



Quinnipiac River Watershed Association

December 31, 2014

Denise M Canning
Grants Manager, CFGNH
70 Audubon Street
New Haven, CT 06510

RE: 20120104 Final Report - Quinnipiac Watershed Base Plan Match

Dear Ms. Canning

In March of 2013 the Quinnipiac River Watershed Association was granted an extension to March 31, 2014 on the above stated grant.

Funding for this grant was directed to revise and update the 2004 Quinnipiac Watershed Action Plan into a CTDEEP and EPA-approved Quinnipiac Watershed Base Plan and to incorporate the EPA's Nine Elements for Watershed Based Planning, Total Maximum Daily Load for bacteria, to facilitate capacity building and to prioritize water bodies and implementation projects within the basin.

Listed below is a recap of what has been accomplished since our Mid-Year Six Month Report dated September 28, 2012 and previous correspondence in November 2013 for both the QWBP and the Lower River Canoe Trail and North Haven Canoe Launch access.

Quinnipiac Watershed Base Plan (QWBP):

Quinnipiac Watershed Base Plan (QWBP) Completed Tasks According to Scope of Project Reference Fuss and O'Neill – Task # 1.4 Plan Development and Task # 1.5 Public Outreach

Aug. 2012

Sept 2012 Preparation of stakeholder contact lists and letters in preparation of first public meeting

invitations, targeting specific groups through social media, emails and web site. Outreach to over 250 potential participants.

09/28/12 Mid-Year Report to CFGNH on QWBP Progress

11/29/12 Preparation of Initial Stakeholder meeting hosted by QRWA 11/29/12, at QRWA Headquarters. Meeting materials, social media, web site and preparation of of Fuss & O'Neill questionnaire's for planning priorities.

12/01/12 Preparation and Distribution of Questionnaire to stakeholders

12/06/12 QRWA Ad Hoc Committee Meeting

12.28/12 QRWA Ad Hoc Committee Meeting with City Officials

01/15/13 QRWA Ad Hoc Committee Meeting with DEEP

02/27/13 QRWA Ad Hoc Committee Meeting with City Officials

03/15/13 Preparation of Quarterly Grant Report

03/31/13 Updated Stakeholder Contact List and re circulate; follow up with emails



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04/12/13	Mailing of letters to stakeholder contact add ons
06/15/13	Preparation of Quarterly Grant Report DEEP for F&O Invoicing
06/26/13	Preparation, printing and circulation of Tech Memo #1 Binders (30 copies)
07/23/13	Morning and afternoon workshop sessions for presentation on current watershed Conditions. Designed & circulated flyers, social media and web site information for Stakeholders information and planning.
09/15/13	Preparation of Quarterly Grant Report
11/06/13	Second stakeholders meeting hosted by QRWA at QRWA Headquarters to review Findings and recommendations. Review goals, objectives and action items. Meeting preparation, social media, web site and local newspaper advertising.
11/18/13	Prepare and circulate feedback results of questionnaires and summary from public meeting comments.
12/01/13	Printing and circulation of Tech Memo #2 Binders (30 copies) for 2 nd public stakeholder meeting.
12/04/13	Second public meeting to present watershed plan to public. QRWA hosted meeting at QRWA Headquarters. Preparation of meeting materials. Social media, web site updates and advertisements in local newspapers.
12/15/13	Preparation of Quarterly Grant Report and package to CFGNH
12/18/13	QRWA Ad Hoc Committee meeting to review draft of plan. Meeting preparation and Prepare comments for Fuss and O'Neill review in preparation of final plan circulation.
12/21/13	Circulation of Final Plan to QRWA membership, social media, web site updates and links to watershed plan.
12/31/13	Final Watershed Base Plan Report was completed by Fuss and O'Neill and presented to The QRWA BOD and QRWA Ad-Hoc Committee Members
Jan.-April 2014	Stakeholders were solicited to serve on the QRWA Steering Committee to participate and review the proposed projects sited in in the plan.
06/24/14	QRWA Steering Committee met to review stakeholder input and draft a "plan for the plan". The Steering Committee proposed projects in the plan that were attainable, and realistic in keeping with the goals and objectives of the QWBP.
09/23/2014	QRWA Steering Committee identified projects that that lend to our strengths - bio retention, vegetated swills, rain gardens, wetland plans, invasive species, stream restoration and education. Promising projects include the towns of Southington, Wallinford and New Haven.
02/2015	Next Steering Committee Meeting

Lower River Canoe Trail completion and North Haven Canoe Launch assess:

- 8/22/12 – revised contract with DEEP
- 9/12/12 – received trail guide proof from DEEP
- 9/12/12 – recruited team leader to assess log jams
- 9/14/12 – forwarded DEEP proof to QRWA team leader
- 10/10/12 – receive preliminary assessment and plan
- 10/24/12 – revise budget and schedule



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- 10/12 – recruit fall volunteers/laborers
- 11/12 – proof guides
- 12/12 – solicit printer for guides
- 2/13 – review draft of guides
- 4/13 – install Bantam Street sign
- 4/13 – recruit spring volunteers/labors
- 05/2013 -QRWA Volunteers attempt clearing debris
- 07/23/12 – In a report submitted to Fuss and O’Neill during a QWBP Workshop, former QRWA Executive Director submitted a reported listing that “Urban River Stewardship Signs had been installed at North Haven, New Haven and Wallingford.
- 08/09/13 – Trail Guide Produced
- QRWA Volunteer do site inspection and verify that there is public access launch in at Sackett Point Road in North Haven, Bird Blind is on New Haven Land Trust’s Q Meadows in New Haven, and the Fish Way Site at Wallace Dam is Wallingford was completed.
- 08/24/2013 – Final Report submitted to CT DEEP



QRWA Steering Committee Report
Quinnipiac Watershed Base Plan (QWBP) Implementation
December 31, 2014

Prepared by:

Virginia Chirsky
QRWA Grants and Education Chair

THE NEED for an UPDATED WATERSHED BASED PLAN

Since the previous Quinnipiac Watershed Action Plan was developed in 2004, EPA and CTDEEP have issued watershed planning guidance for impaired water bodies, placing greater emphasis on achieving quantifiable pollutant load reductions and water quality improvements through specific, measurable actions. This updated EPA and CTDEEP watershed planning process is also the recommended approach for achieving the pollutant load reductions outlined in the 2008 Quinnipiac River Bacteria TMDL.

The QRWA, CTDEEP and EPA recognize the need for an updated watershed management plan for the Quinnipiac River to address the remaining water quality issues of the Quinnipiac and its tributaries. Specifically, the reasons for updating the 2004 action plan are to:

- Update the 2004 plan recommendations to reflect current and emerging approaches for non-point source pollution management, building upon the previous 2004 action plan goals and recommendations.
- Satisfy current EPA and CTDEEP required elements for watershed-based plans
- Incorporate various ongoing watershed stewardship efforts
- Incorporate water quality data collected since 2004 including the 2008 Quinnipiac River Bacteria TMDL
- Facilitate capacity building and re-engage the watershed municipalities
- Prioritize water bodies and implementation projects to reduce pollutant loads in the watershed
- Ultimately improve water quality and delist the impaired segments of the Quinnipiac River and its tributaries.

The QRWA worked collaboratively with CTDEEP, EPA, the watershed municipalities, regional planning agencies, and other stakeholders to develop an updated, watershed based plan for the Quinnipiac River. The project was funded in part by the CTDEEP through EPA Section 319 Nonpoint Source Grant, as well as by the Community Foundation of Greater New Haven through the Quinnipiac River Fund. Fuss and O'Neill, Inc. was retained to lead the development of the watershed based plan, working with a Project Steering Committee (QRWA, CTDEEP, and EPA) and a Watershed Stakeholders Group consisting of the representatives from the watershed municipalities, government organizations, educational institutions, non-profit organizations, and others who live and work within the watershed.

Plan Development Process

The watershed plan has been developed consistent with EPA and CTDEEP guidance for the development of watershed based plans. The guidance outlines nine key elements that establish the structure of the plan, including specific goals, objectives, and strategies to protect and restore water quality; methods to build and strengthen working partnerships; a dual focus on addressing existing problems and preventing new ones; a strategy for implementing the plan; and a feedback loop to evaluate progress and revise the plan as necessary. Following this approach will enable implementation projects under this plan to be considered for funding under Section 319 of the Clean Water Act and improve the chances for funding through other State and Federal sources.

Development of the watershed based plan consisted of the following major tasks.

- **Project Steering Committee and Watershed Stakeholders Group** – A project steering committee consisting of representatives from QRWA, CTDEEP, and EPA and a watershed stakeholders group, consisting of representatives from the watershed municipalities, government organizations, educational institutions, non-profit organizations, and others who live and work within the watershed were formed to guide the plan development. A group of QRWA members and several other key stakeholders also formed an ad-hoc committee to interface with the CTDEEP and municipal leaders on a regular basis during development of the watershed of the watershed plan.

QRWA hosted a series of workshop meetings with the watershed stakeholders group to reach consensus on watershed planning goals and objectives and to discuss specific recommended actions. The steering committee and the stakeholders group guided the plan development process by providing review and comments on draft deliverables. The watershed plan reflects the combined efforts of the QRWA, watershed municipalities, CTDEEP, other stakeholders, and the Fuss and O’Neill project team.

- **State of the Watershed Assessment** – A baseline assessment was performed to update the information provided in the *2004 Quinnipiac Watershed Action Plan* and to develop an understanding of the current water resource conditions in the Quinnipiac River watershed. The project team reviewed existing watershed data, studies, and reports; compiled and analyzed GIS mapping of the watershed and various subwatersheds; and developed pollutant loading and impervious cover estimates for the watershed. *Technical Memorandum #1: State of the Quinnipiac River Watershed* serves as a basis for the watershed plan recommendations and also provides a back ground reference document to support future implementation activities within the watershed.
- **Low Impact Development and Green Infrastructure Assessment**- A watershed assessment was performed to identify opportunities and develop concepts for site-specific Low Impact Development (LID) and green infrastructure retrofits. The site-specific project concepts are intended to serve as potential on-the-ground projects for future implementation and examples of the types of projects that could also be implemented for other similar land uses and locations in the watershed. The methods and findings of this assessment are documented in the *Technical Memorandum #2: Low Impact Development and Green Infrastructure Assessment*.
- **Plans Goals and Objectives**- The project team developed a series of goals and objectives for the watershed plan, building on the goals and objectives of the 2004 action plan and guided by the updated watershed assessments. The goals and objectives were further refined by the project steering committee and watershed stakeholders group and have been incorporated into the final base plan report.
- **Plan Recommendations** – Potential management actions were identified for each of the plan goals and objectives and subsequently refined based upon input from the project steering committee and stakeholders group through workshop meetings, culminating in the plan

recommendations and have been incorporated into the final base plan report. The management actions have been defined as ongoing, short, medium and long-term recommendations, as well as watershed-wide and site-specific actions.

PUBLIC OUTREACH

Public outreach was conducted during the watershed planning process to increase public understanding of issues affecting the watershed and to encourage participation in the development of the updated watershed plan. The following public outreach activities occurred during the watershed planning process:

- **August/September 2012** – A project steering committee was formed, consisting of representatives from QRWA, CTDEEP, and EPA. A watershed stakeholders group was also formed, consisting of representatives from the watershed municipalities, government organizations, educational institutions, and non-profit organizations, including several individuals who had been involved in the development of the 2004 action plan. Specific groups that were formally invited to participate in the watershed plan update process included:
 - Municipal liaisons for each of the watershed municipalities
 - South Central Regional Council of Governments
 - Central Connecticut Regional Planning Agency
 - Council of Government of the Central Naugatuck Valley
 - Southwest Conservation District
 - Connecticut Nonpoint Education for Municipal Officials (NEMO)
 - Connecticut Fund for the Environment/Save the Sound
 - United States Geologic Survey (USGS) East Hartford, CT office)
 - USDA, Natural Resources Conservation Service (NRCS)
 - South Central Connecticut Regional Water Authority
 - Trout Unlimited
 - Yale University (School of Forestry and Environmental Studies)
 - University of New Haven
 - Industry representative(s) (3M, Cytec Industries, CBIA, etc.)

- **November 2012** – An initial stakeholders meeting was held on November 29th, 2012, at the QRWA Headquarters, in Meriden. The purpose of the meeting was to present the project objectives and to review baseline watershed conditions. A watershed questionnaire was circulated to the stakeholders at the meeting to identify issues of concern and watershed planning priorities. Questionnaire responses may be obtained upon request.

- **July 2013** – Two public workshop meetings were held on July 23, 2013 at the QRWA Headquarters in Meriden. The workshops consisted of a presentation on the current watershed conditions and major issues facing the Quinnipiac River watershed. Workshop attendees participated in group discussions of the importance of local issues and desired outcomes of the watershed planning process.

- **November 2013** – A second stakeholder meeting was held on November 6, 2013 at the QRWA Headquarters in Meriden. The purpose of this meeting was to review the findings and recommendations of the Low Impact Development and Green Infrastructure Assessment, and to review the proposed watershed plan goals, objectives, and action items.
- **December 2013** – The watershed plan was presented to the public at the QRWA Headquarters in Meriden on December 4, 2013. Questions and comments were received during and following the meeting. Public comments have been incorporated into the final watershed based plan.
- **QRWA Ad-hoc Committee Meetings** – Meetings between the QRWA Ad-hoc Committee, CTDEEP, and municipal leaders were held on a monthly or bi-monthly basis between November 2012 and the spring of 2013 to help guide development of the watershed plan priorities and recommendations. On December 31st, 2013 the final Quinnipiac Watershed Base Plan was completed by Fuss & O’Neill and presented to the QRWA Ad Hoc Committee.
- **December 2013** - QRWA finalized updating the 2004 Quinnipiac Watershed Action Plan into a CTDEEP and EPA-approved Quinnipiac Watershed Base Plan to implement proposed projects.
- **January 2014** – Formed QRWA Steering Committee for the QWBP Implementation Process
- **Jan. to April 2014** - Stakeholders were solicited to serve on the QRWA Steering Committee to participate and review the proposed projects sited in in the plan.
- **June 2014** - QRWA Steering Committee met to review stakeholder input and draft a “plan for the plan”. The Steering Committee proposed projects in the plan that were attainable, and realistic in keeping with the goals and objectives of the QWBP.
- **July 2014** – Grants and Education Chair gets board approval to retain services of a grant writer familiar with QRWA and QWBP who will seek, apply and receive grants in order to implement projects in the plan.
- **Sept. 2014** - QRWA Steering Committee identified projects that that lend to our strengths - bio retention, vegetated swills, rain gardens, wetland plans, invasive species, stream restoration and education. Promising projects include the towns of Southington, Wallingford and New Haven.
- **January 2015** – QRWA to apply for Quinnipiac Watershed Base Plan Planning Grant
- **Feb. 2015** – QRWA Steering Committee to meet to review funding opportunities.

GOALS (Set by the QRWA Steering Committee) to Engage Town Leaders Include:

1. Build awareness of watershed in other towns
2. Engage municipality leaders in the projects
3. Obtain funding opportunities
4. Place emphasis on educating general public on the benefits of the plan
5. Hire a Watershed Coordinator
6. Hire a Grants Administrator

PROJECTS

Selected Projects that lend to QRWA strengths which include:

- bio retention
- vegetated swales
- rain gardens
- wetland plans
- invasive species
- stream restoration
- education

RECOMMENDED PROJECTS

- In the towns of Southington, Wallingford and New Haven – details of proposed projects outlined in QWBP Binder.

OUTREACH

Outreach to the following contacts in which proposed projects have been outlined in the QWBP project include:

- Giovanni Zinn, City of New Haven, Environmental Engineer
- Karyn Gilvarg, Director of Planning, City of New Haven
- Jim Grappon, Southington Town Engineer
- Mark DeVoe, Director of Planning and Development, Plainville
- Mary Heffernon, Wallingford Conservation Commission
- Dianne Saunders, Wallingford Inland/Wetlands
- Manny Santos, Mayor, City of Meriden
- Frank Russo, Chief of Operations, Meriden WPCF
- Howard Weissberg, Meriden Town Engineer
- Robert Bass, Director, Public Works, Town of Meriden
- Jerry Silbert, Executive Director of The Watershed Partnership and Original member of the 2004 Action Plan
- Matt Higbee, Social Media and Webmaster for the Q River Fund Website
- Kendall Barbery, Green Project Associate, Save the Sound
- Elaine Richardson, Director, Vita Nuova, North Haven. Sustainable community redevelopment. Affiliated with Pharmacia and Upjohn site in North Haven, CT now under remediation.

- Kendall Barbery, Green Projects Associate, Save the Sound
- Randy Snow, Soil Conservationist, USDA, Natural Resource Conservation Service
- Tim Malone, Associate Planner, CCRPA, Bristol, CT
- Francis Pickering, Deputy Director, CCPRA, Bristol, CT

Outreach by others:

- Russell Downey, Pfizer, Inc. North Haven, to Town Engineer and Planner, Town of North Haven

Recommended Standing Committee for QRWA BOD to incorporate into BY LAWS for 2015:

- **Capacity Building.** Build/strengthen capacity for successful implementation of the updated watershed plan by the watershed municipalities, non-governmental organizations (environmental groups and non-profits), residents, local businesses, and other stakeholders.
- **Water Quality.** Improve the water quality of the Quinnipiac River and its tributaries so that impaired reaches of the river will consistently meet their designated uses for aquatic life, recreational use, and fish consumption, along with improving the downstream water bodies of New Haven Harbor and Long Island Sound. Protect and enhance the water quality of healthy water bodies (i.e., those that are not impaired).
- **Habitat Protection and Restoration.** Protect and improve terrestrial, riparian, and aquatic habitat, including stream baseflow, in the watershed to maintain and increase the watershed's diversity of plant and animal species.
- **Land Use and Public Access.** Encourage land use practices and policies that minimize adverse impacts on the Quinnipiac River watershed and increase public access to the Quinnipiac River and its tributaries for recreational and educational opportunities.
- **Education and Outreach.** Promote stewardship of the Quinnipiac River watershed through education and outreach. Target appropriate messages to specific audiences, and promote stewardship opportunities through citizen involvement in science, conservation, and restoration activities.

Summary of Recommendations

A set of specific objectives and recommended actions were developed to satisfy the management goals for the watershed. The plan recommendations include watershed-wide recommendations that can be implemented throughout the Quinnipiac River watershed, targeted recommendations that are tailored to issues within specific subwatersheds or areas, and site-specific recommendations to address issues at selected sites, that were identified during the watershed field inventories. A complete and detailed list of goals and objectives may be found in the Quinnipiac Watershed Base Plan (hard copy will be provided via regular mail).

Going Forward for 2015 - To apply for a Quinnipiac Watershed Base Plan Planning Grant

The purpose of the Quinnipiac Watershed Base Plan Planning Grant is to obtain funding for a grant writer to secure funds for the implementation of projects according to the QRWA's Watershed Base Plan, QWBP. Funds are being solicited through a variety of sources in order to gather as much

funding as possible since numerous grants will be needed for the QWBP project implementation over a ten-year period. Funding sources from local, state, government and environmental sources will be identified, researched, vetted and prioritized according to the project list established in the QWBP.

The QRWA has retained the services of a grant writer familiar with the QRWA, their QWBP and who has successfully secured over \$30,000 in grants for the organization. Building upon this successful collaboration, we hope to continue to find, apply and receive grants in order to implement projects that are approved by the EPA, CTDEEP and enhance the overall health of the Quinnipiac River.

The QRWA is taking the implementation of the QWBP seriously and has developed a long-term strategy that includes revamping the board; launching a Give Greater presence; establishing financial and Quickbooks protocol; performing a financial audit; applying for state and federal project funding; obtaining matching grant funds; securing multi-year funding for capacity building; and hiring several key positions.

This is a monumental undertaking and the QWBP Planning Grant is the lynchpin for the entire process and future projects. With funding for the QWBP Planning Grant, the QRWA can begin the course of action to move towards an organization that focuses on the water quality of the Quinnipiac River. Building upon each successive completed project, the realization is ever closer to pursuing the long awaited dream of becoming a regional Environmental and Educational Center, located on the shores of Hanover Pond, for the entire watershed community.

The QWBP Planning Grant is composed of several projects; each overseen by the QRWA Grants and Education Chair, and with funding initiated by the Grant Writer. Projects listed below:

Project 1: Establish a giveGreater profile

- **Objective:** Launch an online profile associated with the Community Foundation for Greater New Haven website, this is a prerequisite for future CFGNH funding

Project 2: Create a QWBP Grants Schedule

- **Objective:** Identify, research, and coordinate list of proposed grants with the highest likelihood of success, capitalize on state and federal funding with matching grant opportunities

Project 3: Quinnipiac River Fund

- **Objective:** Apply for grant(s), administered by CFGNH. Priorities of QRF are in line with QWBP and explore matching grants

Project 4: QRWA Resource Library

- **Objective:** Establish on line library as part of the QRWA website; QWBP project and priority, for data from future projects will reside in QRWA Resource Library.