BSC GROUP

TECHNICAL PROPOSAL / MAY 18, 2023

Stow Acres Climate Resilience Master Plan

Town of Stow, MA

BSC GROUP

BUILD | SUPPORT | CONNECT

Engineers
Environmental Scientists
Software Developers
Landscape Architects
Planners
Surveyors

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MAY 18, 2023

Town of Stow
Attn: Procurement
Denise M. Dembkoski
Stow Town Building
380 Great Road
Stow, MA 01775

RE: Technical Proposal - Climate Resilience Master Plan

Dear Ms. Dembkoski,

The Town of Stow has been at the forefront of preservation and the recent acquisition of Stow Acres provides the opportunity for a balanced approach to climate resiliency, redevelopment growth, and initiatives to strengthen the ecological infrastructure of the town and create new, sustainable recreational assets. The Stow Acres Climate Resilience Master Plan is an opportunity to ensure that the Town of Stow is better equipped to manage the challenges of an increasing population and flooding due to climate change, while addressing the issues pertaining to environmental justice groups. Taking these steps is an excellent measure of the town's commitment to protecting the people, places, and vibrancy of the Stow community. To best serve the Town of Stow, our proposed team offers several advantages in support of this project, including:

Highly Qualified Project Management Team to Direct Project Success
Leading BSC's project team as principal-in-charge is Jef Fasser, RLA, AICP, LEED AP. A seasoned planner, Jef brings over four decades of experience with projects involving green infrastructure development, including the development of Municipal Vulnerability Plans for various communities throughout Massachusetts. Jef will be supported by BSC's Director of Climate Resilient Design Pallavi Mande, who will serve as project manager. Pallavi's design practice is heavily grounded in an understanding of watershed science and engineering with the goal of restoring natural resources, as well as improving a community's quality of life. With over 20 years of experience in environmental planning and green infrastructure design, Pallavi brings tremendous knowledge and expertise in developing nature and community based solutions for climate resilience. Having previously served as the Director of Watershed Resilience at the Charles River Watershed Association, Pallavi has assisted many cities and towns - including Brookline, Milford, and Weston - with their Municipal Vulnerable Preparedness planning and action grants. In addition, she has led the design and implementation of several green infrastructure demonstration projects, ranging from Edenfield Avenue Green Street Project in Watertown, MA; Mace Apartments Parking Lot Retrofit in Chelsea, MA; as well as the Porous Alley Demonstration Project in Boston, MA. Funding for all these projects was secured from state agencies such as MA DEP (through 319 Grants) and the Mass Environmental Trust.

Extensive Planning Experience
BSC approaches planning projects with a pragmatic perspective focused on providing feasible and realistic implementation strategies. We have been part of numerous successful projects that take advantage of the programs available through the Massachusetts Department of Conservation Services, MassDevelopment, EOEEA, and EOHED to enact meaningful and productive improvements.

We Embrace Innovation and Nature-Based Solutions
Creativity and sustainability are pivotal to our approach to project solutions including the design of pedestrian bridges, pathways, invasive species management, and stormwater management. Our team is adept at finding quality solutions to protect and enhance natural resources while improving recreational features with activities to draw residents to valuable and interesting passive and active parks.

Experience Managing Grant-Funded Municipal Projects
BSC's proposed team has experience working with various funding sources for municipal infrastructure projects, including trails, parks, and open space acquisition. We regularly work on publicly funded improvement projects and have worked with clients in identifying and accessing additional grant funding to support design and construction.

Leadership in Site Planning and Design Driven by Stakeholder Engagement
BSC's team of landscape architects, engineers, and planners has extensive site planning and design experience. We will work with the Town of Stow to develop innovative solutions that will enhance recreational opportunities for the community. Our staff understands the critical components of this project, including community outreach and public input, as well as park master plan schematics, design development, and phasing of construction and costs. As a firm, we place significant importance on community outreach, and directing a community-driven process that encourages citizens to envision potential facility uses, consider local values, existing park assets, and fiscal limitations. We build these components into our plans and designs because they play an important role in the long-term, cost-effective upkeep of the project.

Extensive Experience in Recreational Trail Engineering and Design and Consensus Building
BSC has successfully guided many communities through the complex intricacies of trail development, from initial planning, design, and funding to public outreach and construction. Our team is adept at all disciplines of trail conceptual design, including safety standards, permitting, wetland assessment and delineation, floodplain management, and transportation planning. Communities in which we have provided trail design services include Ashland, Boston, Hingham, Hudson, Lowell, Peabody, and Worcester, MA, as well as Bolton, Coventry, Milford, Newington, and Storrs, CT, many with conditions similar to those being faced in the Town of Stow.

Proven and Long-Lasting Commitment to Meeting Regulatory Compliance
BSC has been serving, coordinating with, and adhering to the rules and regulations of federal, state, and local public agencies since the firm's founding. With our ongoing work performing engineering, permitting, ecological, climate resiliency, and land surveying services on hundreds of projects across New England, we maintain a working knowledge of various agencies' procedures and protocols, and we have demonstrated our ability to navigate regulatory processes efficiently and effectively.

BSC acknowledges receipt of addendum #1 issued April 26. We also acknowledge that two members of the Stow Conservation Commission are connected to BSC. Ingeborg Hegemann in a member of the BSC Board of Directors, and Doug Morse is a staff member. Neither of these people participated in the preparation of BSC's response to this RFP and neither will be working on the project. In adition neither Ingeborg nor Doug are BSC stockholders and therefore will not realize any financial gain from this project.

We appreciate this opportunity and the thoughtful consideration of our proposal. We are confident that our expertise and experience can help the Town of Stow turn its ambitions into reality. Please contact me if you have any questions or wish to schedule an interview.

Sincerely,
BSC Group, Inc.

James "Jef" E. Fasser, RLA, AICP, LEED AP
Vice President and Principal-in-Charge
617-896-4335
jfasser@bscgroup.com

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BSC GROUP

Firm Profile

FIRM OVERVIEW

At BSC, we partner with our clients to deliver creative and practical, climate-resilient land development, environmental, and multimodal transportation solutions.

Our diverse team of planners, engineers, landscape architects, and environmental scientists apply current tools and methodologies to provide decision-makers with climate adaptation and mitigation solutions that are cost-effective, resilient, and socially just.

Our team of industry experts works collaboratively to assure considerations of climate resilience remain a key feature of project implementation. Our focus on co-benefits also seeks to address the source of climate change through applied solutions that draw upon natural and built carbon mitigation strategies.

BSC's landscape architects, engineers, planners, and scientists take pride in their ability to respond nimbly to move projects forward. We solve complex challenges by applying expertise across disciplines, sharing ideas and perspectives to see a project from every side.

The purpose of our work is to improve the quality of life in and around our communities using our skills and experience to promote balance between the built and natural environment. Proudly employee-owned, our people are the heart of our company.

Clients trust BSC to work with them to expertly guide siting, strategically navigate regulatory processes, and holistically design infrastructure to help achieve their vision.

BSC GROUP

WWW.BSCGROUP.COM

OFFICE LOCATIONS

HEADQUARTERS

Boston, MA

Andover, MA

West Yarmouth, MA

Worcester, MA

Glastonbury, CT

Manchester, NH

1965
BSC FOUNDED

186
TEAM MEMBERS

OWNERSHIP STATUS AND EMPLOYMENT PRACTICES

BSC Companies, d/b/a BSC Group, Inc. (BSC) offers the services of over 180 professionals operating out of six offices in Connecticut, Massachusetts, and New Hampshire. BSC was incorporated in the Commonwealth of Massachusetts in 1965. The company is led by the President, in conjunction with the leadership team, and is governed by a Board of Directors.

BSC is an employee-owned corporation. The firm has evolved over more than five decades to provide fully integrated services to support a broad range of projects in the built and natural environments.

In 2019, BSC Group made an internal commitment to diversity and inclusion and created a formal program. BSC's IDEA Council (Inclusion, Diversity, Equity, Awareness) promotes an inclusive culture that values diverse individuals and perspectives allowing employees to thrive. The IDEA Council is the umbrella to the five Employee Resource Groups (ERGs) including multicultural, new professionals, wellness, women's, and working parents and includes nearly 70 active members firmwide.

Key Contacts

James E. "Jef" Fasser, RLA, AICP, LEED AP
Principal-In-Charge
617-896-4335
jfasser@bscgroup.com

Pallavi Kalia Mande
Project Manager
617-896-4542
pmande@bscgroup.com

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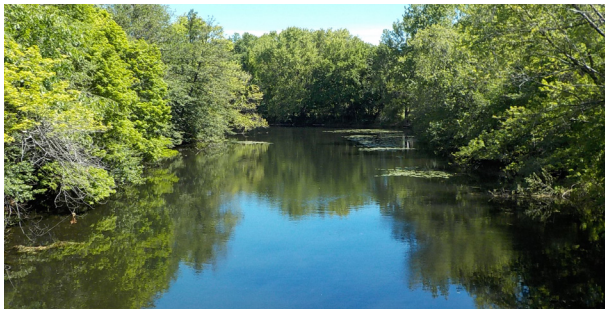


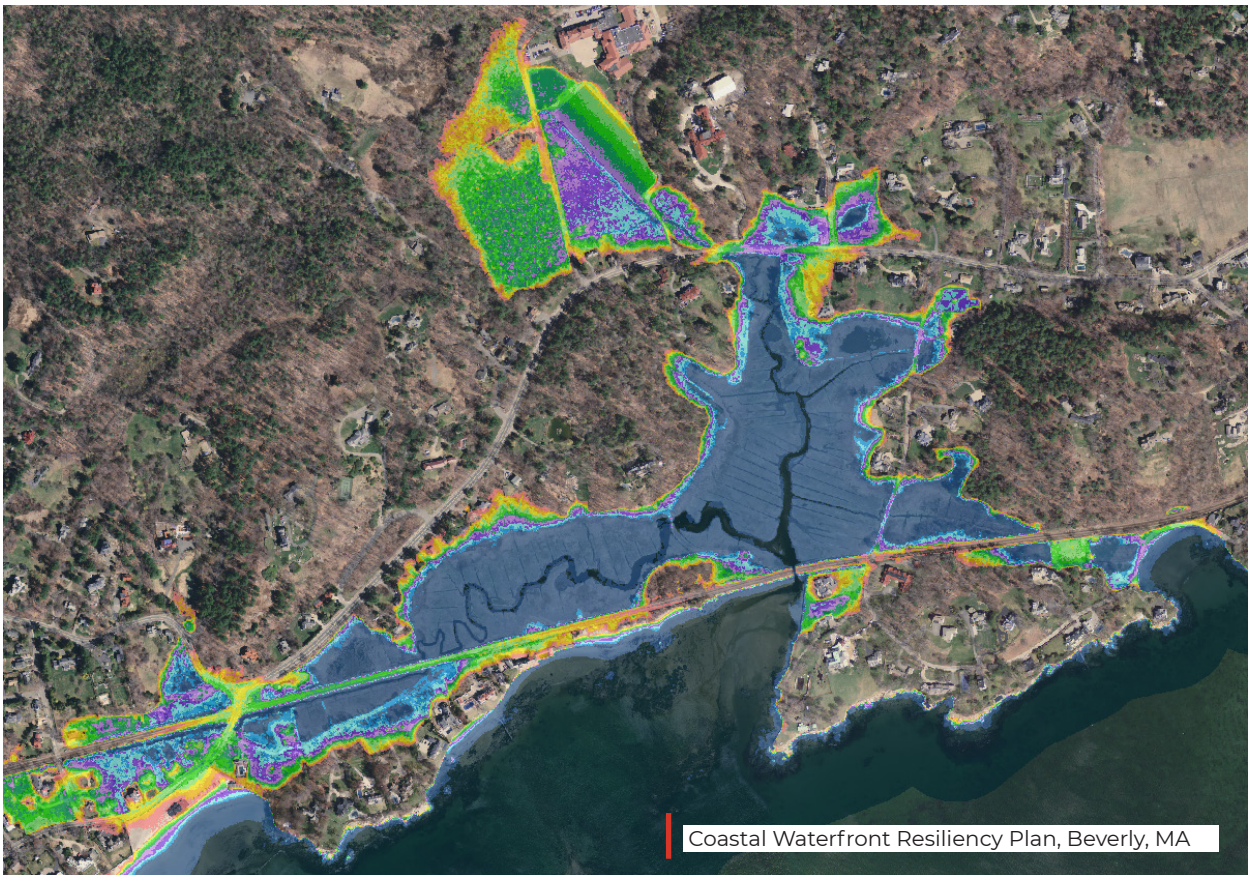
PUTTING OUR EXPERTISE TO WORK FOR THE TOWN OF STOW

We understand that the Town of Stow is seeking consulting services from a multidisciplinary firm who can use creativity, flexibility and innovation in ecological design and community outreach to develop a Climate Resilience Master Plan for Stow Acres North. The Master Plan will guide the overall restoration of the property and allow it to serve as a model resilient conservation and park destination.

BSC routinely partners with cities, towns, and state agencies to achieve vibrant public spaces, public health and social well-being, and resilient and sustainable supporting infrastructure. We work side-by-side with our clients to integrate climate resilience, ecological restoration, and natural climate solutions into projects to help them realize their vision. By identifying funding mechanisms, fostering a robust public engagement process, and focusing on co-benefits, BSC delivers pragmatic solutions that have a lasting impact.

Municipal clients we have served in this capacity include the Towns of Amesbury, Bolton, Devens, Harvard, Georgetown, Hudson, Wenham, and Shrewsbury, as well as the Cities of Everett, and Worcester. We have also served such state agencies as the Department of Conservation and Recreation, the Massachusetts Bay Transit Authority, Massachusetts Department of Transportation, and the Executive Office of Environmental Affairs.

Importantly, BSC has led the MVP designation planning process for several communities across the Commonwealth, giving us ample expertise dealing with and adhering to the MVP funding protocols through EOEA.



Coastal Waterfront Resiliency Plan, Beverly, MA

OVERVIEW OF REPRESENTATIVE SERVICES

On the pages that follow, we have provided an overview of the services required to support the development of a Climate Resilience Master Plan for Stow Acres North. Examples of similar projects can be found at the conclusion of this section of the proposal.

Landscape Architecture/Design

BSC's in-house landscape design team works closely with technical disciplines in a thoughtful exchange of ideas resulting in the development of innovative designs that are environmentally sensitive, aesthetically pleasing, and cost-effective. BSC has supported communities in their consideration of projects of all types, including municipal parks. We provide landscape design for linear pedestrian-oriented trails and walkways that connect communities, as well as passive parks, open space plans, and general aesthetic improvements. Key to BSC's approach is their commitment to working with clients to define their overall goals and incorporate them into appropriate design elements.

> Inspired by nature, informed by the built environment, and sensitive to the cultural context of our place, BSC's landscape architects create and implement ideas that appeal, sustain, and endure.

BSC applied Nature-based Solutions to Rivergreen Park, a multi-use park located on a former industrial site along the Malden River, to jump-start the ecological processes needed to establish a community of plants, insects, birds, animals, fungi and microbes.

Ecological Design and Habitat Restoration

BSC staff includes recognized experts in wetland ecology, who provide services in wetland delineation/assessment, impact assessment, wetland mitigation plan development/ assessment, wetland restoration/ replacement design and implementation, and long-term monitoring plans.

BSC Group's ecological staff also have experience in gathering accurate and objective information related to wildlife habitat and rare species to help our clients successfully address complex state and federal regulations protecting rare plants and animals. BSC's project experience includes: natural resource inventories, habitat assessments, development of rare species survey protocols, rare plant and animal field surveys, impact assessment and mitigation, and the preparation of rare species Conservation Permits. Following the permit process BSC ecologists can assist with contractor training and education for rare species and construction related oversight to ensure compliance with relevant permits.

BSC employs ecologists who have the following specialties related to habitat assessment and rare species surveys: botany, herpetology, ornithology, mammalogy, and entomology.

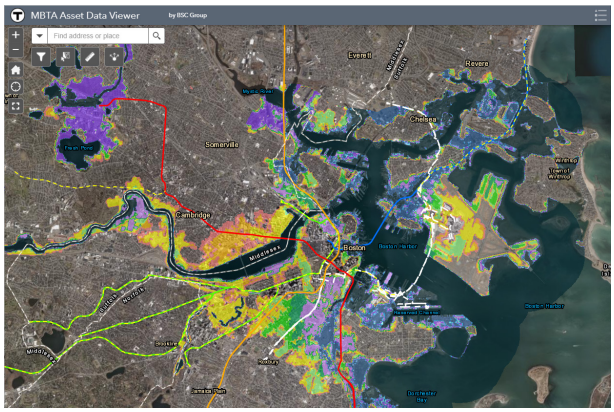
Climate Resilience

BSC has supported local governments of all sizes across the region with planning and preparing for climate change. Our experience allows us to anticipate the challenges of introducing new plans, policies and processes within local government and across communities.

BSC Group has helped communities at the forefront of resilience planning develop road-maps for climate adaptation. Of particular note, BSC provided climate resiliency and carbon planning assessment services to the communities of Bolton, Harvard, and Devens MA using a regional approach. The effort was funded by a MVP Action Grant and highlighted opportunities for resiliency using nature-based solutions and implemented climate-smart best management practices and policies.

Our climate resilience consulting capabilities include:

- Sustainable and Resilient Planning, Permit-ting, and Design
- Climate Vulnerability Analysis
- Nature-Based Solutions
- Low Impact Development Strategies
- Renewable Energy, Site Assessments, Survey, and Permitting
- GIS Hazard and Natural Resources Mapping
- GIS mapping and use of Climate Resilience and Mitigation Tools
- Stormwater Management and Flood Protec-tion
- Climate Resilient Zoning/By-Laws
- Ecological Restoration
- Resilient Design Guides and Standards and Flood Protection



As part of an on-call contract with the MBTA for providing Climate Change and Vulnerability Assessment and Adaptation services , BSC developed a GIS Database and Prioritization and Indexing Methodology that includes an inventory of critical power, signaling, and communication system assets at risk to climate change extremes.

Recreation Facility Planning

Municipal parks and recreation areas must be planned for and designed to respond to the needs and interests of a large constituency, offering resources for active and passive recreation, as well as organized sports. BSC is well versed in the planning and design of municipal parks and athletics venues, having supported numerous communities in the development of new and rehabilitated recreation areas. BSC is confident in our ability to offer expertise in these areas, and to provide solutions that are realistic and usable.

BSC brings our clients' visions to reality by listening and understanding, using our skills and knowledge to help create a workable solution. Focused site design and landscape architecture contribute to the creation of attractive, functional spaces that are shaped to capitalize on the sense of place.

We prepare well-thought-out implementation strategies for both the short and long term; and we are well regarded for our credentials helping clients prepare for climate change.

BSC's approach emphasizes elements most critical to project success, including community engagement, funding options, and environmental impacts and permitting. We also consider the impacts of proposed actions on traffic, the local economy, and municipal services to assure that recommended alternatives positively affect the community.

BSC brings clients' visions to reality by listening and understanding, using our skills and knowledge to help create a workable solution.

BSC worked with the City of Worcester, Greater Worcester Land Trust, and the Quinsigamond Village Association to plan, fund, permit, design, and administer the construction of this arts integrated, ecological river park with trails, overlooks, boardwalks, interpretive features, and ecological habitat amenities to support passive recreation, education activities, and nature observation.

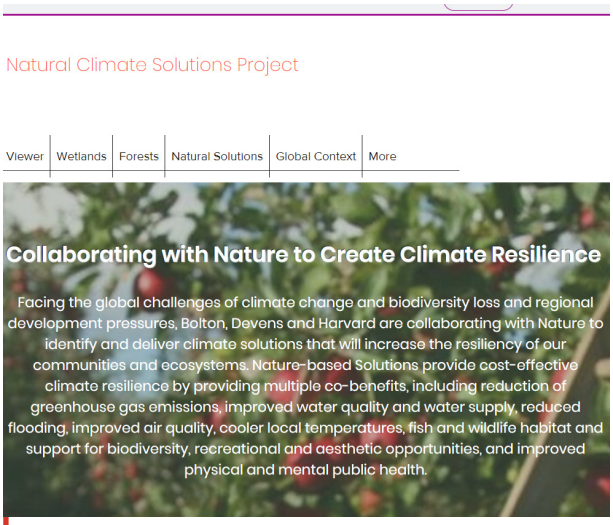
Community Outreach

Essential to the success of community climate action is the meaningful incorporation of community and municipal goals. BSC regularly leads public meetings and visioning workshops to invite the community and municipal groups to participate creation of goals and actions. The overarching theme of our efforts is equity, giving all community members the opportunity participate on equal footing. Also central to our success is our ability to communicate with the public and other key stakeholders without the use of technical jargon that many people may find to be off-putting. We endeavor to communicate in everyday language and provide effective ongoing engagement in a way that will grab and keep the attention of your community members.

Key services provided by BSC include:

- Preparation for public meetings and presentation materials
- Creation of websites and social media presence, including sites such as Facebook, Instagram, Twitter, CoUrbanize
- Coordination of fun and innovative programs to encourage participation.
- Preparation of exciting and colorful graphics to help participants envision future improvements and to serve as the inspiration for their own suggestions
- Development of project specific branding, including logos to build recognition

> The overarching theme of BSC's community outreach efforts is equity, giving all community members the opportunity participate on equal footing.



To encourage engagement in the public participation process for the Apple Country Apple Country Ecological Climate Resiliency and Carbon Planning and Assessment project, a collaborative effort between BSC Group and Linnean Solutions, the team implemented a project website with interactive data-viewer mapping, survey, storymap, educational materials, and project documents.

Environmental Permitting

BSC's permitting team brings decades of experience in the coastal zone, freshwater, and marine environments, and in complex urban settings where natural resources, built infrastructure, and rich cultural assets are protected under local, state, and federal regulations. BSC has a strong record of performance in helping our clients obtain necessary permits and achieve regulatory compliance at the federal, state, and municipal levels. The regulatory analysis and proactive strategy toward permit applications result in timely and complete project approvals. Because most of the projects BSC designs require regulatory approvals, they have earned extensive experience securing permits and approvals through commissions and boards at all levels. BSC routinely prepares permit application packages, narratives, exhibits, and provide presentations of projects at commission/board meetings and public meetings.

In addition to maintaining high standards for QA/QC and Cost Estimating, BSC encourages staff to become lifelong learners, obtain professional certifications and licenses, and remain active in their professions.

Project Management and Cost Estimating.

BSC Group is strongly committed to providing clients with professional and quality deliverables and accurate cost estimates. We do this not only by encouraging staff to become lifelong learners, obtain professional certifications and licenses, and remain active in their professions, but by implementing effective quality assurance/quality control (QA/QC) and cost estimating procedures.

QA/QC Program

Quality work is the responsibility of every individual. BSC's Quality Assurance/Quality Control (QA/QC) Program supplements the traditional and continuing role of the Project Manager, who assumes primary responsibility for QA/QC and client satisfaction on each project.

The primary goals of BSC's corporate-wide QA/QC program are:

- Conformance with federal, state and local requirements
- Conformance to professional standards
- Avoidance of wasted effort through improved efficiency of operations
- Client satisfaction

The corporate QA/QC Program is applied to all of BSC's projects and service areas. To assist the Town of Stow in reviewing this section of our proposal, this serves as a summary of our QA/QC plan, however we are happy to make it available upon request.

Cost Estimating

The development of accurate cost estimates is an important service that BSC provides to our clients. Accurate estimates are critical to assuring that the project's design is in-line with available funding. BSC tailors the construction cost estimating process to meet the needs of each project, and estimates range from order-of-magnitude costs for early stage planning studies to detailed line-item costs. BSC prepares cost estimates based on the material types and quantities included at each stage of the design. BSC uses the Unit Quantity Method for developing cost estimates, whereas the project is divided into the various individual operations or items that collectively "build" the finished product.

Because a large percentage of our projects go through a public bidding process, we use real construction cost data from comparative projects as a benchmark when estimating costs. We typically use current bid data from comparative state and municipal projects as a guide. Each estimate is tailored to specific site circumstances, and typically the cost range is based on a minimum and maximum estimated quantity for the various line items of work, along with an appropriate contingency based on the stage of the design process.

BSC TEAM EXPERIENCE

On the following pages we have provided descriptions of our experience providing services similar to those required for this project.

HUDSON RIVERWALK

HUDSON, MA

CLIENT

Town of Hudson

SERVICES

Planning

Permitting and Approvals

Landscape Architecture

Community Engagement

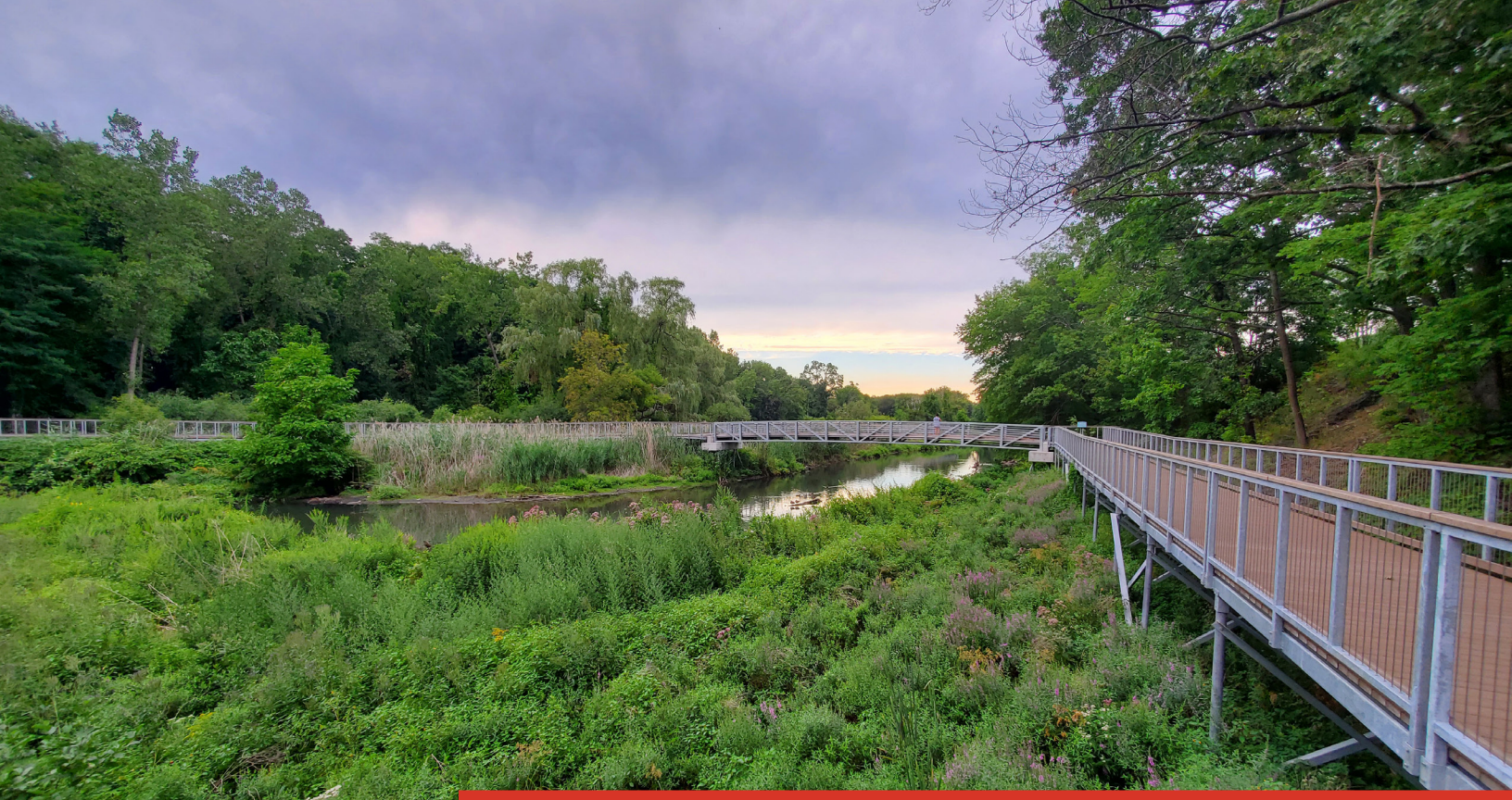
BSC's design improves accessibility, complements the downtown, and provides connectivity between downtown Hudson and the Assabet River, an inviting community amenity.

The Town of Hudson is effectively using infrastructure improvements to bolster economic development for its downtown area. One element of this program is the rejuvenation of the riverwalk to create new connections between the downtown and the Assabet River. BSC Group, a long-term partner with the Town of Hudson for the planning and design of transportation, streetscape, and infrastructure improvements, is working with the town to plan and design improvements to the riverwalk.

The town's purpose for the riverwalk project is to improve accessibility, complement the downtown, and create an inviting community amenity. Honoring the town's history as a former shoe manufacturing hub, the design will feature artifacts of the town's industrial past, such as abutments from a former bridge, adjacent mill buildings, and historic stone walls. These features will be complemented by modern amenities, including seating, accessible walkways, and parking improvements at the trailhead. Connections to the downtown and the Assabet River Rail Trail will invite users to the riverfront and create a lively amenity for the community.

Restoring the Riverfront. In addition to aesthetic improvements, the riverwalk project presents the opportunity to restore the river's ecology. Removal and management of invasive species will restore river views and allow for the reestablishment of native species as well as stabilization of the riverbank through low impact stormwater management. Restoration will also improve habitat for a variety of local species including painted turtles, heron, and fish.

Dynamic and Productive Community Engagement. Working with a group of invested and activated residents, BSC developed a dynamic community engagement program that helped residents to develop clear objectives and priorities for the riverwalk project as well as a preferred design palette. BSC guided these discussions and offered visual graphics that helped residents to understand the project's opportunities and constraints. An ArcGIS Story Map provided an interactive, georeferenced web tool for residents to acquaint themselves with the site's history and potential.



BLACKSTONE GATEWAY PARK

WORCESTER, MA

CLIENT

City of Worcester

SERVICES

Master Planning

Landscape Architecture

Public Participation

Habitat Restoration

Multi-use Path and Bridge Design

Structural Engineering

Civil Engineering

Land Survey

Environmental Planning and Permitting

Grant Funding Assistance

BSC Group worked with the City of Worcester, Greater Worcester Land Trust, and the Quinsigamond Village Association to plan, fund, permit, design, and administer the construction of this arts integrated, ecological river park with trails, overlooks, boardwalks, interpretive features, and ecological habitat amenities to support passive recreation, education activities, and nature observation.

Located on 34 acres of conservation land in the City of Worcester, alongside the Middle River head water of the Blackstone, the park provides access to an urban wild, the first of its kind for the City of Worcester. Elements of the park space include temporal public art, monumental gateways, site furnishings designed by local artists to interpret the history and meaning of the site even solar powered lights and communication. Subtle functional details such as cable rails along the boardwalk reference the area's industrial heritage as a wire and cable producer. Interpretive signage throughout the park are digitally keyed for smart phone users to listen to and reference historic and ecological descriptions and bird calls.

Bridge and Boardwalk Design. BSC permitted, designed and detailed a series of pedestrian bridges, overlooks, and a boardwalk system to establish this first of its kind ecological park in the City of Worcester. The boardwalk guides visitors through the landscape with twists and turns designed to create a variety of views and experiences of the riparian wetlands. The first pedestrian bridge spans the river adjacent to an existing mill dam and active railroad trestle. Detailing of the bridge was done with history and ecology in mind. Cable railings allow for top visibility across the site, and are a nod to the wire

manufacturing industry that once occupied the site. The decks and rails are fully recycled and recyclable plastic lumber. The modular frames are galvanized tube steel supported on helical piles that allowed us to support the system well above flood elevation with no disturbance to potentially contaminated sediment below the former mill pond, and with minimal impact to the wetland or flood storage volumes. The strength of this system allowed us to cut the duration of temporary disturbance as well. The decks were installed from the top down after piles were set and wetland matting was removed. Significant soil analysis and geotechnical engineering were performed prior to construction to verify the feasibility of the selected route for the boardwalk which went in with remarkable ease and speed. Being an elevated deck system allows the wetlands below to function with minimal disruption. Scenic overlooks along the boardwalks allow space for observation and contemplation from a number of unique perspectives. These also include signs providing interpretation of species and natural process, as well as custom furnishings designed by local artists to express the creativity and industrious spirit of the City of Worcester.

Ecological Restoration. A key element of the project was structural detailing and construction methods that minimize ecological impact such as recycled plastic decking, helical piles that support the board walk above flood elevations and have the smallest possible temporary or permanent impacts within the riparian wetland. Compensatory flood storage and wetland replication are part of the park setting where interpretive signage provides an opportunity for visitors to see and learn about ecological mitigation and habitat enhancement.

In addition to wetland replication, habitat enhancements were provided including snag trees, brush thickets, and cobble cairns. No organic vegetation was removed from the site in the process of construction.

Permitting and Public Outreach. The project went through a series of public meetings and regulatory board hearings, and was vetted through both the MEPA and Waterways License processes at the state level. Both of these state actions include public notice and participation.

Grant Application Assistance. BSC Group assisted in the preparation of an application for Urban Rivers Initiative grant funding, which supported first phase of design development.

APPLE COUNTRY ECOLOGICAL CLIMATE RESILIENCY AND CARBON PLANNING AND ASSESSMENT

BOLTON, MASSACHUSETTS

CLIENT

Towns of Bolton, Harvard, and Devens Regional Enterprise Zone (Devens)

SERVICES

Climate Vulnerability Assessment

Climate Resilience Planning

Ecological Carbon Assessment

Identification of Nature-based Solutions

Community Stakeholder Engagement

Development of Educational Resources

Grant Proposal Preparation

As part of a regional approach to climate resiliency planning, BSC Group worked with the Towns of Bolton and Harvard, and the Devens Regional Enterprise Zone (Devens) and led a multi-disciplinary consulting team that included healthy soils experts (Linnean Solutions and Regenerative Design Group) and a forest ecologist/ forest carbon expert (Woodwell Climate Research Center) to provide climate resiliency and carbon planning assessment services. The project was funded by an MVP Action Grant that was awarded to the communities following a BSC-supported application process.

Apple Country's vast landscape of forests, farmland, wetlands, and active floodplains plays an essential role in the area's ecological functioning, carbon functioning, and regional community and environmental resiliency. BSC's team of ecologists, landscape architects, climate resilience specialists, designers, engineers, and GIS specialists analyzed local ecological resources, conducted community outreach and engagement, and developed GIS mapping to produce predicative climate-focused documents and maps that identify and prioritize Nature-based Solutions (NbS), best management practices, and policies.

The project report highlighted opportunities for resiliency and protection of wetland and forest carbon using NbS, and implemented climate-smart best management practices and policies. The resulting report provided a regional perspective, analysis, and recommendations as well as town-specific assessment and recommendations.

Public engagement played a large role in the project, requiring meaningful community input. BSC has implemented a process that aims to understand community opinions, local knowledge, needs, and future visions, including print, digital, and COVID-compliant online and in-person involvement opportunities. To encourage engagement, a project website included interactive data-viewer mapping, survey, storymap, educational materials, and project documents.

Additionally, core team meetings and site tours were held to encourage cross-town discussion of regional solutions and identify site-specific NbS. A self-guided site tour of natural resources and NbS was provided in addition to a COVID19-safe online community meeting.

RECREATION AND PARKS MASTER PLAN

UPTON, MA

CLIENT

Town of Upton

SERVICES

Master Planning

Community Engagement

Site Analysis

Cost Estimating

The Town of Upton's Recreation Department engaged BSC Group to conduct a master plan of four recreation areas in town which included three park facilities and one former farm which was recently donated to the town with the provision that it be used for recreational facilities. The master planning process for recreation improvements at each of these sites included gathering community input; preparing site analyses that identifies the issues to be corrected and opportunities for improvements; developing plans for future improvements; generating cost estimates for the identified improvements; and developing a priority list of improvements.

The master plan for the former Farm provided opportunities for new fields, courts, trails and passive recreational amenities. The final illustrative plan depicts all proposed improvements with comparable images. The final report included cost estimates and a phased implementation strategy.

BLACK ROCK GOLF COMMUNITY

HINGHAM, MA

CLIENT

Black Rock Development

SERVICES

Site Planning

Civil/Site Engineering

Permitting

Landscape Architecture

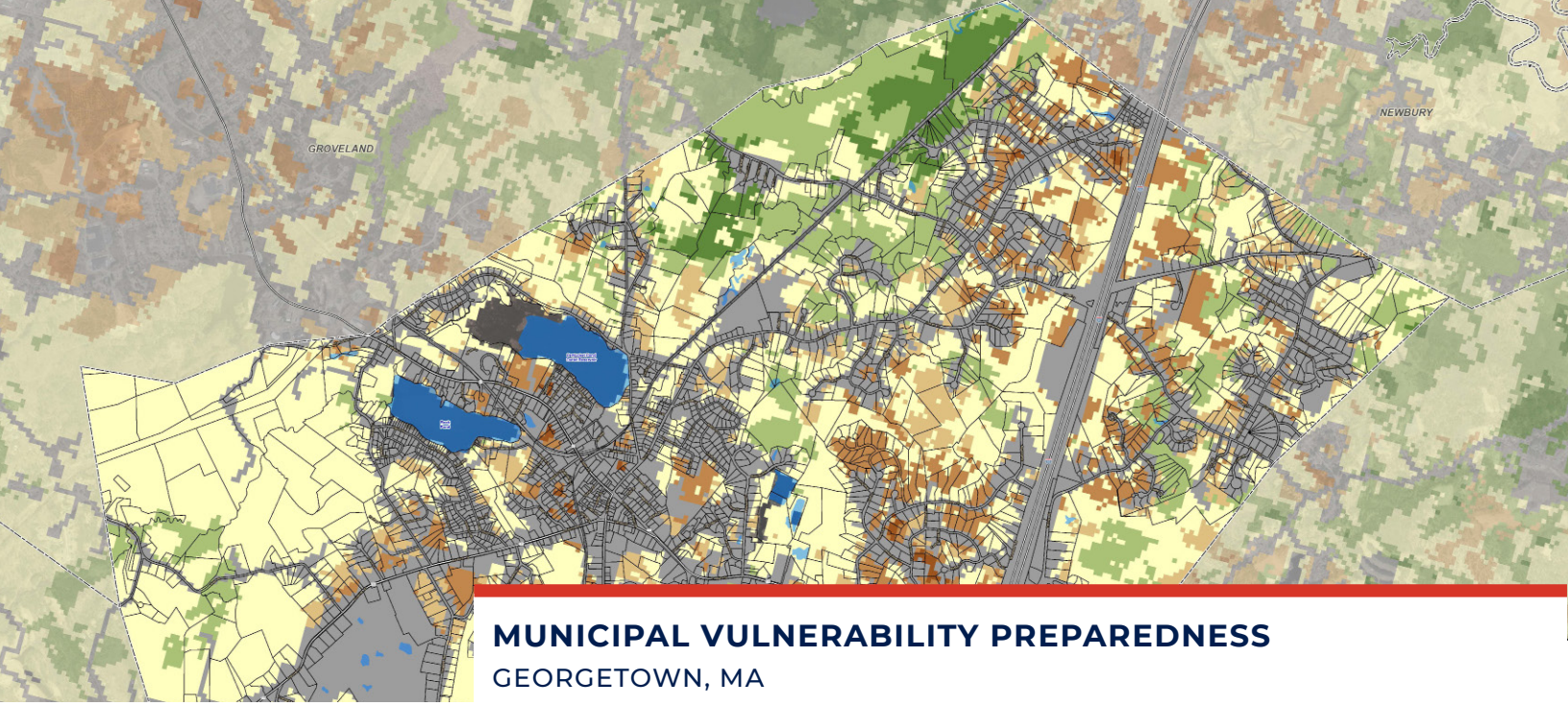
Surveying

The Black Rock Golf Community is located on a 330-acre parcel in Hingham, Massachusetts. BSC led the civil engineering design and local permitting process for the conversion of the property, an active rock quarry, into a world class golf and residential facility. The development consists of a links-style 6,850-yard, 18-hole championship golf course, clubhouse facility, and health and fitness amenities which include a sports complex, swimming pool, and tennis courts.

The project's residential component hosts 138 cluster homes, including a mix of single-family homes, duplexes, and triplexes, situated throughout the development to provide spectacular golf course views. Access to the links, clubhouse, and cluster homes is provided by two and one-half miles of roadway designed to minimize impacts to the golf course and the property's natural resources and intrinsic beauty.

During the design of this mixed-use development, BSC faced a number of challenges including a complex environmental permitting process, the preservation of important environmental resources, and the need to balance function with the aesthetic appeal of the site's natural surroundings. Approximately one-third of the property contains wetlands, one-third of the site is located within the Town of Hingham's Aquifer Protection District, 37 acres are located within the riverfront resource area of the Plymouth River, and the project is partially within the FEMA 100-year floodplain.

Also important during design was preserving the natural beauty of exposed rock, which is abundant throughout the property. Through careful design, BSC was able to reduce impacts to sensitive environmental resources, and as a result, secure local approvals in a timely manner.



MUNICIPAL VULNERABILITY PREPAREDNESS

GEORGETOWN, MA

CLIENT

Town of Georgetown

SERVICES

Climate Adaptation/ Resilience Planning

Natural Resource Infrastructure Assessment

Identification of Nature-based Solutions

GIS & Mapping

Community Outreach & Engagement

BSC Group's scientists, GIS specialists, and planners worked with the Town of Georgetown on various climate adaptation/ resilience Municipal Vulnerability Preparedness (MVP) efforts.

MVP Planning Grant and Hazard Mitigation Plan Update. BSC served as the MVP Provider for the Town of Georgetown, providing community outreach and engagement, analysis, GIS mapping and report preparation to support implementation of their MVP Planning Grant. With Georgetown's staff and community leaders, BSC's multi-disciplinary team of climate resiliency experts, ecologists, and GIS staff planned, organized and led core team and community meetings, including a Community Resilience Building (CRB) Workshop, to identify and assess climate threats, vulnerabilities and strengths, and to develop a report including a prioritized list of climate resilient actions to increase community climate resilience.

BSC worked with town leaders to integrate an updated Hazard Mitigation Plan into the MVP Planning Report, in accordance with both MVP Program requirements and requirements of the Massachusetts Hazard Mitigation Program. Due to COVID19 lock-down requirements, which occurred mid-way through the project, BSC efficiently moved core team and community outreach meetings to the Zoom platform in order to meet project deadlines, thereby completing the project on time. Successful project completion led to Georgetown's certification for future MVP Action grant funding.

Natural Resource Infrastructure Assessment. BSC developed a series of ecological climate resilience maps utilizing web-based mapping tools which were used to assess the ecological climate resilience of natural resources and to guide community discussions. Site walks were conducted to identify opportunities to reduce community and ecological risk and vulnerability to climate change and increase resilience by implementing specific Nature-based Solutions (NbS). The project report provides a menu of specific NbS projects that can be implemented to increase Georgetown's climate resilience.

URBAN HEAT ISLAND ASSESSMENT

EVERETT, MA

CLIENT

City of Everett

SERVICES

Grant Preparation

Community Engagement

Climate Education Infographics

GIS Mapping

Urban Heat Island Assessment Methodology

BSC Group collaborated with the City of Everett to produce an Urban Heat Island Assessment for the Summary of Findings Report, made possible by assisting the city in securing a $49,500 Municipal Vulnerability Preparedness (MVP) program planning grant. Municipal staff and non-profits, with BSC Group, identified and developed a broad understanding of Hazards, Vulnerabilities, and Strengths specific to the City of Everett caused by climate change, as well as a list of Preliminary Resilience Actions addressing the city's urban heat island effect.

BSC Group led two engagement and education Adaptation Action Stations, giving participants interactive use of GIS mapping hazards as well as integrating the solutions derived from the breakout groups into the Community Resistance Building Planning Matrix.

The Trust for Public Land identified the major corridors in Everett as "very high risk" of heat hazards and the remainder of the community as "moderate to high risk". BSC, working with city partners, identified several factors that contribute to the effect including dense development patterns, land cover, and waste heat from buildings, mechanical systems or idling cars and trucks. The impact of heat island effect was analyzed by mapping the city's nine established wards, assessing their locations as well as their characteristics such as land use and land surface cover. Using the mapping resource, the team was also able to acknowledge certain communities that are understood to be more vulnerable to heat.

The City of Everett Urban Heat Island Effect supplemental report was released in June 2019 detailing both the source of heat islands in Everett as well as heat management actions, such as permeable surface rebates, cooling/green corridors, tree planting, and green and white roofs, under consideration by Everett.

NEPONSET RIVER GREENWAY

BOSTON AND MILTON, MA

CLIENT

Massachusetts Department of Conservation and Recreation

SERVICES

Environmental Permitting

Civil/Site Engineering

Traffic Engineering

Linking urban neighborhoods with the Boston Harborwalk and public transit stations, the Neponset Greenway is a visionary public trail that incorporates dedicated paths with on-street bicycle lanes along an eight-mile corridor between Milton, Mattapan and Dorchester. BSC Group has been involved in numerous phases of the trail's planning and design, providing ecological science and permitting, civil/site engineering, and traffic engineering.

Most recently, the Department of Conservation and Recreation has tasked BSC with designing the newest trail segment, which connects Tenean Beach in Dorchester with Morrissey Boulevard. A key challenge for the design of this segment will be climate resiliency planning for the coastal area that is prone to heavy flooding. The Neponset River Greenway was honored by the American Planning Association, which named the trail one of the 13 Great Places in America for 2019.

BSC was responsible for the preparation of permitting assessments and applications for environmental permits for a section of the DCR Neponset River Greenway between Tenean Beach and Morrissey Blvd in Dorchester/Boston. The project will be constructed in collaboration with MassDOT and will include a section of boardwalk crossing intertidal and salt marsh habitat, realignment at several intersections, and multi-use trail construction adjacent to the embankment of I-93. BSC also aided in preparing the early environmental coordination checklist and Categorical Exclusion required for MassDOT projects. Prepared Notice of Project Change with MEPA, Notice of Intent with Boston Conservation Commission, 401 WQC, Chapter 91 Waterways License, and a PCN with US Army Corps of Engineers.

Civil/Site Engineering. BSC Group's design of the eight-foot-wide paved trail considered many siting, design, and environmental challenges including the preservation of existing trees, routing through open fields, incorporation of retaining walls, and installation of guardrails. Stormwater management was addressed through the construction of an infiltration trench adjacent to the trail, as well as new catch basins.

Traffic Engineering for Bicycle Lane. For the segment of trail along Truman Parkway, BSC engineers narrowed the roadway and created both an on-road bicycle lane and off-road shared use path to accommodate the trail system. The outer shoulder of Truman Parkway westbound was reduced in width and converted into a dedicated bicycle lane. Bicyclist and roadway safety were key considerations of this design element.

Project Coordination. As with each segment of this multi-phase bike path, BSC has closely coordinated with the client, City of Boston and Town of Milton officials, Boston Water and Sewer Commission, the public, and all interested parties throughout both design and construction. The third segment also involved coordination with the MBTA to incorporate additional safety measures since the project is adjacent to an active MBTA station.

The team also coordinated with a leading architect providing design services to stabilize an abandoned building located on the trail at Mattapan Square. The historic portion of the building was retained while later additions were removed. A plaza was created in front of the building which may become a bicycle shop and/or coffee shop for trail users in the future.

MASTER PLANNING FOR PARKS AND RECREATION

SHREWSBURY, MA

CLIENT

Town of Shrewsbury

SERVICES

Master Planning

Landscape Architecture

Civil/Site Engineering

Transportation Engineering

BSC Group was retained by the Town of Shrewsbury for the master planning of four parks throughout the municipality. Each of the sites are composed of various site amenities, such as basketball, handball, and tennis courts; softball, baseball, and soccer fields; playgrounds; walking trails; and picnic groves. While seeking cost estimates to improve these areas, the town's Parks and Recreation Department also stressed the importance of ADA-compliant accessibility enhancements, so that users of all ages and abilities can enjoy the parks; an understanding of maintenance needs for existing facilities and proposed improvements; other prevalent infrastructure improvements for support facilities, such as parking lots, access roads, and seating, to name a few; and utility improvements for site drainage, irrigation, and lighting.

BSC was also tasked with facilitating a public engagement process, including evening meetings with the community and sport leagues. Final deliverables include parcel assessment, existing conditions base plan, schematic-level concept plans, construction cost estimates, and illustrative master plans for each park, as well as "soft costs" for forthcoming engineering, surveying, permitting, design and construction-phase services.

PERMITTING STRATEGY FOR PONKAPOAG GOLF COURSE RESTORATION

CANTON, MA

CLIENT

Massachusetts Department of Conservation and Recreation

SERVICES

Wetland-related Permitting Strategy

The Ponkapoag Golf Course consists of 36 golf holes. The first 27 holes were designed by Donald Ross and were constructed in the 1930s by the Metropolitan District Commission (now the Department of Conservation and Recreation). The golf course has been recommended by the Massachusetts Historical Commission (MHC) for nomination to the National Register of Historic Places and is currently listed on the Massachusetts Inventory of Historic and Archaeological Assets of the Commonwealth maintained by MHC.

Permitting Strategy. To assist DCR in its restoration and rehabilitation of the golf course while also preserving the historic nature of the original Donald Ross design, BSC was retained by the prime consultant to develop a wetland-related permitting strategy regarding maintenance and repair of nine holes.

In addition, BSC has assisted DCR with wetland-related appeals, and the interagency coordination between the Massachusetts Department of Environmental Protection and the Massachusetts Department of Recreation and Conservation.

Personnel & Statement of Qualifications

The BSC team was assembled to provide the Town of Stow with the depth of experience needed to accomplish the goals and objectives of this project: creating a climate resilience master plan that is innovative, comprehensive, and strategic. Our expertise includes decades of experience in conceptual site and master planning, climate resilience, proactive community engagement, landscape architecture, ecological and wetland restoration, permitting, and maintaining compliance with federal, state, and municipal regulations. Our team understands the challenges of such complex site planning and will leverage its institutional knowledge from previous projects to effectively provide this wide spectrum of services, as shown in our team's resumes that conclude this section.

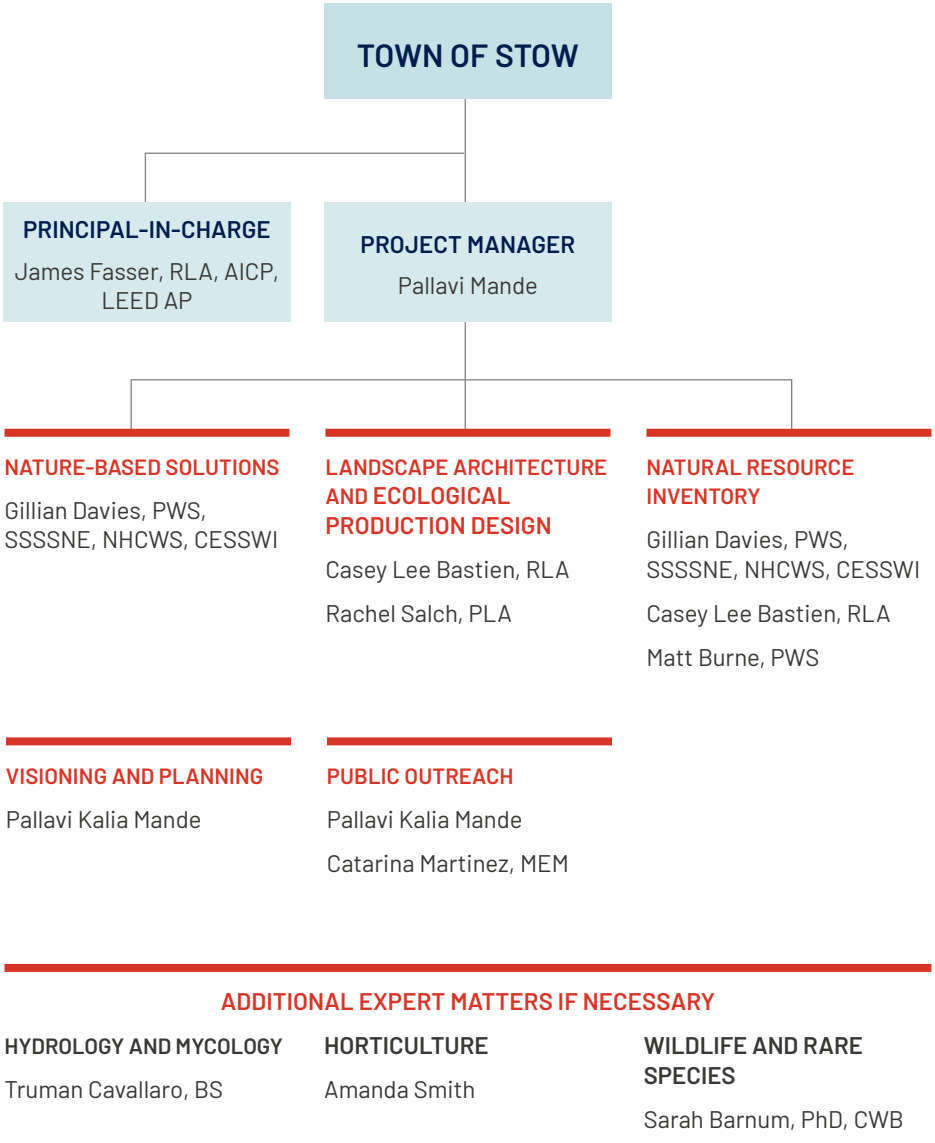
BSC's project manager **Pallavi Mande** will put her 20-year experience collaborating with various municipalities and climate resilience organizations to work on leading this effort. Pallavi has successfully implemented several ecological restoration projects at various scales by creating watershed-scale planning frameworks and designing solutions to address complex environmental challenges. She is deeply committed to serving environmental justice communities and is a passionate advocate for climate justice. Outside of work, Pallavi has been serving as a Conservation Commissioner in Brookline, MA, for more than a decade and currently co-chairs the Massachusetts Association of Conservation Commissions' DEI Committee. She is also on the advisory boards for Biodiversity for a Livable Climate and the Muddy Water Initiative and enjoys teaching and mentoring BIPOC students at local universities and the Professionals of Color in the Environment community. As the project manager, Pallavi will be the single point of contact for client communications between the Town of Stow and the BSC team. She will be responsible for managing the team and project controls, such as budget and schedule.

The BSC team will be supported by principal-in-charge **Jef Fasser, RLA, AICP, LEED AP**, with more than 30 years of community planning experience. Jef has been responsible for overseeing large-scale planning efforts, developing valuable planning strategies, coordinating complex projects, and providing an exceptional understanding of the programs and practices that are applied to support community-building initiatives. He has been successful in developing and implementing programs, obtaining grant funding for project implementation, incorporating innovative ideas,

and placing emphasis on end-user needs. As principal-in-charge, Jef will maintain contractual authority with the Town of Stow and assure that the project team has access to all resources needed for successful project delivery.

These project leaders will be supported by experts in incorporating Nature-based Solutions, planning, landscape architecture consulting, ecological production design, natural resource inventory assistance, and public outreach. Our team is graphically displayed on the next page and includes professionals with extensive experience in their fields.

TEAM ORGANIZATION



PALLAVI MANDE

Project Manager, Planner & Public Outreach Specialist

- Has 20 years of experience in green infrastructure design, public outreach, grant compliance support, and municipal vulnerability and environmental planning.
- Directs climate resilient design to transform the communities' visions into implementable projects that use nature-based solutions to adapt to extreme weather conditions.

JEF FASSER, RLA, AICP, LEED AP

Principal-in-Charge

- Planner and landscape architect with more than three decades of experience in solving complex site design issues for communities while incorporating stakeholder feedback.
- Experience includes the master plan for the Blackstone Gateway Park and the historic Elm Park in Worcester and the landscape restoration of the Barney Mausoleum portion of Forrest Park in Springfield, MA.

GILLIAN DAVIES, PWS, SSSSNE, NHCWS, CESSWI

Nature-based Solutions Expert & Natural Resource Inventory Specialist

- Has 30 years of experience as a wetland scientist, working on numerous Municipal Vulnerability Preparedness, climate resilience, and Nature-based Solutions projects, as well as open space, land trust, conservation, and resilient landscapes projects.
- Visiting Scholar at the Global Development and Environment Institute at Tufts University.

Casey Lee Bastien, RLA
Landscape Architect/Ecological Production Designer & Natural Resource Inventory Specialist

- Registered landscape architect with 21 years of experience in park design, public participation, construction documentation, construction administration, and project implementation.
- Lead landscape architect for the Blackstone Gateway Park in Worcester, MA, where he was involved in all stages of the project, from planning and design to developing ecological restoration planting plans.

Rachel Salch, PLA
Landscape Architect/Ecological Production Designer

- 10 years of experience in landscape architecture. Her skills include master planning, site analysis and design, site plan development, landscape planting design, construction document development, and construction administration.
- Has applied her expertise to recreational and master planning efforts in numerous municipalities, such as Avon, Bolton, Cromwell, Farmington, Old Lyme, and Waterbury, CT.

Matt Burne, PWS
Natural Resource Inventory Specialist

- Senior ecologist with 30 years of experience in wildlife biology, conservation science, management, and policy with pervasive skills in conservation planning, land protection and management, facilitation, and communication.
- Spent 10 years as an ecologist with the Massachusetts Division of Fisheries and Wildlife's Natural Heritage & Endangered Species Program as a Wetland Environmental Reviewer and Vernal Pool Ecologist and 15 years as the Conservation Director for a non-profit land trust in Lincoln, MA.

Catarina Martinez, MEM
Public Outreach Specialist

- Equipped with a diverse background in evolutionary biology, environmental health, and researching climate-related social inequities.
- Prior experience includes constructing and co-writing cases on the role of social infrastructure and change management in tackling social issues, such as climate change, for the Harvard Business School and pulling complex data on carbon sequestration and quantification for Indigo Ag, Inc.'s soil health and regenerative agricultural management practices.

HUDSON RIVERWALK

Hudson, MA

Our team is committed to helping our communities secure funding. One notable example was assisting the Town of Hudson in securing a Shared Streets Grant for the Hudson Riverwalk.

MA Rep. Kate Hogan was impressed by the project and has put in an additional request for $400K ARPA money for ecological restoration along the Assabet River in Hudson, which will complete the rest of the project.

BSC GROUP

Pallavi Kalia Mande

Director of Climate Resilient Design

YEARS OF EXPERIENCE

23

EDUCATION

Emerging Leaders Academy, Foundation of MetroWest, Natick MA, 2018

Loeb Fellowship, Graduate School of Design, Harvard University, Cambridge, MA 2017

Master of Arch & Urban Design, Sam Fox School of Design & Visual Arts, Washington Univ, St. Louis, MO 2000

MPhil in Environment and Development, Department of Geography, University of Cambridge, U.K. 1999

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

CERTIFICATIONS

- Fundamentals for Conservation Commissioners Training Program, 2023
- Network for Engineering with Nature, Knowledge Series Certified, 2022
- Municipal Vulnerability Preparedness Provider, 2018

AFFILIATIONS

- Member, Environmental Policy Committee, MyRWA
- Member, Board of Advisors, Muddy Water Initiative
- Co-Chair, DEI Committee, MA Assoc. of Conservation Comm.

MEET PALLAVI

Pallavi creates watershed-scale planning frameworks and design solutions to address complex environmental challenges. She has successfully designed and implemented numerous environmental restoration projects at a variety of scales.

Pallavi's design practice is heavily grounded in an understanding of watershed science and engineering with the goal to restore natural resources as well as improve a community's quality of life.

PALLAVI DIRECTS CLIMATE RESILIENT DESIGN TO TRANSFORM THE COMMUNITIES' VISIONS INTO IMPLEMENTABLE PROJECTS THAT USE NATURE-BASED SOLUTIONS TO ADAPT TO EXTREME WEATHER CONDITIONS.

PRIOR TO JOINING BSC, PALLAVI CONTRIBUTED TO THE FOLLOWING:

Green Infrastructure Design for MassDOT & MBTA Projects, MA

Climate Resilience and Sustainable Design Lead, Urban Idea Lab

Lead urban design consultant on various transit, transportation infrastructure and climate resilience projects including the Allston Multimodal Project for the MassDOT & Mattapan Transformation Project for the MBTA.

Urban Design and Environmental Planning Projects, MA

Founding Director

Provide pro-bono urban design and green infrastructure planning services to environmental justice populations globally. Serving as a policy advisor and design consultant for local environmental non-profit and grassroots organizations on planning and implementation of nature-based solutions at a watershed scale.

Served as a certified Municipal Vulnerability Preparedness (MVP) provider for understaffed municipal departments and watershed associations, providing support for grant applications.

Municipal Vulnerability Plan for Various Communities, MA

Director of Watershed Resilience, Charles River Watershed Association

Responsible for the development of MVP plans for the Weston, Milford, and Brookline MA. Responsibilities included green infrastructure recommendations, open space protection strategies and helping to facilitate public and committee input meetings.

Municipal Green Infrastructure Projects, MA

Director of Blue Cities, Charles River Watershed Association

Directed Blue Cities Initiative including program development; staff and budget management; grant writing and administration; outreach and communication; technical review and reporting. Responsible for municipal and state environmental review of all major redevelopment projects in the watershed; coordination with other environmental advocacy groups, state agencies and city departments; public education and outreach.

Environmental Restoration Projects, MA

Urban Restoration Specialist, Charles River Watershed Association

Lead environmental planner on a variety of restoration projects ranging in scale from regional to site specific. In addition to reviewing development and housing projects within the watershed, responsibilities included environmental and site assessments, zoning review, fieldwork, research on low-impact development, Smart Growth and Sustainable Development. 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 developers, and the resident community.

Alewife Resilience Project & Symposium, MA

Senior Fellow, Earthos Institute

Co-Chaired the Alewife Resilience Symposium focused on stakeholder collaboration for promoting affordable housing, carbon neutral (re)development, in addition to climate resilient infrastructure. Convened the Alewife restoration working group in collaboration with state agencies and local environmental advocacy groups.

Comprehensive Master Plan Projects, MA

Urban Designer & Environmental Planner

Planning consultant to the Aquidneck Island Planning Commission, managed a large, multi-disciplinary team of designers, engineers, and economists to create a comprehensive master plan for the west coast of Aquidneck Island. Consultant to the Town of Mansfield, managed a team of market and environmental remediation experts for redevelopment of a 40-acre superfund site. Sub-consultant to the planning team contracted by the MA Executive Office of Environmental Affairs to produce the “MA Smart Growth Toolkit.”

Community and Neighborhood Master Plans

Urban Design & Community Planner

Consultant to 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) and West Palm Beach (FL), for preparing master plans for both urban and sub-urban communities. The effort involved visioning and strategic planning (re-zoning & public realm design), affordable housing development and downtown revitalization projects, while managing a team of sub-consultants.

PUBLICATIONS

Milford Sub-watershed Restoration Plan. Charles River Watershed Association (2020)

Building Blue Framework. Charles River Watershed Association (2019)

North Allston Sub-watershed Restoration Plan. Charles River Watershed Association (2016)

Urban Green Infrastructure in Mystic River Communities: Sub-watershed Plan for Broadway, Chelsea. Charles River Watershed Association, Mystic River Watershed Association, Chelsea Collaborative (2013)

Sub-watershed Management Plan for Bellingham, MA. Charles River Watershed Association and Nitsch Engineering Inc. (2011)

Stormwater Management Plan for Spruce Pond Brook Sub-watershed. Charles River Watershed Association, Horsley Witten Group (2009)

Green Street Guide for Allston Brighton. Charles River Watershed Association, Allston Brighton Green Space Advocates (2008)

Blue Cities Guide: Environmentally Sensitive Urban Development, CRWA (2008)

Sustainable Development though Eco-Planning- Case Study of the Meramec Sub-watershed. P. Kalia, MAUD thesis, Washington University, School of Architecture, St. Louis (December 2000)

Dilemmas of Tourism and Development in Khajuraho- Aiming for Sustainability through Participatory Resource Management. P. Kalia, MPhil thesis, Dept of Geography, University of Cambridge, (August,1999)

Natural Urban Drainage: Realization of an Unrecognized Potential, P. Kalia, Development Alternatives, Newsletter Volume 8 (September 1998)

BSC GROUP

James E.
Fasser, RLA, AICP, LEED AP

Vice President
Planning & Landscape Architecture

YEARS OF EXPERIENCE
43

EDUCATION
BS, Landscape Architecture
University of Virginia

REGISTRATIONS
Registered Landscape Architect

- MA #814 (1985)
- NY #1081 (1987)

American Institute of Certified Planners (1994)

CERTIFICATIONS
- LEED Accredited Professional (2009)

AFFILIATIONS
- American Society of Landscape Architects
- Boston Society of Landscape Architects (Treasurer)
- American Planning Association – MA

MEET JEF
Jef's experience includes projects involving urban planning and design, site development and landscape architecture design, urban revitalization plans, feasibility studies, multi-family housing developments, active and passive parks, streetscapes, trails, as well as colleges and university campuses. He also has experience with federal, state, and local project permitting.

Having been at the helm of many of BSC's multidisciplinary teams on a broad spectrum of public and private projects, Jef efficiently balances the needs of diverse stakeholders with maximizing clients' budgets.

JEF LEADS BSC IN TRANSFORMING CLIENTS' VISIONS INTO PRACTICAL DESIGNS THAT CAN BE SUCCESSFULLY IMPLEMENTED TO SERVE AS VALUABLE, LASTING ASSETS.

PROJECT EXPERIENCE HIGHLIGHTS

Municipal Vulnerability Plan for Various Communities, MA
Senior Planner & Public Outreach Assistant

Responsible for the development of MVP plans for the communities of Hudson and Athol. Responsibilities included green infrastructure recommendations, open space protection strategies, and helping to facilitate public and committee input meetings.

Assabet Riverwalk, Hudson, MA
Principal Landscape Architect

Responsible for the design and permitting of a quarter-mile expansion of the Downtown Hudson Riverwalk. The project included a quarter mile of new universal access trails, riparian corridor restorations, habitat enhancements and educational interpretive signage, as well as integrated arts features for gateways and water access overlooks and decks reconnecting this historically industrial section of the river to the community, bringing it closer to its natural function.

Hingham Trails Master Plan, Hingham, MA
Landscape Architect

Responsible for the preparation of a town-wide master plan to improve trails, trail connectivity, and open space preservation in Hingham. The plan evaluated all existing town trails, suggested trail improvements, trails connections, and acquisitions to both preserve valuable open space and better link trails. Project involved collaborating with Steering Committee and extensive public outreach.

New Bedford Riverwalk, New Bedford, MA
Project Manager

Worked with the City of New Bedford to plan and complete initial design plans for a public pathway along a 2.25-mile stretch of the Upper Harbor of the Acushnet River. This new riverwalk is being developed to reconnect the community with the water and provide a recreational amenity for New Bedford. Key project elements include trail design, environmental restoration, aesthetics, sensitivity to adjacent conditions, safety, universal accessibility, and regulatory issues.

Assabet River Rail Trail Planning and Design Services, Marlborough, MA
Project Manager

Responsible for improvements to a recently constructed section of the Assabet River Rail Trail to make the trail more inviting and tie the trail into the surrounding neighborhoods. A series of public forums was held, comprised of six focus groups and two public charrettes, to obtain input from city agencies, abutters, and existing and potential users of the trail. The input received through the public forum process and information gathered through research and analysis became the basis for design suggestions for key study areas and recommendations for other areas as either short- or long-term improvements to the trail and surrounding areas. Final products for the project were a poster, pamphlet, and report, which included a summary of the process and information collected, design suggestions for key study areas, overall improvement recommendations, an action plan, and identification of potential funding sources.

Parks System Master Plan, Upton, MA
Principal

In charge of master plan integrating new recreation opportunities created by new property donated to the town recreation department. These sites included multiple sports fields and courts, playgrounds, restrooms, walking trails, parking lots, a community center, school, pond-swimming, and boat access. Due to the age of existing facilities and natural terrain of the sites, achieving universal access was a key component of this plan. Taking the project beyond basic planning recommendations, Jef's team developed practical feasibility analysis, cost, and a coordinated phasing approach to integrate redevelopment and new development to provide improved site utilization while the parks remain in active use. The project included coordinated community leadership and stakeholder engagement.

Orange Riverfront Park, Orange, MA
Project Director

Assisted the Town of Orange in designing a riverfront park on a former brownfield site. The community's goals for the site included improved access to the waterfront area as well as the creation of an attractive park setting for passive recreation. The design team prepared two conceptual designs for recreational facilities on the .72-acre site adjacent to Millers River. Planned improvements included walking trails, benches, parking, a scenic overlook, and a dock area that would support boating and fishing. An essential element of BSC's design was the incorporation of Low Impact Development (LID) techniques to treat stormwater and reduce pollutant loading to the Millers River. In addition to design services, the BSC team led a public participation process and assisted the client in preparing applications to secure $460,000 in grant funding for construction of the proposed design and the project was constructed.

Blackstone Gateway Park, Greater Worcester Land Trust and the City of Worcester, MA
Project Manager

Managed the preparation of a master plan, grant applications, and final construction documents for the installation trails through and around a sensitive open space area within Worcester. Optional trail alignments were explored with associated costs. The final master plan included a system of walking trails, bikeways, a boardwalk, and bridges. Interpretive overlooks were installed along the river. Project required coordination with various city departments, abutters, and an advisory committee.

Recreation Facility Master Plan, Barnstable, MA
Project Manager

Responsible for the preparation of a comprehensive recreation master plan for a new public park on approximately 36 acres of town-owned land. The plan responded to community needs by integrating six to eight new recreation fields, parking, storage/concession building, bike path, and walking trails that connect to a regional system. The master plan also evaluated the immediately adjacent golf course circulation and parking needs to create a unified entry experience into both sites.

BSC GROUP

Gillian

Davies, PWS, SSSSNE, NHCWS, CESSWI

Senior Ecologist/Natural Climate Solutions Specialist
Project Manager, Senior Associate

YEARS OF EXPERIENCE

31

EDUCATION

MES, Ecosystem Ecology
Yale University School of the Environment

BA, Psychology
Williams College

Certificate of Completion in the New England Regional Soil Science Certificate Program
University of Massachusetts

AFFILIATIONS

Global Development and Environment Institute, Tufts University, Visiting Scholar (2018-present)

Society of Wetland Scientists - Chair WOTUS ad hoc Committee, Co-Lead Climate Change & Wetlands Initiative; 2016-2017 President, Past President, President Elect

MEET GILLIAN

Gillian provides expertise and innovative solutions encompassing peer-review for Conservation Commissions, ecosystem-based climate change resiliency and mitigation assessment and planning, state and federal permitting, wetland delineation, impact analysis, wetland restoration/mitigation planning, design and monitoring, expert witness testimony, and environmental construction/post-construction inspection.

A well-respected leader in the field of wetland sciences, Gillian holds many prestigious titles at industry organizations dedicated to promoting the understanding, conservation, protection, restoration, science-based management, and sustainability of wetlands. She currently serves as the President of the Society of Wetland Scientists (SWS) Professional Certification Program, as well as Chair of the SWS WOTUS *ad hoc* Committee and Co-Lead of the SWS Climate Change and Wetlands Initiative. She is also a Visiting Scholar at the Tufts University Global Development and Environment Institute. In the past she has held such titles as SWS President, President of the SWS New England Chapter, and President of the Association of Massachusetts Wetlands Scientists.

Gillian has worked extensively with Massachusetts Conservation Commissions as a peer-reviewer and previously as an education/outreach specialist for the MassDEP and has provided numerous workshops and presentations to Conservation Commissions and other members of the wetlands professional community in Massachusetts, and internationally.

AFFILIATIONS (CONT.)

Society of Wetland Scientists Professional Certification Program, 2021-2022 President; President Elect

Society of Wetland Scientists New England Chapter; 2014-2015 President, Vice President

INTECOL (International Association for Ecology) Wetlands Working Group, Member (2021-present)

Association of Massachusetts Wetlands Scientists; 2002-2003 President, Vice President

REGISTRATIONS

Registered Soil Scientist, Society of Soil Scientists of Southern New England

CERTIFICATIONS

Professional Wetland Scientist, Society of Wetland Scientists #2181 (2011)

Certified Wetland Scientist – NH #071 (1999)

Certified Erosion, Sediment, and Storm Water Inspector, Envirocert International, Inc.

Certified Municipal Vulnerabilities Preparedness Provider – MA

GOVERNMENT SERVICE

MA Executive Office of Energy and Environmental Affairs & Commission for Conservation of Soil, Water & Related Resources Healthy Soils Action Plan Work Group (2019–2020)

GOVERNMENT SERVICE (CONT.)

MA Department of Transportation Wetland Mitigation Banking Group (2018)

MA Executive Office of Energy and Environmental Affairs Natural Resources and Habitat Subcommittee to the Climate Change Adaptation Advisory Committee (2009)

MA DEP Wetlands & Waterways Circuit Rider (1999-2003)

OTHER VOLUNTEER

National Academy of Sciences, Engineering, and Medicine Transportation Research Board Panelist (2018–present)

PROJECT EXPERIENCE HIGHLIGHTS

Ponkapoag Golf Course (MA DCR), Canton, MA

Senior Wetland & Soil Scientist

Conducted soils investigations to determine site history, locations of pre-existing peat soils, and potential wetland mitigation sites. Advised MA DCR on regulatory issues pertaining to planned restoration of poorly functioning fairways.

Nashua River Communities Resilient Lands Management Project

Natural Climate Solutions Specialist & Senior Ecologist

As part of the project team, and in collaboration with the Massachusetts Association of Conservation Commissions, Gillian is leading development of wetland climate change by-laws and regulations for municipalities in Massachusetts and tailoring those bylaws and regulations to the specific c needs of the Towns of Bolton and Clinton. Collaborating with the project team, BSC is working to improve residents' climate resilience by protecting and restoring ecosystem services in the participating towns through the development and adoption of better land management practices, as well as by-laws and regulations updated to better effect climate mitigation and adaptation.

Apple Country Natural Climate Solutions Project: Bolton, Harvard, and Devens Regional Enterprise Zone

Project Manager & Senior Ecologist

Coordinated team of consultants and three communities to identify Nature-based Solutions to climate change and biodiversity loss. Project identified opportunities for wetlands, floodplains, forests, and other ecosystems to support broader resilience planning efforts, and expanded communities' capacity to protect, restore and enhance carbon sequestration and other ecosystem services by providing a model for community-driven assessment of NbS; providing recommendations to improve regulations; and developing and providing educational materials and opportunities.

Municipal Vulnerability Preparedness Planning Projects: Amesbury, Bolton, Georgetown, MA

Project Manager & Senior Ecologist

Responsible for projects in each municipality to work with municipal staff, stakeholders, and community members to identify existing climate vulnerabilities and community strengths, future opportunities for building community climate resilience, and prioritization of those opportunities. This work provides the community with the basis for specific, action-oriented projects to improve infrastructure, social and environmental community climate resilience, and prioritization of actions. The Georgetown MVP Planning Project included integration of the Georgetown Hazard Mitigation Plan Update.

MVP Climate-Resilient Open Space and Recreation Plan Update Project: Amesbury, MA

Senior Project Advisor & Senior Ecologist

This project integrates climate resiliency into Amesbury's Open Space and Recreation Plan Update. By integrating climate resiliency information and nature-based solutions into the OSRP Update, the City of Amesbury improves ecological, community and infrastructural climate resiliency.

SuAsCo Natural Climate Solutions Project: Hudson, Framingham, and Natick

Project Manager & Natural Climate Solutions Specialist

Coordinating consulting team and three urban/suburban communities with Environmental Justice communities to identify Nature-based Solutions (NbS) to climate change. Project identifies opportunities for wetlands, floodplains, & forests to support and expanded communities' capacity to protect, restore and enhance carbon sequestration and other ecosystem services through community-driven assessment of NbS; providing recommendations to improve regulations; and developing and providing educational materials and opportunities.

Natural Resource Infrastructure Assessment Projects: Amesbury and Georgetown, MA

Project Manager & Senior Ecologist

These projects support the Municipal Vulnerabilities Preparedness Planning Projects by assessing opportunities for increasing community climate resiliency through protection, restoration, or creation of natural resource assets within the city. Using web-based ecological climate resiliency mapping tools, BSC provides ecological climate resiliency mapping of town natural resources, and then conducts site-specific assessment of nature-based solution opportunities. This detailed assessment is used in Municipal Vulnerability Preparedness community meetings for community members to understand and prioritize nature-based solutions for climate resiliency, and in support of future nature-based solution grant applications.

Open Space and Land Trust Alliance Resilient Landscapes Initiative, Northern New England

Project Manager & Circuit Rider

Provided climate resiliency technical outreach for northern New England land trusts. Outreach efforts provided climate science expertise to guide land trusts as they worked to incorporate climate resiliency into their strategic conservation plans, using recently developed terrestrial and aquatic ecological climate resiliency GIS software and mapping. Technical outreach on ecosystem carbon cycle/carbon conservation and storage was also provided.

BSC GROUP

Casey Lee
Bastien, RLA

Landscape Architect
Associate

YEARS OF EXPERIENCE
22

EDUCATION
BS, Landscape Architecture, University of Massachusetts, Amherst

REGISTRATIONS
Registered Landscape Architect

- MA #1554 (2008)
- RI #LA.0000667 (2018)
- NH - #00192 (2021)

CERTIFICATIONS
- SITES-AP (2017-2019)
- Certified Playground Inspector (CPSI) (2013-present)
- OSHA Construction Safety and Health

MEET CASEY-LEE
Casey-Lee designs landscape solutions that speak to the purpose and personality of a site so that it resonates with the client and users. He has experience in horticulture and lighting design and provides coordination and design of graphic and sculptural arts, digital modeling, fabrication, and installation. Casey-Lee has a strong regard for social justice and works diligently to bring the right solution to every project regardless of the means available to a community.

CASEY'S PASSION TO RESEARCH AND INNOVATE DEFINING FEATURES INTO HIS DESIGNS ADDS MEANING AND VALUE TO A WIDE VARIETY OF PROJECT TYPES INCLUDING PARKS, STREETSCAPES, TRANSPORTATION, INSTITUTIONS, AND NATURAL HABITATS.

PROJECT EXPERIENCE HIGHLIGHTS

Apple Country Natural Climate Solutions Project: Bolton, Harvard, and Devens Regional Enterprise Zone, MA
Landscape Architect

Working with 3 communities to identify Nature-based Solutions to climate change and biodiversity loss, Casey-Lee led development of a Nature-based Solutions Tool that builds the communities' capacities to design and implement Nature-based Solutions such as forest, floodplain, and wetland restoration, planting of pocket forests, increasing forest and wetland connectivity, wildlife habitat enhancement, and invasive species removal. Casey-Lee also developed self-guided tours of local wetland and forest ecosystems with QR-coded and narrated StoryMaps connecting to the project website.

Nashua River Communities Resilient Lands Management Project: Bolton and Clinton, MA
Landscape Architect

Casey-Lee co-authored forest management and lawns and landscaping management guides as part of a project that improves community climate resilience and ecosystem carbon mitigation through the development and adoption of better land management practices. The guides were developed in dialogue with the Bolton and Clinton communities and are intended to support improved outcomes for environmental justice communities.

Torbert Macdonald Park Landscape Planning Project, Mystic River Watershed Association (MyRWA), Medford, MA
Landscape Architect

Designed outreach materials including conceptual site plan and associated landscape management plan for Torbert Macdonald Park. Building on prior design and planning studies, worked with MyRWA to leverage grant sources and staff/volunteer efforts to fundamentally change the processes and perspective of development and management within the park. This new vision combines storm resiliency and ecosystem enhancement to orchestrate the experience of park visitors through neighborhood and internal connectivity, education, ecological health, and river access.

Island End River Living Shoreline, Chelsea and Everett, MA
Landscape Architect/ Project Manager

Provided landscape architecture for the planning, community outreach, digital modeling, web design, planting design, detailing of grey/green nature-based living shoreline/ storm resiliency features, estimating, permitting support, and construction documents for a linear quarter mile of riverbank and a half mile of associated riverfront area. The project included new universal access trails, riparian corridor and riverbank restoration planting, habitat enhancements, structured saltmarsh plantings, educational interpretive signage, and related amenities to improve natural function and accessibility.

Lagoon Pond/Drawbridge Pedestrian Walk & Estuary Restoration, Martha's Vineyard, Oak Bluffs and Tisbury, MA
Landscape Architect

Provided schematic walkway designs, plans, and details for aquatic plantings and revetments, as well as graphic design for interpretive signage, for the addition of pedestrian walks between the Beach Road Bascule bridge and public/private beaches. Project included channel dredging and habitat enhancements to the Lagoon Pond lobster breeding estuary, part of DEP's Mass Estuaries Project. Challenges included developing comfortable walkways that would meet ADA/MAAB in the context of a drawbridge and tidal channel per the requirements of MassDOT, local Conservation Commissions, and the Army Corp of Engineers.

Ayer-Devens Main Streets Pocket Forest Pilot Project, Ayer and Devens Regional Enterprise Zone, MA
Landscape Architect

Lead designer for consulting team and 2 communities with Environmental Justice communities who collaborated to improve community health and resilience through: the design and planting of a pilot pocket forest; community-driven selection of, and permitting assessment for, four additional pocket forest sites; development of a project website and pocket forest educational materials; and a variety of community events including a community planting day at the pilot pocket forest.

Chelsea Greenway, Chelsea, MA
Landscape Architect

Designed landscape architecture for the environmental restoration and interpretive wildlife habitat formation at a former landfill between the Mill Creek tidal river and the Chelsea Greenway. Bordered on the upland side by a mixed use commercial and high-density residential neighborhood, this restoration balances ecological and recreational needs. Developed management strategies for invasive species and contaminated soils as well as tidal influence and saltmarsh restoration. Produced estimates and feasibility analysis of invasive vegetation management methods, including saltwater inundation, controlled burning, and mechanical and chemical methods. This was followed by the development of engineered habitat archetypes to restore the site to one of prime wildlife value paired with interpretive features and passive recreation.

Constructed Wetland Restorations, MassDOT, Various Locations, MA
Landscape Architect

Coordinated with environmental scientists regarding invasive species control, canopy restoration, flow correction, species and habitat enhancement, design of constructed wetlands, and salt marshes for the inspection and analysis of constructed drainage ways and wetlands at various locations. Designed correction and restoration of these facilities to meet MassDOT, local conservation commission, and Army Corps of Engineers requirements.

BSC GROUP

Rachel
Salch, PLA
Landscape Architect

YEARS OF EXPERIENCE
9

EDUCATION
BS, Landscape Architecture
University of Rhode Island

REGISTRATIONS
Registered Landscape Architect

- CT #1438

CERTIFICATIONS
- FAA Certified Remote Pilot
- OSHA Construction Safety and Health

AFFILIATIONS
- American Society of Landscape Architects
- CT Chapter American Society of Landscape Architects

MEET RACHEL
Rachel is a landscape architect with involvement in projects including site analysis and design, master planning, site plan development, landscape planting design, construction document development, and construction administration. Rachel has worked on a variety of projects throughout her career, which has expanded her knowledge base and professional skills.

RACHEL IS PROFICIENT IN SEVERAL COMPUTER APPLICATIONS SUCH AS AUTOCAD, SKETCHUP, AND THE ADOBE SUITE, ALLOWING HER TO NOT ONLY BE AN INTEGRAL PART OF THE DESIGN TEAM, BUT TO BE ABLE TO BRING LIFE AND COLOR INTO THE DESIGN AS IT TRANSFORMS FROM CONCEPTUAL IDEA TO PART OF REALITY.

PROJECT EXPERIENCE HIGHLIGHTS

Master Planning for Parks, Upton, MA
Landscape Designer

Performed site analysis and master planning for the improvement of several parks in Upton. Project responsibilities included the identification of opportunities for improvement at each park, including improvements to baseball, softball, and soccer fields, tennis courts, a dog park, ADA accessible walking paths, gathering spaces, playgrounds, and parking lots.

Johnnycake Park Master Plan and Design, Burlington, CT
Landscape Architect

Responsible for BSC's master plan of Johnnycake Park to provide conceptual design services to repurpose the 57-acre open space area into a recreational amenity for the town. Rachel was involved in the site assessment and inventory, programming and community input, master planning, and preparation of bid documents for construction.

South Worcester Playground, Worcester, MA
Landscape Designer

Provided design services for the redesign of playground and improvements to the park. The project included the programing and design of the playground, a community garden, ADA accessible walking paths, and the redesign of the parking area.

Babb's Park Master Plan, Suffield, CT
Landscape Designer

Responsible for master planning of an existing seven-acre town-owned parcel, including an old skating rink, a lakeside beach, and a large field that is used for events (for example, an annual car show). Rachel assisted the team to create the master plan for the site. Project responsibilities included visiting the site and using information gathered from the town. BSC worked diligently to consider the existing conditions of the site, conceptual ideas and current uses from the town as well as any concerns that they had, including accessibility of the site. The master plan provided the town with an accessible path down to the beach, open space/passive recreation, improvements to the parking area, and a performance area for outdoor concerts that protected the natural views of the lake.

Boulevard Substation Lowell, MA
Landscape Architect

Provided architectural services for the ongoing expansion of an urban substation site between dense residential neighborhood and senior assisted living facilities. The project included design and visual mitigation strategies. Project responsibilities included attending coordination meetings with owner's representatives and engineering consultants to develop acceptable mitigation measures. Rachel prepared site analysis, photography, digital modeling of the site, planting design, graphic design for visual impact guidance, and before and after photo sketches at select points.

Cromwell Landing Park, Cromwell, CT
Landscape Architect

Provided architectural services for improvements to an existing park along the Connecticut River. The project seeks to improve access to and within the park, enhance shore fishing opportunities, and implement resilience strategies to protect the proposed improvements and natural features of the site. Rachel has been instrumental in the preparation of conceptual ideas and plans that capture the project's objectives in an aesthetic and sustainable way.

Sound View Park and Streetscape Master Plan, Old Lyme, CT
Landscape Designer

Responsible for master planning services for renovations and design of the Sound View Beach area. The Sound View Park redesigned an old gravel lot and transformed it into a beautiful space for beachgoers to enjoy in time not spent on the beach. The park and streetscape were designed not only with thought to attract visitors and locals to the area, but also with the knowledge that the area often floods due to the proximity to the beach. Salt tolerant plants were carefully selected to populate the park and street and the streetscape was renovated to increase pedestrian usage. Rachel provided insight during the conceptual phase and design during the final planning phase.

Bolton Greenway Extension, Bolton, CT
Landscape Designer

Responsible for site analysis, feasibility study, and conceptual design for the Bolton Greenway Extension project. The Bolton Greenway Extension was designed to continue the multi-use path along Route 44. Rachel provided assistance to the team through site analysis and conceptual development of several path options that were created for the feasibility study. BSC has continued their work with the town and the Connecticut Department of Transportation to fully design the multi-use path.

Mill Street Park, Waterbury, CT
Landscape Architect

Responsible for planning and design for the redevelopment of a brownfield parcel into a new neighborhood park in the city's south end neighborhood. The site was the location of the former Nova Dye & Print Corporation, which was destroyed by fire. The project includes the remediation of contaminated soils, permitting, and design of improvements, including a baseball field, ADA accessible walking paths, gathering spaces, a small parking lot, and new retaining walls.

Mad River Redevelopment Corridor, Waterbury, CT
Landscape Designer

Responsible for master planning and design services for redevelopment of five city-owned brownfield parcels along the Mad River in the city's South End neighborhood. Rachel provided site analysis and conceptual planning for the site.

BSC GROUP

Matt
Burne, PWS
Senior Ecologist

YEARS OF EXPERIENCE
29

EDUCATION
MS, Wildlife and Fisheries Conservation
University of Massachusetts Amherst

BS, Environmental Science/Wetland Ecology, Botany
University of Massachusetts Amherst

CERTIFICATIONS
- Professional Wetland Scientist
- Invasive Plant Management - Massachusetts

AFFILIATIONS
- Vernal Pool Association Founder, Vice President
- Society of Wetland Scientists
- Association of Massachusetts Wetland Scientists

GOVERNMENT SERVICE
- MA Department of Conservation and Recreation Forest Futures Visioning Process Technical Steering Committee (2009–2010)
- City of Malden Conservation Commission (2020–present)

MEET MATT
Matt has expertise in wildlife biology, conservation science, management, and policy. He has extensive field experience conducting wildlife and rare species surveys, vernal pool evaluations as well as in wetland permitting reviews. Throughout his career, Matt has developed skills in several areas, including conservation planning, land protection, land management, facilitation, and communication.

MATT APPLIES THESE SKILLS IN EDUCATING THE PUBLIC, CONSERVATION PROFESSIONALS, AND NATURAL RESOURCE AGENCY PERSONNEL ON WILDLIFE HABITATS AND PROTECTION STRATEGIES.

Matt spent 10 years as an ecologist with the Massachusetts Division of Fisheries and Wildlife's Natural Heritage & Endangered Species Program as a Wetland Environmental Reviewer and Vernal Pool Ecologist focused on vernal pools, state-listed reptiles, amphibians, and invertebrates. During that time, he oversaw the state's Vernal Pool Certification Program and created the Massachusetts Potential Vernal Pool Survey, a state-wide aerial photographic interpretation of potential vernal pools. He also spent 15 years as the Conservation Director for a non-profit land trust in Lincoln, MA. He is the author of several publications and conducts public outreach and education on a regular basis.

PROJECT EXPERIENCE HIGHLIGHTS

Warren Road Pocket Park, Town of Upton, MA
Senior Ecologist

Provided preliminary permitting assessment for compact trail amenities on a challenging site with wetland resources. Coordinated wetland delineations and supported project team in initial meeting process with Conservation Commission.

Goddard Park, Town of Auburn, MA
Senior Ecologist

Provided preliminary permitting assessment for preferred trail alignment on site with significant physical constraints and coordination with project team to review permitting feasibility. Coordinated wetland delineation and integration with Survey for baseline project mapping.

Warner Trail Feasibility Study, Town of Canton, MA

Senior Ecologist

Provided preliminary permitting assessment and ecological risks assessment for Warner Trail routing options. Coordinated wetland delineations along leading preferred alternative routes and coordination with local Conservation Agent to assess permitting challenges.

Grand Trunk Trail, Town of Sturbridge, MA

Senior Ecologist

Supported construction phase mitigation measures to assure avoidance of impacts to rare species habitat, including consultation and coordination between local and state permitting agencies, project team, and construction contractor, and construction monitoring.

Blue-spotted Salamander Survey, Northeastern Massachusetts

Senior Ecologist

As part of a state-wide effort to improve documented species distribution information, Matt. provided contracted intensive, Blue-spotted Salamander (*Ambystoma laterale*) surveys for breeding adults using trapping and visual encounter survey techniques, and visual encounter surveys for egg masses in northeastern Massachusetts. Trap data and visual encounter survey data were synthesized for reporting to the Natural Heritage & Endangered Species Program.

Comprehensive Reptile and Amphibian Survey of Camp Curtis Guild, Massachusetts Army National Guard, Reading, MA

Designed and executed a comprehensive reptile and amphibian and vernal pool habitat survey of the Camp Curtis Guild Army National Guard base in eastern Massachusetts under contract with the Massachusetts Natural Heritage & Endangered Species Program. Field surveys included baited trapping for amphibian adults, larvae, and turtles, visual encounter surveys for adult and larval amphibians, snakes and turtles, and cover board surveys for upland snakes. Documentation of 50 vernal pools, as well as populations of state-listed, Blue-spotted Salamanders (and hybrid Jeffersonianum complex), Spotted Turtles, and vernal pool-dependent invertebrates resulted from the project.

Vernal Pool Evaluation, Municipal Conservation Commissions, MA

Ecologist

Town of Bolton –Responsible for providing the Town of Bolton Conservation Commission with an independent review and analysis of suspected vernal pool habitat and impacts that were believed to have resulted from unpermitted work. Matt conducted a site visit with Conservation Commission members and project representative and provided written comments to the Commission based on evaluation of the site.

Town of Wayland – Responsible for evaluating an atypical site for vernal pool function as part of an ongoing review of redevelopment plans for a town-owned open space parcel. Matt conducted two site visits to sample spring-breeding amphibians and other wildlife using the site and provided written comments to the Conservation Commission for use in negotiations among town agencies with competing interests in the site.

Where's Your Walden? Exhibit, Walden Pond Visitor Center, Concord, MA

Designer

Responsible for the design, installation, and management of an interactive digital exhibit in the Walden Pond State Reservation Visitor Center. Matt was the lead developer of an exhibit designed to engage visitors at the newly renovated Walden Pond State Reservation Visitor Center. Working with park staff and other stakeholders, an interactive experience was designed to engage visitors in thinking about special places with personal connections to provide a connection to Henry David Thoreau's sense of place at Walden Pond in the middle-1800s. Matt worked with software developers, designers, hardware vendors, and installation contractors to build and install the exhibit.

Invasive Species Management on Brister's Hill, Walden Woods Project, Concord, MA

Ecologist

Responsible for developing and executing an invasive species management plan. Brister's Hill is an 18-acre parcel of conservation land with a self-guided interpretive trail that received heavy passive recreational use. The site is clear of invasive plants but had a significant stand of glossy buckthorn in one concentrated ¼-acre hillock on this site. The project spanned a period of five years, with Matt overseeing volunteer groups to contribute to the hand-pulling effort to remove glossy buckthorn plants. The infestation was reduced by over 90% over the course of the project.

BSC GROUP

Catarina
Martinez, MEM

Resilience Planner, Climate Resilience Services

YEARS OF EXPERIENCE

5

EDUCATION

Master of Environmental Management
Duke University

A.B. Integrative Biology
Harvard College

AFFILIATIONS

Urban Land Institute

Harvard Alumni for Climate and the Environment

Harvard Alumni for Agriculture and Food

MEET CATARINA

Catarina is a Resilience Planner in the Climate Resilience Services Division and brings experience in the fields of city- and municipal-level resilience, public-private partnerships, regenerative agriculture and sustainable food systems, air pollution, and environmental justice, with a focus on the efficacy of policy tools, science communication (she speaks fluent Spanish), and community engagement.

CATARINA IS CURRENTLY ASSISTING IN THE DEVELOPMENT OF AN UPDATED MUNICIPAL VULNERABILITY PREPAREDNESS PLANNING GRANT PROGRAM.

PROJECT EXPERIENCE HIGHLIGHTS

Municipal Vulnerability Preparedness (MVP) 2.0, Commonwealth of Massachusetts' Executive Office of Energy & Environmental Affairs

Resilience Planner

Involved in multi-consultant project to reformulate the MVP planning process, which provides support for cities and towns in Massachusetts to identify climate hazards, assess vulnerabilities, and develop and implement actions plans to improve resilience to climate change. Catarina focused on stakeholder engagement and the creating of tools to support the refreshed approach, specifically the development of written, visual, and videographic content as well as a GIS dataset for a robust web tool that guides cities and towns through the task of identifying their vulnerabilities through the use of mappable data and other resources, such as the Massachusetts Department of Public Health.

Climate Resilience and Equity Metrics Development Project, Massachusetts Bay Transit Authority (MBTA) Capital Delivery

Resilience Planner

Involved in multi-consultant project to develop preliminary metrics for all equity and resilience-related features for MBTA projects – from preliminary design (15% design completion) through construction. The process involved performing a baseline analysis, stakeholder interviews, workshops, development of metrics, and a Memo of Findings. Catarina focused primarily on the final presentation of the baseline analysis spreadsheet, which included 44 documents, 350 indicators, and identification of all measurable targets relating to different project phases (such as construction or maintenance/operations), to different equity themes (including race, ethnicity, language, and disability), and to different climate change targets (via both mitigation and adaptation).

Penobscot Climate Action Regional Climate Vulnerability Assessment, Bangor Area Comprehensive Transportation System, Penobscot County, ME
Resilience Planner

As part of the vulnerability assessment, Catarina was involved with the methodology, design, analysis, and development of a GIS asset mapping database and initial vulnerability asset screening report. The project involved a robust data collection and organization effort, coordination with 11 municipalities and other stakeholders such as the University of Maine, stakeholder interviews, and public meetings with community members. The assessment report addressed key environmental, infrastructure, and community assets in the region, including the local economy and health.

PRIOR TO JOINING BSC GROUP, CATARINA WAS INVOLVED WITH THE FOLLOWING PROJECTS:

Climate Action Research, Harvard Business School, Boston, MA
Research Associate

Catarina was responsible for conducting interdisciplinary research on Climate Action and other resilience and equity projects (as well as other topics such as public-private partnerships during COVID-19 response and leadership) in cities across the United States and Europe, including Miami and Chicago. Catarina engaged businesses, non-profits, professors, and other stakeholders through meetings and interviews to provide information to synthesize with the research team. Catarina assisted with the generation of multiple Harvard Business School case studies and affiliated documents.

Carbon Experimentation, Indigo Agriculture, Boston, MA
Analyst

Catarina was responsible for gathering and synthesizing scientific research on regenerative agriculture – which required acquiring complex data from databased and scientific literature to inform the future of Indigo's Carbon program (which allows farmers to receive carbon credits for their carbon offsets, in turn increasing soil health and reducing greenhouse gas emissions). She presented information to various company representatives and outside partners via both written and visual methods.

Approach to Work & Work Plan

Experience in Climate Resilience Planning

Recognizing the essential role of climate resilience and open space design in healthy communities, BSC Group has worked with numerous municipalities to identify opportunities to preserve, protect, restore, and make open space areas more resilient to climate change impacts, in other words, to identify, design and implement nature-based solutions. Elements of our approach consider habitat and biodiversity preservation, ecological restoration, climate resilience, recreation, multi-modal linkages, community connections, and accessibility. We typically seek out synergies where the expansion of open space and ecological resources can further protect communities from the effects of climate change.

BSC Group's project team members have worked on numerous open space planning and climate resilience projects, both as stand-alone projects and as components of larger community revitalization, ecological preservation, and recreational enhancement efforts, involving parks, municipal property, passive open spaces, and multi-modal pedestrian connections to link such resources. Through consideration of factors such as ecological value, natural site features, cultural resources, user needs, adjacent land uses, ease of maintenance, climate resilience, ecosystem carbon storage and sequestration (climate mitigation), and safety, our team evaluates open space opportunities and constraints, and develops management plans that are environmentally sensitive, aesthetically pleasing, cost effective, and sustainable. BSC's successful interdisciplinary team's experience to evaluate and plan for ecological restoration opportunities and that create climate resilient landscapes, will provide the town with the necessary foundation for master planning and creating climate resilience guidelines for the Stow Acres project.

BSC Group has been at the forefront of resiliency planning and design, applying a resiliency review as a fundamental element of project approach. In some cases, returning a landscape to its original condition can mitigate many, if not all, of the challenges associated with developing a sustainable and resilient ecosystem. In other cases, land development within, abutting, or upstream of a site requires the design of a new ecosystem that integrates new climate resilience features with historic elements to create a new sustainable environment. This approach is supported by our in-house team of ecologists, planners, landscape architects, urban designers, wetland scientists, engineers, and Certified Floodplain Managers.

Project Understanding and Approach

BSC understands that the Town of Stow is seeking to prepare a Climate Resilience Master Plan for the Stow Acres property, design and permit proposed uses and facilities, and begin the implementation of the master plan in a phased manner. The CR Master Plan for this 109-acre "Stow Acres North" property will guide the overall site restoration and use and allow it to serve as a model resilient conservation and park destination.

The town's proactive efforts and work completed to date as well as its understanding of key topics and needs to be addressed through this planning process, will serve as a strong base to build on. It is laudable that the town has already identified areas that have the highest conservation values to support future trails, recreation facilities, restored wetlands and streams, inland flood mitigation, and conserved riparian corridors along Elizabeth Brook and the Assabet River. BSC appreciates that the town seeks to incorporate scientifically grounded and nature-based resilience solutions that are aimed at increasing the ecological and landscape diversity of the property. It is expected that the master plan will remove golf elements, restore historically altered wetlands, increase flood storage, revegetate stream buffers, plant trees and shrubs, provide accessible public trails and recreation facilities, all while integrating the property with the surrounding neighborhoods. We can also introduce ideas from other BSC projects, such as the development of a pollinator habitat within the EMD Serono campus in Billerica, how to build naturalized uplands in previously developed sites from our Ayer Devens Pocket Forest Guide, and stream daylighting at Lord Pond Plaza and Athol.

The Master Plan will holistically incorporate climate change mitigation and adaptation strategies as well as ensure consistency with current and future planning efforts being undertaken in the adjoining housing development and reconfigured golf course. BSC will build upon lessons learned from similar projects, such as our role as environmental monitors for the construction phase at the Millwood Preserve in Framingham as it transitioned from golf course to housing and conservation land. During construction phase monitoring, species were mapped both for management of invasives and for conservation, and nesting migratory birds were protected. A surprisingly high ratio of wetland natives returned when golf course mowing stopped and as natural hydrology was restored or re-created (including daylighting of a previously piped stream). The big lesson learned is golf course drainage and irrigation hides natural wetland soil, hydrology and species that will re-emerge once artificial

drainage and irrigation are disrupted. The irrigation and drainage structures should be disrupted and natural vegetation/ drainage allowed to return for a year before new wetland delineations and development boundaries are set to avoid chasing a moving target for conservation while in the midst of development. At Millwood Preserve, designers and engineers had not been able to anticipate the scale of the hydrologic changes that occurred as the golf course converted to other uses. For example, Millwood designers and engineers had anticipated an area of golf course would become a wet meadow – in reality it became a large pond.

BSC's project team frequently works closely with non-technical audiences including project review committees and citizen groups, to explain technical information in general and lay-person's terms. .

The BSC team will use a robust and comprehensive public engagement effort to enable citizens to identify the site features and amenities deemed desirable by various stakeholders and educate the community on resilient design and planning. BSC is well aware that there are a wide range of community needs, planning goals and resiliency standards to be incorporated into any given Climate Resilience Master Plan. We also understand that multiple public and private entities as well as community stakeholders are involved with the use and management of various open spaces and natural resources in towns. We will therefore thoughtfully approach this project knowing the importance of protecting and preserving the community's cultural, historic, open space, and natural resources. While we recognize the importance of providing passive recreational opportunities, it is also critical to invest in climate resilience, while meeting the needs of all users, regardless of age and ability.

Recommendations and plans for the ecological restoration and facility development at the site will allow for a phased plan implementation that will be affordable for the town and allow for adaptive management of the restoration areas. BSC will work closely with the Project Working Group to plan for a 5-year phase out of the driving range and other golf uses on the Stow Acres North property. With the removal of the golf course elements, the town's ecological restoration activities are expected to occur in conjunction with this timeline, while the trail development is expected to occur sooner.

BSC's design standards typically require passive recreation facilities to maximize resilience through drought tolerant grasses, restoration of and/or preservation of healthy soils, water reuse, stormwater recharge, diverse tree and shrub plantings, wetland and floodplain restoration, among other provisions. Through MVP Action Grant projects, BSC recently developed an effective and resilient land management tool and guidance that would be very applicable to the Stow CR Master Plan. This tool and associated guidance will ensure that ecological restorations/ nature-based solutions on the project site will serve as models for climate resilience and enhanced ecosystem carbon storage and will help educate the user community about the anticipated impacts of and mitigation strategies for climate change. The project also offers a great opportunity to serve as a demonstration project for educating the resident community and visitors through interpretive signage, that could have QR codes for providing additional information.

PUBLIC ENGAGEMENT AND CONTEXTUAL DESIGN

BSC understands that the Town of Stow has already organized a Working Group with a diverse membership to ensure that it brings its best thinking to this process and engages residents in understanding and incorporating the issues of climate resilience and mitigation as they relate to this site. This Working Group, including the Town Administrator, Conservation Director, Recreation Director, and Planning Director, will be critical in providing support to this effort being coordinated by the Conservation Director. It is expected that this Working Group will meet every 1-2 months for the duration of the project with most or all the meetings occurring via Zoom.

We also have extensive experience in using multiple types of asynchronous public engagement methods to reach community members who don't typically have the time to attend meetings or who have an engagement style that makes them less likely to attend or speak up at public meetings. Our Project team members are highly experienced in engaging and educating the public, soliciting opinions and feedback, and building community consensus. Our success stems from our emphasis on stakeholder input and commitment, clear visual materials to support the visioning process, and skilled explanations of technical concepts to a wide audience in an easy-to-understand way.

BSC is excited to further explore new ways of involving local schools and scouts in the project and is committed to make those a critical part of the planning process. Having worked closely with watershed groups like Mystic River Watershed Association and the watershed organization for the Sudbury, Assabet, and Concord Rivers (OARS) in the recent past, we expect that in the longer term this project will provide an opportunity for community science, supplemented by professional oversight of OARS staff, to monitor the restoration of natural areas as well as the improvement of water quality in the Elizabeth Brook and the Assabet River.

We use both formal and informal meeting methods, as appropriate, to maximize input from participants. For example, BSC has led the public participation process for several Municipal Vulnerability Preparedness Planning projects across MA, which entailed managing several public meetings and working closely with an ad hoc project advisory committee assembled by the towns. The advisory committee helped BSC identify key individuals and groups to invite to public meetings; promote these meetings, which included planning charrettes; and analyzing the input received from the public. BSC has also used the public meeting process to seek input on various planning and design scenarios, discuss the pros and cons of each, and ultimately determine a preferred solution based on the most effective climate resilience strategies.

In Hudson, BSC staff led a community volunteer effort to train and oversee citizen groups and scouts who then helped remove invasive species along the Assabet River, and plant new vegetation for riverbank stabilization. These hands-on and in-the-field events can be a very effective community engagement tool.

Scope of Services and Timeline

BSC proposes the following Scope of Work divided into three primary phases, in accordance with the scope presented in the project RFP:

Site Characterization Phase:

July-October 2023

TASK 1

Existing Conditions Analysis, Natural Resources Inventory and Project Kickoff

BSC will review background data (including GIS mapping), documents, and reports provided by the town and mapping developed by BSC's GIS staff. In addition to standard GIS data layers such as hydrology and floodplains, wetlands and vernal pools, rare and endangered species, NRCS soils, and NRCS soil carbon, BSC will produce a data layer for ecological climate resilience using The Nature Conservancy's Resilient Lands Mapping Tool. These documents will assist the project team and the Stow community by providing a broad understanding of existing conditions, opportunities, goals, challenges, and overall objectives. Once the background review is complete, BSC proposes to have a kick-off meeting with town staff and members of the Working Group to establish communication protocols/process, set clear expectations, gain insight into the town's previous and current initiatives and challenges affecting the community, identify additional data needed and key stakeholders to involve, and also discuss any project concerns.

As part of the Site Characterization phase, BSC will analyze existing conditions, assess the landscape context of the property and complete a Natural Resource Inventory of the study area. This will include site hydrology (wetlands, floodplains, man-made alterations), topography (topographic survey of the entire project area using publicly available data), soils, areas with higher quality wildlife habitat value, location of golf facilities to be removed, wooded and open areas. However, for the wetland restoration area, an on-the-ground survey including the driving range and spot grades of culvert inlets and outlets will be conducted to inform the conceptual restoration plan and cost estimate more accurately. Our Natural Resources Inventory will include a broader look at the landscape scale context of the site to broaden our understanding of existing conditions and also enrich the value of project outcomes.

TASK 2

Public Outreach and Community Engagement

BSC will define a community-based vision for the Project based upon broad and inclusive public engagement of a variety of stakeholders, interest groups, residents, property owners, businesses, and those who live or work in Stow. We will also plan and lead two community site visits in order to familiarize participants with the sites' natural resource inventory as well as the approximate location and siting of various climate resilience strategies.

BSC will work closely with the town to make the planning process as community-based and transparent as possible, providing opportunities for learning as well as engaging community members in discussions related to siting of various climate resilient strategies. We will assist the town staff and the Working Group in developing materials/graphics/language to be dispersed for public outreach and engagement, through flyers, online surveys, presentation slides, and various social media platforms. BSC understands that the town and the Working Group have already developed an approach for public engagement, which includes attending two zoom meetings (introductory and site characterization review) with the Working Groups and monthly zoom meetings with the town staff (to address progress/upcoming meetings and project coordination). BSC has also conducted several public engagement meetings virtually over the past two years and can easily accommodate any remote

meeting needs suitable for engaging a diverse set of audiences, including utilizing the Zoom video conferencing platform. BSC is well equipped to facilitate a community "Bio-Blitz"/scavenger hunt at the site to assist with the natural resource inventory and encourage people to submit photos of themselves at their favorite spots on the site.

BSC has also successfully engaged residents who may otherwise be unable or unlikely to attend in-person meetings and events, by utilizing Konveio as a public engagement platform for soliciting public feedback online. We have found online engagement platforms to be especially beneficial in engaging a community because of the flexibility they offer. This engagement platform complements our in-person approach that typically includes a short presentation followed by an open-house format, which uses multiple tables with dot voting, posters, vision boards, post-it notes, etc. We have found that an in-person approach supplemented with an online engagement component (e.g., online survey, ESRI storymap and project website that allows for interactive mapping exercises, etc.) tends to be most successful in ensuring a representative community engagement process.

Visioning & Planning Phase:

October 2023-January 2024

TASK 3

Project Visioning and Master Planning

BSC will undertake a variety of tasks to create a Master Plan that not only focuses on climate resilience but also provides opportunities for ecological restoration across the site. In addition to developing a Vision Statement, BSC is excited to create Goals and Policy Statements for the Master Plan that reflects input from the interactive public process, community values and strategies for climate resilience and ecological restoration. For example, as part on the Public Meeting #1, BSC will engage the community in discussions about the meaning of resilience for Stow Acres, their ideas on ecological restoration for the site, and setting community priorities with the use of vision boards.

Other tasks to help inform the project Vision, Goals and Policies will include focused outreach to other key stakeholders and coordinating closely with the town staff in preparing presentation materials and assisting with strategy. As mentioned in the project approach section, BSC will also implement electronic and asynchronous engagement (e.g. utilizing vision boards, virtual focus groups etc.) to engage those unlikely or unable to attend public meetings. BSC will additionally participate in at least two community site visits and meet with the town's conservation commission and staff to discuss goals and options for the wetland restoration.

Once the public comments and feedback from various stakeholder meetings is synthesized by BSC, we will hold Public Meeting #2 in January 2024 to share the Vision, Goals and Priorities identified through the visioning. We will also continue meeting with the Working Group and attending monthly meetings with the town staff to manage the project and track progress via Zoom.

Recommendations Phase

January 2024-May 2024

TASK 4

Develop Draft Master Plan and Recommendations

Based on the existing conditions analysis, feedback received from public outreach and the project visioning session, BSC will develop conceptual design plans and draft recommendations in the first quarter of 2024. The conceptual designs will include some alternative layouts based on the different climate resilience strategies considered. These alternative layouts will be discussed with the town staff and the Working Group to assess the pros and cons for each before they are publicly shared. After receiving input from all stakeholders, BSC will prepare a preferred Master Plan for Stow Acres along with recommendations for appropriate layout, materials, and implementation strategies.

Based on the preferred Master Plan design, BSC will develop cost estimates for the wetland restoration at the Stow Acres Driving Range along with the recommended strategies.

This draft plan, recommendations and cost estimate will then be presented at Public Meeting #3 to seek community feedback both in an in-person and virtual settings. BSC's landscape design and ecological restoration staff will incorporate this feedback to further refine the design and the recommendations. As the concept plan and recommendations are finalized, BSC will start working on a final report in the form of a narrative with site plans conveying the preferred concepts and recommendations. In addition to identifying the golf elements for removal, BSC will create for the final restoration plans for the project site, while maintaining flexibility for its future use.

Besides restoring historically altered floodplain, wetlands and stream corridors at the Stow Acres Driving Range, the Climate Resilience Master Plan will prioritize the creation of restored wetlands and enhanced flood storage on a 12–15-acre portion of the site. The Green stormwater measures designed to manage runoff from any new recreation facilities on the site, will also encourage stormwater recharge.

It is expected that a few existing culverts would need to be removed or modified to enhance riparian flows and increase connectivity for wildlife. In order to restore the riparian corridors along streams and increase biodiversity, landscape complexity and habitat values in the upland areas of the property, it will be critical to create open meadows and plant trees and shrubs that can adapt to future climate conditions.

To create an accessible recreational trail around the perimeter of the property it will be critical to interconnect it with recreational elements along the 3-mile trail at the Stow Acres South Course, while incorporating user facilities like benches, overlooks, and shade structures.

BSC will ensure that any active and passive recreation facilities on the property are guided by the community outreach that occurs in conjunction with this planning effort and which will also involve outreach to surrounding communities. Integrating resilient recreation facilities with nature-based solutions will significantly help minimize heat island impacts and reduce water use for irrigation.

BSC will also explore the feasibility of water-based recreation through providing canoe/kayak access to Elizabeth Brook and Wheeler Pond. Additionally, the conceptual design will ensure that adequate access and parking is provided in order to serve the town facilities, including redeveloping the existing driving range parking lot on Randall Road. This lot will serve visitors, with interpretive elements overlooking the restored driving range. BSC will also help the town Identify opportunities for interpretive trails, inclusive and welcoming signage to direct visitors to the property and develop educational materials to engage those using the property in understanding climate change and the reason for selection of nature-based solutions on the property.

BSC understands that the town is planning to identify common invasive species on the site and develop specific recommendations for their management. We will therefore share information with the town regarding our past experiences with invasive species management to help inform these recommendations. We will also coordinate as needed with permitting agencies to understand regulatory requirements and ensure that the final design is feasible/permittable, especially with regard to wetland permitting.

BSC will create climate resilient design standards to underpin all future use of the site including pervious surfacing, water reuse, rainwater collection, native plantings, and other elements. Once these design standards are finalized BSC will develop a logical and cost-effective phasing plan with next steps (and cost estimates where feasible) for the construction and maintenance of these features. This phasing plan will also prioritize some "early wins" in terms of enhancing site resilience and providing opportunities for the public to use and enjoy the property during the expected 10–15-year implementation plan. BSC will identify clear metrics for measuring the progress toward implementing various climate resilience elements of the Master Plan.

Cambridge Discovery Park, Cambridge, MA

Our incorporated Green Infrastructure design elements to compensate for the displacement of floodwaters caused by site redevelopment. BSC utilized innovative stormwater management techniques to promote a combination of engineered and naturalized design strategies.

THE CITY OF CAMBRIDGE'S APA GO GREEN AWARD, 2022 ACEC/MA ENGINEERING EXCELLENCE SILVER AWARD

Additional Value-Added Services

BSC understands that the Town desires robust public engagement and that drafts of the Master Plan may require multiple iterations prior to being finalized. We would also like to review the prior public input received and brainstorm additional ideas to increase and diversify community participation. BSC will work with the Town staff and the Working Group to develop a comprehensive outreach approach and schedule of public engagement activities, including but not limited to interviews, public forums, an interactive online project hub, and social media outreach.

We would also propose the use of a digital outreach platform called Konveio to create and maintain a project website linked with the Town's website that will continually inform the public of meetings, history, updates, drafts, etc. Konveio is an online civic engagement and stakeholder collaboration tool that offers multiple functionalities, including document collaboration tools and virtual or hybrid public meetings/ forums that prioritize accessibility, flexibility, ease of use, administrative control, privacy/permissions, and analytics. Konveio can be structured to present information in a variety of configurations to represent the project as envisioned by the Town staff and the Working Group. Pages can be embedded in infographics and multimedia presentations, and information can be modified at any time.

BSC has successfully implemented Konveio to support communication for a Master Plan in Bolton, MA. A project website was not requested as part of the RFP's scope; however, at the Town's option, BSC can implement Konveio for the Climate Resilience Master Plan for an added fee.

In addition, BSC seeks to incorporate innovative technology and approaches that add value to our clients. This Climate Resilience Master Plan is a strong candidate for the use of drone flights to enhance understanding of the site ad support visual communication. BSC proposes gathering drone data alongside the fall and spring assessments. This would generate crisp aerials for the project area that can be incorporated into the project's GIS data viewer and enhance all other visual deliverables. This data could also serve as a baseline for subsequent drone data collection efforts over time as the master plan is implemented and the site is transformed. Two drone flights and data processing could be provided at the Town's option for an additional fee.

Work Samples

In the interest of conserving resources, BSC will be emailing the following work samples:

- Town of Upton's Recreation Master Plan
- Town of Shrewsbury's Four Parks Master Plan

References

Rebecca Bucciaglia
Conservation Agent
Town of Bolton, MA
978-779-3304
rbucciaglia@townofbolton.com

Alison Field-Juma
Executive Director
Organization for the Assabet, Sudbury, and Concord Rivers (OARS)
978-369-3956
office@oars3rivers.org

Alan Manoian
Executive Director
Director of Community & Economic Development
978-772-8206
amanoian@ayer.ma.us

Thomas Philbin
Communications Director and Conservation Agent
City of Everett, MA
978-369-3956
office@oars3rivers.org

Angela Snell, CPRP
Superintendent of Public Facilities & Parks
Town of Shrewsbury Department of Public Works
508-841-8337
asnell@shrewsburyma.gov

Certifications

Certificate of Non-Collusion

Chapter 30B, § 10

"The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals."

BSC Group, Inc.

Individual or Corporate Name of Proposer

Signature of Authorized Agent

Printed Name of Authorized Agent

James Fasser, RLA, AICP, LEED AP

05/15/2023

Date

Certificate of Tax Compliance

Pursuant to Massachusetts General Law Chapter 62C, § 49A, I hereby certify under penalties of perjury that I have, to the best of my knowledge and belief, filed all state tax returns and paid all state taxes required under law.

04-2399903

Social Security or Federal I.D. Number:

Signature: Individual or Corporate Officer

05/15/2023

Date

Please Print

Corporate Name: BSC Group, Inc.

Address: 803 Summer Street

P.O. Box:

City, State, Zip Code: Boston, MA 02127

* Your Social Security Number or Federal Identification Number will be furnished to the Massachusetts Department of Revenue to determine whether you have met tax filing or tax payment obligations. Proposers who fail to correct their non-filing or delinquency will not have a contract or other agreement issued, renewed, or extended. This request is made under the authority of M.G.L. Ch. 62C, § 48A.

CERTIFICATE OF AUTHORITY
MEETING OF BOARD OF DIRECTORS

At a meeting of the Directors of the BSC Group, Inc. (Corporation) duly called and held at BSC Group, Inc. - Worcester Office on the 13th day of July, in the 2022 year at which a quorum was present and acting, it was voted, that James Fasser, RLA, AICP, LEED AP (name) the Vice President, Team Lead - Community Design Resilience (title/position) of this Corporation is hereby authorized and empowered to make, enter into, sign, seal and deliver, on behalf of this Corporation a Contract for the Stow Acres Climate Resilience Master Plan (brief description) with the Town of Stow, and performance and payment bonds (each in the amount of the Contract) in connection with such Contract.

I hereby certify that the above is a true and correct copy of the record, that said vote has not been amended or repealed and is in full force and effect as of this date, and that James Fasser, RLA, AICP, LEED AP *is duly elected* Vice President, Team Lead - Community Design Resilience *of this Corporation.*

Clerk or Secretary of the Corporation

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