

OUR MISSION: THE WALNUT CREEK WETLAND COMMUNITY PROJECT PROVIDES AN INFORMATIONAL HUB AND COMMUNICATION FORUM FOR ACADEMIC, GOVERNMENT, COMMUNITY LEADERS, AND RESIDENTS TO COLLABORATE ON EDUCATION, RESEARCH, SUSTAINABLE MANAGEMENT OF THE WETLANDS' NATURAL RESOURCES AND DEVELOPMENT OF THE SURROUNDING HUMAN COMMUNITY.

Walnut Creek Wetland Community Project

go.ncsu.edu/walnutcreekwetlandpartners

Meeting Summary

July 19, 2016 potluck gathering at the Walnut Creek Wetland Center

This document provides a summary of the discussions held during the gathering.

Participants of the July 19 gathering:

Craig (Kwesi) Brookins, NCSU College of Humanities and Social Science
Kevin Boyer, City of Raleigh Stormwater
Norman Camp, Partners for Environmental Justice
Frances Carmichael, Walnut Creek Wetland Center (WCWC)/community
Stephanie Clark, NC State LIVE
Bill Flournoy, Triangle Greenways Council
Laura Garcia-Cuerva, NCSU- Civil Engineering
Stacie Hagwood, WCWC
Dresden McGregor, NCSU Forestry/Env. Resources
Robin Moore, NCSU College of Design
Sharon Moore, NC State LIVE
Scott Payne, City of Raleigh Parks, Recreation and Cultural Resources
Christy Perrin, Water Resources Research Institute (WRI)
Peter Raabe, American Rivers
Randy Senzig, Center for Human and Earth Restoration
Nicole Wilkinson, WRI
Lory Willard, City of Raleigh Stormwater

Partners went around the table to share news about the wetlands and community:

- Future grants- we should speak to the opportunities for youngsters to learn about nature that they currently do not have in this neighborhood
- YMCA purchased the flea market property. Walnut Creek Greenway connects that property to schools and the wetland center. It will have a mixed use component-residences, grocery.

- Neighborhood Ecology Corps is in midst of recruiting 6th, 7th, and 8th graders for the fall class. NEC is working to give youth opportunities outside. We need help recruiting! (contact Randy with ideas)
- Triangle Greenways Council news:
 - getting license from State to use 25 acres of the Women’s Prison’s riparian wetlands.
 - City council approved transfer of 3+ acres of TGC property to the wetland park
- WRRRI is hosting a website for the Walnut Creek Wetland Community Project. Some feedback has been received about the site. If you have additional feedback or would like your related work linked to the page, let Christy know. You can reach her at christy_perrin@ncsu.edu

Walnut Creek Wetland Center Updates:

- A new theme is highlighted at the center each month, including crafts and a theme board.
- They are increasing the type and number of programs offered.
- Exploris Middle School is a partner- recently a class developed spring and fall field guides to use at the center.
- Swamp Romp program for toddlers is changed monthly (Frances develops topics).
- Environmental educator classes are held here
- New bilingual storytime intended to reach the population that can walk here is gaining popularity. The first storytime was attended by 7 participants, the most recent one had 20.
- The Ross Andrews Trail is expanding.
- A new partnership with a man who makes birdhouses is yielding many benefits. He will donate birdhouses to the center, join Brooks Elementary School in a 2nd grade service project to help students build birdhouses. In addition, a Boy Scout Eagle project will involve building duck houses and trails. A birding trail at the center will be established, and a program to encourage citizen science to monitor the trail and birdhouses will be created.
- Big Sweep will be Sept. 10 at the Center. Volunteers to clean up are welcomed.
- Girls in Science summer camp in partnership with NC Museum of Natural Sciences is being held here. They will be informed about the NEC in an effort to recruit.
- Arts for Fun is another City of Raleigh program combining arts and science, held at Pullen Park and the Center.
- City of Raleigh is getting ready to host storm drain marking around the center.
- Educational stewardship activities held include bird banding (4 times) and an invasive plant s

Grant updates

- *Post- meeting update:* Christy found out after the meeting that we did not receive the Dept of Justice Environmental Enhancement Grant for which we applied last December. She called for feedback and learned that by applying in the “immediate impact” category we competed with applications that had projects that were “shovel ready” to put in the ground. Our application as it was submitted would have been more competitive in their “long term” category that included education and planning projects.
- *American Rivers grant:* American Rivers is a national non-profit organization with an office in Durham. They are working on educating about and increasing green infrastructure in the Neuse

River Basin. They will be providing a modest sub-grant this fall/winter to NCSU to help fund the focus group/survey work being conducted by Dresden McGregor and Dr. Louie Rivers (see the summary on page 4) , and to identify, design and implement a small demonstration rain garden somewhere in the community (coordinated by Christy Perrin). We welcome American Rivers to the Walnut Creek Wetland Community Partnership and are grateful for the opportunity to move these projects forward this fall.

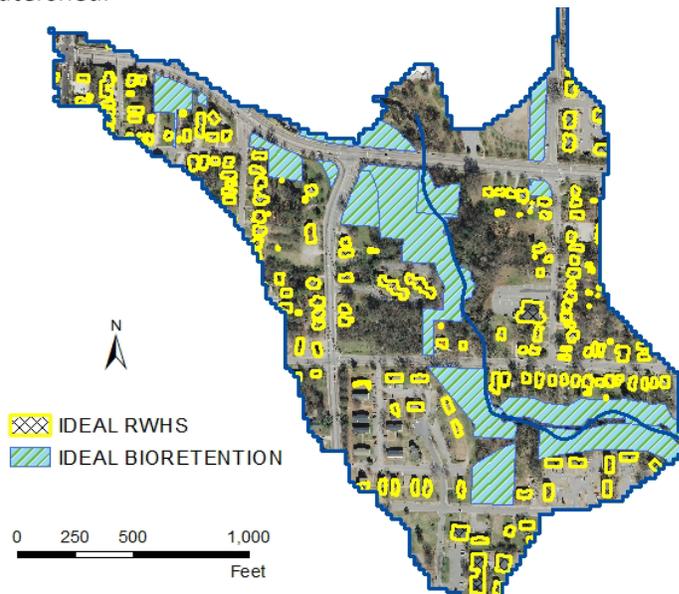
Graduate Student Projects

Two graduate students are focusing their research efforts in the community surrounding the Walnut Creek wetlands. They each provided an overview of their work and heard feedback about it.

Laura Garcia-Cuerva, College of Engineering, is completing a masters degree with Dr. Emily Berglund. Her research objectives are to:

- Develop an integrated approach to address environmental justice
- Explore cost-effective LID-based management strategies
- Identify performance vs cost trade offs
- Engage a marginalized community in stormwater management

Laura is using computer modeling and mapping to identify potential locations for “low impact development” projects for reducing stormwater running off impervious surfaces (such as pavement and rooftops). She is specifically investigating opportunities for bioretention, an LID practice also called rain garden, that captures rain water in a depressed landscaped area, and rain water harvesting using cisterns. She has looked at the Chavis Branch watershed, which includes the land that drains into the stream that runs from downtown through Chavis Park and into Walnut Creek, as a focus area. The following map shows potential opportunities for bioretention and rainwater harvesting in this watershed.



Criteria for locating potential opportunity areas included areas that would have a high impact on reducing stormwater runoff to the creek, and location in lower income communities. She modeled scenarios of using 50 gallon rain barrels and bioretention. Though rain barrels show a negligible reduction of stormwater, it is a “gateway” practice that introduces people to LID. Implementing bioretention in the scenario can provide a 41% reduction of stormwater volume.

Her next steps are to develop a more realistic model of the drainage network and new scenarios that look at centralized versus decentralized rain gardens, and trade-offs between performance and cost. She anticipates finishing her work this summer.

Dresden McGregor, College of Natural Resources, is completing a masters degree with Dr. Louie Rivers. Her immediate goals: Understand what Rochester Heights residents think about the environment, stormwater, and LID strategies.

Long term goals: Increase the general level of understanding and enable better decision making processes in the Walnut Creek community about these issues.

She is setting up focus groups, likely targeting Rochester Heights, to learn about residents' environmental preferences, how much time do they spend outdoors, and what they know about stormwater. She said that there is not much research about what people think about these practices, so they hope to find out through focus groups and a survey. Two 2-hour focus groups are being planned for late summer. A survey will build on the results of the focus groups to reach a bigger audience (targeting 100 people). Educational materials could be developed and project opportunities identified as a result of the focus groups and survey, in addition to increasing the understanding in the literature.

Dresden hopes that someday stormwater projects like rain gardens and rain barrels become as widespread as recycling. She has found in her research so far that positive, tangible incentives are more effective at encouraging people than information about negative environmental impacts.

Group discussion:

A participant raised the issue of the terms being used to describe neighboring communities, with concern about some of the language likely to be found as offensive. In particular, marginalized and underprivileged. There may be a perception among some that "southeast Raleigh" is synonymous with poor and black. That does not describe everyone. In the past, some agencies identified properties by zip code to classify people. The Rochester Heights neighborhood for example, was formed as a community for middle-class working people. They do not see themselves as underprivileged. Laura got a definition of "underprivileged" from UNC, as being an unemployment rate of 35% and low income rate.

Suggestions made include

- letting the community define itself (which focus groups and surveys can help with)
- Identify and present information about the projects to community groups to get their feedback
- Outreach may require going door to door

The group wondered if flooding continues to be a problem in neighboring communities, as local Parks staff were not aware if that was the case. In the 2014 focus group Louie organized, it was mentioned. The flooding may not be as severe as in the past. Somebody suggested walking around the community after a storm.

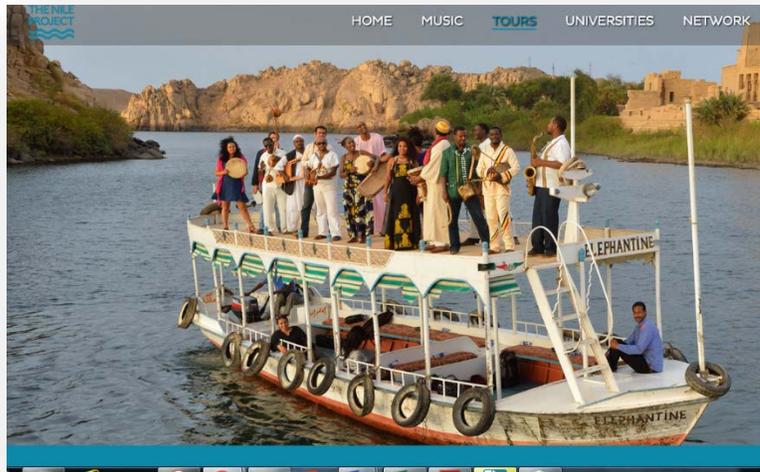
The Nile Project is coming to NC State University March 15-21

Nicole Wilkinson, WRRRI, is working with NC State Live to organize a weeklong program with the Nile Project at NC State University in March. Stephanie Clark and Sharon Moore, NC State Live, provided an overview of the Nile Project, including an introductory video. The Nile Project started as an effort to highlight issue of water along the Nile River, using music as a catalyst to bring people together over water. They will hold a concert during the annual Water Resources Research Institute conference, hold workshops and lectures. Visit the Nile Project at <http://nileproject.org/>

If people are interested, there is an opportunity to bring musicians out in to the community for a workshop. The event could bring attention to issues in the community, and help to serve local needs. Some potential topics that they hold workshops on include arts, civic engagement and water management.

- Comment- They could possibly come to the Walnut Creek Wetland Center, or one of the 6 community centers nearby. The Community Centers hold after school programs that include teens. Sarah Powers in the City of Raleigh's Arts Director.

Participants were interested in working with the Nile Project on bringing musicians to the community in some kind of forum.



Walnut Creek Wetland Park Master Planning Process update

Scott Payne, City of Raleigh Parks, Recreation and Cultural Resources, provided an update on the Walnut Creek Wetland Park planning process. A Request for Qualifications (RFQ) was released this summer with the intention to hire an organization in January 2017. This organization will start by conducting a situation assessment- identifying and interviewing stakeholders to learn about the issues of importance to people. After the situation assessment, a citizen advisory committee will be formed to engage in the planning process, with 2018 the target for a park design plan.

Next get together:

The group would like to meet in early October to hear the results of the focus group. Dresden would like participants' feedback on the preliminary results and survey ideas. Somebody suggested inviting the chair of the Citizen Advisory Council to the meeting.

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