



ANNUAL SYSTEM STATUS REPORT AND QUALITY MANAGEMENT PLAN REVIEW FY-2020

NEIWPCC

December 2020

Submitted by:

A handwritten signature in blue ink that reads "Peter A. Zaykoski".

12/22/2020

Peter Zaykoski
NEIWPCC Quality Assurance Program Manager

Date

A. YEAR IN REVIEW

QUARTERLY REPORTS

NEIWPCC has an EPA-funded work plan and associated resources to allow the quality assurance program manager (QAPM) to support the organizational quality management system. On a quarterly basis, activities for this effort are reported to the appropriate EPA project officer. Below is the reporting for FY-2020.

§106 QUALITY MANAGEMENT

NEIWPCC Job Cost Code: #1079-002-001

First Quarter

- Conducted three QA awareness trainings for new hires.
- Rolled out updated guidance documents (NEIWPCC QAPP Guide and NEIWPCC QAPP Review and Approval SOP) and updated systems on October 1, 2019.
- Met with NEIWPCC Quality Management Steering Committee (QMSC) to provide update on QMS anticipated FY2020 activities on October 7, 2019.
- Presented FY-19 instance of QAPP nonconformance and resolution process on Northeast Regional Quality Assurance Round Table conference call on November 7, 2019.
- Completed Phase 2 of the annual staff self-assessment with an 89% participation rate.
- Submitted annual system status report and QMP review for FY-19 to QMSC and EPA Regions 1 & 2 on December 12, 2019.

Second Quarter

- Conducted two QA awareness trainings for new hires.
- Presented update on status of QMS to NEIWPCC Commissioners on January 10, 2020 and discussed FY-19 instance of QAPP nonconformance during poster session on January 9, 2020.
- Met with QAPM designees to provide relevant updates and facilitate coordination among the group on February 13, 2020.
- NEIWPCC staff completed a QA Field Assessment on the “Mill Brook Bogs Restoration Project (Planning and Design) Geotechnical Investigation” project (Q20-009) on March 12, 2020. No deviations from (or discrepancies with) the approved QAPP were observed or noted.

Third Quarter

- Conducted three QA awareness trainings for new hires.
- Participated on the EPA’s Northeast Quality Assurance Round Table conference call on May 7th.
- The QAPM worked with Water Quality Division staff to respond to an incident in which a subcontractor for an NBEP project began work before the project QAPP was approved. The incident was resolved without issue: the awardee agreed to discard the earlier collected data and perform all work in accordance with the QAPP, once approved, at no cost to NEIWPCC. The incident concluded on June 15th when the final, approved QAPP was circulated.

Fourth Quarter

- Conducted two QA awareness trainings for new hires.
- NEIWPCCC staff completed four QA Field Assessments: the “Municipal Road Stream Crossings in the Lower Esopus Creek Watershed: Using a Watershed Approach to Resilience” project (Q20-014), assessed on 8/13/2020; the “Development of Restoration Site Data Collection and Management Protocols” project (Q20-022), assessed on 8/18/2020; the “Mussel Impact on Native Freshwater Mussel Communities in Lake Champlain” project (Q20-026), assessed on 8/26/2020; and the “Lewis Creek Watershed Aquatic Invasive Species Survey, Map Creation, Management Plan Development, and Boat Launch Steward Initiative” project (Q20-020), assessed on 9/7/2020. No nonconformances were observed or noted during the assessments.

QAPP REVIEW AND APPROVAL

In FY-2020, 48 quality assurance project plans (QAPPs) were approved. A list of the QAPPs reviewed and approved is contained in Appendix B. Thirty of the projects originated at the Lake Champlain Basin Program (LCBP); six originated at the Narragansett Bay Estuary Program; and four originated at the Hudson River Estuary Program (HREP). In addition, there is one QAPP that was submitted in FY-2020 that will have its approval finalized in early FY-2021. That QAPP will be included in next year’s report.

QA FIELD ASSESSMENTS

Five QA field assessments were performed in FY-2020.

No deviations from (or discrepancies with) the approved QAPPs were observed or noted during the assessments. The field assessment reports for these projects are contained in Appendix C. The projects assessed and the dates of the assessments are:

- Mill Brook Bogs Restoration Project (Planning and Design) Geotechnical Investigation (Q20-009), 3/12/2020
- Municipal Road Stream Crossings in the Lower Esopus Creek Watershed: Using a Watershed Approach to Resilience (Q20-014), 8/13/2020
- Development of Restoration Site Data Collection and Management Protocols (Q20-022), 8/18/2020
- Mussel Impact on Native Freshwater Mussel Communities in Lake Champlain (Q20-026), 8/26/2020
- Lewis Creek Watershed Aquatic Invasive Species Survey, Map Creation, Management Plan Development, and Boat Launch Steward Initiative (Q20-020), 9/7/2020

QA PRESENTATIONS AND TRAINING

In FY-2020 there were several presentation and training opportunities offered in association with the quality management system. These included:

- Conducted ten QA awareness trainings for new hires.

- Presented FY-19 instance of QAPP nonconformance and resolution process on Northeast Regional Quality Assurance Round Table conference call on November 7, 2019.
- Presented update on status of QMS to NEIWPCCC Commissioners on January 10, 2020 and discussed FY-19 instance of QAPP nonconformance during poster session on January 9, 2020.
- Participated on the EPA's Northeast Quality Assurance Round Table conference call on May 7th.

Due to the COVID-19 pandemic, NEIWPCCC's Annual All-Staff meeting was cancelled (originally scheduled for March 26-27, 2020). As such, no QA awareness refresher training for all staff was presented in FY-20. This training will be offered during the FY-21 NEIWPCCC All-Staff meeting, which is currently scheduled for March 25-26, 2021.

PHASE 2 QA SELF-ASSESSMENTS

Phase 2 QA self-assessment questionnaires were distributed to 28 staff on December 7, 2020; utilizing an online survey format for response collection. These staff were contacted to complete the self-assessment questionnaire because they indicated on their 2020 performance appraisal that they were involved with environmental data operations on behalf of NEIWPCCC in FY-2020. 24 responses (86%) have been returned. The QAPM will continue efforts to maintain and increase the percentage of responses received.

B. QUALITY SYSTEM REVIEW

AREAS OF SUCCESS

The following activities are indicators of a well-functioning quality management system:

- Minimization of delay in review and approval of a record 48 QAPPs.
- Implementation of a NEIWPCCC QAPP unique identifier and file naming convention.
- Development of processes for annual QAPP data verification and project managers' certification of QAPP annual review.
- Demonstrated staff understanding and ability to promptly notify and correct any incidents such as the one noted in quarter three.
- Continuation of a high rate of QA field assessments, despite interruptions from COVID-19.
- Strong survey response for staff self-assessments.

AREAS OF IMPROVEMENT

The system is performing well and continuous improvement efforts are planned for FY-2021, including:

- Continued development and revision of process documentation.
- Further integration of data management systems used across NEIWPCCC's divisions with QA systems and databases.

C. GOALS FOR NEXT YEAR

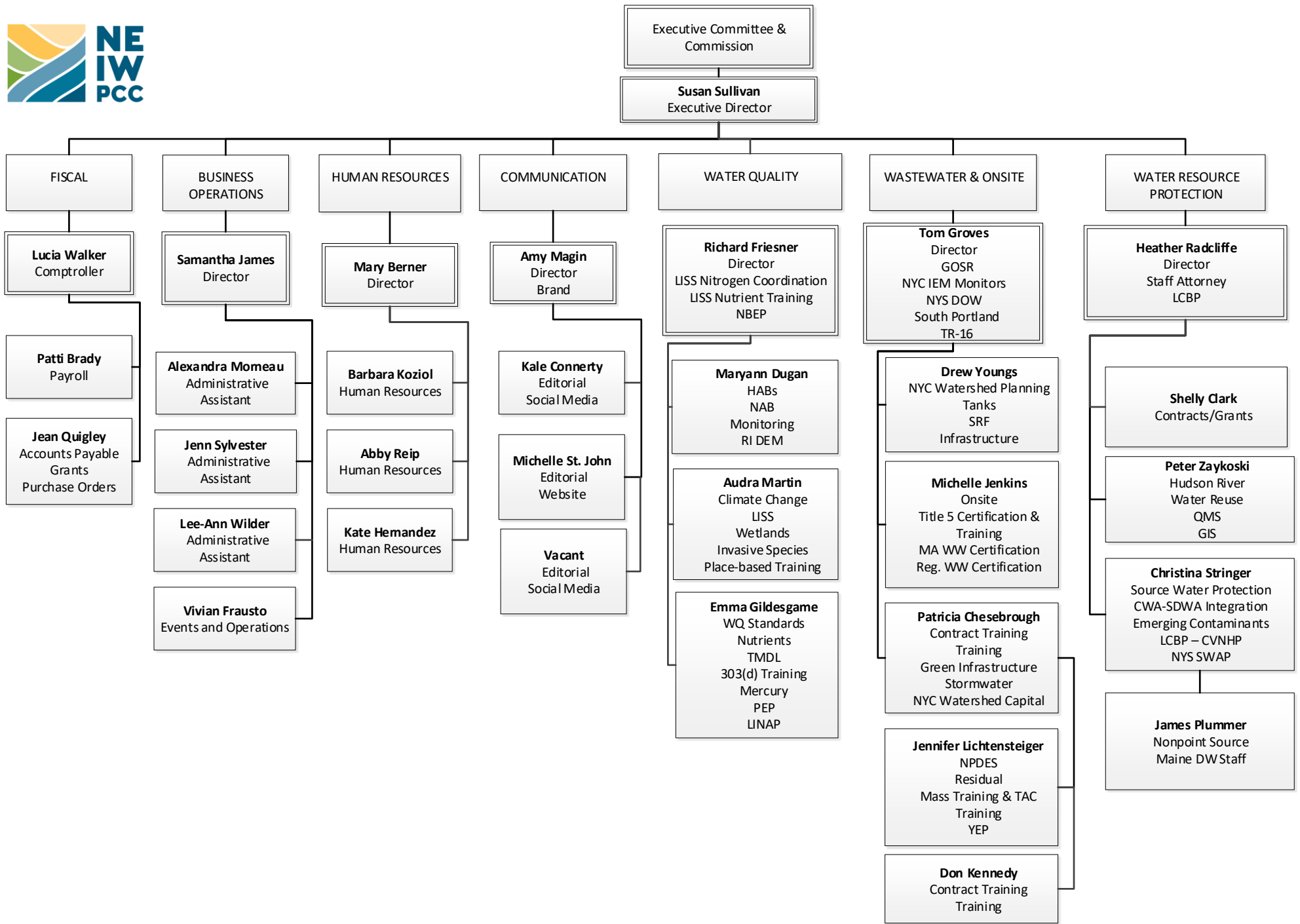
- Continue to optimize system performance and identify areas for system strengthening.
- Complete training of two new QAPM designees and continue a high level of engagement with existing designees. Conduct a designee refresher training for existing designees.
- Conduct and coordinate a high rate of field assessments, engaging project managers and QAPM designees.
- Further document existing and new processes within the quality management system.

D. QUALITY MANAGEMENT PLAN REVIEW

Version 6 of the NEIWPCCC QMP was fully-approved by EPA Region 1 and 2 in March 2018 and is valid into 2023. Version 6 of the NEIWPCCC QMP can be viewed at <http://neiwpc.org/our-programs/assessment-and-research/quality-management/>

The NEIWPCCC Quality Management Steering Committee will review the implications of the update to EPA's Quality Policy and Procedure, once finalized, to determine any needed updates to the NEIWPCCC QMP. NEIWPCCC may pursue an update to its QMP in FY-21 depending on the result of this assessment as well as the need for any additional updates at that time.

APPENDIX A: NEIWPCCC ORGANIZATIONAL CHART



APPENDIX B: QAPP LIST FOR FY-20

FY 2020 QAPP Report (EPA)

NEIWPCC Project Manager	QAPP ID	QAPP Title	QAPP Reviewer	Grant Number	Date Draft QAPP Received	Date Review Completed	Date Final QAPP Received	Signature Page Received
Lauren Jenness	Q19-001	Isle La Motte Segment Management Plan	Peter Zaykoski	LC00A00377	5/6/2019	5/13/2019	4/23/2020	<input checked="" type="checkbox"/>
Meg Modley Gilbertson	Q19-002	Aquatic Plant Survey of Lincoln Pond	Peter Zaykoski	GLFC	8/13/2019	8/14/2019	10/8/2019	<input checked="" type="checkbox"/>
Richard Friesner	Q19-003	Third Statewide Assessment of Mercury Contamination in Fish Tissue From Connecticut Lakes	Peter Zaykoski	DEPA000020 52006	8/27/2019	9/16/2019	11/22/2019	<input checked="" type="checkbox"/>
Richard Friesner	Q19-005	Nonpoint Source Stormwater Tracking Tool for Long Island Sound	Peter Zaykoski	LI00A00384	9/20/2019	10/2/2019	12/12/2019	<input checked="" type="checkbox"/>
John Ladd	Q20-001	State of the Hudson: Report on the Environmental Conditions of the Hudson River Estuary	Peter Zaykoski	C009469	10/3/2019	10/3/2019	10/10/2019	<input checked="" type="checkbox"/>
Matthew Vaughan	Q20-002	Reducing Combined Sewer Overflows to Lake Champlain through Public Private Partnerships and Innovative Technology	Peter Zaykoski	LC00A00394	10/16/2019	10/18/2019	10/29/2019	<input checked="" type="checkbox"/>
Lauren Jenness	Q20-003	Stormwater Mitigation Final Designs – Berlin, Vermont	Peter Zaykoski	LC00A00394	10/31/2019	10/31/2019	12/2/2019	<input checked="" type="checkbox"/>
Lauren Jenness	Q20-004	Transforming Hyde Park Village Center into a Net Zero runoff Showcase Using Green Stormwater Infrastructure	Meg Modley	GLFC	11/20/2019	1/14/2020	3/19/2020	<input checked="" type="checkbox"/>
Richard Friesner	Q20-005	Addendum to 2017 QAPP for Dissolved Oxygen Monitoring in Connecticut to include a summary report	Peter Zaykoski	DEPA000020 52007	12/5/2019	12/10/2019	3/3/2020	<input checked="" type="checkbox"/>
Audra Martin	Q20-006	Utilizing Seaweed Aquaculture to Improve Water Quality in Great South Bay, New York	Richard Friesner	LI96187401 LI00A00384	12/17/2019	1/15/2020	2/13/2020	<input checked="" type="checkbox"/>
Audra Martin	Q20-006-A1	Utilizing Seaweed Aquaculture to Improve Water Quality in Great South Bay, New York Amendment 1	Richard Friesner	LI96187401 LI00A00384	4/28/2020	4/29/2020	5/19/2020	<input checked="" type="checkbox"/>
Megan Lung	Q20-007	Road Stream Crossing Management Planning Towns of Austerlitz, Ghent and New Baltimore	Peter Zaykoski	C009469	12/17/2019	12/19/2019	12/30/2019	<input checked="" type="checkbox"/>

NEIWPCC Project Manager	QAPP ID	QAPP Title	QAPP Reviewer	Grant Number	Date Draft QAPP Received	Date Review Completed	Date Final QAPP Received	Signature Page Received
Matthew Vaughan	Q20-008	Implementation of Whole Farm Nutrient Management to Reduce Phosphorus Loading and Improve Farm Viability in the Lake Champlain Basin	Peter Zaykoski	LC00A00394	12/23/2019	12/31/2019	2/11/2020	<input checked="" type="checkbox"/>
Courtney Schmidt	Q20-009	Mill Brook Bogs Restoration Project (Planning and Design) Geotechnical Investigation	Peter Zaykoski	CE00A00393	12/23/2019	12/31/2019	1/30/2020	<input checked="" type="checkbox"/>
Matthew Vaughan	Q20-010	St. Albans Lower Welden Stormwater Treatment Facility Design	Peter Zaykoski	LC00A00394	1/27/2020	2/6/2020	3/11/2020	<input checked="" type="checkbox"/>
Courtney Schmidt	Q20-011	Broad Meadow Brook Restoration Project Broad Meadow Wildlife Sanctuary QAPP	Peter Zaykoski	CE00A00004	2/12/2020	2/13/2020	4/3/2020	<input checked="" type="checkbox"/>
Maryann Dugan	Q20-012	Benthic Macroinvertebrates Sampling Methodology for Embayments	Peter Zaykoski	DEPA000020 80113	2/19/2020	2/25/2020	4/7/2020	<input checked="" type="checkbox"/>
Elizabeth Hornstein	Q20-013	Alewife Monitoring in the Peconic Estuary 2020-2024	Peter Zaykoski	CE97230303	2/20/2020	2/26/2020	8/24/2020	<input checked="" type="checkbox"/>
Megan Lung	Q20-014	Municipal Road Stream Crossings in the Lower Esopus Creek Watershed: USING a Watershed Approach to Resilience	Peter Zaykoski	C009469	3/3/2020	3/4/2020	3/13/2020	<input checked="" type="checkbox"/>
Richard Friesner	Q20-015	STORMTOOLS - High Resolution Inundation Modeling for Narragansett Bay, Mt. Hope Bay, and the Lower Taunton River	Peter Zaykoski	CE00A00366	3/12/2020	3/25/2020	4/21/2020	<input checked="" type="checkbox"/>
Matthew Vaughan	Q20-016	Quantifying the road salt pollution load to Mirror Lake and the Chubb River	Richard Friesner		3/20/2020	4/1/2020	4/22/2020	<input checked="" type="checkbox"/>
Courtney Schmidt	Q20-017	Beaver River Watershed Assessment	Peter Zaykoski	CE00A00393	3/20/2020	3/31/2020	4/22/2020	<input checked="" type="checkbox"/>
Meg Modley Gilbertson	Q20-018	Mapping Japanese Knotweed in Shoreline Regions Along the Misisquoi and Trout Rivers	Peter Zaykoski		5/7/2020	5/11/2020	6/9/2020	<input checked="" type="checkbox"/>
Courtney Schmidt	Q20-019	Restoration of Anadromous Fish Passage, Pontiac Dam, Warwick RI	Peter Zaykoski	CE00A00393	3/23/2020	4/2/2020	5/14/2020	<input checked="" type="checkbox"/>
Meg Modley Gilbertson	Q20-020	Lewis Creek Watershed Aquatic Invasive Species Survey, Map Creation, Management Plan Development, and Boat Launch Steward Initiative	Peter Zaykoski	GLFC	5/11/2020	5/14/2020	5/28/2020	<input checked="" type="checkbox"/>

NEIWPCC Project Manager	QAPP ID	QAPP Title	QAPP Reviewer	Grant Number	Date Draft QAPP Received	Date Review Completed	Date Final QAPP Received	Signature Page Received
Richard Friesner	Q20-021	Stormwater Master Plan Development-Mt. Hope High School	Mike Jennings	CE00A00393	4/2/2020	5/8/2020	6/16/2020	<input checked="" type="checkbox"/>
Daniel Miller	Q20-022	Development of Restoratin Site Data Collection & Management Protocols	Peter Zaykoski	C009469	4/6/2020	4/8/2020	4/16/2020	<input checked="" type="checkbox"/>
Lauren Jenness	Q20-023	Advancing a Riparian Restoration Protocol for the Ausable Watershed	Courtney Schmidt	LS00A00605	4/6/2020	4/20/2020	7/7/2020	<input checked="" type="checkbox"/>
Meg Modley Gilbertson	Q20-024	Control of Flowering Rush in Town Farm Bay	Peter Zaykoski	GLFC	5/27/2020	6/3/2020	7/1/2020	<input checked="" type="checkbox"/>
Meg Modley Gilbertson	Q20-025	Lake Champlain Basin Boat Launch Steward Generic QAPP V7	Peter Zaykoski		4/28/2020	5/4/2020	5/11/2020	<input checked="" type="checkbox"/>
Meg Modley Gilbertson	Q20-026	Zebra Mussel Impact on Native Freshwater Mussel Communities in Lake Champlain	Peter Zaykoski	GLFC	5/27/2020	6/9/2020	7/10/2020	<input checked="" type="checkbox"/>
Matthew Vaughan	Q20-027	Boquet River Watershed Proection and Restoration Project	Courtney Schmidt		5/5/2020	5/15/2020	7/8/2020	<input checked="" type="checkbox"/>
Meg Modley Gilbertson	Q20-029	Backcountry Water Monitors Year 6	Peter Zaykoski	GLFC	5/11/2020	5/12/2020	6/9/2020	<input checked="" type="checkbox"/>
Meg Modley Gilbertson	Q20-030	Lake Champlain Fish Community Monitoring	Richard Friesner	GLFC	6/25/2020	7/8/2020	9/22/2020	<input checked="" type="checkbox"/>
Matthew Vaughan	Q20-031	Georgia Shore Stormwater and Shoreline Erosion Assessment	Peter Zaykoski	LC00A00394	5/13/2020	5/28/2020	7/9/2020	<input checked="" type="checkbox"/>
Mae Kate Campbell	Q20-032	Illicit Discharge Detection and Elimination Project in the City of Plattsburgh	Peter Zaykoski	LC00A00605	6/15/2020	6/24/2020	7/28/2020	<input checked="" type="checkbox"/>
Meg Modley Gilbertson	Q20-033	Coordinating Homesite Stormwater Assessments Basin-Wide to Advance Voluntary Implementation	Mike Jennings	LC00A00134	6/17/2020	7/2/2020	7/17/2020	<input checked="" type="checkbox"/>
Mae Kate Campbell	Q20-034	Road Erosion Inventory on Private and Park Roads in the Lake Carmi Watershed	Peter Zaykoski	LC00A00605	6/15/2020	7/1/2020	7/28/2020	<input checked="" type="checkbox"/>

NEIWPC Project Manager	QAPP ID	QAPP Title	QAPP Reviewer	Grant Number	Date Draft QAPP Received	Date Review Completed	Date Final QAPP Received	Signature Page Received
Matthew Vaughan	Q20-035	Evaluating Performance of Media Filters to Remove Phosphorus in Stormwater Pond Outflow	Peter Zaykoski	GLFC	6/18/2020	7/1/2020	7/20/2020	<input checked="" type="checkbox"/>
Meg Modley Gilbertson	Q20-036	Follensby Clear Pond Aquatic Invasive Species Removal	Peter Zaykoski	GLFC	7/7/2020	7/14/2020	7/24/2020	<input checked="" type="checkbox"/>
Matthew Vaughan	Q20-037	State of the Lake and Ecosystem Indicators Report for Lake Champlain – 2021	Peter Zaykoski	LC00A00134	7/8/2020	7/15/2020	8/17/2020	<input checked="" type="checkbox"/>
Lauren Jenness	Q20-038	Green Stormwater Best Management Practices in the Town of Brandon- Brandon, VT	Meg Modley	GLFC	4/30/2020	5/19/2020	7/24/2020	<input checked="" type="checkbox"/>
Meg Modley Gilbertson	Q20-039	UVM Horticulture Farm Stormwater Improvements	Peter Zaykoski		7/15/2020	7/21/2020	8/7/2020	<input checked="" type="checkbox"/>
Lauren Jenness	Q20-040	ESI for Lake Champlain: Data Resources Inventory	Peter Zaykoski	LC00A00605	7/16/2020	7/22/2020	8/3/2020	<input checked="" type="checkbox"/>
Audra Martin	Q20-041	Northeast Regional Floristic Quality Assessment Tools for Wetland Assessments	Peter Zaykoski	CD00A00608	7/21/2020	7/29/2020	8/10/2020	<input checked="" type="checkbox"/>
Meg Modley Gilbertson	Q20-042	Aquatic Plant Survey of Lake Hortonia	Peter Zaykoski	LC00A00605	8/7/2020	8/17/2020	9/22/2020	<input checked="" type="checkbox"/>
Matthew Vaughan	Q20-043	Evaluating Alternatives to Control Internal Phosphorus Loading in Missisquoi Bay Using a 3-Dimensional Coupled Hydrodynamic-Aquatic Ecosystem Model	Peter Zaykoski	LC00A00605	8/17/2020	8/26/2020	9/21/2020	<input checked="" type="checkbox"/>
Mae Kate Campbell	Q20-044	Riparian Buffer Establishment Using Various Management Techniques	Peter Zaykoski	GLFC	8/24/2020	9/4/2020	9/14/2020	<input checked="" type="checkbox"/>

APPENDIX C: FIELD ASSESSMENT REPORTS

Field Assessment to Determine Conformance to Approved QAPP

Project Title: Mill Brook Bogs Restoration Project (Planning and Design) Geotechnical Investigation

Conducted: Courtney Schmidt

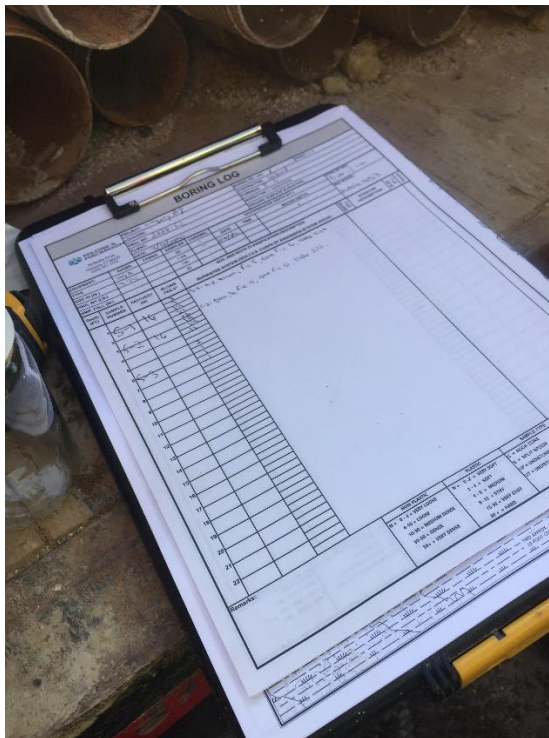
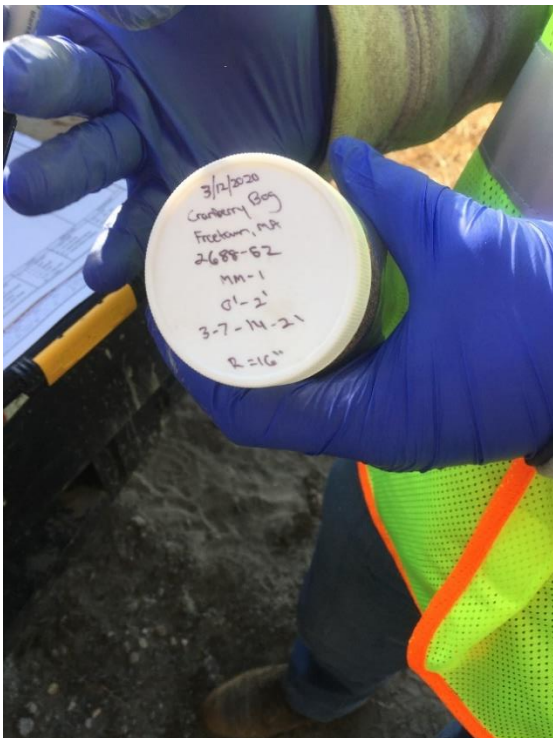
On March 12, 2020, NEIWPC Environmental Analyst (Courtney Schmidt) accompanied Eivy Monroy from Massachusetts Division of Ecological Restoration (MADER) and staff from MMI during field activities associated with the Mill Brook Bogs project. The QAPP (Q20-009) for this project was approved in January 2020.

Field activities conducted on March 12, 2020 included geotechnical investigations of the site, including soil boring. MADER hired a consulting firm, MMI, to do the geotechnical investigations at this site. The soil borings will be used to assess what materials to use when constructing public access points at the site. MMI supplied the boring equipment and a soil scientist to categorize the soil and take samples of the soil for further investigation, if needed.

All field efforts observed were conducted in accordance with the approved quality assurance project plan (QAPP). No deviations from (or discrepancies with) the approved QAPP approved were observed or noted.



Boring auger digging first soil bore. Soil bores were dug to approximately 20 ft, or if bedrock was hit, which ever came first.



All information from soil log (right) was captured on the cap of the soil sample. This procedure gives a back-up for data in case the jars are separated from data sheet.



Top left is a picture of the core after collection. The lower left is a photo of the soil scientist checking the core and collecting information for the log. The top right is a photo of the jar, log, tape measure, and core.



Photo of part of the site. This is the Mill Brook as it flows through the impounded site.

NEIWPCC Field Assessment Data Sheet

Project: Mills Brooks Bog
Staff: Eivy Monroy + MMI
Project Location: Howland Ave Freetown MA
Assessors: Carney Schmidt
Assessment Dates: 3/12/2020
Brief Project Description: geotechnical investigation for public access points on property

- Is there an approved QA Project Plan for the overall project and has it been reviewed by all appropriate personnel?

Yes
- Is a copy of the current approved QA Project Plan maintained at the site? If not, briefly describe how and where quality assurance and quality control requirements and procedures are documented at the site.

NO; Eivy Monroy onsite + is the project manager; she
- Is the implementation of the project in accordance with the QA Project Plan?

Yes

relied on soil expert to make sure method followed
- Are there deviations from the QA Project Plan? (If yes, explain)

NO
- Do any deviations from the QA Project Plan affect data quality?

NO
- Have any corrective actions been taken during the project?

NO
- Did these corrective actions impact data quality (If yes, describe)

NO

QA FIELD ASSESSMENT REPORT

Project Title: Municipal Road Stream Crossings in the Lower Esopus Creek Watershed: Using a Watershed Approach to Resilience

QAPP ID: Q20-014

Conducted by: Megan Lung

On August 13th 2020, the NEIWPC Project Manager (Megan Lung) accompanied Ben Ganon (Ulster County), Tim Koch (Ashokan Watershed Stream Management Program), and Kiah Parmelee (Ulster County) during field activities associated with the Municipal Road Stream Crossings in the Lower Esopus Creek Watershed: Using a Watershed Approach to Resilience project.

Field activities conducted on August 13th 2020 included the assessment of a road stream crossing on Dutchtown Road in Saugerties, NY using the Multi-Objective Stream Crossing Assessment Protocol (MOSCAP). Data were entered into the NAACC database using an iPad and stored using ArcCollector (later to be stored using Microsoft Excel spreadsheets). Additional personal protective equipment in the form of masks were worn and social distancing was practiced where possible as a precaution against contraction of the novel coronavirus. After data collection was complete, crew and gear were disinfected for invasive species and harmful aquatic bacteria.

All field efforts observed were conducted in accordance with the approved quality assurance project plan (QAPP). No deviations from (or discrepancies with) the approved QAPP approved were observed or noted.



Tim, Ben, and Kiah standing at the inlet of a round culvert. Measurements are being taken using a stadia rod and an iPad. Tim is standing on failed upstream armoring that has channelized the stream.



An iPad is used to collect data for the MOSCAP protocol and to upload data to the NAACC database.



Ben and Kiah setting up the iPad for data collection.



Tim and Kiah prepared to assess the stream, which comes out of a wetland that has been channelized. The stream is incised and the upstream armoring is failing. Note that both are wearing masks and observing increased distancing.



Tim and Ben on the outside of an impressive downstream scour pool.

NEIWPC Field Assessment Data Sheet

Project: Municipal Road Stream Crossings in the Lower Esopus Creek Watershed: Using a Watershed Approach to Resilience.

Staff: Megan Lung

Project Location: Saugerties, Ulster County, NY

Assessors: Ben Ganon, Tim Koch, Kiah Parmelee

Assessment Dates: August 13th 2020

Ulster County is assessing road-stream crossings within the Towns of Kingston, Woodstock, and Saugerties to develop management plans.
Brief Project Description: Designs for the top County structures will be produced to ready the County to open stream habitat and improve storm resiliency.

- Is there an approved QA Project Plan for the overall project and has it been reviewed by all appropriate personnel?

Yes

- Is a copy of the current approved QA Project Plan maintained at the site? If not, briefly describe how and where quality assurance and quality control requirements and procedures are documented at the site.

Yes

- Is the implementation of the project in accordance with the QA Project Plan?

Yes

- Are there deviations from the QA Project Plan? (If yes, explain)

No significant deviations, addition of PPE for novel coronavirus

Minor deviations in the case of a true negative value slope, these values are currently not supported in NAACC. Inputted with clarification in notes section.

- Do any deviations from the QA Project Plan affect data quality?

No

- Have any corrective actions been taken during the project?

Staff have been in contact with Megan Lung for NAACC corrections/coaching and Tim Koch for MOSCAP corrections/coaching.

- Did these corrective actions impact data quality (If yes, describe)

No, data were corrected before submission and in the few cases of negative slope-proper documentation included in NAACC entry.

QA FIELD ASSESSMENT REPORT

Project Title: Development of Restoration Site Data Collection and Management Protocols

QAPP ID: Q20-022

Conducted by: Daniel Miller

On August 18, 2020, the NEIWPCC Project Manager (Daniel Miller) accompanied Ed Samanns-WSP Project Manager, Heather Shaw- WSP, Tara Stewart- WSP, and Brian DeGasperi-NYSDEC during field activities associated with the Development of Restoration Site Data Collection and Management Protocols project.

Field activities conducted on August 18 and 22, 2020 included initial testing of a data collection system developed by WSP using the ESRI ARC Survey 123 platform. Data was collected for the purpose of testing system functionality only and will be deleted from the record when the development of the final deliverable is complete. WSP staff briefed NEIWPCC and DEC staff on the use of the system on mobile devices (iPad and iPhone) then took detailed notes on feedback from NEIWPCC and DEC staff regarding the layout and use of data forms. Revisions to the system were made before the second day of testing (August 22) during which a second and final set of revisions were identified.

All field efforts observed were conducted in accordance with the approved quality assurance project plan (QAPP). No deviations from (or discrepancies with) the approved QAPP approved were observed or noted.



Right to Left- Brian DeGasperi (DEC), Ed Samanns (WSP), Tara Stewart (WSP), Heather Shaw (WSP), Henry Hudson Park shoreline, Bethlehem, NY. Discussing data collection using Survey 123 on mobile devices.



Right to Left- Ed Samanns (WSP), Heather Shaw (WSP), Tara Stewart (WSP), Henry Hudson Park shoreline, Bethlehem, NY. Recording revisions to draft data collection system.



Right to Left- Brian DeGasperis (DEC), Heather Shaw (WSP), Ed Samanns (WSP), Nutten Hook, Stockport Flats component site of the Hudson River National Estuarine Research Reserve, Stuyvesant, NY. Collecting test data in Survey 123 on mobile devices.



QA FIELD ASSESSMENT DATA SHEET

Project Title: *Development of Restoration Site Data Collection + Management Protocols*

QAPP ID: *Q20-022*

Assessor(s): *D. Miller*

Assessment Date: *8-18-20*

Project Location: *Henry Hudson Park, Bethlehem, NY, Nutter Hook NERR site*

Project Staff: *Ed Simmons, Heather Shaw, Tara Stewart (WSP)* *Stuyvesant, NY*

Brief Project Description: *Site assessment data collection system*
Testing data input

Is there an approved QA Project Plan for the overall project and has it been reviewed by all appropriate personnel?

Yes, contractors have QAPP on-site
all projects are familiar with it

Is a copy of the current approved QA Project Plan maintained at the site? If not, briefly describe how and where quality assurance and quality control requirements and procedures are documented at the site.

Yes contractors have a copy of QAPP
with them, on-site

Is the implementation of the project in accordance with the QA Project Plan?

Yes - project involves development of
data collection procedures,

Are there deviations from the QA Project Plan? (If yes, explain)

No

Do any deviations from the QA Project Plan affect data quality?

No

Have any corrective actions been taken during the project?

No

Did these corrective actions impact data quality (If yes, describe)

No

QA FIELD ASSESSMENT REPORT

Project Title: Zebra Mussel Impact on Native Freshwater Mussel Communities in Lake Champlain

QAPP ID: Q20-026

Assessor(s): Meg Modley Gilbertson, NEIWPC Project Manager & QA Designee

On August 26th, 2020, the Project Manager (Meg Modley Gilbertson) accompanied Lauren Sopher, Project Manager, Lake Champlain Committee and Michael Lew-Smith, QA Project Officer, Arrowwood Environmental during field activities associated with the Zebra Mussel Impact on Native Freshwater Mussel Communities in Lake Champlain project.

Field activities conducted on 8/26/20 included identifying a new native mussel bed location at the south mouth delta of the Lamoille River in Lake Champlain, setting up a 100ft transect due to the density of mussels, using a program to randomly select 3-5 sites along the 100ft transect to collect native mussels in 1 meter grids, sorting and identifying the mussels and measuring the mussels and conducting volumetric measurements of native mussels and zebra mussels attached to the native mussels.

Designee observed Michael Lew-Smith from Arrowwood Environmental conduct a scuba diving field check of the new site location and he confirmed that the density of mussels was very high, therefore, the randomized meter grid sampling along the 100ft transect was used instead of the circle method which is all documented in the QAPP. Michael then secured one end of the 100ft transect tape to the bottom of the lake in roughly 5-7ft. depth with an ankle diving weight and did the same on the other end of the transect line and Lauren collected the GPS points on the iPhone X. Attached to the ends of the 100ft. transect line were surface buoy markers that marked the transect ends and provided a visual place to circle the boat around and provide surface support to the diver. Lauren then gave Michael the 1-meter grid and a weighted milk carton crate to collect the mussels in. The randomized sites along the transect were at 41ft, 43ft, and 92 ft. Because the 41 and 43 randomized locations along the transect were less than 1 meter apart the meter grid was placed on and below the 41ft mark on the transect and the grid was put at the 43ft randomized mark location and above for the second sample site. The third sample site started at the 92ft mark and above.

The greatest density of mussels observed during the sampling season (target of 23 sampling locations and the sampling team is roughly half way through the sample sites) were found at this South Lamoille River delta sampling site. Due to the density of the native mussels at the sampling site, three 1-meter randomized sample grids along the transect were collected instead of 5. The wind was also an issue and the transect buoys were essential to safely mark the sampling site and keep track of the diver.

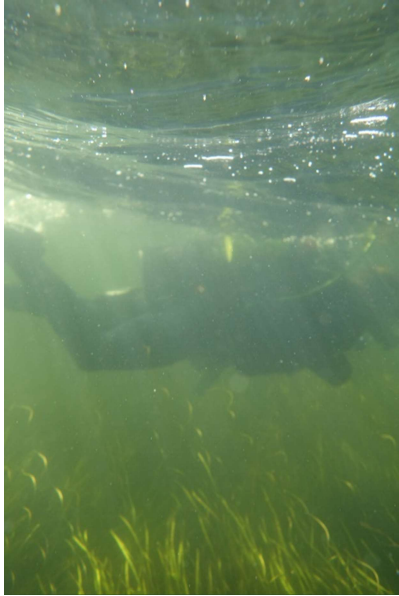
Designee observed the three milk crates of native mussels being raised up from the bottom of the lake along the transect. Designee observed the first crate of mussels being sorted by species and each mussel was measured with a caliber and the volumetric measurement was

obtained by placing the mussel in a graduated cylinder with water measuring the level of water before the mussel was placed into the cylinder and the level of water after. Very few of the native mussels collected at this sample site had zebra mussels present (good news!). For the few native mussels that did have zebra mussels present, the zebra mussels were removed and were also measured volumetrically and recorded on the field data sheets. All removed zebra mussels were collected in a plastic bag for trash disposal. All of the native mussels from the first sample site (41ft on transect) were then returned to the lake floor bottom by gently releasing them over the side of the boat at the sample site. Due to the wind the designee and Lauren Jenness then left the sampling site in the canoe to leave Lauren Sopher and Michael Lew-Smith to complete the mussel measurements.

All field efforts observed were conducted in accordance with the approved quality assurance project plan (QAPP). Lauren Sopher had a hard copy of the approved QAPP on board the motorboat and she referred to it frequently. No deviations from (or discrepancies with) the approved QAPP sampling methods were observed or noted.



Meg Modley and Lauren Jenness row out in canoe to meet up with Lauren Sopher and Michael Lew-Smith (diver) at the mouth of the south fork of the Lamoille River, Lake Champlain, VT.



Michael Lew-Smith, QA Officer, dives to survey the site for the presence of native mussels.



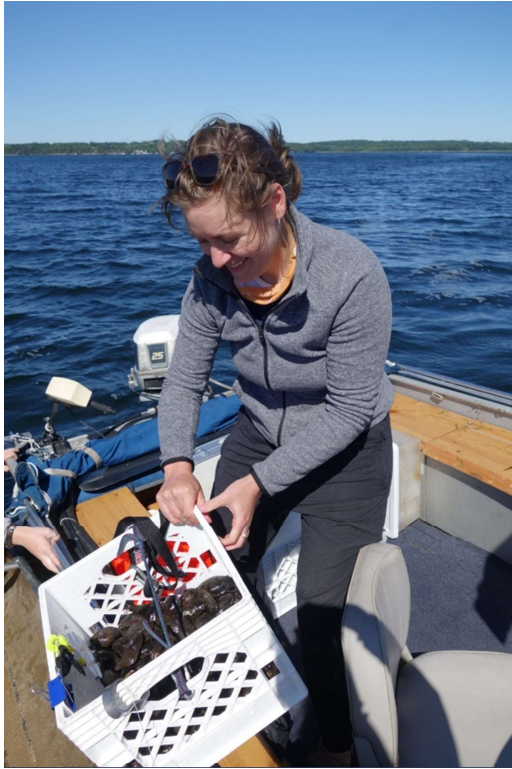
Lauren Sopher, Project Manager, displays the 100ft transect line weighted by a dive ankle weight and one of the surface buoy markers (red hand weight looking object).



Lauren Sopher, Project Manager, assembles the meter squared sampling grid out of PVC pipes to place at randomized locations along the transect to delineate the area from which mussels will be collected.



Michael Lew-Smith, QA Officer, sends the float bag to the surface from one of the native mussel randomized collection sites along the 100 ft. transect line on the lake bottom. Lauren Sopher, Project Manager, navigates the boat over to the transect marked on both ends (only one end visible in the photo) by the float buoys (left). The red float bag on the right side of the picture is attached to the milk crate filled with mussels from one of the meter grids and is ready to be picked up.



Lauren Sopher, Project Manager, is all smiles pulling up a very full milk crate of native mussels from one of the sample locations along the transect line.



Field data sheet and underwater data tablet used to record data. The Lamoille River south fork sample site in Lake Champlain had three randomized sampling locations along the 100ft transect (41, 43, and 92ft.)



Lauren Sopher, Project Manager and Michael Lew-Smith, QA Officer have a hard copy of the approved QAPP on board.



Lauren Sopher, Project Manager and Michael Lew-Smith measure and record native mussels using calipers after they sort the mussels by species. Then the team takes volumetric measurements of native mussels and any zebra mussels found in beakers on the deck of the boat at the sample site location. All zebra mussels are removed from native mussels and kept and disposed of in the trash and all native mussels are placed back in the water at the sample location from which they were collected.



QA FIELD ASSESSMENT DATA SHEET

Project Title: Zebra Mussel Impact on Native Freshwater Mussel Communities in Lake Champlain

QAPP ID: Q20-026

Assessor(s): Meg Modley Gilbertson

Assessment Date: 8/26/20

Project Location: South fork of Lamoille River mouth in Lake Champlain

Project Staff: Lauren Sopher and Michael Lew-Smith

Brief Project Description: Lake Champlain Committee is conducting an evaluation of invasive zebra mussel impacts on native mussels populations at selected sites in Lake Champlain.

Is there an approved QA Project Plan for the overall project and has it been reviewed by all appropriate personnel?

YES

Is a copy of the current approved QA Project Plan maintained at the site? If not, briefly describe how and where quality assurance and quality control requirements and procedures are documented at the site.

YES, Lauren had a hard copy on hand in the boat while she and Michael were conducting field sampling.

Is the implementation of the project in accordance with the QA Project Plan?

YES

Are there deviations from the QA Project Plan? (If yes, explain)

No

Do any deviations from the QA Project Plan affect data quality?

N/A

Have any corrective actions been taken during the project?

No, the project team quickly identified after two days of sampling that counting the zebra mussels present on the native mussels was not sufficient and requested to add volumetric measurement which was approved and circulated to the distribution list in a memo.

Did these corrective actions impact data quality (If yes, describe)

No corrective actions required.

QA FIELD ASSESSMENT REPORT

Project Title: Lewis Creek Watershed Aquatic Invasive Species Survey, Map Creation, Management Plan Development, and Boat Launch Steward Initiative

QAPP ID: Q20-020

Assessor: Meg Modley

On September 7th, 2020, the NEIWPC Project Manager (Meg Modley) accompanied Matthew Gorton, Lewis Creek Association during field activities associated with the Lewis Creek Watershed Aquatic Invasive Species Survey, Map Creation, Management Plan Development, and Boat Launch Steward Initiative project.

Field activities conducted on September 7th, 2020 included boat launch stewardship at the Bristol Pond boat launch off Moncton Rd in Bristol, VT.

Upon arrival at 7:10am at the Bristol Pond Vermont Department of Fish and Wildlife access area, the Project Manager found the boat launch steward, Matthew Gorton (filling in for other staff member who was sick), wearing the appropriate personal protective equipment (face mask) and in possession of hand sanitizer. There was no boat launch traffic present so the Project Manager and Matthew toured the boat launch site. European frogbit and Eurasian watermilfoil were observed growing in the water at the launch site. Project Manager and boat launch steward discussed a plan for removing species growing right at the launch. There are no other known aquatic invasive species present in Bristol Pond. The access site dock was dislodged from shore and resting at an angle. The dock status was reported by the Project Manager to the VT Department of Fish and Wildlife. As another part of this grant project, an aquatic plant survey was conducted in the pond and rare plants and animals as well as a range of natural communities (fen, bog, black spruce) were documented.

This is the first year that Lewis Creek Association has supported a boat launch steward on Bristol Pond. The boat launch steward noted that most individuals that use the boat launch site are routine visitors. Some boat launch users do visit Dead Creek, Berlin Pond, Kent Pond, Otter Creek, and Lake Champlain in Vermont. There are a few rare visitors from Raquette River in NY, one had last been in the Gulf of Mexico and another in the Atlantic Ocean. Most visitors come to Bristol Pond to fish and to bird.

Matthew explained how he usually oversees the staff at the boat launch site. Data is collected on field data sheets and then he sits down with the stewards and transcribes the data into Excel format at the end of every week. Since Matt was covering the boat launch and he had a computer in his car he was entering data directly into an Excel file. Matthew had a copy of the approved boat launch steward QAPP for Bristol Pond with him on his computer.

The Project Manager and Matthew walked around the site and picked up trash at the site. Then at 8:06am a boat launch user with a cartop canoe showed up. Matt recorded the date and time,

type of watercraft, and number of people in the party and proceeded to walk up to the visitors to introduce himself and share the aquatic invasive species spread prevention message. The canoe owners reported that the canoe had not been in a body of water in the past two weeks and the last place it was used was in Bristol Pond. When asked if they take any measures to prevent the spread of aquatic invasive species they replied that they inspect the boat, wash it, and let the canoe completely dry in between uses. Matt then reinforced their good efforts and encouraged them to continue to clean, drain, and dry their boat and equipment to continue to prevent the spread of aquatic invasive species.

All field efforts observed were conducted in accordance with the approved quality assurance project plan (QAPP). No deviations from (or discrepancies with) the approved QAPP approved were observed or noted.

Photos taken during the QAPP field assessment:



Bristol Pond Vermont Department of Fish and Wildlife Access Site 9/7/20 and up-close photo of floating invasive European frogbit and underwater invasive Eurasian water milfoil growing.



Lewis Creek Association Boat Launch Steward Matthew Gorton in his uniform (Access Greeter shirt) and wearing appropriate PPE (face mask) at Bristol Pond Access Site 9/7/20; while we waiting for boat launch users we picked up trash and the boat launch site.



Matthew Gorton, Lewis Creek Association boat launch steward greets canoers at Bristol Pond boat launch and discusses aquatic invasive species spread prevention with visitors (9/7/20)



Matthew Gorton oversees canoe users at the Bristol Pond Boat Launch (9/7/20)

2020 Boat Launch Steward Survey

Boat Launch: Bristol Pond

Steward Name: Matthew Gorton

Date: 9/7/2020

Total # of Groups on this sheet: _____

Group #	Boat Type	Group Size	State of Registration	Launch/Retrive (circle one)	Time of Inspection (optional)	Prior BLS Contact? (circle one)	Watercraft Inspection (circle one)	Does the Visitor Take Spread Prevention Steps? (Write in Steps Taken)	Aquatic Organism(s) Found? (circle one)	Species Identification	Last Waterbody Visited in Prior 3 Weeks? (name, town, state)	What Waterbody Will the Visitor Go To Next? (name, town, state)
1	M	2	VT	Q	6:47	Y	Y	WB, I, LW	Y	NA	Lake Champlain, VT	
2	C	2	NA	Q	8:06	Y	Y	WB, I, DRY	Y	NA	Bristol, VT	
				L		Y	Y		Y			
				R		Y	Y		Y			
				L		Y	Y		Y			
				R		Y	Y		Y			
				L		Y	Y		Y			
				R		Y	Y		Y			
				L		Y	Y		Y			
				R		Y	Y		Y			
				L		Y	Y		Y			
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				R		Y	Y		Y			
				L		Y	Y		Y			
				R		Y	Y		Y			
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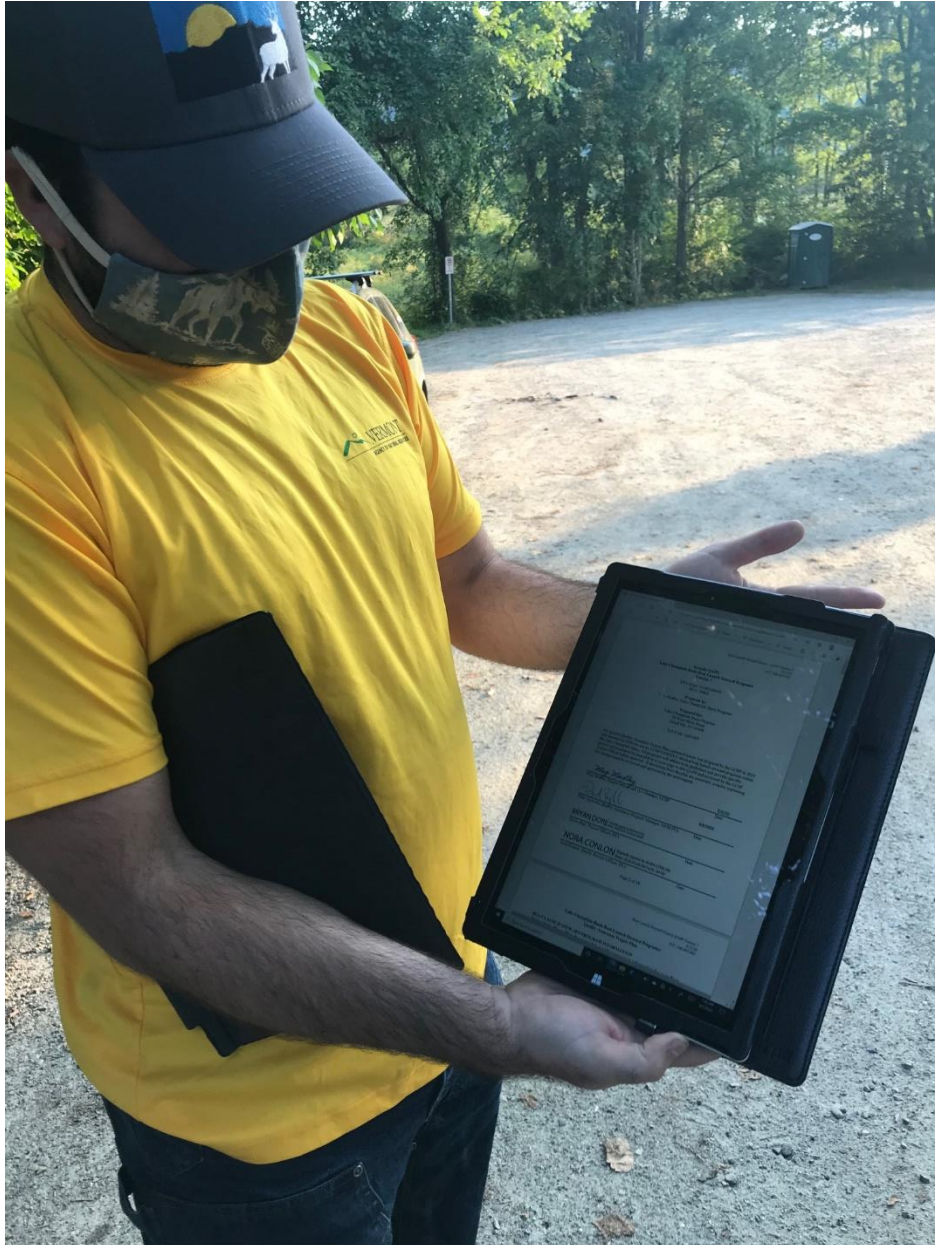
Legend: M= motorboat; BM= ballasted motorboat; PWC= personal watercraft; S= sailboat; C= canoe; K= kayak; R= rowing shell; SB= standup paddleboard; CB= construction barge; D= dock # > 1

Species Identification = EWM= Eurasian Watermilfoil; EG= Eel Grass; WC= Water Chestnut; CLP= Curly-Leaf Pondweed; NP= Native Pondweed; EL= Elodea (waterweed); ZM= Zebra Mussels; CT= Coontail; VLM= Variable Leaf Milfoil; UNKNOWN: write in others

Spread Prevention = I (inspected); WB (washed boat); DB (drained bilge water); LB (drained ball buckets); LW (drained or treated live well); Disp (dispose of bait properly); DRY (dry boat and equipment); NONE (no steps taken); N/A (did not ask)

Collect a sample if the species is identified as INVASIVE or UNKNOWN

Lewis Creek Association's field data sheet (9/7/20)



Matthew Gorton, Lewis Creek Association shares a copy of the approved QAPP (9/7/20) at the Bristol Pond Boat Launch.

QA FIELD ASSESSMENT DATA SHEET

Project Title: LCA Watershed AIS Survey, Map Creation, Mangement Plan Development, and BLS initiative

QAPP ID: Q20-020

Assessor(s): Meg Modley

Assessment Date: 9/7/20

Project Location: Bristol Pond in Moncton, VT

Project Staff: Matthew Gorton

Brief Project Description: Boat launch steward program on Bristol Pond to inspect watercraft and prevent the spread of aquatic invasive species

Is there an approved QA Project Plan for the overall project and has it been reviewed by all appropriate personnel?

Yes

Is a copy of the current approved QA Project Plan maintained at the site? If not, briefly describe how and where quality assurance and quality control requirements and procedures are documented at the site.

Yes

Is the implementation of the project in accordance with the QA Project Plan?

Yes

Are there deviations from the QA Project Plan? (If yes, explain)

No

Do any deviations from the QA Project Plan affect data quality?

NA

Have any corrective actions been taken during the project?

No

Did these corrective actions impact data quality (If yes, describe)

NA