State of the Scantic: 2021



Annual Report Prepared by:

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Prepared for the Scantic River Watershed Association, the East Windsor American Heritage Rivers Commission, the Town of East Windsor, the Somers Conservation Commission, and the Enfield Conservation Commission

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The Scantic River Watershed Monitoring Program (WMP) began in 2010 with the goal of providing accurate information on water quality and overall watershed health to local conservation commissions and to the State of Connecticut. Throughout the year, volunteers collected water samples from locations throughout the watershed.

Summer monitoring of total fecal coliform and *Escherichia coli* (*E. coli*) levels continued at selected locations in Somers, Enfield, and East Windsor. The Scantic River Water Monitoring Project's testing lab is based at the University of Saint Joseph, and takes advantage of the expanded testing capabilities, the additional facilities, and to allow for the involvement of USJ student researchers.

Funding for the *E. coli* project was obtained from the Scantic River Watershed Association, East Windsor, CT, Enfield, CT, the Somers Conservation Commission, and from the University of Saint Joseph. Additional funds to support the WMP project came from individual donors.

Kirsten Martin, Ph.D.

In an effort to streamline the report, this year's "State of the Scantic" report will only contain data from the 2021 collection season. Tables presented in this report compare the 2021 data to the 2020 data using a color scale (yellow = 2021 data is higher than the 2020 data; $\frac{1}{2}$ $\frac{1}{2$

pН

The pH of aquatic systems is a crucial indicator of water quality. While aquatic organisms can vary in their sensitivity to pH, most have specific ranges in which they can exist most easily.

Table 1: Impacts of pH levels on aquatic organisms (adapted from Johnson, Homquist, and Redding. 2007. Water Quality with Vernier)

pH level	Impact
3.0-3.5	Fish cannot survive for more than a few hours. Some invertebrates and
	plants might be able to exist at this level.
3.5-4.0	Lethal to salmonids
4.0-4.5	At this level, most frogs, insects, and fish will be absent
4.5-5.0	Mayfly absent, other types of sensitive insects might also be absent. Fish
	eggs will have great difficulty hatching
5.0-5.5	Benthic bacteria begin to die, detritus begins to accumulate. Fungal mats will
	replace the bacteria. Freshwater snails and clams will be absent. Lead and
	aluminum that might be tied up in the sediments will be released into the
	water.
6.0-6.5	Freshwater shrimp will be absent.
6.5-8.2	Optimal level for most aquatic organisms
8.2-9.0	Not directly harmful to fish, but pH level might cause chemical changes in the
	water
9.0-10.5	Harmful to salmonids and perch
10.5-11.0	Rapidly lethal to salmonids. Lethal to carp and perch if there is prolonged
	exposure
11.0-11.5	Rapidly lethal to all species of fish

Temperature

Water temperature is another key component of overall aquatic health. Changes in riparian habitat can alter the temperature of the river or stream. Increased water temperatures are linked to increases in photosynthetic rate, resulting in increased plant growth and/or algal blooms. Aquatic organisms have optimal temperature ranges.

Table 2: Impacts of temperature on aquatic organisms (adapted from Johnson, Homquist, and Redding. 2007. Water Quality with Vernier)

Organism	Temperature range (°C)
Trout	5-20
Caddisfly larvae	10-25
Mayfly larvae	10-25
Stonefly larvae	10-25

Total Dissolved Solids (TDS)

The total dissolved solids analysis looks at the ability of dissolved salts, and associated ions to conduct an electrical current. A high number of dissolved ions is not necessarily an indication of a polluted river, as ions can be weathered natural from the benthic geologic materials. TDS amounts can also differ, however when additional ions (perhaps from fertilizers, road-runoff, or

even acid precipitation) enter the system. TDS values in this project are recorded as parts per million (ppm).

Phosphorous

Phosphorous is an essential plant nutrient, used for growth. Sources of phosphorous in the water might include human and animal waste, soil erosion, fertilizers, and/or industrial wastes. High levels of phosphorous might result in algal "blooms" which could cause a reduction in dissolved oxygen. Phosphorous is recorded as parts per billion (ppb).

Nitrate

Nitrate can find its ways into rivers and streams through either natural or anthropogenic sources. While nitrate is essential for both plant and animal health, an overabundance of nitrate may be detrimental to aquatic systems. Typically nitrate levels in freshwater rivers and streams are less than 1 mg/L.

Turbidity

Turbidity is a measure of how unclear the water is. A sample with a high turbidity value is often cloudy, while a sample with a low turbidity value will appear clear. The presence of particles in the sample determines the amount of turbidity. There are many factors which might contribute to a sample's turbidity, heavy precipitation can cause an increase in stream flow, and increased soil erosion might also increase turbidity

Table 3: 2021 pH Results

(scale (yellow = 2021 data is higher than the 2020 data; green – 2021 data is lower than the 2020 data, blue = 2021 and 2020 data are the same)

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
East Windsor												
Broad Brook Mill Pond/ Depot St (EW7)	8.54		7.69	8.01	8.33	7.55	7.41	7.61	7.58	7.72	7.68	7.94
Broad Brook/East Rd (EW8)	8.60	7.78	7.73	8.06	7.76	7.60	7.51	7.65	7.63	7.76	7.72	8.04
Broad Brook/ Mill St (EW5)	8.50	8.07	8.07	8.10	7.77	7.62	7.53	7.38	7.55	7.75	7.74	8.10
Chestnut Brook/ above reservoir (EW9)	8.60	7.87	7.82	8.11	7.78	7.46	7.54	7.58	7.63	7.88	7.82	8.17
Chestnut Brook/ Main Street Broad Brook (EW10)	8.24	7.47	7.56	7.72	7.73	7.18	7.14		7.33	7.43	7.37	7.56
Ketch Brook/Rye St (EW6)	8.35	8.19	8.60	7.95	7.88	7.39	7.73	6.71	7.28		7.37	7.65
Old Melrose Bridge (EW4)	8.33	7.75	7.79	7.89	7.94	7.48	7.38	7.65	7.56	7.62	7.57	7.78
Omelia Bridge (EW3)	7.92	8.33	9.75	8.33	8.02	7.80	7.61	6.26	7.02	7.32	7.12	7.70
Harrington Brook/ Rt. 140 (EW1)	8.53	7.90	7.86	8.10	8.34	7.67	7.50	7.85		7.94	7.80	8.05
Styles Bridge (EW2)	8.64	8.33	8.03	8.33	8.08	7.91	7.86	7.52	7.72	7.92	7.90	8.21
Enfield												
464 Hazard Ave (E24)	9.40	10.32	7.00	8.40	8.20	8.40	8.10	8.40		8.30	9.20	8.60
Broad Brook Rd (E16)	9.20	10.41	9.50	8.40	8.40	8.50	8.10	8.50		8.20	9.10	8.70
Powder Hollow (E15)	9.20	10.02		8.40	8.10	8.00	8.10	8.30		8.10	9.40	8.50
Town Farm Rd (E14)	9.10	10.42	9.10	8.10	7.90	8.20	7.90	8.20		8.00	9.20	8.40
Hampden												
Mill St (Hampden, MA) (H33)				6.42	6.41	8.30	7.59	7.60			8.22	
Somers Rd (Hampden, MA) (H32)				6.67	6.70	8.40	7.52	7.64			9.15	
Somers												
Durkee Rd (S21)		11.05	10.25	7.66	7.18	7.12	7.38		7.18	7.29	7.45	7.49
Four Bridges Rd (S22)	11.22	10.70	10.36	7.87	7.76	7.60	7.43	8.30		7.29	7.44	7.49
Kibbe Grove Rd (S19)			10.38	7.51	7.27	7.16	7.34		7.16	7.29	7.45	7.47
King Rd (S20)		11.10	10.42	7.56	7.27	7.21	7.36	8.40	7.17	7.29	7.45	7.48
Rt 190 bridge (S17)	11.44	10.96			9.94	7.95	7.43	8.20	7.27	7.30	7.46	7.50
Rt 83 (S18)	11.06		10.41	7.47	7.06	7.14	7.31	8.40	7.15	7.28	7.45	7.43
Somersville Mill Pond Boat Launch (S26)	8.90	10.25	9.30	8.50	8.80	7.70	7.90			8.40		8.70
Somersville Mill Pond Dam (S23)	9.10	10.44	9.40	8.50	8.50	7.90	7.80			8.30	9.00	8.70

Table 4: 2021 Water Temperature (°F) Results

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
East Windsor												
Broad Brook Mill Pond/ Depot St (EW7)	35.7		39.5	50.6	59.3	71.5	64.2	67.2	65	62	48.2	41.8
Broad Brook/ Mill St (EW5)	37.8	36.4	36.4	51.1	57.3	68.2	63.4	64.9	63.7	59.7	46.7	41.3
Broad Brook/East Rd (EW8)	37.5	36.1	42.4	50.5	56	66.4	61.5	61.6	61.8	59	46.5	42.8
Chestnut Brook/ above reservoir (EW9)	38.2	35.7	41.2	50.6	58.2	67.4	64	64.3	64.8	61	47.5	41.7
Chestnut Brook/ Main Street Broad Brook (EW10)	38.7	38.9	42	49.4	56.5	66.8	62.4	66	62.4	59.2	49	44.1
Harrington Brook/ Rt. 140 (EW1)	35.6	35.3	37.3	50.5	57.6	69.1	64.7	66.2		60.5	47	39.8
Ketch Brook/Rye St (EW6)	37	36.9	41.1	52.6	55.7	70.1	64.6	64.5	64.6	59.8	48	42.8
Old Melrose Bridge (EW4)	35.2	35.1	36.8	50.4	57.2	68.3	64.2	65.9	64.5	59.7	47	39.7
Omelia Bridge (EW3)	36.5	38.6	43	53.2	57.9	73	65	67.7	66.5	61	47.2	41.8
Styles Bridge (EW2)	35.8	34.7	38.2	51.8	57.3	68.8	64.2	66	65	59.7	45.8	41
Enfield												
464 Hazard Ave (E24)	38	37.5	39	49	60	70	65	66		59	43	46
Broad Brook Rd (E16)	38	37.2	39	49	62	72	65	66		61	44	44
Powder Hollow (E15)	37	37.7	38	48	60	67	66	66		61	44	44
Town Farm Rd (E14)	38	35.7	38	48	59	68	66	68		60	44	45
Hampden												
Mill St (Hampden, MA) (H33)					58.1	61.8	71.5	73.6			44.2	
Somers Rd (Hampden, MA) (H32)					58.2	63.6	72.1	74.8			44.5	
Somers												
Durkee Rd (S21)	40.9	35.6	35.5	40	54.2	69.2	62.4	69.2	66	57.4	43.7	40.2
Four Bridges Rd (S22)	41.5	34.5	35.9	40.8	53.8	68.2	63.1	66		57.7	43	41.8
Kibbe Grove Rd (S19)	40.2		34.3	39.4	52.2	66.5	62	66.5	65.5	58	43.1	40.4
King Rd (S20)	40.3	35	34	41.1	52	66.7	62	64	65.3	57.8	43.5	37.8
Rt 190 bridge (S17)	42.7	36.5	35.1	42.3	53.3	68.2	63.5	66	69.1	58.1	45	43.7
Rt 83 (S18)	39.9		33.3	38.3	51.1	66.2	62.1	62	65.2	58	43.3	41.1
Somersville Mill Pond Boat Launch (S26)	38	43.5	40	50	63	72	66	72		66		44
Somersville Mill Pond Dam (S23)	38	36.6	38	49	61	70	65	70		61	46	44

Table 5: 2021Total Dissolved Solids (ppm) Results

	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
East Windsor												
Broad Brook Mill Pond/ Depot St (EW7)	3		14	9	3	4	8	10	12	15	6	3
Broad Brook/ Mill St (EW5)	2	9	9	7	2	12	12	10	9	12	7	2
Broad Brook/East Rd (EW8)	2	18	9	3	2	6	7	4	13	14	8	5
Chestnut Brook/ above reservoir (EW9)	2	12	10	6	3	4	12	6	11	8	6	6
Chestnut Brook/ Main Street Broad Brook (EW10)	2	10	9	7	3	18	13	12	12	6	8	4
Harrington Brook/ Rt. 140 (EW1)	2	8	6	2	2	9	10	12		6	5	5
Ketch Brook/Rye St (EW6)	2	7	6	6	3	3	11	8	11	14	9	2
Old Melrose Bridge (EW4)	3	10	7	5	2	9	13	12	9	23	7	6
Omelia Bridge (EW3)	2	14	12	6	2	15	11	3	9	7	8	3
Styles Bridge (EW2)	3	7	7	6	3	12	12	9	9	6	6	5
Enfield												
464 Hazard Ave (E24)	3	16	5	5	4	6	28	11.5		5	9	6
Broad Brook Rd (E16)	3	12	7	5	4	12	27	7.5		3	7	5
Powder Hollow (E15)	3	10	5	8	4	13	26	9.5		2	8	5
Town Farm Rd (E14)	3	14	8	6	2	6	25	6		2	8	5
Hampden												
Mill St (Hampden, MA) (H33)					7.4	5	7	16			3	
Somers Rd (Hampden, MA) (H32)					7.8	7	8	11			6	
Somers												
Durkee Rd (S21)	3	9	8	2	2	5	24	5	4	4	8	2
Four Bridges Rd (S22)	3	10	12	7	4	3	25	3		8	9	4
Kibbe Grove Rd (S19)	3		12	7	4	5	22	5	5	6	7	5
King Rd (S20)	2	10	7	6	3	2	23	12	6	6	8	4
Rt 190 bridge (S17)	2	11	17	9	3	4	14	5	8	7	9	7
Rt 83 (S18)	2		15	9	4	3	15	8	9	5	6	3
Somersville Mill Pond Boat Launch (S26)	3	12	8	8	3	5	27	8		3		4
Somersville Mill Pond Dam (S23)	4	9	6	6	2	12	26	10		6	6	3

Table 6: 2021 Nitrate (mg/L) Results

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
East Windsor												
Broad Brook Mill Pond/ Depot St (EW7)	0.23		0.31	2	0.07	0.03	0.24	0.56	1.1	1.1	1.1	1.2
Broad Brook/ Mill St (EW5)	0.19	0.24	0.24	0.11	0.05	0.06	0.55	1.1	0.46	1.2	1.2	0.42
Broad Brook/East Rd (EW8)	0.15	0.11	0.11	0.11	0.06	0.05	0.33	0.64	1.2	1.1	1	1.1
Chestnut Brook/ above reservoir (EW9)	0.17	0.22	0.14	0.07	0.06	0.04	0.42	1.1	1.1	0.5	1.1	1.2
Chestnut Brook/ Main Street Broad Brook (EW10)	0.24	0.2	0.15	0.1	0.11	0.08	1.2	1.1	1.2	0.3	1.3	1.1
Harrington Brook/ Rt. 140 (EW1)	0.21	0.1	0.13	0.04	0.05	0.04	1.1	0.3		0.25	1.5	0.21
Ketch Brook/Rye St (EW6)	0.14	0.12	0.11	0.08	0.07	0.06	0.32	1.2	0.44	1.2	1.4	0.25
Old Melrose Bridge (EW4)	0.2	0.25	0.12	0.11	0.07	0.09	0.46	0.3	0.42	1.1	1.5	0.42
Omelia Bridge (EW3)	0.22	0.21	0.13	0.14	0.06	0.05	1.1	0.2	0.45	0.2	1.4	0.36
Styles Bridge (EW2)	0.19	0.16	0.1	0.11	0.05	0.1	1.1	0.2	0.33	0.43	0.4	0.47
Enfield												
464 Hazard Ave (E24)	0.26	0.46	0.21	0.12	0.08	0.05	0.46	0.65		0.12	0.5	0.31
Broad Brook Rd (E16)	0.25	0.25	0.22	0.11	0.04	0.05	0.33	0.66		0.31	1.2	0.32
Powder Hollow (E15)	0.22	0.22	0.2	0.14	0.03	0.05	0.31	0.675		0.27	0.67	0.32
Town Farm Rd (E14)	0.2	0.25	0.33	0.12	0.05	0.04	0.32	0.28		0.37	0.4	0.47
Hampden												
Mill St (Hampden, MA) (H33)					0.3	2	0.32	1.2			0.25	
Somers Rd (Hampden, MA) (H32)					0.2	2.1	0.44	1			0.33	
Somers												
Durkee Rd (S21)	0.26	0.22	0.12	0.11	0.09	0.04	1.1	1.1	0.22	0.32	0.56	0.74
Four Bridges Rd (S22)	0.26	0.32	0.21	0.11	0.09	0.04	1.2	0.45		0.35	1.5	0.33
Kibbe Grove Rd (S19)	0.22		0.15	0.12	0.07	0.04	1.2	0.33	0.22	0.21	1.3	1.2
King Rd (S20)	0.2	0.21	0.11	0.09	0.08	0.04	1.1	1.1	0.14	0.46	1.6	0.56
Rt 190 bridge (S17)	0.2	0.22	0.14	0.11	0.07	0.02	1.1	0.43	0.56	0.31	1.7	1.1
Rt 83 (S18)	0.21		0.14	0.07	0.09	0.04	1.1	0.44	0.43	0.11	0.5	1.2
Somersville Mill Pond Boat Launch (S26)	0.26	0.21	0.24	0.16	0.05	0.04	0.46	0.21		0.33		0.53
Somersville Mill Pond Dam (S23)	0.24	0.36	0.21	0.12	0.07	0.06	0.44	0.35		0.36	0.45	0.42

Table 7: 2021 Phosphorous (ppb) Results

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
East Windsor												
Broad Brook Mill Pond/ Depot St (EW7)	22		15	2	1	2	1	1	1	1	2	2
Broad Brook/ Mill St (EW5)	21	11	11	2	1	1	1	2	2	2	2	2
Broad Brook/East Rd (EW8)	24	8	6	3	2	1	1	2	2	2	2	3
Chestnut Brook/ above reservoir (EW9)	21	10	7	3	2	1	2	2	2	2	2	3
Chestnut Brook/ Main Street Broad Brook (EW10)	22	10	5	2	2	2	2	2	2	1	3	3
Harrington Brook/ Rt. 140 (EW1)	41	7	4	1	1	1	1	2		1	1	1
Ketch Brook/Rye St (EW6)	31	6	4	2	2	1	2	2	2	1	1	2
Old Melrose Bridge (EW4)	41	6	3	2	1	2	2	1	2	2	1	3
Omelia Bridge (EW3)	22	10	4	2	1	2	1	2	2	1	1	2
Styles Bridge (EW2)	38	4	3	2	1	3	1	2	2	2	1	1
Enfield												
464 Hazard Ave (E24)	31	12	4	3	2	1	2	2		2	2	3
Broad Brook Rd (E16)	42	8	4	2	1	1	1	2		2	1	2
Powder Hollow (E15)	25	6	5	3	1	1	1	2		1	3	3
Town Farm Rd (E14)	35	4	2	2	1	1	2	1		2	1	3
Hampden												
Mill St (Hampden, MA) (H33)						12	1	4			1	
Somers Rd (Hampden, MA) (H32)						15	1	6			1	
Somers												
Durkee Rd (S21)	20	6	5	2	1	1	1	1	1	2	2	2
Four Bridges Rd (S22)	41	10	6	5	2	1	1	1		1	2	2
Kibbe Grove Rd (S19)	22		4	2	1	1	1	1	1	2	2	2
King Rd (S20)	25	6	3	2	1	1	1	2	2	2	1	2
Rt 190 bridge (S17)	25	12	4	2	1	1	2	1	2	1	1	1
Rt 83 (S18)	31		3	2	1	1	2	2	2	1	3	3
Somersville Mill Pond Boat Launch (S26)	26	9	6	4	2	1	1	1		1		1
Somersville Mill Pond Dam (S23)	31	9	3	3	1	2	2	1.5		1	4	3

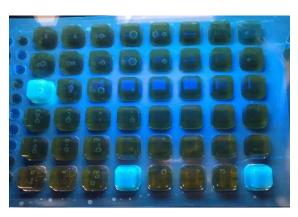
Table 8: 2021 Turbidity (NTU) Results

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
East Windsor												
Broad Brook Mill Pond/ Depot St (EW7)	3		14	9	3	4	8	10	12	15	6	3
Broad Brook/ Mill St (EW5)	2	9	9	7	2	12	12	10	9	12	7	2
Broad Brook/East Rd (EW8)	2	18	9	3	2	6	7	4	13	14	8	5
Chestnut Brook/ above reservoir (EW9)	2	12	10	6	3	4	12	6	11	8	6	6
Chestnut Brook/ Main Street Broad Brook (EW10)	2	10	9	7	3	18	13	12	12	6	8	4
Harrington Brook/ Rt. 140 (EW1)	2	8	6	2	2	9	10	12		6	5	5
Ketch Brook/Rye St (EW6)	2	7	6	6	3	3	11	8	11	14	9	2
Old Melrose Bridge (EW4)	3	10	7	5	2	9	13	12	9	23	7	6
Omelia Bridge (EW3)	2	14	12	6	2	15	11	3	9	7	8	3
Styles Bridge (EW2)	3	7	7	6	3	12	12	9	9	6	6	5
Enfield												
464 Hazard Ave (E24)	3	16	5	5	4	6	28	11.5		5	9	6
Broad Brook Rd (E16)	3	12	7	5	4	12	27	7.5		3	7	5
Powder Hollow (E15)	3	10	5	8	4	13	26	9.5		2	8	5
Town Farm Rd (E14)	3	14	8	6	2	6	25	6		2	8	5
Hampden												
Mill St (Hampden, MA) (H33)					7.4	5	7	16			3	
Somers Rd (Hampden, MA) (H32)					7.8	7	8	11			6	
Somers												
Durkee Rd (S21)	3	9	8	2	2	5	24	5	4	4	8	2
Four Bridges Rd (S22)	3	10	12	7	4	3	25	3		8	9	4
Kibbe Grove Rd (S19)	3		12	7	4	5	22	5	5	6	7	5
King Rd (S20)	2	10	7	6	3	2	23	12	6	6	8	4
Rt 190 bridge (S17)	2	11	17	9	3	4	14	5	8	7	9	7
Rt 83 (S18)	2		15	9	4	3	15	8	9	5	6	3
Somersville Mill Pond Boat Launch (S26)	3	12	8	8	3	5	27	8		3		4
Somersville Mill Pond Dam (S23)	4	9	6	6	2	12	26	10		6	6	3

Bacterial Testing

This past summer, monitoring of *E. coli* levels at selected Scantic River locations continued. The project was made possible by funding from the towns of East Windsor, CT, Enfield, CT, the Scantic River Watershed Association, the University of Saint Joseph, and donations from private individuals. Samples were collected weekly, and *E. coli* levels were reported to the CRC's website. Testing methodology followed the CRC SOP (Analytical Quantification of *Eschericia coli* bacteria in ambient surface waters using an enzyme substrate test (Standard Methods 9223B). 100ml samples were tested by adding Colilert reagent (IDEXX), the sample was then poured into a multi-well tray, sealed, then incubated for 24 hours at 35° ± 0.5°C. The number of yellow large and small wells were counted, the MPN (most probable number) for total fecal coliform was found using a chart. The MPN for Colilert equates to 1 colony forming unit (cfu) per 100ml. The tray was then placed under a UV light and the number of large and small wells that fluoresced were counted. This number was again used to find the MPN for *E. coli*.





E. coli

The CRC uses the follow "recreational threshold" to list the relative health of rivers. Several sites in East Windsor had "red" levels during the testing period, and "yellow" levels were also common. In the graphs below, the "yellow" threshold is marked by a gray line at 235 cfu (MPN), the "red" threshold is marked by a red line at 575 cfu (MPN).

BLUE	Clean for swimming and boating	<235 cfu/100 ml
YELLOW	Clean for boating only	235 - 575 cfu/100 ml
RED	Not clean for swimming or boating	>575 cfu/100 ml

Scantic River Water Monitoring Program

Summer 2021 E. coli

Fig 1: Average Monthly E. coli Values (cfus/100ml) for sample locations in Somers, CT

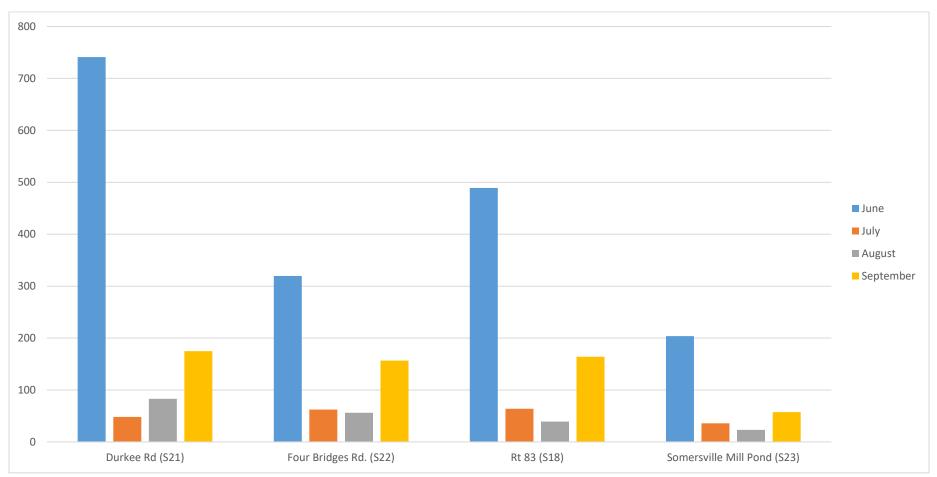


Fig 2: Average Monthly *E. coli* Values (cfus/100ml) for sample locations in Enfield, CT

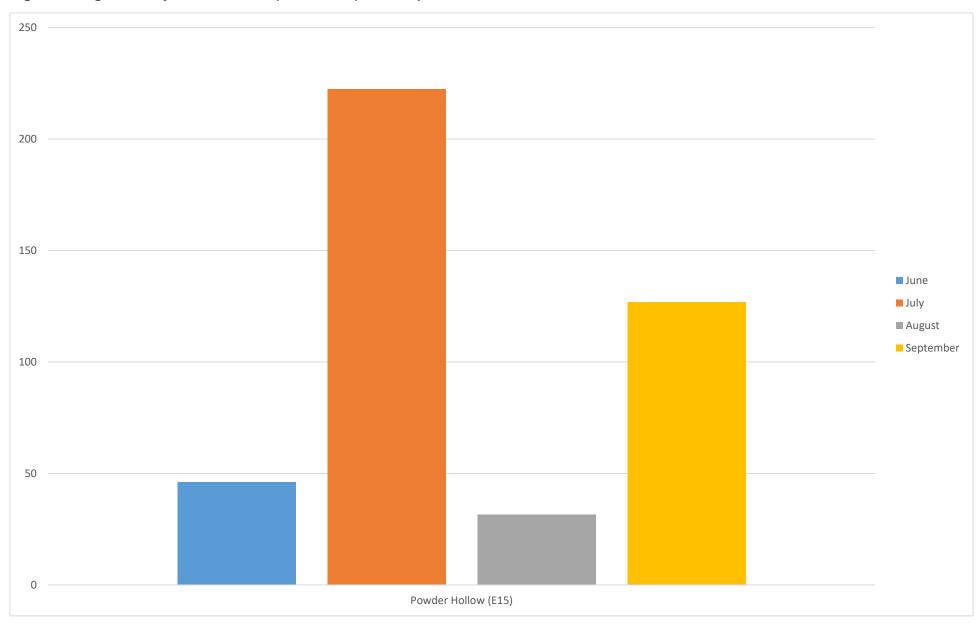
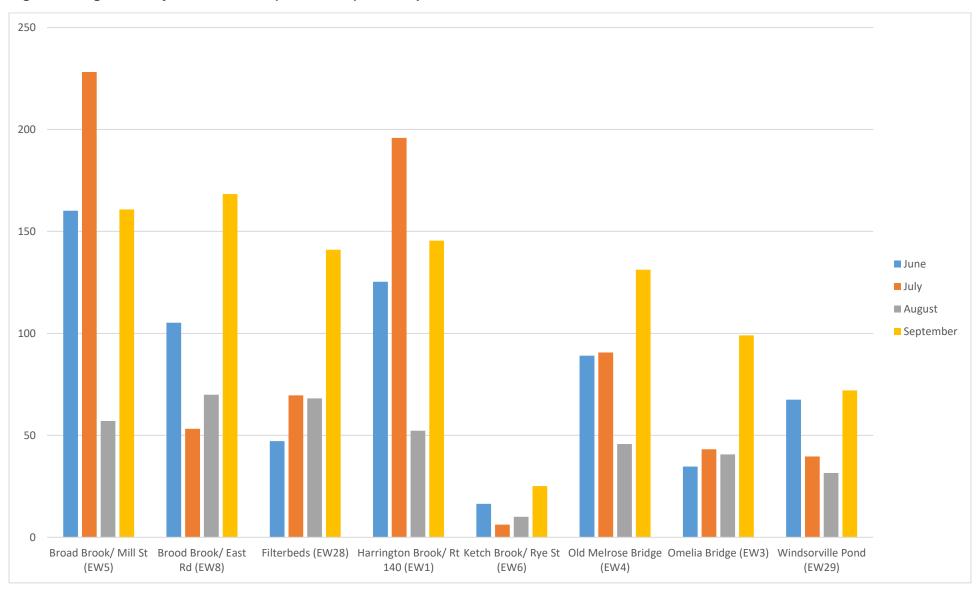


Fig 3: Average Monthly E. coli Values (cfus/100ml) for sample locations in East Windsor, CT



2021 Comparison Table

The numbers in the chart below represent monthly *E. coli* averages (cfus/100ml). Yellow shaded values show that the 2021 average was higher than the 2020 average, green shaded values show that the 2021 value was lower than the 2020 value, blue shaded values show that the 2021 average was the same as the 2020 value. Unshaded values mean that no 2020 average is available for comparison.

	Location	June	July	August	September
40	Durkee Rd (S21)	741	48	83	175
mers	Four Bridges Rd. (S22)	320	62	56	157
Son	Rt 83 (S18)	489	64	39	164
0,	Somersville Mill Pond (S23)	204	36	23	57
Enfield	Powder Hollow (E15)	46	224	32	127
	Broad Brook/ Mill St (EW5)	160	228	57	161
	Brood Brook/ East Rd (EW8)	105	53	70	168
dsor	Filterbeds (EW28)	47	70	68	141
Wind	Harrington Brook/ Rt 140 (EW1)	125	196	52	146
st W	Ketch Brook/ Rye St (EW6)	16	6	10	25
Eas	Old Melrose Bridge (EW4)	89	91	46	131
	Omelia Bridge (EW3)	35	43	41	99
	Windsorville Pond (EW29)	68	40	32	72