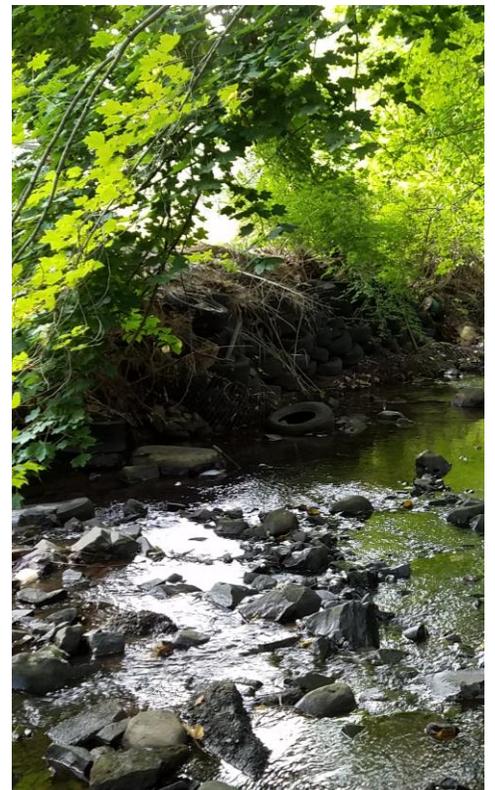


**2016 RBV
Program
Annual Summary
Report
(Report #18)
www.ct.gov/deep/rbv**



**CT DEEP
Riffle
Bioassessment
by Volunteers
Program**

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Left: Volunteers with the Salmon River Watershed Partnership monitor Mint Brook. Right: Jim Biardi of Fairfield University and Tom Fahsbender of the Washington Montessori School practice sorting a sample during a 2016 recertification training.

Front Cover Photos: **Top Left:** Carol Haskins, Local RBV Coordinator for the Pomperaug River Watershed Coalition, demonstrates how to use a kick net to collect a sample. (CT DEEP Photo). **Top Center:** Alisa Phillips-Griggs and Tom Ouellette, Local RBV Coordinators for the Farmington River Watershed Alliance and Vernon Conservation Commission, respectively, practice sorting and identification during refresher training. (CT DEEP Photo). **Top Middle:** Three Rivers Community College students at Fraser Brook. (Photo courtesy Three Rivers Community College). **Bottom Middle:** Local RBV Coordinators at a recertification training on the Yantic River in Norwich, CT. (CT DEEP Photo) **Bottom Left:** Peter Van Dine of the Bolton Conservation Commission works to identify the contents of an RBV sample. (Photo courtesy of the Bolton Conservation Commission.) **Bottom Right:** Wharton Brook RBV location. (Photo courtesy of the Quinnipiac River Watershed Association) **Rear Cover Photo:** Students from Maloney High School volunteer with the Quinnipiac River Watershed Association to monitor the Quinnipiac River.

An Introduction to RBV: The Treasure Hunt for CT's Healthiest Streams!

The CT DEEP Riffle Bioassessment by Volunteers or "RBV" Program is an annual fall 'treasure hunt' for Connecticut's healthiest streams. CT DEEP uses the data collected by RBV volunteers to expand its inventory of excellent small, high gradient Connecticut streams that have excellent water quality – our "Healthy Streams" list.

RBV volunteers examine the water quality of local stream segments by studying the aquatic benthic macroinvertebrate community present in rocky or 'riffle' areas of these streams.

If volunteers can find four or more pollution sensitive or 'most wanted' macroinvertebrates, CT DEEP can use this data to assess that stream as fully supporting water quality standards for aquatic life use – documenting it as one of CT's healthiest streams! (Because it is a screening approach and not a more in-depth assessment methodology, RBV cannot provide a detailed water quality assessment nor can it be used to identify low or impaired water quality.)

To learn more contact:

Meghan Lally
State RBV Program Coordinator
DEEP.RBVProgram@ct.gov
860-424-3061

www.ct.gov/deep/rbv



RBV Volunteers represent a wide range of programs from those that support local municipal commissions (e.g. The Last Green Valley volunteers assisting the Lebanon Inland Wetlands Commission, at left), students (e.g. Three Rivers Community College students pictured in center), watershed groups and conservation organizations (e.g. The Last Green Valley Volunteer Water Quality Monitoring Program volunteer pictured at right), and more!

Contact the State RBV Coordinator to get your group involved next season!

2016 Local RBV Program Leaders

Local RBV Program Leaders ensure that the RBV program is a success each year. These individuals put countless hours into organizing their programs, coordinating with DEEP, recruiting and training volunteers, and more. Thank you to the following individuals for serving as local leaders in 2016!

- James Biardi** (Fairfield University)
- Jane Brawerman** (CT River Coastal Conservation District)
- Chris Brittain** (WAMOGO High School)
- Doreen Carroll-Andrews** (Town of Greenwich Inland Wetlands & Watercourses Agency)
- Paula Coughlin** (CT Audubon Society at Pomfret)
- Laurie Doss** (The Marvelwood School)
- Tom Fahsbender** (Washington Montessori School, Steep Rock Association)
- Carol Haskins** (Pomperaug River Watershed Coalition)
- Penny Howell** (East Lyme Conservation Commission)
- Diba Khan-Bureau** (Three Rivers Community College)
- Dennis Latchum** (Lebanon Inland Wetlands & Watercourses Commission)

- Connie Manes** (Kent Conservation Commission)
- Becky Martorelli** (Quinnipiac River Watershed Association)
- Gian Morresi** (Conservation Discovery Corps at Connecticut's Beardsley Zoo)
- Tom Ouellette** (Vernon Conservation Commission)
- Rod Parlee** (Bolton Conservation Commission)
- Alisa Phillips-Griggs** (Farmington River Watershed Association)
- Jean Pillo** (The Last Green Valley, Eastern Connecticut Conservation District)
- Judy Rondeau** (Niantic River Watershed Committee)
- Pat Young** (Salmon River Watershed Partnership; Eightmile River Watershed Wild & Scenic Partnership)

2016-2017 RBV Program Intern

2016 marked the time that the CT DEEP RBV Program had a dedicated intern to assist us with our work. We were incredibly fortunate to have **Kristina Kelly**, of Central Connecticut State University, join us as an assistant to the State RBV Program Coordinator. Kristina served as behind-the-scenes support ‘staff’ for the program. She hit the ground running, helping to carry out a series of very successful RBV Coordinator refresher trainings. Most exciting, Kristina was the lead developer on the overhaul of our online RBV mapping efforts, producing an exciting Story Map rich with program details, insights into where to find ‘most wanted’ taxa, a guide for where to sample next, and of course, program monitoring locations and results! Thank you Kristina!



And finally, the Riffle Bioassessment by Volunteers Program (RBV) would also not be possible without the dedication of the hundreds of volunteers that participate annually – thank you to each of you! We hope to see you again this fall!

2016 Executive Summary

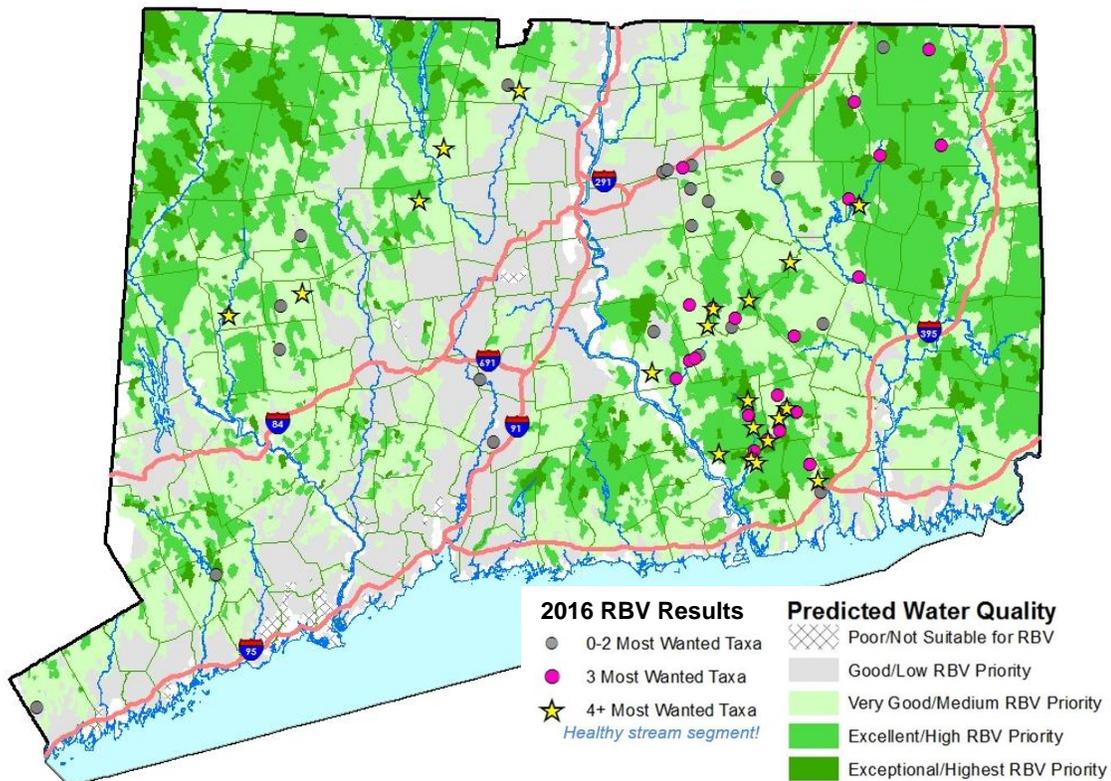


	2011	2012	2013	2014	2015	2016
Total # of RBV Samples	120	132	140	94	68	70
# of '4 or More' Samples	24	21	33	37	21	21
% Total '4 or More' Samples	20%	16%	24%	39%	31%	30%
# Stations Monitored	117	127	137	92	68	61
# Waterbodies Monitored	68	96	92	78	54	55

2016 presented another challenging year of low flows. Nevertheless, through hard work and dedication, RBV volunteers were once again able to expand upon the Connecticut's healthiest streams inventory!

- **70 vouchers** were collected; **21 of these vouchers (30%) contained 4 or more RBV 'most wanted' taxa**, indicating that these stream segments are among Connecticut's healthiest streams!
- **61 stations** were monitored, including **7 new stations and 2 new waterbodies** not previously monitored by DEEP. Stations spanned **55 waterbodies** located in **30 towns**.
- **15 Local RBV Programs coordinated programs in their area**, approximately **300 volunteers** from these groups and local partner organizations participated in the program.

2016 RBV volunteers represented watershed and conservation organizations, local commissions, scout troops, schools, local businesses, and more! **Thank you to all of our 2016 CT DEEP RBV partners!**



2016 Participation Summary

In 2016, fifteen (15) Local RBV Programs contributed data to the State. Local RBV Programs consisted of partnerships between a variety of groups and organizations, including, river and watershed associations, local conservation commissions and agencies, environmental conservation groups, and educational institutions.

River and Watershed-Based Organizations:

- Eightmile River Wild & Scenic Coordinating Committee
- Farmington River Watershed Association
- Niantic River Watershed Committee
- Pomperaug River Watershed Coalition
- Quinnipiac River Watershed Association
- Salmon River Watershed Partnership
- The Last Green Valley

Environmental Conservation Groups:

- Colchester Land Trust
- Connecticut Audubon Society Citizen Science Program
- Conservation Discovery Corps at Connecticut's Beardsley Zoo
- CT River Coastal Conservation District
- Eastern CT Conservation District
- Lyme Land Conservation Trust
- Salem Land Trust
- The Nature Conservancy

Municipal Groups:

- Bolton Conservation Commission
- East Lyme Commission for the Conservation of Natural Resources
- Town of Greenwich Inland Wetlands & Watercourses Agency
- Town of Lebanon Inland Wetlands & Watercourses Commission
- Vernon Conservation Commission

Education-Based Partners:

- Colchester Girl Scouts
- East Hampton High School Environmental Science Club
- Fairfield University
- Lyman Hall High School
- Maloney High School
- Marlborough Cub Scout Troop 39
- Montessori School of Greater Hartford
- RHAM High School Aquatics Class
- RHAM Middle School
- Three Rivers Community College
- WAMOGO High School
- Washington Montessori School

2016 RBV monitoring locations spanned a total of 30 Connecticut towns including:

- | | | | |
|---------------|----------------|---------------|---------------|
| • Ashford | • East Haddam | • Lebanon | • Vernon |
| • Bethlehem | • East Hampton | • Litchfield | • Wallingford |
| • Bolton | • East Lyme | • Lyme | • Washington |
| • Burlington | • Eastford | • Mansfield | • Windham |
| • Canton | • Easton | • Marlborough | • Woodbury |
| • Chaplin | • Granby | • Meriden | • Woodstock |
| • Colchester | • Greenwich | • Pomfret | |
| • East Granby | • Hebron | • Salem | |

2016 Monitoring Results

2016 marked the 18th year volunteer monitoring groups collected and submitted vouchers to DEEP under the RBV program. An estimated 300 volunteers representing fifteen (15) Local RBV Programs participated in the 2016 program. **Together, volunteers collected 70 vouchers from 61 unique locations on 55 different waterbodies. The distribution of most wanted types in the samples ranged from 0 to 7, with total taxa types in the vouchers ranging from 3 to 25.**

Table 1. 5-Year Annual RBV Program Monitoring Location Statistics 2011-2016

	2011	2012	2013	2014	2015	2016
RBV Samples Submitted	120	132	140	94	68	70
# Monitoring Stations (Appendix B)	117	127	137	92	68	61
# Streams Monitored	68	96	92	78	54	55
# Samples w/ 4+ "Most Wanted" Types	24 (20%)	21 (16%)	33 (24%)	37 (39%)	21 (31%)	21 (30%)

Twenty-one (21) of the 2016 monitoring sites had 4 or more types in the ‘Most Wanted’ category, indicating that these stream segments are among Connecticut’s healthiest streams. Detailed results for the 2016 RBV Program (i.e. voucher contents) are shown in Table 2.



Above: The Colchester Girl Scouts work to monitor Day Pond Brook in Colchester, CT with the help of Pat Young (far left) of the Salmon River Watershed Partnership.

2016 RBV Results Map. The number of 'Most Wanted' macroinvertebrate types present in 2016 RBV voucher samples. Sites are considered to be 'healthy' if 4 or more 'Most Wanted' macroinvertebrate taxa were present and can be considered for listing as fully supporting aquatic life use support in the Integrated Water Quality Report.

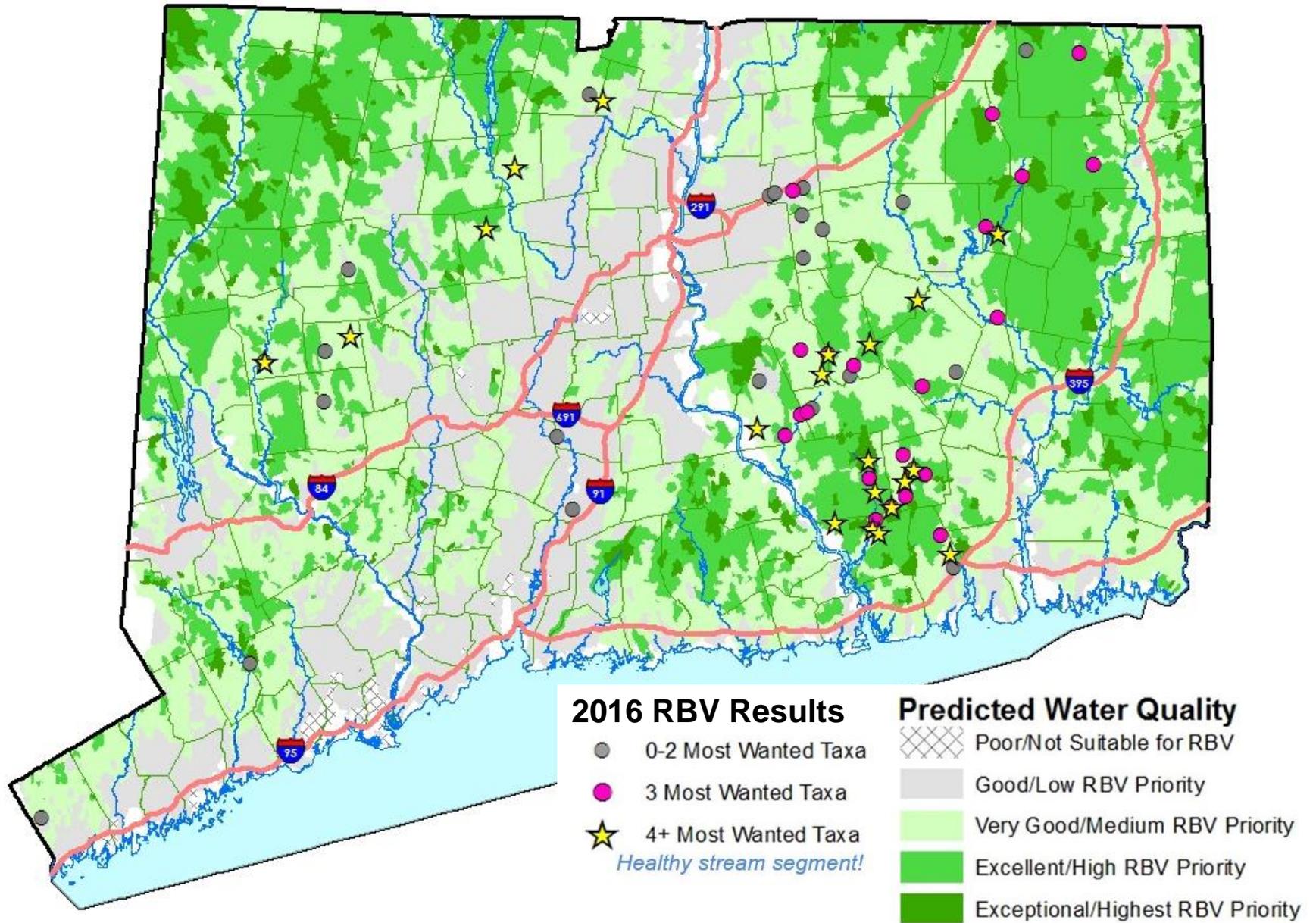


Table 2. Detailed 2016 RBV Station Results. Table 2 provides a list of stations monitored with RBV in 2016 and the contents of the corresponding voucher submitted to DEEP for analysis. The samples are sorted by stream name and Station number. Column numbers corresponds to the RBV macroinvertebrate organism ID number (noted on the RBV program materials). Stations at which four or more 'Most Wanted' RBV taxa types were present in the voucher are emphasized in bold and italicized font. Additional station details can be found in Appendix B. (Note: all collection dates are for the year 2016.)

Station #	Waterbody Name	Town	Date	1	2	3	4	5A	5B	5C	6A	6B	7	8A	8B	TOTAL Most Wanted	Hydropsychidae	Philopotamidae	Heptageniidae (Maccaffertium/Stenonema)	Psephenus	Corydalidae (Corydalis/Nigronia)	Dragonfly Families	Damselfly Families	Amphipoda	Isopoda	Leech	Midge	Simuliidae	Snail	Worm	Other Taxa	GRAND TOTAL Taxa Count	
				Drunella	Isonychia	Epeorus	Peltopteridae	Periidae	Pteronarycs	Misc. Stonefly	Glossosoma	Apatania	Rhyacophila	Brachycentrus	Lepidostoma	9	10	11	12	13	14A	14B	15	16	17	18	19	20	21				
15138	Bantam River	LITCHFIELD	10/13		X						X					2	X	X		X												5	10
17567	Bartlett Brook	LEBANON	10/13		X	X		X								3	X	X	X	X	X	XXX				X						3	15
15312	Beaver Brook	LYME	4/16	X	X											2	X	X	X		X	XX			X				X			3	13
15312	Beaver Brook	LYME	10/15		X		X	X		X				X		5	X	X	X		X	XX	X				X	X				2	16
17992	Big Brook	SALEM	11/18		X			X		XX						4	X	X	X	X	X	X	X									4	15
17295	Bigelow Brook	ASHFORD	9/16		X		X	X								3		X	X	X	X	X	X									5	14
19455	Blackledge River	MARLBOROUGH	9/16		X			X			X			X		4	X	X	X	X	X	X										1	11
16266	Bolton Pond Brook	BOLTON	10/23					X					X			2	X	X												X		1	6
16370	Bunnell Brook	BURLINGTON	10/20					X	X	XX		X	X			6	X	X			X						X					8	18
15315	Burnhams Brook	EAST HADDAM	4/16			X		X		XXX			X			6		X			X	XX					X	X		X		7	20
19220	Buttonball Brook	CHAPLIN	10/1					X					X			2	X		X	X	X	XX										0	8
19220	Buttonball Brook	CHAPLIN	11/18				X	X		XX	X		X		X	7	X	X	X	X	X	XX										4	18
19459	Cherry Brook	CANTON	10/7		X		X	X		X	X					5	X	X	X	X	X	XX							X			2	15
18832	Cranberry Meadow Brook	EAST LYME	11/4					X		X					X	3	X	X	X	X	X	XX	X							X		8	20
16119	Day Pond Brook	COLCHESTER	10/30				X	X								2	X	X	X	X	X	X					X					5	14
16324	Dickinson Creek	COLCHESTER	9/10		X			X						X		3	X	X	X	X	X	X					X					6	16
16122	Early Brook	EAST HADDAM	11/3				X	X		X			X		X	5	X	X	X	X	X	X										6	17
16146	East Branch Byram River	GREENWICH	11/9		X					X						2	X	X	X	X	X			X	X							3	12
18390	East Branch Eightmile River	LYME	10/7		X			X						X		3	X	X	X		X	X	X									2	11
18962	East Branch Eightmile River	SALEM	4/30	X	X	X		X		X	X		X			7		X		X	X							X	X			4	16

Station #	Waterbody Name	Town	Date	1	2	3	4	5A	5B	5C	6A	6B	7	8A	8B	TOTAL Most Wanted	9	10	11	12	13	14A	14B	15	16	17	18	19	20	21	Other Taxa	TOTAL Taxa Count
18962	E. Branch Eightmile River	SALEM	10/29		X		X									2	X	X	X	X	XX					X		X		2	12	
18396	East Spring Brook	BETHLEHEM	9/27		X	X	X					X	X			5	X	X	X	X						X			X	5	16	
18936	Eightmile River	LYME	10/15		X		X							X		3	X			X	X	XX								1	9	
15314	Eightmile River tributary	LYME	4/16			X	X			XX			X			5	X				X	X		X			X		X	1	12	
18998	English Neighborhood Brk	WOODSTOCK	10/8		X		X	X								3	X	X	X	X	X	X	X			X	X			3	15	
18846	Fawn Brook	HEBRON	10/25		XX		XX			XX				X		7	XX	XX	X	XX	X	XX				X				7	25	
16121	Flat Brook	EAST HAMPTON	9/10					X		X			X			3	X	X	X	X	X	XX				X				5	16	
18961	Fraser Brook	SALEM	4/30					X								1			X					X		X	X	X	3	11		
18961	Fraser Brook	SALEM	10/29					X		XX						3	X	X	X	X	X					X				3	12	
15592	French Brook	BOLTON	10/23													0					X	X								1	3	
15313	Harris Brook	SALEM	4/16	X	X	X	X						X			5		X	X		X	XX	X	X				X		2	15	
15313	Harris Brook	SALEM	10/15		X			X		X				X		4	X		X	X	X	XX				X				4	15	
19214	Harris Brook	SALEM	4/30		X			X		X			X			4	X	X	X	X	X	XX	X				X	X	X	X	4	20
19214	Harris Brook	SALEM	10/29		X			X								2	X	X			X	XX						X		1	9	
18817	Hawleys Brook	EASTON	10/15					X								1	X	X	X		X	XXX				X				1	10	
16771	Indian Hollow Brook	WINDHAM	11/2		X			X		X						3	X	X			X	X								3	10	
15045	Judd Brook	HEBRON	9/17		X			X							X	3	X	X	X	X	X	X				X				7	17	
15128	Kirby Brook	WASHINGTON	10/26					X				X				2	X			X		X								1	6	
15128	Kirby Brook	WASHINGTON	11/3					X	X	XX		X				5	X			X		XX				X				2	12	
18413	Latimer Brook	EAST LYME	11/4					X		X			X		X	4	X	X	X		X	XX	XX	X					X	3	17	
18495	Latimer Brook	EAST LYME	11/4					X						X		2	X	X	X	X	X	XX		X	X	X	X		X	X	5	20
16088	Lebanon Brook	WOODSTOCK	9/23					X								1	X	X	X	X	X	X								3	10	
18981	Lyman Brook	MARLBOROUGH	9/24				X	X			X					3	X	X		X	X	X		X		X			X	3	14	
15599	Mashamoquet Brook	POMFRET	10/1		X	X		X								3	X		X	X	X					X				3	11	
19456	Mint Brook	HEBRON	11/15					X		XXX						4	X		X	X	X	X								2	11	
18694	Muddy Brook	EAST HADDAM	4/30			X		X		X						3		X			X	X								1	7	
18694	Muddy Brook	EAST HADDAM	10/15				X	X			X					3	X	X	X	X	X	X				X				5	15	

Station #	Waterbody Name	Town	Date	1	2	3	4	5A	5B	5C	6A	6B	7	8A	8B	TOTAL Most Wanted	Hydropsychidae	Philopotamidae	Maccaffertium/Stenonema	Psephenus	Corydalis/Nigronia	Dragonfly Families	Damselfly Families	Amphipoda	Isopoda	Leech	Midge	Simuliidae	Snail	Worm	Other Taxa	TOTAL Taxa Count	
17074	Natchaug River	EASTFORD	9/17		X		X						X			3	X		X	X	X	X	X							X	8	18	
19383	Nelson Brook	MANSFIELD	10/13				X									1	X			X	XXX	X						X	X		2	11	
18423	Pease Brook	LEBANON	10/6		X	X										2	X	X	X		X					X			X		5	13	
19457	Pine Brook	EAST HAMPTON	11/13				X	X		XXX				X		6		X	X		X	X					X		X		7	19	
16992	Quinnipiac River	MERIDEN	10/5													0		X	X					X							4	7	
18816	Railroad Brook	BOLTON	10/23				X									1	X			X											1	4	
19215	"Ransom Brook"	SALEM	10/29				X	X		X						3	X	X	X	X	X	X	X				X					2	13
17978	Raymond Brook	HEBRON	10/6				X							X	X	3	X	X	X	X	X	XX				X		X			6	18	
19458	Roaring Brook #2	LYME	11/10		X		X	X			X			X		5	X	X	X	X	X	X				X		X			10	23	
17015	Safstrom Brook	EAST HAMPTON	10/8				X			XX						3	X	X	X	X	X	X				X					6	16	
14435	Salmon Brook	EAST GRANBY	10/1		X		X			X	X			X		5	X	X	X	X					X				X		4	15	
16431	Sprain Brook	WOODBURY	9/27		X		X				X					3	X	X	X	X	X	X						X				6	16
16128	Stonehouse Brook	CHAPLIN	10/6		X		X				X					3	X	X	X	X	X	XX							X		6	17	
14469	Tankerhoosen River	VERNON	10/15													0	X	X	X	X				X	X			X	X		5	13	
14470	Tankerhoosen River	VERNON	10/15				X	X							X	3	X	X	X	X	X	X				X		X	X		5	17	
15205	Tankerhoosen River	VERNON	10/15				X									1	X	X	X	X	X	XX			X		X	X				5	16
15206	Tankerhoosen River	VERNON	10/15			X	X									2	X	X		X		X		X					X		3	11	
14587	Tenmile River	LEBANON	10/19		X		X			X	X					4		X	X		X	X									3	11	
19157	Weekeepeemee River	BETHLEHEM	9/27													0	X	X	X	X	X	X							X		5	12	
15170	W. Branch Salmon Brk	GRANBY	10/1						X							1	X	X		X		X					X	X			6	13	
15126	Wharton Brook	WALLINGFORD	10/3													0	X	X				X				X			X		2	7	

Interpreting Your Results

2016 RBV monitoring locations that supported four or more ‘Most Wanted’ macroinvertebrate types, are considered to be characterized by excellent water quality conditions. DEEP will integrate these ‘4 or more’ results into the biennial water quality assessment process, noting them as one of Connecticut’s healthy waters.

Table 3 provides guidance for how to interpret your RBV results. Local RBV Program Coordinators are encouraged to contact the State RBV Coordinator to discuss follow-up actions for specific monitoring locations as needed.



Above: Salmon River Watershed Partnership volunteers worked to collect an impressive 13 RBV vouchers in 2016! Clockwise from top left: Volunteers at Pine Brook, East Hampton High School Environmental Club students work to sort a sample from “Willy’s Brook”, the Marlborough Cub Scouts, Students from the RHAM Middle School Honors 8th Grade Science Class, the RHAM High School Aquatics Class students, and volunteers at Flat Brook.

Table 3. Interpretation of RBV Results by Most Wanted Count.

# 'Most Wanted' Organisms	What Does it Tell Us?
<p>0-2</p>	<p><i>Double check whether this is a good spot to be using the RBV method...</i></p> <p>More information is needed to determine the water quality at this site. Reasons for few most wanted may include poor water quality; <i>however</i>, few most wanted types should not be interpreted as a proof of degraded conditions. Other factors such as unusual flow conditions (i.e. very high or very low), lack of adequate riffle habitat, etc. could result in few most wanted types despite overall good water quality.</p> <p>DEEP Assessment Decision: No Assessment Made</p> <p>Recommended Volunteer Follow-Up Action: If this is a first time monitoring location, and the site otherwise is suitable for RBV monitoring (e.g. small watershed with year-round flow and riffle habitat), assign the site a low to medium priority for follow-up monitoring. If however this site was previously sampled and less than 4 most wanted types were found, assign it a lower priority for sampling in the future.</p>
<p>3</p>	<p><i>A <u>Very Good Sign</u> – Keep this Site on Your Radar!</i></p> <p>Three Most Wanted or very sensitive macroinvertebrate types in a sample is a strong signal of good to excellent water quality. Although three most wanted is not statistically enough data for DEEP to list the site as a healthy stream segment this time, this is a great find!</p> <p>DEEP Assessment Decision: No Assessment Made... but consider trying again!</p> <p>Recommended Volunteer Follow-Up Action: If this was the first time the site was monitored with RBV, this site should be a high priority candidate for monitoring next season. If however this site was previously monitored with RBV and 3 or fewer most wanted types were found, this site should be assigned a lower priority than those sites in your region that have not yet been monitored with RBV and that are predicted to have excellent water quality.</p>
<p>4+</p>	<p><i>Excellent!! Lots of very sensitive macroinvertebrate types were present – you found a healthy stream segment!</i></p> <p>This is a very clear signal of excellent water quality as the 'Most Wanted' types cannot survive in degraded streams or otherwise low water quality conditions.</p> <p>DEEP Assessment Decision: Considered for 'Fully Supporting' State aquatic life use standards. Fully supporting sites will be listed in next Integrated Water Quality Report and submitted to EPA and Congress</p> <p>Recommended Volunteer Follow-Up Action: Revisit every 2 to 5 years to continue documenting the excellent health of this stream.</p>

Appendix A: 2016 Local RBV Program Contact Information

Bolton Conservation Commission	Rod Parlee	captundra@aol.com
CT Audubon Society - Pomfret Center Citizen Science Program	Paula Coughlin	paulacoughlin@charter.net
Eightmile River Wild & Scenic Coordinating Committee & Three Rivers Community College	Pat Young Diba Khan-Bureau	pyoung@eightmileriver.org dkhan-bureau@trcc.commnet.edu
Fairfield University & Connecticut's Beardsley Zoo CDC	Jim Biardi Gian Morresi	jbiardi@fairfield.edu gmorresi@beardsleyzoo.org
Farmington River Watershed Association	Alisa Phillips-Griggs	aphillipsgriggs@frwa.org
Niantic River Watershed Committee	Judy Rondeau	judy.rondeau@comcast.net
Pomperaug River Watershed Coalition	Carol Haskins	chaskins@pomperaug.org
Quinnipiac River Watershed Association	Becky Martorelli	beckym06451@yahoo.com
Salmon River Watershed Partnership	Pat Young	salmonriverct@att.net
The Last Green Valley	Jean Pillo	jean.pillo@conservect.org
Town of Greenwich IWWA	Doreen Carroll-Andrews	dcarroll@greenwichct.org
Vernon Conservation Commission	Tom Ouellette	tom.r.ouellette@gmail.com
WAMOGO High School	Chris Brittain	cbrittain@rsd6.org
Washington Montessori School	Tom Fahsbender	tfahsbender@washingtonmontessori.org



Local RBV Coordinators participated in refresher training during August 2016. From left to right: Jean Pillo (The Last Green Valley), Diba Khan-Bureau (Three Rivers Community College), Doreen Carroll-Andrews (Town of Greenwich), Kristina Kelly (CT DEEP intern), Lindsay Tomaszewski (Town of Greenwich), Kendra Kilson (Friends of the Lake), Jackie Westlein (Connecticut's Beardsley Zoo), Savannah Judge (Housatonic Valley Association), Judy Rondeau (Niantic River Watershed Committee/Eastern Connecticut Conservation District), and Jane Brawerman (Connecticut River Coastal Conservation District).

Appendix B: 2016 RBV Monitoring Station Description & Details

The following provides a description of the official CT DEEP monitoring station to which 2016 RBV samples were assigned as well as the corresponding number of most wanted types found by volunteers. Locations are sorted by DEEP Station ID number. Note that the actual RBV monitoring location may have been slightly upstream or downstream of the official DEEP station.

Organization Abbreviation Key:

Code	Organization Name
8MILE	Eightmile River Wild & Scenic Coordinating Committee
BCC	Bolton Conservation Commission
CAS	Connecticut Audubon Society
CGS	Colchester Girl Scouts
EHHS	East Hampton High School
ELCC	East Lyme Conservation Commission
FFLD	Fairfield University
FRWA	Farmington River Watershed Association
GIWWA	Greenwich Inland Wetlands & Watercourses Agency
LHHS	Lyman Hall High School

Code	Organization Name
LIWWC	Lebanon Inland Wetlands & Watercourses Commission
LLCT	Lyme Land Conservation Trust
MCS	Marlborough Cub Scout Troop 39
MHS	Maloney High School
MSGH	Montessori School of Greater Hartford
NRWC	Niantic River Watershed Committee
PRWC	Pomperaug River Watershed Coalition
QRWA	Quinnipiac River Watershed Association
RHAM-HS	RHAM High School
RHAM-MS	RHAM Middle School

Code	Organization Name
SLT	Salem Land Trust
SRWP	Salmon River Watershed Partnership
TLGV	The Last Green Valley
TNC	The Nature Conservancy
TRCC	Three Rivers Community College
VCC	Vernon Conservation Commission
WHS	WAMOGO High School
WMS	Washington Montessori School
ZOO	Connecticut's Beardsley Zoo

DEEP Station ID	Stream Name	Location Description	Town	Latitude	Longitude	Collector	Date	Most Wanted Count
14435	Salmon Brook	adjacent Granbrook Park	EAST GRANBY	41.9366	-72.7749	FRWA	10/1/16	5
14469	Tankerhoosen River	upstream 100 m mouth at golf land	VERNON	41.8201	-72.5033	VCC	10/15/16	0
14470	Tankerhoosen River	upstream Tunnel Road	VERNON	41.8272	-72.464	VCC	10/15/16	3
14587	Tenmile River	downstream Jones Road	LEBANON	41.6937	-72.2632	TLGV/LIWWC	10/19/16	4
15045	Judd Brook	upstream old road crossing	HEBRON	41.6005	-72.373	SRWP	9/17/16	2
15126	Wharton Brook	At foot bridge adjacent to school fields	WALLINGFORD	41.4394	-72.8217	QRWA/LHHS	10/3/16	0
15128	Kirby Brook	At dirt road crossing 300 m us of confluence with	WASHINGTON	41.6173	-73.3227	WMS	10/26/16	2
15128	Kirby Brook	At dirt road crossing 300 m us of confluence with	WASHINGTON	41.6173	-73.3227	WMS	11/3/16	5
15138	Bantam River	Downstream Route 63	LITCHFIELD	41.7305	-73.1868	WHS	10/13/16	2
15170	West Branch Salmon Brook	Adjacent Salmon Brook Park	GRANBY	41.9438	-72.7957	FRWA	10/1/16	1
15205	Tankerhoosen River	Downstream Bolton Road	VERNON	41.8294	-72.4482	VCC	10/15/16	1
15206	Tankerhoosen River	Upstream Small pond (below dobsonville pond)	VERNON	41.8232	-72.4934	VCC	10/15/16	2
15312	Beaver Brook	Downstream bridge at 55-123 Beaver Brook Road	LYME	41.409952	41.409952	TRCC	4/16/16	2
15312	Beaver Brook	Downstream bridge at 55-123 Beaver Brook Road	LYME	41.409952	-72.329059	TRCC	10/15/16	5
15313	Harris Brook	at Mouth	SALEM	41.4733	-72.2851	TRCC	4/16/16	5
15313	Harris Brook	at Mouth	SALEM	41.4733	-72.2851	TRCC	10/15/16	4

DEEP Station ID	Stream Name	Location Description	Town	Latitude	Longitude	Collector	Date	Most Wanted Count
15314	Eightmile River, Tributary to (PV brook)	at trail crossing off MacIntosh Road (Pleasant Valley Preserve)	LYME	41.4155	-72.3396	TRCC	4/16/16	5
15315	Burnhams Brook	at Mouth	EAST HADDAM	41.4603	-72.3343	TRCC	4/16/16	6
15592	French Brook	at French Road	BOLTON	41.7442	-72.4485	BCC	10/23/16	0
15599	Mashamoquet Brook	end paved section of road in state park	POMFRET	41.8561	-71.9758	CAS	10/1/16	3
16088	Lebanon Brook	upstream Route 198, North of 198/197 intersection	WOODSTOCK	41.9945	-72.0836	CAS	9/23/16	1
16119	Day Pond Brook	at mouth	COLCHESTER	41.5623	-72.4338	SRWP/CGS	10/30/16	2
16121	Flat Brook	at Route 16	EAST HAMPTON	41.5544	-72.4523	SRWP	9/10/16	3
16122	Early Brook	at Haywardville Road (East Haddam Fish & Game Club Property)	EAST HADDAM	41.4978	-72.3435	8MILE/TNC	11/3/16	5
16128	Stonehouse Brook	off old trail downstream Palmer Road	CHAPLIN	41.7812	-72.1509	TLGV	10/6/16	3
16146	East Branch Byram River	under Route 15 adjacent to Riverville Road	GREENWICH	41.0612	-73.6748	GIWWA	11/9/16	2
16266	Bolton Pond Brook	at Mark Anthony Lane	BOLTON	41.7784	-72.4167	BCC	10/23/16	2
16324	Dickinson Creek	At the mouth	COLCHESTER	41.5575	-72.442	SRWP	9/10/16	3
16370	Bunnell Brook	upstream diversion for swimming area at recreation area	BURLINGTON	41.7807	-72.963	FRWA/MSGH	10/20/16	6
16431	Sprain Brook	downstream Route 47 adjacent to Papermill Road	WOODBURY	41.5696	-73.2259	PRWC	9/27/16	2
16771	Indian Hollow Brook	Downstream of Jerusalem Rd.	WINDHAM	41.6708	-72.1339	TLGV	11/2/16	3
16992	Quinnipiac River	Adjacent to Route 70 below island	MERIDEN	41.5283	-72.8467	QRWA/MHS	10/5/16	0
17015	Safstrom Brook	Upstream of Wood Bridge off Wopowag Rd.	EAST HAMPTON	41.5281	-72.4794	SRWP	10/8/16	3
17074	Natchaug River	Upstream bridge in state park picnic area off Rte. 198	EASTFORD	41.8417	-72.0915	CAS	9/17/16	3
17295	Bigelow Brook	Downstream Eastford Road	ASHFORD	41.9182	-72.1398	CAS	9/16/16	3
17567	Bartlett Brook	upstream Taylor Bridge Road	LEBANON	41.5883	-72.25627	TLGV/LIWWC	10/13/16	3
17978	Raymond Brook	GRAYVILLE PARK	HEBRON	41.6142	-72.3678	SRWP/RHAM-MS	10/6/16	3
17992	Big Brook	UPSTREAM OF RTE 85	SALEM	41.50446	-72.28783	8MILE/SLT	11/18/16	3
18390	East Branch Eightmile River	at Ed Bills spillway	LYME	41.426822	-72.331911	8MILE	10/7/16	3
18396	East Spring Brook	Downstream Kasson Rd crossing	BETHLEHEM	41.649186	-73.183134	PRWC	9/27/16	5
18413	Latimer Brook	50m Upstream Colony Road	EAST LYME	41.383973	-72.21429	NRWC/ELCC	11/4/16	4
18423	Pease Brook	Downstream Waterman Road Bridge (Downstream Hoxie Brook confluence)	LEBANON	41.605094	-72.202139	TLGV/LIWWC	10/6/16	2
18495	Latimer Brook	Upstream Route 1, behind Flanders Plaza	EAST LYME	41.367256	-72.20808	NRWC/ELCC	11/4/16	2
18694	Muddy Brook	Upstream 100m of Hopyard Rd.	EAST HADDAM	41.475969	-72.342916	TRCC	4/30/16	3
18694	Muddy Brook	Upstream 100m of Hopyard Rd.	EAST HADDAM	41.475969	-72.342916	TRCC	10/15/16	3
18816	Railroad Brook	600m Downstream Bolton Notch Pond, adjacent the Hop River Rail Trail	BOLTON	41.795833	-72.45055	BCC	10/23/16	1
18817	Hawleys Brook	Within Trout Brook Valley Preserve, adjacent the Paul Busch/Violet Trail	EASTON	41.251111	-73.3425	FFLD/ZOO	10/15/16	1
18832	Cranberry Meadow Brook	70m downstream tributary ("Pigeon Hill Brook") near 61 Walnut Hill Rd	EAST LYME	41.407367	-72.227927	NRWC/ELCC	11/4/16	3
18846	Fawn Brook	Downstream of old Dam Howe Property	HEBRON	41.6279	-72.40813	SRWP/RHAM-HS	10/25/16	3
18846	Fawn Brook	Downstream of old Dam Howe Property	HEBRON	41.6279	-72.40813	SRWP/RHAM-HS	10/25/16	4
18936	Eightmile River	within Lyme Land Trust Pleasant Valley Preserve (upstream Macintosh Rd)	LYME	41.41528	-72.33762	TRCC	10/15/16	3
18961	Fraser Brook	at Salem Community Park	SALEM	41.48108	-72.25275	TRCC	4/30/16	1
18961	Fraser Brook	at Salem Community Park	SALEM	41.48108	-72.25275	TRCC	10/29/16	3

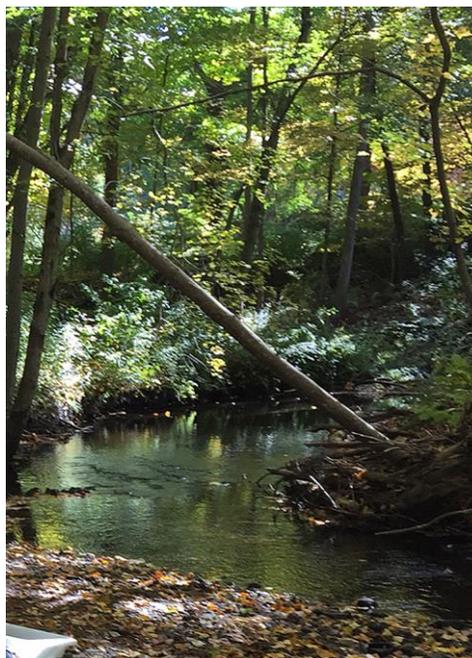
DEEP Station ID	Stream Name	Location Description	Town	Latitude	Longitude	Collector	Date	Most Wanted Count
18962	East Branch Eightmile River	100m downstream Darling Road	SALEM	41.442214	-72.306195	TRCC	4/30/16	7
18962	East Branch Eightmile River	100m downstream Darling Road	SALEM	41.442214	-72.306195	TRCC	10/29/16	3
18981	Lyman Brook	125m downstream of Glenwood Drive cul-de-sac	MARLBOROUGH	41.63271	-72.45228	SRWP	9/24/16	3
18984	Willeys Brook ("Christopher Brook")	Upstream Clark Hill Road	EAST HAMPTON	41.595707	-72.520381	SRWP/EHHS	11/10/16	2
18998	English Neighborhood Brook	Downstream Rte. 169	WOODSTOCK	41.991166	-71.99663	CAS	10/8/16	3
19157	Weekeepeemee River	Adjacent to Mill Pond Road near intersection with Route 132	BETHLEHEM	41.631128	-73.222455	PRWC	9/27/16	0
19214	Harris Brook	0.25 mi upstream Music Vale Rd	SALEM	41.487386	-72.27044	TRCC	4/30/16	4
19214	Harris Brook	0.25 mi upstream Music Vale Rd	SALEM	41.487386	-72.27044	TRCC	10/29/16	2
19215	E. Branch Eightmile River, tributary ("Ransom Brook")	30m downstream Darling Rd	SALEM	41.454943	-72.283556	TRCC	10/29/16	3
19220	Buttonball Brook	Downstream S Bear Hill Road	CHAPLIN	41.77356	-72.1313	TLGV	10/1/16	2
19220	Buttonball Brook	Downstream S Bear Hill Road	CHAPLIN	41.77356	-72.1313	TLGV	11/18/16	7
19383	Nelson Brook	60m Downstream Birch Rd (Downstream Confluence with Cedar Swamp Brook)	MANSFIELD	41.8121	-72.2859	TLGV	10/13/16	1
19455	Blackledge River	30m upstream Fawn Brook, near Kellogg Rd/South Main St	MARLBOROUGH	41.60413	-72.41969	SRWP/MCS	9/16/16	4
19456	Mint Brook	Upstream Rte. 207/Lebanon Rd	HEBRON	41.64065	-72.3411	SRWP	11/15/16	4
19457	Pine Brook	Within Middlesex Land Trust Preserve, east of Chestnut Hill Rd	EAST HAMPTON	41.538445	-72.524523	SRWP	11/13/16	6
19458	Roaring Brook #2	Upstream Rte. 82, behind Hadlyme Post Office	LYME	41.423478	-72.399106	8MILE/LLCT	11/10/16	4
19459	Cherry Brook	Behind Congregational Church on Rte. 179 (Between West Mountain Rd and Humphrey Rd crossings)	CANTON	41.8548	-72.917	FRWA	10/7/16	5

Appendix C: 2016 RBV Monitoring Location Photographs

**Yellow stars indicate sites for which a 2016 voucher containing four or more 'most wanted' taxa was submitted to DEEP
Photos are in order of DEEP Station ID.*



*Station 14435 – Salmon Brook
Monitored on 10/11/2016 by the Farmington River
Watershed Association
Result – 5 Most Wanted types*



*Station 14470 – Tankerhoosen River
Monitored on 10/15/2016 by the Vernon
Conservation Commission
Result – 3 Most Wanted types*



*Station 14469 – Tankerhoosen River
Monitored on 10/15/2016 by the Vernon
Conservation Commission
Result – 0 Most Wanted types*



*Station 14587 – Ten Mile River
Monitored on 10/19/2016 by The Last Green Valley
& the Lebanon Inland Wetlands & Watercourses
Commission
Result – 4 Most Wanted types*



*Station 15045 – Judd Brook
Monitored on 9/17/2016 by the Salmon River
Watershed Partnership
Result – 2 Most Wanted types*



*Station 15170–West Branch Salmon Brook
Monitored on 10/01/2016 by the Farmington
River Watershed Association
Result – 1 Most Wanted types*



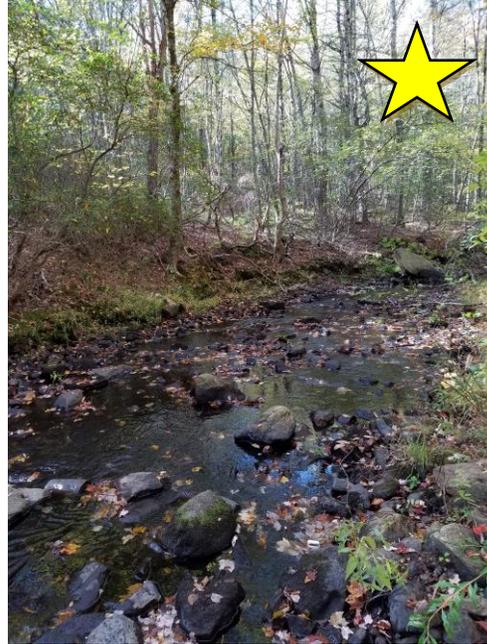
*Station 15126 – Wharton Brook
Monitored on 10/3/2016 by the Quinnipiac River
Watershed Association with Lyman Hall High School
Result – 0 Most Wanted types*



*Station 15205 –Tankerhoosen River
Monitored on 10/15/2016 by the Vernon
Conservation Commission
Result – 1 Most Wanted types*



*Station 15206 –Tankerhoosen River
Monitored on 10/15/2016 by the Vernon
Conservation Commission
Result – 2 Most Wanted types*



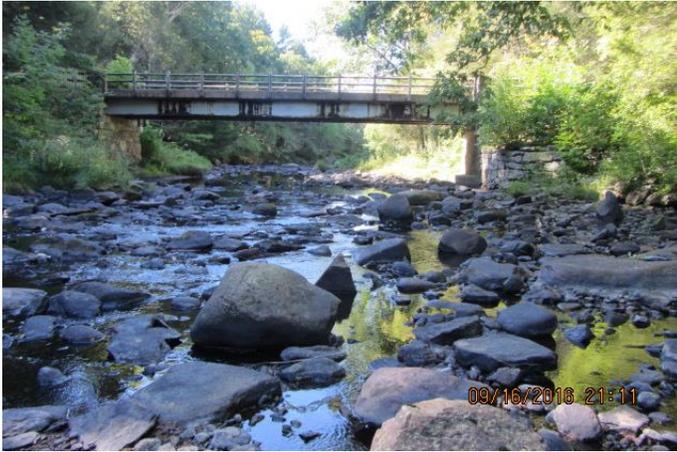
*Station 15313 –Harris Brook
Monitored on 10/15/2016 by Three Rivers
Community College
Result – 4 Most Wanted types*



*Station 15312 –Beaver Brook
Monitored on 10/15/2016 by Three Rivers
Community College
Result – 5 Most Wanted types*



*Station 15592 –French Brook
Monitored on 10/23/2016 by the Bolton
Conservation Commission
Result – 0 Most Wanted types*



*Station 15599 – Mashamoquet Brook
Monitored on 10/01/2016 by the Connecticut
Audubon Society
Result – 3 Most Wanted types*



*Station 16088 – Lebanon Brook
Monitored on 9/23/2016 by the Connecticut
Audubon Society
Result – 1 Most Wanted types*



*Station 16119 – Day Pond Brook
Monitored on 10/30/2016 by the Salmon River
Watershed Partnership & Colchester Girl Scouts
Result – 2 Most Wanted types*



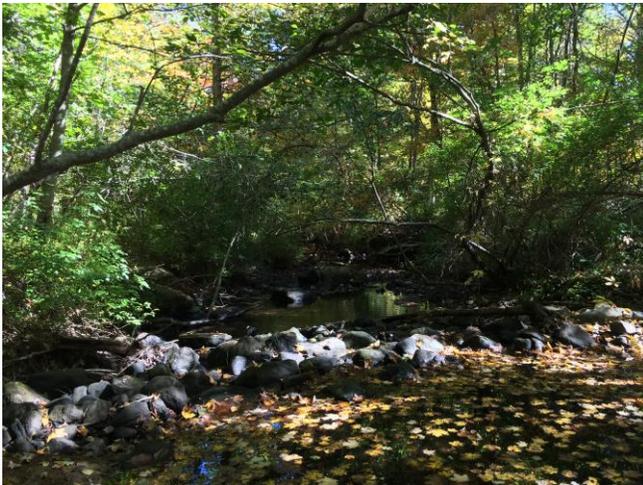
*Station 16121 – Flat Brook
Monitored on 09/10/2016 by the Salmon River
Watershed Partnership
Result – 3 Most Wanted types*



*Station 16122 – Early Brook
Monitored on 11/03/2016 by the Eightmile River
Wild & Scenic Coordinating Committee and The
Nature Conservancy
Result – 5 Most Wanted types*



*Station 16146 – East Branch Byram River
Monitored on 11/09/2016 by the Greenwich Inland
Wetlands & Watercourses Agency
Result – 2 Most Wanted types*



*Station 16128 – Stonehouse Brook
Monitored on 10/06/2016 by The Last Green Valley
Result – 3 Most Wanted types*



*Station 16266 – Bolton Pond Brook
Monitored on 10/23/2016 by the Bolton
Conservation Commission
Result – 2 Most Wanted types*



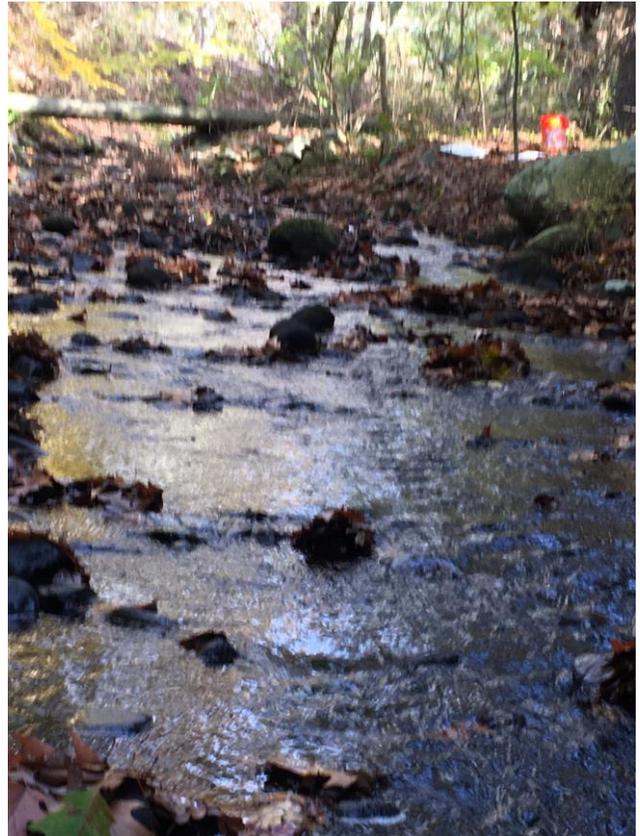
*Station 16324 – Dickinson Creek
Monitored on 09/10/2016 by the Salmon River
Watershed Partnership
Result – 3 Most Wanted types*



*Station 16431 – Sprain Brook
Monitored on 9/27/2016 by the Pomperaug River
Watershed Coalition
Result – 2 Most Wanted types*



*Station 16370 – Bunnell Brook
Monitored on 10/20/2016 by the Farmington River
Watershed Association & the Montessori School of
Greater Hartford
Result – 6 Most Wanted types*



*Station 16771 – Indian Hollow Brook
Monitored on 11/2/2016 by The Last Green Valley
Result – 3 Most Wanted types*



*Station 16992 – Quinnipiac River
Monitored on 10/05/2016 by the Quinnipiac River
Watershed Association & Maloney High School
Result – 0 Most Wanted types*



*Station 17074 – Natchaug River
Monitored on 09/17/2016 by the Connecticut
Audubon Society
Result – 3 Most Wanted types*



*Station 17015 – Safstrom Brook
Monitored on 10/08/2016 by the Salmon River
Watershed Partnership
Result – 3 Most Wanted types*



*Station 17295 – Bigelow Brook
Monitored on 09/16/2016 by the Connecticut
Audubon Society
Result – 3 Most Wanted types*



*Station 17567 – Bartlett Brook
Monitored on 10/13/2016 by The Last Green Valley
& the Lebanon Inland Wetlands and Watercourses
Commission
Result – 3 Most Wanted types*



*Station 17992 – Big Brook
Monitored on 11/18/2016 by the Eightmile River
Wild & Scenic Coordinating Committee and the
Salem Land Trust
Result – 3 Most Wanted types*



*Station 17987– Raymond Brook
Monitored on 10/06/2016 by the Salmon River
Watershed Partnership & RHAM Middle School
Result – 3 Most Wanted types*



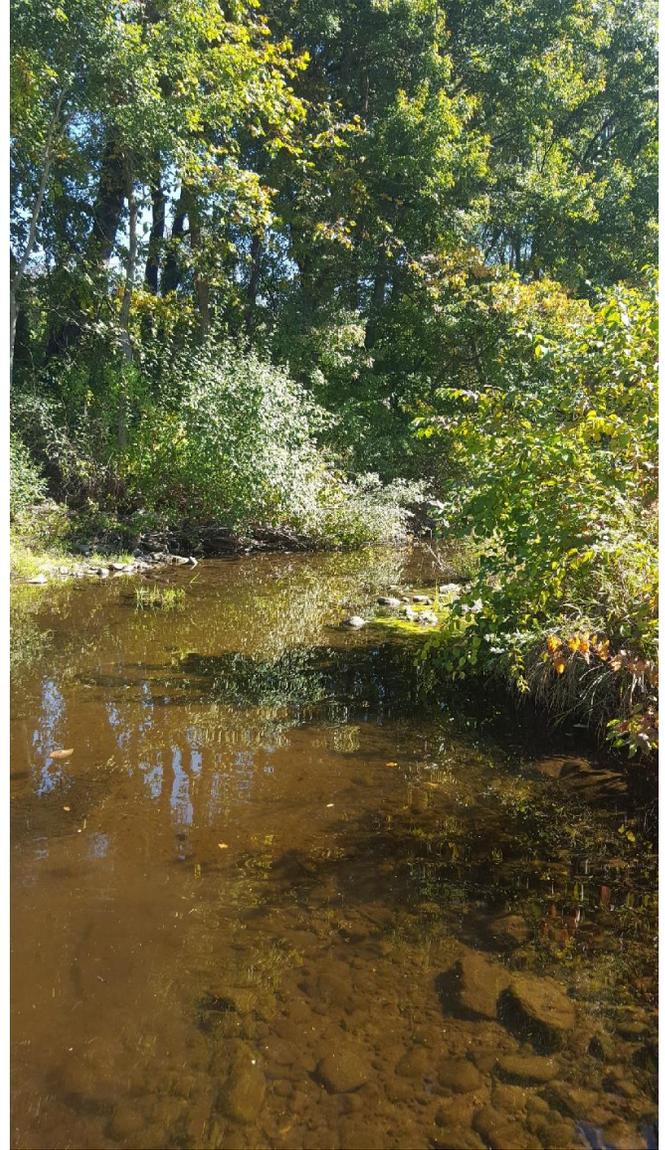
*Station 18390 – East Branch Eightmile River
Monitored on 10/07/2016 by the Eightmile River
Wild & Scenic Coordinating Committee
Result – 3 Most Wanted types*



*Station 18396- East Spring Brook
Monitored on 09/27/2016 by the Pomperaug River
Watershed Coalition
Result - 5 Most Wanted types*



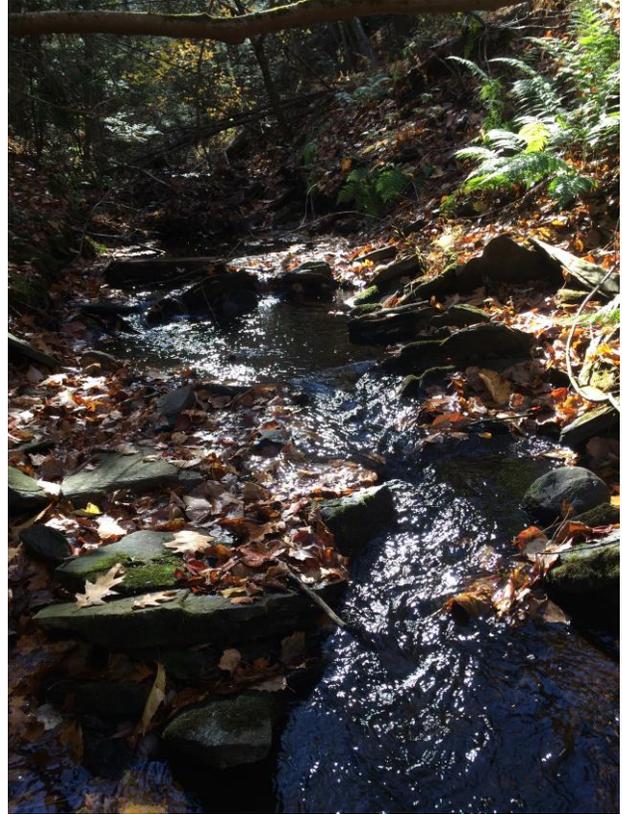
*Station 18413 - Latimer Brook
Monitored on 11/04/2016 by the Niantic River
Watershed Committee & East Lyme Conservation
Commission
Result - 4 Most Wanted types*



*Station 18423 - Pease Brook
Monitored on 10/06/2016 by The Last Green Valley
& the Lebanon Inland Wetlands & Watercourses
Commission
Result - 2 Most Wanted types*



*Station 18495 – Latimer Brook
Monitored on 11/04/2016 by the Niantic River
Watershed Committee & East Lyme Conservation
Commission
Result – 2 Most Wanted types*



*Station 18816 – Railroad Brook
Monitored on 10/23/2016 by the Bolton
Conservation Commission
Result – 1 Most Wanted types*



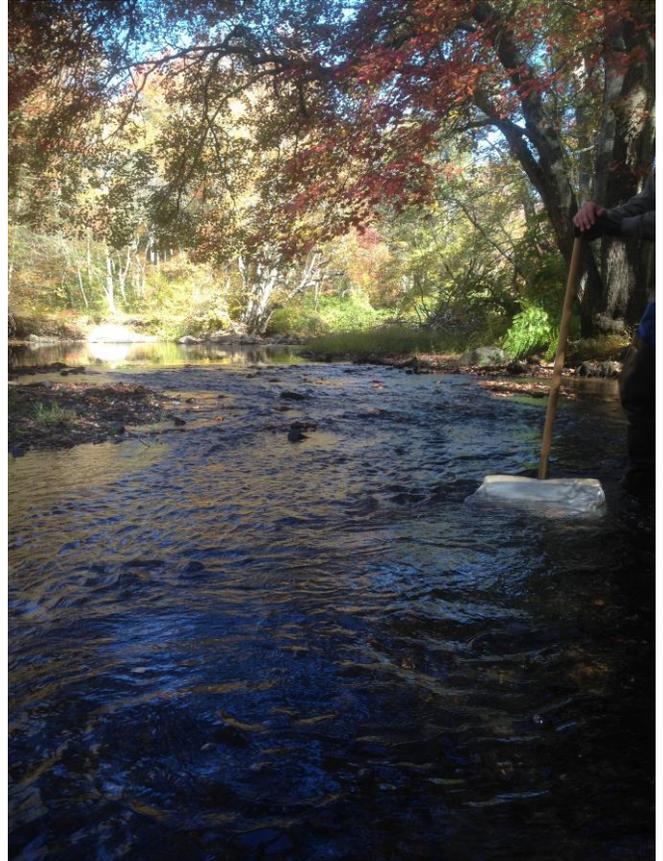
*Station 18694 – Muddy Brook
Monitored on 10/15/2016 by Three Rivers
Community College
Result – 3 Most Wanted types*



*Station 18817 – Hawleys Brook
Monitored on 10/15/2016 by Fairfield University &
Connecticut's Beardsley Zoo's Citizen Discovery
Corp
Result – 1 Most Wanted types*



*Station 18832 – Cranberry Meadow Brook
Monitored on 11/04/2016 by the Niantic River
Watershed Committee & the East Lyme Conservation
Commission
Result – 3 Most Wanted types*



*Station 18936 – Eightmile River
Monitored on 10/15/2016 by Three Rivers
Community College
Result – 3 Most Wanted types*



*Station 18846 – Fawn Brook
Monitored on 10/25/2016 by the Salmon River
Watershed Partnership and RHAM High School
Aquatics Class
Result (Group 1) – 3 Most Wanted types
Result (Group 2) – 4 Most Wanted types*



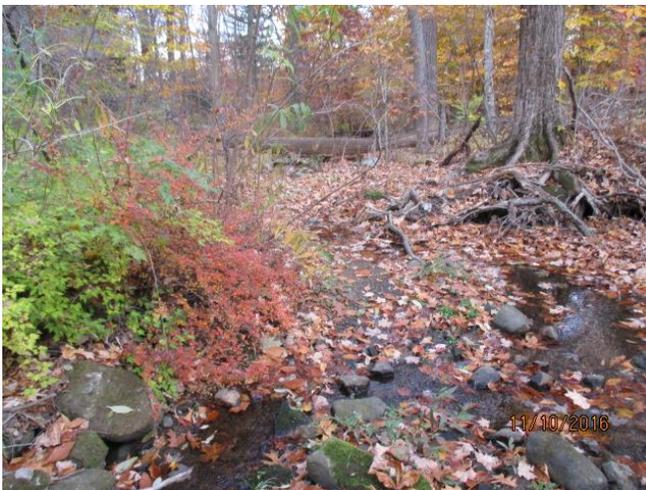
*Station 18961 – Fraser Brook
Monitored on 10/29/2016 by Three Rivers
Community College
Result – 3 Most Wanted types*



*Station 18981 – Lyman Brook
Monitored on 09/24/2016 by the Salmon River
Watershed Partnership
Result – 3 Most Wanted types*



*Station 18998 – English Neighborhood Brook
Monitored on 10/08/2016 by the Connecticut
Audubon Society
Result – 3 Most Wanted types*



*Station 18984 – Willeys Brook (“Christopher Brook”)
Monitored on 11/10/2016 by the Salmon River
Watershed Partnership & East Hampton High School
Result – 2 Most Wanted types*



*Station 19157 – Weekepeemee River
Monitored on 09/27/2016 by the Pomperaug River
Watershed Coalition
Result – 0 Most Wanted types*



*Station 19215 – East Branch Eightmile River,
Unnamed tributary to ("Ransom Brook")
Monitored on 10/29/2016 by Three Rivers
Community College
Result – 3 Most Wanted types*



*Station 19220 – Buttonball Brook
Monitored on 10/01/2016 by The Last Green Valley
Result – 2 Most Wanted types*



*Station 19220 – Buttonball Brook
Monitored on 11/18/2016 by The Last Green Valley
Result – 7 Most Wanted types*



*Station 19455 – Blackledge River
Monitored on 09/16/2016 by the Salmon River
Watershed Partnership & Marlborough Cub Scout
Troop 39
Result – 4 Most Wanted types*



*Station 19456 – Mint Brook
Monitored on 11/15/2016 by the Salmon River
Watershed Partnership
Result – 4 Most Wanted types*



*Station 19458 – Roaring Brook #2
Monitored on 11/10/2016 by the Eightmile River
Wild & Scenic Coordinating Committee & the Lyme
Land Conservation Trust
Result – 4 Most Wanted types*



*Station 19457 – Pine Brook
Monitored on 11/13/2016 by the Salmon River
Watershed Partnership
Result – 6 Most Wanted types*



*Station 19459 – Cherry Brook
Monitored on 10/07/2016 by the Farmington River
Watershed Association
Result – 5 Most Wanted types*



CT Department of Energy & Environmental Protection
Riffle Bioassessment by Volunteers
Volunteer Water Quality Monitoring Program



Annual Summary Report

(Report #18)

www.ct.gov/deep/rbv