



Biohabitats

ASLA Landscape Architecture Firm Award
2023

Image: Beaver Creek Restoration Design-Build Munson Township, Ohio, completed 2022 © David Ike Photography



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Richard J. Weller
Professor and Chairman
Martin and Margy Meyerson Chair of Urbanism
Co-Director, Ian L. McHarg Center

ASLA Board of Trustees
American Society of Landscape Architects
636 Eye St., NW Washington, DC 20001

Re: Nomination of Biohabitats for ASLA Landscape Architecture Firm Award

Dear Trustees:

Throughout my career—and particularly as Chair at Penn over the last ten years—I have made a point of tracking the best landscape architecture practices in the world. From that perspective, I believe Biohabitats is one of, if not *the* most important firm practicing in the world today. In terms of ecological design methodology, putting theory into practice and producing social and ecological good, the integrity of the firm is second to none. I also think now is exactly the right time to elevate them as a role model and remind the global design community of the integrity, beauty and power of landscape architecture’s fundamental calling to “restore the earth.”

In over four decades, Keith Bowers and his ever-expanding team of environmental scientists, engineers, community planners, and landscape architects have built an extraordinary and exemplary practice. The culture of the firm is deeply ethical, scientifically rigorous, and utterly focused on ecological stewardship. Whereas in many instances words such as “restoration” and “stewardship” roll all too easily off the tongue: Biohabitats walk the talk. They do so in their projects, in their office culture, and in their public relations.

Biohabitats is not just making pretty pictures of nature or imposing their personal aesthetic predilections on sites. They approach every project as an interdisciplinary, socio-ecological experiment in evidence-based learning and they do so with modesty, diligence and a generosity of spirit that is borne of a profound respect for, and knowledge of ecological systems. Their method of using an economy of means to restore and secure the biological integrity of a site so that it catalyzes ongoing and self-organizing natural processes that are keyed into local culture demonstrates what “designing with nature” truly means.

At this moment—the beginning of the UN Decade of Restoration—the ASLA should grasp the opportunity to acknowledge this firm’s unique level of commitment to the core values of our profession. Bestowing the award on Biohabitats would send a strong and timely message that landscape architecture is indeed an art and

Stuart Weitzman School of Design

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a science capable of practically addressing the single most important challenge facing humanity in the 21st century — the restoration of ecological systems.

I am honored to nominate Biohabitats for the 2023 ASLA Firm Award.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Richard Weller". The signature is fluid and cursive, with a large, sweeping initial "R" and a long, horizontal flourish at the end.

Prof. Richard Weller
Martin and Margy Meyerson Chair of Urbanism
Co-Executive Director, The McHarg Center,
Weitzman School of Design, University of Pennsylvania



History of the Firm

Biohabitats' ecological services for Brisbane Baylands, California include Rapid Ecological Assessment, Wetland Delineation Report, Biological Assessment, and plans for Wetland Mitigation and Habitat Protection, including Butterfly Protection and Marsh Protection Plans.

History of the Firm

Biohabitats began in 1982 with Keith Bowers' vision of a practice grounded in landscape architecture, science, and engineering where professionals in these disciplines would collaborate to restore ecosystems. Though little was then known or acknowledged about the interconnected crises of climate change and biodiversity loss, and terms like “green infrastructure” and “nature-based solutions” would not be coined for another decade, Biohabitats' team of biologists, ecologists, and engineers began collaborating to create and deploy strategies promoting the power of healthy, functioning ecosystems to improve water quality, wildlife habitat, community resilience, and connection to the landscape. Collectively, they defined the firm's mission: ***“Restore the earth and inspire ecological stewardship.”***

While the drivers, approaches, and markets associated with Biohabitats' work evolved and expanded in the ensuing 40 years, the design-build firm continues to apply the fundamentals of landscape architecture, the principles of engineering, and the sciences of restoration ecology, conservation biology, and landscape ecology to help communities protect, restore, regenerate, and reconnect with Earth's life-sustaining natural systems.

Biohabitats' earliest commissions were driven by federal and Chesapeake Bay regional legislation. In their first three years, the firm helped 24 municipalities prepare Chesapeake Bay Critical Area plans to guide local land use, zoning, and development standards to improve water quality and restore habitat. In 1989, Biohabitats collaborated with the U.S. Army Corps of Engineers, National Park Service, and others to transform a lifeless mudflat along the Anacostia River into a thriving freshwater tidal wetland adjacent to Kenilworth Park & Aquatic Gardens. Using the pioneering framework now known as “adaptive management,” Biohabitats applied novel soil bioengineering approaches to demonstrate that urban freshwater tidal marsh restoration was possible. The Kenilworth Marsh Design-Build Tidal Wetland Restoration is one of the first large-scale applied research projects of its kind. Biohabitats further advanced the technique of soil bioengineering, even preparing manuals on the topic for state and municipal agencies.

In the 1990s, Biohabitats co-developed the concept of bioretention for Prince George's County, Maryland, and it is now widely used throughout the world as a green infrastructure practice to address urban stormwater runoff. Biohabitats' urban restoration practice continued to expand with landscape architects leading regional watershed management planning throughout the country. As the prime contractor for a multi-year Great Lakes restoration contract with the Corps of Engineers—a rarity for a landscape architecture firm—Biohabitats planned and implemented efforts to address toxic substances, invasive species, nonpoint source pollution, habitat degradation, and other water quality issues affecting the world's largest surface freshwater system. Biohabitats is currently working with the State of Ohio and others to restore coastal wetlands to improve water quality and habitat for the 64-square-mile Sandusky Bay.

By the 2000s, as awareness of ecological restoration and its stacked benefits increased, so, too did Biohabitats' practice. More communities began seeking innovative approaches to land planning, development, and stewardship. In 2004, for example, Biohabitats, the City of Pittsburgh, and the Corps of Engineers embarked on the restoration of Nine Mile Run, one of the largest urban stream restoration projects in the U.S. It transformed a toxic stream system degraded by steel slag leachate, sewage from aging infrastructure, and other impacts from the region's industrial legacy, into a biodiverse and fully functioning ecosystem, now a key feature of the City's Frick Park. The restoration work prompted the creation of a volunteer Urban EcoStewards program that continues to this day.

Responding to the growing demand for proactive ecological planning and restoration, the firm focused on cultivating landscape architects with dual backgrounds in the sciences, engineering, or conservation planning. Recognizing that bioregions play a more significant role in how human and non-human species function, Biohabitats adopted the concept of bioregions as its framework for geographic expansion. Biohabitats now operates out of nine bioregions throughout North America, each defined by its natural features and cultural environment.

Recognizing that water was the next environmental crisis, Biohabitats expanded its green infrastructure focus to include natural wastewater treatment, water harvesting, and greywater reuse. The move propelled landscape architecture into areas dominated by engineering firms and further demonstrated the landscape architect's role in solving environmental challenges. It also added wastewater and water reuse engineering to Biohabitats' array of disciplines, enabling the firm to bring its mission into the built environment. Providing ecological and water expertise, Biohabitats often collaborates with planning and architecture practices to achieve rigorous sustainability and performance requirements, like those of the Living Building Challenge and SITES, often helping these partners garner ASLA and AIA COTE Top Ten awards.

Long before the UN declared the beginning of the Decade on Ecosystem Restoration in 2021, Biohabitats was heeding the call to expand efforts to prevent, halt and reverse ecosystem degradation. In the mid-2000s, Biohabitats launched Bioworks, a research and

development group, to advance the practice of conservation and restoration. Having offered design-build services from its earliest days, Biohabitats also launched a self-performing restoration construction practice—Biohabitats Construction—in 2015 to focus primarily on large-scale river restoration and dam removal projects in New England, the Midwest, and the Pacific Northwest.

Biohabitats' recent work engages the rising awareness of the intertwined crises of biodiversity loss, climate change, and environmental justice. Biohabitats is collaborating on hundreds of projects that directly address these pressing issues. Working with Metro Denver Nature Alliance, a 50-organization coalition co-founded by The Nature Conservancy, Biohabitats is creating a framework for holistically restoring, protecting, and enhancing habitat connectivity while considering social vulnerability and public access. Similarly, Biohabitats is supporting Washington DC's District Department of Energy & Environment's effort to improve the Anacostia River corridor and its historically underserved communities while addressing future pressures of climate change, sea level rise, and continued development. The firm's ongoing work with the City of Austin to assess climate vulnerability of its parkland will improve resilience while yielding climate, biodiversity, and social justice benefits.

Advocacy & Values – Looking Outward and Inward: Biohabitats uses its public voice to advocate for nature. In 2010, Keith Bowers focused global attention on the critical need for ecological restoration, making a formal intervention at the Tenth Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP10) in Nagoya, Japan, calling for the development of practical guidance to restore degraded ecosystems. COP10 signatories adopted a Strategic Plan for Biodiversity, which included restoring and safeguarding ecosystems while restoring a minimum of 15% of degraded ecosystems by 2020.

Through projects, pro bono work, publications, and presentations, Biohabitats has been amplifying voices from underserved populations in the planning, design, and land use decision-making arena. This includes working with Indigenous communities in restoring ecosystems on Tribal land and protecting their rights to clean water. The firm has collaborated on Tribal-led projects that provide jobs and hands-on educational opportunities for Tribal workers, volunteers, and students. For 13 years, Biohabitats has served as a technical expert for a coalition of Indigenous-led women's organizations and watershed stewards that banded together to ensure that community waters impacted by Los Alamos National Laboratory are kept safe for drinking, agriculture, and sacred ceremonies.

Biohabitats is actively addressing the need for increased diversity, equity, and inclusion within the fields of ecological planning and design—and within their own practice. As part of Biohabitats' DEI program, the firm has an interdisciplinary, paid internship program that prioritizes candidates from Historically Black Colleges and Universities, Hispanic Serving Institutions, and Tribal Colleges and Universities. Biohabitats is an inaugural sponsor of the Landscape Architecture Foundation's Ignite program, which provides scholarships, internships, and mentorship for BIPOC college students, and a sponsor of a fellowship program through the Society for Ecological Restoration that provides an authentic career opportunities to emerging professionals from underrepresented communities. A certified B-Corporation® and 1% for the Planet member, Biohabitats enthusiastically supports nonprofit organizations aligned in this shared mission.

Knowledge Sharing: As a learning organization, Biohabitats eagerly shares strategies, approaches, techniques, and lessons learned via local, regional, and national publications, presentations, conferences, and events. Through teaching courses and guest lecturing in landscape architecture, engineering, and sustainability programs, Biohabitats is also influencing the practitioners of tomorrow.

Biohabitats produces *Leaf Litter*, a free digital publication about ecological restoration, conservation, and regenerative design. Now in its 19th year, *Leaf Litter* has explored an array of themes, ranging from Indigenous wisdom and women in ecology to dam removal and the connection between habitat degradation and zoonotic disease. During the pandemic, Biohabitats launched an open webinar series for exchanging knowledge on topics such as biophilic design, living infrastructure, and ecological frameworks for city planning. Biohabitats helped EcoDistricts develop its *Living Infrastructure Guide*, advancing a new model of collaborative, equitable, and ecologically informed urban regeneration and community development.

Now more than ever, as biodiversity declines at historically unprecedented rates; as climate change impacts appear before our eyes and disproportionately affect marginalized communities; and as centuries of environmental injustices increasingly come to light, the world needs a new breed of problem solvers. 23-year-old Keith Bowers could not have known, back in 1982 when he founded Biohabitats, that the firm would influence the direction of landscape architecture such that it has become critical to the protection, restoration, and regeneration of natural systems that can equitably sustain and enrich all life on Earth.

A full-page photograph of a hiker in a red jacket and tan pants walking up a rocky trail through a dense forest of tall evergreen trees. In the background, a mountain slope with patches of snow and rocky terrain is visible under an overcast sky. The word "Achievements" is overlaid in white serif font on a dark, semi-transparent rectangular background in the upper right.

Achievements

Performing ecological assessments at Pecos Canyon State Park, New Mexico to inform a conservation baseline report.

Achievements

**“If we do our job right,
nobody will notice.”**

— Biohabitats



Biohabitats’ most gratifying accolades come through the senses. The sight of a sandhill crane soaring above a restored floodplain in search of food. The sound of a stream newly liberated from the confines of a dam. The smell of fringed sagebrush carried on the wind across a restored prairie. Nothing is more rewarding to Biohabitats than evidence that its mission is advancing and its work is making a difference – for all of life’s communities.

The firm does, however, take great pride in having helped many allied partners garner prestigious awards, and from the direct recognition Biohabitats has received from peers in landscape architecture, architecture, engineering, planning, sustainability, transportation, public works, natural resources, and high-performance building communities.

ASLA Awards

2021 — Chattahoochee RiverLands

Honor Award, New York Chapter
SCAPE, Gresham Smith, New South Associates, Edwards-Pittman, Dr. Na’taki Osborne Jelks, Dr. Richard Milligan

2019 — Bernheim Arboretum & Research Forest Master Plan

Honor Award For Analysis & Planning
Studio Outside, Lake Flato

2019 — Glenstone Museum Water Feature Design

Honor Award for General Design
PWP Landscape Architecture (lead)

2018 — National Aquarium Waterfront Campus Plan

Honor Award For Research
Merit Award, Maryland Chapter
Ayers Saint Gross

2018 — Shield Ranch Master Plan

Honor Award For Analysis and Planning
Andropogon Associates

2017 — Galveston Island State Park Master Plan

Award Of Excellence, Analysis & Planning
Honor Award for Planning & Analysis, Texas ASLA (2012)
Studio Outside, Overland Partners, PRD Group, and CP&Y

2016 — Baton Rouge Lakes Master Plan

President’s Award Of Excellence, Louisiana ASLA
SWA Group and Jeffrey Carbo Landscape Architects for the Baton Rouge Area Foundation

2016 — Rutgers University Busch & Livingston Stormwater & Landscape Management Master Plan

Merit Award, Maryland ASLA
Rutgers University, Wells Appel, Hydro Qual, and Design Collective

2015 — Stono River County Park Master Plan

Merit Award For Analysis & Planning, South Carolina ASLA
Charleston County Parks and Recreation Commission and Stantec

2013 — Washington Avenue Green Design-Build

Merit Award, Potomac and Maryland ASLA

2012 — Flewellen Creek Stream Restoration

Merit Award for Residential Design Constructed, Texas ASLA
SWA Group and Brown & Gay Engineers

2009 — Jefferson Memorial Forest Master Plan

Merit Award For Design, Kentucky ASLA
Jones & Jones Architects and Landscape Architects

2009 — Stream Daylighting at the Dell, University of Virginia

Honor Award for Design
Honor Award for Design, Virginia ASLA (2007)
Merit Award for Design, Maryland ASLA (2004)
Nelson Byrd Woltz Landscape Architecture & VMDO Architects

Achievements

Select Publications

Bowers, K. and Dowdell, J. "Anchoring Our Cities in Ecological Identity." *Landscape Approach: From Local Communities to Territorial Systems*. Ed. Zander, Hannes; McCartney, S.; Solano, S.; Vangjeli, S. Applied Research + Design Publishing, 2022.

O'Connell, Kim. "Science to Design: The watery, reedy sites of Biohabitats are meant to overcome human disturbance and remake room for all creatures." *Landscape Architecture Magazine*, Oct. 2018.

Streb, Chris. "Building Floating Wetlands to Restore Urban Waterfronts and Community Partnerships." *National Wetlands Newsletter*. March/April 2013.

Hines, Susan. "Applying Ecological Design: Maryland-based Biohabitats synthesizes science, design, and construction." *Landscape Architecture Magazine*, March 2007.

Hammatt, Heather. "Going with the Flow: With an emphasis on restoration and community interaction, landscape architects plan to extend the success of the San Antonio river walk." *Landscape Architecture Magazine*, January 2002.

Thompson, J. William. "Biohabitats: Design for Restoration." *Landscape Architecture Magazine*, September 1992.

Biohabitats has achieved B Corporation status and is a member of 1% for the Planet.



Certified B Corporations use their business to build a more inclusive and sustainable economy. 1% for the Planet is a global network contributing to a healthy planet. Biohabitats donates 1% of our sales to environmental nonprofits.

Select AIA COTE Top Ten Awards

2021 — Georgia Tech: Kendeda Building for Innovative Sustainable Design, Atlanta, GA: Lord Aeck Sargent and The Miller Hull Partnership; Andropogon Associates

2020 — Austin Central Library, Austin, TX: Lake|Flato Architects; Coleman and Associates

2017 — Chatham University, Eden Hall Campus: Classroom Building, Pittsburgh, PA: Mithun

2017 — Brock Environmental Center, Pleasure House Point, VA: SmithGroup; WPL Site Design

2016 — The Dixon Water Foundation Josey Pavilion, Decatur, TX: Lake|Flato Architects

2014 — Sustainability Treehouse, Fayette County, WV: Mithun and BNIM Architects; Nelson Byrd Woltz

2010 — Omega Center for Sustainable Living, Rhinebeck, NY: BNIM Architects; Conservation Design Forum

Additional Awards

2020 — Ivy Road Corridor Stream Restoration Planning and Design

Honor Award For Excellence In Landscape Architecture for Open Space Planning, Society For College And University Planning — University of Virginia, Dumant Janks, VHB, Oehme van Sweden

2019 — Sandy River Engineered Log Jams

Small Project Award, American Council of Engineering Companies of Oregon — Wolf Water Resources, Portland Water Bureau, Metro, Oregon Parks and Recreation Department

2019 — Eden Hall Campus Master Plan, Water Balance, and Wastewater Treatment

Stephen R. Kellert Biophilic Design Award, Honorable Mention, International Living Future Institute — Mithun, BNIM, Civil & Environmental Consultants, and Andropogon

2018 — The Dixon Water Foundation Josey Pavilion Wastewater Treatment and Reuse and Stormwater Management

Stephen R. Kellert Biophilic Design Award, International Living Future Institute — Lake|Flato Architects

2014 — Keya Wakpala (Turtle Creek Development) Master Plan, Phase I Plan, and Engineering Assessment

Seed Award For Excellence In Public Interest Design, Social Team Leads: Economic Environmental Design Network, Blue Star Studio, Sustainable Nations

2010 — Floyds Fork Greenway Master Plan

Designing the Parks Merit Award in Master Planning, National Park Service — Wallace Roberts & Todd

2010 — Flight 93 National Memorial Phase 1B Revegetation

Designing the Parks Merit Award in Master Planning, National Park Service — Paul Murdoch Architects and Nelson Byrd Woltz Landscape Architects



Keya Wakpala Master Plan Meeting
(Turtle Creek Development)

© Blue Star Studios

A close-up photograph of a person's hand, covered in mud and small green insects, holding a large green praying mantis. The background is a field of tall green grass. A semi-transparent text box is overlaid on the upper part of the image.

Principal Biographies

Praying mantis found at the Beaver Creek
Restoration in Munson Township, Ohio

Principal Biographies



J. Keith Bowers, FASLA, PLA, PWS

President and Founder

Leveraging his landscape architecture training, Keith has devoted his career to applying the sciences of restoration ecology, conservation biology, landscape ecology, and ecological planning to restore critical habitat, mitigate impacts from climate change and address environmental injustices. As a Professional Landscape Architect and a Professional Wetland Scientist, Keith's work includes a broad range of spatial scales and ecosystem types, from regional landscape ecology planning to site-specific ecological restoration designs for critically imperiled flora and fauna. Recognizing that the true test of successful ecological design rests in implementation, Keith launched a design-build practice within Biohabitats. From river restoration in the Pacific Northwest, to urban wetland restoration in the Great Lakes, to dam removal in the Northeast, Biohabitats design-build practice is leading the ecological restoration industry.

Keith's relentless advocacy for "restoring the earth and inspiring ecological stewardship" reveals itself in countless ways, from converting Biohabitats to a Benefit Corporation and adopting environmental and social responsibility company operations; to actively volunteering in organizations that support ecological restoration (Society of Ecological Restoration), rewilding (The Rewilding Institute) and landscape architecture (American Society of Landscape Architects, Landscape Architecture Foundation); to teaching and lecturing on the intersection of landscape architecture, biodiversity, climate change and environmental justice throughout North America. He is a founding board member of The Ian L. McHarg Center for Urbanism & Ecology at the University of Pennsylvania Stuart Weitzman School of Design.

With a B.S. in Landscape Architecture from West Virginia University and an honorary degree from the Conway School of Design, Keith has pursued an unconventional path in landscape architecture, exploring the intersection between landscape architecture and the fields of restoration ecology, conservation biology and landscape ecology. Through his passion, dedication and leadership, Keith has demonstrated that landscape architecture plays a vital role in conserving nature, restoring degraded ecosystems, and regenerating the human spirit.

Principal Biographies



Claudia Browne, CE

Western Bioregions Operations Leader

Claudia has over 30 years of experience as a conservation planner/ecologist and water resource specialist, and she leads Biohabitats' western bioregions. Claudia helps communities and municipalities with analyses and planning for biodiversity protection, restoration, climate adaptation, and risk management strategies and nature-based resiliency.

Claudia received her M.S. in the Graduate Degree Program of Ecology from Colorado State University and her B.S. in the Department of Natural Resources from Cornell University. She co-authored the *EcoDistricts Living Infrastructure Guide* and has presented on designing with ecology for varied organizations including the American Institute of Architects, Environmental Protection Agency, and the American Water Resources Association. Additionally, Claudia has international experience in environmental assessments in France, Canada, and Russia.

As a founding member of Metro Denver Nature Alliance and Project Manager for The Nature Conservancy's Regional Conservation Assessment, Claudia is shaping the connection of nature and people to build healthy communities and ensure equitable access. She is leading the St. Vrain and Left Hand Conservancy's 500-square mile watershed Stream Management Plan. She has multiple projects focused on natural climate solutions for parks and open space departments and city managers in the cities of Austin, TX, Lakewood, OH, and Boulder, CO.



Joe Berg, CERP, PWS, CSE

Ecological Restoration Practice Lead

Joe has over 40 years of experience in systems ecology, with an emphasis on the interaction of physical, chemical, and biological systems. Together with Keith Bowers and Ted Brown he published "Replacing incised headwater channels and failing storm water infrastructure with regenerative storm water conveyance" in *Low Impact Development 2010: Redefining Water in the City*. This combination of restoring natural resources in urban settings summarizes Joe's ambitions. In addition to numerous publications, for decades Joe has taught regenerative stormwater conveyance techniques and has been presenting wetland and stream ecosystem restoration as a way to provide multiple ecosystem benefits. His work includes Redhorse Bend Preserve Restoration, Cape St. Claire Living Shoreline Restoration, Sandusky Bay Restoration Initiative, Irvine Nature Center Stream & Wetland Restoration, Bacon Ridge Branch Stream Restoration Design-Build, Lizard Hill/Bishopville Pond Restoration, Cleveland Metroparks Acacia Reservation Restoration, Freshkills Tidal Wetland and Shoreline Stabilization, Nine Mile Run Aquatic Ecosystem Restoration, and Audubon Center at Mill Grove Master Plan, among many others.

He has an M.S. in Ecology from University of Maryland, Center for Marine, Environmental, and Estuarine Science and a B.S. in Environmental Science from California University of Pennsylvania. He is past president of the Mid Atlantic chapters of both the Society of Wetland Scientists and Society of Ecological Restoration.



Jennifer Zielinski Missett, PE

Eastern Bioregions Operations Leader

Jennifer has over 25 years of experience in water resources policy development, planning, and design. She works with communities and landscape architects across the country to integrate green infrastructure, urban ecology, and water resource restoration into the built environment. As the Eastern Bioregions Operations Leader, Jennifer leads project operations related to ecological restoration, conservation planning, and regenerative design from the Mississippi River to the Atlantic. Her projects include RiverBend Commerce Park Site Development Plan, Buffalo, NY; Saltworks, Redwood City, CA; and a study for revitalizing the Allegheny Riverfront in Pittsburgh, PA.

Jennifer was previously program director at the Center for Watershed Protection, a nationally recognized non-profit that develops innovative technical guidance relating to watershed assessment and management, stormwater management, and natural resource conservation. She has collaborated on developing numerous stormwater manuals, including those for Maryland, New York, Minnesota, and Washington DC. She co-authored national guidance on retrofitting urban areas and contributed to national guidance on better site design and illicit discharges. Jennifer is a past president of the Chesapeake Stormwater Network and has been an invited keynote speaker and panelist by the National Recreation and Parks Assoc. and the University of Michigan, among others. Jennifer earned her B.S. in Civil Engineering from Case Western Reserve University and is a Professional Engineer.

Principal Biographies



Pete Muñoz, PE, LEED AP, EcoDistricts AP

Practice Leader

Pete works around the globe on nature-based solutions that promote healthy communities, resilient infrastructure, and ecological complexity with a focus on resource recovery. Pete earned an M.S. in Civil & Environmental Engineering from the University of Vermont and a B.S. in Biosystems Engineering from Michigan State University. He has worked on hundreds of projects focusing on the water/energy/food/ecology nexus that connect and inspire communities through ecological systems and dynamic water infrastructure. His work includes PAE Living Building, Glenstone Museum, Fernhill Wetlands, Stanley Center for Peace and Security, and Omega Center for Sustainable Living.

His work includes SITES, LEED, One Planet Living, and Living Building Challenge projects including 11 fully certified Living Buildings. Pete assisted the International Living Future Institute on the Living Building Challenge with the integration and criteria of the water requirements. He has received a Living Building Hero Award and a City Makers Award. He has taught at the Omega Center of Sustainable Living and the Yestermorrow Design/Build School and is an EcoDistrict faculty. He is a co-founder of SEEDS, a nonprofit working at the intersection of design, education, and ecology. He is part of Partnership for Southern Equity, an Atlanta-based NGO leading just growth and racial equity, and an active member in Environmental Professionals of Color Portland.



Ted Brown, PE, LEED AP

Practice Leader

Ted has provided environmental restoration, watershed and stormwater management and planning for over 25 years. His work is fueled by our shared natural resource crisis and the desire to bring awareness to the value of our natural lands and open space. For the last 14 years, he has served as a practice leader, forming strategic teaming alliances, mentoring young professionals, and providing critical review of the firm's projects. Ted has an M.S. in Civil Engineering from University of Virginia and a B.A. in Economics from University of North Carolina, Chapel Hill.

Ted is a board member of the Chesapeake Stormwater Network, of American Society of Civil Engineers' Urban Water Resources Research Council, and of the Chesapeake Bay Program's Urban Stormwater Workgroup, which facilitates the implementation of stormwater controls to achieve pollutant reduction. While at the Center for Watershed Protection, a nationally recognized non-profit that develops innovative technical guidance on water and resource conservation, Ted served as Director of Watershed Implementation and helped write stormwater manuals for the states of New York, Vermont, Georgia, and Minnesota, as well as a national guideline, the *Illicit Discharge Detection and Elimination Manual* for the Environmental Protection Agency.

His work includes the Rutgers University Landscape & Stormwater Management Master Plan; Jamaica Bay Watershed Plans; University of North Carolina – Carolina North Master Plan; and Stream Daylighting at the University of Virginia.



Green Tree Frog at Alger
Park Stream Restoration
Washington, DC © Rich Riggins

Principal Biographies



Matt Koozer, CPESC

Construction Team Leader

Matt is dedicated to restoring ecosystems via efficient design and innovative construction methods. A Senior Restoration Ecologist & Construction Manager with 24 years of experience, he leads Biohabitats' self-performing construction services from Portland, Oregon. He leads design-build teams in water resources management projects, including river, estuary, wetland and riparian restoration projects. Matt has been involved in over 150 habitat restoration projects including dam removal, channel realignment, levee breaching, engineered log jams, and fish passage projects. Matt's "boots on the ground" experience has made him a valued interdisciplinary team member who can translate project visions into implementable work orders. He has the unique ability to see the perspectives of various stakeholders—including landscape architects, engineers, land managers, biologists, and equipment operators—and address their concerns equally.

Matt holds a B.A. with a focus on Environmental Studies from the University of Montana. He received a River Restoration Professional Certificate from Portland State University and is a Certified Professional in Erosion and Sediment Control. As an adjunct faculty at Portland State University, he has provided real-world lessons on restoration project management. He has shared his expertise at landscape and river restoration symposia, conferences and events, including River Restoration NW. He was recently a featured guest on the Rewilding Earth podcast.



Jennifer Dowdell, ASLA

Senior Landscape Ecological Planner & Designer

Jennifer has worked extensively on the issues of landscape ecology and sustainable design. Her expertise combines a refined aesthetic sensibility with sound and resourceful research and analysis for sustainable design in a variety of environments. She has been engaged in writing, advocacy and sustainability span for over 20 years. Her writing has been published in the *Wilson Quarterly*, *Landscape Architecture Magazine*, *PLACES Journal*, *theEarthIssue* #4, *The Nature of Cities* blog, and *Leaf Litter* and the book, *The Landscape Approach: From Local Communities to Territorial Systems*. Her experience in design, writing, and advocacy have provided her with a heightened sense of the importance of the landscape architect's role in the process of information facilitation and project leadership. She works closely with community groups, clients, and public agencies to build project consensus and ecological stewardship. She has applied expertise in sustainability, landscape ecology, and innovative stormwater and landscape management to sites ranging from facilities and urban municipalities to college campuses including National Gallery of Art, Jefferson Chalmers Neighborhood in Detroit, the South Buffalo BOA, Chattahoochee RiverLands, Bayou La Batre Watershed, University of Pennsylvania, and University of Oregon.

Jennifer holds a Master of Landscape Architecture from University of Michigan and a B.A. in Writing/History from Loyola University.



Erin English, PE, LEED AP

Practice Leader

Erin earned her B.S. in Chemical Engineering at Penn State University and focuses her engineering background on integrating process-design with the ecological concepts of natural systems for water master planning, wastewater treatment, stormwater treatment, and reuse. She integrates permaculture and sustainable design into her engineering work in community, educational, and agricultural projects.

As a practice leader guiding the firm's integrated water strategies from the Southwest Basin and Range Bioregion, Erin regularly collaborates with architects, landscape architects and planners to design numerous wastewater, stormwater, greywater, and water harvesting infrastructure design projects to achieve net zero water goals. Her deep history of multidisciplinary, integrated-design collaboration includes working with such firms as Andropogon, Sasaki, Ten Eyck, Lake Flato on highly sustainable projects. These projects include constructed wetlands in the landscape and reuse infrastructure inside building envelopes with tiered outcomes that enhance functional landscapes, increase resiliency, and provide educational experiences.

Erin is a sought-after speaker on water systems and the natural environment and has contributed to Living Building Challenge, Net Zero water, and the Sustainable SITES Initiative. She has been on projects review committees for AIA Committee on the Environment Top Ten Award submissions.

Work of the Firm



A great egret (*Ardea alba*) in habitat restored by Biohabitats along Chicken Creek in the Tualatin River National Wildlife Refuge, Oregon. © Fred Joe Photo



Kenilworth Marsh Design-Build Tidal Wetland Restoration

Washington, District of Columbia —1996



Implementing the restoration design

The restoration of 33 acres of tidal freshwater marsh now serves as the keystone for ongoing restoration efforts along the Anacostia River.

“The Biohabitats team consistently rose to the occasion to develop designs that exceed everyone’s expectations. Their knowledge of urban ecosystems and landscape architecture was a perfect fit for this project, ensuring its sustainability as a functioning ecosystem once it is implemented.”

– Stacy Sloan Blersch,
Project Manager,
USACE Baltimore District



Nine Mile Run Aquatic Ecosystem Restoration

Pittsburgh, Pennsylvania — 2005

A two-mile reach of a highly degraded urban stream in the heart of Pittsburgh has been transformed into a riverine park with thriving natural systems and enhanced recreational amenities.



On site during construction

"In addition to...utilizing many cutting edge naturalizing concepts, Biohabitats...was with us throughout the project's implementation, working with the Corps of Engineers on field design issues as they arose. They excelled in both phases, design and implementation."

– Daniel T. Stentz,
Environmental Planner,
City of Pittsburgh



Kent Dam on the Ohio River Restoration

Kent, Ohio — 2004



As a result of the Kent Dam river restoration project, the middle Cuyahoga River runs free, has fully attained warm water habitat designation, and satisfies the goals of the Clean Water Act, all while creating a new park from the drained dam pool area.



Jamaica Bay Watershed Protection Plan

New York, New York — 2006



The Jamaica Bay Watershed Protection Plan details the collaborative work of community, nonprofit, state, city, and federal partners in various projects that improve water quality, restore natural ecological functions and upgrade the resilience of the bay.



Bacon Ridge Branch Stream Restoration at Elks Camp Barrett

Annapolis, Maryland — 2022



Conditions before the restoration

Use of on-site woody material in a three-mile stream restoration improved ecological function and habitat for a 140-acre youth camp and provided water quality credits for a state agency.

Recipient of the Environmental Excellence Sustainability Award from the Maryland State Highway Administration



Fernhill South Wetlands Natural Treatment System

Forest Grove, Oregon — 2017



Former sewage lagoons were converted into a valuable resource that provides 90 acres of wildlife habitat and recreation as it cools and cleans water that is discharged into the Tualatin River.

"Fernhill represents ... the power of Mother Nature with technology in partnership with others to create elegant and beautiful water solutions."

– Diane Taniguchi-Dennis,
Chief Executive Officer,
Clean Water Services



Chicken Creek Historic Channel Restoration & Enhancement

Tualatin River National Wildlife Refuge, Sherwood, Oregon — 2022



Stream restoration adds ecological function, habitat diversity, and recreational and educational opportunities to a treasured 294-acre urban wildlife refuge.

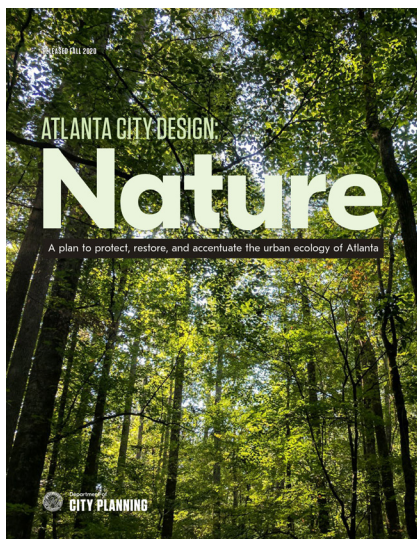
"The return of Chicken Creek's natural flow has already begun to attract a variety of creatures that historically called this marsh home. Ducks and geese are feeding in the marsh, and beavers are actively building dams, which helps to create even more lush, diverse wetland and riparian habitat."

– Dana Bivens,
Public Affairs Officer,
U.S. Fish and Wildlife Service



Atlanta City Design: NATURE

Atlanta, Georgia — 2019



Urban ecology provides the framework for a livable future that is based on sustainability and on regeneration – the process of integrating living systems with human aspirations.

“Atlanta’s priority of adapting to a changing climate is dependent on how we care for the natural systems that were here before us.”

– Commissioner Tim Keane,
Department of City Planning,
City of Atlanta



Kendeda Building for Innovative Sustainable Design & EcoCommons

Georgia Institute of Technology, Atlanta, Georgia — 2019 & 2022



© Aerial Innovations Southeast

An academic building achieved Living Building Challenge goals and net positive water and energy borders an ecologically performative common space at the heart of the campus that demonstrates leadership in sustainability design.

“The greatest return will be the impact this building will have on the design/construction/owner industry, not just in the Southeast but everywhere.”

– Howard Wertheimer,
former Institute Architect,
Georgia Institute of Technology



Beaver Creek Restoration Design-Build

Munson Township, Ohio — 2022



Stream and floodplain restoration enhances water quality at the headwaters of the 71-mile Chagrin River, one of only fifteen State-designated Wild, Scenic and/or Recreational Rivers in Ohio.

"It has been amazing to see the rapid transformation. Within just a few weeks ...we have already documented water birds foraging along the banks of the greatly improved Beaver Creek habitat and amphibians breeding in the new wetlands."

– Paul Pira,
Project Manager
Geauga Park District Biologist



Sandusky Bay Strategic Restoration Plan & The Nature Conservancy Sandusky Bay Nutrient Wetlands

Sandusky Bay, Ohio — present



A strategic plan prioritizes coastal wetland restoration projects to maximize water quality enhancement, nutrient and sediment reductions, and fish and wildlife habitat improvements for a 64-square-mile area. A 300-acre landscape-scale pilot project in Western Sandusky Bay is the first step in actualizing this portfolio of projects.

A close-up photograph of a white water lily flower in full bloom. The flower has many long, pointed petals that are mostly white with some light yellow at the base. The center of the flower shows yellow stamens. The flower is surrounded by large, green, oval-shaped lily pads. The background is a soft-focus view of the pond and more lily pads.

Principal Photos

Restored wetland vegetation thrives in what was once an abandoned sand mine after a Biohabitats restoration project in Bishopville, MD. © William Wilhelm

Principal Photos





Taking a Stance

Biohabitats' mission to *restore the earth and inspire ecological stewardship* permeates the work we do and the way we operate our business. We support initiatives and advocate for causes that work toward a more biodiverse, sustainable, and equitable world.



Certified B Corporations use their business to build a more inclusive and sustainable economy. [View Biohabitats' standards of social and environmental performance, transparency, and accountability.](#)



1% for the Planet is a global network contributing to a healthy planet. Biohabitats donates 1% of our sales to environmental nonprofits. [See our donations at work to save the planet.](#)

