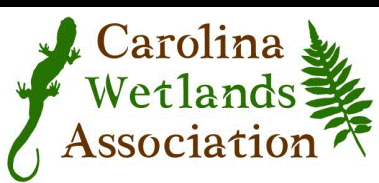


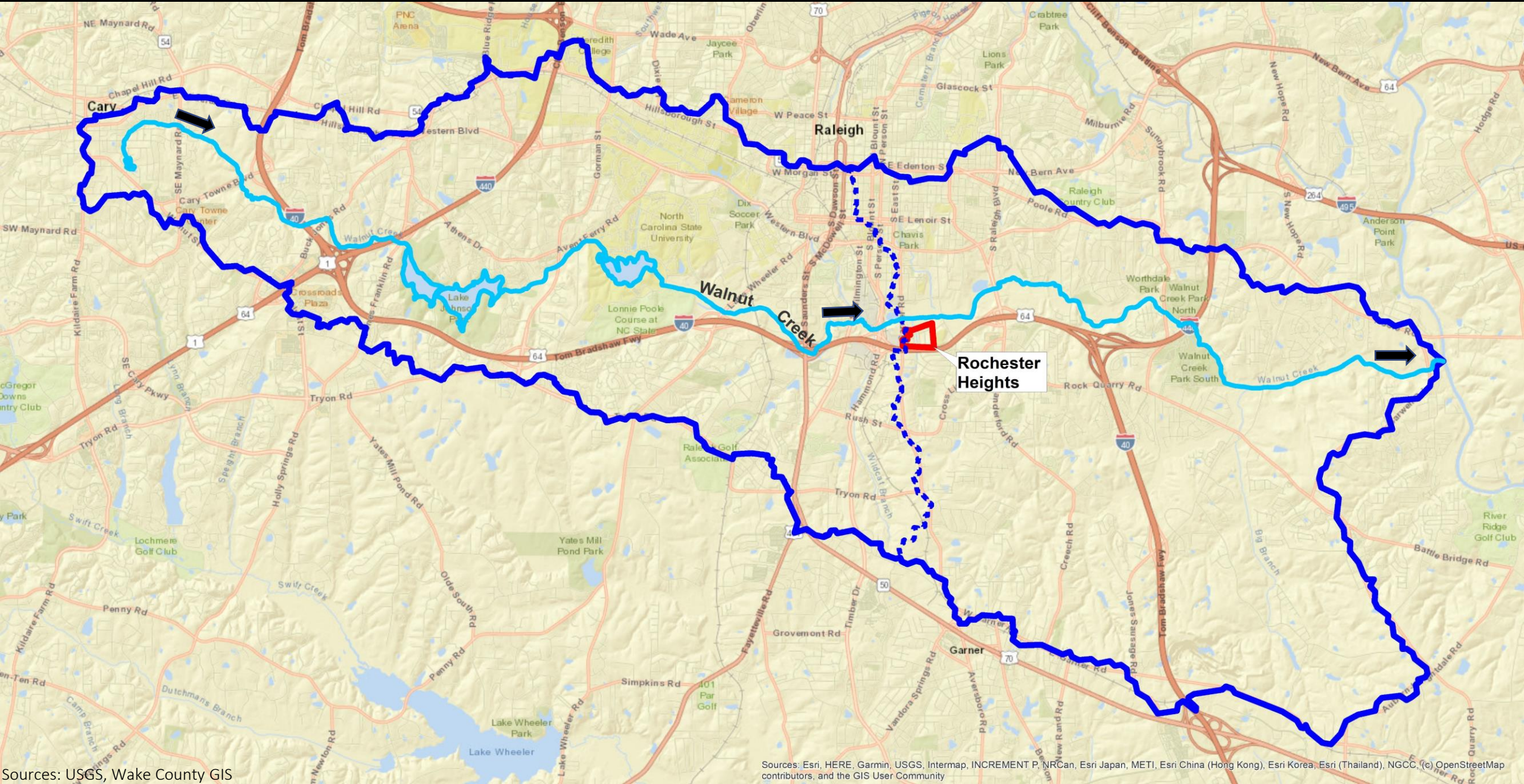
Walnut Creek Watershed: Past, Present & Urban Waters Future

APNEP Leadership Council Meeting
July 12, 2023

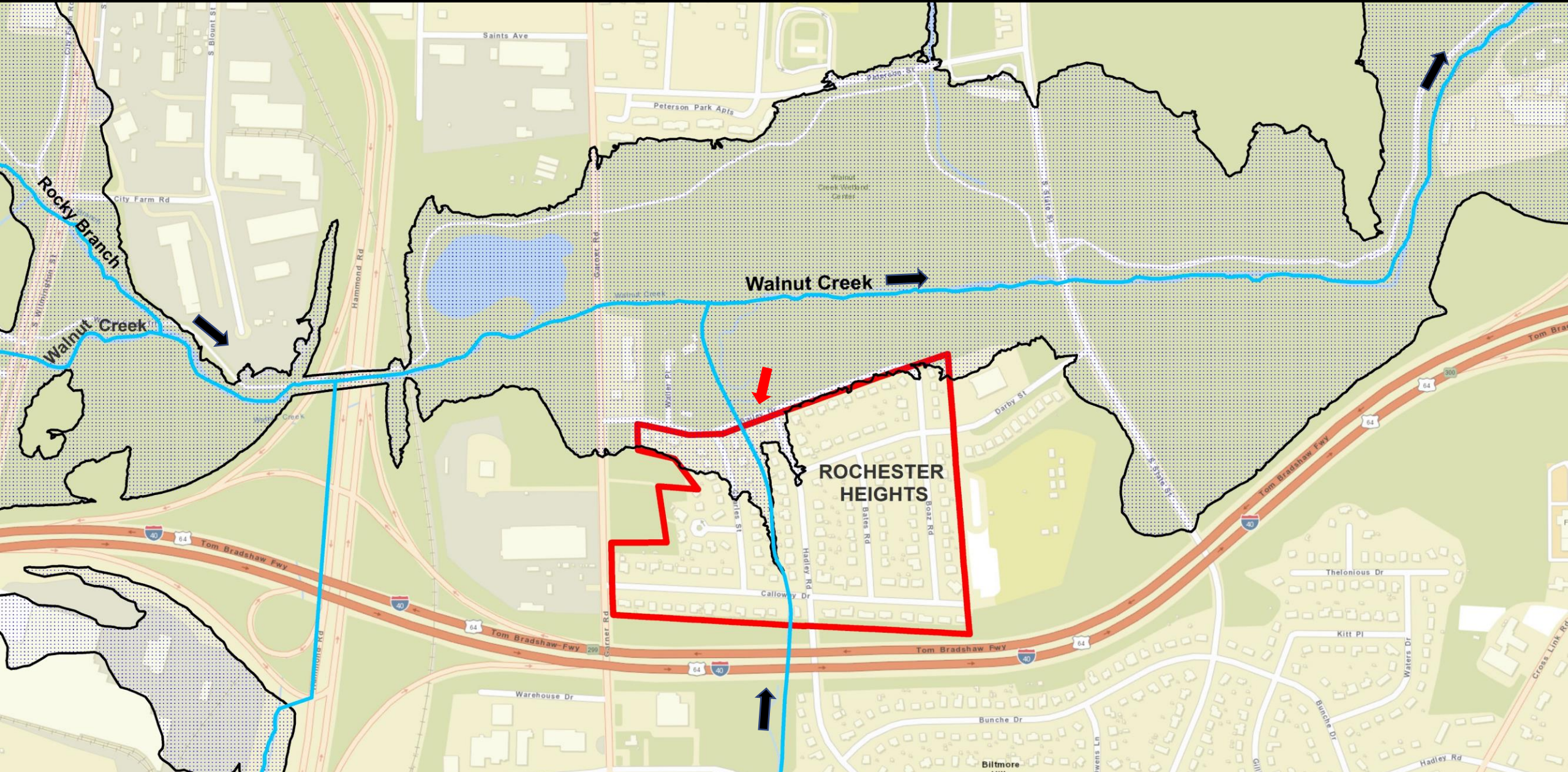
Amin Davis, NC DEQ DWR &
PEJ Board Member



WALNUT CREEK WATERSHED (~ 46 Sq. Miles)



ROCHESTER HEIGHTS IN FEMA FLOODPLAIN



PROBLEM: STORMWATER & FLOODING



DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1890
WILMINGTON, NORTH CAROLINA 28402-1890

March 24, 1986

MAR 25 1986

OFFICE OF
CITY MANAGER

IN REPLY REFER TO
Flood Plain Management
Services Branch

Mr. Dempsey Benton, City Manager
City of Raleigh
222 West Hargett Street
Raleigh, North Carolina 27602

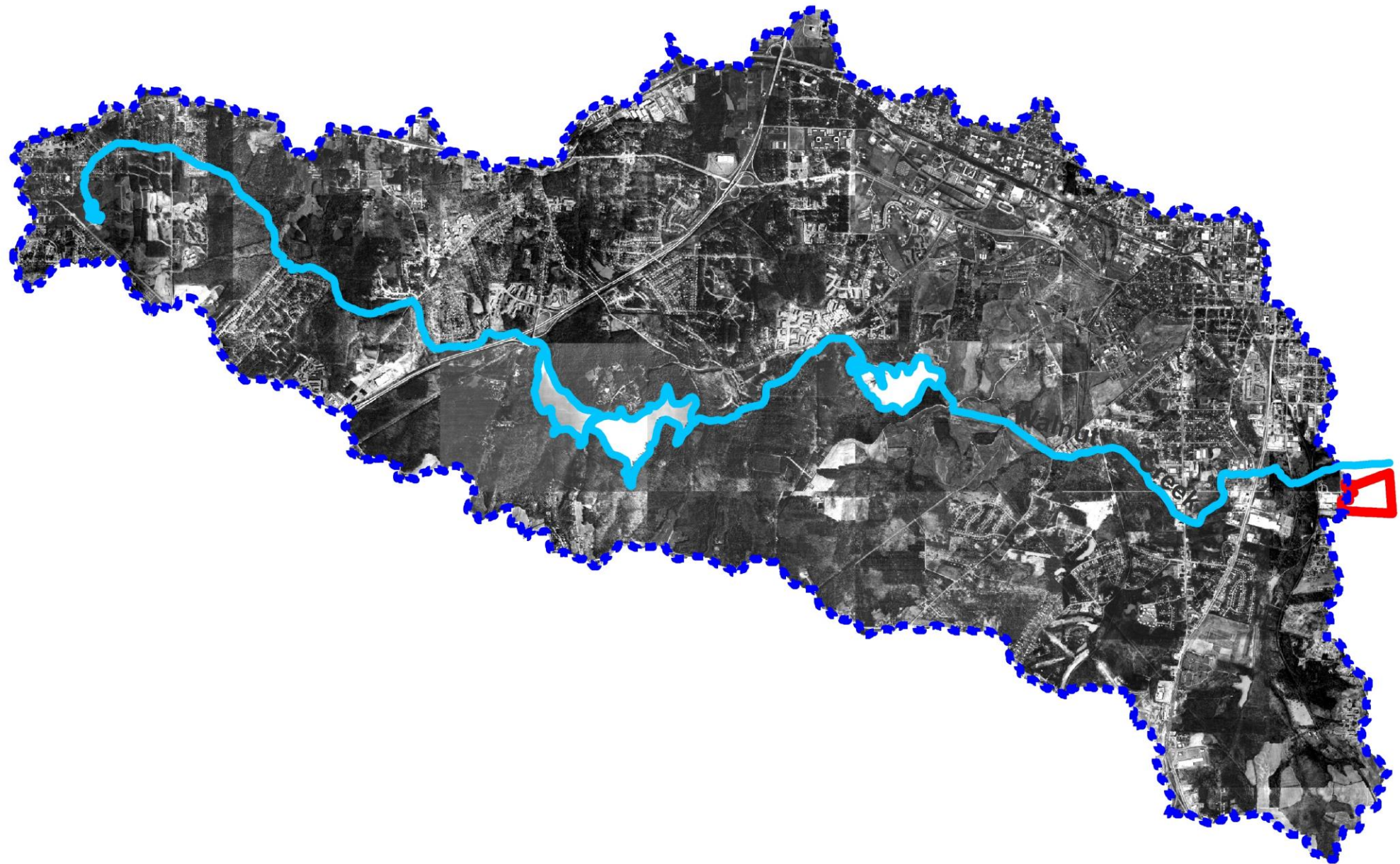
Dear Mr. Benton:

This is in response to a request by the city of Raleigh, North Carolina, for assistance in developing solutions to recurring flood problems along a tributary to Walnut Creek located in the Rochester Heights Subdivision.

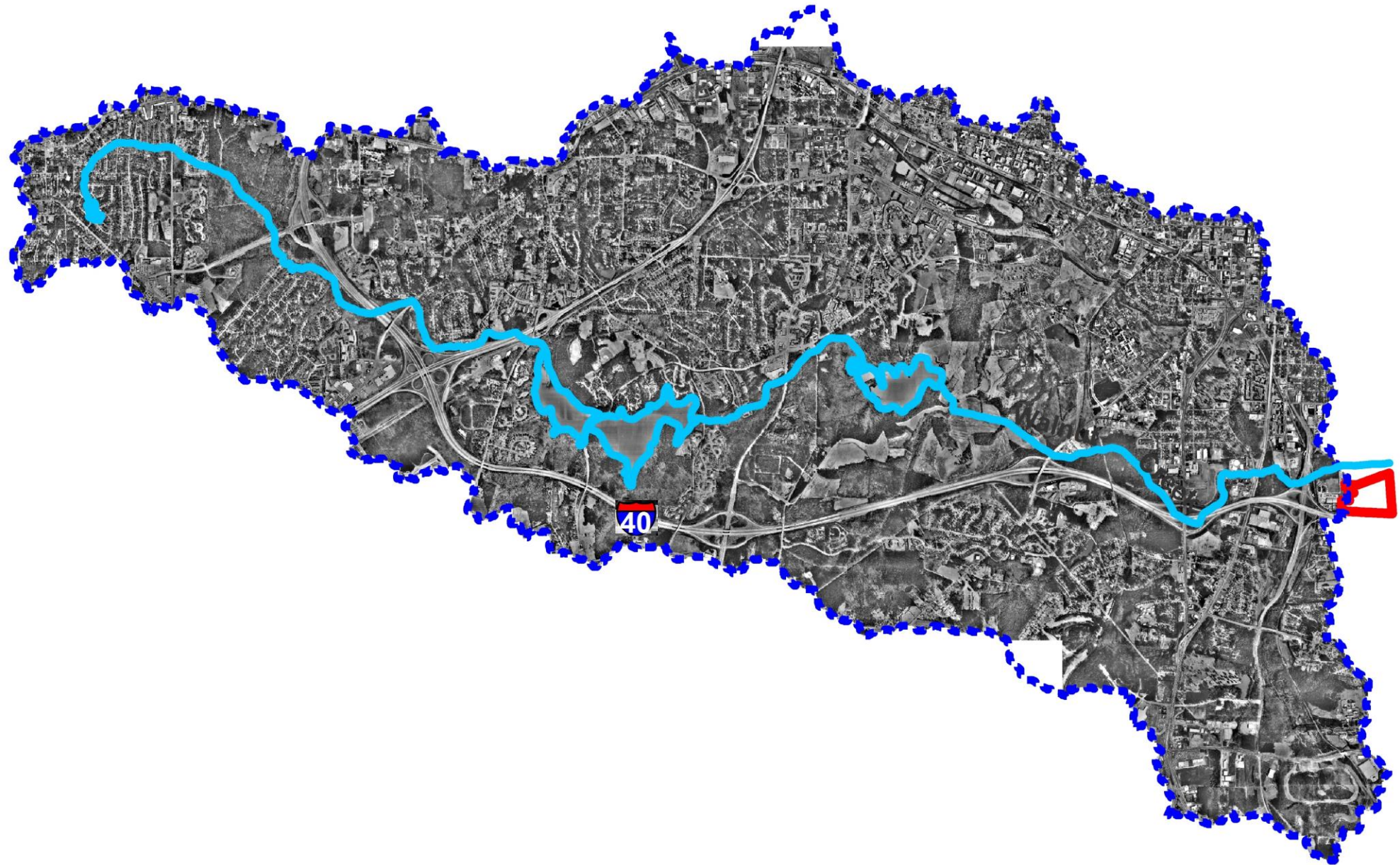
Our analysis of the flood problem included an inventory of flood plain development, an assessment of the magnitude of flooding, and an identification of applicable flood-damage-reduction measures. The majority of the tributary flood plain lies in the Walnut Creek flood plain (see enclosure 1). The problems of the more frequent floods can be attributed to the tributary, and the less frequent (greater than the 10-year) are generally attributable to Walnut Creek. Flood profiles for the 2-, 5-, 50-, 100-, and 500-year floods are shown on enclosure 2. The floor elevation of selected houses and the church are also shown on enclosure 2. Only the church has flooding above the floor for the 50-year flood, and it is attributable to Walnut Creek. About 24 homes would be expected to have flood levels above the floor for the 100-year flood, and again it is attributable to Walnut Creek. However, there are about 16 houses with flooded yards annually; and it is expected that about 15 houses will have flood waters underneath them during a 10-year flood on the tributary. Annual flood damages to buildings in the Rochester Heights Tributary flood plain are estimated at \$6,900 with \$3,500 attributable to the tributary and \$3,400 to Walnut Creek.

Measures to lessen the Walnut Creek flood problems were investigated in detail in the early 1970's. Those findings indicated there were no identifiable economically feasible measures to provide flood damage reduction in this area. We do not find any significant change in the flood damage or development for this area that would significantly alter our prior findings. It appears that the problems with the Rochester Heights Tributary would be classed as basic storm drainage problems.

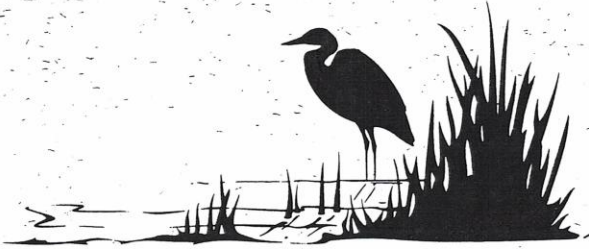
WATERSHED TO ROCHESTER HEIGHTS 1974



WATERSHED TO ROCHESTER HEIGHTS 1988



WALNUT CREEK 2000 PLAN (1997)



WALNUT CREEK 2000

Environmental Justice Committee
St. Ambrose Episcopal Church
813 Darby Street
Raleigh, NC 27610

Walnut Creek 2000 Urban Wetland Educational Park



Partners for Environmental Justice

MISSION

The mission of the Walnut Creek Urban Wetland Educational Park is to promote

understanding and protection of an urban wetland, enhance community pride, and encourage economic development.

The park provides an accessible quiet zone for communing with nature. It preserves the natural beauty of the wetland, protects the habitat of numerous species, and lifts the spirits of those who visit through educational and recreational experiences.

Walnut Creek 2000

A project for environmental justice

sponsored by the Episcopalians for Environmental Justice Committee

Committee Mission Statement

The mission of this committee reflects the ministry of the Church by educating, inspiring, and assisting individuals and organizations of diverse cultures to conserve the Earth's natural resources and protect the Earth's ecosystems in order to achieve a peaceful, equitable, and sustainable future in keeping with the following definition: "Environmental Justice is the equitable participation in and benefiting from responsible decisions regarding action toward environmental protection and health, and the joy derived from sharing a clean and vital environment with all God's creatures." This committee shall accomplish this mission by establishing environmentally sound practices in the community by promoting leadership and action within the community. Realizing the importance of diversity, this committee strives to include all peoples in developing appropriate environmental solutions, and encourages collaborative projects among churches, schools, industry, and others in the community.

Goals of Walnut Creek 2000

- To promote environmental conservation, community beautification, and civic pride for residents of the Walnut Creek drainage basin including the Rochester Heights community, St. Ambrose Episcopal Church, Fuller Elementary School, Carnage Middle School, and Women's Correctional Center in Southeast Raleigh.
- To increase community awareness of, and involvement in, environmental issues which negatively impact the community.
- To promote the appreciation and love of the environment as God's Creation to be shared equitably with all living creatures.

Project Summary

This project was initiated to resolve these issues: to restore a wetland to its former natural state prior to numerous years of abuse and environmental neglect; to establish the wetland as a natural park, for providing native wildlife a healthy habitat and for providing the local community with a valuable recreational resource; to incorporate the wetland park into the City of Raleigh's Greenway System; and to improve the quality of life in the Rochester Heights neighborhood, a generally poor community without significant voice at the Raleigh City Council, which presently is regularly flooded by moderate rainfall due to poor stormwater control which has not kept pace with development in the surrounding area.

TREE PLANTINGS 2001



COMMUNITY CLEANUPS



2006-2017

- ❑ 57 tons of trash
- ❑ 2,325 Volunteers
- ❑ 6,920 Volunteer Hours
- ❑ \$143,022 (~4 FTE)

1996-1998

- ❑ 600 Tires
- ❑ 40+ TV's
- ❑ Fridges, Mattresses, Industrial Waste, Fire Extinguisher, Bicycles



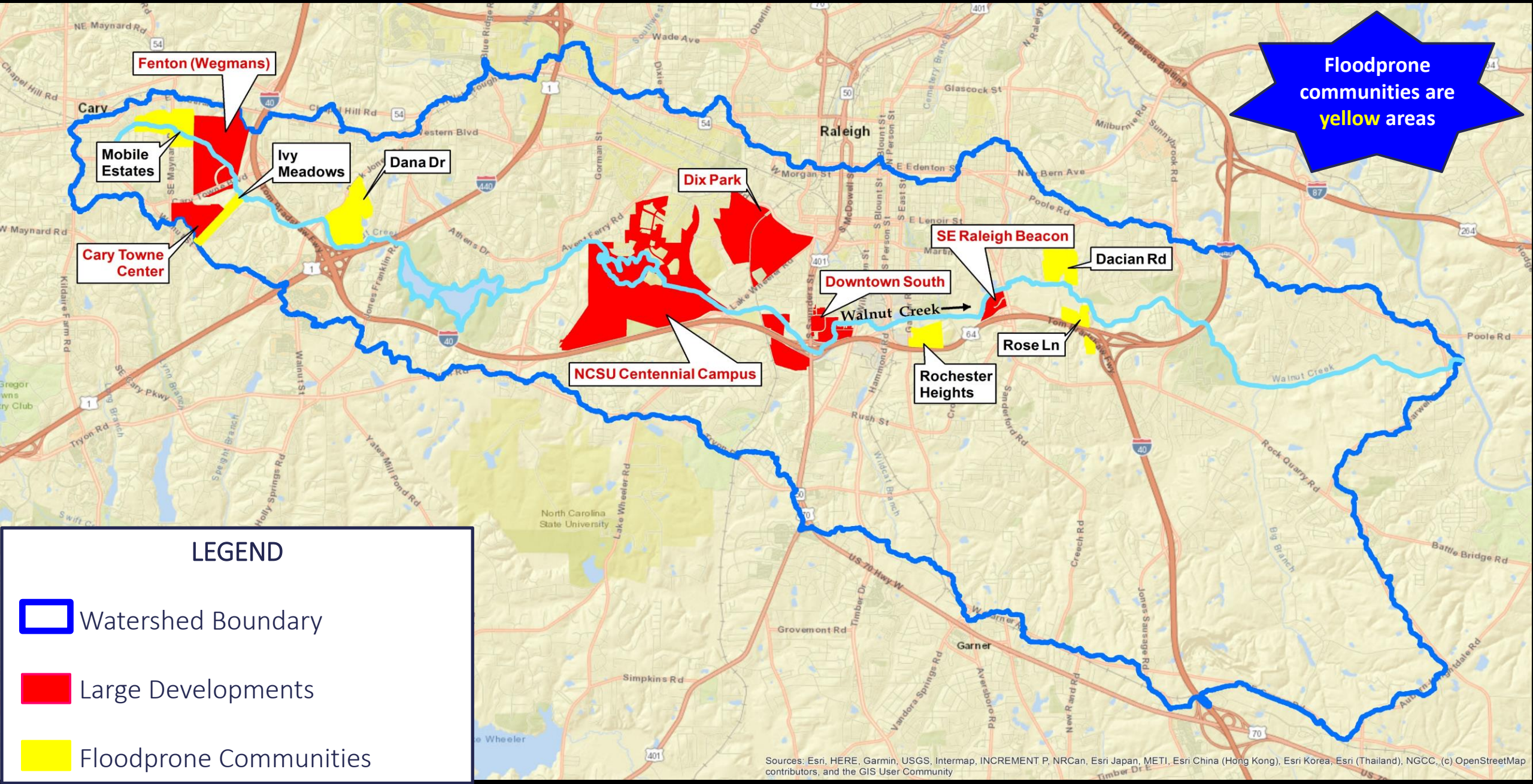
WALNUT CREEK WETLAND CENTER

Groundbreaking: July 15, 2008

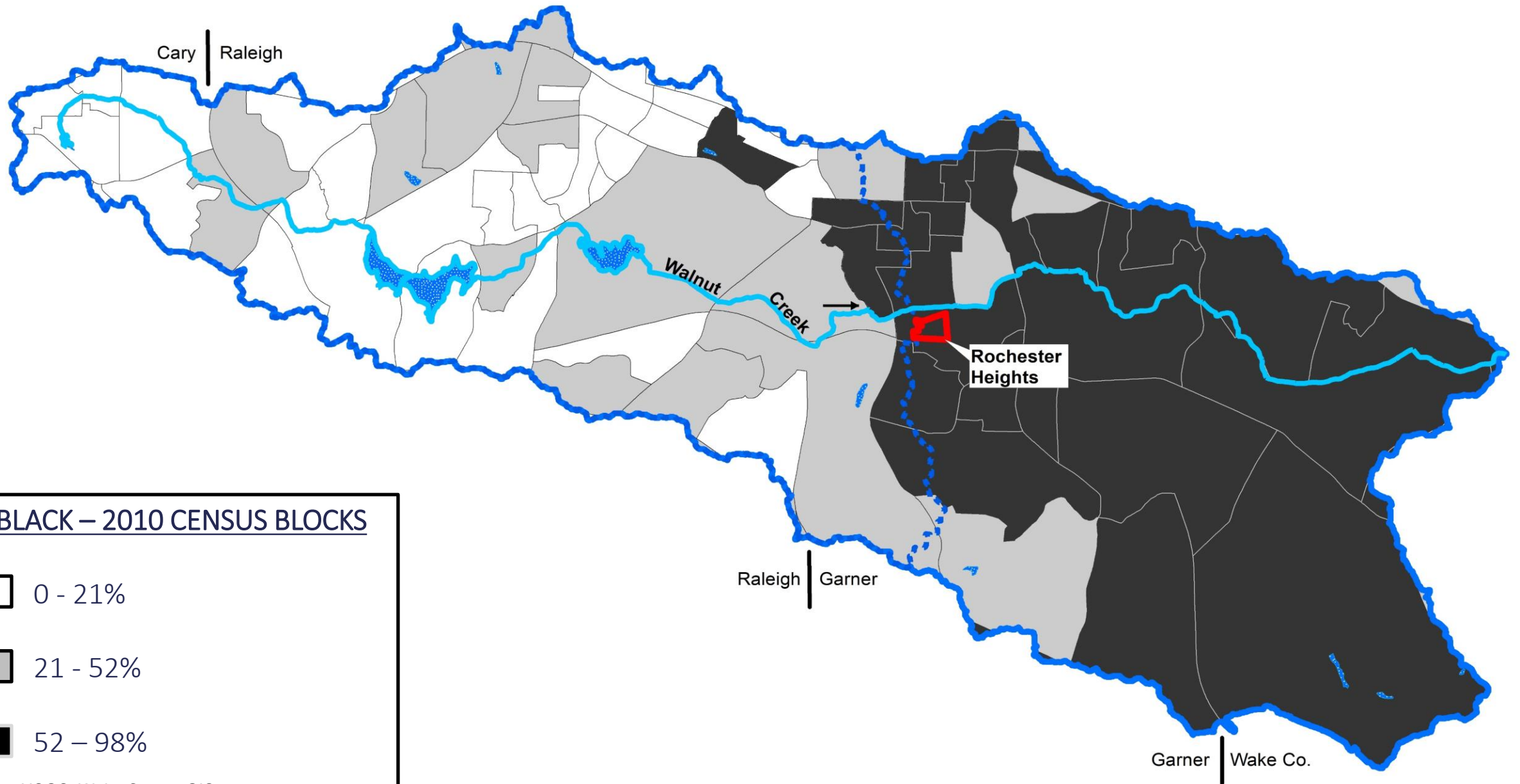
Dedication: Sept 29, 2009



CURRENT CHALLENGES: DEVELOPMENT & FLOODING

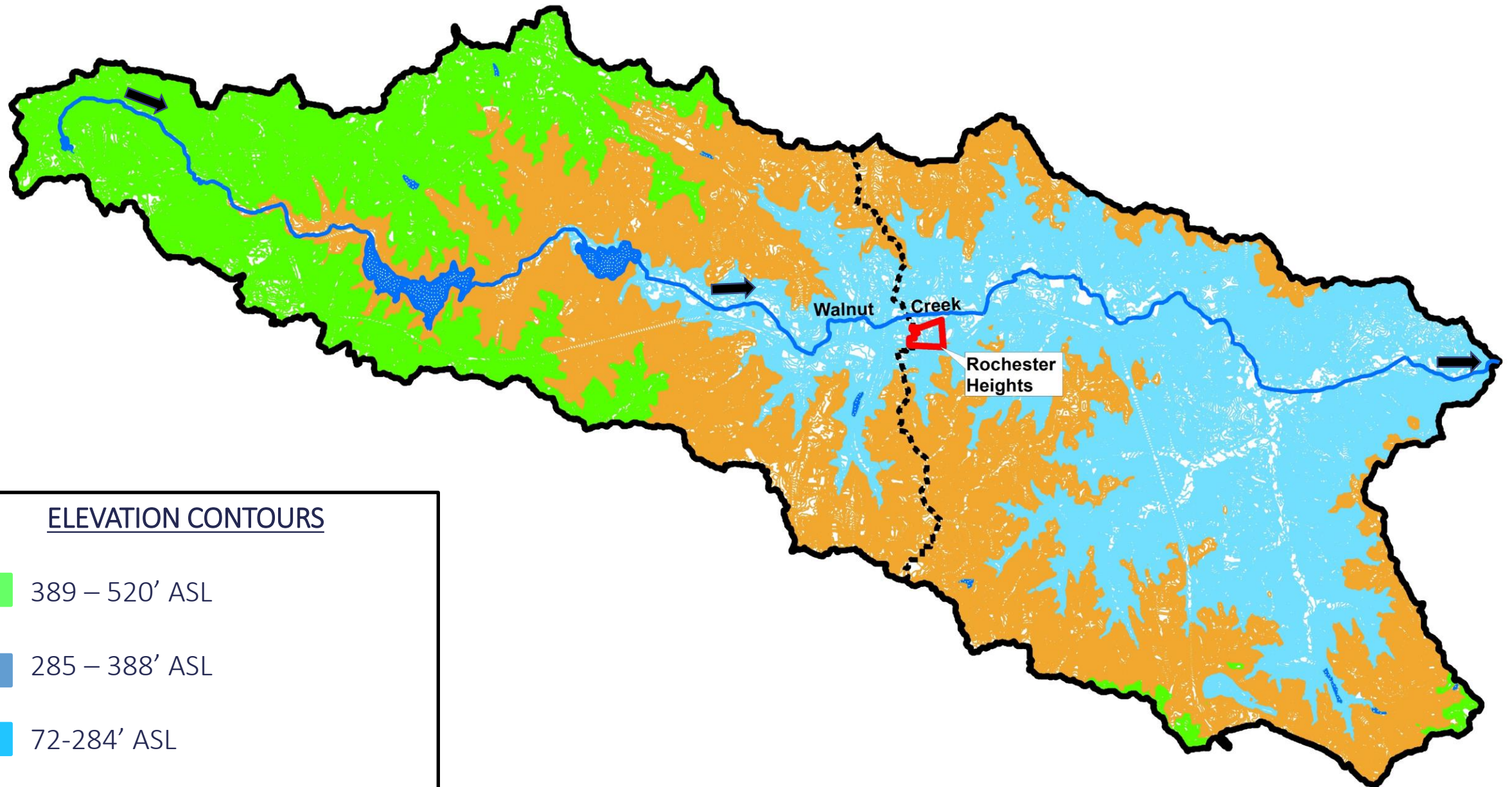


DEMOGRAPHIC SETTING (2010)






Sources: USGS, Wake County GIS

LANDSCAPE ELEVATION



ELEVATION CONTOURS

-  389 – 520' ASL
-  285 – 388' ASL
-  72-284' ASL

CURRENT CHALLENGES: FLOODING



Dana Drive



Rochester Heights

The News&Observer | **IMPACT2020**

≡ The News&Observer

HOME PAGE

Walnut Creek, where Raleigh flooding hits hardest – Shaffer

By Josh Shaffer
ishaffer@newsobserver.com

APRIL 25, 2017 03:07 PM, UPDATED APRIL 26, 2017 11:25 AM

VIDEO: Floodwaters from heavy rain floods cars and threatens homes on Dacian Road in Raleigh Tuesday, April 25, 2017. BY TRAVIS LONG

RALEIGH

Article will resume after the ad

-00:14

Dacian Road

CURRENT CHALLENGES: GENTRIFICATION & CULTURAL DISPLACEMENT

NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICE
Office of Archives and History
Department of Cultural Resources

NATIONAL REGISTER OF HISTORIC PLACES

Rochester Heights Historic District
Raleigh, Wake County, WA4581, Listed 12/7/2011
Nomination by Sybil Argintar
Photographs by Sybil Argintar, August 2010



Calloway Drive



Doby Circle



The News&Observer

OPINION

SE Raleigh is gentrifying. Is that so bad?

BY NED BARNETT
UPDATED JUNE 05, 2019 6:00 AM



SEARCH The New York Times

for: Insurance Act: Starting to Cover Telehealth Abortions | Virtual Clinics Have Been a Fast-Growing Method of Abortion, That Could Change. | Bars on Transition Care for Young People Spread Across U.S. | Reader Mailbag: Presidential Announcements, That For Call and What's White | U.S. Authorizes a New Booster

TheUpshot

FOLLOW US:
GET THE UPSHOT IN YOUR INBOX

The Neighborhood Is Mostly Black. The Home Buyers Are Mostly White.

By EVILY BADGER, QUOCTRUNG ELI and ROBERT GEBELOFF APRIL 27, 2019

Nationwide, the arrival of white homeowners in places they've long avoided is jolting the economics of the land beneath everyone.



Newly built homes in the South Park neighborhood of Raleigh are now going for \$460,000. As recently as three years ago, this land held a vacant house. Lucas H. O'Connell for The New York Times

RALEIGH, N.C. — In the African-American neighborhoods near downtown Raleigh, the playfully painted doors signal what's coming. Colored in crimson, in coral, in seafoam, the doors accent newly renovated craftsman cottages and boxy modern homes that have

Rochester Heights Historic District
Name of Property

Wake County, North Carolina
County and State

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

A Property is associated with events that have made a significant contribution to the broad patterns of our history.

(Enter categories from instructions)

Architecture

Community Planning and Development

Black Ethnic Heritage

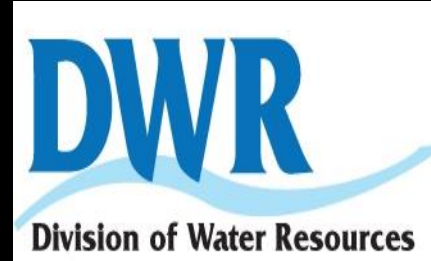
WALNUT CREEK WATERSHED ACTION TEAM (2017)

Local

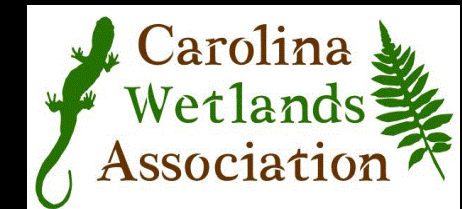


WakeGOV

State



UWFP



CURRENT OPPORTUNITIES: EPA URBAN WATERS FEDERAL PARTNERSHIP

URBANWATERS FEDERAL PARTNERSHIP

Restoring Urban Waters, Revitalizing Communities



The Urban Waters Program helps urban and metropolitan areas, particularly those that are under-served or economically distressed, connect with their waterways and work to improve them.

Working with a diverse set of partners, we seek to help communities restore and protect water quality and revitalize adjacent rural, suburban, and urban neighborhoods throughout the watershed.

Through this partnership program communities gain economic, environmental, and social benefits, and collaborate with federal, state, and local agencies, as well as community-led efforts, to achieve common goals.



National Reach, Local Results

- 15 federal agencies

- More than 28 non governmental organization partners
- 20 partnership locations.

Advancing Environmental Justice:

- 65% of Five Star grants in low-income/minority communities
- Funded 12 U.S. EPA Environmental Justice grants in 2018 and 2019 (\$540K)
- Supported four local environmental justice projects in 2020 (over \$125K)
- Hosted two national training workshops on equity

Environmental Results Snapshot:

Reached 164,349 community members through events and campaigns	Removed 258,000 cubic yards of contaminated sediment and soil	Prevented 500,000 gallons of stormwater from entering waterbodies
Restored 155 acres of marshes, wetlands and fields	Collected 23,139 pounds of trash and 106 pounds of recycling	Engaged 3,550 volunteers and participants at events

The UW Program:

Funded Five Star and Urban Waters Restoration Grants to watershed projects that:

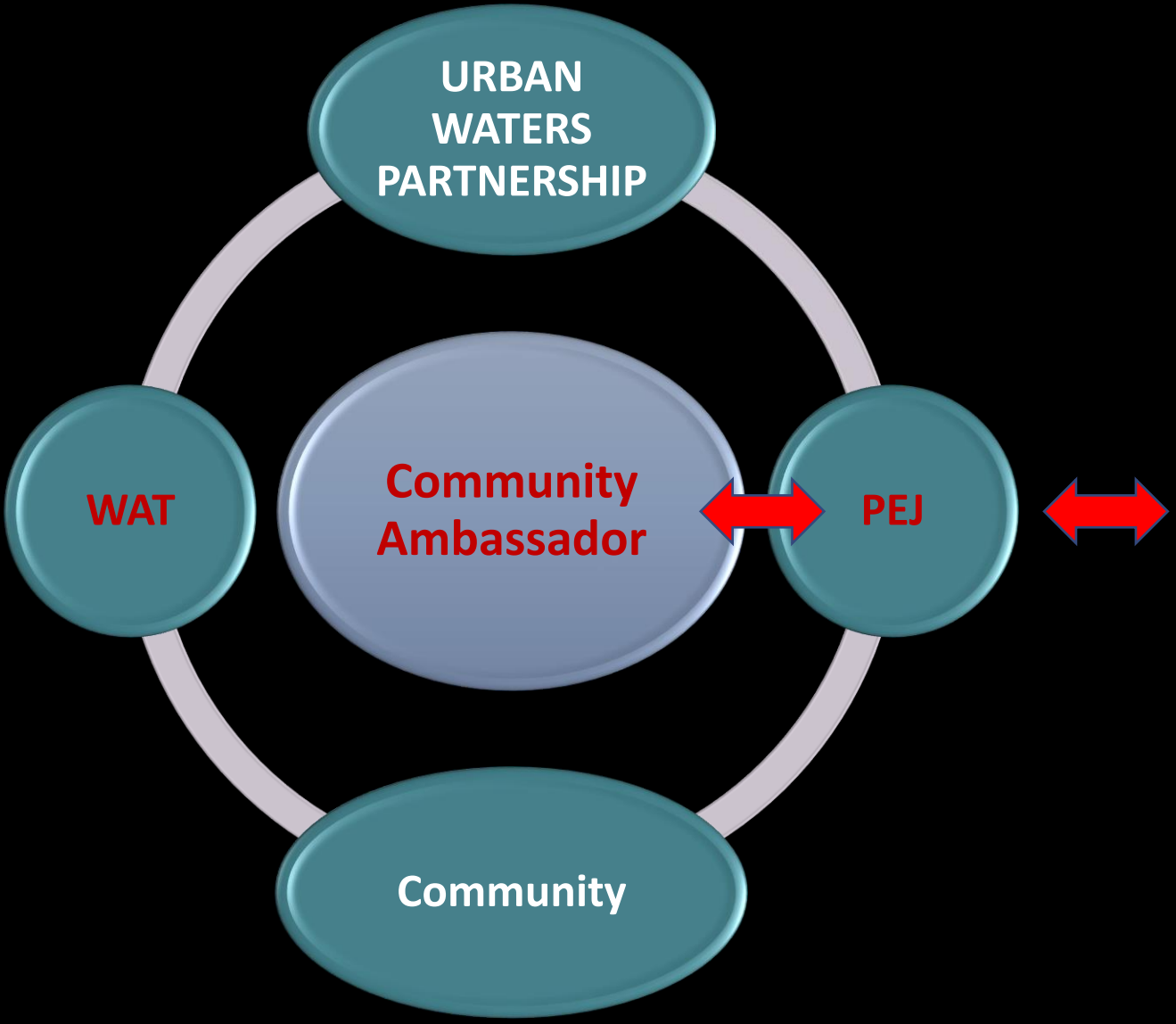
Engaged more than **30,000** volunteers across over **270** organizations implementing dozens of projects across the country, which resulted in over **10,000** trees and **20,000** marsh plants, seeds and native grasses planted, preventing over **500,000** gallons of stormwater from entering waterbodies.

Facilitated Information Exchange through the Urban Waters Learning Network:

More than **580** members in the online network connected to share best practices through seven webinars, five newsletters and **700** website visitors per month.

Leveraged Funds:

Secured more than **\$33 million** in grants and federal funding for Urban Waters projects.



A peer to peer community where urban waters practitioners share experiences, tools, and resources to support on the ground projects and build local capacity (580+ members)

- Networking
- Training and knowledge sharing
- Mentoring and coaching
- Boosted effectiveness
- Funding and technical resources

OUR CREEKS, OUR COMMUNITIES CELEBRATION

4/21/23 Dignitary Event

4/22/23 Community Event



OUR<>COMMUNITY'S UWFP VISION

Education & Empowerment

Equitable Development

Fall 2021

Walnut Creek Watershed Learning Network

JOIN US AND CREATE CHANGE IN THE WALNUT CREEK WATERSHED!

Partners for Environmental Justice (PEJ) created the **Walnut Creek Watershed Learning Network (WCWLN)**, a **watershed education program** where participants gain knowledge and skills to develop sustainable solutions and take action in their communities. As a participant, you will:

- Connect and learn with professionals and peers to address local water quality and stormwater challenges from equitable, sustainable, and resilient perspectives
- Apply what you learned – create and implement an individual neighborhood project
- Learn about green infrastructure, stormwater and flooding, watershed management, equitable development, community advocacy and environmental justice.



APPLY NOW!

Saturday Dates, 10am-1pm:

- September 11th, 25th
- October 9th, 23rd
- November 6th, 13th(alt), 20th

\$400+ stipend | Must be 17 yrs old
Content will be in English & Spanish

PARTNERS FOR ENVIRONMENTAL JUSTICE

Partners for Environmental Justice (PEJ) is a community-based, non-profit organization advocating for the equitable treatment of both human and natural communities in Southeast Raleigh.



REQUIREMENTS TO PARTICIPATE

- Preference given to applicants that live in flood sensitive neighborhoods such as Dadian/Glenbrook Road, Dana Drive, Rochester Heights and Rose Lane
- Commit to participate fully. Training sessions are 3-hours in-person at the Walnut Creek Wetland Center, 950 Peterson Street and at least one outdoor session
- Complete an interview and a pre/post evaluation form

Please check PEJ's website, www.pejraleighnc.org for updates about the application process, or send an email to programdirector@pejraleighnc.org.

Comenzando en Agosto y para mas informacion sobre el proceso de solicitud, favor de visitar la pagina de PEJ, www.pejraleighnc.org.



TOWN of CARY



Green Infrastructure



Equitable Development Principles & Scorecard

A TOOL FOR COMMUNITIES AND PLANNERS



CREATED FOR PUBLIC USE WITH INPUT FROM:

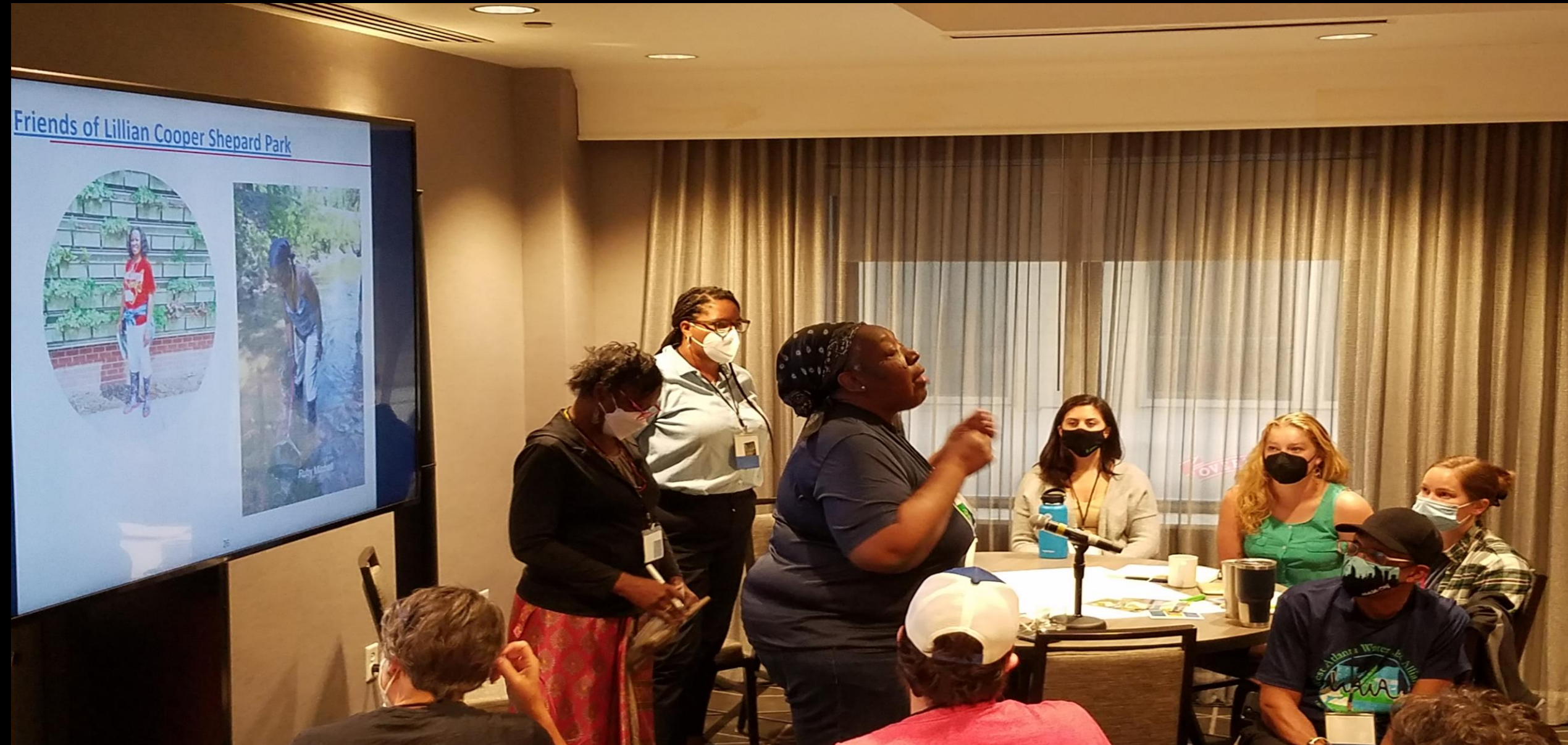
Alliance for Metropolitan Stability - Asian Economic Development Association - Asian Media Access
Aurora St. Anthony Neighborhood Development Corporation - Blake Road Corridor Collaborative
Centro de Trabajadores Unidos en la Lucha Community Stabilization Project - Harrison Neighborhood Association
Heritage Park Neighborhood Association - Jewish Community Action - La Asamblea de Derechos Civiles
Lao Assistance Center of MN - Metropolitan Interfaith Council on Affordable Housing
MN Center for Neighborhood Organizing - New American Academy - Nexus Community Partners
Northside Residents Redevelopment Council - Umoja Community Development Corporation

Funding provided by Headwaters Foundation for Justice and the National Convergence Fund



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Updated January 2016

EDUCATION & EMPOWERMENT



Donna Stevens, Proctor Creek Stewardship Council, River Rally 2022, Washington, DC

EQUITABLE DEVELOPMENT



Heritage Park Affordable Housing Community, Minneapolis, MN, July 2018

TO LEARN MORE...

- ❑ **Walnut Creek Urban Waters :** <https://www.epa.gov/urbanwaterspartners/walnut-creek-urban-waters-partnership>
- ❑ **Walnut Creek Storymap:** <https://ncdeq-giscomhub.maps.arcgis.com/apps/MapSeries/index.html?appid=a25203d5ce7b439a8c4db573a6a4fd14>
- ❑ **Walnut Creek Watershed Action Plan:** <https://ncdenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6f81e3b1ed114d9c91c91e0bf379cbeb>
- ❑ **Our Creeks Our Communities April 2023 Video: Walnut Creek Watershed Action Plan:** <https://ncdenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6f81e3b1ed114d9c91c91e0bf379cbeb>

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US Geological Survey
cstillwell@usgs.gov
919-571-4018

<https://www.usgs.gov/centers/sawsc>

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