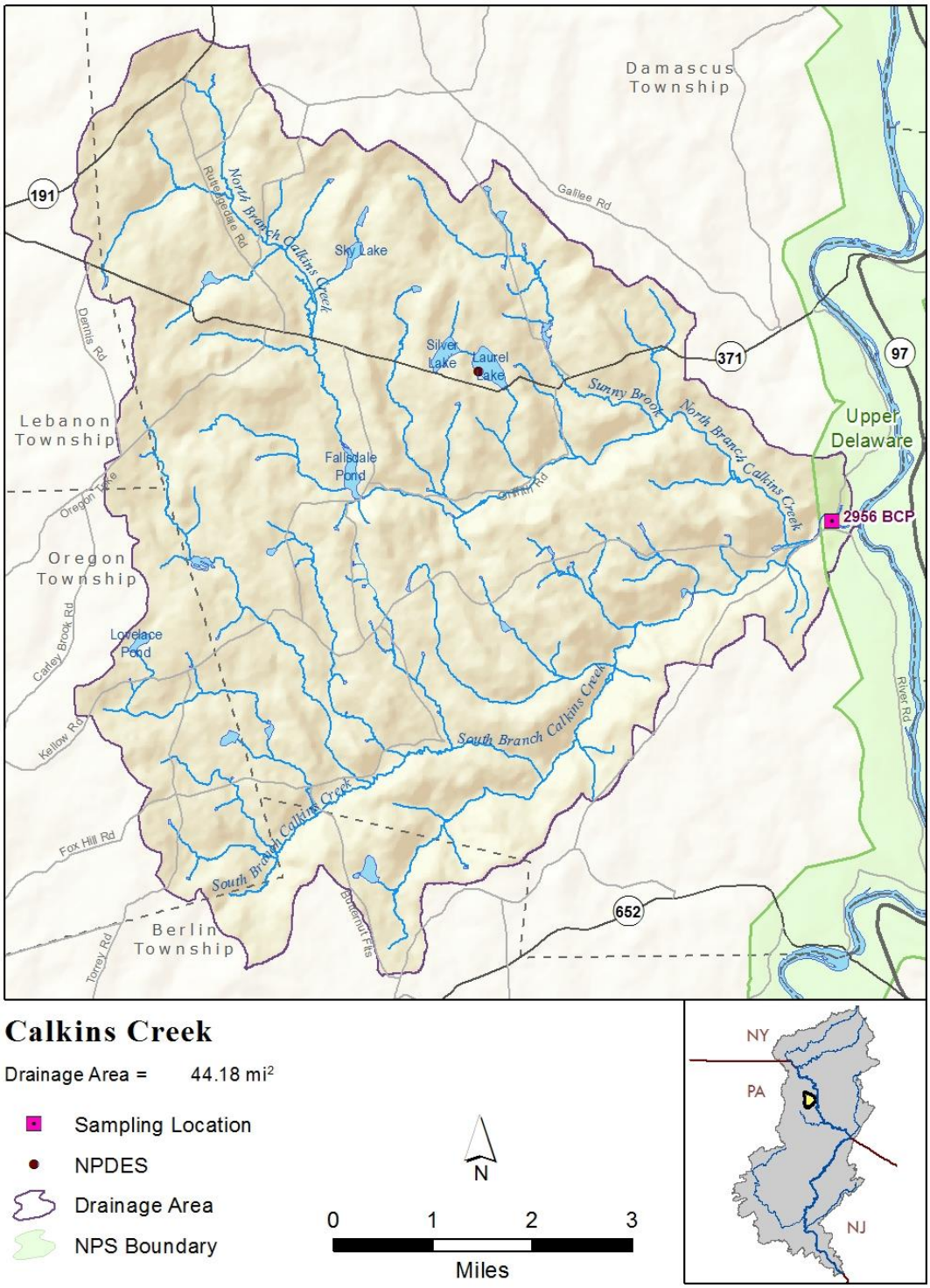
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	62	14.55	13.90	14.80	2006-2011 SRMP
Aluminum, Dissolved, mg/L	15	0.004	0.003	0.005	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	60	0.011	0.009	0.013	2006-2011 SRMP
Barium, Dissolved mg/L	15	0.020	0.018	0.025	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	15	5.70	5.05	6.32	2009-2010 SRMP archived samples
Chloride, Total mg/L	63	10.07	9.50	10.70	2006-2011 SRMP
Dissolved Oxygen (DO) mg/L *	58	9.01	8.50	9.20	2006-2011 SRMP
Dissolved Oxygen Saturation %	40	97	96	98	2006-2011 SRMP
Enterococcus #/100ml	43	13	8	21	2007-2011 SRMP
Escherichia coli #/100ml	43	10	4	12	2007-2011 SRMP
Fecal coliform #/100ml *	65	12	10	18	2006-2011 SRMP
Hardness as CaCO3, Total mg/L	63	21.8	20.6	23.6	2006-2011 SRMP
Magnesium, Dissolved mg/L	15	1.41	1.22	1.48	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	5.10	4.00	8.10	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	53	0.192	0.185	0.232	2007-2011 SRMP
Nitrogen as N, Total mg/L *	53	0.391	0.368	0.418	2007-2011 SRMP
Nitrogen, Kjeldahl as N, Total mg/L	53	0.189	0.168	0.207	2007-2011 SRMP
pH units *	50	7.70	7.62	7.80	2006-2011 SRMP
Phosphate as P, Total mg/L	53	0.004	0.003	0.004	2007-2011 SRMP
Phosphorus as P, Total mg/L *	53	0.009	0.007	0.010	2007-2011 SRMP
Potassium, Dissolved mg/L	15	0.79	0.72	0.84	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	5.93	5.65	6.46	2009-2010 SRMP archived samples
Specific Conductance µS/cm	50	78.0	74.0	83.0	2006-2011 SRMP
Strontium, Dissolved mg/L	15	0.022	0.020	0.023	2009-2010 SRMP archived samples
Sulfate, Total mg/L	15	5.48	5.32	5.65	2009-2010 SRMP archived samples
Temperature, Water, degrees C	50	18.50	17.30	19.80	2006-2011 SRMP
Total Dissolved Solids (TDS) mg/L	62	44.53	43.00	46.10	2006-2011 SRMP
Total Suspended Solids (TSS) mg/L *	55	1.70	1.40	2.45	2006-2011 SRMP
Turbidity NTU	54	2.76	1.92	7.00	2006-2011 SRMP

Two-tailed confidence limits were used for these EWQ targets.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2956 BCP Calkins Creek at Rt. 1004



2956 BCP Calkins Creek at Rt. 1004

Wayne County, PA. Latitude 41.672618 Longitude -75.064856 by GPS NAD83 decimal degrees.
USGS Site No. 01427700.
Watershed Population: 2000: 1,707 2010: 1,631 Change: -76 (-4.4%)
Drainage Area: 44 square miles, tributary to Delaware River Zone 1A

Site Specific EWQ defined 2009-2011 by DRBC/NPS Scenic Rivers Monitoring Program & USGS Data.

This watershed is tributary to the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters.

Nearest upstream Interstate Control Point: 2984 ICP Delaware River at Damascus/Cochecton Bridge
Nearest downstream Interstate Control Point: 2899 ICP Delaware River at Narrowsburg
Known dischargers within watershed: Undefined

Watershed is 76.4% forested; urban land cover is 0.15%. 100% glaciated. No carbonate rock. Mean annual precipitation 44.1 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
4,638	169	82.9	57.4	44.6	28.5	15.1	6.82	0.92

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	4.71
M30D2Y (ft^3/s)	6.51
M7D10Y (ft^3/s)	1.96
M30D10Y (ft^3/s)	2.77
M90D10Y (ft^3/s)	4.49

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	69.5
QAH (ft^3/s)	16.0
BF10YR (ft^3/s)	26.8
BF25YR (ft^3/s)	23.8
BF50YR (ft^3/s)	22.0

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	1,750
PK5 (ft^3/s)	2,950
PK10 (ft^3/s)	3,910
PK50 (ft^3/s)	6,440
PK100 (ft^3/s)	7,710
PK500 (ft^3/s)	11,200

Existing Water Quality: 2956 BCP Calkins Creek at Rt. 1004

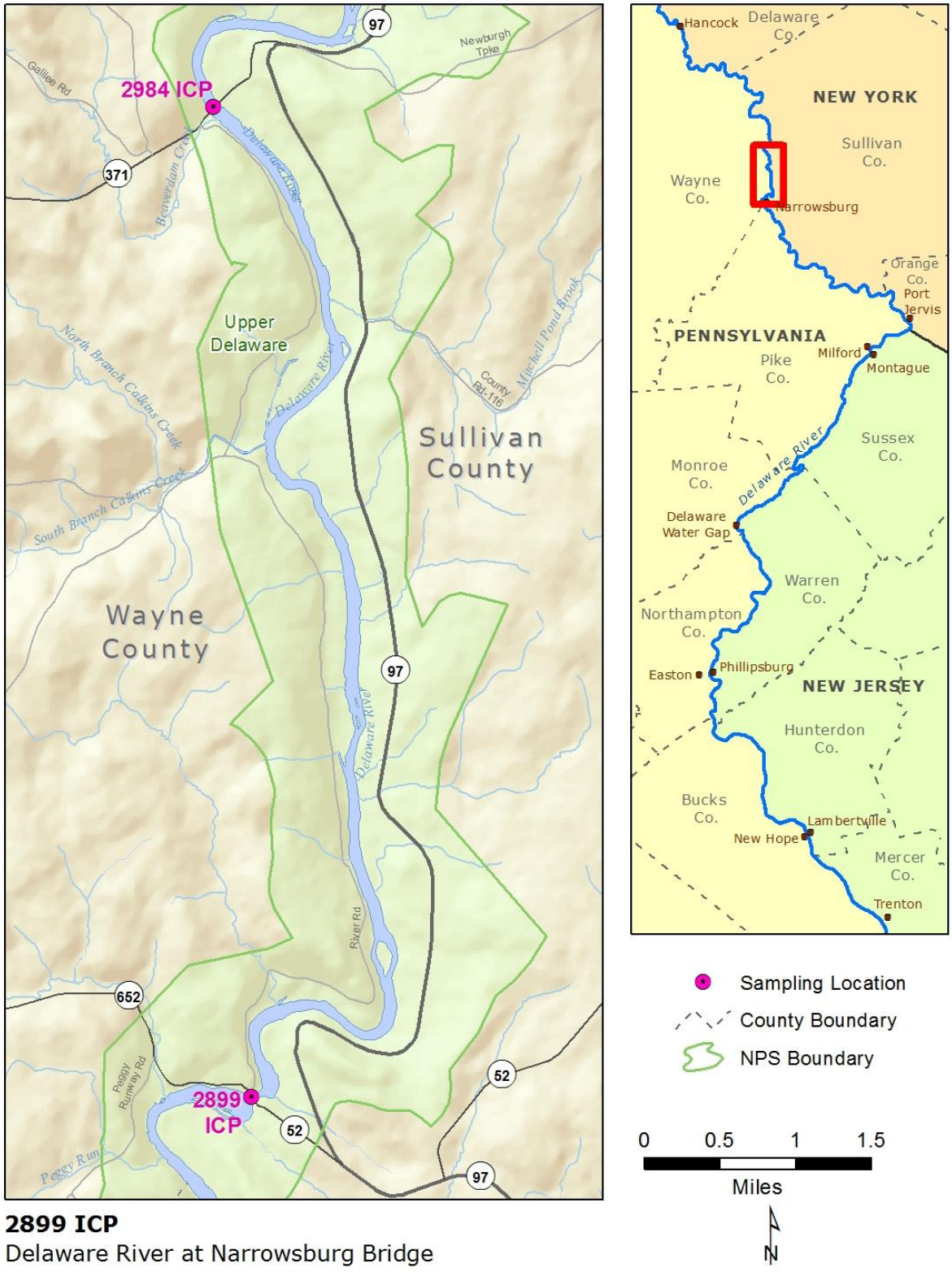
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	31	22.7	17.7	24.7	2009-2011 SRMP
Aluminum, Dissolved, mg/L	15	0.004	0.003	0.005	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	30	0.010	0.009	0.013	2009-2011 SRMP
Barium, Dissolved mg/L	15	0.027	0.025	0.029	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	15	7.00	6.33	7.30	2009-2010 SRMP archived samples
Chloride, Total mg/L	31	5.57	4.87	6.03	2009-2011 SRMP
Dissolved Oxygen (DO) mg/L *	30	9.45	9.10	9.80	2009-2011 SRMP
Dissolved Oxygen Saturation %	30	97.5	95.0	98.0	2009-2011 SRMP
Enterococcus #/100ml	20	40	14	170	2010-2011 SRMP
Escherichia coli #/100ml	20	26	17	50	2010-2011 SRMP
Fecal coliform #/100ml *	32	49	26	66	2009-2011 SRMP
Hardness as CaCO3, Total mg/L	31	26.2	22.8	28.8	2009-2011 SRMP
Magnesium, Dissolved mg/L	15	1.35	1.09	1.51	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	2.90	1.60	4.30	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	31	0.163	0.145	0.182	2009-2011 SRMP
Nitrogen as N, Total mg/L *	31	0.392	0.362	0.449	2009-2011 SRMP
Nitrogen, Kjeldahl as N, Total mg/L	31	0.245	0.207	0.270	2009-2011 SRMP
pH units *	30	7.77	7.70	7.84	2009-2011 SRMP
Phosphate as P, Total mg/L	31	0.021	0.018	0.022	2009-2011 SRMP
Phosphorus as P, Total mg/L *	39	0.028	0.024	0.031	2007-2011 SRMP, USGS
Potassium, Dissolved mg/L	15	1.07	0.87	1.17	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	3.73	3.16	4.24	2009-2010 SRMP archived samples
Specific Conductance µS/cm	30	74.5	69.0	80.0	2009-2011 SRMP
Strontium, Dissolved mg/L	15	0.032	0.029	0.035	2009-2010 SRMP archived samples
Sulfate, Total mg/L	15	4.97	4.58	5.26	2009-2010 SRMP archived samples
Temperature, Water, degrees C	37	17.2	15.5	18.5	2007-2011 SRMP, USGS
Total Dissolved Solids (TDS) mg/L	31	46.47	44.05	49.17	2009-2011 SRMP
Total Suspended Solids (TSS) mg/L *	31	1.90	1.25	2.80	2009-2011 SRMP
Turbidity NTU	32	0.98	0.80	1.38	2009-2011 SRMP

Two-tailed confidence limits were used for these EWQ targets.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2899 ICP Delaware River at Narrowsburg



2899 ICP
Delaware River at Narrowsburg Bridge

2899 ICP Delaware River at Narrowsburg

Latitude 41.609682 Longitude -75.061835 by GPS NAD83 decimal degrees.
USGS Site No. 01427750
Watershed Population figures were not calculated for main-stem Delaware River sites.
Drainage Area: 1,910 square miles, Delaware River Zone 1B

Site Specific EWQ defined 2006-2011 by the DRBC/NPS Scenic Rivers Monitoring Program.

This site is located in the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 2984 ICP Delaware River at Damascus/Cochecton Bridge
Nearest downstream Interstate Control Point: 2792 ICP Delaware River at USGS Barryville Gage 01428500
Known dischargers within watershed: Undefined
Tributaries to upstream reach: Major tributary 2956 BCP Calkins Creek, PA; small tributaries 298.2 Beaverdam Creek, PA; 296.8 Mitchell Pond Brook, NY.

No Stream Stats web site data available (drainage area too large to calculate on web site).

Flow Statistics (Calculated):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
133,280	6,790	3,484	2,130	1,648	1,406	1,154	885	327

Existing Water Quality: 2899 ICP Delaware River at Narrowsburg

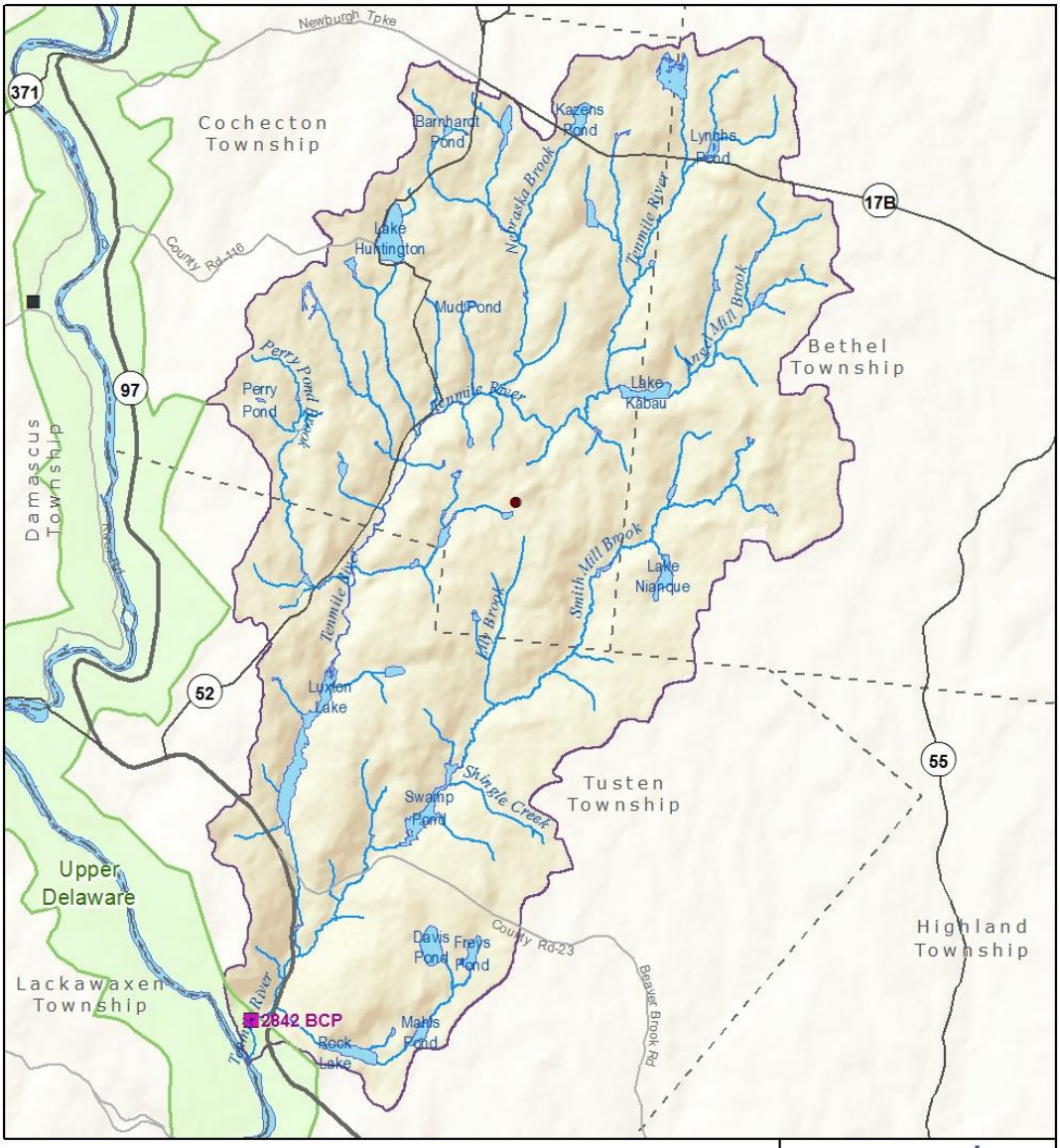
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	67	14.2	13.7	14.4	2006-2011 SRMP
Aluminum, Dissolved, mg/L	15	0.004	0.003	0.006	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	64	0.014	0.011	0.016	2006-2011 SRMP
Barium, Dissolved mg/L	15	0.021	0.020	0.024	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	15	6.12	5.77	6.28	2009-2010 SRMP archived samples
Chloride, Total mg/L	67	10.0	9.5	10.6	2006-2011 SRMP
Dissolved Oxygen (DO) mg/L *	58	8.91	8.70	9.40	2006-2011 SRMP
Dissolved Oxygen Saturation %	40	97	96	98	2007-2011 SRMP
Enterococcus #/100ml	44	12	7	35	2007-2011 SRMP
Escherichia coli #/100ml	44	11	6	20	2007-2011 SRMP
Fecal coliform #/100ml *	62	14	10	24	2006-2011 SRMP
Hardness as CaCO3, Total mg/L	67	21.6	20.6	22.2	2006-2011 SRMP
Magnesium, Dissolved mg/L	15	1.36	1.29	1.51	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	8.00	5.20	12.50	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	56	0.177	0.157	0.210	2007-2011 SRMP
Nitrogen as N, Total mg/L *	57	0.374	0.349	0.395	2007-2011 SRMP
Nitrogen, Kjeldahl as N, Total mg/L	57	0.200	0.185	0.217	2007-2011 SRMP
pH units *	50	7.68	7.58	7.73	2006-2011 SRMP
Phosphate as P, Total mg/L	56	0.004	0.003	0.005	2007-2011 SRMP
Phosphorus as P, Total mg/L *	57	0.008	0.007	0.010	2007-2011 SRMP
Potassium, Dissolved mg/L	15	0.79	0.64	0.87	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	6.04	5.16	6.48	2009-2010 SRMP archived samples
Specific Conductance µS/cm	50	79.0	72.0	83.0	2006-2011 SRMP
Strontium, Dissolved mg/L	15	0.022	0.020	0.024	2009-2010 SRMP archived samples
Sulfate, Total mg/L	14	5.59	5.36	5.83	2009-2010 SRMP archived samples
Temperature, Water, degrees C	50	18.65	17.30	20.70	2005-2011 SRMP
Total Dissolved Solids (TDS) mg/L	67	44.45	43.10	45.30	2006-2011 SRMP
Total Suspended Solids (TSS) mg/L *	59	1.90	1.50	2.32	2006-2011 SRMP
Turbidity NTU	53	3.49	1.81	7.00	2006-2011 SRMP

Two-tailed confidence limits were used for these EWQ targets.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2842 BCP Tenmile River at Tenmile River Rd.



2842 BCP Tenmile River at Tenmile River Rd.

Sullivan County, NY. Latitude 41.560683 Longitude -75.019399 by GPS NAD83 decimal degrees.

USGS Site No. 01428000.

Watershed Population: 2000: 1,191 2010: 1,310 Change: +119 (+10.0%)

Drainage Area: 48.8 square miles, tributary to Delaware River Zone 1B

Site Specific EWQ defined 2006-2011 by DRBC/NPS Scenic Rivers Monitoring Program.
This watershed is tributary to the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters.

Nearest upstream Interstate Control Point: 2899 ICP Delaware River at Narrowsburg
Nearest downstream Interstate Control Point: 2792 ICP Delaware River at USGS Barryville Gage 01428500
Known dischargers within watershed: Undefined
Watershed is 84.6% forested; urban land cover is 0.52%. 100% glaciated. No carbonate rock. Mean annual precipitation 42.1 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
5,115	183	92.7	62.2	48.4	31.1	16.8	7.42	1.06

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	6.03
M30D2Y (ft^3/s)	8.22
M7D10Y (ft^3/s)	2.63
M30D10Y (ft^3/s)	3.58
M90D10Y (ft^3/s)	5.73

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	77.1
QAH (ft^3/s)	18.3
BF10YR (ft^3/s)	31.2
BF25YR (ft^3/s)	27.8
BF50YR (ft^3/s)	25.9

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	1,690
PK5 (ft^3/s)	2,840
PK10 (ft^3/s)	3,770
PK50 (ft^3/s)	6,270
PK100 (ft^3/s)	7,530
PK500 (ft^3/s)	11,000

Existing Water Quality: 2842 BCP Tenmile River at Tenmile River Rd.

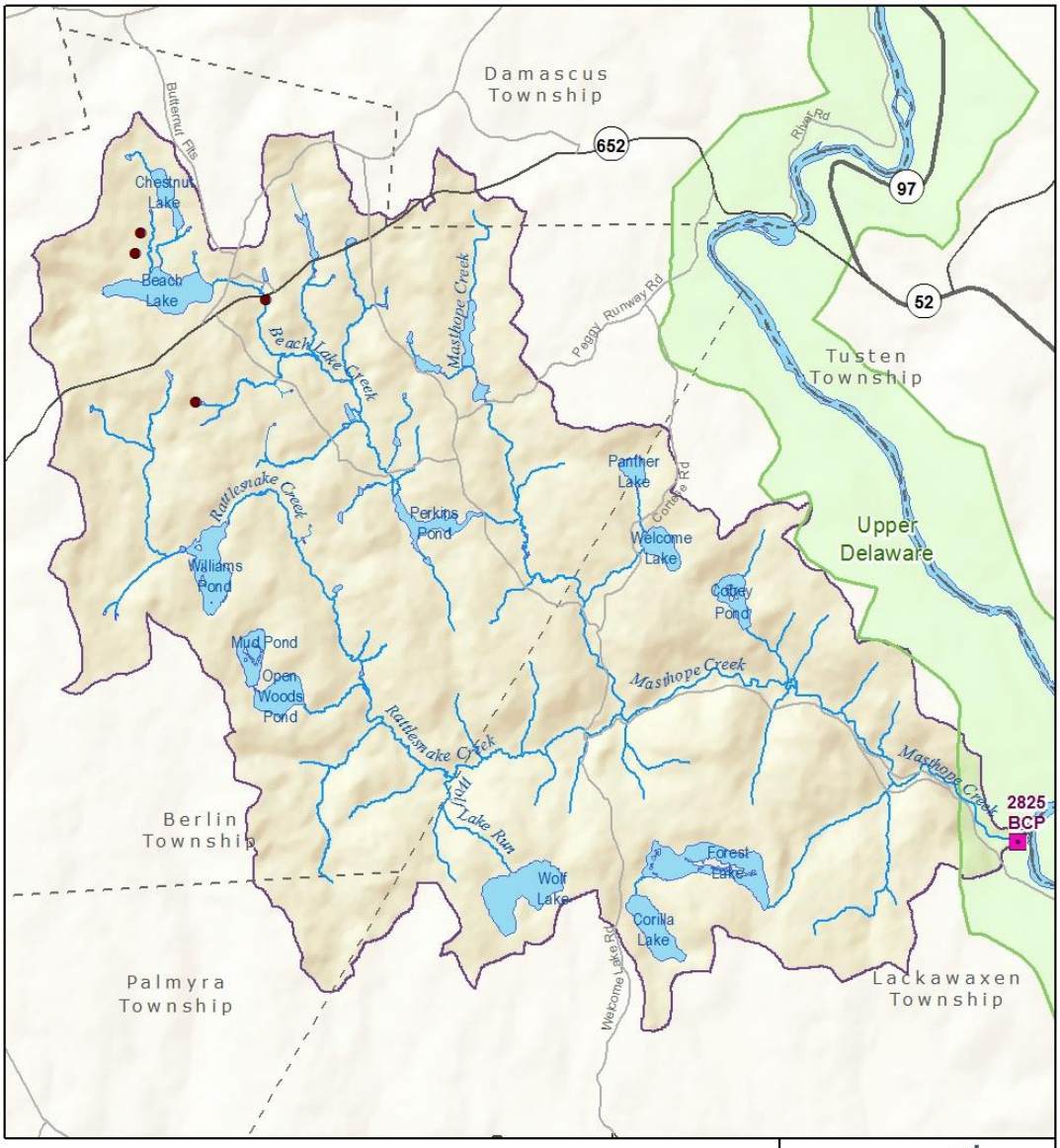
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	54	9.95	8.60	10.70	2006-2011 SRMP
Aluminum, Dissolved, mg/L	15	0.003	0.002	0.005	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	54	0.010	0.009	0.011	2006-2011 SRMP
Barium, Dissolved mg/L	15	0.038	0.037	0.044	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	15	5.10	4.10	5.90	2009-2010 SRMP archived samples
Chloride, Total mg/L	54	12.33	11.60	13.70	2006-2011 SRMP
Dissolved Oxygen (DO) mg/L *	50	9.15	8.80	9.50	2006-2011 SRMP
Dissolved Oxygen Saturation %	40	97	96	97	2007-2011 SRMP
Enterococcus #/100ml	32	28	12	70	2007, 2010-2011 SRMP
Escherichia coli #/100ml	33	9	4	19	2007, 2010-2011 SRMP
Fecal coliform #/100ml *	63	15	9	18	2006-2011 SRMP
Hardness as CaCO3, Total mg/L	54	18.1	17.2	20.0	2006-2011 SRMP
Magnesium, Dissolved mg/L	15	1.59	1.21	1.79	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	7.6	5.7	16.2	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	44	0.061	0.052	0.068	2007-2011 SRMP
Nitrogen as N, Total mg/L *	44	0.297	0.250	0.321	2007-2011 SRMP
Nitrogen, Kjeldahl as N, Total mg/L	44	0.208	0.192	0.247	2007-2011 SRMP
pH units *	50	7.55	7.48	7.59	2006-2011 SRMP
Phosphate as P, Total mg/L	44	0.013	0.010	0.014	2007-2011 SRMP
Phosphorus as P, Total mg/L *	44	0.019	0.017	0.021	2007-2011 SRMP
Potassium, Dissolved mg/L	15	0.78	0.65	0.92	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	8.07	6.76	9.08	2009-2010 SRMP archived samples
Specific Conductance µS/cm	50	77.5	69.0	84.0	2006-2011 SRMP
Strontium, Dissolved mg/L	15	0.042	0.030	0.049	2009-2010 SRMP archived samples
Sulfate, Total mg/L	15	5.56	5.41	5.80	2009-2010 SRMP archived samples
Temperature, Water, degrees C	50	18.15	16.60	19.00	2006-2011 SRMP
Total Dissolved Solids (TDS) mg/L	54	47.90	46.65	49.70	2006-2011 SRMP
Total Suspended Solids (TSS) mg/L *	48	1.22	0.85	1.80	2006-2011 SRMP
Turbidity NTU	52	1.70	1.00	6.00	2006-2011 SRMP

Two-tailed confidence limits were used for these EWQ targets.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2825 BCP Masthope Creek at RR Bridge near Mouth



Masthope Creek

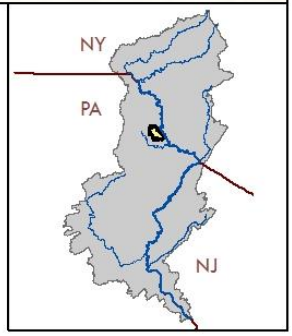
Drainage Area = 31.47 mi²

- Sampling Location
- NPDES
- Drainage Area
- NPS Boundary

N

0 1 2

Miles



2825 BCP Masthope Creek at RR Bridge near Mouth

Pike County, PA. Latitude 41.537679 Longitude -75.027055 by GPS NAD83 decimal degrees.
No known USGS or State sites nearby.
Watershed Population: 2000: 1,253 2010: 1,434 Change: +181 (+14.5%)
Drainage Area: 32.0 square miles, tributary to Delaware River Zone 1B

Site Specific EWQ defined 2006-2011 by DRBC/NPS Scenic Rivers Monitoring Program.

This watershed is tributary to the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters.

Nearest upstream Interstate Control Point: 2899 ICP Delaware River at Narrowsburg
Nearest downstream Interstate Control Point: 2792 ICP Delaware River at USGS Barryville Gage 01428500
Known dischargers within watershed: Undefined

Watershed is 79.6% forested; urban land cover is 2.47%. 100% glaciated. No carbonate rock. Mean annual precipitation 41 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
3,378	111	53.4	36.9	28.5	18.5	9.73	4.39	0.59

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	2.95
M30D2Y (ft^3/s)	4.13
M7D10Y (ft^3/s)	1.17
M30D10Y (ft^3/s)	1.67
M90D10Y (ft^3/s)	2.78

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	47.3
QAH (ft^3/s)	10.3
BF10YR (ft^3/s)	18.4
BF25YR (ft^3/s)	16.3
BF50YR (ft^3/s)	15.1

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	1,040
PK5 (ft^3/s)	1,760
PK10 (ft^3/s)	2,360
PK50 (ft^3/s)	3,970
PK100 (ft^3/s)	4,800
PK500 (ft^3/s)	7,120

Existing Water Quality: 2825 BCP Masthope Creek at RR Bridge near Mouth

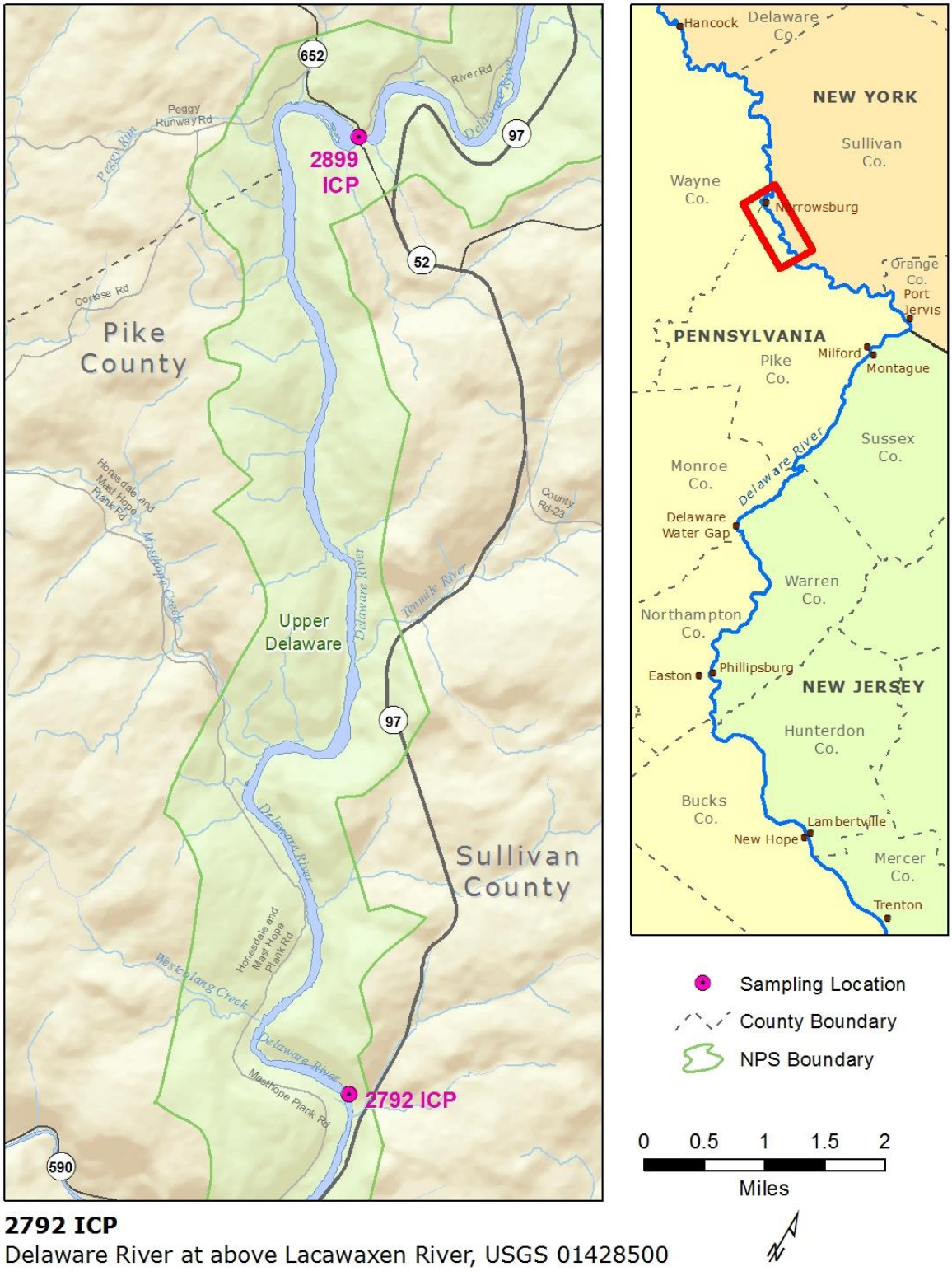
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	54	10.8	9.4	12.2	2006-2011 SRMP
Aluminum, Dissolved, mg/L	15	0.003	0.001	0.005	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	53	0.007	0.006	0.010	2006-2011 SRMP
Barium, Dissolved mg/L	15	0.021	0.018	0.023	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	15	4.08	3.25	4.43	2009-2010 SRMP archived samples
Chloride, Total mg/L	54	5.38	4.73	5.90	2006-2011 SRMP
Dissolved Oxygen (DO) mg/L *	50	9.15	9.00	9.50	2006-2011 SRMP
Dissolved Oxygen Saturation %	40	97	97	98	2007-2011 SRMP
Enterococcus #/100ml	43	26	15	34	2007, 2010-2011 SRMP
Escherichia coli #/100ml	43	17	12	23	2007, 2010-2011 SRMP
Fecal coliform #/100ml *	64	19	14	30	2006-2011 SRMP
Hardness as CaCO3, Total mg/L	54	15.4	14.0	16.6	2006-2011 SRMP
Magnesium, Dissolved mg/L	15	1.26	0.98	1.51	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	4.50	2.30	7.50	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	43	0.036	0.030	0.051	2007-2011 SRMP
Nitrogen as N, Total mg/L *	44	0.239	0.228	0.279	2007-2011 SRMP
Nitrogen, Kjeldahl as N, Total mg/L	44	0.201	0.163	0.207	2007-2011 SRMP
pH units *	50	7.44	7.38	7.53	2006-2011 SRMP
Phosphate as P, Total mg/L	44	0.012	0.011	0.013	2007-2011 SRMP
Phosphorus as P, Total mg/L *	44	0.019	0.017	0.020	2007-2011 SRMP
Potassium, Dissolved mg/L	15	0.59	0.48	0.66	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	3.99	3.22	4.24	2009-2010 SRMP archived samples
Specific Conductance µS/cm	50	54.0	50.0	60.0	2006-2011 SRMP
Strontium, Dissolved mg/L	15	0.027	0.020	0.029	2009-2010 SRMP archived samples
Sulfate, Total mg/L	15	4.83	4.56	5.24	2009-2010 SRMP archived samples
Temperature, Water, degrees C	50	18.0	16.1	19.4	2006-2011 SRMP
Total Dissolved Solids (TDS) mg/L	54	34.05	33.23	35.13	2006-2011 SRMP
Total Suspended Solids (TSS) mg/L *	45	1.10	0.90	1.60	2006-2011 SRMP
Turbidity NTU	51	1.49	0.84	6.00	2006-2011 SRMP

Two-tailed confidence limits were used for these EWQ targets.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2792 ICP Delaware River above Lackawaxen River USGS Gage 01428500



2792 ICP
Delaware River at above Lacawaxen River, USGS 01428500

2792 ICP Delaware River above Lackawaxen River USGS Gage 01428500

Latitude 41.508890 Longitude -74.986110 by GPS NAD83 decimal degrees.
USGS Site No. 01428500
Watershed Population figures were not calculated for main-stem Delaware River sites.
Drainage Area: 2,020 square miles, Delaware River Zone 1B

Site Specific EWQ defined 2008-2011 by the DRBC/NPS Scenic Rivers Monitoring Program.
The National Park Service maintains a continuous water quality meter to supplement USGS flow and temperature data at this site.

This site is located in the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 2899 ICP Delaware River at Narrowsburg
Nearest downstream Interstate Control Point: 2735 ICP Delaware River at Barryville
Known dischargers within watershed: Undefined
Tributaries to upstream reach: Major tributary 2842 BCP Tenmile River, NY; 2825 BCP Masthope Creek, PA; small tributaries 289.0 Peggy Run, PA; 281.4 Grassy Swamp Brook, NY; 280.2 Westcolang Creek, NY.

No Stream Stats web site data available (drainage area too large to calculate on web site).

Flow Statistics (Calculated):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
140,000	7,310	3,760	2,310	1,780	1,480	1,210	957	355

Existing Water Quality: 2792 ICP Delaware River at USGS Gage 01428500

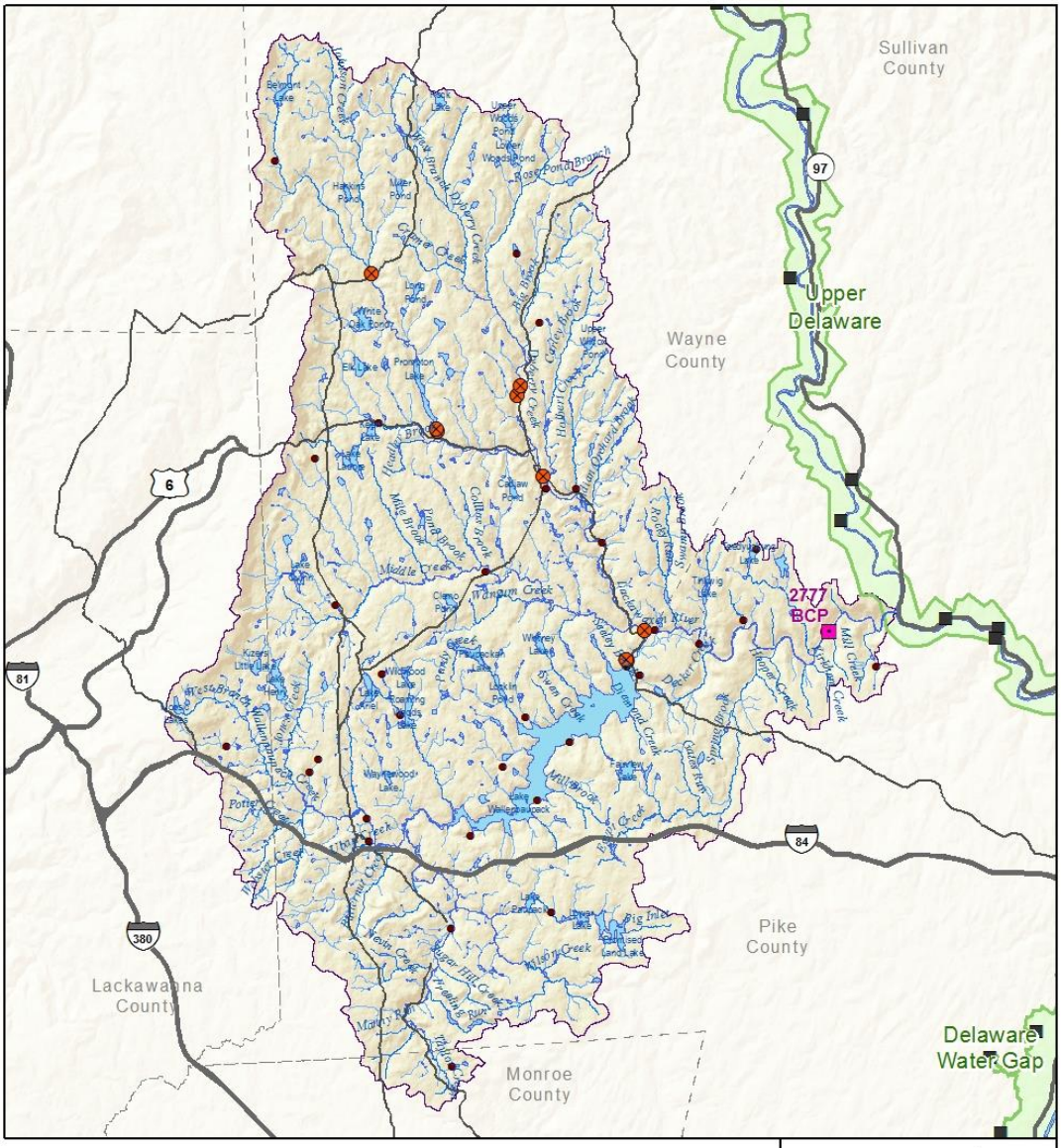
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	41	13.7	12.8	14.5	2008-2011 SRMP
Aluminum, Dissolved, mg/L	15	0.004	0.003	0.005	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	40	0.013	0.009	0.015	2008-2011 SRMP
Barium, Dissolved mg/L	15	0.017	0.016	0.019	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	15	5.38	4.70	5.83	2009-2010 SRMP archived samples
Chloride, Total mg/L	41	10.20	9.17	10.90	2008-2011 SRMP
Dissolved Oxygen (DO) mg/L *	38	8.90	8.50	9.10	2008-2011 SRMP
Dissolved Oxygen Saturation %	30	96.5	96.0	98.0	2009-2011 SRMP
Enterococcus #/100ml	30	28	13	140	2008, 2010-2011 SRMP
Escherichia coli #/100ml	30	11	5	19	2008, 2010-2011 SRMP
Fecal coliform #/100ml *	32	21	16	62	2009-2011 SRMP
Hardness as CaCO3, Total mg/L	41	21.4	19.2	23.0	2008-2011 SRMP
Magnesium, Dissolved mg/L	15	1.18	1.04	1.34	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	7.5	4.0	16.3	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	41	0.145	0.131	0.166	2008-2011 SRMP
Nitrogen as N, Total mg/L *	41	0.323	0.306	0.380	2008-2011 SRMP
Nitrogen, Kjeldahl as N, Total mg/L	41	0.191	0.162	0.220	2008-2011 SRMP
pH units *	30	7.78	7.64	7.98	2009-2011 SRMP
Phosphate as P, Total mg/L	41	0.005	0.003	0.006	2008-2011 SRMP
Phosphorus as P, Total mg/L *	50	0.011	0.009	0.012	2007 USGS, 2008-2011 SRMP
Potassium, Dissolved mg/L	15	0.64	0.47	0.70	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	5.05	4.07	5.75	2009-2010 SRMP archived samples
Specific Conductance µS/cm	30	78	71	83	2009-2011 SRMP
Strontium, Dissolved mg/L	15	0.020	0.018	0.022	2009-2010 SRMP archived samples
Sulfate, Total mg/L	14	4.87	3.94	5.59	2009-2010 SRMP archived samples
Temperature, Water, degrees C	39	19.7	18.5	22.9	2007 USGS, 2009-2011 SRMP
Total Dissolved Solids (TDS) mg/L	41	43.92	40.57	45.55	2008-2011 SRMP
Total Suspended Solids (TSS) mg/L *	41	1.67	0.95	2.70	2008-2011 SRMP
Turbidity NTU	32	1.08	0.77	2.26	2009-2011 SRMP

Two-tailed confidence limits were used for these EWQ targets.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2777 BCP Lackawaxen River at Rowlands



2777 BCP Lackawaxen River at Rowlands

Pike County, PA. Latitude 41.475367 Longitude -75.035771 by GPS NAD83 decimal degrees.
USGS Gage 01432110; PADEP Site WQN0147
Watershed Population: 2000: 49,519 2010: 57,006 Change: +7,487 (+15.1%)
Drainage Area: 597 square miles, tributary to Delaware River Zone 1B

Site Specific EWQ defined 2006-2011 by DRBC/NPS Scenic Rivers Monitoring Program and 1999-2011 PADEP.

This watershed is tributary to the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters.

Nearest upstream Interstate Control Point: 2792 ICP Delaware River at USGS Barryville Gage 01428500
Nearest downstream Interstate Control Point: 2735 ICP Delaware River at Barryville
Known dischargers within watershed: Numerous, undefined at present. Flow is partially controlled by hydropower operations at Lake Wallenpaupack.

Watershed is 76.7% forested; urban land cover is 2.83%. 100% glaciated. No carbonate rock. Mean annual precipitation 43 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
55,077	2639	1339	905	710	464	291	151	29.1

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	106
M30D2Y (ft^3/s)	134
M7D10Y (ft^3/s)	60.3
M30D10Y (ft^3/s)	74.9
M90D10Y (ft^3/s)	105

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	1,020
QAH (ft^3/s)	286
BF10YR (ft^3/s)	383
BF25YR (ft^3/s)	342
BF50YR (ft^3/s)	318

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	13,300
PK5 (ft^3/s)	21,100
PK10 (ft^3/s)	27,500
PK50 (ft^3/s)	44,800
PK100 (ft^3/s)	53,500
PK500 (ft^3/s)	77,900

Existing Water Quality: 2777 BCP Lackawaxen River at Rowlands

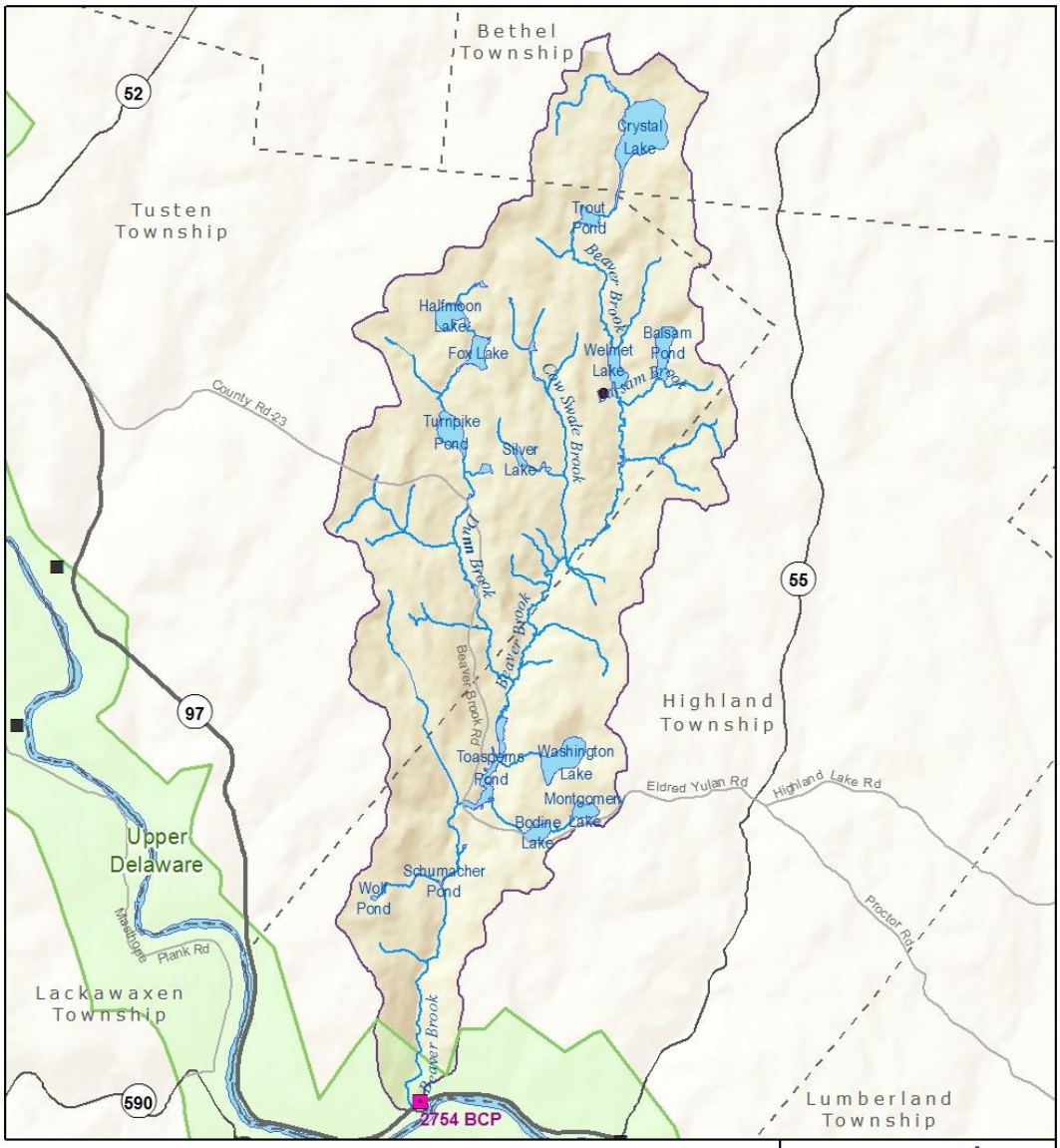
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	79	15.00	14.00	15.80	1999-2011 SRMP, PADEP
Aluminum, Dissolved, mg/L	15	0.002	0.001	0.005	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	78	0.016	0.015	0.016	1999-2011 SRMP, PADEP
Barium, Dissolved mg/L	15	0.017	0.017	0.020	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	15	6.98	6.42	7.80	2009-2010 SRMP archived samples
Chloride, Total mg/L	68	10.90	10.20	11.60	2006-2011 SRMP, PADEP
Dissolved Oxygen (DO) mg/L *	72	9.00	8.90	9.40	1999-2011 SRMP, PADEP
Dissolved Oxygen Saturation %	40	96	96	98	2007-2011 SRMP
Enterococcus #/100ml	45	14	9	21	2007-2011 SRMP
Escherichia coli #/100ml	45	9	5	16	2007-2011 SRMP
Fecal coliform #/100ml *	73	18	11	30	1999-2011 SRMP, PADEP
Hardness as CaCO3, Total mg/L	79	23.0	22.2	24	1999-2011 SRMP, PADEP
Magnesium, Dissolved mg/L	15	1.08	1.01	1.16	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	6.40	4.40	12.10	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	55	0.100	0.086	0.111	2007-2011 SRMP
Nitrogen as N, Total mg/L *	65	0.366	0.341	0.393	2004-2011 SRMP, PADEP
Nitrogen, Kjeldahl as N, Total mg/L	55	0.257	0.248	0.290	2007-2011 SRMP
Organic Carbon, Total mg/L	14	3.75	3.10	4.40	1999-2004 PADEP
pH units *	78	7.69	7.61	7.75	1999-2011 SRMP, PADEP
Phosphate as P, Total mg/L	98	0.013	0.011	0.015	2002-2011 SRMP, PADEP
Phosphorus as P, Total mg/L *	94	0.020	0.019	0.023	1998-2011 SRMP, PADEP
Potassium, Dissolved mg/L	15	0.746	0.726	0.861	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	7.24	5.55	7.61	2009-2010 SRMP archived samples
Specific Conductance µS/cm	78	84.5	82.4	88.0	1998-2011 SRMP, PADEP
Strontium, Dissolved mg/L	15	0.026	0.024	0.028	2009-2010 SRMP archived samples
Sulfate, Total mg/L	37	6.32	6.11	6.58	2009-2010 SRMP archived samples
Temperature, Water, degrees C	78	18.8	17.8	19.7	1999-2011 SRMP, PADEP
Total Dissolved Solids (TDS) mg/L	92	51.5	50.0	52.8	1999-2011 SRMP, PADEP
Total Suspended Solids (TSS) mg/L *	73	2.45	2.00	3.10	1999-2011 SRMP, PADEP
Turbidity NTU	54	2.78	1.91	7.25	2006-2011 SRMP

Two-tailed confidence limits were used for these EWQ targets.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2754 BCP Beaver Brook at Rt. 97



2754 BCP Beaver Brook at Rt. 97

Sullivan County, NY. Latitude 41.482890 Longitude -74.949175 by GPS NAD83 decimal degrees.
Watershed Population: 2000: 697 2010: 778 Change: +81 (+11.6%)
Drainage Area: 23.7 square miles, tributary to Delaware River Zone 1B

Site Specific EWQ monitoring began 2013 by DRBC/NPS Scenic Rivers Monitoring Program.

This watershed is tributary to the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters.

Nearest upstream Interstate Control Point: 2792 ICP Delaware River above Lackawaxen River USGS Gage 01428500
Nearest downstream Interstate Control Point: 2735 ICP Delaware River at Barryville
Known dischargers within watershed: Undefined at present.

Watershed is 89.6% forested; urban land cover is 1.16%. 100% glaciated. No carbonate rock. Mean annual precipitation 42.2 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
2,603	85.9	43.1	29.5	23.0	15.1	8.06	3.59	0.52

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	2.87
M30D2Y (ft^3/s)	3.96
M7D10Y (ft^3/s)	1.18
M30D10Y (ft^3/s)	1.63
M90D10Y (ft^3/s)	2.69

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	37.9
QAH (ft^3/s)	8.78
BF10YR (ft^3/s)	15.8
BF25YR (ft^3/s)	14.2
BF50YR (ft^3/s)	13.2

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	844
PK5 (ft^3/s)	1,440
PK10 (ft^3/s)	1,930
PK50 (ft^3/s)	3,260
PK100 (ft^3/s)	3,940
PK500 (ft^3/s)	5,830

Existing Water Quality: 2754 BCP Beaver Brook at Rt. 97 (Insufficient Data)

Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, mg/L, total	22	7.5	5.0	9.0	SRMP 2014-2015
Ammonia as N, mg/L, total *	22	0.0063	0.0043	0.01	SRMP 2014-2015
Chloride, mg/L, Total	22	20.0	16.0	22.3	SRMP 2014-2015
Dissolved Oxygen, mg/L *	20	9.0	8.6	9.4	SRMP 2014-2015
Dissolved Oxygen Saturation, %	20	99.7	99.0	100.3	SRMP 2014-2015
Fecal Coliform, #/100 ml *	18	18	10	53	SRMP 2014-2015
Hardness as CaCo3, mg/L, Total	22	17.1	13.7	18.8	SRMP 2014-2015
Nitrate + Nitrite as N, Total, mg/L *	22	0.077	0.047	0.135	SRMP 2014-2015
Nitrogen as N, Total, mg/L *	22	0.337	0.290	0.404	SRMP 2014-2015
Nitrogen, Kjeldahl as N, mg/L	22	0.226	0.186	0.289	SRMP 2014-2015
pH, standard units *	20	7.0	6.9	7.1	SRMP 2014-2015
Phosphate as P, Total mg/L	22	0.015	0.013	0.017	SRMP 2014-2015
Phosphorus as P, Total mg/L *	22	0.028	0.024	0.036	SRMP 2014-2015
Specific Conductance, µS/cm	19	99.6	78.7	107.6	SRMP 2014-2015
Temperature, Water, Degrees C	20	19.4	17.8	21.2	SRMP 2014-2015
Total Dissolved Solids, mg/L	22	62	57	71	SRMP 2014-2015
Total Suspended Solids, mg/L *	22	3.0	1.0	4.0	SRMP 2014-2015
Turbidity, NTU	11	0.72	0.48	2.84	SRMP 2015

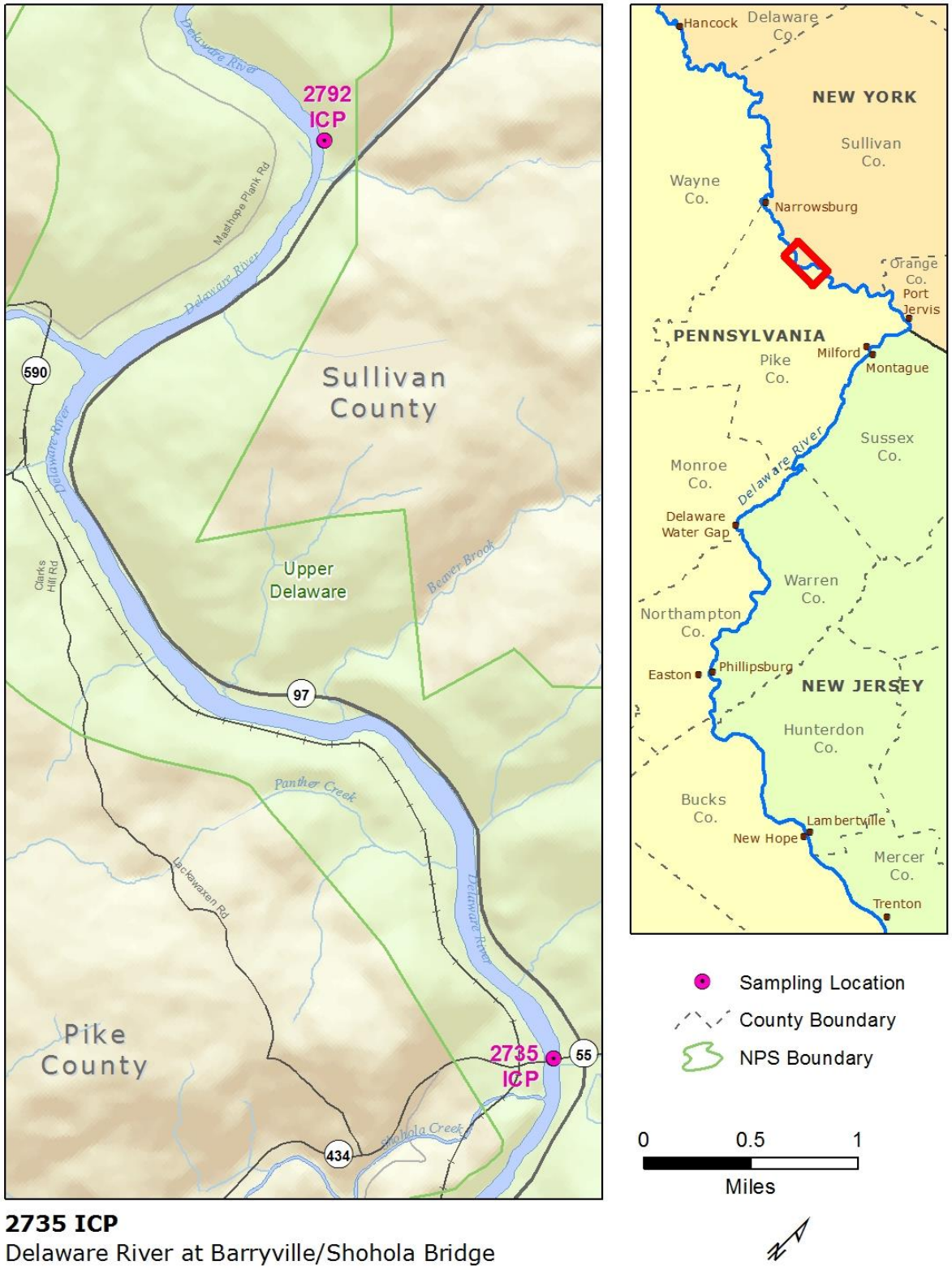
Two-tailed confidence limits were used for these EWQ targets.

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season.

This table will be updated after one more year of DRBC and NPS sampling in 2016, adding 10 samples to this data set.

2735 ICP Delaware River at Barryville



2735 ICP
Delaware River at Barryville/Shohola Bridge

2735 ICP Delaware River at Barryville

Latitude 41.475712 Longitude -74.912752 by GPS NAD83 decimal degrees.
No USGS or State monitoring at this location.
Watershed Population figures were not calculated for main-stem Delaware River sites.
Drainage Area: 2,660 square miles, Delaware River Zone 1B

Site Specific EWQ defined 2006-2011 by the DRBC/NPS Scenic Rivers Monitoring Program.

This site is located in the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 2792 ICP Delaware River above Lackawaxen River
Nearest downstream Interstate Control Point: 2655 ICP Delaware River at Pond Eddy
Known dischargers within watershed: Undefined
Tributaries to upstream reach: Major tributary 2777 BCP Lackawaxen River, PA; 2754 BCP Beaver Brook, NY; small tributaries 279.0 Narrow Falls Brook, NY; 274.5 Panther Creek, PA.

No Stream Stats web site data available (drainage area too large to calculate on web site).

Flow Statistics (Calculated):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
184,356	9,618	5,070	3,241	2,515	2,027	1,594	1,314	467

Existing Water Quality: 2735 ICP Delaware River at Barryville

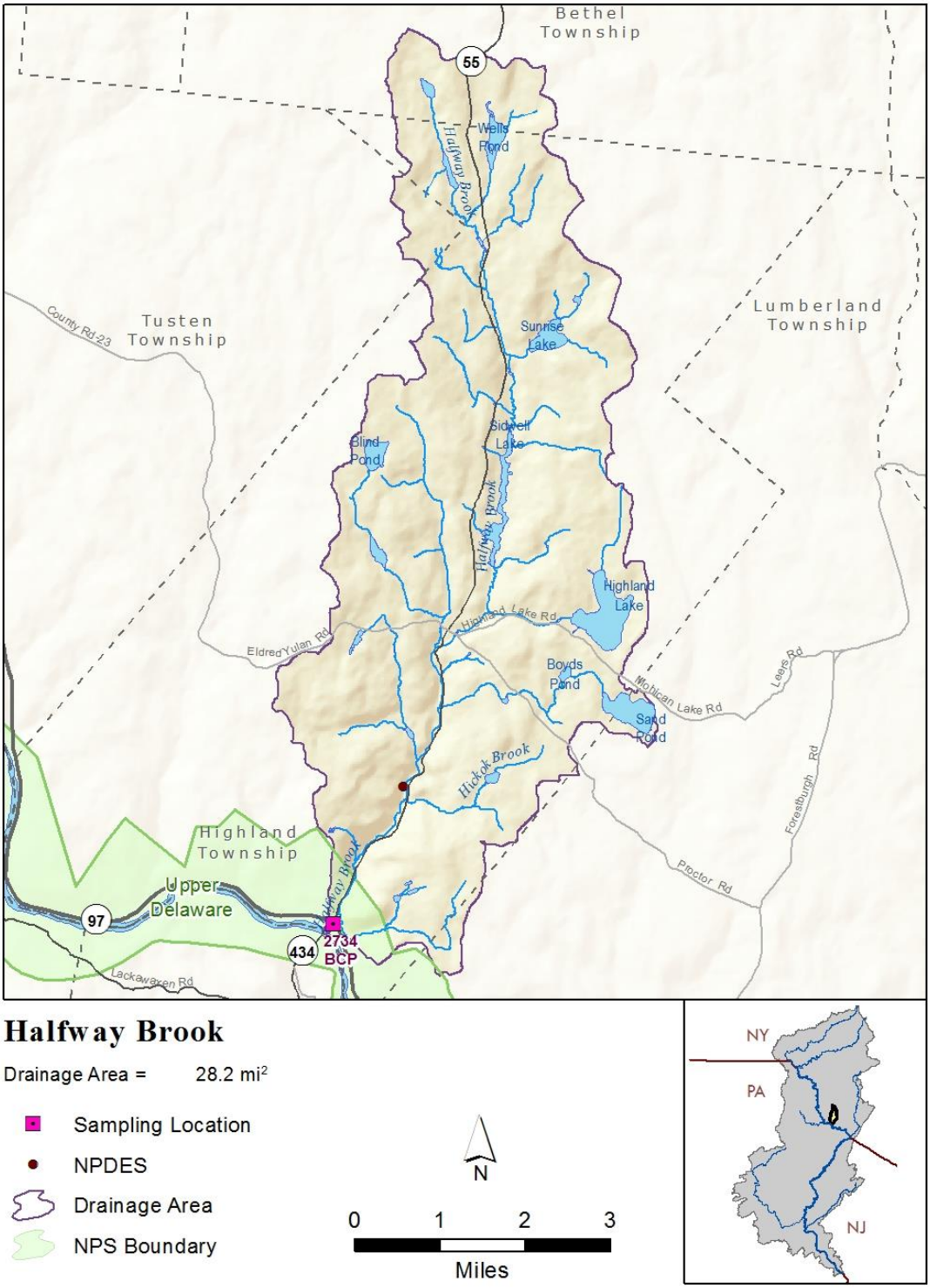
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	61	13.6	12.9	14.1	2006-2011 SRMP
Aluminum, Dissolved mg/L	15	0.003	0.003	0.004	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	60	0.012	0.010	0.014	2006-2011 SRMP
Barium, Dissolved mg/L	15	0.020	0.018	0.024	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	15	5.93	5.66	6.50	2009-2010 SRMP archived samples
Chloride, Total mg/L	61	10.34	10.10	10.99	2006-2011 SRMP
Dissolved Oxygen (DO) mg/L *	58	9.00	8.70	9.20	2006-2011 SRMP
Dissolved Oxygen Saturation %	40	98.0	97.0	99.0	2007-2011 SRMP
Enterococcus #/100ml	53	18	9	29	2007-2011 SRMP
Escherichia coli #/100ml	53	10	5	16	2007-2011 SRMP
Fecal coliform #/100ml *	67	14	10	21	2006-2011 SRMP
Hardness as CaCO3, Total mg/L	61	21.2	20.2	22.0	2006-2011 SRMP
Magnesium, Dissolved mg/L	15	1.32	1.21	1.42	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	5.60	4.00	8.80	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	51	0.144	0.127	0.168	2007-2011 SRMP
Nitrogen as N, Total mg/L *	51	0.352	0.331	0.379	2007-2011 SRMP
Nitrogen, Kjeldahl as N, Total mg/L	51	0.205	0.186	0.216	2007-2011 SRMP
pH units *	49	7.74	7.66	7.81	2006-2011 SRMP
Phosphate as P, Total mg/L	51	0.005	0.004	0.005	2007-2011 SRMP
Phosphorus as P, Total mg/L *	51	0.011	0.010	0.013	2007-2011 SRMP
Potassium, Dissolved mg/L	15	0.759	0.656	0.846	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	6.32	5.49	6.83	2009-2010 SRMP archived samples
Specific Conductance µS/cm	49	79	75	83	2006-2011 SRMP
Strontium, Dissolved mg/L	15	0.023	0.022	0.026	2009-2010 SRMP archived samples
Sulfate, Total mg/L	15	5.64	5.43	5.77	2009-2010 SRMP archived samples
Temperature, Water, degrees C	50	19.1	17.6	21.1	2006-2011 SRMP
Total Dissolved Solids (TDS) mg/L	61	45.55	43.50	46.85	2006-2011 SRMP
Total Suspended Solids (TSS) mg/L *	55	1.60	1.30	2.65	2006-2011 SRMP, PADEP
Turbidity NTU	52	3.2	1.4	8.0	2006-2011 SRMP

Two-tailed confidence limits were used for these EWQ targets

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2734 BCP Halfway Brook at Rt. 97



2734 BCP Halfway Brook at Rt. 97

Sullivan County, NY. Latitude 41.477102 Longitude -74.910376 by GPS NAD83 decimal degrees.
USGS Site No. 01432180
Watershed Population: 2000: 1,210 2010: 1,327 Change: +117 (+9.6%)
Drainage Area: 28.3 square miles, tributary to Delaware River Zone 1B

Site Specific EWQ monitoring began 2013 by DRBC/NPS Scenic Rivers Monitoring Program.

This watershed is tributary to the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters.

Nearest upstream Interstate Control Point: 2735 ICP Delaware River at Barryville
Nearest downstream Interstate Control Point: 2655 ICP Delaware River at Pond Eddy
Known dischargers within watershed: Undefined at present.

Watershed is 91.4% forested; urban land cover is 1.89%. 100% glaciated. No carbonate rock. Mean annual precipitation 43 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
1,669	105	53.4	31.8	22.4	13.6	5.77	2.29	0.27

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	3.93
M30D2Y (ft^3/s)	5.36
M7D10Y (ft^3/s)	1.69
M30D10Y (ft^3/s)	2.29
M90D10Y (ft^3/s)	3.70

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	47.0
QAH (ft^3/s)	11.6
BF10YR (ft^3/s)	20.1
BF25YR (ft^3/s)	18.0
BF50YR (ft^3/s)	16.8

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	1,020
PK5 (ft^3/s)	1,730
PK10 (ft^3/s)	2,310
PK50 (ft^3/s)	3,890
PK100 (ft^3/s)	4,690
PK500 (ft^3/s)	6,910

Existing Water Quality: 2734 BCP Halfway Brook at Rt. 97

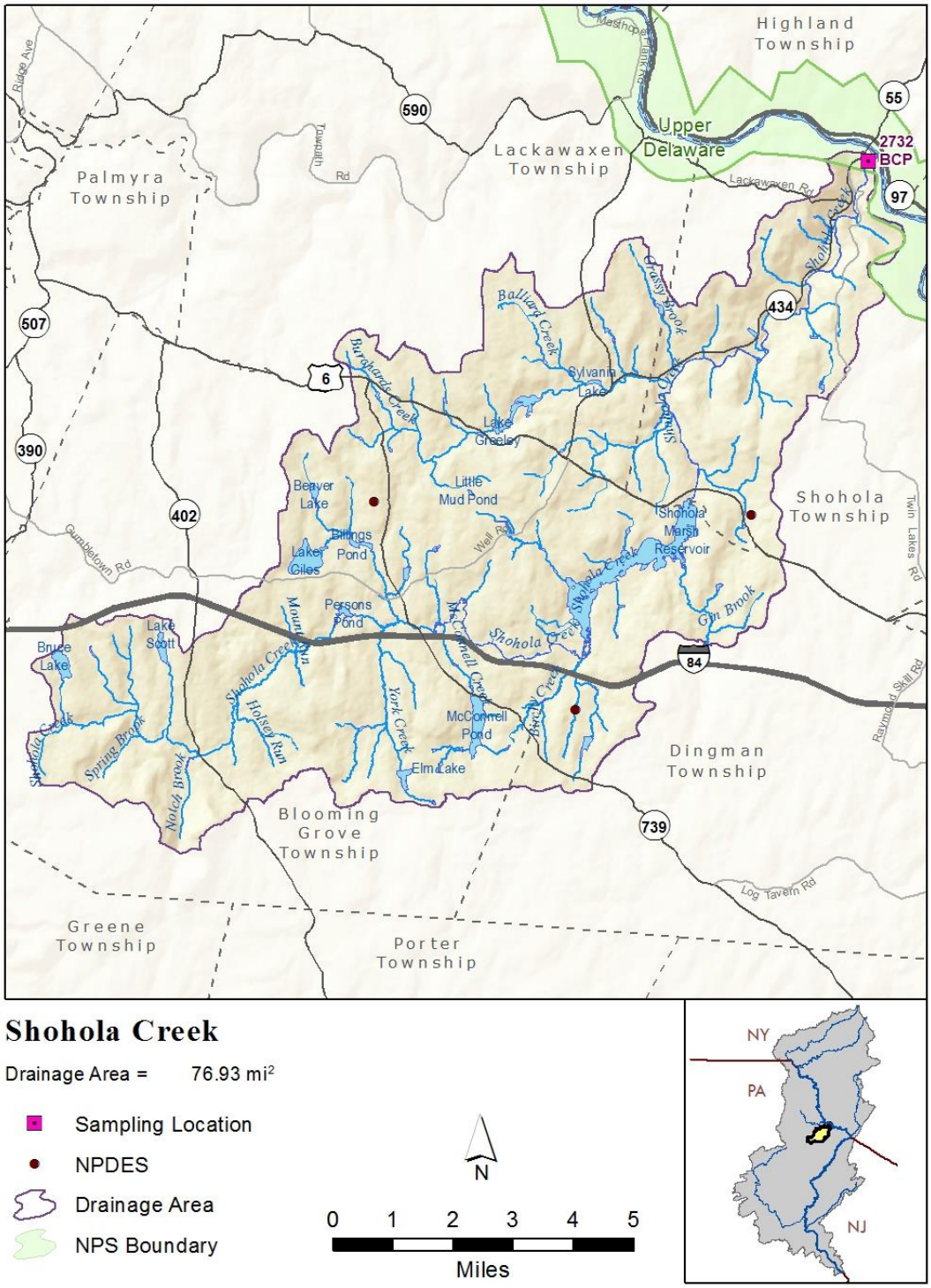
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, mg/L, total	43	9.0	6.7	12.0	SRMP 2012-2015; USGS 2001
Ammonia as N, mg/L, total *	41	0.007	0.006	0.009	SRMP 2012-2015
Chloride, mg/L, Total	41	28.3	25.7	33.0	SRMP 2012-2015
Dissolved Oxygen, mg/L *	40	9.1	8.9	9.6	SRMP 2012-2015
Dissolved Oxygen Saturation, %	40	100.1	99.1	100.4	SRMP 2012-2015
Fecal Coliform, #/100 ml *	42	14	11	17	SRMP 2012-2015
Hardness as CaCo3, mg/L, Total	41	20.6	17.2	22.9	SRMP 2012-2015
Nitrate + Nitrite as N, Total, mg/L *	41	0.134	0.103	0.180	SRMP 2012-2015
Nitrogen as N, Total, mg/L *	39	0.355	0.310	0.387	SRMP 2012-2015
Nitrogen, Kjeldahl as N, mg/L	43	0.187	0.175	0.239	SRMP 2012-2015; USGS 2001
pH, standard units *	42	7.28	7.18	7.43	SRMP 2012-2015
Phosphate as P, Total mg/L	45	0.010	0.009	0.012	SRMP 2012-2015; USGS 2001
Phosphorus as P, Total mg/L *	56	0.022	0.018	0.023	SRMP 2012-2015; USGS 2001, 2007
Specific Conductance, µS/cm	40	127	115	147	SRMP 2012-2015; USGS 2001
Temperature, Water, Degrees C	55	18.4	17.3	19.7	SRMP 2012-2015; USGS 2001, 2007
Total Dissolved Solids, mg/L	43	78	70	93	SRMP 2012-2015: USGS 2001
Total Suspended Solids, mg/L *	41	2.0	1.0	3.0	SRMP 2012-2015
Turbidity, NTU	34	0.37	0.32	0.69	SRMP 2012-2013, 2015

Two-tailed confidence limits were used for these EWQ targets

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2732 BCP Shohola Creek at RR Bridge off Rt. 434



2732 BCP Shohola Creek at RR Bridge off Rt. 434

Pike County, PA. Latitude 41.472170 Longitude -74.912811 by GPS NAD83 decimal degrees.
No USGS or PADEP sites nearby
Watershed Population: 2000: 3,545 2010: 4,322 Change: +777 (+21.9%)
Drainage Area: 85.2 square miles, tributary to Delaware River Zone 1B

Site Specific EWQ established 2006-2011 by DRBC/NPS Scenic Rivers Monitoring Program.

This watershed is tributary to the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters.

Nearest upstream Interstate Control Point: 2735 ICP Delaware River at Barryville
Nearest downstream Interstate Control Point: 2655 ICP Delaware River at Pond Eddy
Known dischargers within watershed: Undefined at present.

Watershed is 82.8% forested; urban land cover is 4.84%. 100% glaciated. No carbonate rock. Mean annual precipitation 42.4 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
7,985	299	151	102	80.1	60.0	40.1	22.9	6.64

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	10.2
M30D2Y (ft^3/s)	13.8
M7D10Y (ft^3/s)	4.70
M30D10Y (ft^3/s)	6.30
M90D10Y (ft^3/s)	9.83

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	127
QAH (ft^3/s)	31.9
BF10YR (ft^3/s)	50.5
BF25YR (ft^3/s)	45.1
BF50YR (ft^3/s)	42.0

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	2,110
PK5 (ft^3/s)	3,500
PK10 (ft^3/s)	4,660
PK50 (ft^3/s)	7,820
PK100 (ft^3/s)	9,440
PK500 (ft^3/s)	14,000

Existing Water Quality: 2732 BCP Shohola Creek at RR Bridge off Rt. 434

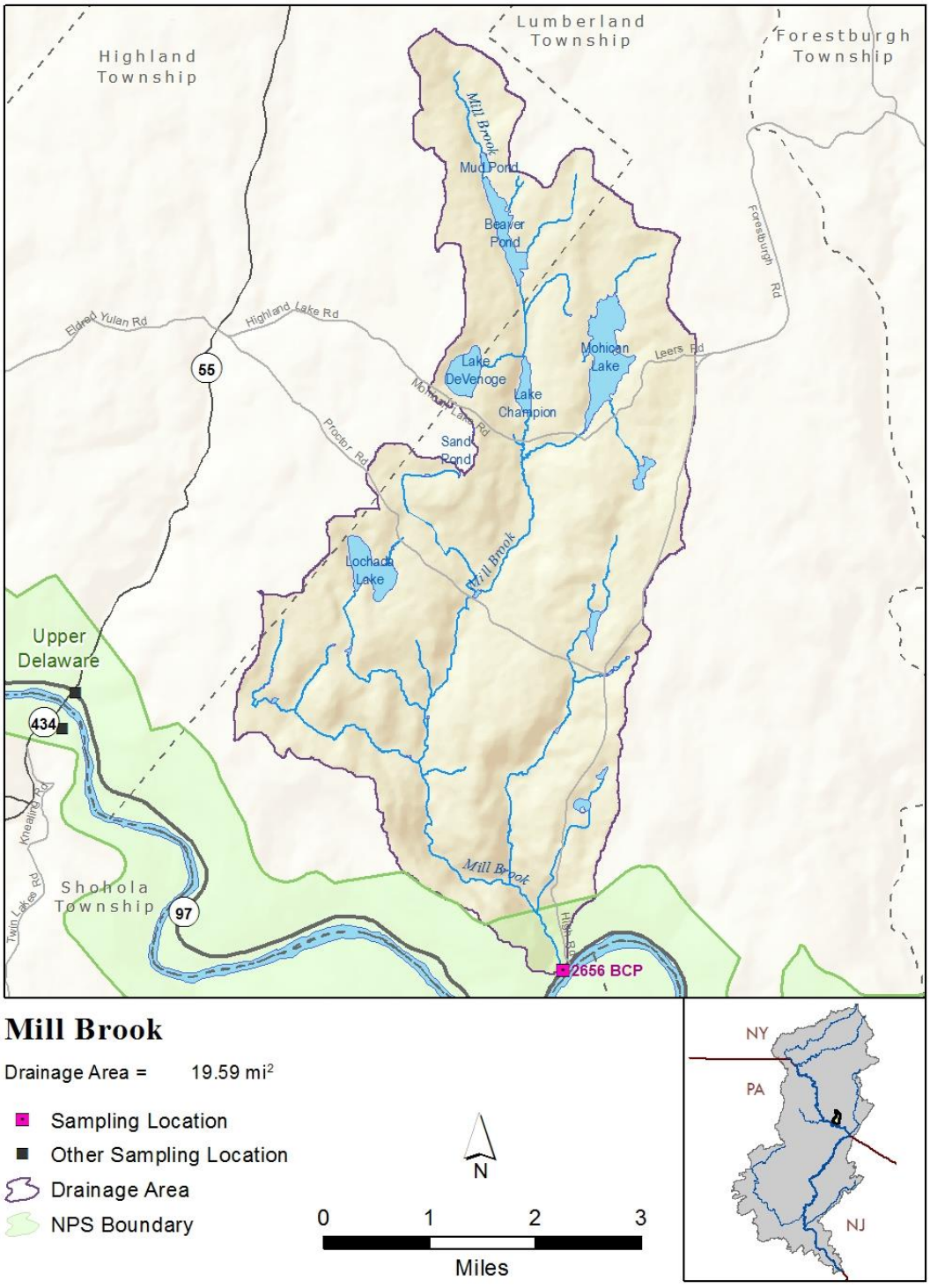
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	55	6.30	5.80	7.20	2006-2011 SRMP
Aluminum, Dissolved mg/L	14	0.003	0.002	0.004	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	54	0.009	0.007	0.011	2006-2011 SRMP
Barium, Dissolved mg/L	14	0.015	0.010	0.019	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	14	3.46	2.48	3.73	2009-2010 SRMP archived samples
Chloride, Total mg/L	55	13.20	11.40	14.30	2006-2011 SRMP
Dissolved Oxygen (DO) mg/L *	51	9.10	8.80	9.50	2001-2011 SRMP, USGS
Dissolved Oxygen Saturation %	39	97	97	98	2007-2011 SRMP
Enterococcus #/100ml	43	40	25	90	2007-2011 SRMP
Escherichia coli #/100ml	43	18	11	23	2007-2011 SRMP
Fecal coliform #/100ml *	63	22	16	29	2006-2011 SRMP
Hardness as CaCO3, Total mg/L	55	14.4	13.0	16.0	2006-2011 SRMP
Magnesium, Dissolved mg/L	14	1.39	0.97	1.57	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	14	7.8	4.9	16.5	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	45	0.038	0.032	0.050	2007-2011 SRMP
Nitrogen as N, Total mg/L *	45	0.300	0.264	0.332	2007-2011 SRMP
Nitrogen, Kjeldahl as N, Total mg/L	45	0.257	0.229	0.273	2007-2011 SRMP
pH units *	49	7.46	7.38	7.54	2006-2011 SRMP
Phosphate as P, Total mg/L	45	0.007	0.006	0.007	2007-2011 SRMP
Phosphorus as P, Total mg/L *	45	0.015	0.013	0.017	2007-2011 SRMP
Potassium, Dissolved mg/L	14	0.47	0.34	0.68	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	14	8.14	6.36	8.95	2009-2010 SRMP archived samples
Specific Conductance µS/cm	49	72.0	69.0	76.0	2006-2011 SRMP
Strontium, Dissolved mg/L	14	0.021	0.015	0.023	2009-2010 SRMP archived samples
Sulfate, Total mg/L	14	4.75	4.15	5.32	2009-2010 SRMP archived samples
Temperature, Water, degrees C	49	18.0	16.5	20.2	2006-2011 SRMP
Total Dissolved Solids (TDS) mg/L	55	44.0	42.2	45.5	2006-2011 SRMP
Total Suspended Solids (TSS) mg/L *	49	1.35	1.10	1.75	2006-2011 SRMP, PADEP
Turbidity NTU	51	0.89	0.56	5.00	2006-2011 SRMP

Two-tailed confidence limits were used for these EWQ targets

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2656 BCP Mill Brook at Rt. 97



2656 BCP Mill Brook at Rt. 97

Sullivan County, NY. Latitude 41.438890 Longitude -74.821670 by GPS NAD83 decimal degrees.
No USGS or NYSDEC sites nearby.
Watershed Population: 2000: 983 2010: 1,234 Change: +251 (+25.6%)
Drainage Area: 19.6 square miles, tributary to Delaware River Zone 1B

Site Specific EWQ monitoring began 2013 by DRBC/NPS Scenic Rivers Monitoring Program.

This watershed is tributary to the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters.

Nearest upstream Interstate Control Point: 2735 ICP Delaware River at Barryville
Nearest downstream Interstate Control Point: 2655 ICP Delaware River at Pond Eddy
Known dischargers within watershed: Undefined at present.

Watershed is 86.5% forested; urban land cover is 4.64%. 100% glaciated. No carbonate rock. Mean annual precipitation 43.3 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
2,212	73.2	37.1	25.9	20.4	13.7	7.41	3.37	0.50

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	2.43
M30D2Y (ft^3/s)	3.38
M7D10Y (ft^3/s)	0.99
M30D10Y (ft^3/s)	1.39
M90D10Y (ft^3/s)	2.29

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	33.1
QAH (ft^3/s)	8.14
BF10YR (ft^3/s)	13.9
BF25YR (ft^3/s)	12.4
BF50YR (ft^3/s)	11.6

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	712
PK5 (ft^3/s)	1,220
PK10 (ft^3/s)	1,640
PK50 (ft^3/s)	2,780
PK100 (ft^3/s)	3,360
PK500 (ft^3/s)	4,980

Existing Water Quality: 2656 BCP Mill Brook at Rt. 97, NY

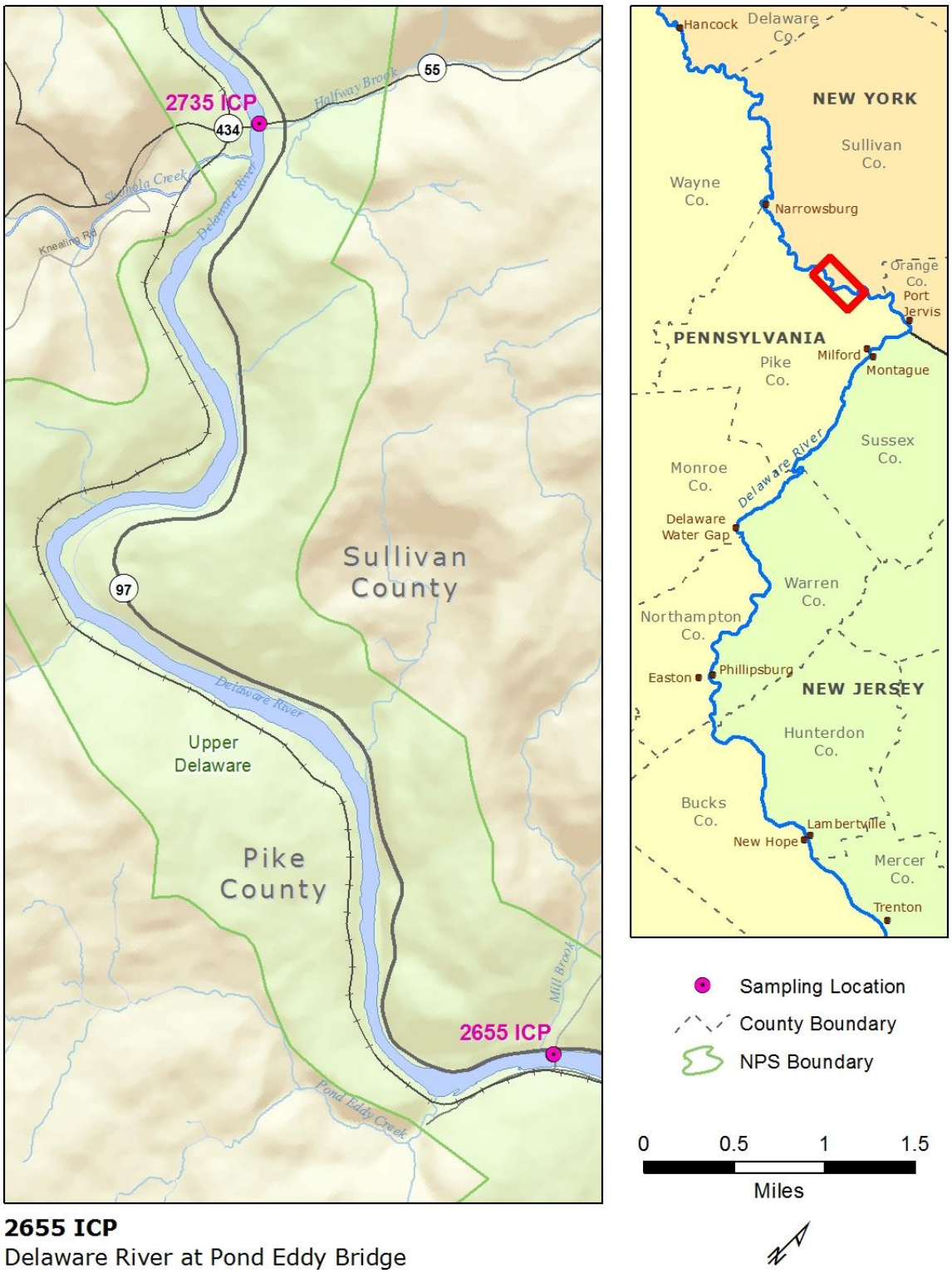
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, mg/L, total	41	11.0	9.0	13.1	SRMP 2012-2015
Ammonia as N, mg/L, total *	41	0.007	0.006	0.009	SRMP 2012-2015
Chloride, mg/L, Total	41	27.8	25.7	30.0	SRMP 2012-2015
Dissolved Oxygen, mg/L *	40	9.3	9.1	9.6	SRMP 2012-2015
Dissolved Oxygen Saturation, %	40	99.6	99.2	100.1	SRMP 2012-2015
Fecal Coliform, #/100 ml *	40	17	12	26	SRMP 2012-2015
Hardness as CaCo3, mg/L, Total	41	24.6	22.6	26.8	SRMP 2012-2015
Nitrate + Nitrite as N, Total, mg/L *	41	0.171	0.135	0.200	SRMP 2012-2015
Nitrogen as N, Total, mg/L *	36	0.374	0.319	0.406	SRMP 2012-2015
Nitrogen, Kjeldahl as N, mg/L	42	0.193	0.163	0.222	SRMP 2012-2015
pH, standard units *	40	7.48	7.33	7.53	SRMP 2012-2015
Phosphate as P, Total mg/L	47	0.011	0.010	0.011	SRMP 2012-2015
Phosphorus as P, Total mg/L *	41	0.019	0.017	0.022	SRMP 2012-2015
Specific Conductance, µS/cm	40	135	125	143	SRMP 2012-2015
Temperature, Water, Degrees C	40	17.8	14.7	19.8	SRMP 2012-2015
Total Dissolved Solids, mg/L	41	83	79	90	SRMP 2012-2015
Total Suspended Solids, mg/L *	41	1.8	1.0	3.0	SRMP 2012-2015
Turbidity, NTU	33	0.32	0.26	0.61	SRMP 2012-2013, 2015

Two-tailed confidence limits were used for these EWQ targets

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2655 ICP Delaware River at Pond Eddy



2655 ICP
Delaware River at Pond Eddy Bridge

2655 ICP Delaware River at Pond Eddy

Latitude 41.439444 Longitude -74.820278 by GPS NAD83 decimal degrees.
USGS Site No. 01432805 (very little water quality data, not used to define EWQ)
Watershed Population figures were not calculated for main-stem Delaware River sites.
Drainage Area: 2,820 square miles, Delaware River Zone 1B

Site Specific EWQ defined 2006-2011 by the DRBC/NPS Scenic Rivers Monitoring Program.

This site is located in the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 2735 ICP Delaware River at Barryville
Nearest downstream Interstate Control Point: 2584 ICP Delaware River at Millrift
Known dischargers within watershed: Undefined
Tributaries to upstream reach: Major tributary 2734 BCP Halfway Brook, NY; 2732 BCP Shohola Creek, PA; 2656 BCP Mill Brook, NY; small tributaries 269.9 Twin Lakes Creek, PA; 266.3 Pond Eddy Creek, PA.

No Stream Stats web site data available (drainage area too large to calculate on web site).

Flow Statistics (Calculated):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
146,971	10,196	5,511	3,638	2,848	2,296	1,699	1,433	612

Existing Water Quality: 2655 ICP Delaware River at Pond Eddy

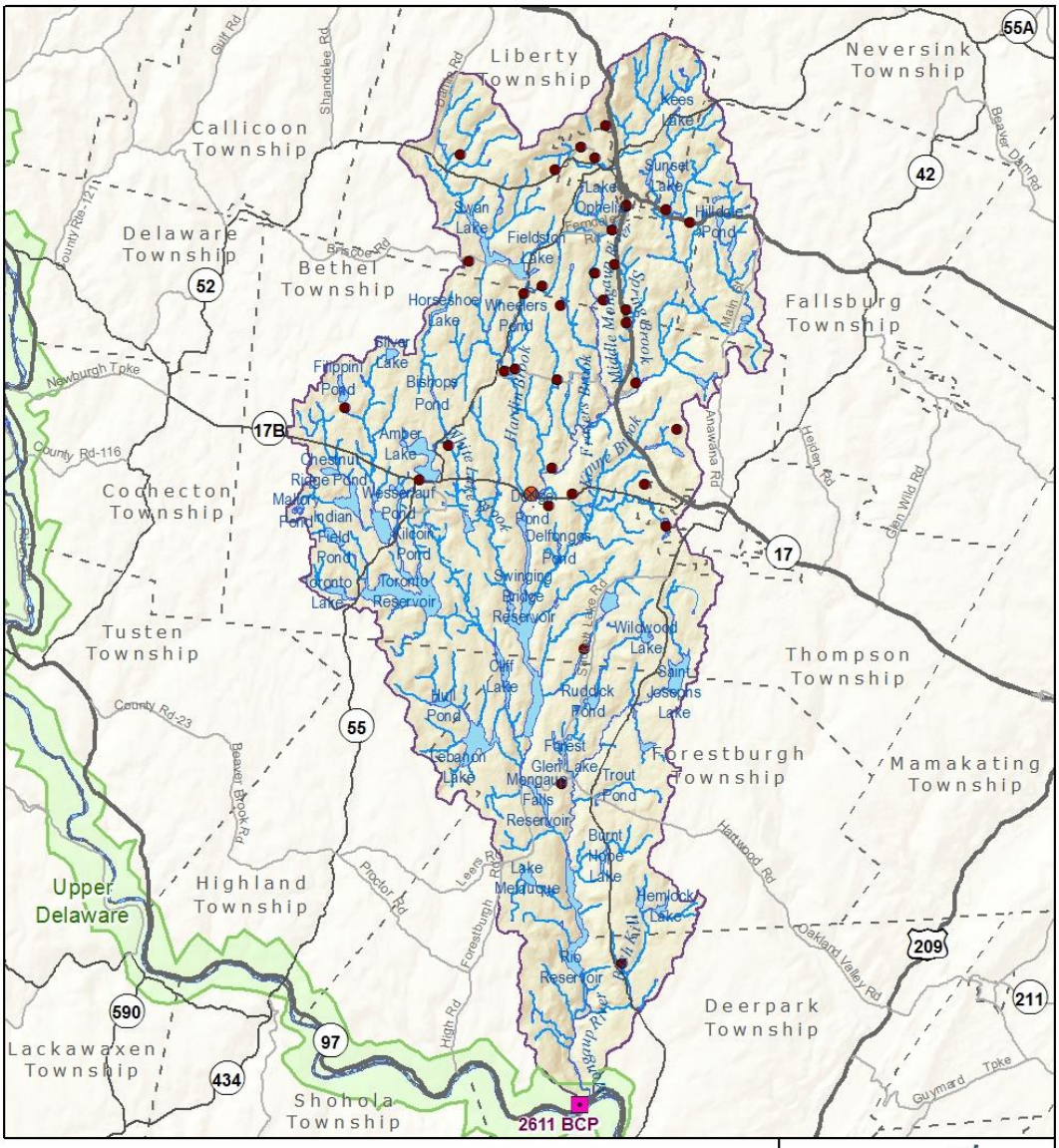
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	63	13.5	13.0	14.1	2006-2011 SRMP
Aluminum, Dissolved mg/L	15	0.004	0.002	0.005	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L*	61	0.014	0.011	0.016	2006-2011 SRMP
Barium, Dissolved mg/L	15	0.021	0.020	0.025	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	15	6.22	5.60	6.51	2009-2010 SRMP archived samples
Chloride, Total mg/L	63	10.68	10.40	11.43	2006-2011 SRMP
Dissolved Oxygen (DO) mg/L *	57	8.80	8.60	9.20	2001-2011 SRMP
Dissolved Oxygen Saturation %	40	97	96	98	2007-2011 SRMP
Enterococcus #/100ml	53	24	11	48	2007-2011 SRMP
Escherichia coli #/100ml	53	10	7	15	2007-2011 SRMP
Fecal coliform #/100ml *	62	15	10	24	2006-2011 SRMP
Hardness as CaCO3, Total mg/L	63	21.2	19.8	22.4	2006-2011 SRMP
Magnesium, Dissolved mg/L	15	1.31	1.22	1.43	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	8.10	5.10	10.60	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	53	0.127	0.107	0.149	2007-2011 SRMP
Nitrogen as N, Total mg/L *	53	0.348	0.321	0.376	2007-2011 SRMP
Nitrogen, Kjeldahl as N, Total mg/L	53	0.221	0.204	0.237	2007-2011 SRMP
pH units *	50	7.63	7.58	7.70	2006-2011 SRMP
Phosphate as P, Total mg/L	52	0.005	0.005	0.007	2007-2011 SRMP
Phosphorus as P, Total mg/L *	53	0.012	0.011	0.014	2007-2011 SRMP
Potassium, Dissolved mg/L	15	0.73	0.65	0.82	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	7.05	5.58	7.24	2009-2010 SRMP archived samples
Specific Conductance µS/cm	50	78.5	73.0	82.0	2006-2011 SRMP
Strontium, Dissolved mg/L	15	0.025	0.023	0.025	2009-2010 SRMP archived samples
Sulfate, Total mg/L	15	5.68	5.59	5.79	2009-2010 SRMP archived samples
Temperature, Water, degrees C	50	18.8	17.8	20.2	2006-2011 SRMP
Total Dissolved Solids (TDS) mg/L	63	45.29	43.80	47.45	2006-2011 SRMP
Total Suspended Solids (TSS) mg/L *	56	2.13	1.47	2.65	2006-2011 SRMP
Turbidity NTU	53	2.67	1.50	7.00	2006-2011 SRMP

Two-tailed confidence limits were used for these EWQ targets

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2611 BCP Mongaup River at Rt. 97



2611 BCP Mongaup River at Rt. 97

Sullivan County, NY. Latitude 41.426944 Longitude -74.756111 by GPS NAD83 decimal degrees.
USGS Gage Upstream 01433500; No nearby NYSDEC sites. USGS Gage includes continuous water quality measures.
Watershed Population: 2000: 19,151 2010: 19,570 Change: +419 (+2.2%)
Drainage Area: 207 square miles, tributary to Delaware River Zone 1B

Site Specific EWQ monitoring was completed 2011 by DRBC/NPS Scenic Rivers Monitoring Program.

This watershed is tributary to the Upper Delaware Scenic and Recreational River (UPDE)
Classified by DRBC as Outstanding Basin Waters.

Nearest upstream Interstate Control Point: 2655 ICP Delaware River at Pond Eddy
Nearest downstream Interstate Control Point: 2584 ICP Delaware River at Mill Rift
Known dischargers within watershed: Many, undefined at present; hydropower releases affect flow and water quality.

Watershed is 80.3% forested; urban land cover is 5.33%. 100% glaciated. No carbonate rock. Mean annual precipitation 45.5 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
20,905	941	494	347	278	183	110	53.9	9.05

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	42.7
M30D2Y (ft^3/s)	54.9
M7D10Y (ft^3/s)	23.3
M30D10Y (ft^3/s)	29.6
M90D10Y (ft^3/s)	42.3

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	393
QAH (ft^3/s)	122
BF10YR (ft^3/s)	160
BF25YR (ft^3/s)	144
BF50YR (ft^3/s)	135

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	5,460
PK5 (ft^3/s)	8,880
PK10 (ft^3/s)	11,700
PK50 (ft^3/s)	19,200
PK100 (ft^3/s)	23,000
PK500 (ft^3/s)	33,700

Existing Water Quality: 2611 BCP Mongaup River at Rt. 97

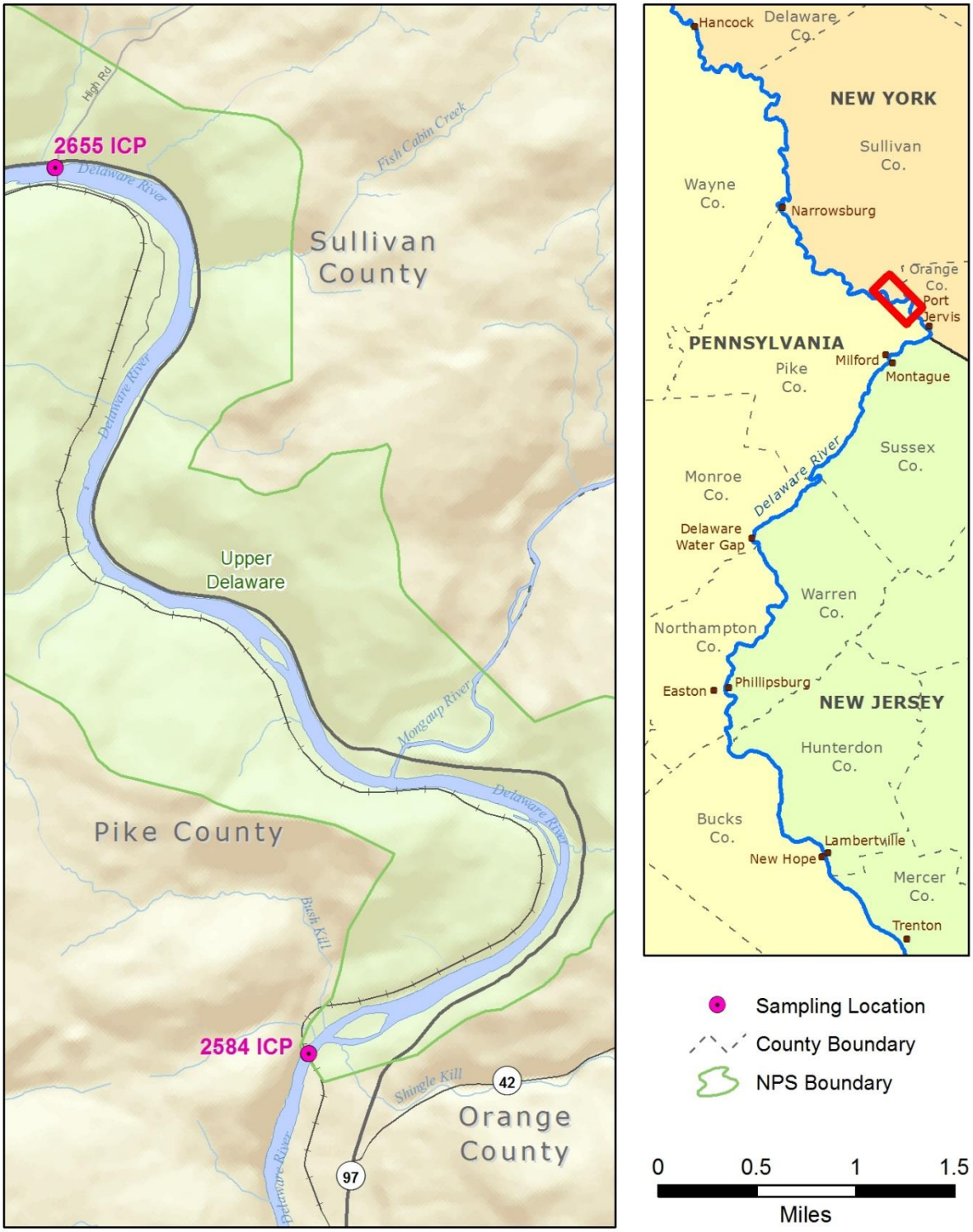
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	61	8.5	7.7	9.0	2006-2011 SRMP
Aluminum, Dissolved mg/L	15	0.004	0.002	0.005	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	61	0.011	0.009	0.014	2006-2011 SRMP
Barium, Dissolved mg/L	15	0.042	0.040	0.045	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	15	5.76	5.24	6.01	2009-2010 SRMP archived samples
Chloride, Total mg/L	61	20.00	17.91	21.03	2006-2011 SRMP
Dissolved Oxygen (DO) mg/L *	58	9.35	9.20	9.70	2006-2011 SRMP
Dissolved Oxygen Saturation %	40	98	97	99	2007-2011 SRMP
Enterococcus #/100ml	51	16	7	27	2007-2011 SRMP
Escherichia coli #/100ml	51	5	3	8	2007-2011 SRMP
Fecal coliform #/100ml *	63	5	4	8	2006-2011 SRMP
Hardness as CaCO3, Total mg/L	61	18.0	16.4	19.6	2006-2011 SRMP
Magnesium, Dissolved mg/L	15	1.12	1.05	1.24	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	15	5.9	4.8	13.0	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	51	0.129	0.111	0.140	2007-2011 SRMP
Nitrogen as N, Total mg/L *	51	0.363	0.335	0.386	2007-2011 SRMP
Nitrogen, Kjeldahl as N, Total mg/L	51	0.246	0.215	0.277	2007-2011 SRMP
pH units *	49	7.50	7.46	7.57	2006-2011 SRMP
Phosphate as P, Total mg/L	51	0.005	0.005	0.006	2007-2011 SRMP
Phosphorus as P, Total mg/L *	51	0.012	0.009	0.013	2007-2011 SRMP
Potassium, Dissolved mg/L	15	0.76	0.70	0.79	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	15	12.07	11.02	13.64	2009-2010 SRMP archived samples
Specific Conductance µS/cm	50	92.9	82.0	104.0	2006-2011 SRMP
Strontium, Dissolved mg/L	15	0.037	0.034	0.040	2009-2010 SRMP archived samples
Sulfate, Total mg/L	15	5.58	5.31	5.66	2009-2010 SRMP archived samples
Temperature, Water, degrees C	50	17.95	16.9	19.1	2006-2011 SRMP
Total Dissolved Solids (TDS) mg/L	61	60.0	56.27	61.25	2006-2011 SRMP
Total Suspended Solids (TSS) mg/L *	52	1.18	1.00	1.60	2006-2011 SRMP
Turbidity NTU	52	1.41	1.05	4.00	2006-2011 SRMP

Two-tailed confidence limits were used for these EWQ targets

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2584 ICP Delaware River at Mill Rift



2584 ICP
Delaware River at Mill Rift, Erie RR Bridge

2584 ICP Delaware River at Mill Rift

Latitude 41.406462 Longitude -74.741772 by GPS NAD83 decimal degrees.
No USGS or State sites nearby
Watershed Population figures were not calculated for main-stem Delaware River sites.
Drainage Area: 3,045 square miles, Delaware River Zone 1B

Site Specific EWQ defined 2006-2011 by the DRBC/NPS Scenic Rivers Monitoring Program.

This site is located at the Upper Delaware Scenic and Recreational River (UPDE) Downstream Terminus
Classified by DRBC as Outstanding Basin Waters

Nearest upstream Interstate Control Point: 2655 ICP Delaware River at Pond Eddy
Nearest downstream Interstate Control Point: 2547 ICP Delaware River at Port Jervis
Known dischargers within watershed: Undefined
Tributaries to upstream reach: Major tributary 2611 BCP Mongaup River, NY; small tributaries 264.7 Fish Cabin Creek, NY; 258.5 Shingle Kill, NY; 258.4 Bushkill Creek, PA (Pike County).

No Stream Stats web site data available (drainage area too large to calculate on web site).

Flow Statistics (Calculated):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
158,697	11,010	5,951	3,928	3,075	2,480	1,835	1,547	661

Existing Water Quality: 2584 ICP Delaware River at Mill Rift

Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	64	13.80	12.10	14.00	2006-2011 SRMP
Aluminum, Dissolved mg/L	14	0.004	0.002	0.005	2009-2010 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	62	0.011	0.010	0.014	2006-2011 SRMP
Barium, Dissolved mg/L	14	0.019	0.014	0.024	2009-2010 SRMP archived samples
Calcium, Dissolved mg/L	14	5.81	4.89	6.21	2009-2010 SRMP archived samples
Chloride, Total mg/L	64	11.8	11.06	12.50	2006-2011 SRMP
Dissolved Oxygen (DO) mg/L *	57	8.9	8.6	9.3	2006-2011 SRMP
Dissolved Oxygen Saturation %	40	98	97	100	2007-2011 SRMP
Enterococcus #/100ml	54	20	10	42	2007-2011 SRMP
Escherichia coli #/100ml	54	7	5	13	2007-2011 SRMP
Fecal coliform #/100ml *	64	12.5	7	19	2006-2011 SRMP
Hardness as CaCO3, Total mg/L	64	20.5	19.6	22.0	2006-2011 SRMP
Magnesium, Dissolved mg/L	14	1.23	1.16	1.44	2009-2010 SRMP archived samples
Manganese, Dissolved µg/L	14	5.8	2.7	10.4	2009-2010 SRMP archived samples
Nitrate+Nitrite as N, Total mg/L *	54	0.115	0.100	0.125	2007-2011 SRMP
Nitrogen as N, Total mg/L *	54	0.323	0.300	0.357	2007-2011 SRMP
Nitrogen, Kjeldahl as N, Total mg/L	54	0.214	0.186	0.228	2007-2011 SRMP
pH units *	50	7.79	7.58	7.82	2006-2011 SRMP
Phosphate as P, Total mg/L	54	0.005	0.004	0.006	2007-2011 SRMP
Phosphorus as P, Total mg/L *	54	0.012	0.010	0.013	2007-2011 SRMP
Potassium, Dissolved mg/L	14	0.67	0.58	0.72	2009-2010 SRMP archived samples
Sodium, Dissolved mg/L	14	6.75	5.76	7.50	2009-2010 SRMP archived samples
Specific Conductance µS/cm	50	81.5	78.0	84.0	2006-2011 SRMP
Strontium, Dissolved mg/L	14	0.024	0.019	0.025	2009-2010 SRMP archived samples
Sulfate, Total mg/L	14	5.41	5.10	5.69	2009-2010 SRMP archived samples
Temperature, Water, degrees C	50	19.35	18.3	21.1	2006-2011 SRMP
Total Dissolved Solids (TDS) mg/L	64	46.65	45.63	47.60	2006-2011 SRMP
Total Suspended Solids (TSS) mg/L *	54	1.62	0.95	2.40	2007-2011 SRMP
Turbidity NTU	53	2.38	1.2	7.0	2006-2011 SRMP

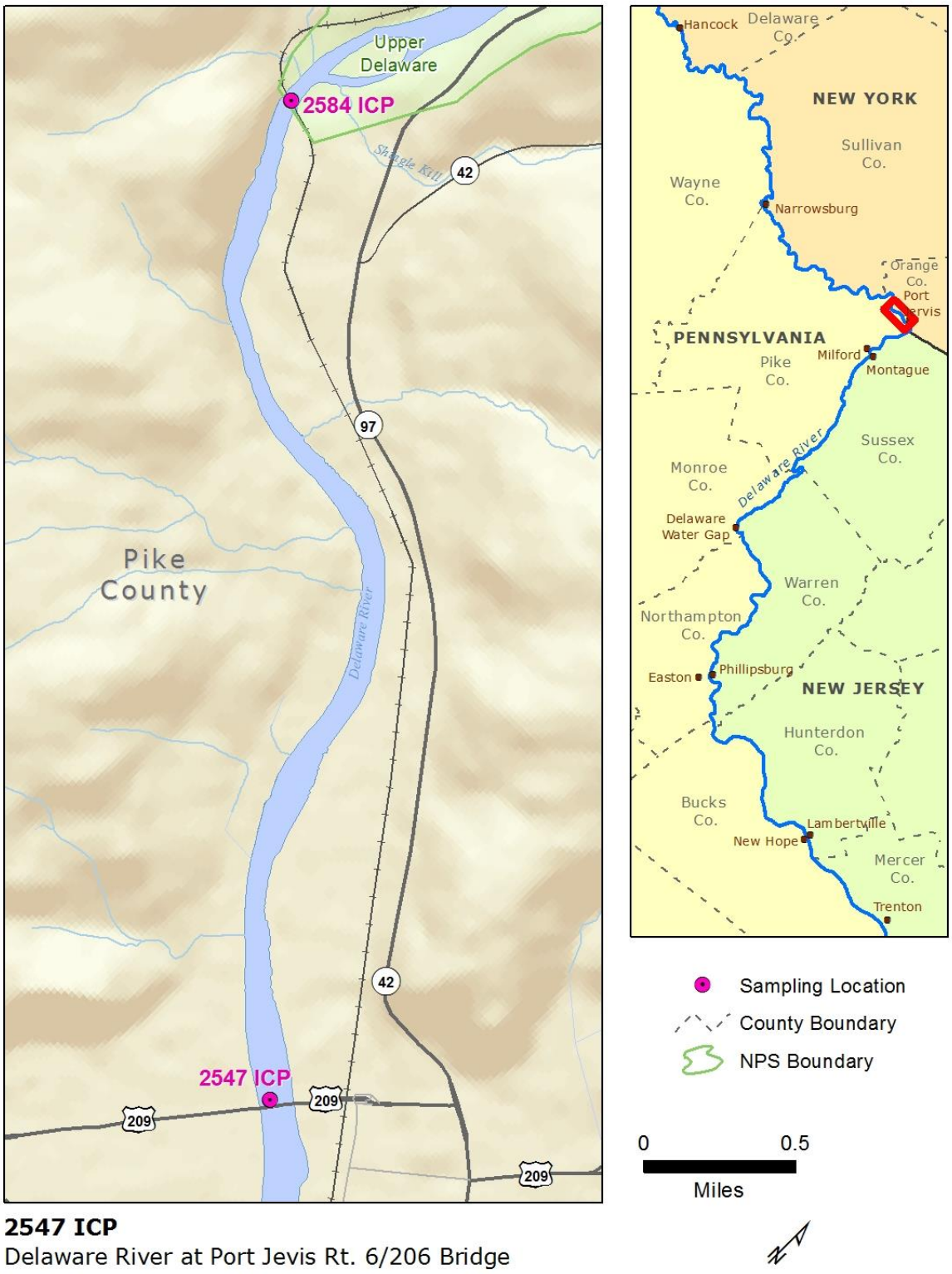
Two-tailed confidence limits were used for these EWQ targets

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

Upper Delaware to Middle Delaware Transition: Significant Resource Waters

2547 ICP Delaware River at Port Jervis Rt. 6/209 Bridge



2547 ICP
Delaware River at Port Jevis Rt. 6/206 Bridge

2547 ICP Delaware River at Port Jervis Rt. 6/209 Bridge

Latitude 41.371667 Longitude -74.697778 by GPS NAD83 decimal degrees.
USGS Site No. 01434000; PADEP Site No. WQN 0103; NYSDEC Site No. 14010001
Watershed Population figures were not calculated for main-stem Delaware River sites.
Drainage Area: 3,070 square miles, Delaware River (southern end of Zone 1B)

Site Specific EWQ defined 2006-2011 by the DRBC/NPS Scenic Rivers Monitoring Program.

This site is located within the Upper to Middle Delaware Transition Zone
Classified by DRBC as Significant Resource Waters

Nearest upstream Interstate Control Point: 2584 ICP Delaware River at Mill Rift
Nearest downstream Interstate Control Point: 2502 ICP Delaware River at Delaware Water Gap NRA Northern Boundary
Known dischargers within watershed: Undefined
Tributaries to upstream reach: None, direct drainage only.

No Stream Stats web site data available (drainage area too large to calculate on web site).

Flow Statistics (USGS Gage 1975-2014 data, calculated using BaSE):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
160,000	11,100	6,000	3,960	3,100	2,500	1,850	1,560	666

Existing Water Quality: 2547 ICP Delaware River at Port Jervis Rt. 6/209 Bridge

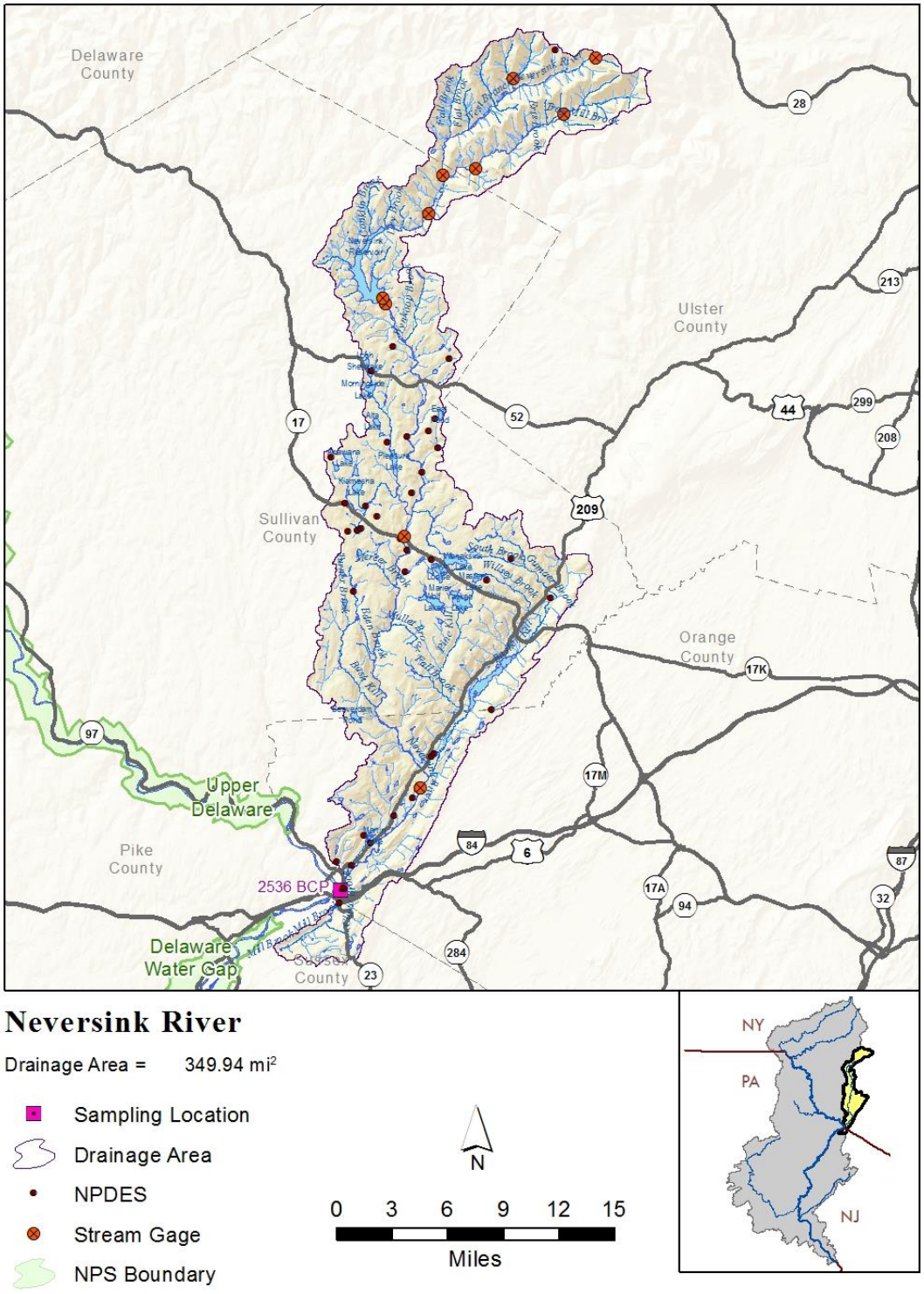
Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	70	14.0	12.9	15.0	1988-2009 SRMP, USGS, PADEP, NYSDEC
Aluminum, Dissolved mg/L (mean)	5	0.003	0.002	0.007	2009 SRMP archived samples
Ammonia-Nitrogen as N, Total mg/L *	75	0.015	0.012	0.016	1987-2009 SRMP, USGS, PADEP, NYSDEC
Barium, Dissolved mg/L (mean)	5	0.022	0.019	0.024	2009 SRMP archived samples
Calcium, Dissolved mg/L	30	6.59	6.12	7.13	USGS 1987-2001, 2009 SRMP archived
Calcium, Total mg/L	43	6.75	6.49	7.05	1999-2009 NYSDEC, PADEP
Chloride, Total mg/L	48	11.35	10.8	11.8	2001-2009 NYSDEC, SRMP, PADEP
Dissolved Oxygen (DO) mg/L *	91	8.80	8.50	9.10	1987-2009 SRMP, USGS, PADEP, NYSDEC
Dissolved Oxygen Saturation %	44	97.8	95.6	100.0	1988-2009 SRMP, USGS, PADEP, NYSDEC
Enterococcus #/100ml	20	70	20	310	2008-2009 SRMP
Escherichia coli #/100ml	20	21	7	31	2008-2009 SRMP
Fecal coliform #/100ml *	40	35	19	39	1987-2009 SRMP, USGS, PADEP, NYSDEC
Hardness as CaCO3, Total mg/L	84	22.1	21.8	23.8	1987-2009 SRMP, USGS, PADEP, NYSDEC
Iron, Dissolved µg/L	16	40.5	29.0	58.0	1988-2001 USGS
Iron, Total µg/L	43	121	95	138	1999-2009 NYSDEC, PADEP
Magnesium, Dissolved mg/L	30	1.33	1.23	1.50	1987-2001 USGS, 2009 SRMP archived
Magnesium, Total mg/L	43	1.40	1.35	1.47	1999-2009 NYSDEC, PADEP
Manganese, Dissolved µg/L	20	8.95	7.2	11.5	1988-2000 USGS, 2009 SRMP archived
Manganese, Total µg/L	43	35.2	30.4	47.0	1999-2009 NYSDEC, PADEP
Nitrate as N, Total mg/L	44	0.038	0.033	0.048	1988-2007 USGS, NYSDEC, PADEP
Nitrate+Nitrite as N, Total mg/L *	65	0.160	0.132	0.177	1987-2009 USGS, NYSDEC, SRMP
Nitrogen as N, Total mg/L *	56	0.377	0.340	0.414	1987-2009 USGS, NYSDEC, SRMP, PADEP
Nitrogen, Kjeldahl as N, Total mg/L	79	0.218	0.206	0.230	1987-2009 USGS, NYSDEC, SRMP
Organic Carbon, Dissolved mg/L	17	2.34	2.10	2.90	1999-2007 USGS, NYSDEC
Organic Carbon, Total mg/L	17	2.70	2.38	3.15	1999-2007 NYSDEC, PADEP
pH units *	121	7.33	7.30	7.40	1987-2009 USGS, NYSDEC, PADEP, SRMP
Phosphate as P, Dissolved mg/L	38	0.007	0.006	0.010	1987-2007 USGS, NYSDEC
Phosphate as P, Total mg/L	26	0.005	0.004	0.010	2002-2009 SRMP, PADEP
Phosphorus as P, Total mg/L *	100	0.014	0.012	0.017	1987-2009 SRMP, USGS, NYSDEC, PADEP
Potassium, Dissolved mg/L	5	0.59	0.51	0.77	2009 SRMP archived samples (mean CL)
Sodium, Dissolved mg/L	5	6.14	5.52	6.90	2009 SRMP archived samples (mean CL)
Specific Conductance µS/cm	119	83	81	87	1988-2009 SRMP, USGS, NYSDEC, PADEP
Strontium, Dissolved mg/L	5	0.023	0.020	0.026	2009 SRMP archived samples (mean CL)
Sulfate, Total mg/L	47	6.60	6.25	7.06	1999-2009 NYSDEC, PADEP,SRMP archived
Temperature, Water, degrees C	104	20.4	19.4	21.8	1987-2009 SRMP, USGS, NYSDEC, PADEP
Total Dissolved Solids (TDS) mg/L	90	51.3	49.0	55.0	1987-2009 SRMP, USGS, NYSDEC, PADEP
Total Suspended Solids (TSS) mg/L *	60	2.0	2.0	2.5	1991-2009 SRMP, USGS, NYSDEC, PADEP
Turbidity NTU	71	2.0	1.7	2.6	1987-2009 SRMP, USGS, NYSDEC, PADEP

Two-tailed confidence limits were used for these EWQ targets

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.

2536 BCP Neversink River at Rt. 6



2536 BCP Neversink River at Rt. 6

Orange County, NY. Latitude 41.361111 Longitude -74.685556 by GPS NAD83 decimal degrees.
USGS Site No 01438000; NYSDEC Site No. 14021001.
Watershed Population: 2000: 35,783 2010: 37,668 Change: +1,885 (+5.3%)
Drainage Area: 349 square miles, tributary to Delaware River Zone 1C

Site Specific EWQ monitoring was completed 2011 by DRBC/NPS Scenic Rivers Monitoring Program.

This watershed is tributary to the reach just north of the Delaware Water Gap National Recreation Area (DEWA) Classified by DRBC as Significant Resource Waters.

Nearest upstream Interstate Control Point: 2547 ICP Delaware River at Port Jervis
Nearest downstream Interstate Control Point: 2502 ICP Delaware River at DWGNRA Northern Boundary
Known dischargers within watershed: Many, undefined. Neversink Reservoir releases affect flow and water quality.

Watershed is 87.1% forested; urban land cover is 4.74%. 100% glaciated. 4.9% carbonate bedrock. Mean annual precipitation 47.9 inches. (http://water.usgs.gov/osw/streamstats/, accessed 2012).

Flow Statistics (USGS BaSE Model):

Max Flow (CFS)	90% Flow (CFS)	75% Flow (CFS)	60% Flow (CFS)	50% Flow (CFS)	40% Flow (CFS)	25% Flow (CFS)	10% Flow (CFS)	Min Flow (CFS)
32,717	1,724	1,013	409	331	271	214	98.8	16.6

StreamStats Low-Flow Stream Statistics

M7D2Y (ft^3/s)	110
M30D2Y (ft^3/s)	136
M7D10Y (ft^3/s)	69.4
M30D10Y (ft^3/s)	82.4
M90D10Y (ft^3/s)	111

StreamStats Mean/Baseflow Stream Statistics

QA (ft^3/s)	746
QAH (ft^3/s)	295
BF10YR (ft^3/s)	334
BF25YR (ft^3/s)	303
BF50YR (ft^3/s)	285

StreamStats Peak-Flow Stream Statistics

PK2 (ft^3/s)	9,250
PK5 (ft^3/s)	14,900
PK10 (ft^3/s)	19,400
PK50 (ft^3/s)	31,500
PK100 (ft^3/s)	37,600
PK500 (ft^3/s)	54,400

Existing Water Quality: 2536 BCP Neversink River at Rt. 6

Parameter	N	median	L95CL	U95CL	Period of Record (May-Sep data)
Alkalinity as CaCO3, Total mg/L	51	15.1	14.6	16.2	SRMP 2008-13, NYSDEC 2005, USGS 2000
Aluminum, Dissolved mg/L (mean)	5	0.005	0.002	0.008	SRMP 2009 archived samples
Ammonia-Nitrogen as N, Total mg/L *	47	0.027	0.022	0.033	SRMP 2008-13, NYSDEC 2005, USGS 1997
Barium, Dissolved mg/L (mean)	5	0.036	0.032	0.037	SRMP 2009 archived samples
Calcium, Dissolved mg/L	10	7.54	6.27	7.90	NYSDEC 2000, SRMP 2009 archived
Chloride, Total mg/L	46	16.7	15.8	18.5	SRMP 2008-13; NYSDEC 2005
Dissolved Oxygen (DO) mg/L *	33	7.8	7.6	8.7	SRMP 2008-12; NYSDEC 2005
Dissolved Oxygen Saturation %	28	86.3	81.4	88.2	SRMP 2008-12
Enterococcus #/100ml	20	130	80	220	SRMP 2008-2009
Escherichia coli #/100ml	20	54	31	600	SRMP 2008-2009
Fecal coliform #/100ml *	27	98	60	190	SRMP 2008-12; NYSDEC 2005
Hardness as CaCO3, Total mg/L	51	25.0	24.6	26.0	SRMP 2008-13; NYSDEC 2005; USGS 2000
Magnesium, Dissolved mg/L	10	1.36	1.19	1.68	USGS 2000, SRMP 2009 archived
Manganese, Dissolved µg/L	5	18.3	12.1	24.5	SRMP 2009 archived samples
Nitrate+Nitrite as N, Total mg/L *	46	0.365	0.336	0.424	SRMP 2008-13; NYSDEC 2005
Nitrogen as N, Total mg/L *	45	0.615	0.563	0.680	SRMP 2008-13; USGS 2000
Nitrogen, Kjeldahl as N, Total mg/L	51	0.279	0.262	0.294	SRMP 2008-13; NYSDEC 2005; USGS 2000
pH units *	36	6.88	6.74	6.97	NYSDEC 2005, SRMP 2008-12
Phosphate as P, Total mg/L	40	0.043	0.038	0.053	SRMP 2008-13
Phosphorus as P, Total mg/L *	51	0.056	0.049	0.063	USGS 2000; NYSDEC 2005; SRMP 2008-13
Potassium, Dissolved mg/L	5	0.60	0.46	0.81	SRMP 2009 archived samples
Sodium, Dissolved mg/L	5	9.53	7.74	11.29	SRMP 2009 archived samples
Specific Conductance µS/cm	38	106	103	114	NYSDEC 2005; SRMP 2008-12
Strontium, Dissolved mg/L	5	0.042	0.032	0.046	SRMP 2009 archived samples
Sulfate, Total mg/L	10	6.45	5.31	7.38	NYSDEC 2005; SRMP 2009 archived
Temperature, Water, degrees C	33	18.9	17.5	21.5	NYSDEC 2005, SRMP 2008-12
Total Dissolved Solids (TDS) mg/L	51	62.5	60.0	64.8	USGS 2000; NYSDEC 2005, SRMP 2008-13
Total Suspended Solids (TSS) mg/L *	46	2.0	1.5	2.35	NYSDEC 2005; SRMP 2008-13
Turbidity NTU	34	2.22	1.82	3.08	NYSDEC 2005; SRMP 2008-12

Two-tailed confidence limits were used for these EWQ targets

* = Dischargers may be required to evaluate this parameter for permit limits necessary to meet EWQ. Implementation guidance should be consulted for discharge evaluations.

Note: All data are May to September season. Additional data are available for the October to April "non-seasonal" period, but data are insufficient in number for establishment of site-specific existing water quality targets.