

### Stream Biomonitoring Data Results

Includes data commissioned by OC Planning Department 2012-2013, Quassaick Creek Watershed Plan), the Orange County Water Authority (2004-2013) & the Pinchot Institute (2014-2017, Neversink Watershed).

#### Biological Assessment Profile (BAP) Score

Stream Name	Station ID	Watershed	Major Watershed	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Mean Score	Standard Deviation
Unnamed tributary	0900_003	Wallkill	Wallkill		6.10													6.10	
Monhagen Brook	0900_005	Wallkill	Wallkill		4.60	4.07		5.37	5.76									4.95	0.76
Monhagen Brook	0900_006	Wallkill	Wallkill		5.50	6.68												6.09	0.83
Quassaic Creek	1100_001	Quassaick	Upper Hudson	6.70								6.46						6.58	0.17
Neversink River	1300_001	Delaware	Delaware		5.90					9.12		7.98	9.00					8.00	1.49
Delaware River	1300_002	Delaware	Delaware		8.40		7.34											7.87	0.75
Satterly Creek	2089_001	Moodna	Upper Hudson	4.60														4.60	
Satterly Creek	2089_002	Moodna	Upper Hudson		6.40								4.80					5.60	1.13
Seely Brook	2089_003	Moodna	Upper Hudson		5.30								4.20					4.75	0.78
Moodna Creek	2089_004	Moodna	Upper Hudson	5.10	5.60							6.21	6.80					5.93	0.74
Cromline Creek	2089_005	Moodna	Upper Hudson	7.10														7.10	
Perry Creek	2089_006	Moodna	Upper Hudson		4.87	6.85							6.10					5.94	1.00
Perry Creek	2089_007	Moodna	Upper Hudson		5.90	7.40	5.16											6.15	1.14
Cromline Creek	2089_008	Moodna	Upper Hudson		4.70	4.16			5.03	6.08								4.99	0.81
Satterly Creek	2089_009	Moodna	Upper Hudson	5.50						4.68								5.09	0.58
Black Meadow Creek	2201_001	Moodna	Upper Hudson	3.30	3.12	4.60												3.67	0.81
Black Meadow Creek	2201_002	Moodna	Upper Hudson					5.49	5.10			4.58						5.06	0.46
Seeley Brook	2289_002	Moodna	Upper Hudson	5.60						7.24								6.42	1.16
Unnamed tributary	2289_003	Moodna	Upper Hudson	6.90														6.90	
Trout Brook	2289_005	Moodna	Upper Hudson		6.50													6.50	
Seely Brook	2289_008	Moodna	Upper Hudson		7.90	6.75												7.33	0.81
Seely Brook	2289_009	Moodna	Upper Hudson	5.60														5.60	
Black Meadow Creek	2289_010	Moodna	Upper Hudson										7.60					7.60	
Dock Hill Creek	2401_001	Lower Hudson	Upper Hudson		7.80	7.67												7.74	0.09
Blackrock Creek	2489_001	Moodna	Upper Hudson			8.34												8.34	
Moodna Creek	2489_002	Moodna	Upper Hudson		7.60					6.41								7.01	0.84
Woodbury Creek	2489_003	Moodna	Upper Hudson		7.30													7.30	
Idlewild Creek	2489_004	Moodna	Upper Hudson	5.30		7.09												6.20	1.27
Unnamed tributary	2489_006	Moodna	Upper Hudson		8.20	8.20												8.20	0.00
Canterbury Brook	2489_007	Moodna	Upper Hudson	8.50		7.72												8.11	0.55
Woodbury Creek	2489_008	Moodna	Upper Hudson		8.20	7.30				7.06		6.64						7.30	0.66
Unnamed tributary	2489_009	Moodna	Upper Hudson		8.30	7.15												7.73	0.81
Moodna Creek	2489_010	Moodna	Upper Hudson		7.70	7.13		5.48										6.77	1.15
Mineral Spring Brook	2489_011	Moodna	Upper Hudson	8.10														8.10	
Idlewild Creek	2489_012	Moodna	Upper Hudson	6.60		5.80				2.94								5.11	1.92

Stream Name	Station ID	Watershed	Major Watershed	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Mean Score	Standard Deviation
Baby Brook	2489_013	Moodna	Upper Hudson			7.60												7.60	
Woodbury Creek	2489_014	Moodna	Upper Hudson								7.41		7.10					7.26	0.22
Idlewild Creek	2489_015	Moodna	Upper Hudson									6.41	6.50					6.46	0.06
Pakanasink Creek	2600_001	Wallkill	Wallkill	7.30														7.30	
Dwaar Kill	2600_002	Wallkill	Wallkill	7.20														7.20	
Shawangunk Kill	2600_003	Wallkill	Wallkill	7.90	7.25								8.60					7.92	0.68
Pakanasink Creek	2600_004	Wallkill	Wallkill		5.30	6.56												5.93	0.89
Pakanasink Creek	2600_005	Wallkill	Wallkill			8.30	8.10											8.20	0.14
Dwaar Kill	2600_006	Wallkill	Wallkill			7.00						7.90						7.45	0.64
Dwaar Kill	2600_007	Wallkill	Wallkill			3.10		1.87	4.21									3.06	1.17
Basher Kill	2800_001	Delaware	Delaware		7.30									5.25	8.00	8.90	5.10	6.91	1.68
Gold Creek	2800_002	Delaware	Delaware		5.24									3.67	4.60	3.70	5.10	4.46	0.75
Shingle Kill	2800_003	Delaware	Delaware		7.90													7.90	
Shingle Kill	2800_004	Delaware	Delaware	Chemical Testing Only												Chem Only			
Neversink River	2800_005	Delaware	Delaware	8.10		8.30								8.75	8.40	8.30	7.60	8.20	0.38
Neversink River	2800_006	Delaware	Delaware	8.70		9.30			8.71					8.74	8.40	8.00	8.00	8.90	0.46
Bush Kill	2800_007	Delaware	Delaware		8.00	7.25												7.63	0.53
Basher Kill	2800_008	Delaware	Delaware		5.40									5.63	5.50		4.30	5.40	0.61
Unnamed tributary	3089_002	Moodna	Upper Hudson	Chemical Testing Only												Chem Only			
Otter Kill	3089_003	Moodna	Upper Hudson	6.10														6.10	
Wallkill River	3089_004	Wallkill	Wallkill		2.90													2.90	
Otter Kill	3089_005	Moodna	Upper Hudson		6.32		5.08											5.70	0.88
Rio Grand	3089_006	Wallkill	Wallkill		0.95		0.78	4.19	3.82	4.30		4.00						3.01	1.67
Rio Grand	3089_007	Wallkill	Wallkill		3.20		2.72											2.96	0.34
Rio Grand	3089_008	Wallkill	Wallkill		1.97	1.80	1.31											1.69	0.34
Black Meadow Creek	3089_009	Moodna	Upper Hudson		5.17	6.81	6.45			6.78								6.30	0.77
Rio Grand	3089_011	Wallkill	Wallkill					3.11	3.45									3.28	0.24
Shawangunk Kill	3200_001	Wallkill	Wallkill	6.70														6.70	
Otter Kill	3489_001	Moodna	Upper Hudson		3.40					5.59								4.50	1.55
Otter Kill	3489_002	Moodna	Upper Hudson		6.05					6.09								6.07	0.03
Highland Brook	3601_001	Lower Hudson	Upper Hudson	6.80														6.80	
Crows Nest Brook	3689_001	Lower Hudson	Upper Hudson		5.50													5.50	
Unnamed tributary	3689_002	Lower Hudson	Upper Hudson	7.50														7.50	
Rutgers Creek	3889_001	Wallkill	Wallkill		6.85									5.90				6.38	0.67
Unnamed tributary	3889_002	Wallkill	Wallkill	3.70	4.20			3.35										3.75	0.43
Unnamed tributary	3889_003	Wallkill	Wallkill	7.10	6.90													7.00	0.14
Rutgers Creek	3889_004	Wallkill	Wallkill	7.50								8.04						7.77	0.38
Indigot Creek	3889_005	Wallkill	Wallkill			8.00												8.00	

Stream Name	Station ID	Watershed	Major Watershed	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Mean Score	Standard Deviation
Rutgers Creek	3889_006	Wallkill	Wallkill						7.54									7.54	
Ramapo River	4001_001	Ramapo	Ramapo	4.60	5.95		4.23											4.93	0.91
Ramapo River	4001_002	Ramapo	Ramapo	7.90														7.90	
Ramapo River	4003_001	Ramapo	Ramapo		6.30							4.60						5.45	1.20
Unnamed tributary	4005_001	Ramapo	Ramapo	5.20				4.62										4.91	0.41
Unnamed tributary	4089_003	Moodna	Upper Hudson	7.80														7.80	
Ramapo River	4089_005	Ramapo	Ramapo		4.70	4.83	4.60	4.32	4.70			4.07	4.10					4.47	0.31
Unnamed tributary	4089_006	Ramapo	Ramapo	8.40														8.40	
Unnamed tributary	4089_007	Moodna	Upper Hudson	8.80														8.80	
Quassaick Creek	4200_002	Quassaick	Upper Hudson									7.34	7.20					7.27	0.10
Wallkill River	4205_002	Wallkill	Wallkill			5.04												5.04	
Tin Brook	4205_005	Wallkill	Wallkill		7.00													7.00	
Wallkill River	4289_003	Wallkill	Wallkill		4.50		4.93											4.72	0.30
Tin Brook	4289_004	Wallkill	Wallkill	5.80				6.75	6.78				6.20					6.38	0.47
Wallkill River	4289_005	Wallkill	Wallkill		4.20	4.45	2.37	4.54	1.39			5.74						3.78	1.60
Wallkill River	4289_006	Wallkill	Wallkill		1.17	3.93	3.89	4.97	0.34			3.69	5.80					3.40	1.96
Wallkill River	4289_006	Wallkill	Wallkill			3.87												3.87	
Tin Brook	4289_007	Wallkill	Wallkill		5.70	5.80												5.75	0.07
Wallkill River	4289_008	Wallkill	Wallkill			5.70												5.70	
Wallkill River	4289_009	Wallkill	Wallkill			3.26												3.26	
Unnamed tributary	4401_001	Wallkill	Wallkill	Chemical Testing Only													Chem Only		
Shawangunk Kill	4489_002	Wallkill	Wallkill		5.40													5.40	
Little Shawangunk Kill	4489_003	Wallkill	Wallkill	7.40														7.40	
Quassaic Creek	4600_001	Quassaick	Upper Hudson		4.80			6.72	5.33			7.68						6.13	1.31
Unnamed tributary	4600_003	Upper Hudson	Upper Hudson			5.90												5.90	
Quassaic Creek	4600_004	Quassaick	Upper Hudson	6.30								6.40						6.35	
Quassaic Creek	4600_005	Quassaick	Upper Hudson	7.30								5.14	5.40					5.95	1.18
Gidneytown Creek	4600_007	Quassaick	Upper Hudson	9.20								7.05	6.90					7.72	1.29
Unnamed tributary	4600_008	Upper Hudson	Upper Hudson		5.20	5.20												5.20	0.00
Gidneytown Creek	4600_010	Quassaick	Upper Hudson									6.42						6.42	
Bushfield Creek	4600_012	Quassaick	Upper Hudson									7.41						7.41	
Bushfield Creek	4600_013	Quassaick	Upper Hudson									6.97	6.90					6.94	0.05
Patton Brook	4600_014	Quassaick	Upper Hudson										4.60					4.60	
Quassaic Creek	4600_015	Quassaick	Upper Hudson										6.50					6.50	
Moodna Creek	4800_003	Moodna	Upper Hudson			6.02	5.68											5.85	0.24
Moodna Creek	4800_005	Moodna	Upper Hudson			5.70												5.70	
Unnamed tributary	4800_006	Moodna	Upper Hudson		5.50													5.50	
Unnamed tributary	4800_007	Moodna	Upper Hudson	5.60	4.90	5.45												5.32	0.37

Stream Name	Station ID	Watershed	Major Watershed	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Mean Score	Standard Deviation
Silver Stream	4800_008	Moodna	Upper Hudson	Chemical Testing Only														Chem Only	
Unnamed tributary	4800_010	Moodna	Upper Hudson				5.49			4.99								5.24	0.35
Silver Stream	4800_011	Moodna	Upper Hudson		4.10	4.90		3.97		4.18		4.55	5.10					4.47	0.46
Moodna Creek	4800_012	Moodna	Upper Hudson		6.00	5.28	4.66		6.37	5.48			6.30					5.68	0.66
Quassaic Creek	4800_013	Quassaick	Upper Hudson		5.10	4.40	4.22		4.73	4.02			4.80					4.55	0.40
Silver Stream	4800_014	Quassaick	Upper Hudson										4.20					4.20	
Silver Stream	4800_015	Quassaick	Upper Hudson										3.80					3.80	
Unnamed tributary	5089_001	Ramapo	Ramapo	6.90														6.90	
Ramapo River	5089_002	Ramapo	Ramapo			5.50	6.32			7.18								6.33	0.84
Ramapo River	5089_003	Ramapo	Ramapo		5.30		4.91						5.00					5.07	0.20
Ramapo River	5089_004	Ramapo	Ramapo		4.54		5.19		4.67			4.91						4.83	0.29
Unnamed tributary	5089_005	Ramapo	Ramapo	8.10	8.20													8.15	0.07
Arden Brook	5089_007	Ramapo	Ramapo		7.80	7.25												7.53	0.39
Ringwood River	5089_008	Ramapo	Ramapo		7.00	6.30												6.65	0.49
Unnamed tributary	5089_009	Ramapo	Ramapo				8.50											8.50	
Ramapo River	5089_010	Ramapo	Ramapo									3.80	4.20					4.00	0.28
Masonic Creek	5200_001	Wallkill	Wallkill	3.60	3.72			3.88				3.99						3.80	0.17
Wallkill River	5200_002	Wallkill	Wallkill		3.10								5.40					4.25	
Unnamed tributary	5200_003	Wallkill	Wallkill		6.90													6.90	
Unnamed tributary	5200_005	Wallkill	Wallkill	7.00														7.00	
Masonic Creek	5200_006	Wallkill	Wallkill	7.00														7.00	
Mannayunk Kill	5200_007	Wallkill	Wallkill	6.90														6.90	
Unnamed tributary	5200_008	Wallkill	Wallkill	8.40		8.40												8.40	0.00
Unnamed tributary	5200_009	Wallkill	Wallkill		6.50													6.50	
Shawangunk Kill	5200_010	Wallkill	Wallkill	7.90		7.90						7.22						7.67	0.00
Masonic Creek	5200_012	Wallkill	Wallkill	Chemical Testing Only														Chem Only	
Masonic Creek	5200_013	Wallkill	Wallkill		5.70			4.66	5.14			6.43	6.80					5.75	0.88
Monhagen Brook	5200_014	Wallkill	Wallkill	Chemical Testing Only														Chem Only	
Unnamed tributary	5200_015	Wallkill	Wallkill			6.37												6.37	
Unnamed tributary	5405_001	Wallkill	Wallkill	6.70														6.70	
Wawayanda Creek	5489_001	Wallkill	Wallkill		6.43													6.43	
Browns Creek	5489_002	Wallkill	Wallkill		6.00													6.00	
Quaker Creek	5489_003	Wallkill	Wallkill		2.53		3.84					4.72						3.70	1.10
Unnamed tributary	5489_004	Wallkill	Wallkill	6.90	9.69	8.00												8.20	1.41
Wawayanda Creek	5489_006	Wallkill	Wallkill	8.50			7.33											7.92	0.83
Unnamed tributary	5489_007	Wallkill	Wallkill	8.20														8.20	
Browns Creek	5489_008	Wallkill	Wallkill	7.80								5.41						6.61	
Longhouse Creek	5489_009	Wallkill	Wallkill		7.10													7.10	

Stream Name	Station ID	Watershed	Major Watershed	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Mean Score	Standard Deviation
Wawayanda Creek	5489_010	Wallkill	Wallkill		3.90			2.87	4.53									3.77	0.84
Wheeler Creek	5489_011	Wallkill	Wallkill		4.80	5.97	6.15					5.20						5.53	0.64
Pochuck Creek	5489_012	Wallkill	Wallkill		5.10													5.10	
Unnamed tributary	5489_014	Wallkill	Wallkill	8.30														8.30	
Quaker Creek	5489_015	Wallkill	Wallkill					6.06				5.00	5.50					5.52	0.53
Wallkill River	5489_016	Wallkill	Wallkill		5.23	4.76	3.19		5.16	4.47			7.30					5.02	1.34
Wawayanda Creek	5489_017	Wallkill	Wallkill		5.40	6.30							5.40					5.70	0.52
Unnamed tributary	5489_019	Ramapo	Ramapo		6.57	4.94	3.20											4.90	1.69
Wawayanda Creek	5489_020	Wallkill	Wallkill			5.37												5.37	
Black Meadow Creek	5489_021	Moodna	Upper Hudson	6.30														6.30	
Monhagen Brook	5600_001	Wallkill	Wallkill		4.50													4.50	
Rutgers Creek	5600_002	Wallkill	Wallkill			6.55												6.55	
Monhagen Brook	5600_003	Wallkill	Wallkill	3.00	4.00	5.58												4.19	1.30
Indigot Creek	5600_004	Wallkill	Wallkill			7.00												7.00	
Monhagen Brook	5600_005	Wallkill	Wallkill		4.55	5.56				4.91		5.74	5.62					5.28	0.52
Wallkill River	5600_006	Wallkill	Wallkill			4.97						4.07						4.52	
Mineral Spring Brook	5889_001	Moodna	Upper Hudson	6.80														6.80	
Woodbury Creek	5889_002	Moodna	Upper Hudson	5.20	5.70	5.80												5.57	0.32
Woodbury Creek	5889_003	Moodna	Upper Hudson	Chemical Testing Only													Chem Only		
Unnamed tributary	5889_004	Moodna	Upper Hudson	Chemical Testing Only													Chem Only		
Woodbury (the headwater pond)	5889_005	Moodna	Upper Hudson	Chemical Testing Only													Chem Only		
Woodbury (the headwater pond)	5889_006	Moodna	Upper Hudson	Chemical Testing Only													Chem Only		
Woodbury Creek	5889_007	Moodna	Upper Hudson		6.40	6.70		6.47										6.52	0.16
Mineral Spring Brook	5889_009	Moodna	Upper Hudson		7.49	6.70	7.59				8.48							7.57	0.73
Woodbury Creek	5889_010	Moodna	Upper Hudson		3.30	4.16		3.75	4.66			3.70						3.91	0.52
Woodbury Creek	5889_011	Moodna	Upper Hudson			5.60	7.30											6.45	1.20
Unnamed tributary	5889_013	Moodna	Upper Hudson			6.60	5.78											6.19	0.58
Unnamed tributary	5889_014	Moodna	Upper Hudson			4.98	3.74											4.36	0.88
<b>Number of Site BAP Samples per year:</b>				<b>55</b>	<b>84</b>	<b>67</b>	<b>30</b>	<b>18</b>	<b>20</b>	<b>20</b>	<b>2</b>	<b>33</b>	<b>33</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>5.83</b>	<b>= Average BAP for all sites, all years</b>
																		<b>381</b>	<b>= Total BAP Samples, all years</b>