

Walnut Creek Watershed

Urban Waters Federal Partnership

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Overview

The Urban Waters Federal Partnership (UWFP) is a nationwide initiative dedicated to revitalizing urban waterways and enriching the communities surrounding them across the United States. In 2023, the Walnut Creek watershed in Raleigh, North Carolina was officially designated as the 21st location in the U.S. Environmental Protection Agency's (EPA) UWFP, marking a powerful step forward in efforts to restore the Walnut Creek communities in Southeast Raleigh. Walnut Creek is on the 303(d) impaired surface waters list.

The Walnut Creek watershed encompasses 46 square miles in the heart of North Carolina, originating in the Town of Cary flowing through Southeast Raleigh. This area, rich in environmental and cultural heritage, has long faced challenges such as pollution, flash flooding, and limited access to green infrastructure. Through this designation, Walnut Creek now stands ready to implement systemic changes to improve neighborhood revitalization efforts as federal and state agencies join forces with local groups to implement the Walnut Creek Watershed Action Plan.

This work plan supports the restoration of natural habitats, expansion of recreational trails, flood mitigation, and community education about environmental stewardship. For Southeast Raleigh, this partnership promises not just cleaner water and greener neighborhoods, but an opportunity to reconnect residents, especially those in historically underserved neighborhoods, with the creeks, parks, and open spaces that run through their history. It also brings renewed visibility to local voices, many of which have called for sustainable development and equity in environmental planning for decades. Raleigh's dedication to Walnut Creek reflects a vision for a future where community, ecology, and justice thrive together.

Points of Contact

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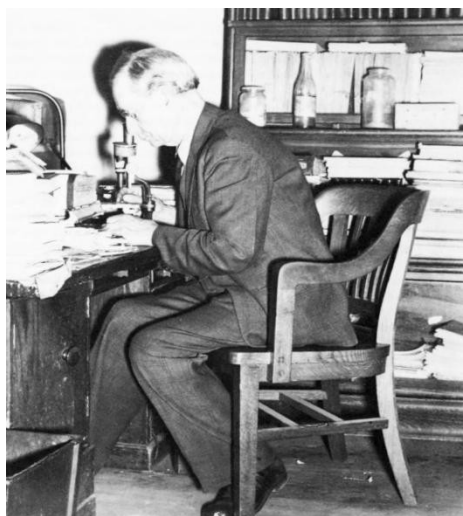
Background

History of the Walnut Creek Watershed

Raleigh, North Carolina, holds a rich and layered history—one shaped by curiosity, perseverance, and the drive to build community in the face of challenges. From the quiet banks of Walnut Creek to the proud streets of historically Black neighborhoods like Oberlin and Method, this city became a landscape where naturalists, educators, entrepreneurs, and visionaries left lasting marks. Two narratives—seemingly disparate yet deeply rooted in the soil and spirit of Raleigh—tell us how exploration and self-determination laid the groundwork for institutions that still serve the city today.

Herbert Hutchinson Brimley and Clement Samuel Brimley, English-born naturalists, were instrumental in founding and shaping the North Carolina Museum of Natural Sciences, and their early work near Walnut Creek in Raleigh played a pivotal role in their legacy. Arriving in Raleigh in 1880, the brothers were captivated by the region's rich biodiversity, particularly the wetlands and woodlands surrounding Walnut Creek. They often ventured into the area on bicycles, armed with butterfly nets and an insatiable curiosity, collecting specimens of birds, amphibians, and insects. Their explorations were not solitary—they engaged local children, including the son of an African American farmer, who helped them locate elusive species like the Black Rail, a secretive marsh bird. These field excursions laid the groundwork for their extensive collections and scientific documentation, which would become the foundation of the museum's exhibits. H.H. Brimley, the more public facing of the two, pioneered educational displays and conservation advocacy, while C.S. Brimley meticulously cataloged North Carolina's fauna, contributing landmark works like *The Insects of North Carolina*. Their fascination with the natural world, sparked and sustained by places like Walnut Creek, helped transform a modest taxidermy shop into the Southeast's largest natural history museum—a living tribute to their passion for science and the environment.

At the same time the Brimleys were peering into the mysteries of the natural world, Raleigh was also becoming a haven for African Americans forging new lives after emancipation. While the Brimley brothers collected scientific specimens, freedmen



and their families were collecting bricks, hammering boards, and building neighborhoods that would come to define Black excellence and perseverance in the South.

Following the Civil War, Raleigh became a focal point for newly freed African Americans seeking opportunity, education, and community. Historically Black neighborhoods such as Oberlin, Method, College Park, and South Park emerged on the outskirts of the city. These communities were often built on land that was less desirable—low-lying, near railroads, or outside city limits, but they became vibrant centers of residential life. Institutions like Shaw University and St. Augustine’s University anchored these neighborhoods, offering education and professional training that attracted families from across the region. East Hargett Street, known as “Black Main Street,” became a hub for Black-owned businesses, while parks like Chavis Park provided rare recreational space for residents. Despite systemic barriers, these neighborhoods fostered resilience, culture, and leadership, producing generations of educators, entrepreneurs, and civil rights advocates. Their locations were not chosen freely, but the communities built there became powerful symbols of self-determination and pride.

Partners For Environmental Justice

Partners for Environmental Justice (PEJ), based in Raleigh, North Carolina, is a grassroots organization founded in the mid-1990s to address environmental injustices impacting Southeast Raleigh—particularly flooding, pollution, and neglect of urban wetlands near historically Black neighborhoods like Rochester Heights and Biltmore Hills. The organization emerged from community-led efforts following Hurricane Fran in 1996, which devastated Rochester Heights, flooding over 90% of homes north of I-40. In response, members of three local Episcopal churches began organizing cleanups and advocating for the protection and restoration of the Walnut Creek Wetlands.

At the heart of PEJ’s founding was Dr. Norman Camp, a lifelong educator, environmentalist, and community advocate. Born in East Raleigh and a graduate of Shaw University, Dr. Camp earned his Ph.D. in Science Education and dedicated his career to teaching, public service, and environmental stewardship. Alongside his wife Betty, Dr. Camp co-founded PEJ in partnership with St. Ambrose Episcopal Church, rallying volunteers and building coalitions to restore the wetlands and address systemic neglect. His vision was rooted in equity, education, and ecological preservation:

“My vision was that we would have a place for young people and children to begin exploring, become nature-oriented, and care about protecting nature as a center point for preserving those creatures that live and breathe just as we do.” — Dr. Norman Camp

Through years of advocacy, PEJ helped secure funding and support for the creation of the Walnut Creek Wetland Park, which officially opened in 2009. The park transformed 58 acres of degraded wetlands into a vibrant community resource, offering flood protection, wildlife habitat, and environmental education opportunities. In 2018, the education center within the park was renamed the Norman & Betty Camp Education Center, honoring the couple's legacy and lifelong commitment to environmental justice.

Today, PEJ continues to be a powerful force for environmental justice and community empowerment in Southeast Raleigh. The organization leads programs that promote green infrastructure, climate resilience, and environmental literacy.

Walnut Creek Watershed Action Team

In December 2017, a coalition of stakeholders came together to coordinate education, outreach, and watershed improvement initiatives within the Walnut Creek watershed. This group, now known as the Walnut Creek Watershed Action Team (WAT), unites the NC Department of Environmental Quality (NCDEQ), the City of Raleigh (COR), Wake County, the NC Water Resources Research Institute (WRRI), NC State University (NCSU), the Town of Cary, the NC Department of Transportation (NCDOT), and a range of private, governmental, and community organizations.

In a groundbreaking effort to tackle the challenges facing Walnut Creek and implement solutions, NCDEQ, in collaboration with the WAT, developed the [Watershed Action Plan](#) (WAP). This comprehensive plan serves to protect and enhance the watershed by cataloging its resources and identifying key concerns. A standout feature of the WAP is its interactive mapping tool, which empowers both professionals and residents to input and visualize data through five key functions: the Source Conveyance Identification (SCITs) tool, the Community Watershed Improvement Projects (WIPs) tool, the Trash Surveyor, the Trash Tracker, and NC Stream Watch.

Once data is submitted, it populates a watershed map, offering valuable insights for the Ambassador and other WAT stakeholders. This tool is already driving the launch of various programs and projects outlined in the work plan.

21st UWFP Location Celebrations

On April 21, 2023, Raleigh, North Carolina, celebrated a landmark achievement as the Walnut Creek Watershed was officially named the 21st site in the U.S. Environmental Protection Agency’s Urban Waters Federal Partnership (UWFP). This designation, announced at the Walnut Creek Wetland Center, marked the culmination of more than 18 months of dedicated collaboration led by Partners for Environmental Justice (PEJ), the Carolina Wetlands Association, the U.S. Geological Survey, and other key stakeholders. The event drew over 100 attendees—including community leaders, students, and federal agency representatives—and featured keynote addresses from EPA Regional Administrator Daniel Blackman and Department of Interior Assistant Secretary for Water and Science Tanya Trujillo.



The celebration continued the following day with the “Our Creek, Our Communities” festival at the Southeast Raleigh YMCA, where more than 200 participants engaged with educational exhibits, cultural performances, and youth-led environmental presentations. This milestone not only honored decades of grassroots advocacy but also signaled a renewed federal commitment to restoring and protecting Walnut Creek for future generations.

Partners

This UWFP location is led by Partners for Environmental Justice (PEJ) and U.S. Geological Survey (USGS). Key partners are listed alphabetically below.

Federal Agency Partners	State, Regional, and Local Government Partners
U.S. Department of Agriculture <ul style="list-style-type: none"> • U.S. Forest Service U.S. Department of Commerce <ul style="list-style-type: none"> • National Oceanic and Atmospheric Administration (NOAA) U.S. Department of the Interior (DOI) <ul style="list-style-type: none"> • U.S. Geological Survey (USGS) U.S. Environmental Protection Agency <ul style="list-style-type: none"> • Region 4 Other Urban Waters Federal Partnership Agencies	City of Raleigh (COR) <ul style="list-style-type: none"> • Innovation Team (i-Team) • Office of Sustainability • Parks, Recreation, and Cultural Resources Department • Stormwater Management Division North Carolina Department of Environmental Quality (NCDEQ) <ul style="list-style-type: none"> • Division of Water Resources North Carolina Department of Transportation (NCDOT) Town of Cary <ul style="list-style-type: none"> • Stormwater Wake County
Non-Governmental, Private, and Other Partners	
Carolina Wetlands Association (CWA) Central Pines Regional Council Kriss Bass Engineering North Carolina Sea Grant & Water Resources Research Institute (WRRRI) North Carolina State University (NCSU) Partners for Environmental Justice (PEJ) Planning Ahead Pullen Memorial Baptist Church Shaw University Southeast Raleigh Promise (SERP) Sound Rivers St. Ambrose Episcopal Church The Conservation Fund (TCF) The Conservation Network Wake Green Schools Partnership Walnut Creek Watershed Action Team (WAT) Walnut Creek Wetlands Community Partnership (WCWCP)	

Overall Goals and Objectives

The Walnut Creek Watershed work plan is a transformative effort to protect, restore, and revitalize urban water resources from Cary to Southeast Raleigh. Rooted in the mission, vision, and principles of the Urban Waters Federal Partnership, this initiative will establish a strategic framework to coordinate and amplify ongoing activities throughout the watershed. All efforts will be organized into two categories—programs and projects—and aligned under two core focus areas: education and empowerment and green infrastructure.

Through the implementation of these initiatives, a core issue within the watershed will be effectively confronted. Each initiative will serve as a targeted solution, designed to improve water quality, enhance community resilience, and promote environmental equity. To ensure accountability and community ownership, the Ambassador's roles and responsibilities will be clearly defined and integrated into each program and project.

This structured and inclusive approach will streamline collaboration among partners, align efforts with shared priorities, and enable effective tracking of impact. Most importantly, it reinforces the vital connection between environmental restoration and social equity—ensuring that the benefits of this work are felt by all members of the community, now and for generations to come.

Projects and Programs

Focus Area 1: Education and Empowerment

Program 1: Walnut Creek Watershed Learning Network (WCWLN)

One of the most pressing environmental challenges facing Southeast Raleigh is the lack of environmental literacy and limited access to education about the natural world. Many residents, particularly in historically underserved communities, have few opportunities to learn about the ecosystems around them, how those systems function, and how human activity and recurring extreme weather events affect them. This gap in knowledge not only hinders community engagement in environmental stewardship but also exacerbates vulnerability to hazards like flooding, extreme heat, and severe weather.

Without accessible, culturally relevant education and hands-on learning opportunities, residents are often left under-informed about the risks they face and the tools available to mitigate them. This disconnect contributes to the cycle where communities most affected by ecological degradation have the least access to the information and resources needed to respond.

To address these concerns, Partners for Environmental Justice (PEJ), in collaboration with the City of Raleigh (COR), secured a grant from the National Oceanic and Atmospheric Administration (NOAA) in 2021 to launch the [Community Climate Education for a Resilient Raleigh \(CCERR\) Project](#). The CCERR initiative is a three-year, grant-funded collaboration between the COR and PEJ aimed at increasing climate resilience in vulnerable communities. As a cornerstone of the CCERR initiative, the Walnut Creek Watershed Learning Network (WCWLN) serves as a vital platform for community-based climate education and engagement. Led by PEJ, the network brings together residents from Southeast Raleigh to learn about watershed health, climate resilience, and environmental justice through paid training sessions and hands-on activities. By focusing on the Walnut Creek Watershed—a region deeply affected by flooding and environmental inequities—the network helps participants understand the direct connections between their natural environment and community well-being. It also fosters leadership and advocacy by equipping residents with the knowledge and tools to participate in local decision-making and resilience planning. Through this network, PEJ ensures that climate education is not only accessible but also rooted in the lived experiences and priorities of the communities most impacted.

Throughout WCWLN, the Ambassador plays a vital role in bridging education and action. The Ambassador will serve as a trusted liaison between residents and project partners, helping to

facilitate workshops, guide project development, and ensure that community voices are central to planning and implementation. By fostering local leadership and amplifying grassroots solutions, the Ambassador will help transform environmental awareness into tangible resilience strategies that reflect the lived experiences of Southeast Raleigh residents.

Involved Partners

- National Oceanic and Atmospheric Administration: Provided grant funding to support the development and implementation of WCWLN
- City of Raleigh Office of Sustainability: Served as grant administrator and subject matter expert
- Partners for Environmental Justice: Led community outreach and managed logistics
- Planning Ahead: Developed the online curriculum for program participants

Status

- Fall '25: The first session, themed around the Watershed Action Plan, will take place on October 4th
- Serves as the foundation for the Walnut Creek Stewardship Program
- 2026: Launch of the program's first Spanish-language cohort

Milestones

- Spring '21: Program Launched
- Spring '25: Marked the highest number of cohort graduates, with 38 participants completing the program
- 20 participants have completed 3 program cohorts to date

Program 2: Walnut Creek Stewardship Program (WCSP)

A persistent gap in Southeast Raleigh's environmental education landscape is the lack of tailored opportunities for graduates of the WCWLN to continue their engagement and apply their knowledge in meaningful, hands-on ways. While the WCWLN equips participants with a solid foundation in watershed systems, climate resilience, and environmental equity, many graduates have voiced a clear need for structured next steps that will allow them to translate learning into action and leadership.

To address this gap, the Walnut Creek Steward Program was developed as an immersive initiative that empowers WCWLN alumni to become active stewards of their environment. Through this program, participants engage in real-world projects across three core focus areas: green infrastructure, education and empowerment, and equitable development. Each steward is matched with community partners whose work aligns with their interests and goals—

whether that means maintaining green stormwater infrastructure, leading workshops, or contributing to inclusive planning efforts. The program also offers a stipend of \$750 for up to 50 hours of service, supporting up to 10 emerging leaders annually.

The Ambassador will coordinate with interested partners, schedule volunteer and workdays, and serve as a mentor and point of contact for stewards throughout their service. By facilitating collaboration, providing logistical support, and helping stewards navigate their roles, the Ambassador ensures that each project is impactful, well-supported, and aligned with the goals of the Walnut Creek WAP. This role not only strengthens the program's structure but also reinforces the long-term vision of building community-led climate resilience through education, action, and leadership.

Involved Partners

- Partners for Environmental Justice: Lead organizer for activities and operations of the program; In addition, the Rezoning Committee will engage Stewards interested in equitable development
- City of Raleigh
 - Stormwater: Provide opportunities to maintain green stormwater infrastructures across the city
 - Parks, Recreation and Cultural Resources: Will provide tools and resources for physical projects, while also supporting Stewards in building and shadowing environmental education programs

Status

- Program will launch January 2026

Milestones

- Duke Energy Grant—**Awarded for Steward stipends and educational materials**

Program 3: Youth Engagement

There is an opportunity to strengthen environmental education in Wake County by expanding access to outdoor, nature-based learning within school settings. Currently, few classrooms integrate nature-based learning, which means students have limited opportunities to explore local ecosystems and understand how they connect to climate, infrastructure, and community health. By introducing their experiences to nature and the natural environment earlier, we can strengthen environmental literacy and help students build a personal connection to their surroundings—fostering curiosity and a sense of stewardship that benefits both schools and communities.

To promote equitable access in outdoor learning opportunities across Wake County schools, the [Wake County Green Schools Partnership](#)—a collaboration between Wake County Public Schools, Wake County Environmental Services, and community organizations like PEJ—is working to expand access to hands-on, place-based environmental education. The Partnership supports schools through teacher training, curriculum resources, mini-grants, and student-led sustainability projects. As part of this initiative, surveys were distributed to schools to gather information on their current outdoor education efforts. The responses are being used to generate points on an interactive map, which will show which schools are engaging students in outdoor learning and what specific topics are being taught. This tool will help identify schools that may benefit from additional resources to strengthen their outdoor learning programs. In alignment with the educational themes of PEJ’s WCWLN, the Ambassador is designing age and grade appropriate programming to introduce students to watershed and environmental concepts. These programs will serve as outreach for schools not yet engaged in outdoor education, as well as opportunities for schools seeking guest speakers. Another program offering would be the Watershed Tours to connect students and teachers with their local ecosystems. (*see Watershed Tours, page 15*)

The Ambassador serves as a dynamic connector between environmental education efforts and the broader school community. Representing PEJ, the Ambassador actively participates in monthly Wake County Green Schools Partnership meetings, contributing ideas, energy, and coordination to help shape the direction of outdoor learning across the district. Beyond planning, the Ambassador brings watershed education directly to students—facilitating drop-in classroom sessions and offering engaging programs in community spaces outside of school walls. These experiences introduce youth to local ecosystems in ways that are interactive, age-appropriate, and rooted in real-world relevance.

Involved Partners

- [Southeast Raleigh Promise](#): Providing space for programs to be hosted
- [Wake Green Schools Partnership](#): Developing and sharing the mapping tool that supports the Ambassador in analyzing school-level data on outdoor education
- [Partners for Environmental Justice](#): The Education Committee will work closely with the Ambassador to orchestrate and facilitate programs

Status

- Programs incorporating education workshops, community projects, field experiences, and creative expression are being thoughtfully developed
- 99 Wake County Schools have completed the survey, enabling the Partnership to map the data across the county and identify areas that need additional support for outdoor education

Program 4: Expanding Volunteer Opportunities Across the Watershed

Across the Walnut Creek Watershed, there is a growing demand from residents, schools, and organizations to engage in hands-on environmental work—but current volunteer opportunities are limited in structure and scope. This gap makes it difficult for community members to consistently contribute to restoration efforts or connect their interest with meaningful action.

To meet this need PEJ is expanding its volunteer engagement model to offer more accessible, impactful opportunities for individuals and groups. Volunteers will participate in creek and neighborhood cleanups, removing litter and debris to improve ecosystem health and community aesthetics. Seasonal activities such as mulching, planting native species, and maintaining green infrastructure will also be offered, allowing volunteers to support long-term environmental goals. PEJ will collaborate with local schools to integrate service-learning projects into environmental education curricula, and work with corporate groups to design team-building volunteer days that align sustainability goals. Outreach through neighborhood networks, social media, and local events will ensure inclusive participation across the watershed.

The Ambassador will lead the design and coordination of this expanded volunteer program. Their role includes scheduling volunteer dates and times, developing the overall structure of activities, and engaging partner organizations to collaborate on events and projects. By serving as both a planner and a point of contact, the Ambassador ensures that volunteer efforts are well-organized, impactful, and aligned with the broader goals of watershed restoration and community empowerment.

Involved Partners

- City of Raleigh
 - Parks, Recreation, and Cultural Resources: Supply tools and resources needed for stream and street cleanups
- Wake County's Great Raleigh Cleanup: Supply tools and resources needed for stream and street cleanups
- Partners for Environmental Justice: Builds and organizes volunteer networks to support community-driven environmental initiatives

Status

- Launched volunteer opportunities for Green Stormwater Infrastructure (GSI) maintenance
- Engaged 30 volunteers across two successful events, building momentum for ongoing community involvement

Program 5: Watershed Tours

Many residents across the watershed live near rich natural and cultural landmarks, yet few have had the opportunity to explore or learn about these spaces in a meaningful way. This disconnects between people and place represents a broader gap in environmental literacy and access to experiential learning, especially in communities historically excluded from nature-based education.

To reconnect people with their environment, Watershed Tours will be offered, designed to immerse participants in the natural, historical, and cultural dimensions of the watershed. These immersive, on-the-ground experiences will offer a real-life setting for learning about the history and ecology of the watershed, while also fostering a deeper sense of place and environmental responsibility. Tours are structured around the upper, middle and lower sections of the watershed, providing a comprehensive view of how water, land, and community intersect. To ensure accessibility and relevance, the program offers scheduled tour opportunities as well as quarterly tours, allowing flexibility for different audiences. Each experience is tailored to the audience—whether it’s a school group, corporate team, or neighborhood organization—and includes interactive educational materials adapted to age, background, and location. Sites such as Lake Johnson, Walnut Creek Wetland Park, Dorothea Dix Park, and St. Ambrose Church serve as living classrooms, each selected for its significance and contribution to the watershed. At these locations, guest speakers will be asked to share their stories about water, nature, culture, and history. The Ambassador or Stewards from the WCWSP will support the tours as needed or even host tours of their own. The Ambassador will also help guide the experience and provide connections from the site to the broader watershed story.

As an incentive, a PEJ water bottle and pen will be provided.

Potential Partners

- Town of Cary: Conduct a tour of Downtown Cary Park
- City of Raleigh
 - Parks, Recreation, and Cultural Resources: Conduct tours at various city park locations
 - Stormwater Management Division: Conduct tours at various GSI devices
- U.S. Geological Survey: Co-organizer and facilitator
- Partners for Environmental Justice: Co-organizer and facilitator

Status

- Program scheduled to launch in Spring 2026

Focus Area 2: Green Infrastructure

Project 1: Bailey Drive Gateway Plaza

This transformative community project is located at the south entrance of Walnut Creek Wetland Park in Southeast Raleigh. Designed to honor the cultural heritage and environmental significance of the surrounding neighborhoods, particularly Rochester Heights and Biltmore Hills, the Gateway will serve as a vibrant public space that connects people to nature, history and each other. It will feature walking and biking trails, educational installations, and areas for community gathering and storytelling. PEJ as well as the Walnut Creek Wetland Community Partnership have helped guide the project's development by ensuring that the voices of residents are heard and reflected in the design, programming, and long-term vision of the Gateway.

The project is a 10-acre wooded area and wetland. While the full build-out of the Gateway is still in progress, the site currently has a temporary installation titled "The Reflective History", a walkable art exhibit featuring life-sized glass portraits and quotes from legacy residents in the area.

Involved Partners

- The Conservation Fund: Leads the *Parks with Purpose* initiative by funding projects and coordinating efforts among all partners
- City of Raleigh
 - Parks, Recreation, and Cultural Resources: Serves as landowner and supports site planning and activation
- Walnut Creek Wetland Community Partners: Provides a collaborative platform for residents, stakeholders, and experts; co-leads community engagement and discussions
- NC Water Resources Research Institute: Offers technical expertise to advance wetland restoration and stormwater management solutions
- Partners for Environmental Justice Strengthens community connections around the Walnut Creek Wetlands; co-leads outreach and engagement efforts

Status

- 2018- The Conservation Fund created the Raleigh Parks with Purpose Community Task Force to explore ways to better serve the Biltmore Hills and Rochester Heights neighborhoods
- 2019- The design team was selected in the summer and community input sessions were held in October
- 2020- Public voted on initial site concepts and a final concept design was created
- 2025- **Permitting Phase**

Maps

