



TOWN OF CARRBORO

NORTH CAROLINA

TRANSMITTAL PUBLIC WORKS DEPARTMENT

To: Marie Parker, Interim Town Manager
Town Council

From: Randy Dodd, Stormwater Utility Manager

Cc: Kevin Belanger, Public Works Director
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Date: December 21, 2023

Subject: Proposed Residential Assistance Program and Associated Request to Set a Public Hearing to Modify the Stormwater Rate Structure

Summary

The purpose of this memo is to provide information to supplement the draft residential assistance program design document and request to set a public hearing for February 27, 2024 on a stormwater rate structure amendment to fund the new program.

Information

General Background

Carrboro stormwater services have incrementally increased over the past 35-40 years, with the largest increase in services coming in the last five years with the creation of the new Stormwater Utility, Enterprise Fund, and Advisory Commission. Until 2018, Carrboro's Stormwater program was staffed through a distributed network of responsibility across departments and positions and no dedicated Stormwater staffing. The Enterprise Fund is currently funding 3 full time Stormwater staff positions who in turn are supported by other staff and contractors.

Dedicated revenue is based on a tiered rate structure which establishes the fees to be paid on an annual basis through property tax bills and based on the amount of impervious surface on the property. A little over \$1M is currently being received by the Enterprise Fund each year through this billing.

The Stormwater Enterprise Fund and its [rate structure](#) were set up to fund both operational and capital project needs and Stormwater related responsibilities ranging from regulatory (regulated and regulator) to community-based (outreach, education, participation, technical support) to field and operations work (monitoring, stream determinations, buffer compliance, infrastructure and facility inspections, pollution prevention) to planning support (development review, reviewing

town regulations, SCM program coordination), project development and implementation, and administrative support (implementing rate structure, staffing Stormwater Advisory Commission, contracting, grant applications and administration, overseeing 30 miles of infrastructure). Establishing the rate structure was a necessary foundation for creating a program with dedicated funding, with a recognition that many details would need to be worked out over time to transition the Utility to a long term and sustainable enterprise. The relatively new Stormwater program is tasked with delivering a variety of services related to the above responsibilities, with two notable elements being maintaining and retrofitting infrastructure from a century worth of development and building resiliency for uncertain and long-term climate change related impacts. Especially in some older sections of town, there is infrastructure that could need repair, rehabilitation, replacement, or retrofitting sooner than in newer parts of town.

Recent experience with and concern for more intense storms has led to a need for more attention to storm resilience related to both community and environmental concerns. A few relevant examples of Stormwater Utility service delivery include support for FEMA Hazard Mitigation Grant Program (HMGP) and Public Assistance, EPA 319 program, and North Carolina Local Assistance for Stormwater Infrastructure Improvements grant applications to secure federal and state financial support. A key initiative related to Town owned infrastructure has been pursuing a condition assessment to provide a foundation for pursuing infrastructure improvements.

The focus of the remainder of this memo is on one specific component of the larger Stormwater program service delivery: assisting residential property owners. Technical assistance has significantly ramped up since the creation of the Stormwater Utility, as described below and in other referenced resources. The next step with further expansion of residential service delivery is for the Town to decide if the pieces are in place to begin to offer financial assistance to residents from the Stormwater Enterprise Fund, and if so, within what specific programmatic framework. This memo and the accompanying agenda pieces provide both the background for how the draft program design has been developed and a specific recommendation for how to proceed with this consideration. The recommendation represents a synthesis of four years of work and experience that represents considerable interaction with the Carrboro community as well as research into what other communities have developed and learned through similar efforts.

Residential Assistance Program Development Background and Related Efforts

Stormwater staff have been involved in residential assistance efforts since the Stormwater Utility's inception. Initially and while the program was in a start-up phase, staff provided "consultative services" which meant that staff responded to resident's inquiries. At times, this was over the phone and/or via email and, often, site visits were scheduled as part of the consultation. Typical outcomes were to suggest site improvement opportunities and technical resources as well as referrals to other divisions, departments, and agencies. This assistance did not include many elements of a more established program, and it was more reactive than proactive.

Two tropical storms passed through Carrboro in 2018 (the wettest year on record, with 2020 being the second wettest year). More intense rain events have been increasing in frequency over the past decade. This has ushered in the need to quickly grow this element of the Stormwater program. A point of emphasis for Stormwater staff from 2018-2020 was to support a pre-existing HMGP grant to elevate two homes on Lorraine Street, and to support new flood mitigation grant applications. Four other priority larger public projects (three in residential

areas) were identified to address infrastructure needs via a stream restoration project (Public Works), culvert replacement (Broad Street), roadside conveyance improvements (High Street), and a road and drainage improvement project (Roberts Street). All the above came to fruition in the 2019–2020-time frame. Shortly thereafter, Stormwater staff supported three HOAs in the pursuit of EPA 319 grant funds to stabilize an eroding gully; that grant application was successful and that project is very near conclusion. The above are examples of projects the Stormwater program has pursued as part of its expanding service delivery. What follows is a more focused discussion of efforts to develop a new residential site/lot scale assistance program.

Program Development and Design-Phase 1.

Since 2019, Stormwater staff have studied what other municipalities in North Carolina have been doing to provide residential assistance. Early on, the need to bring in outside expertise was identified. The Town contracted with the Center for Neighborhood Technology to pursue and complete a “RainReady” study in early 2020. Additional details about this initial phase of program development work are provided below. Other highlights from 2020–21 include oversight from the Stormwater Advisory Commission and creation of a new “Homeowner’s Manual” (which has been well received in Carrboro and recognized by other communities and stormwater professionals). As part of this, a need was identified to pursue a second study to reach out to Carrboro residents and complete more formal and technical residential site assessments and use the results to provide comprehensive and more tailored program design recommendations. Concurrently, the community was engaged in developing Carrboro’s new Comprehensive Plan (Carrboro Connects) that included a section devoted to green stormwater infrastructure. The plan also included a recommendation to offer incentives to income eligible residents. This set the stage for the next phase of work.

Residential Assistance Program Development Timeline

Phase 1: RainReady Study and Follow Up

Date/Timeframe	Activity/Event
9/10/19	Board of Aldermen approves RainReady study
10/3/19	Center for Neighborhood Technology RainReady study begins
12/7/19	Toms Creek walkabout
1/19-4/19	Stormwater Advisory Commission meetings/review
2/13/19	RainReady community meeting (Hampton Inn)
5/4/19	RainReady study accepted by Town Council. Staff and SWAC directed to follow up
6/2019–present	Staff technical assistance efforts expand (website updates, site visits, and more)
Early 2020	Start of pandemic
9/20	Homeowner’s Manual released
12/9/21	SWAC review and approval to pursue residential assessment services
2/22–10/22	Solicitation of residential assessment contractual support; contract establishment
3/22	Contractor’s Directory created
6/7/22	Carrboro Connects adopted, including new incentive program recommendation

Program Development and Design-Phase 2.

Phase 2 was initiated by bringing a second contractor (Michael Dupree, Feather Village Farm) onboard in late 2022 to follow up on Phase 1 direction to complete the “Residential Assessment Pilot Project”. The technical and administrative elements of the projects were first set up and then residential site assessment were completed for 50 residents¹. Participants were surveyed at the end of the project to better understand their experience of the pilot and plans for using the assessment results. Reports were prepared by both Feather Village Farm and staff to document the project. The Stormwater Advisory Commission supported and reviewed the project.

Phase 2: Residential Assessment Pilot Project

Date/Timeframe	Activity/Event
12/1/22	Contract with Feather Village Farm (Michael Dupree) begins
1/4/23	Project webpage created
1/5/23	Project publicizing begins; Application period opens (limit to 50 sites)
2/4/23	On-site assessments begin
3/15/23	Application period closes
2/22/23-3/22/23	On-site assessments take place
3/23/23-3/27/23	Follow-up survey disseminated to participants
4/16/23	Survey response initial deadline
4/15/23-4/30/23	Pilot project wraps up, report(s) completed
5/3/23	Consultant and staff present conclusions to Stormwater Advisory Commission

Program Development and Design-Phase 3.

During the fall of 2023, staff, Feather Village Farm, and the Stormwater Advisory Commission pulled together the work from Phases 1 and 2 into a draft “Watershed Restoration Residential Assistance Program” design document. The term “watershed restoration” was chosen because it articulates a core component of the program. Restoring the hydrologic and ecological integrity at a watershed scale will result in improved community scale resilience and healthier ecosystems in Carrboro and downstream. It is very congruent with other terms such as “green stormwater infrastructure” (from Carrboro Connects), the Ecosystem Protection and Enhancement section of Carrboro’s Community Climate Action Plan, the 2012 Bolin Creek Watershed Restoration Plan, and the state and national level emphasis on “nature-based stormwater solutions”. It is therefore consistent with the paradigmatic shift that has been occurring in the stormwater profession that is moving away from the 20th century grey stormwater infrastructure approach.

¹ A report on the project including assessment site locations, results, participant demographics, and survey results is available at <https://www.carrboronc.gov/DocumentCenter/View/12997/RAPP-Report-Carrboro>

Phase 3: Watershed Restoration Residential Assistance Program—Planning and Design

Date/Timeframe	Activity/Event
8/15/23	Second contract with Feather Village Farm/Michael Dupree executed
9/14/23	Program design development presentation to SWAC
10/24/23	Work session with staff, SWAC members, and contractor
10/26/23	Work session with staff, SWAC members, and contractor
11/30/23	Work session with staff, SWAC members, and contractor
11/23–12/23	Additional technical assessments take place on residential properties Program design document final draft prepared for SWAC review Second round of surveys sent to residents receiving assessments
12/14/23	Final draft approved by SWAC
1/9/2024	Program design presented to Council for approval

The recommended next phase of the program will be offering cost share assistance as outlined in the program design document, assuming it and the necessary funding and staffing for the program are approved.

Additional Context and Information

While it is beyond the scope of this memo to present the recommended program more fully (see the draft program design document itself), several supplemental thoughts are offered.

First, there are few communities, especially smaller municipalities, in North Carolina, that are offering a program like this. Locally, Durham and Raleigh have created programs, and the recommended program design benefits heavily from those program’s design and experience. The reasons more programs are not established boil down to 1) the stormwater profession, and especially the “greener” version of the profession, being relatively new; 2) legal constraints centered on public versus private rights, responsibilities, liabilities, etc.; and 3) resource and capacity constraints (financial and staffing).

Second, Carrboro’s Stormwater Program itself is relatively new and actively developing on multiple fronts. The Program is therefore more capacity constrained than programs that have been established for longer and is also focusing on enhancing service delivery across sectors and program areas in as balanced, equitable, and sustainable a way as possible. Given this and what has been learned in phases 2 and 3, one additional staff position (new “Stormwater Assistance Coordinator”) is requested to support this program and other community assistance efforts. This will not only provide dedicated and focused support for implementing the eligible practices, but also provide a single position and point of contact that provides support via referrals and coordination with other town departments and division and other agencies and with grant applications to other funding programs. Impacts to the rate structure (by tier) by implementing the recommended 10% increase in fees are provided in Table 1.

Table 1: Recommended Residential Rate Structure

<u>Tier/ ERUs</u>	<u>Minimum Impervious Surface (square feet)</u>	<u>Maximum Impervious Surface (square feet)</u>	<u>Annual Fee/ (Increase)</u>	<u># of Parcels</u>
1	500	5,999	\$100/ (\$10)	4382
2	6,000	-	\$200/ (\$20)	222

Draft Non-residential Rate Structure*

<u>Tier</u>	<u>Minimum Impervious Surface (square feet)</u>	<u>Maximum Impervious Surface (square feet)</u>	<u>ERUs**</u>	<u>Annual Fee/ (Increase)</u>	<u># of Parcels</u>
1	500	5,999	1	\$100/ (\$10)	1046
2	6,000	23,999	5	\$500/ (\$50)	246
3	24,000	41,999	11	\$1,100/ (\$110)	38
4	42,000	59,999	17	\$1,700/ (\$170)	14
5	60,000	89,999	25	\$2,500/ (\$250)	10
6	90,000	119,999	35	\$3,500/ (\$350)	7
7	120,000	149,999	45	\$4,500/ (\$450)	6
8	150,000	179,999	55	\$5,500/ (\$550)	3
9	180,000	209,999	65	\$6,500/ (\$650)	5
10	210,000	239,999	75	\$7,500/ (\$750)	5
11	240,000	269,999	85	\$8,500/ (\$850)	2
12	270,000	299,999	95	\$9,500/ (\$950)	1
13	300,000	329,999	105	\$10,500/ (\$1,050)	4
14	330,000	359,999	115	\$11,500/ (\$1,150)	1
15	360,000	389,999	125	\$12,500/ (\$1,250)	1
16	390,000	419,999	135	\$13,500/ (\$1,350)	2
17	420,000	449,999	145	\$14,500/ (\$1,450)	1
18	450,000	479,999	155	\$15,500/ (\$1,550)	1
19	480,000	509,999	165	\$16,500/ (\$1,650)	1
20	510,000	539,999	175	\$17,500/ (\$1,750)	0
21	540,000	569,999	185	\$18,500/ (\$1,850)	0
22	570,000	599,999	195	\$19,500/ (\$1,950)	1

* Includes condominiums

** Equivalent Residential Unit (3000 sf impervious area; see [Town Code](#))

Note that additional information about the topics presented above is available at the following Carrboro Stormwater webpages:

<https://www.townofcarrboro.org/DocumentCenter/View/7487/RainReady-Final-Report>

<https://www.carrboronc.gov/DocumentCenter/View/12997/RAPP-Report-Carrboro>

<https://www.carrboronc.gov/2663/Bolin-Creek-319-Grant-2022-24>

<https://www.carrboronc.gov/1138/Stormwater-Utility-Rate-Structure>

Recommendation

It is recommended that the new Watershed Restoration Residential Assistance Program (WRRAP) design be approved and that the rate structure be modified through an \$10 (10%) increase in the Equivalent Residential Unit fee. This rate structure will allow the Town to in general accelerate and expand stormwater residential assistance service delivery and to specifically create a staff position to administer the program and provide cost share funding for the program. Staff recommend that the Town Council direct staff to set a public hearing for February 27, 2024, on the proposed changes to the rate structure.