

APPENDIX A

**Mill River Collaborative proposal for the Hurricane Sandy Coastal Resiliency
Competitive Grants, submitted to National Fish and Wildlife Foundation
(NFWF), Federal Financial Assistance Grant Number: 42984**



EasyGrantsID: 42984
 National Fish and Wildlife Foundation – Hurricane Sandy Coastal Resiliency Competitive Grants
 Program 2013, Full Proposal
 Title: Mill River Flood Mitigation and Habitat Corridor Extension
 Organization: Mill River Collaborative

Grant Information

Title of Project

Mill River Flood Mitigation and Habitat Corridor Extension

Total Amount Requested \$ 3,750,000.00
Matching Contributions Proposed \$ 7,880,235.00
Proposed Grant Period 03/02/ 2015 - 10/03/ 2016

Project Description

Changing the hydraulic capacity of the tidal estuary to remove all private properties from 1% flood risk under existing permits and create a native riparian buffer in the new greenway flood plain

Project Abstract

This is the third step in the restoration of the Mill River estuary that is changing the flood map and recreating a habitat corridor along the tidal Rippowam (Mill) River through Downtown Stamford, CT. We will modify the hydraulic capacity of the river by excavating the east bank to create a "bankful bench" on easements (part of the match). When complete, the 1% flood risk area will be wholly contained within new and existing open space and 15 properties will be removed from the 1% risk area. Along the river on the new easements and previously acquired property we will eradicate invasive species and plant 8 acres of native flora to extend our work in recreating a natural habitat corridor between the 75-acre Rippowam watershed and Long Island Sound. In 2009 we completed a \$8 million river restoration including removal of two dams and a 1,000-ft mill pond, reconstruction of the river channel, extensive invasive remediation and replanting of the river corridor over 2.0 miles with native plants purchased and propagated in our greenhouse from seed collected by our staff and high school interns. In 2013, we completed a 12-acre restoration to the immediate north of the site that lowered flood elevations in Downtown by 3 ft. Our intermediate term goal is 3 miles of restored habitat corridor and removal of all private properties from the 1% risk flood area.

Organization and Primary Contact Information

Organization Mill River Collaborative
 Organization Type Non-profit Corporation 501(c)(3)
 Organization Web Address www.millriverpark.com
 Organization Phone 203-977-4713
 Street Line 1 c/o Land Use Bureau
 Street Line 2 888 Washington Blvd.
 City, State, Country, Postal Code Stamford,Connecticut,North America - United States06904-2152
 Region (if international)
 Organization Congressional District District 4 (CT)

Primary Contact Mr. Milton Puryear
 Position/Title Executive Director



NFWF

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Program 2013, Full Proposal

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Organization: Mill River Collaborative

Street Line 1
Street Line 2
City, State, Country, Postal Code

1010 Washington Boulevard
Ground Floor
Stamford, Connecticut, North America - United States, 06901

Region (if international)
Phone and E-mail

347-432-4897 x ; milton@millriverpark.com

Keywords

Conservation Action; Conservation Threat; Land Ownership; Major Habitat Type; Other; Species

Sub-keywords

Action - Land/Water Management; Action - Land/Water Protection; Coastal - Estuaries and Bays; Fish - *Alosa aestivalis* (Blueback herring); Fish - *Alosa pseudoharengus* (Alewife); Fish - *Salvelinus fontinalis* (Sea Run Brook Trout); Mammal - *Sylvilagus transitionalis* (New England Cottontail); Species - Fish; Species - Plant; Threat - Climate Change & Severe Weather; Threat - Invasive & Other Problematic Species & Genes

Other Keyword(s)

habitat corridor connection



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Project Location Information

Project Location Description Rippowam (Mill) River in Stamford, CT from Main St to I-95 including land areas between the river and West Main St, Greenwich Ave and easements along Clinton Ave. properties.

Project Country(ies) North America - United States

Project State(s) Connecticut

Project Congressional District(s) District 4 (CT)

Permits and Approvals

Permits/Approvals Description: The entire 3-phase Mill River & Mill Pond Restoration Project was permitted in 2008. Phase 1 was completed in 2013. The Inland Water Resources Division of Connecticut Department of Environmental Protection issued permits for Stream Channel Encroachment (SCEL200602303), Water Diversion (DIV-200602304). In addition the agency's Office of Long island Sound Programs issued PERMIT NO. 200603004-SJ for the work in the tidal areas of the estuary.

Permits/Approvals Status: Received

Permits/Approvals Agency-Contact Person: Sue Jacobson

Permits/Approvals Submittal-Approval Date: 8/22/2008 12:00:00 AM



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Salaries and Benefits

	Units	Cost Per Unit	Total
Total Salaries and Benefits			\$0.00

Equipment

	Units	Cost Per Unit	Total
Total Equipment			\$0.00

Contractual Services

	Units	Cost Per Unit	Total
Restoration Services Contractor TBD	1	\$3,490,000.00	\$3,490,000.00
Final Design Services, contract documents - The OLIN Studio	1	\$260,000.00	\$260,000.00
Total Contractual Services			\$3,750,000.00
<p>\$260,000 will be used for production of bid documents and project administration services. The balance will be used for the restoration contract. The \$3.49 million contract will cover site removals, landscape including, soils, native trees and plants installed, site utilities and drainage. The restoration contract will be bid under the City of Stamford purchasing ordinance and will be awarded to the lowest qualified bidder.</p>			

Supplies and Materials

	Units	Cost Per Unit	Total



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Total Supplies and Materials			\$0.00

Printing

	Units	Cost Per Unit	Total

Total Printing			\$0.00

Travel

	Units	Cost Per Unit	Total

Total Travel			\$0.00

Other

	Units	Cost Per Unit	Total

Total Other			\$0.00

Budget Grand Total			\$3,750,000.00
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Matching Contributions

Matching Contribution Amount: \$4,208,000.00
Type: Cash
Status: Application Submitted
Source: City of Stamford
Source Type: Non-Federal
Description: Restoration costs will come from the next Mill River Corridor tax increment bond issue (\$4,208,000).

Matching Contribution Amount: \$3,000,000.00
Type: Cash
Status: Application Submitted
Source: State of Connecticut
Source Type: Non-Federal
Description: CT State bond issue in 2015

Matching Contribution Amount: \$672,235.00
Type: Cash
Status: Received
Source: City of Stamford
Source Type: Non-Federal
Description: Purchase of easements along the east side of the river to create a habitat corridor in the expanded floodplain.

Total Amount of Matching Contributions \$7,880,235.00



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Activities and Outcomes

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Wetland restoration - Acres restored

Description: Enter the number of acres restored

Required: Recommended

Acres restored - Current: 5

Acres restored - Grant Completion: 6

Notes:

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Floodplain restoration - Acres restored

Description: Enter the number of acres restored

Required: Recommended

Acres restored - Current: 12

Acres restored - Grant Completion: 20

Notes:

Funding Strategy: Habitat Management

Activity / Outcome: Sandy - Improved management practices - Acres under improved management

Description: Enter the number of acres under improved management

Required: Recommended

Acres under improved management - Current: 5

Acres under improved management - Grant Completion: 7

Notes:

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Riparian restoration - Acres restored

Description: Enter the number of acres restored

Required: Recommended

Acres restored - Current: 8

Acres restored - Grant Completion: 13

Notes:

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Riparian restoration - Miles restored



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Description: Enter the number of miles restored

Required: Recommended

Miles restored - Current: 1.5

Miles restored - Grant Completion: 2

Notes:

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Land, wetland restoration - Acres restored

Description: Enter the number of acres restored

Required: Recommended

Acres restored - Current: 6

Acres restored - Grant Completion: 10

Notes:

Funding Strategy: Habitat Management

Activity / Outcome: Sandy - BMP implementation for stormwater runoff - Acres under BMPs

Description: Enter the number of acres under Best Management Practices (BMPs)

Required: Recommended

Acres under BMPs - Current: 16.00

Acres under BMPs - Grant Completion: 20.00

Notes:

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Restoring hydrology - Acres with restored hydrology

Description: Enter the number of acres with restored hydrology

Required: Recommended

Acres with restored hydrology - Current: 14

Capacity of facility - Grant Completion: 22

Notes:



NFWF

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The following pages contain the uploaded documents, in the order shown below, as provided by the applicant:

Spatial Data
Statement of Litigation
Board of Trustees, Directors, or equivalent
Engineered Plans
Hurricane Sandy Proposal Narrative
Letters of Support
Letters of Support
A-133 Audit
GAAP audited financial statements
IRS Form 990

The following uploads do not have the same headers and footers as the previous sections of this document in order to preserve the integrity of the actual files uploaded.



Hurricane Sandy Coastal Resiliency Competitive Grants Program Full-proposal Project Narrative

Instructions: Save this document on your computer and complete the narrative in the format provided. The final narrative may not exceed ten (10) pages. Please retain the outline format below, but you may delete the instructions associated with each element. Once complete, upload this document into the on-line application as instructed.

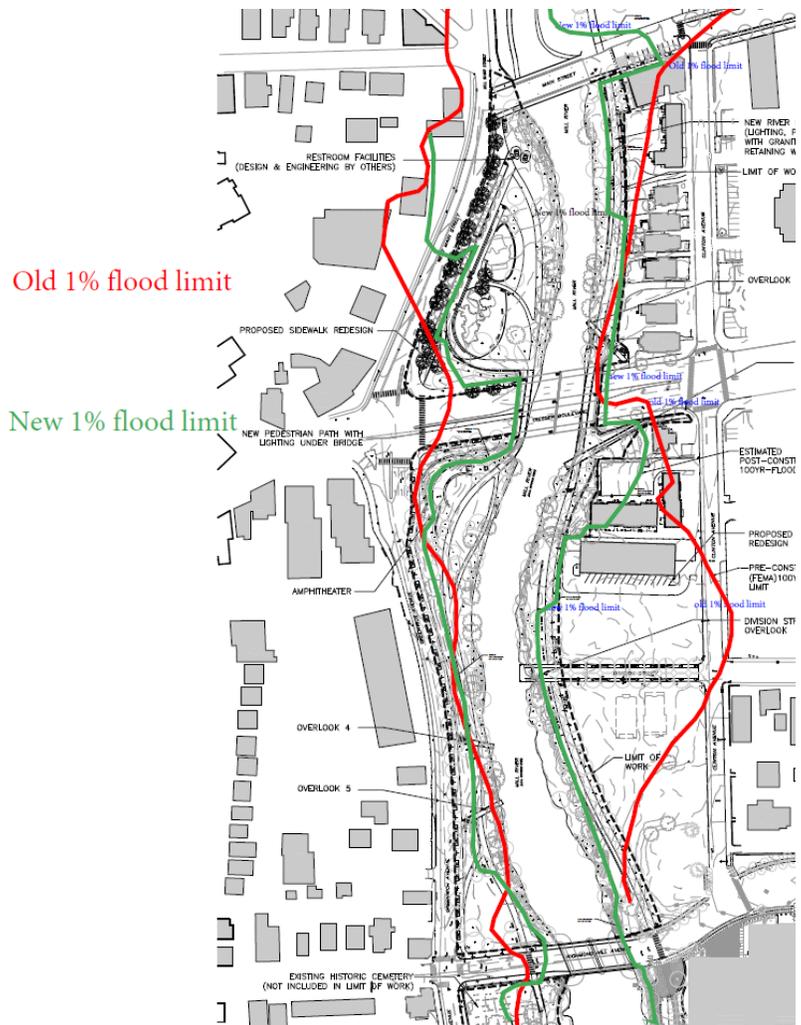
A. Geographic Context: We are reshaping the floodplain and recreating a habitat corridor along the Rippowam (Mill) River tidal estuary through Downtown Stamford, CT. This project is one phase of a 3-mile river estuary restoration through a rapidly urbanizing area. The project benefits residents of Stamford, Greenwich, New Canaan, Darien, Fairfield County and northeastern Westchester County, NY. It benefits the water quality and aquatic life, native plant and fauna communities of Long Island Sound and the 75 square mile Rippowam (Mill) River watershed. The project lies within the Mill River Corridor Redevelopment District created by the Stamford Board of Representatives in 2001. *Describe the location and extent of your project and what communities, regions or states specifically benefit from your work. You are also required to submit the Spatial Data Details form with your application.*

B. Project Narrative:

a. Project Goals: 1) To remove 22 residential and commercial properties from the 100-year floodplain and contain future floods in a new natural floodplain, 2) to complement a fully funded bridge reconstruction

to achieve this goal, 3) to expand the hydraulic capacity of the river at a point of constriction by creating a “bankful bench”, an innovative approach to increasing the river’s hydraulic capacity during storms, at two locations, 4) to use newly acquired easements to create a protected habitat corridor and riparian/upland buffer along the tidal estuary. Success will be a Letter of Flood Map Revision approved by FEMA that confirms these goals, the remediation of invasive plant communities (2 acres) and establishment of a resilient community of native wetland (1 acre), riparian (5 acres) and upland (3 acres) species.

Describe the project's specific objectives and define “success” and list the specific anticipated outputs and outcomes. Describe how this project will strengthen natural ecosystems for the benefit of fish and wildlife and reduce communities’ vulnerability to the growing risks from coastal storms, sea level rise, flooding, erosion and associated threats.



b. Priority: In 2009, we removed a dam and mill pond north of the site and created 12 acres of predominantly native wetland, meadow and woodland habitat. In the process we removed the 100-year flood from all surrounding streets and private properties for three quarters of a mile going north along the river. Subsequent to the dam removal, adult river herring have been released upstream to reestablish the spring spawning migrations, eels have migrated upstream and minks have come downstream every summer to harvest them. Numerous other species (cottontails, goldfinches, kingfishers) have returned to the restored area to the north that we are working to extend southward to connect it to Long Island Sound. The master plan for this entire effort was completed in 2007



and permitted by the State of Connecticut Department of Energy & Environmental Protection in 2008. This project will extend this flood management and habitat restoration work southward. The master plan involves rehabilitating 8 bridges that cross the estuary, and building a central park and 3-mile river greenway. The project design is based on a comprehensive hydraulic model created by engineering firm Milone & MacBroom. The habitat aspects were designed by Dr. Jeff Keller of Habitat by Design, wetland and habitat restoration specialists and include the exclusive use of native plant species. *Explain the importance of the project location, why the proposed approach or strategy is appropriate for addressing needs. Detail how the project was design was informed by sound science.*

c. Sustained Benefits: As we recreate a habitat corridor along its banks, we are committed to resolving the river’s flood issues that have persisted throughout the last century as the river channel and floodplain became more constricted due to development. We are working to bring back a balance between the urban and natural realms in Downtown Stamford that can endure over the next centuries as urban development continues by giving back to the river the space to expand during heavy storms and due to climate change. The restoration design utilizes bioengineering techniques that replicate natural systems for stream bank stabilization and erosion control. The banks will be vegetated with appropriate species to the water’s edge. This reach of the river has gentle meanders and scouring of banks is not a problem. In the reach to the north we installed four cross vanes to keep the energy of the river in the center of the channel and minimize scouring of banks. Mill River Collaborative staff installed many of the erosion control measures including coir logs and live stakes and we have the ability to maintain the work should adjustments or repairs be required during plant establishment. Mill River Collaborative has a 10-year contract with the City of Stamford to develop and maintain the project. Our work is funded by a combination of municipal and private funding from Stamford businesses, institutions and individuals. This public/private partnership was created to provide a sustainable approach to the management of the natural environment in the midst of an increasingly densely populated urban environment. Removing the 100-year flood from adjacent private properties will avoid future federal, municipal and private losses and remove constraints on the development of properties outside of the new buffer zone. The Mill River Corridor Redevelopment District surrounds the project and has been rezoned to greater density to support Stamford’s sustainability agenda of greater density around the urban core and the express train station in order to reduce reliance on auto use as the City continues to grow. *Describe how the project benefits are substantial and measurable over a long period of time, require minimal re-investment and/or operational costs after project completion, and/or account for projected changes*

Mill River Project

Sources of Funds

	To Date 11/30/13
Acquisition	
City of Stamford	\$ 16,542,000
NOAA	\$ -
State -DEP	\$ 2,564,117
Private (Dreyfus)	\$ 2,655,000
US HUD	\$ 214,527
URC	\$ 241,500
Total Acquisition	\$22,217,144
Development	
City of Stamford (incl dredge)	\$22,194,000
URC	\$ 338,558
US DOT	\$ 2,961,440
CT DEP	\$ 50,000
Private	\$15,773,921
NOAA	\$ 145,000
EPA	\$ 500,000
ACOE	\$ 4,973,000
Total Development	\$46,935,919
Project Management	
Private Donors	\$ 3,705,792
City of Stamford	\$ 1,203,000
Total Project Management	\$ 4,908,792

in environmental stressors (e.g. climate change, sea level rise, land use/urbanization).

- d. Leveraging:** This project **builds on \$78 million in prior investments** and is part of a \$100 million undertaking to resolve the river's flood issues, create a natural river corridor through Downtown with a central park and 3-mile greenway to Long Island Sound, and provide the basis for a sustainable evolution of the human systems with an appropriate balance, complement and accommodation with nature. The City of Stamford has acquired \$22 million in properties to secure the banks of the river and create a natural river corridor and habitat buffer and access to nature for people. Mill River Collaborative has led the planning and design of the project and over \$3.6 million in local private and municipal funds has been expended on planning, engineering and design. The Army Corps of Engineers' \$7.9 million Mill River & Mill Pond Restoration Project removed two dams and a 1,000-foot mill pond with \$5 million of Section 206 (of the Water Resources Development Act) habitat restoration funding for the benefit of river herring in 2008-2009. The \$11.8 million construction of the 12-acre area (Phase 1) to the north of this project site was completed in May 2013 funded by proceeds from Mill River Corridor redevelopment district tax increment financing (TIF) bonds and Collaborative capital campaign proceeds. Mill River Collaborative is in the late stages of a \$20 million capital campaign. Following the completion of the proposed project, that we call Phase 2, we will have a Phase 3 and two greenway sections to create, one each to the north and the south. Working with the City and the State we have restored two bridges that cross the river within the project site, with enhancements designed specifically to benefit the project valued at just under a million dollars. The upcoming restoration of the Main Street Bridge at the north end of the project site has received \$2.2 million in federal funding as part of a plan to create a pedestrian corridor across the river connecting the West Side Community with Downtown. Its reconstruction will complement this work by changing the hydraulic performance of the river through the removal of 9 piers. The Collaborative is also funding park amenities including a carousel, fountain and outdoor ice skating rink and park buildings in areas that were previously within the 100-year floodplain. *Explain how this project will amplify benefits of other proposed projects or ongoing resilience efforts. If applicable describe how the project complements current Hurricane Sandy project being undertaken on federal property and/or funded through the internal DOI Mitigation Funding.*
- e. Speed to Functionality:** **We have already secured permits** for this project from the Connecticut Department of Energy and Environmental Protection. **Design Plans are 70% complete.** We can complete design within six months and bid the project in nine months from grant award. Allowing an 18-month construction schedule, **the project can be completed within twenty-seven months of grant award.** *How long will it take for each of the project's benefits to be functional (i.e. have positive impacts on the resilience of the region to future storms)?*

- C. Youth and/or Veteran Engagement:** We will engage youth extensively in the project as part of our ongoing work to involve youth in the science, restoration and stewardship of the habitat corridor. We provide paid internships from April to October for 8-10 local high school *Mill River Stewards*. The stewards work under our program manager/environmental educator and team with our land management staff to complete various projects such as invasive management, seed collecting of native plants, cultivation of native plants in our nursery for transplanting along the river, working with corporate volunteer teams, planting wetland plugs and maintaining emergent meadows. The stewards also provide basic environmental orientation to younger children in Mill River Playground, which is within the project boundaries and the new floodplain. The theme of the playground is the river habitat. It contains habitat murals created by students and teachers at 5 local elementary and intermediate schools and was designed by children and built in a barn-raising 7 days in 2006 by 1,500 volunteers working three shifts a day. Most of our stewards go on to higher education and many pursue studies in the environment and sciences. Others go directly into the workforce following graduation often using the experience and skills they gained as stewards. For most stewards, this is their first paid work experience. In addition to gaining experience on specific projects in the natural environment, they receive job readiness training, training in safe work practices, introduction to environmental careers



and knowledge of beneficial species and the co-dependencies of species and humans that occur in a balanced natural/human environment. We also will host a crew of 8-10 from the Student Conservation Association (SCA) during June and July. We have hosted SCA summer crews since 2007. They work throughout the larger project area on their own set of projects under the supervision of our land management staff. The Collaborative is working with Stamford Public Schools to support STEM – Science, Technology, Engineering and Math learning. We are working directly with Hart Magnet School on these efforts as a pilot before expanding the program to all Stamford fourth grade science classes. Students learn many of the lessons of the fourth grade science curriculum through the laboratory of Mill River. Highlights include:

- Developing a 4th grade river ecosystem based curriculum aligned to Connecticut Science Standards allowing students to participate in field based “real world” science
- Developing teacher professional development opportunities, training teachers to conduct inquiry-based science research in Mill River Park
- Creating an environmental education center in Phase 1 area of the park

Through these efforts, we hope to improve STEM learning outcomes and increase students’ environmental literacy. Finally, we run a Family Nature Club program that engages families with young children in the discovery of nature’s wonders. Programs run throughout the year on weekends and more frequently during the summer.

What is the expected level of youth/veteran engagement? If there is youth/veteran engagement, what are the post-project benefits to youth/veteran participants? If there is youth engagement, what is the plan to ensure safety during the project period?

D. Collaboration and Partnerships: Mill River Collaborative was formed in 2002 to bring all stakeholders together in the planning, design, development and sustenance of the Mill River Project. Initially functioning as an unincorporated association under the guidance of the Trust for Public Land, the Collaborative was incorporated in 2006. Its board includes representation from the West Side and Downtown communities, city government, the downtown business improvement district, the Urban Redevelopment Commission, the Stamford Partnership and the business and residential communities at large. Hundreds of individuals and families have joined the Collaborative as members and dozens of companies support the organization’s operations and programs. In 2013 individual and corporate volunteer teams contributed over 8,500 volunteer hours to the Mill River Project. The Collaborative was formed as a public/private partnership to bring private skills and resources together with the City’s in order to accomplish a longstanding restoration plan the City government could not accomplish on its own. The Collaborative has a 10-year contract with the City to develop, operate and maintain the entire Mill River Project. The Mill River Project is the centerpiece of a redevelopment plan, The Mill River Corridor Plan, adopted by the City in 2001 to address blighted areas around the degraded Mill River. The broader public was engaged extensively during the planning and master planning phases of both efforts. Easements for the project are being obtained from eleven property owners. The balance of funding for the construction contract will come from the next Mill River Corridor tax increment financing



(TIF) bond issue. The project has been reviewed and supported by the Stamford Planning Board, Board of Representatives, Urban Redevelopment Commission, Environmental Protection Board, Engineering Bureau and Land Use Bureau. The Army Corps of Engineers participated in the permitting of the project and permits have been received from the Connecticut Department of Energy and Environmental Protection (CT DEEP). CTDEEP has also release alewife in the river since the dam removals to reestablish the spawning migrations and has verified the presence of river herring in the river subsequently. *How have stakeholders been involved in the planning process? What other funding or in-kind support is being contributed to this project? Indicate whether the proposed project has been reviewed by or otherwise involves the participation of appropriate local, state or federal government agencies.*

E. Work Plan & Logistics:

- a. Project Team:** **Milton Puryear, Executive Director of Mill River Collaborative** is the Project Manager who coordinates all aspects of project planning, design, construction and operations. Milton was first hired by the Collaborative in December 2003 as its first staff person. He has coordinated and led the Collaborative's work to date. He is also a co-founder of Brooklyn Greenway Initiative (BGI), which is leading the creation of the 14-mile Brooklyn Waterfront Greenway in New York City with extensive green infrastructure and natural open space elements. Milton is a member of the boards of directors of Regional Plan Association and BGI. Within the City of Stamford, the Mill River Project is housed in the **Land Use Bureau**. **Norman Cole, Bureau Chief**, his **Planning Department** led by **David Woods** and **Environmental Protection Board Staff** led by **Richard Talamelli** work to prioritize the Mill River Project within the City administration and in Stamford's Capital Budget. **Lucinda Sanders, CEO and Partner, The Olin Studio** has led the design of the Mill River Project from master plan to contract documents. She has also led the design of the Central Delaware Riverfront Master Plan in Philadelphia, Pennsylvania; and Fountain Square in Cincinnati, Ohio. She is currently co-leading a multi-disciplinary team to develop resilient post-Sandy rebuilding strategies in the Hunt's Point in the Bronx, part of the U.S. Department of Housing and Urban Development's Rebuild by Design Competition. Lucinda is the immediate past President of the Landscape Architecture Foundation, and is actively involved on multiple boards and committees dedicated to the advancement of the field of landscape architecture, urban design and planning, including the Lady Bird Johnson Wildflower Center Advisory Board, the Landscape Journal Editorial Board and the CEO Roundtable of Landscape Architects. **Dr. Jeff Keller of Habitat by Design**, as a member of Olin's consultant team, designed the stream channel reconstruction and specified the native plants to supporting the recreation of the habitat corridor. The **City of Stamford** will bid the construction in accordance with its purchasing ordinance under which construction contracts are awarded to the lowest qualified bidder. **Louis Casolo, City Engineer** will oversee construction and will assign a day-to-day construction manager from his staff. **Nicolle Burnham of Milone & MacBroom** oversaw the hydraulic modeling for the modification of the river's hydraulic characteristics including the change in the flood plain and will lead the preparation of the Letter of Map Revision (LOMR) that the City will submit to the Federal Emergency Management Agency (FEMA) to document the change in the 100-year flood plain. **Vincent Piselli, Land Manager** of the Mill River Collaborative will oversee maintenance of the project once completed. Vincent has led the on the ground restoration of the Mill River landscape since 2007 including the removal of over 5 acres of invasive species including Japanese knotweed, artemisia, bittersweet, multiflora rose and phragmites. His team runs the Collaborative's native plant nursery and includes a native plant specialist. The land management staff and its volunteers have planted over 35,000 native plants in their restoration work and the staff emphasizes teaching about the importance of native plant communities to adult and youth volunteers. *List the project's key personnel, including their affiliations and roles. Describe the strength, qualifications and nature of the contribution of your organization and other collaborating organizations to the project.*
- b. Work Plan:** Easement Acquisition will occur in the winter and spring of 2014. Easement surveys and appraisals have been completed. Contract Document production will commence immediately upon grant award. Plans are 70% complete currently. We are allowing 6 months for completion of bid documents, and another three months for bidding and contract award. Based on our experience with recent construction of Phase 1, we are comfortable with an 18-month construction schedule. Following construction completion, the Collaborative land management staff will maintain the project under the leadership of Land Manager Vincent Piselli. Also following completion, we will apply for a letter of map revision from FEMA. We estimate three months for surveys and hydraulic modeling and application preparation and six months for review at FEMA. *Describe each major activity to be undertaken including long term project maintenance, the parties responsible for each activity, and a time schedule for completion of each activity and milestone.*

	Project Schedule															
	2014				2015				2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Easement Acquisition																
Contract Documents Completion																
Bidding and Contracting																
Construction Contract																
Maintenance																
Letter of Map Revision (FEMA)																

- c. **Monitoring and Measuring Performance:** We will document the change in the hydraulic characteristics of the river and the 100-year floodplain. Our permitting consultants will conduct new surveys when construction is complete and will update their hydraulic models. The hydraulic models will be the basis for the grading plans and if the designed hydraulic performance is not achieved following completion, it will be the contractor’s responsibility to make the necessary changes to achieve the designed performance. Once the designed flood characteristics are confirmed, we will apply to FEMA for a letter of map revision. This will officially remove the adjoining private developable properties from the 100-year flood plain. The maintenance of the native plant communities and flood related hardscape such as retaining walls will be the responsibility of Mill River Collaborative. In addition to weeding, we will monitor the new plantings seasonally and will replace all that do not survive. If a species does not thrive we will replace it with other species that are doing well always working to achieve a high level of diversity. Our land care staff keeps a record of all plants that are planted including replacements. We have an amount in our operating budget for replacement plant material and order new seed, plugs and plants every year to keep the project’s flora robust. *Describe how you will monitor and measure progress toward your conservation objectives, including how the project will verify and document quantifiable results.*
- d. **Return on Investment:** The return on investment to the Department of Interior involves the reestablishment of a habitat corridor through a highly urbanized area that will connect Long Island Sound to the 75 square mile Rippowam River watershed. Already our work has connected the riverine environment through the removal of two dams and reconstruction of a river channel suitable for migration by alewife, blueback herring and eels. His project will help complete the riparian and upland portions of the habitat corridor and will protect and enrich the riverine ecology. A core objective of the Mill River Restoration is to control the areas along the river that affect the river’s condition to protect it from future degradation and recreate a resilient natural system. The easements acquired as part of the local match will accomplish this objective for most of the balance of the estuary. Further, by removing the surrounding private properties from the 1% risk flood area, this project will reduce the risk of future flood-related losses and federal flood insurance claims. It will also make the surrounding private properties in the Mill River Corridor redevelopment area more likely to be developed. The increment in real estate taxes from redevelopment will help fund further development of the habitat corridor. With the increased density available under the Mill River Corridor Plan, the City will eventually realize over \$2 million annually in incremental real estate tax revenues from the redevelopment of the surrounding properties. Finally, the project will bring into permanent balance the human and natural systems that border the river including the entire downtown. The river and its natural corridor will be permanently protected and maintained and the public will gain an appreciation of it that has not existed for hundreds of years. *What is the return on investment to DOI? To taxpayers? To the coupled human-natural system?*
- e. **Risk:** We believe the probability of a substantial failure to be low in part because the construction contract will be covered by a performance bond and because we monitor the performance of the contractor daily. The Engineering Bureau has an experienced staff of construction managers. The Bureau and Collaborative have extensive experience with all aspects of the project. We do not envision any negative impacts. The failure of structural systems will result in a claim against the contractor. The failure of plantings will be addressed by the Collaborative in its normal management of the flora of the Mill River Project. This project will reduce risks to adjoining properties and to the City and federal governments in terms of flood damage and associated costs. *Describe the probability of substantial project failure and/or the probability of*

negative impacts on coupled human natural system resilience.

- f. Permits and Approvals:** The entire 3-phase Mill River & Mill Pond Restoration Project was permitted in 2008. Phase 1 was completed in 2013. The Inland Water Resources Division of Connecticut Department of Environmental Protection issued permits for Stream Channel Encroachment (SCEL200602303), Water Diversion (DIV-200602304). In addition the agency's Office of Long island Sound Programs issued PERMIT NO. 200603004-SJ for the work in the tidal areas of the river. *If applicable, what is the project plan for obtaining necessary permits and approvals?*
- g. Safety:** All construction sites will be enclosed by 8-foot fences. The contractor will be required to submit a safety plan prior to groundbreaking. All visitors to construction sites and all workers are required to wear hard hats. We seldom have visitors on construction sites when construction work is occurring. Any volunteer work on construction sites occurs when the contractor and its workers are off duty. *If applicable, what is the project plan for ensuring safety (e.g. of personnel, equipment and construction sites)?*

DAVID R. MARTIN
MAYOR
CITY OF STAMFORD, CONNECTICUT



TEL: 203 977 4150
FAX: 203 977 5845
E-MAIL: DMARTIN@STAMFORDCT.GOV

January 14, 2014

National Fish & Wildlife Foundation
1133 Fifteenth St., N.W., Suite 1100
Washington, D.C. 20005

Dear Reviewers:

I write in support of the application submitted by the Mill River Collaborative in pursuit of the Hurricane Sandy Coastal Resiliency Grant.

The Mill River Collaborative is a public/private partnership that is leading the restoration of the Rippowam (Mill) River and the natural environment in Downtown Stamford along the tidal reach of Mill River. The Collaborative is under contract with the City to manage the planning, design, construction, operation and maintenance of the Mill River open space project.

Under the Collaborative's leadership, improvements have been extensive and have ranged from the installation of a playground, walking paths, and new gardens. The area is in the process of undergoing a remarkable transformation. In fact, many Stamford residents never expected to see the restoration of the Mill River in their lifetimes!

We look forward to working with the Collaborative on the next leg of their work, which will include flood mitigation and the re-creation of a habitat corridor between Long Island Sound and natural areas upstream.

The City of Stamford is most appreciative of NFWF's support for this project.

Yours truly,

A handwritten signature in black ink, appearing to read "David R. Martin".

David R. Martin
Mayor

MAYOR
DAVID R. MARTIN

CITY OF STAMFORD
URBAN REDEVELOPMENT COMMISSION
888 WASHINGTON BOULEVARD • STAMFORD, CT 06904-2152
TELEPHONE: (203) 327-9180 • FAX: (203) 975-1552



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EXECUTIVE DIRECTOR
RACHEL A. GOLDBERG, ESQ.
GENERAL COUNSEL

January 21, 2014

National Fish and Wildlife Foundation
133 Fifteenth Street, N.W. (Suite 1100)
Washington, DC 20005

Re: Mill River Collaborative
Hurricane Sandy Coastal Resiliency Grant Application

Dear Reviewers:

This letter is sent in support of the Mill River Collaborative grant application for funding from the Hurricane Sandy Coastal Resiliency Program.

The Mill River open space project is an outgrowth of a planning process initiated by this Commission in the 1990s. In carrying out functions of the Commission, one duty is to serve on the Board of the Collaborative.

The work completed since the Collaborative was formed, in 2002, has done a great deal to advance objectives of the Mill River Plan of the Commission. It was inconceivable that the area could be developed without first addressing the blighted and degraded river as well as adjacent properties. The Plan called for acquisition of all land that adjoined the river, and that is almost completed.

The restoration work is already accomplished. The prospect for redeveloping the corridor is increasingly seen as strong. My hope is to see the work continue. It is worthy of support from the National Fish and Wildlife Foundation.

Sincerely,

Dr. Tommie Jackson
Executive Director

Congress of the United States
Washington, DC 20510

February 3, 2014

Ms. Mandy Chestnutt
Senior Manager of Conservation Programs
National Fish and Wildlife Foundation
1133 Fifteenth Street Northwest
Suite 1100
Washington, District of Columbia 20005

Re: Hurricane Sandy Coastal Resiliency Grant

Dear Ms. Chestnutt,

We write in support of the Hurricane Sandy Coastal Resiliency Grant application of Mill River Collaborative of Stamford, Connecticut to resolve flood issues and connect important habitat areas.

In 2009, at the recommendation of an Army Corps of Engineers study on how to address chronic flooding of Mill River, the removal of Mill Pond and the Mill River dams was completed to restore migratory spawning habitat for river herring. Utilizing \$5 million in federal funds from the Army Corps, as well as \$3 million from the city, the removal opened up the river, creating four miles of new spawning habitat for herring and restoring native vegetation along the edge of the river, thus improving their habitat. With this removal project, restoration of some areas along Mill River occurred.

This project, known as the Mill River Park & Greenway Phase 2, seeks to restore the Mill River estuary south of where Mill Pond was previously located. If funded, this next phase of the restoration will be able to remove private properties from the 100-year Mill River Floodplain. The next phase will also complete the restoration in this section of the river corridor land along each side of the river to better protect and control it which, when restored with native plants, will function as a habitat corridor and allow wildlife to travel through it on land and water. Additionally, the next phase will extend the existing habitat corridor and address the effects of chronic flooding. For people, the greenway will serve as a north-south non-motorized route for active recreation and commuting and is anticipated as an important element in a future citywide bike-pedestrian network.

Last year, the city completed a related \$12 million restoration of 12 acres just north of the proposed project. This project restored wetland, riparian, and upland areas. It lowered downtown flood elevations by over three feet while contracting the 100-year floodplain from surrounding streets and properties to be contained in the park floodplain. The project received

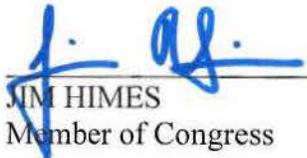
\$500,000 from the Long Island Sound Futures Fund administered by NFWF to implement comprehensive best-management practices and preferred storm-water management measures.

It is our hope that NFWF and the Department of Interior will continue its collaboration on this restoration project. We fully support the Mill River Collaborative's application and ask for your serious consideration of this worthy project.

Sincerely,


RICHARD BLUMENTHAL
United States Senate


CHRISTOPHER S. MURPHY
United States Senate


JIM HIMES
Member of Congress

MILL RIVER PARK - MIDDLE CORRIDOR



CITY OF STAMFORD
888 Washington Boulevard
P.O. Box 10152
Stamford, CT 06904-2152



Landscape Architect:

OLIN

150 S. Independence Mall West
Philadelphia, PA 19106

Civil Engineer:

Nitsch Engineering, Inc.

186 Lincoln Street, Suite 200
Boston, MA 02111

Irrigation Design:

Northern Designs, LLC

2089 Hartford Turnpike
North Haven, CT 06473

Lighting Design:

Tillett Lighting Design, Inc.

172 North 11th Street, Studio 5
Brooklyn, NY 11211

Restoration Ecologist:

Habitat by Design

74 Stagecoach Road
Pipersville, PA 18947

Structural/MEP Engineers:

Fay, Spofford & Thorndike

5 Burlington Woods
Burlington, MA 01803

Geotechnical Engineers:

GZA GeoEnvironmental, Inc

530 Broadway
Providence, RI 02909





NFWF

Statement of Litigation

Instructions: Save this document on your computer and complete. The final narrative should not exceed two (2) pages; do not delete the text provided below. Once complete, upload this document into the on-line application as instructed.

Litigation: In the space provided below, state any litigation (including bankruptcies) involving your organization and either a federal, state, or local government agency as parties. This includes anticipated litigation, pending litigation, or litigation completed within the past twelve months. Federal, state, and local government applicants are not required to complete this section. If your organization is not involved in any litigation, please state below.

Mill River Collaborative is and has not been involved in any litigation.

Mill River Collaborative Board of Directors	
Name	Affiliation
Arnold M. Karp, Treasurer	Karp Associates
Arthur Selkowitz, Chairman	
Bill Hennessey	Sandak, Hennessey & Greco LLP
Bob Phillips	
David Kooris	
Diana Lenkowsky	Purdue Pharma
Don Brownstein	Structured Portfolio Management
Ernie Orgera	City of Stamford

Fabrizio Zichichi	Morgan Stanley
Frank Mercede	Frank Mercede & Sons
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Ken Jacobsen	Jacobsen & Company P.C.
Mary Shanahan	
Michael Widland	Shipman & Goodwin LLP
Norman Cole	City of Stamford
Dr. Tommie Jackson	URC
Robin Graham	James Graham & Sons, Inc.

Robin Stein	
Sandy Goldstein	Downtown Special Services District
Shelly Nichani	Hampton Inn
Stephen Osman	
Tia Silas	Pitney Bowes