

APPLICATION COVERSHEET

**Grant Announcement NO. BWSC-2014-01
 Mystic River Watershed Restoration
 Chelsea and Mill Creek, Malden and Lower Mystic River Watersheds
 NRD Assessment and Restoration Program**

Check box or right to indicate which of the required elements this is.	
ORIGINAL #1 COMPLETE APPLICATION WITH WET-INK SIGNED STANDARD CONTRACT FORM AND COMMONWEALTH TERMS AND CONDITIONS.	✓
ORIGINAL #2 COMPLETE APPLICATION WITH WET-INK SIGNED STANDARD CONTRACT FORM AND COMMONWEALTH TERMS AND CONDITIONS.	
COPY OF APPLICATION SECTIONS 1 – 6 ONLY COPY NUMBER:	___ of 5

Name of Applicant:	Chelsea Collaborative Inc
Name of Project:	Mill Creek Water Quality and Habitat Restoration Initiative

A. Applicant Information

Applicant Name: Chelsea Collaborative, Inc.

Mailing Address: 318 Broadway

City/Town: Chelsea State: MA Zip: 02150

Applicant website: www.chelseacollab.org

Type of Entity: Non-Profit Organization

B. Contact Person

Name: Roseann Bongiovanni Title: Associate Executive Director

Mailing Address: 318 Broadway

City/Town: Chelsea State: MA Zip: 02150

Email Address: RoseannB@chelseacollab.org

Applicant Signatory: Same as above

Name: Title:

C. Project Information

Project Name: Mill Creek Water Quality and Habitat Restoration Initiative

Abstract:

The Mill Creek Water Quality and Habitat Restoration Initiative is an effort to marry ecological restoration of the Mill Creek estuary with public access and educational opportunities for the environmental justice community of Chelsea. The project involves implementing storm water tree trenches and bio retention areas to improve the water quality of the Mill Creek while restoring a derelict site along the water's edge into a more open and accessible site that supports the growth of appropriate flora and fauna coupled with passive recreation and bilingual interpretive signage. The project will take place along the Mill Creek in Chelsea and Revere, connecting two sites where ecological improvements have been previously implemented. Stormwater treatments will be implemented along Gillooly Rd. and Stockton Street, an intersection that collects all of the rain water from the Powderhorn Hill neighborhood; before releasing into the Mill Creek; and the coastal restoration efforts will take place on portions of two parcels of land directly behind the Beth Israel Deaconess Medical Center on the upland area adjacent to the banks of the Mill Creek.

While the Mill Creek has been the beneficiary of wetland restoration efforts and public access projects, much work remains. The project proposed seeks to achieve two significant goals of the NRD grant program: restoration and enhancement of critical wetland habitats; and integration of public access and recreation to enhance critical aquatic and riparian habitats.

The Chelsea Collaborative, Inc. via its community-based Green Space Committee will lead the project. Project partners include the City of Chelsea, Mystic River Watershed Association, and the Charles River Watershed Association.

Project Location:

The project will take place at the Intersection of Gillooly Rd. and Stockton Street and along the upland banks of the Mill Creek. See attached map.

Longitude and Latitude of the approximate center of the project is:

-71.020735 42.403256

-71.022377 42.401648

Project Site Access and Control:

Is the property where the project is to occur owned by the community or organization requesting this funding?

Yes No

Is the property where the project is to occur owned by a project partner?

Yes No

If not, has the property owner given long-term permission to the community or organization requesting this funding or a project partner, to access the property where your project is to occur?

Yes No

If so, are the rights of access granted by:

Easement Long Term Lease Written Permission

Explanation:

The property on which the stormwater treatments will be implemented is owned by the City of Chelsea. As a project partner, they are fully supportive of the treatments and will be involved in all aspects of the project. The land on which the coastal restoration project will take place is currently owned mostly by the Green Family Trust and to a lesser extent the MA Department of Conservation and Recreation (DCR). The Chelsea Collaborative is engaged in conversations about purchasing the Green's land. The Green family has requested \$10K for the land; and the Collaborative has funds committed to purchase that land. However the Collaborative and its partners want to ensure that we have a source of funding to complete the coastal restoration project on that land. Simply purchasing the land to sit idle is not beneficial for the community or the environment. Similarly, the DCR is aware of and supportive of this application and has supported the Chelsea Collaborative's earlier restoration projects on adjacent parcels also owned by DCR.

Project Site Potential Contamination

Is the property where the project is to occur potentially contaminated by oil/hazardous material as defined in the Massachusetts Contingency Plan (MCP) 310 CMR 40.000?

Yes No Unknown

Explanation

The sites on which we will implement stormwater treatments are not contaminated; however, at this time it is unknown as to whether or not the Green Family land or DCR property is potentially contaminated. A review of MA DEP’s database indicated no RTNs for the subject sites; however, there are RTNs in nearby parcels. We have a licensed site professional on the team of partners and will dig test pits if necessary to determine if there are any concerns with contamination.

Site Description

The site of the proposed project is approximately 1/3 of a mile from the oil release that generated the NRD funds. Global Oil and Irving Oil are located on the Revere side of the Chelsea Creek, just a few hundred feet down from where the industrial Creek turns into the shallower Mill Creek. For years, Mill Creek has been negatively affected by the industries located along the Chelsea Creek. At the time of the release, the Chelsea Collaborative and its Green Space Committee had just completed a significant salt marsh restoration project along the Mill Creek. Oil sheens were documented along the Mill Creek. Though the restoration project was not impacted, the community involved in that project and living around it were. In fact, the Green Space Committee and its partners in East Boston on the Chelsea Creek Action Group (CCAG) responded to the oil spill with immediate meetings with the responsible parties and the US Coast Guard. Staff of the Collaborative (authoring this proposal) received phone calls over the weekend after the spill occurred and remember precisely when the spill happened, and the effects on the community (such as the Mary C. Burke Elementary School Complex having to be evacuated because the airborne diesel emissions negatively affected the indoor air of the school). The proposed project would further the environmental restoration goals for the Mill Creek and make it even more accessible to the community.

The sites are located in the City of Chelsea (with a small portion within the City of Revere limits), both of which are in the distinct segments of the Gillooly Road drainage network. The first site in the drainage network is immediately adjacent to the Mill Creek riparian zone, at the end of Gillooly Road and surrounding the existing storm water outfall; and the second site is at the intersection of Gillooly Road and Stockton Street, just upstream from the Gillooly Road outfall to Mill Creek.

Segment 1) will include a project to improve shoreline access, to protect and restore approximately 150 feet of the bank along the Mill Creek, and to manage invasive species for an area of approximately 0.6 acres. Segment 2) will consist of the installation of green infrastructure to manage and treat approximately 2.1 acres of impervious cover prior to discharge to Mill Creek.

Project Description:

I. Grant eligibility requirements

Our proposed project will integrate several objectives that address the grant eligibility requirements, namely:

- to restore public access to the shore of Mill Creek and reduce public health and nuisance concerns by transforming an area where illicit activities often occur to an accessible/usable urban open space;
- to remove and manage invasive species and enhance bank habitat along the shoreline of Mill Creek;
- to improve water quality and enhance ecosystem health of Mill Creek by constructing four green storm water infrastructure (GSI) systems to manage untreated runoff within the Gillooly Road drainage network; and
- to integrate the project into the larger community-based efforts to bring about environmental justice and to implement the Chelsea Creek Community Vision.

II. Project Location

The proposed project is located along the banks for the Mill Creek, approximately 700 feet northwest of Broadway in Chelsea, MA at the end of the Gillooly Road drainage area. Efforts will occur on two locations within and around this drainage easement. The first will be on land surrounding a 24” storm drainage outfall pipe and the second just upstream of the outfall at the intersection of Gillooly Road and Stockton Street.

III. Proposed Project

The project will consist of two components.

- a. The first component will involve the removal of weed trees, invasive species and limited-habitat value grasses along the banks of the Mill River; the creation of a public open space with landscaping and outdoor fixtures to connect the community with the river; the restoration of the river bank with native, high habitat-value plantings; the expansion of the existing “riverwalk” pathway with an additional “bulb out” to provide a new opportunity for the nearby schools to conduct outdoor classrooms; and the design and installation of bilingual interpretive signage.
- b. The second component will involve the siting, design and installation of up to four GSI practices (one on each corner) of the Gillooly Road/Stockton Street intersection. Practices for consideration include enhanced storm water tree trenches in combination with bio-retention planters. These storm water control practices will be designed to treat up to one inch of storm water runoff and will include landscaping with native or non-invasive cultivars suitable to the urban setting. Bilingual interpretive signage will also be designed and implemented at this location to educate the community about the functionality and importance of these GSI measures and to serve as a connecting feature documenting the proximity to and positive impact on the Creek.

IV. Project Partners

The project will be led by the Chelsea Collaborative, Inc. with support from partnering entities including the City of Chelsea, the Mystic River Watershed Association, and the Charles River Watershed Association. In addition, two engineering and consulting firms will be engaged in the project. They consist of the Horsley Witten Group, Inc. and Apex Companies, LLC.

The Chelsea Collaborative has successfully managed three significant US Environmental Protection Agency grants exceeding \$3 million in federal, state and private monies to reduce diesel air pollution in Chelsea and Everett, MA. We have provided timely reports and met additional reporting requirements sparked by the American Recovery and Reinvestment Act (ARRA). The grants have been lauded by EPA Headquarters and Region 1.

Prior to these EPA/ARRA funded projects, the Chelsea Collaborative implemented two significant salt marsh restoration efforts along the Mill Creek in Chelsea and Revere, MA. The projects exceeded \$300,000 in federal, state and private funds to complete the work. Roseann Bongiovanni, the Associate Executive Director of the Chelsea Collaborative and Director of the community-based Chelsea Green Space Committee managed these grants and projects. She will be the lead staff person for the proposed project described herein.

V. Project Implementation

Implementation of the project will be accomplished by executing the specific tasks as detailed in the accompanying Work and Cost Plan. The major components will include:

- a. Extensive community engagement with neighborhood meetings, design charettes and meetings on site with residents, businesses and other stakeholders. The community and other pertinent stakeholders will be involved directly in the design of the GSI measures and the design and implementation of the riparian restoration project.
- b. Meaningful involvement of the Collaborative's seven member youth crew, Environmental Chelsea Organizers (ECO), in pre- and post-restoration water quality monitoring and storm drain mapping and analysis, project design and implementation, carrying out the design and development of new bilingual signage (uniform with existing bilingual interpretive signage along the Mill Creek), and community events to engage and educate a broader range of community members in the project.
- c. Meetings with City of Chelsea staff and the City's consulting engineering firm, Weston & Sampson to review and evaluate infrastructure system components and capacities.
- d. Development of the engineering designs by the consulting firm of Horsley Witten Group (HW). Designs include all the required subtasks to advance the project to construction ready plans and securing necessary permits for facility construction.
- e. Bidding and awarding the project to a qualified construction company, experienced in the implementation of green storm water infrastructure projects. Construction administration (bidding support, submittal review, inspections, and as-built plans) will be conducted by HW with the assistance of project partners.
- f. A Draft and Final Report will be prepared by the project proponents describing each component, lessons learned and recommendations for similar future project implementation.

- g. Project management will include the execution of project tasks in accordance the schedule and budget, including ensuring adequate quality control provisions are accomplished.

Major tasks will include:

a. *Initial Public Outreach and Community Engagement*

The Chelsea Collaborative's Green Space Committee, together with their community partners in East Boston, developed a Community Vision for the Chelsea Creek. Through that plan, the community identified the Mill Creek for significant open space, public access and environmental enhancement and restoration projects. Since that time, Green Space has implemented two significant restoration projects; the design and development of an active park along the Mill Creek; designed and oversaw the construction of the Riverwalk; and designed and installed bilingual educational signage. This next phase of coastal restoration is significant in its efforts to improve the water quality of the Mill Creek and create even stronger community connections to the Creek.

In order to build off of the public outreach completed to date, the Collaborative's Green Space Committee will organize community meetings in neighborhoods, with adjacent residents and business owners, to engage them in designing both the GSI measures and the riparian restoration project. The community, especially the ECO crew, will be involved in identifying the existing trees and determining which are non-habitat promoting trees along the riparian land, selecting new flora and fauna species that are best suited for the site, planning the public access and environmental education components and designing and installing the bilingual educational signage. The community will also be engaged in learning about GSI, the benefits from these measures, what is best suited for the Gillooly Rd. drainage area and in determining the most aesthetically pleasing options.

The ECO Crew will conduct pre- and post-restoration monitoring; and they will also plan community events to better promote the project and the public access benefits.

b. *Due Diligence and Analysis*

b1. *Collection and Analysis of Stormwater Flows*

The City of Chelsea will provide base and utility plans from the City's water, sewer and drain GIS maps; and they will also provide collection and laboratory analysis of stormwater flows. As the project progresses, the City will provide technical review the design plans and project implementation to ensure conformance with the City's Stormwater Management goals and strategies.

b2. *Phase I Environment Site Assessment (IESA)*

Apex proposes to conduct a Phase IESAs of the property to be purchased. The Phase IESAs will be conducted in general accordance with the scope and limitations of the ASTM "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (Standard Designation E-1527-13), published in November of 2013 (ASTM Standard for Phase IESAs), which is intended to demonstrate that All Appropriate Inquiry (AAI) has been conducted. The Phase I IESAs will be completed under the direct supervision of an individual meeting the definition of an Environmental Professional as

required by the ASTM Standard for Phase I ESAs. The Phase I ESA will include an overview of site history, an environmental incident and regulatory agency review, and a site reconnaissance in accordance with the following.

Overview of Site History

To develop an overview of site history, Apex will review reasonably ascertainable standard and other historical sources including:

- aerial photographs;
- interviews with current and known historic property owners;
- historic maps such as Sanborn Fire Insurance Maps (if available);
- review a chain of title, environmental reports, or other documentation provided by the client, and;
- historic city street maps and business directories (if available).

Records Review and Interviews

Apex will obtain reasonably ascertainable environmental incident and regulatory information from standard and additional environmental record sources as defined by the ASTM Standard for Phase I ESAs. Additionally, Apex will solicit information from interviews and Freedom of Information Act (FOIA) requests. Apex will also review reasonably ascertainable records at federal, state, and local levels that may indicate the presence of known or alleged hazardous waste sites and/or pollution complaints in the vicinity of each subject property.

Section 5 of ASTM E-1527-13 requires that the environmental professional review State registries of Engineering Controls or Institutional Controls (EC/IC) in order to evaluate whether Activity and Use Limitations (AULs) or Environmental liens have been registered for the subject property. Apex will review this information by using a commercially available database report.

As part of its scope of work, Apex will complete and submit a freedom of information act request to the local and/or state environmental agencies, as well as the local fire department, health department, and other local agencies that may provide information useful for identifying recognized environmental conditions.

User Responsibilities

In order to complete the records review and interviews in a manner consistent with the ASTM 2013 Standard Practice for Phase I ESAs, Apex requests that it be provided with the following information outlined as User Responsibilities in Section 6 of ASTM E-1527-13:

- Results of the User conducted review of Title and Judicial Records for Environmental Liens or AULs.
- Specialized knowledge or actual knowledge of the User pertaining to environmental liens or AULs that may be encumbering the subject property.
- Consideration of the relationship of the purchase price of the subject property to the fair market value of the subject property if it were not affected by hazardous substances or petroleum products.

- Commonly known or reasonably ascertainable information regarding potential contamination on the subject property.
- Other information such as prior environmental reports pertaining to the subject property that may aid in the identification of recognized environmental conditions in connection with the subject property.

Site Reconnaissance

Apex will conduct a one-time site reconnaissance of readily accessible areas of the subject property to visually evaluate potential sources of contamination including the presence of hazardous substances, wastes, or petroleum products, refuse dumps, visual evidence of aboveground or underground storage tanks, drums, barrels or other storage containers, transformers, electrical or hydraulic equipment, and other readily observable evidence of contamination such as distressed vegetation, stained soil, odors, or other topographic anomalies. As these features or activities are identified, their impact on the respective site will be evaluated to the extent feasible at this level of investigation.

During the site reconnaissance, Apex will note general site characteristics. In addition, Apex's site reconnaissance will include readily visible areas of adjacent and surrounding properties with the intent of identifying those that may potentially impact the subject property.

It should be noted that, in accordance with the ASTM Standard Practice for Phase IESAs, Apex's site reconnaissance will be non-intrusive in nature and will not include sampling or testing of building materials, soil, groundwater, drinking water, or other materials unless specifically noted in this proposal.

c. Engineering Design

c.1 – Field Survey of Existing Conditions: The Horsley Witten Group (HW) survey crews will conduct a topographic survey of the project limits. The topographic survey will be of sufficient detail to develop a 2-foot contour interval base map and will locate all existing infrastructure (physical structures, paving, etc.), existing utilities, trees greater than 12” diameter at breast height (DBH) (where within 25 feet of the proposed project limits), water resource area flagging, test pit locations, and other data as necessary to provide adequate base information for each site. All topographic data will be collected using Total Station field instrumentation and data collectors in digital format.

c.2 – Soil Test Pits: HW will witness up to three deep-hole test pits to assess soil characteristics and depth to groundwater at selected locations of proposed storm water practices. The test pit locations will be coordinated with City staff as necessary. We assume that HW will contract to provide backhoe services and will notify “Dig Safe.” HW will provide a DEP certified Soil Evaluator on-site during the test pitting and prepare test pit logs documenting subsurface conditions at the site. Our budget estimate assumes the City will provide a backhoe and arrange for a police detail, which may or may not be necessary, depending on test pit locations.

c.3 – Wetland Resource Area Delineation: HW will identify, delineate and flag the wetland resource areas subject to protection under the Massachusetts Wetlands Protection Act (WPA

M.G.L. Ch. 131 § 40) and its implementing Regulations (310 CMR 10.00). HW will delineate the boundary of Bordering Vegetated Wetland (BVW) in accordance with the Massachusetts Department of Environmental Protection (DEP) handbook entitled Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act (March 1995).

Based upon preliminary site observations, the resource areas located in the vicinity of the project appear to include: Bordering Vegetated Wetland (310 CMR 10.55), and Land Subject to Coastal Storm Flowage (310 CMR 10.04). HW staff will flag resource areas and complete wetland data sheets as necessary in accordance with the provisions of the Massachusetts Wetlands Protection Act.

c.4 – Base Maps: HW will compile existing survey data and resource information into a set of base maps depicting existing conditions at the proposed project. Base mapping will be presented in digital format and paper format.

c.5 – 30% Conceptual Designs and Cost Estimate: HW will advance the concept sketches included in this grant application for the proposed public access park and Gillooly Road/Stockton Street intersection work in compliance with the 2008 MassDEP Stormwater Standards and will incorporate GSI practices such as bioretention, infiltration and/or enhanced tree trench systems. HW will prepare existing and proposed conditions hydrologic/hydraulic modeling in accordance with the requirements of the 2008 Stormwater Standards to document any potential groundwater recharge and pollutant removal. HW will provide a draft copy of the 30% schematic designs and cost estimates for project partner and MassDEP review prior to completion of a final deliverable.

HW will also prepare for and attend a meeting with the project partners and abutters, residents and other stakeholders to review the project conceptual designs and discuss the specific aspects of the project. HW will meet with the project partners to discuss the concept and incorporate any changes that might be desired prior to commencement of final design.

c.6 – 90% Construction Contract Drawings, Technical Specifications and Quantity Estimates: Based on the results of previous subtasks and input from the project partners and MassDEP, HW will provide the following items for completion of a 90% design package:

- Construction design plans, profiles and details for storm water management facilities and paving/drainage modifications within the limits of construction;
- Coordination with applicable utility companies that may be affected by the design;
- Erosion and sediment control plan and details;
- Landscaping plans and details, including outdoor spaces, walkways, outdoor furnishings, and their location within the proposed project;
- Recommended general construction sequence;
- Technical specifications; and
- Quantity takeoffs, and engineer’s construction cost estimate.

As part of the development of construction plans, HW will prepare detailed engineering calculations depicting how each component was sized for storm water treatment and conveyance. HW will also prepare a comprehensive Operations and Maintenance Plan for each component of the project for both during and post construction, describing the inspection and maintenance requirements and frequency.

c.7 – Permitting Services: Apex Companies LLC will lead all permitting work for the proposed project. Using the plans prepared under Task b.6 by HW, Apex will prepare and file a Notice of Intent (NOI) application and supporting documentation for the project within the jurisdiction of the Wetlands Protection Act with the Chelsea Conservation Commission in accordance with the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131 § 40) and its implementing Regulations (310 CMR 10.00). The NOI filing will involve preparation of a project narrative, plan preparation, abutter notification, and correspondence with the project partners and regulatory authorities. Apex will attend one public hearing before the Chelsea Conservation Commission with the Chelsea Collaborative as the project representatives.

Apex will also prepare the necessary plans and supporting documentation to file for a Chapter 91 notification or minor modification with DEP for any work within lands subject to historic or existing tidal flows (a Ch91 License does not appear to be required).

Apex will coordinate permitting with the DCR, and file for a DCR access permit for work on DCR property. Apex will also work with DCR on archeology screening on DCR owned-land.

Apex will advise the project partners if it becomes apparent that other approvals or permits are required. Apex will coordinate with the project partners to discuss what additional permits may be required (e.g., MEPA ENF, Corps of Engineers 404 permit, DEP Water Quality Certification, local DPW approvals, etc).

c.8 – Specifications Manual and Final Cost and Quantity Estimate: Based on the final permit conditions from the Chelsea Conservation Commission and MassDEP and input from the project partners, HW will complete final construction bid-ready plans, bid cost estimate tabulations for construction and preparation of construction specifications for bidding the projects in accordance with the Construction Specifications Institute (CSI) 2004 Master Format. HW will supply Division 0- boilerplate language, Division 1- General Requirements, and applicable Divisions for Facility Construction Subgroups for site and infrastructure construction. HW will coordinate with the project partners to coordinate the specification package.

HW will meet with the project partners, if necessary, and make one revision to the plans and produce a final set of construction bid-ready plans. HW will provide one set of approved plans and one set of digital plans to the project partners and MassDEP, as applicable, as the final deliverable of this task.

d. Construction (implementation)

d.1 – Construction Bidding: The project partners will prepare bidding documents, award a contract to a qualified responsible low bidder, provide construction administration services, and document successful implementation. Specifically the project partners and engineering consultant (HW) will:

- Prepare a construction bid solicitation package to include a description of the project's required construction and site restoration technical specifications and method for submitting a construction bid. HW will be responsible for general provision specifications, advertising the project, holding a bidder's informational meeting, compiling bid data, and recommending the award of the project.
- Hold a pre-bid informational meeting to help answer possible construction related questions, compile written questions and answers and distribute to all attendees. It is anticipated that this meeting will include a site visit.

- Respond to written questions from contractors received during a designated question and answer period. Questions and responses will be provided to all contractors that had attended the required pre-bid meeting.
- Conduct construction reference checks, bid bond, and review and comment on bids to assist the project partners with the selection of a contractor.
- Organize and attend a project kickoff/pre-construction meeting and distribute meeting notes to attendees.

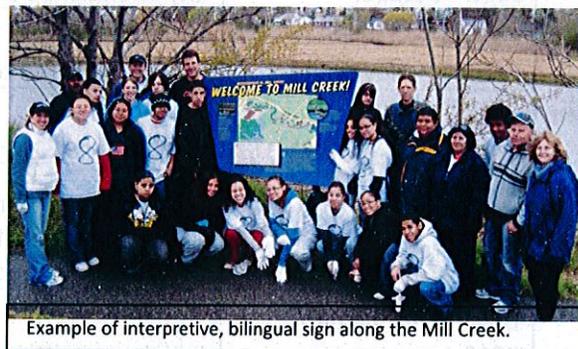
d.2 – General Construction Observation Services and Support: Under this task, HW will provide qualified field personnel to observe and report on specific aspects and/or phases of construction work. HW will conduct field observation of installation and site restoration components for conformance with the design and permitting plans. These observations will be conducted as necessary and as arranged with the contractor. Up to eight site inspections are included in the budget.

HW will submit construction inspection reports with accompanying field photographs to the project partners and MassDEP, as appropriate, via email following each field inspection to document construction progress. HW will be available via telephone conference with the contractor and project partners to answer design related questions and/or resolve issues related to field conditions. HW will provide qualified personnel to review up to eight submittals (shop drawings and/or requests for information (RFIs)) submitted by the contractor for approval.

c.3 – As-Built Drawings and Certificate of Completion: HW will prepare a Record Drawing that illustrates the specifications of the construction and any alterations from the design plans. HW will prepare and file certifications of completion to permit authorities with the Record Drawing.

e. Informational Signage and Follow-up Outreach

The Collaborative’s Green Space Committee and the ECO Crew will lead a community process to design two signs that will be installed throughout the project location. The signs’ design will be uniform to existing signs, but the illustrations, wording, translation, size, colors and location will all be determined through an interactive process with young people and the community at large. The sign design, fabrication and installation will be sub-contracted to Pronun design.



Example of interpretive, bilingual sign along the Mill Creek.

f. Draft and Final Report

Following completion of the previous tasks, the project partners will prepare a draft and final report documenting the project components. This report will incorporate all aspects of the

project, including public meeting attendees and comments, project plans, specifications and permit conditions, design and construction documentation, and public education elements. A draft report will be prepared for review and comment by DEP and a Final Report will be produced. One original and one electronic version (for potential posting on MassDEP's web page) will be provided.

g. Proposed Timeline

Month	Project Deliverable
June 2014	Notification of Grant Award
June 2014	All necessary state contracts signed and returned
June 2013	First meeting with project partners to review scope of project
July - August	Finalize purchase and sale of Green Family property
Sept.	Initial community meeting to introduce project and begin discussions on GSI
Sept. - October	City of Chelsea provides base and utility plans from the City's water, sewer and drain GIS maps; and they will also provide collection and laboratory analysis of storm water flows
Sept. - October	MyRWA and CRWA train ECO youth to conduct pre-restoration monitoring, storm water analysis and mapping
Sept. - October	City of Chelsea trains ECO on how to identify different tree species
October - November	ECO identifies all trees -- healthy and otherwise on riparian slope
October - December	ECO conducts pre-restoration monitoring and analysis
October - December	Complete community visions for GSI measures and riparian restoration project with environmental, educational and public access components
December - January 2015	Initiate permitting process
April 2015	Begin project implementation
May 2015	Design educational, bilingual signage
June 2015	Unveil completed project at community event
June - July 2015	Complete final report for DEP

Project Partner / Subcontractor

Partners:

Name: ***City of Chelsea***

Mailing Address: 500 Broadway

City/Town: Chelsea State: MA Zip: 02150

Applicant Website: www.chelseama.gov

Type of Entity: Municipal Government

Name: ***Mystic River Watershed Association***

Mailing Address: 20 Academy Street, Suite 306

City/Town: Arlington State: MA Zip: 02476

Applicant Website: www.mysticriver.org

Type of Entity: Non-profit organization

Name: ***Charles River Watershed Association***

Mailing Address: 190 Park Rd.

City/Town: Weston State: MA Zip: 02493

Applicant Website: www.crwa.org

Type of Entity: Non-profit organization

Sub-contractors:

Name: ***Horsley Witten Group***

Mailing Address: 90 Route 6A

City/Town: Sandwich State: MA Zip: 02563

Applicant Website: www.horsleywitten.com

Type of Entity: Corporation / Business

Name: ***Apex Companies, LLC***

Mailing Address: 125 Broad St., 5th Floor

City/Town: Boston State: MA Zip: 02110

Applicant Website: www.apexcos.com

Type of Entity: Corporation / Business

Project Readiness:

As stated above, the project will require a Notice of Intent (NOI) application and supporting documentation for the project within the jurisdiction of the Wetlands Protection Act with the Chelsea Conservation Commission in accordance with the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131 § 40) and its implementing Regulations (310 CMR 10.00). The project may also require a Chapter 91 License from DEP any work within lands subject to tidal flows (this is uncertain at this time). Once the project is fully designed, we will determine if other permits are required such as Corps of Engineers 404 permit, DEP Water Quality Certification, and/or local DPW approvals.

Project Benefits:

- ✓ Restore, enhance or preserve critical aquatic, riparian and wetland habitats;
- ✓ Restore or enhance the function of water-dependent ecosystems by implementing measures to improve water quality for example addressing factors such as erosion, sedimentation, and other watershed disturbances (e.g. retrofit or replace inadequate infrastructure);
- ✓ Create or enhance public access to and/or recreational activities on the water;
- ✓ Integrate planning and management of ecological restoration with existing or planned public access and recreation to mitigate impacts to critical aquatic and riparian habitats, with an emphasis on the efficient use of land, energy, and water and regional or multi-community benefits.

Summary of Project Benefits:

The Mill Creek Water Quality and Habitat Restoration Initiative will take place in the City of Chelsea, Massachusetts a community tackling significant environmental justice concerns (with some work within the City of Revere).

Chelsea is a minority majority city with over 75% of our population identifying as a racial or ethnic minority. Our low-income residents reside within just over a third of the city's total land, as only 37.6% of the city is zoned for residential uses. Chelsea is one of the most densely populated cities in the nation. The MA Environmental Justice Policy classifies every single neighborhood in Chelsea as an environmental justice population. According to Dr. Daniel R. Faber and Dr. Eric Krieg, Chelsea is the 3rd most intensively overburdened community in Massachusetts.

Along the Chelsea Creek, more than 123 million gallons of petroleum product are stored for regional use. All of the jet fuel used at Logan International Airport and 70-80% of the New England Region's heating needs are stored in tanks owned by Global, Gulf Oil and Conoco Philips. In the course of the last twenty years, there have been more than 35 oil spills amounting to over 100,000 gallons of oil spilling into the Chelsea Creek.

In addition to the numerous sources of pollution located along the Chelsea Creek, Chelsea residents must deal with the air emissions from trucks traveling on state-designated truck routes; trucks traveling to and from the Produce Center as well as other businesses in Chelsea; cars and other vehicles traversing the Tobin Bridge; diesel emissions from large ships which transport products into the Chelsea Creek; and the emissions from the jets and planes which fly overhead on their way to or from Logan International airport.

Mill Creek Water Quality and Habitat Restoration Initiative will achieve all of the benefits outlined by the DEP in the list above. The proposed project will restore riparian habitats along the Mill Creek while providing public access and educational benefits; the implementation of green infrastructure to address water quality impacts of storm water on the Mill Creek while promoting greening of a neighborhood and promoting further environmental education goals; and will further the stormwater management goals of the City of Chelsea.

Through this project, GSI measures will be implemented in a neighborhood that has long suffered from flooding and inadequate drainage. The water quality impacts from these measures will be significant; however the community benefits also will be great. There will be an increase in green space and tree coverage coupled with educational opportunities as the project partners educate, engage and promote

the benefits of GSIs to community members. The coastal restoration work along the riparian edge will reduce the abundance of invasive species, eliminate weed trees and will further promote healthy estuarine flora and fauna. The community benefits to this site will be even more impactful as the entire area will be designed in such a way that detract anyone interested in conducting illicit activities rather positive passive recreational will be promoted through new, opened view corridors to the Mill Creek and educational opportunities will be intertwined throughout the land.

Potential Environmental and Socioeconomic Impacts

Impact Category: Environmental

Impacts on ...	No Impact	Minimal Adverse Impact	Significant Adverse Impacts	Beneficial Impacts	Temporary Short-Term Impacts	Long-Term Impacts	Mitigation Required	Does Not Apply
Air Quality				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Instream Flow	<input checked="" type="checkbox"/>							
Surface Water Quality				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Sediment Quality				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Sediment Quantity				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Soil Quality				<input checked="" type="checkbox"/>				
Groundwater Quality				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Wetlands Quality and service/functions				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Diversity and abundance of aquatic species				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Diversity and abundance of terrestrial wildlife species				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Diversity of Plant Community				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Invasive Species				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Other								

Potential Environmental and Socioeconomic Impacts

Impact Category: Social

Impacts on ...	No Impact	Minimal Adverse Impact	Significant Adverse Impacts	Beneficial Impacts	Temporary Short-Term Impacts	Long-Term Impacts	Mitigation Required	Does Not Apply
Environmental Justice Populations				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Sense of community well-being				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Aesthetics				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Public health or safety				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Recreational activity				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Native American Trust								<input checked="" type="checkbox"/>
Non-tribal cultural or historic resources				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Education				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Local partnerships and collaborative efforts				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Availability and quality of drinking water								<input checked="" type="checkbox"/>
Subsistence activity								<input checked="" type="checkbox"/>
Nuisances				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Other:								

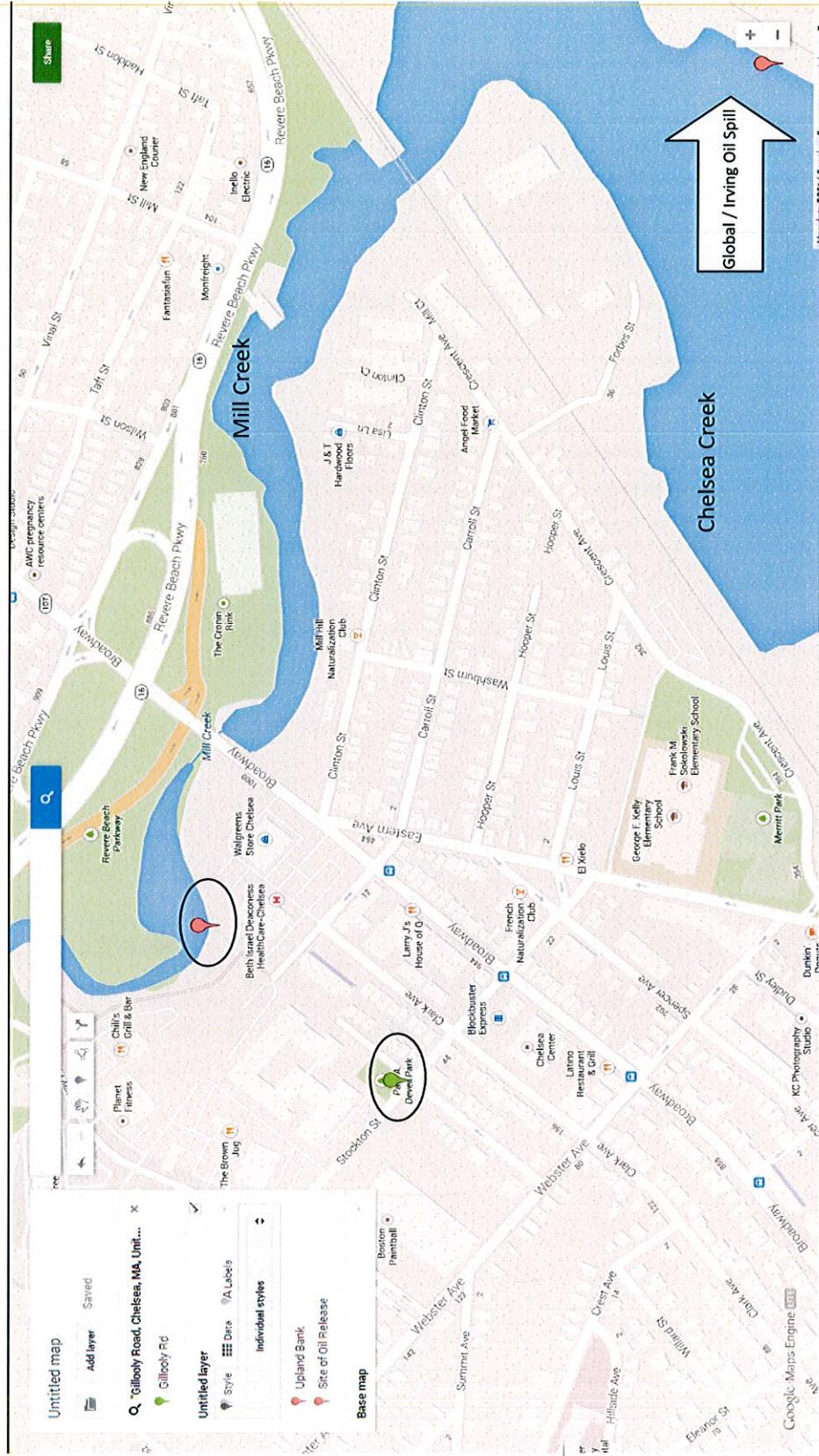
Potential Environmental and Socioeconomic Impacts

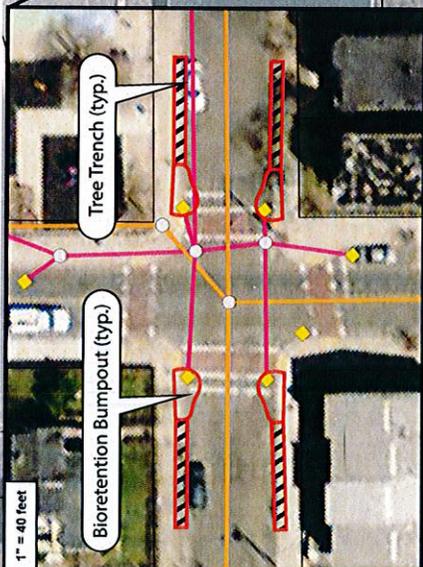
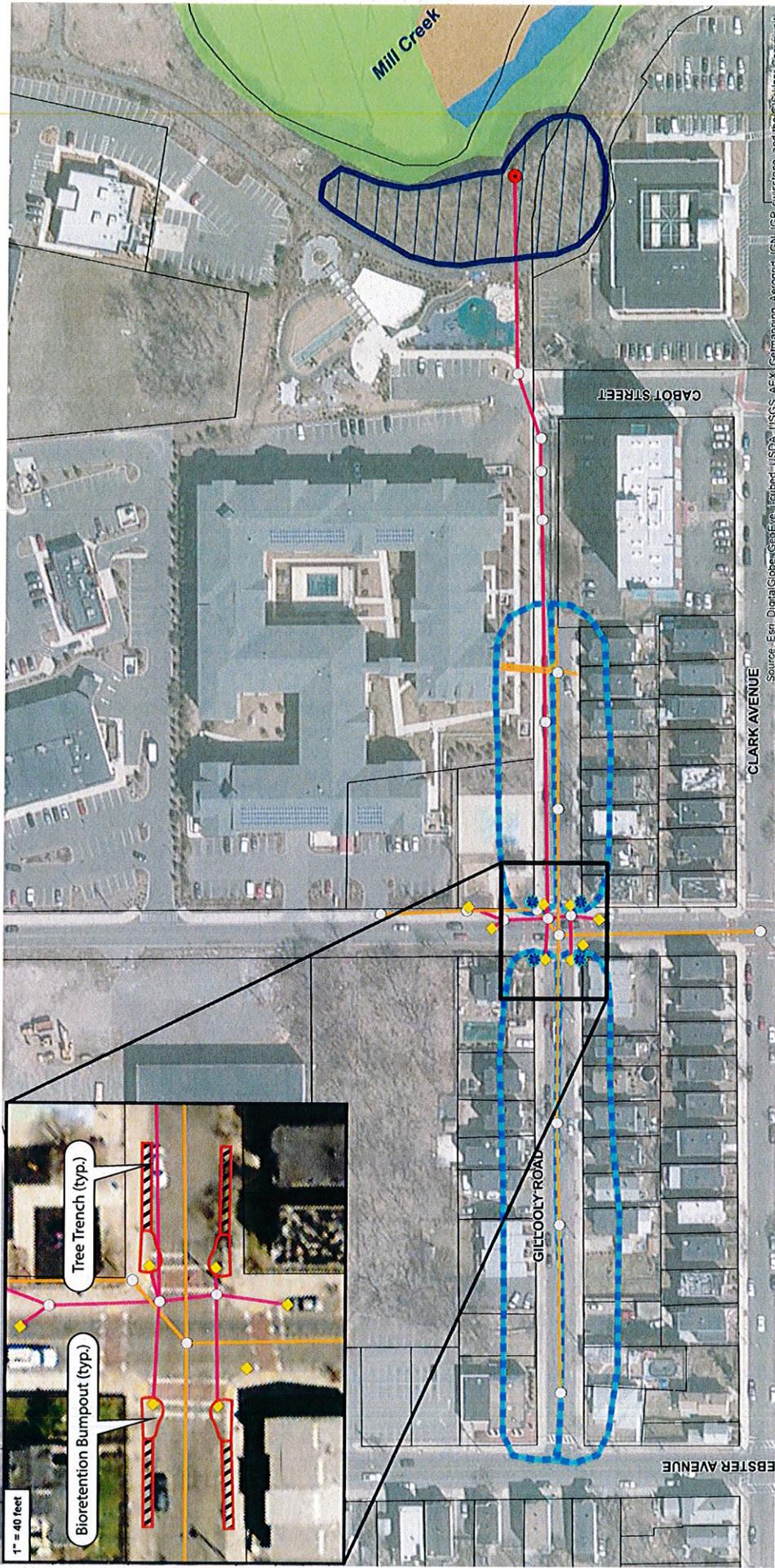
Impact Category: Economic

Impacts on ...	No Impact	Minimal Adverse Impact	Significant Adverse Impacts	Beneficial Impacts	Temporary Short-Term Impacts	Long-Term Impacts	Mitigation Required	Does Not Apply
Short-term commercial				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Property Values				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
River or land-based recreational expenditures and related businesses				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Existing resource-based industries								<input checked="" type="checkbox"/>
Commercial water-users								<input checked="" type="checkbox"/>
River-based commercial navigation								<input checked="" type="checkbox"/>
Wastewater discharges								<input checked="" type="checkbox"/>
Stormwater discharges				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Other:								

Task Description	Proposed Cost	Other Contributions Cash or Inkind (Committed)	Other Contributions Cash or Inkind (Not Committed)	Total Cost
Task 1 - Project Management				
a. Labor				-
Chelsea Collaborative	16,000.00			
b. Contracted Services				-
City of Chelsea		5,000.00		
MyRWA	11,500.00			
CRWA	11,500.00			
c. Material, Equipment and Supplies				
d. Travel				
e. Other (land acquisition)		10,000.00		10,000.00
Subtotal Task 1				
Task 2 - Permitting & Design				
a. Labor				
b. Contracted Services				-
Horsley Whitten	33,500.00			
Apex Co.	7,500.00			
City of Chelsea		2,500.00		
c. Material, Equipment and Supplies				
d. Travel				
e. Other				
Subtotal Task 2				
Task 3 - Construction / Implementation				
a. Labor				
b. Contracted Services				-
Unidentified Contractor	135,000.00			
City of Chelsea		2,500.00		
Pending Private Grant			25,000.00	
c. Material, Equipment and Supplies				
d. Travel				
e. Other				
Subtotal Task 3				
Task 4 - Report				
a. Labor				-
Chelsea Collaborative	1,500.00			
b. Contracted Services				-
Horsley Whitten	2,500.00			
c. Material, Equipment and Supplies				
d. Travel				
e. Other (<i>Community Event and Signage</i>)	5,250.00			5,250.00
Subtotal Task 4				
TOTAL (all tasks)	224,250.00	20,000.00	25,000.00	269,250.00

Project Location Map





1" = 40 feet

Bioretention Bumpout (typ.)

Tree Trench (typ.)

*DEP Wetlands - MassGIS, 2009

Source: Esri, DigitalGlobe, GeoEye, IGN, ISP, Swisstopo, and the GIS User Community
 Document Path: H:\Proposals\MassachusettsAgency\Myric River Watershed Association\GIS\Mapa120140312_GreenInfrastructure_neef.mxd

Horsley Witten Group
 Sustainable Environmental Solutions
 100 Water Street, Suite 200, Boston, MA 02109
 Phone: 617.552.3300
 Fax: 617.552.3301
 Email: info@hws.com

Project Limits and Elements

Date: 3/12/2014 Figure 1

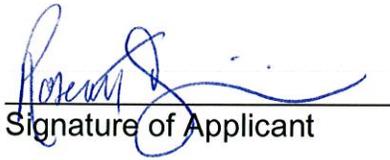
Legend

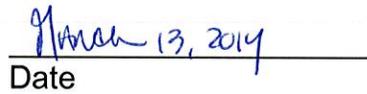
	Green Infrastructure (GI) Practice Location		Outfall		DEP Wetlands*
	Approximate Drainage Area to GI Practice		Manhole		Open Water
	Shoreline Access and Restoration Site		Catchbasin		Salt Marsh
	Parcels		Drainage Pipe		Tidal Flat
			Sewer Line		

1" = 100 Feet

Grant Announcement NO. BWSC-2014-01
Mystic River Watershed Restoration
Chelsea and Mill Creek, Malden and Lower Mystic River Watersheds
NRD Assessment and Restoration Program

I declare that the information included in this Application and all attachments is true, complete, and accurate to the best of my knowledge, and that the proposed project complies with all applicable state, local and federal laws and regulations.


Signature of Applicant


Date

Roseann T. Bongiovanni
Name of Applicant

STATE OF TEXAS, COUNTY OF []

IN SENATE, FEBRUARY 11, 1903.

REPORT OF THE COMMISSIONERS OF THE LAND OFFICE, IN ANSWER TO A RESOLUTION PASSED BY THE SENATE, FEBRUARY 11, 1903.

COMMISSIONERS OF THE LAND OFFICE, STATE OF TEXAS.

W. M. []
Date

[]
Signature of Auditor

ROBERT B. []
Name of Applicant

Roseann T. Bongiovanni, MPH

7 Bell Street

Chelsea, MA 02150

617.889.6083 (H) 617.283.2849 (C) rbongi@gmail.com

QUALIFICATIONS SUMMARY

- Results oriented manager with 15+ years experience in policy development, budget preparation and management, grant writing and direct fundraising solicitations, public relations and staff and operations management;
- Accomplished fundraiser – raising and managing \$10 millions in private and public funds – with experience in capital construction projects;
- Experienced public speaker;
- Effective leader skilled at team building, image building and creative problem solving;
- Excellent communicator

PROFESSIONAL EXPERIENCE

Nov 2006 ~ Present **Associate Executive Director**
Chelsea Collaborative, Inc.

Chelsea, MA

- Manage and direct agency's fundraising efforts, via grant submissions, direct solicitations and event planning
- Oversee budget creation and management for organization and individual projects totaling more than \$4 million
- Supervise full-time and part-time staff and interns
- Oversee and implement program implementation
- Collaborate with Executive Director on strategic focus of agency
- Responsible for Environment Department, including fundraising and administering all programs
- Serve as liaison with universities, private businesses and other organizations.

Jan. 2004 ~ Dec. 2011 **At Large City Councilor**
Chelsea City Council

City of Chelsea

Chelsea, MA

- Led an eleven-member Council as President in 2007
- Served two terms as a District Councilor, elected At-Large in 2007
- Create policy and legislation for the City of Chelsea
- Represent community on numerous issues including a victorious battle to defeat the construction of a power plant.
- Oversee, improve and implement development and urban renewal for the city
- Approve the Chelsea City Budget and Tax Rate

Accomplishments:

- Created three new City Boards, including one youth-led board
- Increased quantity and quality of affordable housing, sustainable development and recreational open space
- Reduced public health hazards
- Assisted the City in becoming a Tree City USA
- Led evaluation of the City Manager

Sept. 2006 ~ Nov 2006 **Interim Executive Director,**
Chelsea Collaborative, Inc.

Chelsea, MA

- Managed organization during the transition from founding Executive Director to present Executive Director
- Managed \$1.2 million budget and assured agency's fiscal solvency
- Supervised 20+ staff
- Led transition and hiring process for new Executive Director and Development Coordinator

Jan 2000 ~ Sept. 2006 **Director, Chelsea Green Space and Recreation Committee**
Chelsea Collaborative, Inc.

Chelsea, MA

- Responsible for all fundraising, budgeting, management and implementation of more than ten environmental and public health campaigns and projects, including a youth program to improve Chelsea's urban environment
- Fundraised for and administered all environmental programming

Oct 1995 ~ Dec 1999 **Project Coordinator, Chelsea Green Space and Recreation Committee**
Chelsea Collaborative, Inc.

Chelsea, MA

- Began strong grassroots group to focus on open spaces and environmental issues
- Organized community awareness events
- Developed a stable budget, initiated strong fundraising strategy to assist the committee in its fiscal growth

Accomplishments at Chelsea Collaborative:

- Built strong community-based environmental justice program -- began with \$7,500 budget and increased to \$400,000 operating budget with \$2+ million in annual capital projects.
- Strengthened and solidified organization's reputation, image and fiscal solvency.
- Expanded the staff and operations of the organization four-fold.
- Managed three capital construction projects.
- Successfully raised more than \$10 million to support the staff and capital projects of the organization.

Sep 2002 ~ Nov 2002 **Campaign Director for Chelsea**

The Committee to Elect Jarrett T. Barrios for State Senate

Cambridge, MA

- Ran a successful political grassroots campaign to win Primary and November elections
- Organized community events and fundraising activities for the campaign
- Coordinated a community-based "get out the vote" campaign including door knocking, flyer distribution, phone-banking and sign holding
- Organized and managed all Primary Day activities for the Chelsea headquarters

Accomplishments:

- Managed the successful campaign for Massachusetts' 1st Hispanic State Senator

EDUCATION

Master of Public Health, 2001

Boston University School of Public Health

Boston, Massachusetts

Bachelor of Arts, 1999

Boston University

Boston, Massachusetts

International study in Padua, Italy

HONORS and ACTIVITIES

- All-Chelsea Awards' Adult Resident of the Year (2007)
- NOAA Environmental Hero Award (2006)
- Alternatives for Community and Environment "Founders Award" (2001)
- Guest Speaker, BU School of Law and School of Social Work, Boston College, MIT, UMASS Boston, Salem State and many conferences
- Dana Farber Marathon Challenge Team Member (2003, 2005, 2006, 2007) – raising \$30K for the Claudia Adams Barr Program for Innovative Cancer Research
- Boston University's Graduate School of Public Health Dean's Scholarship
- Chelsea / BU Partnership Scholarship for Undergraduate Studies

ADDITIONAL SKILLS

- Comprehend sufficiently and speak some Spanish and Italian.
- Proficient with Microsoft Office Suite, email and internet research.
- Completed Harvard - MIT training on Negotiating for Environmental Justice

RESUME

Andrew B. DeSantis
25 Serino Way
Saugus, Massachusetts 01906

EMPLOYMENT

December 1993 to Present: Assistant Director, City of Chelsea Department of Public Works, 500 Broadway, Chelsea, MA. 02150

Responsibilities and duties included supervision of administrative and labor force personnel engaged in all facets of public works operations including privately contracted services for potable water distribution, sanitary sewage collection, storm water run-off drainage, urban forestry, roadway and sidewalk maintenance and reconstruction of municipal infrastructure.

Designee to Massachusetts Water Resources Advisory Board, member-at-large of Massachusetts Water Resources Advisory Board Executive Committee. Member of Mystic River Steering Committee.

March 1992 to December 1993: Resident Engineer, Black & Veatch Engineers, 100 Cambridgepark Drive, Cambridge, MA 02140

Resident Engineer's duties performed under contract with the Massachusetts Water Resources Authority on 12,000 feet of 48 inch diameter steel water main on Eastern Avenue, Malden.

August 1986 to February 1992: Superintendent of Public Works, City of Revere, MA 02151

Responsibilities and duties included supervision of administrative and labor force personnel engaged in all facets of public works operations including potable water distribution, sanitary sewage collection, storm run-off drainage, roadway and sidewalk maintenance and reconstruction, park and playground maintenance and municipal building maintenance.

October 1979 to August 1986: Project Engineer, Department of Planning and Community Development, City of Revere, MA 02151

June 1978 to October 1979: Resident Engineer, Universal Engineering, 100 Boylston Street, Boston, MA

October 1975 to June 1978: Field Engineer, G.B.H. Macomber Construction Company

Education

Bachelor of Science, Civil Engineering 1975
Northeastern University, Boston, MA

Licensed Water Distribution System Operator D-4 & T-3
Commonwealth of Massachusetts

Massachusetts Certified Arborist #2408

Pallavi Kalia Mande

Charles River Watershed Association
190 Park Road
Weston, MA 02493
(781) 788-0007 ext. 232 / pmande@crwa.org

EDUCATION

M.A.U.D Architecture and Urban Design, Washington University, St Louis, MO (2000)

M. Phil. Environment and Development, University of Cambridge, U.K. (1999)

Bachelor of Architecture, TVB School of Habitat Studies, New Delhi, India (1996)

EXPERIENCE

Charles River Watershed Association, Weston, Massachusetts

Director of Blue Cities®, December 2011– present

Directing CRWA's *Blue Cities Initiative*, including program development, staff and budget management, grant writing and administration, outreach and communication, technical review and reporting. Responsibilities include design and environmental review of projects within the watershed to inform CRWA's advocacy; coordination with other environmental groups, agencies and departments; public education and outreach.

Urban Restoration Specialist, 2005 – 2011

Worked as an environmental planner and urban designer on a variety of restoration projects ranging in scale from regional to site specific, as part of CRWA's *Blue Cities Initiative*. In addition to reviewing development projects within the watershed, responsibilities included environmental and site assessments, zoning review, fieldwork, research on LID (for low impact development), Smart Growth and Sustainable Development. Also involved with public education and outreach for generating awareness on urban restoration through organization of public forums involving a variety of stakeholders ranging from public agencies, institutions, private land owners/ developers and the resident community.

Cecil Group Inc., Boston, Massachusetts

Urban Designer and Environmental Planner 2004-2005

Worked with the Aquidneck Island Planning Commission and a large, multi-disciplinary team of planners, designers, engineers, and economists to create a comprehensive master plan for 10-mile stretch of densely populated coastal area along the west side of Aquidneck Island. The planning effort focused on resolving key growth issues and creating strategies for land use, transportation, economic development, sustainable growth, and the protection of natural and cultural resources. Worked with the Town of

Mansfield as part of a team of market and environmental remediation experts on remediation and site design for a 40-acre superfund site. Worked as a sub-consultant to the team contracted by the Executive Office of Environmental Affairs to produce the “MA Smart Growth Toolkit”

Stull and Lee Inc., Boston, Massachusetts

Urban Designer and Community Planner 2001-2004

Worked with various planning agencies and private developers in cities across the US (Boston, Cambridge, Somerville, Hartford (CT), Newark (NJ), Washington DC, Baltimore (MD), Prince Georges County (MD), Houston (TX), West Palm Beach (FL) to prepare master plans for urban and sub-urban communities. The effort largely involved visioning and strategic planning /design (land-use planning and public realm design) for inner city/ downtown revitalization projects while working with a team of economic development, housing and transportation consultants.

Development Alternatives, New Delhi, India

Project Coordinator: Environmental Resource Branch 1997-1998

Prepared a project proposal for the revitalization of natural drainage channels for a tributary to the River Yamuna in south Delhi as a pilot study for implementation. Assessed conservation and resource management projects in Khajuraho (Madhya Pradesh) through analysis of project environmental impact assessments and field trips.

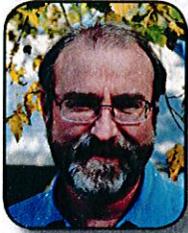
PROFESSIONAL DEVELOPMENT AND RELATED EXPERIENCE

- Lectured at Massachusetts Institute of Technology (Site and Environmental Systems Planning Course at Department of Urban Studies and Planning, 2011), Northeastern University (Course in Sustainable Development at Department of Global Studies, 2011) and Harvard Graduate School of Design (Career Discovery Program, 2008)
- Presented at numerous conferences including the Cities of the Future (2010), Urban River Restoration (2010), Build Boston (2010) Rail-revolution (2009), River Rally (2005)
- Guest Critic at Boston Architectural Center (Spring 2010, Spring 2008 and Spring 2005)
- Taught a session on planning in Foundations of Urban Ecology- A workshop organized by Urban Ecology Institute, Boston College (July 2005)
- Guest Critic at Harvard Graduate School of Design (Spring 2004)
- Contributed to Urban Watershed Management Roundtable organized by Ecological Cities Project, University of Massachusetts, Amherst (May 2003)
- Contributed to Environmental Justice Fundamentals Workshop organized by EOE, Massachusetts Watershed Initiative, Mystic River Watershed Association, Tufts University, USEPA (New England) and U.E.I (2003)
- Completed an Executive Education Course in “Sustainable Development” at the Harvard Extension School (Fall 2002)
- Taught a course in Habitat Survey and Design to 3rd Year undergraduates at TVB School of Habitat Studies. (Fall 1998)



Richard A. Claytor, Jr., P.E.

President



Areas of Expertise

- Wetland and Natural Resource Area Assessments
- Environmental Permitting & Compliance
- Smart Growth/ Low Impact Development
- Watershed Planning & Assessment
- Civil Engineering
- Environmental Engineering
- Stormwater Management
- Surveying
- Site Design
- Training

Professional Registrations

- Professional Engineer Massachusetts, New Hampshire, New York, and Maryland
- Massachusetts Certified Soil Evaluator
- LEED Accredited Professional

Professional Affiliations

- Massachusetts DEP Stormwater Policy Advisory Committee
- Town of Sandwich, Massachusetts Planning Board, 2007 to 2011
- American Society of Civil Engineers

Academic Background

Bachelor of Science, Union College, Civil Engineering, Concentration in Hydrology, Hydraulics, Water Resources, and Geotechnical Engineering

Rich Claytor has more than 30 years of practical experience in civil and environmental engineering with specific expertise in water resource planning, design, implementation, research, education, and training. Rich has extensive experience and expertise in stormwater management design, implementation, program assessment, policy and evaluation. Rich also is experienced in watershed planning, training and education; water resource permitting and research; water supply and wastewater design; land use planning, site design and research; storm drainage, erosion/sediment control, and roadway design; and construction administration. He has authored a variety of stormwater manuals and publications on stormwater policy, design and implementation, and has presented at dozens of training workshops and conferences over the last two decades. He was the principal designer of stormwater management and stream restoration measures for a wide range of projects throughout New England and the Mid Atlantic.

REPRESENTATIVE PROJECTS

Stormwater Management System Retrofits, Chelsea, MA: Principal-in-Charge for design, permitting, and construction of stormwater retrofits within a conventional catch basin-and-pipe drainage system. The site is adjacent to the environmentally-sensitive Chelsea River. The design included biofilter islands for enhanced runoff treatment and reduced transport of pollutants.

Fawcett Street Green Infrastructure Stormwater Improvements, Cambridge, MA: Principal-in-Charge for green-infrastructure stormwater improvement project for the highly urbanized roadway corridor in the Concord/Alewife district of Cambridge. The design included porous asphalt parking lanes and green street bioretention areas, in conjunction with the realignment of the street traffic lanes to accommodate better on-street parking facilities, allow for future bike lanes and provide more aesthetically pleasing landscaping.

Veterans Memorial Park Design, Downtown Peabody, MA: Principal-in-Charge for the design of a downtown urban park, including site remediation of contaminated soil, stormwater management and flood mitigation, park elements and landscaping. The park features an entry plaza with benches and game tables, a winding multi-modal pathway and boardwalk, stage and reading room area, informal play areas and a central lawn. Materials and site furnishings such as pervious paving, bike racks, and benches were chosen for their durability, low impact on the environment, and character to match the site.

Stormwater Retrofit Design and Buffer Restoration, Mill River Park and Riverwalk, Taunton, MA: Principal-in-Charge for stormwater retrofit and buffer restoration measures in conjunction with the design of the Mill River Park and Riverwalk in downtown Taunton, MA. Rich oversaw an integrated team to design an urban green space that removed impervious surface, treated stormwater runoff, restored floodplain area, and controlled invasive species.

**Richard A. Claytor, Jr., P.E.**

President

Roger Williams Park Water Quality Improvement Plan, Providence, RI: Principal Engineer for this EPA funded restoration project to improve the water quality and biodiversity conditions of the Park's urban ponds. The focus of this project is on the development of a water quality improvement plan to include a watershed assessment including pollutant-loading analyses, the establishment of long- and short-term water quality goals, identification of feasible stormwater retrofits, assessment of in-pond treatment options, and design, permitting, and construction administration of the five highest priority stormwater retrofit BMPs.

Ten Mile River Bank Stabilization and Restoration Project, Attleboro, MA: Principal-in-Charge for this project to develop a design for stabilizing and restoring 1,800 linear feet of river bank along the Ten Mile River in downtown Attleboro, MA. The design includes natural bank stabilization measures to reduce erosion and improve habitat; invasive species removal and long-term monitoring; buffer restoration with native riverine species; kayak/fishing access; and a multi-use path with associated park features. The project has received all necessary local, State, and Federal permits, and Phase 1 of 4 is scheduled to be constructed in Spring 2012.

Upper Charles River Sustainable Stormwater Funding Assessment, Bellingham, Franklin, & Milford, MA: Project Director for the assessment and dissemination of a technical report documenting the feasibility of widespread implementation of stormwater control measures to meet TMDL requirements and the requirements for a sustainable funding source through a Stormwater Utility structure.

Salem Sound Shoreline Survey and Discharge Pipe Assessment, Beverly, MA: Principal-in-Charge for this project involving the review of existing water quality data, a field survey of discharge pipe locations, and dry weather water quality sampling. As part of that review, individual town maps of drainage infrastructure were synthesized and digitized into a GIS database and map. Two rounds of dry weather water quality sampling were conducted to help identify water quality problems associated with dry-weather illicit discharges from these drainage pipes.

Massachusetts Wetland Restoration Program: Principal-in-Charge for this master services contract for the assessment, design, and implementation of wetland restoration projects in the Commonwealth of Massachusetts. Over a seven year period, Mr. Claytor has supervised the successful completion of more than a dozen separate wetland restoration projects including feasibility studies, hydrologic investigations, and land uses analyses to help foster the restoration of more than 200 acres of coastal wetland resource areas. Horsley Witten Group was awarded this contract for four successive terms.

Samoset Street Outfall Assessment and Engineering, Plymouth, MA: Lead Design Engineer for the completion of comprehensive stormwater management improvements for the Town. The Samoset Street outfall discharges into historic Plymouth Harbor, a 303(d) listed impaired water body. Rich directed the assessment of existing road drainage conditions, water quality sampling, soil evaluation, and design of roadway stormwater improvements and several BMPs.

Stormwater Management Plan for City of Attleboro DPW Highway Yard: Managed the development of this stormwater management design and implementation plan for a seven-acre DWP yard in the City of Attleboro. The scope included evaluating local applicable regulations and current site conditions, developing conceptual and final designs of structural stormwater control measures, developing a pollution prevention plan, and providing construction administration services. The project was funded, in part by a 319 Nonpoint Source Pollution Control grant from the State of Massachusetts.



Brian Kuchar, P.E., R.L.A., LEED AP

Project Manager – Senior Landscape Architect/Civil Engineer



Areas of Expertise

- Civil Engineering
- Stormwater Management
- Wastewater Management
- Surveying
- Landscape Architecture
- Site Design
- Sustainable Design
- Smart Growth/ LID
- Downtown & Neighborhood Revitalization
- Meeting Facilitation
- LID Training

Professional Registrations

- Professional Engineer, RI
- Registered Landscape Architect, MA and RI
- LEED AP

Professional Affiliations

- American Society of Landscape Architects
- Board of Directors, Friends of Ballard Park,, Newport, RI, 2004 to 2006
- Planning Board, Newport, RI, 2005 to 2006

Academic Background

Bachelor of Science, Civil Engineering, Concentration in Environmental Engineering, Worcester Polytechnic Institute

Bachelor of Landscape Architecture, Landscape Architecture, University of Rhode Island

Brian has 18 years of experience in the combined fields of civil and environmental engineering and landscape architecture. Specific areas of expertise include: environmental restoration, stormwater management, innovative alternative and conventional septic design, erosion and sediment control, site engineering, coastal design, ecologically sensitive landscape design, urban landscape design, land management planning, surveying and federal, state, and local permitting, and construction administration. Brian has been employed in both the public and private sector in southern New England and has experience with a broad range of commercial and residential land development projects.

REPRESENTATIVE PROJECTS

Veterans Memorial Park Design, Downtown Peabody, MA: Project

Manager for the design of an urban park, including site remediation of contaminated soil, wetland mitigation, site and landscape design. The park features an entry plaza with benches and game tables, a winding multi-modal pathway and boardwalk, stage and reading room area, informal play areas and a central lawn. Materials and site furnishings such as pervious paving, bike racks, and benches were chosen for their durability, low impact on the environment, and character to match the site.

Roger Williams Park, Providence, RI: Project Manager for this EPA

funded restoration project to improve the water quality and biodiversity conditions of the Park ponds. The focus of this project is the development of a water quality management plan to include watershed delineation, pollutant-loading analysis, the establishment of long- and short-term water quality goals, in-pond treatment recommendations, and the design, permitting, and construction of five stormwater retrofit BMPs.

LID Stormwater Retrofit for Perkins Street, Peabody, MA: Project

Manager for the design a Stormwater Retrofit Conceptual Master Plan for Perkins Street in order to help alleviate a localized flooding problem and improve safety conditions at the intersection of Perkins Street and Allens Lane. The Plan includes a variety of innovative, feasible and cost-effective stormwater Best Management Practices (BMPs) that could be installed on publically-owned park land and rights-of-way along Perkins Street to better manage the stormwater and alleviate the flood occurrences, including the 50-year, 24-hour design storm event.

Integrated Water Management in Chepachet Village, Gloucester,

RI: Design engineer for the implementation of an integrated water management plan in historic Chepachet Village. The design includes innovative stormwater solutions for roadways in this village, such as: grassed swales, vegetated bioretention systems, rain gardens and infiltration basins into the existing stormwater management system.



Ten Mile River Restoration, Attleboro, MA: Senior Landscape Architect on an urban river restoration, bank stabilization and urban river walk project currently underway in Attleboro, MA. The design includes a tree lined corridor created along the edge of a proposed paved multi-use path which will provide areas for both active and passive recreation. Additional site amenities will include signage, benches, various paving surfaces, trash (and recycling) receptacles, bike racks, and lighting. All site furnishings such as benches, trash receptacles and lighting were chosen to match Attleboro's existing downtown character. The proposed riverwalk will create a sustainable, low maintenance landscape that will enhance the City's riverfront environment.

LID Guidebook to Improve Lawrence Alleyways, Groundwork Lawrence, MA: Provided landscape designs and recommended practices for this guidance booklet, developed by HW, on utilizing Low Impact Development (LID) techniques in the reclamation of alleyways in Lawrence's North Common neighborhood. The purpose of this booklet was to provide potential alleyway improvements, through the use of LID techniques and other "green" approaches, to create safe, healthy and environmentally-sound pedestrian, bike, and vehicle passageways.

Centennial Park Detention Basin Retrofit and Wetland Restoration, Peabody, MA: Project Manager for this project to develop a restoration plan that improves the wetland function and provides even more stormwater detention for the Centennial Park Detention Basin. The purpose of the project is to improve flood storage capacity in locations upgradient of Downtown Peabody, an area that experiences severe flooding at an unsustainable frequency. HW is also providing design plans, and assisting with the construction bid package, project management, and oversight.

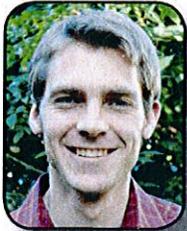
Water Street Stormwater Improvement Projects, Plymouth, MA: Lead landscape architect for drainage improvement in historic downtown Plymouth. Projects addressed water quality to Plymouth Harbor by constructing a diversion structure to stormwater treatment bioretention facility. Design components apply LID techniques for roadway design, landscape design, storm diversion, enclosed drainage systems, treatment facility, pedestrian improvements, and public education.

Wetland Restoration Feasibility Study, Red River Beach, Harwich, MA: Landscape Architect for a salt marsh hydrologic and ecological restoration project for a salt marsh system severely restricted by two undersized culverts in series. Project stages included an analysis of existing tidal hydrology, resource area delineation, a topographic and a low-lying property survey, hydraulic analyses, restoration design, and permitting.



Kristopher M. Houle, PE

Civil Engineer



Areas of Expertise

- Civil Engineering
- Stream Restoration
- Stormwater Management
- Watershed Planning & Assessment
- Low Impact Design
- Environmental Engineering
- Site Design
- Hydrologic & Hydraulic Modeling
- Geographic Information Systems
- Surveying
- Soil Evaluation

Professional Registrations

- Professional Civil Engineer, Massachusetts, 2012 (#49914)
- Certified Soil Evaluator, Massachusetts, 2012, (#SE13584)
- Certified Pervious Concrete Technician, NNECPA, 2007

Academic Background

Master of Science, Civil Engineering, University of New Hampshire

Bachelor of Science, Civil and Environmental Engineering, Worcester Polytechnic Institute

Kristopher Houle is a Project Engineer supporting civil engineering, ecological restoration, and stormwater management design projects. He has more than seven years experience in low impact development (LID) design, research, modeling, and monitoring. Additional expertise includes soil and sediment characterization, stream geomorphic assessments, hydraulic and hydrologic (H&H) investigations, surveying, drafting, and construction administration. He is proficient with engineering design and modeling software packages, including AutoCAD Civil 3D, ArcGIS, HydroCAD, HEC-RAS, Hydraflow, PondPack, and ISCO Flowlink. Prior to joining Horsley Witten, Kris served as a graduate research assistant at the highly regarded University of New Hampshire Stormwater Center where he evaluated over twenty different stormwater management technologies, including porous asphalt and pervious concrete. During that time, he coauthored several technical publications on the cold climate performance of permeable pavement systems. Kris currently serves on his local conservation commission in Dover, New Hampshire and is an active participant in the Society of Ecological Restoration – New England.

REPRESENTATIVE PROJECTS

Fawcett Street Green Infrastructure Stormwater Improvements,

Cambridge, MA: Project Engineer on a green-infrastructure stormwater improvement project that included plan and specification development of bioretention and porous asphalt treatment areas for a highly-urbanized, roadway corridor.

Stormwater Retrofit Design and Buffer Restoration, Mill River Park and Riverwalk, Taunton, MA:

Designed a stormwater retrofit and buffer restoration measures in conjunction with the design of the Mill River Park and Riverwalk in downtown Taunton, MA. Kris worked with Landscape Architects Brown, Richardson & Rowe to design an urban green space that removed impervious surface, treated stormwater runoff, restored floodplain area, and controlled invasive species.

Ten Mile River Restoration, Attleboro, MA:

Project Engineer on an urban river walk, river restoration, and bank stabilization project in Attleboro, MA. Kris led the field reconnaissance, riverine survey, HEC-RAS analysis, and design phases of the project. Primary design features included log and rock vane flow-diversion structures, coir roll bank stabilization, a kayak launching area, invasive species management, and native restoration plantings. Phase I of construction was completed in 2012 and Phase II is scheduled for late 2013.

Aberjona River/ Davidson Park Restoration, Winchester, MA:

Project Engineer for a river restoration project intended to improve a historic park with sedimentation and flooding concerns. Kris prepared three design concepts that presented alternatives ranging from a naturally-restored riverine corridor to a historic park setting with a pond, pedestrian

**Kristopher M. Houle, PE**

Project Engineer

path, and habitat viewing areas. Kris led the field reconnaissance, site survey, hydraulic modeling, sediment characterization, and dredging design components of the project.

Fuller Brook Park Restoration, Wellesley, MA: Project Engineer for the restoration of a two mile long reach of a suburban impaired stream/ wetland system in a historic park setting. Primary design components include stream relocation for sewer main protection, hard and soft stream bank stabilization measures, log and rock vane flow diversion structures, stormwater treatment facilities, wetland replication, and invasive species management. Project construction will begin in the spring of 2014.

Centennial Park Detention Basin Retrofits, Peabody, MA: Designed and provided construction oversight for a series of stormwater retrofits that include flood control upgrades and improvements to existing wetlands to four Centennial Park Detention Basins. The primary goal of the project was to improve flood storage capacity in locations upgradient of Downtown Peabody, an area that experiences severe flooding at an unsustainable frequency. The projects also included mitigation of invasive vegetation to encourage native species growth.

Stormwater Mitigation Design for Wetlands Restoration, Tidmarsh Farms, Plymouth, MA: Design Engineer for a wetland/stream restoration effort that will transform 120 acres of cranberry bogs into a variety of native wetland types. Kris has developed conceptual designs for an innovative stormwater treatment system to mitigate pollutant-loading from an off-site cranberry bog that discharges to the property. Stream restoration analysis and design is currently underway.

Bridgewater State University West Campus Parking Improvements, Bridgewater, MA: Design engineer of a 340-space parking and open space improvement project that included environmental permitting, plan and specification documents, and construction oversight. Primary responsibilities included the design of the stormwater management system and establishment of a curriculum-oriented automated stormwater monitoring program. In addition to design, Kris supervised the construction and installation of the monitoring system, initiated the sampling program, led informational seminars on campus, and worked closely with University faculty to develop a practical teaching tool.

Saunders School Affordable Housing Redevelopment and Adaptive Reuse, Lawrence, MA: Design engineer for this redevelopment project involving, permitting, concept LID design, surveying, final design, and construction administration, on behalf of the City of Lawrence. This development converts the existing Saunders School building into 32 affordable housing units. The site design incorporated bioretention areas and underground recharge chambers into the stormwater management system, thereby significantly improving the existing drainage conditions.

Centennial Brook Flow Restoration Plan, Burlington, VT: Project Engineer for a watershed assessment to develop a flow restoration plan to meet a flow based TMDL in the Centennial Brook watershed of Vermont. The plan involves a collaborative effort between four regulated MS4s that include identifying and conceptually designing stormwater management control measures to meet specific flow restoration targets. Kris led the design, modeling, and cost-estimating phases of the project and was an integral part of the field assessment team.

Horsley Witten Group



Corporate Profile

HW is a full-service environmental science and engineering firm with offices located in Sandwich, Boston, and Newburyport, Massachusetts, and Providence, Rhode Island. The firm was incorporated in 1988 and consists of 49 professional engineers, hydrogeologists, hydrologists, wetlands scientists, marine scientists, geologists, computer modelers, land use planners, environmental analysts, licensed site professionals, surveyors, LEED APs, and supporting personnel.

In addition to providing a broad range of civil engineering and environmental design and assessment work, HW specializes in providing consulting services in stormwater resource planning and design, watershed planning, low impact development (LID) planning and design, hydrogeology, and public outreach. Our staff has significant experience in performing assessment, conceptual design, final design, cost estimating, and construction oversight services for the construction of stormwater collection and treatment facilities.

HW's watershed protection plans and stormwater designs have been implemented to meet a wide variety of objectives, including flood reduction, pollutant load reduction, wetland protection, shoreline and habitat restoration, and groundwater protection. HW has designed dozens of bioretention/infiltration facilities, gravel-based wetlands, bioswales, and sand filter applications. HW has also developed engineering designs and specifications for the retrofitting of existing infrastructure (e.g., outfalls, culverts, and practices along roadways).

Our experience in assisting local and state governments, and non-profit groups with siting, design, construction, cost estimating, and implementation of stormwater practices; as well as local program evaluations and stormwater finance assessments has earned us the opportunity to re-write or contribute to state level regulations in Massachusetts and Vermont, and to develop stormwater design manuals, LID guidelines, and training for Rhode Island, Maine, The Commonwealth of the Northern Mariana Islands (CNMI), the Republic of Palau, American Samoa, Hawaii, and the U.S. Virgin Islands. HW also holds two major long term contracts with EPA Office of Groundwater and Drinking Water and Office of Science and Technology. Over the last four years, HW has worked on several projects for EPA Region 1 (New England), including development of policy fact sheets and the conducting of training for the pending MS4 Permit implementation and Residual Permit Designation (RDA) implementation in the Upper Charles River watershed.

We have incorporated many LID/green infrastructure aspects into recent projects that integrate roadway improvements, parking facilities, stormwater management with shoreline restoration and protection. We have successfully completed waterfront projects for the cities/towns of Chelsea, Plymouth, Kingston, Nantucket and Barnstable, as well as the Roger Williams Park in

Providence, Rhode Island. HW's stormwater management design at the Mace Apartment Complex in Chelsea utilized bioretention facilities to capture and treat stormwater runoff, which provided protection to the adjacent marsh and Mill Creek. Our innovative Veterans Memorial Park design in Peabody provided a recreational resource as well as flood storage capacity and water resource protection along the North River. HW has also provided extensive water quality improvement planning and implementation for Roger Williams Park, including the recently completed shoreline buffers that capture and treat stormwater that would otherwise enter the ponds untreated, potentially contributing to nutrient loading problems.

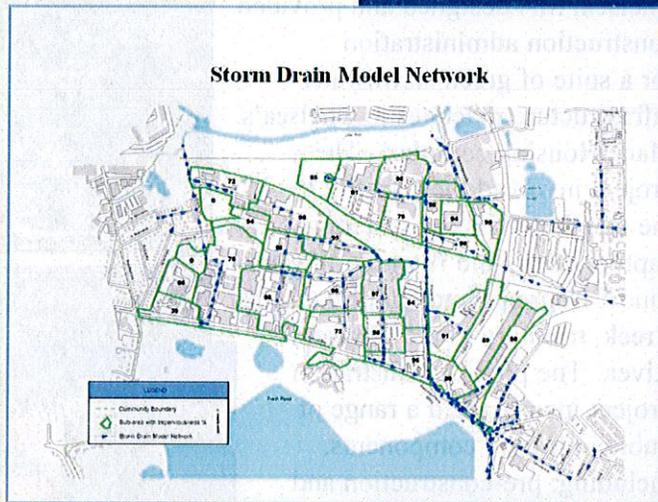


Fawcett Street Green Stormwater Infrastructure Retrofit Design

Cambridge, MA

Horsley Witten Group, Inc (HW) completed an innovative green stormwater infrastructure retrofit design for Fawcett Street, in the Concord/Alewife district of Cambridge, MA for the Cambridge Public Works Department. This work is part of an approximately 2,500 linear foot street redevelopment project designed to serve as a model "standard" for future street improvements throughout this active development zone in Cambridge, as part of the City's commitment to reduce stormwater pollution impacts on the City's receiving water bodies and reduce localized flooding. The design itself included porous asphalt parking lanes and green street bioretention areas, in conjunction with the realignment of the street traffic lanes to accommodate better on-street parking facilities, allow for future bike lanes and provide more aesthetically pleasing landscaping. HW provided these design services under contract to Hazen & Sawyer, in conjunction with Landworks Studio landscape architects.

The project was designed for conformance with the Concord Alewife Plan (2005), the Concord/Alewife Area Stormwater Management Guidelines (2006) and the MA Stormwater Standards (2008) as a redevelopment project. HW adapted the design to fit within the constraints of existing development and underground utilities while maximizing the capacity of the stormwater design for pollutant reduction prior to discharge into the existing drainage infrastructure.



www.horsleywitten.com

- Civil & Environmental Engineering
- Wetlands Management
- Coastal Management
- Hydrogeology & Water Supply
- Stormwater Management
- Wastewater Management
- Emergency Response
- Site Assessment & Remediation
- Land Use Planning
- Education & Outreach



Sandwich, MA

Boston, MA

Newburyport, MA

Providence, RI

Client Contact:
Charles Wilson, P.E.
Hazen and Sawyer
617-574-4747

HW Contact:
Rich Claytor, PE



Green Infrastructure Pilot Project Contributes to Chelsea River Restoration

Mace Housing Facility Receives Green Streets Retrofit to Compliment Neighborhood

The Horsley Witten Group, Inc. (HW), in collaboration with the Charles River Watershed Association, the Mystic River Watershed Collaborative, and the City of Chelsea, MA designed and provided construction administration for a suite of green stormwater infrastructure practices in Chelsea's Mace Housing complex. The project involved the retrofit of the existing drainage system to capture, treat, and filter stormwater runoff from up-gradient of the Mill Creek, tributary to the Chelsea River. The pilot demonstration project incorporated a range of public outreach components, including: pre-construction and post construction water quality and flow monitoring, public meetings and engagement, and interpretive signage. The project was funded through a grant from the Massachusetts Environmental Trust.

HW provided complete design and implementation services for surveying, engineering, permitting, and construction administration. Specific elements included: development of schematic designs; permit applications; development of final construction plans, specifications, cost estimates; construction administration services; as-built plans; and training for City of Chelsea staff for long-term operation and maintenance.

Client Contact:
 Kate Bowditch, Director of Projects
 Charles River Watershed Association
 781-788-0007 x 227

HW Contact:
 Richard A. Claytor, P.E.

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- Land Use Planning
- Education & Outreach



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Newburyport, MA

Providence, RI



East End Peabody Veterans Memorial Park

City of Peabody, Massachusetts

The EPA Brownfield Site located at 45 Walnut Street was reclaimed by the City of Peabody and converted it into a public park for the surrounding neighborhood. The site also functions as a key flood storage area to benefit the greater City-wide flood mitigation efforts.

The Horsley Witten Group, Inc. (HW), in partnership with GEI Consultants, and Brown, Richardson & Rowe, Inc., was contracted to develop an integrated design approach that transforms the site into a community asset.



In addition to the development of the Park design, HW provided following services:

- Developed a stormwater management plan;
- Conducted public outreach to engage downtown stakeholders;
- Presented a planning charrette with representatives of the City Community Development and Planning staff, the City Flood Group, and the project team;
- Civil design, including grading, drainage, and utility improvements;
- Conducted an Existing Conditions Survey and created a baseplan;
- Identified and delineated wetland resource areas;
- Prepared a stormwater assessment report, based on hydraulic analyses;
- Secured necessary local permits and approvals;
- Completed construction specifications and bid package through final construction



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- Stormwater Management
- Wastewater Management
- Site Assessment & Remediation
- Land Use Planning



Sandwich, MA

Boston, MA

Newburyport, MA

Providence, RI

Client Contact:
Brendan Callahan, City Planner
City of Peabody
978-538-5780

HW Contact:
Rich Claytor, P.E.
Brian Kuchar, P.E.



Taunton Mill River Park and Riverwalk Path

Taunton, Massachusetts

The Horsley Witten Group, Inc. (HW) designed a river bank restoration and low impact development (LID) stormwater management retrofit design as part of the new Mill River Park and Riverwalk in downtown Taunton, MA. The project was funded primarily by the Commonwealth of MA through two programs, the Taunton River Watershed Project and the Gateway City Parks Program. HW worked with the Landscape Architecture Firm of Brown, Richardson & Rowe, who was responsible for the landscape architecture design of the Riverwalk itself.



This project restored a significantly degraded riverfront area and converted municipal parking lot into a beautiful park and riverwalk. Previously, stormwater runoff from the parking lot was conveyed directly into the river, resulting in severe erosion and a significant accumulation of sediment and other pollutants on the bank and in the riverbed.

HW's park design incorporates vegetated bioswales and a bioretention system that capture, treat, and detain runoff prior to discharging to the River. These systems also serve as an aesthetic focal point of the Park. HW designed a river bank restoration and invasive species management plan and redesigned the existing parking area upgradient of the park to direct the stormwater runoff into the bioretention system.

As part of this project, HW provided stormwater engineering, wetland delineation, bank restoration design, planting design, environmental permitting services, and construction inspections.

Client Contact:
Alison Bowden
The Nature Conservancy
617-532-8360

HW Contact:
Brian Kuchar, P.E.

www.horsleywitten.com

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Roger Williams Park Ponds Water Quality Restoration Plan

City of Providence, Rhode Island

The Horsley Witten Group, Inc. (HW) assisted the City of Providence and the Narragansett Bay Estuary Program in the development and implementation of a stormwater management master plan for Roger Williams Park.



The historic Park is located in the southern part of Providence, Rhode Island and contains approximately 435 acres of landscaped areas, including the Roger Williams Park Zoo. The Park also contains a seven-lake complex which comprises approximately 100 acres. Water quality of the ponds is severely degraded and suffering from impacts associated with densely urban areas that drain into the ponds.



HW developed a stormwater master plan designed to improve the water quality and biodiversity in the Park's ponds. The project team has identified and prioritized several green infrastructure practices for the retrofit of existing drainage infrastructure to capture, treat, and manage stormwater runoff. HW is also assisting with a public engagement process to gain input on proposed restoration measures. With input from the public and project steering committee, HW designed, permitted, and oversaw construction of the top-rated, early implementation projects.

The Water Quality Master Plan includes:

- Description of existing ponds and water quality conditions;
- Identification and quantification of sources of pollutants;
- Facilitation of defined management goals;
- Evaluation and assessment of water quality improvement measures;
- Facilitation of public engagement process;
- Design, permitting, and bidding support for early implementation practices; and
- Construction oversight and administration for implementation of priority projects.

Client Contact: Mr. Robert McMahon
Parks Superintendent
401-785-9450 x 200

HW Contact:
Brian Kuchar, PE, RLA, LEED AP

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- Hydrogeology & Water Supply
- Stormwater Management
- Wastewater Management
- Site Assessment & Remediation
- Land Use Planning
- Education & Outreach



Sandwich, MA

Boston, MA

Newburyport, MA

Providence, RI



Kenneth P. Fields
Senior Project Manager

Mr. Fields has over 20 years of experience in regulatory process from a land use and environmental policy and permitting perspective; Specialized understanding of the natural features in urban environments; Specific expertise on Massachusetts Chapter 91 tidelands issues, including three c.91 variances; Prepares and evaluates environmental documentation related to wetlands, water quality and stormwater management; Evaluates engineering plans and mitigation for compliance to local, state and federal regulations; Experience with Massachusetts Wetland Protection Act, Massachusetts Environmental Policy Act (MEPA), National Environmental Policy Act (NEPA), Water Quality Certificates, Army Corps Section 10 and 404, Massachusetts Historic Commission and Bureau of Underwater Archeological Resources reviews, Coastal zone Management Federal Consistency statements, zoning issues and process, including Article 80, Well versed in public presentations and community/stakeholder process.

EDUCATION

- Juris Doctor, Suffolk University Law School
- BA, Secondary Education Certification, University of Massachusetts Boston

GENERAL EXPERIENCE

2013 – Present Senior Project Manager, Apex Companies, LLC, Boston, MA.

2010 – 2013 Principal, Fort Hill Infrastructure Services, LLC.

2008 – 2010 Senior Project Manager, Tetra Tech EC Inc.

1998 – 2008 Senior Associate; Director of Environmental Planning and Permitting, BSC Group, Inc.

1995 -1998 Conservation Commission Executive Secretary, City of Boston Environment Department

SELECTED PROJECT EXPERIENCE

Chelsea Green Space Committee, Mill Creek Ecological Improvements, Chelsea MA, Project Manager leading an inter-disciplinary team, providing design direction, and regulatory permitting and construction phase services, representing the Chelsea Green Space and Recreation Committee for ecological improvements including coastal bank repairs, salt marsh creation and restoration, removal of waterway restrictions, and invasive species control using indigenous vegetation along a tidal tributary and the surrounding marshes and flood zones. Permitting included submissions to municipal, state, and federal regulatory authorities. Permits include Wetlands Orders of Conditions for the Revere and Chelsea Conservation Commissions, Chapter 91 authorization from Massachusetts Department of Environmental Protection, Section 10 and 404 approval from the U.S. Army Corps of Engineers, Massachusetts Environmental Policy Act Environmental Notification Form, Access Permit from the Massachusetts Department of Conservation and Recreation, Project Notification Form with the Massachusetts Historic Commission and coordination with the U.S. EPA wetland staff. Review package and issue bid documents. Review contractor submissions, construction phase management.

Locke Street Salt Marsh Restoration, Chelsea MA. Project Manager responsible for salt marsh restoration design, permitting including Order of Conditions from the Chelsea Conservation Commission, 401 Water Quality Certificate, Section 10 and 404 Army Corp of Engineers, public presentations, assistance with extensive planning process, public school educational program, contributions from Federal and State Agencies, and coordination of construction oversight.

Winthrop Department of Public Works, Yirrell Beach Storm Protection Improvements, Winthrop MA, Environmental Planner retained by the Winthrop Public Works Department for design and permitting of alterations to the beach profile to reduce storm damage due to a ramp effect created by sand against a protective seawall, including a pilot dune to help with future stability assessments.

Services involved preparing submissions and representation at a public hearing with the Winthrop Conservation Commission, and for an appeal by MA DEP, and coordination with the Massachusetts Water Resources Authority, The Massachusetts Department of Environmental Protection, and Coastal Zone Management.

Neponset River Reservation Master Plan Phase II, Massachusetts Department of Conservation and Recreation, Boston and Milton, MA. Environmental Team Leader As a sub-consultant to Crosby|Schlessinger|Smallridge, provided ecological input into the Neponset Greenway Master Plan, including assessment of habitat, vegetation, ecology, and archaeological and historical contemporary cultural resources, and identifying areas suitable or desirable for recreation, education, and preservation; further assessment of ongoing and long-term maintenance and management issues; specific issues addressed included pollution control, erosion, flooding, soil conditions, areas requiring special protection, areas of high demand for public recreation, and potential conflicts with abutting uses; provided ecological and conservation portions of public presentations to gather input for the Master Plan, initiated permitting.

Central Artery/Tunnel Project, Boston, MA - Area Permit Manager, responsible for coordination of permit acquisition and regulatory approvals in South Boston and East Boston, responsible for Chapter 91 Waterways Licenses from DEP; Building Permits; Sewer Connection Permits; Parking Freeze Permits, coordinates other contract issues as they relate to the Public Improvement Commission, and Public Works Department.

Massachusetts Technology Center/Massachusetts Clean Energy Center, Port and Infrastructure Analysis for Offshore Wind Energy Development Project Manager, led an inter-disciplinary team in gathering and analyzing the infrastructure needs for handling the components of wind turbines, and the vessels used for offshore deployment of wind energy generation facilities, and the ability of Massachusetts port facilities to accommodate the receiving, storage, preconstruction, handling and delivery to proposed project sites. Research involved interviewing Mass Port operators, and developers from the various proposed East Coast wind farms. The final report recommended New Bedford Harbor as the logical Massachusetts port facility for meeting the new industries needs. The Commonwealth has subsequently funded the expansion of the South Terminal in New Bedford Harbor – per the report's recommendation.

Chelsea Creek Community Vision Plan for the Chelsea Creek Action Group, **Lead Regulatory Planner**, responsible for public presentations on existing conditions assessment and regulatory structure and process to the community at various sessions with attendance between 50 and 150 residents, business owners and government officials; work included gathering background documentation on project area including historic tide lines, Designated Port Area (DPA) boundaries, zoning, and property ownership in the three municipalities of East Boston, Chelsea and Revere. Served as liaison between the project team, the non-profit client, and planning staff of the three municipalities; presented the project to the BRA, Mayor of Revere, the Chelsea City Manager, the Director of Coastal Zone Management as well as to various business owners, U.S. Coast Guard/Massport sponsored Port Users Group, and the Boston Harbor Association. Provided recommendations regarding future opportunities for development in the Designated Port.

Chelsea Street Bridge Repair Project, Boston, MA Environmental Planner responsible for representing Boston Public Works Department in submissions and hearings to obtain wetlands Orders of Conditions from Boston and Chelsea Conservation Commissions including TOY coordination with the Division Of Marine Fisheries.

United States Veteran's Administration, Multiple Locations in MA, ME, NJ, and IN, Enhanced Use Lease Development; Indiana Project Manager leading inter-disciplinary team and support services. Providing point of contact, project planning and management, prepare advertizing for developer solicitation; research and review of legal and regulatory issues including zoning analysis, NEPA, state and municipal regulatory process; property studies including ESA Phase 1, surveys, fair market appraisals and title exam; RFP review, developer proposal evaluations, and regular communications with the Office of Asset Enterprise Management.

Massachusetts Department of Environmental Protection
Natural Resources Damages Assessment and Restoration Program
One Winter Street
Boston, MA 02108
Re: Doc No. BWSC-2014-NRD-01

March 11, 2014

Dear Review Committee:

I write on behalf of the Green Family, owners of land in Chelsea along the Mill Creek identified as Map 75 Lot 13. We have been in conversation with Roseanna Bongiovanni, Associate Executive Director of the Chelsea Collaborative, Inc. regarding our property and our intent to sell the land to her organization, the City of Chelsea, Beth Israel Deaconess Medical Center, the Department of Conservation and Recreation or another appropriate entity.

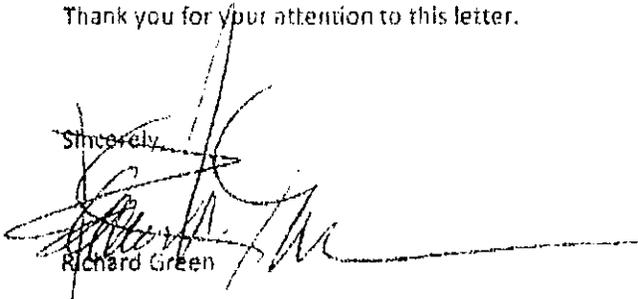
We are committed to selling the property for a total cash value of \$10,000; and we are eager to work with Ms. Bongiovanni and her project partners to make the sale smooth and quick so that she and her team can develop the land into an environmental, ecological and public access resource for the community of Chelsea.

Prior to my sister and I owning the land, my father and his brother owned it and paid taxes on it for many years. They cared about Chelsea and so too do my sister and I. We are excited about the opportunity our land might play in furthering the open space and environmental goals for the Mill Creek waterfront in Chelsea.

I implore you to look favorably upon the grant proposal being put forth by the Chelsea Collaborative and its partners. Should you need to talk with me regarding our commitment to this project, please feel free to contact me at (603)765-6510 or via email at grousewing1@gmail.com.

Thank you for your attention to this letter.

Sincerely,


Richard Green



Beth Israel Deaconess
Medical Center



A teaching hospital of
Harvard Medical School

March 13, 2014
Massachusetts Department of Environmental Protection
Natural Resources Damages Assessment and Restoration Program
One Winter Street
Boston, MA 02108

Re: Chelsea Collaborative, Inc. Mill Creek Water Quality and Habitat Restoration Initiative,
Doc No. BWSC-2014-NRD-01

Dear Review Committee:

I write on behalf of the Beth Israel Deaconess Medical Center (BIDMC) which has a community outpatient center in Chelsea located at 1000 Broadway abutting the Mill Creek. I am writing to offer BIDMC's strong support for the proposal being put forth by the Chelsea Collaborative, Inc. to conduct a coast wetland restoration project along the Mill Creek in Chelsea.

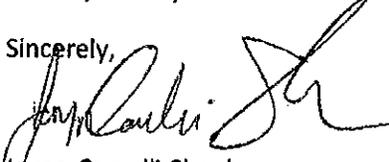
BIDMC opened our Chelsea health care facility in 1995. Almost at our inception we began working with the Chelsea Collaborative's Green Space Committee (Green Space) to plan and implement waterfront improvement projects. In fact for many years, Green Space has held Annual Earth Day events in our parking lot from which they would launch canoes and kayaks in the Mill Creek to introduce families to the forgotten resource. At BIDMC we share Green Space's goals to bring about new parks, waterfront walkways, bilingual educational signage and restored wetlands.

We at BIDMC welcome the initiative of Green Space to transform a derelict and abandoned parcel of land, used presently for illicit activities, into an ecological and public access benefit for the community of Chelsea. The land in question abuts our property. We have picnic benches on our property for our employees' use, but they go unused because our employees are fearful of the activities that take place in the overgrown parcel of land that is one of two parcels which are the subject of the accompanying proposal. At a meeting last spring we shared our concerns to the attention of Chelsea Green Space. Since then Green Space has been working hard to identify resources and opportunities to clear the land of invasive species and weed trees, redesign it in such a way that it increases public access to the water's edge and encourages positive uses of the land. Further, Green Space always works diligently to ensure maximum environmental and ecologic improvements to the Mill Creek. As such, we are fully supportive of the storm water treatment plan and coastal restoration project that Green Space and its partners envision.

In short, we wholeheartedly support this project and we encourage you to fund this worthy grant application. We look forward to coordinating with Green Space and its partners on this restoration project.

Thank you for your consideration.

Sincerely,


Jayne-Carvelli-Sheehan



Mystic River Watershed Association
your community • your watershed

Karen Pelto
Massachusetts Department of Environmental Protection
Natural Resources Damages Assessment and Restoration Program
One Winter Street
Boston, MA 02108
Re: Doc No. BWSC-2014-NRD-01

March 13, 2014

Dear Ms. Pelto and the Review Committee:

On behalf of the Mystic River Watershed Association (MyRWA), I offer my strong support for the proposal being put forth by the Chelsea Collaborative, Inc. to carry out the Mill Creek Water Quality and Habitat Restoration Initiative.

MyRWA is proud to partner with the Chelsea Collaborative on this project. As a project partner we commit to offering our expertise and scientific experience in providing feedback on design of green infrastructure and coastal restoration efforts. MyRWA will also support the Collaborative's efforts to educate community members, particularly youth, about the benefits of green infrastructure projects. MyRWA will also assist the Collaborative and its youth crew in developing and carrying out water quality monitoring, storm water mapping and analysis and determining appropriate flora and fauna for the riparian edge.

MyRWA's mission is to *"...protect and restore the Mystic River, its tributaries and watershed lands for the benefit of present and future generations and to celebrate the value, importance and great beauty of these natural resources."* Over the past six years, MyRWA has focused much effort on the lower Mystic River Watershed because we know it is the most impacted part of the watershed for ongoing industrial and bacterial contamination. As such, we know the goals outlined in the Collaborative's project proposal will go a long way to improving the lower Watershed and to bring about environmental justice.

I implore you to look favorably upon the attached grant proposal. If awarded, it will be fitting that the community group who responded to the oil release in March 2006 from Irving Oil and Global Oil will be able to implement the settlement dollars to improve the very resource that was impacted by the spill.

Sincerely,

A handwritten signature in black ink, appearing to read 'EkOngKar Singh Khalsa', with a horizontal line extending to the right.

EkOngKar Singh Khalsa
Executive Director

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Melrose Reading Revere Somerville Stoneham Wakefield Watertown Wilmington Winchester Winthrop Woburn

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Joseph C. Foti
Director

City of Chelsea
DEPARTMENT OF PUBLIC WORKS
City Hall, 500 Broadway, Room 310
Chelsea, Massachusetts 02150

Telephone: (617) 466-4200
Fax: (617) 466-4210

Karen Pelto
Massachusetts Department of Environmental Protection
Natural Resources Damages Assessment and Restoration Program
One Winter Street
Boston, MA 02108
Re: Doc No. BWSC-2014-NRD-01

March 11, 2014

Dear Ms. Pelto and the Review Committee:

The City of Chelsea offers its strong support for the grant proposal put forth by the Chelsea Collaborative Inc. to implement a Mill Creek Water Quality and Habitat Restoration Initiative. We are proud to partner on this project and to offer technical assistance to ensure the project's viability and success.

The Chelsea Collaborative has a history of designing and implementing successful salt marsh restoration and recreational projects along the Mill Creek. Furthermore, their efforts to engage an environmental justice population are inspiring. The City has been a proud supporter of these efforts and looks forward to further our environmental and public access goals.

The City of Chelsea is excited at the opportunity to implement green infrastructure measures in the Gillooly Rd. drainage area which captures so much of the runoff from the Powderhorn Hill neighborhood. As an active member of the Revere Conservation Commission, I know firsthand the benefit these measures will have on the water quality of the Mill Creek. Furthermore, the project will be aesthetic benefits to the community. In addition, the goals for the riparian area along the Mill Creek are long overdue. Illegal activities plague the site and deter community members from utilizing the public access resources we have worked so hard to implement. Eradicating the overgrown weed trees and invasive species will improve the ecology and will vastly change the social landscape of the area. The City is eager to get community members back out onto the Creek for positive recreational and environmental benefits.

As a project partner, I am requesting approval for committing the City of Chelsea to providing the base and utility plans from the water, sewer and drainage infrastructure, collecting and analyzing storm water flows, and offering technical review for conformance with the City's Stormwater Management goals and strategies. I will carry out these tasks as part of our Stormwater Management Plan which is funded annually through the City's Capital Improvement Plan. These tasks have an inkind value of \$10K.

I support this project and will work with Green Space and other partners to bring the project to fruition.

Thank you for your attention to this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew DeSantis".

Andrew DeSantis,
Assistant Director, DPW



CRWA

Saving the Charles River since 1965

Karen Pelto
Massachusetts Department of Environmental Protection
Natural Resources Damages Assessment and Restoration Program
One Winter Street
Boston, MA 02108
Re: Doc No. BWSC-2014-NRD-01

March 13, 2014

Dear Ms. Pelto and the Review Committee:

On behalf of the Charles River Watershed Association (CRWA), I offer my strong support for the proposal being put forth by the Chelsea Collaborative, Inc. to carry out the Mill Creek Water Quality and Habitat Restoration Initiative.

CRWA is proud to partner with the Chelsea Collaborative on this project. As a project partner we commit to offering our expertise in planning, design and implementation of green infrastructure projects. CRWA will also support the Collaborative's efforts to educate community members, particularly youth, about the benefits of green infrastructure in improving water quality in Mill Creek while enhancing the adjoining streets and open spaces. CRWA will also assist the Collaborative and its youth crew in developing and carrying out storm water mapping and analysis to help understand the existing infrastructure layout and green infrastructure retrofit opportunities at a sub-watershed level.

CRWA was formed in 1965 in response to public concern about the declining condition of the Charles. Since its earliest days of advocacy, CRWA has figured prominently in major clean-up and watershed protection efforts, working with government officials and citizen groups from 35 Massachusetts watershed towns from Hopkinton to Boston. CRWA became a mentoring partner to organizations working in the Mystic River Watershed via the Barr-funded Mystic River Watershed Collaborative. Though this coalition is no longer funded, the partners continue to collaborate for the betterment of the Mystic River Watershed, so much of which is impacted by environmental justice. CRWA is proud to support these efforts and to offer assistance and technical advice to bring about water quality improvements in the receiving waters and the enhancing the quality of life in communities surrounding it.

In short, I am wholeheartedly in favor of the grant proposal attached herein and hope you will look favorable upon it.

Sincerely,

Pallavi Mande
Director of Blue Cities



March 18, 2014

Karen Pelto
Natural Resource Damages Coordinator
Massachusetts Department of Environmental Protection
1 Winter Street
Boston, Massachusetts 02108

RE: Chelsea Green Space and Recreation Committee
NRD Grant Application for Gillooly Outfall Corridor Improvements

Dear Ms. Pelto,

I am writing to acknowledge that the Massachusetts Department of Conservation and Recreation (DCR) is aware that the Chelsea Green Space and Recreation Committee intends to submit an application for a Natural Resources Damages (NRD) Grant for ecological improvements along the Mill Creek in Chelsea that will include a portion of DCR property.

The proposed project will improve shoreline access, protect and restore approximately 150 feet of the bank along the Mill River, and will include invasive species management. The subject site is located in the City of Chelsea and the DCR segment, adjacent to the Mill Creek riparian zone, is located immediately behind the Beth Israel building at the Gillooly Road storm drain easement.

The Chelsea Green Space and Recreation Committee has a history of community based public access and ecological enhancement projects in the Mill Creek area including projects on DCR property. As with past projects, the DCR will be an active partner in the project, reviewing the proposed design plans as they are developed as well as all permit applications, and will issue a DCR access permit for any proposed work.

If you have questions, please contact Conrad Crawford, DCR's Director of External Affairs and Partnerships.

Sincerely,

Jack Murray

COMMONWEALTH OF MASSACHUSETTS · EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS

Department of Conservation and Recreation
251 Causeway Street, Suite 600
Boston MA 02114-2119
617-626-1250 617-626-1351 Fax
www.mass.gov/dcr



Deval L. Patrick
Governor

Richard K. Sullivan Jr., Secretary
Executive Office of Energy & Environmental Affairs

John P. Murray, Commissioner
Department of Conservation & Recreation

Conflict of Interest Guidance and Disclosure Statement Form

Mystic River Watershed Restoration

Chelsea and Mill Creek, Malden and Lower Mystic Watersheds

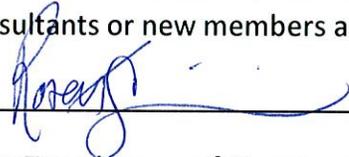
Solicitation/Contract No.: BWSC-2014-NRD-01

Applicant/Grantee Name: Chelsea Collaborative, Inc.

I, Roseann T. Bongiovanni, as the authorized representative and a signatory for the Applicant/Grantee, hereby affirm that, to the best of the Applicant's/Grantees' knowledge and belief, the Applicant/Grantee warrants that there are no relevant facts or circumstances which could give rise to an actual, potential, or an appearance of a conflict of interest for this project as defined in the Grant Announcement and its Attachments, or that the Applicant/Grantee has disclosed, in writing, all such relevant information to the MassDEP NRD Program Manager and Contract Administrator.

The Applicant/Grantee agrees that if an actual, apparent or potential conflict of interest is discovered at any time after award, whether before or during performance, the Applicant/Grantee will immediately make a full disclosure in writing to the MassDEP NRD Program Manager and Contract Administrator. This disclosure shall include a description of actions which the Contractor has taken or proposes to take to avoid, mitigate, or minimize the actual, potential or appearance of a conflict of interest.

The Applicant/Grantee agrees that the conflict of interest terms and conditions defined in the Grant Award Contract will also apply to any and all subcontractors and/or consultants that may be selected and used on this Contract. Further, the Applicant/Grantee agrees that a COI Statement will be submitted, or a disclosure will be made, when and if new subcontractors, new consultants or new members are added to the key personnel for this contract.

Signed:  Date: March 13, 2014

Printed or Typed Name of Signatory: Roseann T. Bongiovanni

Title of Signatory: Associate Executive Director

Applicant/Grantee Name: Chelsea Collaborative, Inc.

Kiley, Cathy (DEP)

From: Kiley, Cathy (DEP)
Sent: Tuesday, June 24, 2014 1:53 PM
To: Delpapa, Cindy (FWE); Donahue, Patricia (DEP)
Cc: Pelto, Karen (DEP)
Subject: Chelsea Collaborative - NRD Mystic River Watershed Restoration
Attachments: ChelseaCollaborativeMap061914.pdf; ChelseaCollaborativeRevised Budget Spring 2014.pdf

"For Use in Intra/Inter-Agency Deliberations"

Hi folks.

Last Thursday, June 19, Karen and I met with Roseann Bongiovanni, Chelsea Collaborative, and Patrick Herron of Mystic River Watershed Association (MyRWA), to discuss the final questions that the GRT had regarding the Chelsea Collaborative Grant Application. The summary of the questions/answers are provided in this email.

1. Map showing parcel(s) where the Segment 1 Restoration Project is proposed (end of Gillooly Rd along the Mill River).

Chelsea Collaborative hand drew in the area on an aerial photo provided by MassDEP. As shown, the Segment 1 restoration project is primarily on parcel 75-13 which is currently owned by the Green Family. (See attached file) Pending the outcome of the Environmental Site Assessment, the project could shift more to the DCR property (Parcel 75-12 adjacent to the Green Parcel)

2. Monitoring

Chelsea Collaborative intends to partner with MyRWA and CRWA to work with residents to perform monitoring at the outfall and adjacent outfalls - this would not be performance of BMP (influent and effluent) but rather a continuation of the monitoring that MyRWA and the City perform on the outfall.. Currently the City does outfall sampling 1/yr and MyRWA also samples the outfalls 1/yr and provides this data to the City. They envision monitoring for the restoration project (plantings) to be more qualitative regarding the condition of the vegetation, and any accumulated debris and needed maintenance.

They will forward this qualitative information to the City and to Beth Israel. BI is committed to performing long-term maintenance at the Mill River restoration site and the City is committed to performing long-term maintenance of the GSI project (Segment 2 restoration project at Gillooly Rd/Stockton St intersection).

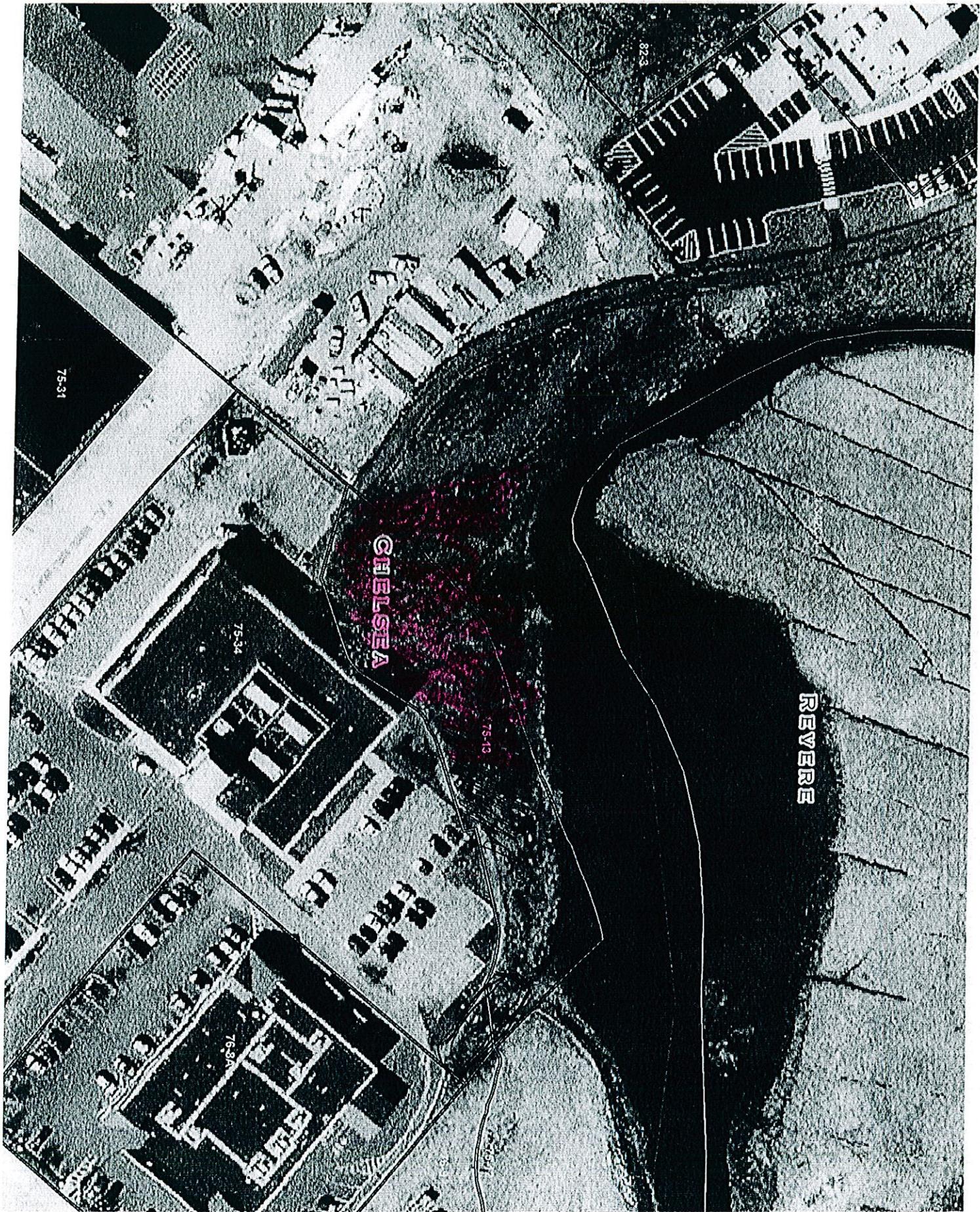
3. Community Involvement regarding Design of Project Chelsea Collaborative expects to engage the residents to determine what they prefer - rain gardens, plants, etc, as they have done on other successful restoration projects in the area. However, this will not be "open-ended" in that Chelsea Collaborative will, with its consultants, create a design for both Segment 1 and Segment 2 and refine the design with the community input. For example they may have a menu/list of options that would meet the intended goals (e.g. water quality, plantings) for each Segment Project and present that menu/list to the public to refine the respective designs. They have a good relationship with the public in this area and this type of community involvement has worked well in the past.

4. Budget

Roseann will send a revised Detailed Budget to MassDEP. The Revised Detailed Budget will reflect the total amount available for this grant \$220, 205, with no additional \$ from the Hallmark Lawrence settlement. See attached.

-Cathy

Cathy Kiley
MassDEP
BWSC DTFS
One Winter Street, 6th Floor
Boston, MA 02108
Tel: 617-556-1012
Fax: 617-292-5530



Task Description	Proposed Cost	Other contributions cash or inkind (committed)	Other contributions cash or inkind (committed)	Total Cost	Organization(s) Responsible
Task 1. Project management					
Complete all grant contracts, paper work, etc.	1,100			1,100	CCI
Convene project partners, discuss project parameters, meet regularly to monitor project timeline and implementation	6,000	2,500		8,500	CCI, MyRWA, CRWA, City of Chelsea
Procure, contract with and oversee all consultants for permitting, design, environmental testing and construction	5,000	1,250		6,250	CCI
Determine and implement contingency plan if Green property does not meet environmental standards	4,505	1,250		5,755	CCI, MyRWA, CRWA
If Green property is acceptable, facilitate land purchase and easements	5,000	10,000		15,000	CCI
Facilitate payment to contractors, review invoices and work accomplished	5,500			5,500	CCI
Task Subtotal	27,105	15,000		42,105	
Task 2. Permitting and Design					
Complete Phase I Environmental Site Assessment	3,500			3,500	Apex Co
Design Habitat Restoration and BMP project with community involvement	33,500			33,500	Horsley Whitten
Review design and ensure it meets Stormwater Management Plan		2,500		2,500	City of Chelsea
Complete permit applications and represent project proponent in local, state and federal permitting processes.	2,000			2,000	Apex Co
Acquire all permits	2,000			2,000	Apex Co
Task Subtotal	41,000	2,500		43,500	
Task 3. Construction / Implementation					
Contractor hired to complete the in-the-ground habitat restoration work and installation of BMP	135,000			135,000	CCI responsible for procurement, contracting and overseeing contractor.
City of Chelsea ensures work meets Stormwater Management Plan		2,500		2,500	City of Chelsea
Task Subtotal	135,000	2,500		137,500	
Task 4. Public engagement and outreach					
Develop pre- and post-monitoring activities with community engagement	2,500			2,500	CCI, MyRWA, CRWA

Conduct pre- and post-monitoring activities	4,500			CCI, MyRWA, CRWA
Engage community in habitat restoration project	1,500			CCI
Task Subtotal	8,500			
Task 5. Report				
Chelsea Collaborative works with community to design interpretive, educational, bilingual signage	500			CCI
Chelsea Collaborative contracts with company to complete final design, fabrication and installation of signs.	4,600			CCI
Chelsea Collaborative ensures project completion is successful and meets all previously agreed upon goals	500			CCI
Chelsea Collaborative submits project report to funder	500			CCI
Horsley Whitten assists with the development of the final report, outlining project benefits as a result of habitat restoration and BMP installation	2,500			Horsley Whitten
Task Subtotal	8,600			
Total (all tasks)	220,205	20,000		240,205

Notes:

CCI = Chelsea Collaborative Inc.; MyRWA = Mystic River Watershed Association; CRWA = Charles River Watershed Association

Match provided by: \$10K cash match for land purchase provided by Chelsea Collaborative, Inc.; \$10K in-kind match provided by City of Chelsea; \$25K grant highlighted in original submission was denied.

Total DEP funds per organization:	
CCI	20971
MyRWA	10367
CRWA	10367
City of Chelsea	0
Horsley Whitten	36000
Apex Co.	7500
Unnamed General Contractor	135000
Total:	220205

Answers to Grant Review Team Questions for Chelsea Collaborative

BWSC-NRD-2014-01

June 6, 2014

1. Restoration Parcel

Please clarify on an aerial photo the limit of the parcel to be purchased and the square footage/acreage of the parcel, as well as the location and full extent of the project Segment 1 area on the parcel. Please clarify the current ownership of the parcel to be purchased. In the response, it is described as being land owned by the Green family (Map 75, lot 13 from the Chelsea Assessors Map/database), being partially on land owned by the MA Department of Conservation and Recreation, and also partially located in the City of Revere.

The location of the restoration efforts would take place on the Green property and partly on land owned by the Department of Conservation and Recreation (DCR). DCR's land extends into Revere, though most of the property is in Chelsea. We are only considering purchasing the Green Property, which is entirely in Chelsea.

Does the City of Chelsea have an easement for the storm drain in this area?

Yes, it does. Attached is the easement document.

Please clarify on an aerial photo the stormwater catchment/drainage area that will be treated by the proposed BMPs.

See attached graphic for proposed BMP treatment areas for Gillooly Road.

2. Potential Contamination

In the response, it states that an Environmental Site Assessment will be completed for the land on which the Project Segment 1 will be constructed. For projects that involve the acquisition for parcels, MassDEP reviews ESA reports and discusses the results and path forward with project proponents. If the results of the ESA indicate there is a high potential for contamination, this could change the next steps and the entire design for the Project Segment 1. Can the project be bifurcated in the event of contamination issues in the Segment 1 part of the project?

Yes, the project can be bifurcated in the event the contamination issues preclude restoration and public access improvements planned as part of Segment 1. We have identified two alternative approaches that would enhance the water quality improvement achieved with BMPs proposed as part of Segment 2.

Alternative 1. We could further augment the green infrastructure improvements proposed within the Gillooly Rd. catchment area. The bio-retention areas proposed in our initial response could be expanded along the street right of way to treat a larger portion of stormwater runoff that would further reduce impacts on the Mill Creek.

Alternative 2. Through work with the Charles River Watershed Association (CRWA) and the Mystic River Watershed Association (MyRWA), the Chelsea Collaborative has identified the Beth Israel Deaconess Medical Center (BIDMC) as a priority location for treating stormwater before it discharges to the Mill Creek. In conducting an analysis of properties along a ¼ mile-long stretch of Broadway, our members and youth identified the BIDMC parking lot as one having significant runoff and impacts along Mill Creek. CRWA completed schematic drawings for the property, which we shared with BIDMC. They were open to retrofitting their site, especially the rear parking lot adjoining the Creek side Commons; however, they were concerned about the potential costs involved. We discussed applying for grant funding to implement the projects.

As such, we are confident that we have two viable alternatives that would allow us to put the grant funding to use and meet all of the original goals outlined in the request for responses.

3. Budget

The proposal presents a Budget totaling \$224,250 from this Grant award. However, there is only \$220,205 available from this Grant. Is there another source for this balance of \$4,045?

We believed that the two settlements, totaling, \$238,710, could be combined and would be available for use in the lower Mystic River Watershed. If this is not the case, the project partners would meet to discuss where we could cut the budget. We are confident that we can trim down the budget to carry out the goals set therein without significantly impacting the project or changing our expected outcomes.

The budget summary form indicates the dollar amount for each task for the various parties/groups and the project partners, but the text of the application does not specify the details associated with the task. Please provide a more detailed description for each task, for the work associated with each party/group/project partner.

Chelsea Collaborative. The Chelsea Collaborative will be the project proponent and will serve as the project manager. The Collaborative would oversee all aspects of the project, convene the project partners, carry out the public bidding processes, engage the community in the designs and implementation of the restoration efforts, engage the Environmental Chelsea Organizers (ECO) youth crew in hands on activities to build their knowledge of green infrastructure, storm water impacts and the importance of healthy salt marshes. The Collaborative will take the lead on communicating with the City, State and private land owners. We will design, with significant community input, and install educational signage and will host a community celebration once the project is complete.

City of Chelsea. Andy DeSantis, Assistant Director of the Department of Public Works, will serve as a project advisor as he oversees all of the City's outfalls and storm water treatments. Andy is an engineer who has over thirty years of experience in working on municipal infrastructure. Andy will provide base and utility plans from the water, sewer and drain GIS, collection and laboratory analysis of storm water flows, and technical review for conformance with the City's Stormwater Management goals and strategies.

MyRWA and CRWA. Both of the watershed associations play an invaluable role in providing expertise and guidance to the Chelsea Collaborative and the community in planning for, designing and implementing storm-water treatment improvements. With their help and guidance, the community can feel confident that the work will meet water quality goals while also increasing public access to Mill Creek through greening streets and open space along the Creek. MyRWA and CRWA have also been instrumental in teaching the ECO youth crew about watersheds, conducting stormwater monitoring to assess the impact of runoff and incorporating green infrastructure to mitigate those impacts and improve water quality in our creeks and rivers.. As such, MyRWA and CRWA will continue to play a vital role as experts in this field, providing technical input in the planning and design of the project, while supporting Chelsea Collaborative with public outreach and education. MyRWA and CRWA will conduct a workshop for ECO-Youth and Chelsea Green Space members on stormwater assessment, and train the participants on various tools used to conduct monitoring and water quality testing.

Horsley Witten. Horsley Witten is an environmental services firm that offers top notch engineering, design and project oversight. Horsley Witten is widely recognized as a firm specializing in implementing a variety of green infrastructure retrofit projects. They have vast experience in designing and implementing such projects and are recognized by the US EPA as a reputable and trustworthy company. Horsley Witten will work with the community and project partners to design both segments of the project. They will prepare the bid package and will advise the Chelsea Collaborative in awarding a contract to a construction company. Horsley Witten has already proven to be an invaluable project partner on this and other green infrastructure projects in Chelsea.

Apex Co. Apex Co. will carry out all of the permitting processes. They will prepare the notice of intent, will represent the project (with the Chelsea Collaborative) at the Chelsea and Revere Conservation Commissions, and will be the liaison for the project with the DCR. Apex Co. will identify any additional permits needed and will complete the required forms and processes.

Apex will conduct a Phase I ESA of the subject property. The Phase I ESA will be conducted in general accordance with the scope and limitations of the ASTM "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (Standard Designation E-1527-13), published in November of 2013 (ASTM Standard for Phase I ESAs), which is intended to demonstrate that All Appropriate Inquiry (AAI) has been conducted. The Phase I ESA will be completed under the direct supervision of an individual meeting the definition of an Environmental Professional as required by the ASTM Standard for Phase I ESAs.

Can this project move forward should the \$25,000 private grant not come through? What work will the private grant cover? Is the work covered by the outside grant severable from the project as outlined?

Yes. The work proposed and described in the response is for work to be carried out with funding from the DEP. The additional grant was meant to maximize our public engagement goals for the Green property once restored. The private grant proposal sought to develop more interactive and educational features for the community. This project absolutely can move forward should the \$25,000 private grant

not come through. However, we could not move forward with the \$25,000 private grant should the DEP funding not come through.

4. Restoration

Reviewers had several questions regarding the existing conditions of the Green parcel as well as the type of restoration plantings (upland/wetland). Please clarify.

The Green Parcel currently is populated with numerous invasive trees and low lying brush. The plantings we propose include:

Upland Areas to replace invasive:

Trees:

- gray birch (*Betula populifolia*)
- eastern red cedar (*Juniperus virginiana*)

Shrubs:

- arrowwood (*Viburnum dentatum*)
- sweet pepperbush (*Clethra alnifolia*)

Along shoreline to stabilize:

Grasses:

- switch grass (*Panicum virgatum*)
- little bluestem (*Schizachyrium scoparius*)
- salt tolerant grass mix (New England Wetland Plants:

New England Coastal Salt Tolerant Grass Mix

The New England Coastal Salt Tolerant Seed Mix contains a selection of native grasses that tolerate salty conditions. This mix is appropriate for drier coastal areas that receive salt spray or mist. Always apply on clean bare soil. The mix may be applied by hydro-seeding, by mechanical spreader, or on small sites it can be spread by hand. Lightly rake, or roll to ensure proper seed to soil contact. Best results are obtained with a Spring seeding. Late Spring and early Summer seeding will benefit with a light mulching of weed-free straw to conserve moisture. If conditions are drier than usual, watering may be required. Late Fall and Winter dormant seeding require an increase in the seeding rate. Fertilization is not required unless the soils are particularly infertile. Preparation of a clean weed free soil surface is necessary for optimal results.

SPECIES: Canada Wild Rye, (*Elymus canadensis*), Creeping Red Fescue, (*Festuca rubra*), Big Blue- stem, (*Andropogon gerardii*), Little Bluestem, (*Schizachyrium scoparium*), Indian Grass, (*Sorghastrum nutans*), Side Oats Grama, (*Bouteloua curtipendula*), Switch Grass, (*Panicum virgatum*), Sand Dropseed, (*Sporobolus cryptandrus*).

Shrubs:

- beach plum (*Prunus maritima*)
- northern bayberry (*Myrica pensylvanica*)
- sea myrtle (*Baccharis halimifolia*)

Reviewers had several questions regarding the functional parameters to be monitored and long-term operation and maintenance of the proposed habitat restoration and stormwater quality improvements. For restoration projects, MassDEP requires the preparation of monitoring and maintenance plans to document pre- and post-restoration conditions and public benefits. As part of responding to the budget questions above, please describe the project partners who will be involved in preparing and implementing the restoration plan.

Horsley Witten will work with the project partners to develop an operation and maintenance plan for the restoration and stormwater improvement projects. MyRWA, CRWA and the Collaborative will identify hands-on pre- and post-restoration assessment techniques for the youth and community members to carry out. While these techniques may not meet the MA DEP stands for a QAPP certified monitoring plan, they provide anecdotal information and research to support a community based effort to restore its waterfront and improve open space and public benefits. The Collaborative has used this approach successfully with its two prior restoration efforts. These efforts build local knowledge about the environmental resources in Chelsea and how the community can work collaboratively to improve said resources.

The partners discussed at length whether or not to include an extensive water quality monitoring plan on BMP performance. The partners have decided not to include this extensive monitoring for three reasons. First, the technical challenge of returning reliable data on BMP performance requires deployment of an autosampler, sonde and weir structure – deployment would be expensive, security of equipment would be concern in public space and cost of labor for pre-and post- events would reduce funds available to restoration efforts. Second, project partners believe that the anecdotal survey approach of visual inspections will be a better investment of energy to ensure proper function of facility. Finally, MyRWA regularly collects water quality data from stormwater outfalls along Mill Creek, and their data may inform on the BMP performance over time.

5. Community Involvement/Commitment

Please describe the sequencing and interaction between the community and consultants regarding the selection, design, and implementation of measures to improve water quality and habitat and provide these benefits long-term. How will the consultants integrate restoration/technical specifications, and potential site constraints that could affect the type of BMP that can be installed on the parcel, with community feedback?

The Collaborative's Chelsea Green Space and Recreation Committee is a grassroots community committee working to bring about environmental justice in Chelsea. It is this volunteer based committee, with staff support, that will be engaged in and oversee all aspects of this project. We will follow the approaches we have with other restoration efforts, we engage residents, especially those in nearby neighborhoods in meetings, site visits and discussions to come up with their visions for the proposed areas. MyRWA and CRWA have shown other comparable projects to help spark residents' visions. The designers, in this case Horsley Witten, would take the community's feedback and base the design on that. Horsley Witten would then bring their design back to the community for review and approval. Once the community has agreed to the designs, the permitting would begin. Throughout the project, we will engage the community, especially youth, in designing and developing the wording for two interpretive signs (to complement already installed signs along the Mill Creek Walkway). At the end of the project, the community will plan a celebratory event to inaugurate the new habitat restoration project and the green infrastructure improvements. As mentioned above, the community and youth members will also be carrying out pre- and post-restoration activities to monitor the project's impact and benefit.

Are the Chelsea (and Revere?) Conservation Commissions supportive of and willing to coordinate on the work proposed in Wetland Protection Act covered resource areas?

Yes, both Conservation Commissions are supportive of these efforts. The Chelsea Conservation Commission has been interested in and supportive of our Mill Creek restoration efforts since our pilot restoration project in the late 1990s. The Revere Conservation Commission was supportive of our last effort just two years ago and project partner Andy DeSantis (mentioned above) is the Chair for the Revere Conservation Commission and has served as an agent of that body for the last 14 years.

As stated in the response, Horsley Witten is doing almost all of the bid process work and selection. Does the City concur with this approach given that the stormwater BMP work is on City property?

Horsley Witten will be preparing and assisting with the project bidding, but the Chelsea Collaborative (and the project partners) will be choosing the contractor. The City of Chelsea agrees with this approach because the funds are being provided to the Chelsea Collaborative and as such is not seen as City monies; therefore the City's procurement processes are not required. The City, through Andy DeSantis, will be involved in reviewing the bids and advising on choice of the contractor.



Proposed BMP treatment areas, Gillooly Road, Chelsea

Catchment area data provided by city of Chelsea

- ⊙ Gillooly Road outfall
- ★ Proposed BMP treatment areas
- ★ Green Infrastructure Practice location
- ★ Gillooly Road stormwater catchment

Drainage area	Acres
Total catchment	14.1
BMP treated areas, proposed	2.1



EASEMENT

G. M. L. T. H.

Agreement made this 6th day of August, 1974, between James Green and Robert W. Green, both of Peabody, Essex County, Massachusetts, Co-Partners doing business under the firm name and style of United States Realty Exchange, with an usual place of business in Chelsea Suffolk County, Massachusetts, hereinafter called the Grantor and the City of Chelsea, a municipal corporation in said County of Suffolk, hereinafter called the Grantee.

WHEREAS the Grantor is the owner of land shown on the attached plan of Gillooly Road and land of said Grantors, dated June 28, 1974, prepared by Arthur R. Giangrande, Registered Land Surveyor.

WHEREAS the Grantee, City of Chelsea, proposes to construct a storm drain across the land of the Grantors.

WITNESSETH that in consideration of One dollar (\$1.00) the receipt whereof is hereby acknowledged and the right of the Grantors to tie unto said storm drain, at its own expense, to ~~run~~ surface or storm water only, the Grantors hereby conveys to the Grantee the easements described below and shown on the aforementioned plan:

(1) a permanent easement conveying to the Grantee whatsoever rights we may have in the northwesterly portion of Gillooly Road as shown on said plan, the permanent right and privilege to construct, maintain, operate and repair a storm drain across the land of the Grantors with the

right of ingress and egress to and from the same, as shown on the accompanying plan and as described herein. And all sizes and depth of the storm drain shall be determined by the Grantee. The permanent easement is described as follows:

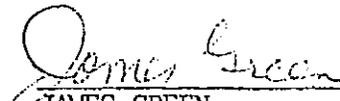
A certain easement in the City of Chelsea, Suffolk County, shown on a Plan of Land, in Chelsea, Massachusetts, prepared by the City of Chelsea; Scale fifty (50) feet to an inch, dated June 28, 1974 and further described as follows: Starting at a point on the northeasterly side of Gillooly Road and five (5) feet distant from a concrete bound; Thence running by land now or formerly of James and Robert Green in three courses; N39°-55'-26"E a distance of one hundred and eighty-one and 72 hundredths (181.72) feet; N 24°-55'-26"E a distance of eighty-five (85.00) feet; N 39°-55'-26"E a distance of two hundred and eighteen (218.00) feet to a point on Mill Creek; Thence turning and running by Mill Creek in a southeasterly direction fifteen and five tenths (15.5) feet to a point; Thence running by land of James and Robert Green in four courses; S39°-55'-26"W a distance of two hundred and twenty (220.00) feet; S24°-55'-56"W a distance of eighty-five (85.00) feet; S39°-55'-26"W a distance of one hundred and eighty-one and seventy-two hundredths (181.72) feet; N 50°-04'-34"W a distance of fifteen (15) feet to point of beginning.

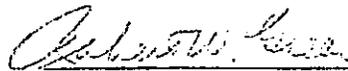
(2) A temporary easement conveying to the Grantee the

temporary right and privilege to enter on to a part of the land of the Grantors, for the purpose of construction of the storm drain. This temporary easement shall exist only for the time necessary to complete and construct the said storm drain. Being part of the land described in Certificate of Title No. 71361 recorded in Suffolk Land Registration Division Book 352, Page 161.

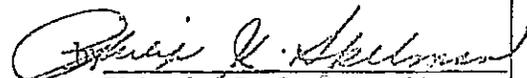
Reserving to the Grantors the right to build over the pipes in accordance with accepted engineering practices together with the right to park motor vehicles on the land covered by said easement.

IN WITNESS WHEREOF we have hereunto set our hands and seals the day and year first written above.


JAMES GREEN


ROBERT W. GREEN

City of Chelsea

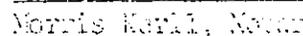

Phillip J. Spelman, Mayor

COMMONWEALTH OF MASSACHUSETTS

SUFFOLK: SS

August 6, 1974

Then personally appeared the above named James Green and Robert W. Green and acknowledged the foregoing instrument to be their free act and deed, before me.


Morris Merrill, Notary Public
By Commission Expires 12-18-80