



WATERSHED RESTORATION RESIDENTIAL ASSISTANCE PROGRAM

DECEMBER 2023



TOWN OF CARRBORO • NC
STORMWATER DIVISION

PREPARED BY TOWN OF CARRBORO, PUBLIC WORKS DEPARTMENT STORMWATER DIVISION

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Credits

This document represents a collaboration between the Town of Carrboro Stormwater Division, Stormwater Advisory Commission, and Feather Village Farm (Michael Dupree).

1.0 Purpose

This document presents the program design for the Carrboro's Watershed Restoration Residential Assistance Program.

The purpose of the Watershed Restoration Residential Assistance Program is to provide technical and financial assistance to residential property owners in Carrboro. It is motivated by goals to improve surface water ecological health and integrity and create more resilience to runoff and flooding-related impacts. In addition to providing assistance to residents for their property, the benefits of this program have community-scale benefits including the following:

- Increasing rainwater infiltration, interception, and evapotranspiration, thereby reducing runoff and associated negative impacts
- Slowing down runoff and otherwise decreasing erosion and scouring
- Improving water quality (physical/chemical and biological) and stream health of local creeks and downstream waters through protection and restoration of habitat
- Providing recommendations for drainage-related improvements to protect on-site structures while not negatively impacting off-site properties.

The program is one component of Carrboro's overall stormwater management efforts. Applicants to the program may be referred to other programs, resources, and agencies.

2.0 Eligible Properties

Assistance is available to voluntarily reduce stormwater runoff, stop erosion, and address other non-point source pollution from residential parcels by installing practices that capture runoff and the associated pollutants. Landowners whose property meets the following criteria may apply for technical assistance and potential financial assistance.

- Parcel must be residentially zoned
- Parcel must be within the Town limits
- Parcel cannot have an active land-use or building permit

3.0 Annual Funding and Approval Cycle

A line item will be reserved in the Stormwater Enterprise Fund for the program. Program funding will be appropriated on an annual basis as part of the Stormwater operating budget development. An application period for site assessment (Section 4.0) and cost-sharing (Section 6.0) will be opened at least once a year. Applications will be reviewed in a timely manner, with cost-share funding being approved at least two times during the year per the guidelines in Sections 7.0 and 8.0.

4.0 Site Visit Assessment

The first step for residents interested in participating in the program is to submit an application for a site visit and assessment. To ensure applicants meet the criteria of the program, submitted applications will first be screened by the Stormwater Utility Manager or designee. For each accepted application, Town staff or a designated third-party contractor or consultant will schedule a site visit and complete a technical assessment. The assessor will utilize professional knowledge and expertise to provide a report recommending one or more practices. Based on the assessment, a homeowner who chooses to seek financial assistance to implement the practice(s) shall proceed with the process as outlined in this document.

5.0 Eligible and Ineligible Practices

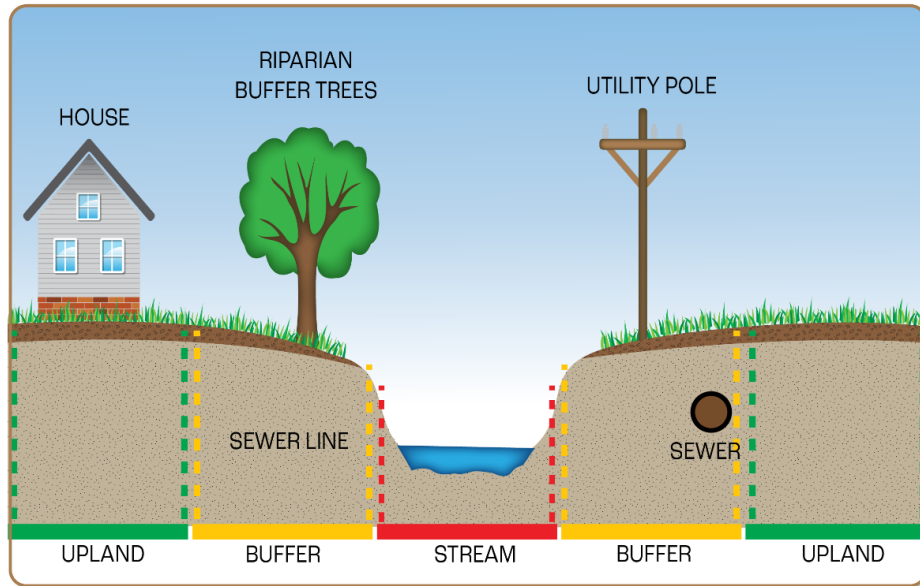
Eligible Practices

There are two categories of eligible practices: practices installed along a stream and in a stream buffer (regulated area)

and practices installed in upland areas. Regulated areas are those governed by local, state, or federal agencies. The image below illustrates those areas that may be regulated, such as the area in red which is the stream corridor and the area in yellow which is the regulated buffer.

Eligible practices are described in this section. Additional practices may be considered on a case-by-case basis.

Stream Corridor and Adjacent Areas



Regulated Areas

Streambank Stabilization

The use of vegetation to stabilize and protect banks of streams. This practice should be used to prevent the loss of land or damage to utilities, roads, buildings, or other facilities adjacent to the banks, to maintain the capacity of the channel, to control channel meander that would adversely affect downstream facilities, to reduce sediment load causing downstream damages and pollution or to improve the stream for fish and wildlife habitat.

Riparian Buffer Enhancement

An area of perennial vegetative cover (grass, shrubs, trees, or a combination of vegetation types) established adjacent to and up-gradient from watercourses or water bodies to improve water quality. Benefits may include reduced soil erosion and nutrient delivery as well as providing wildlife habitat.

Regenerative Stormwater Conveyance (RSC)

An innovative technique to convey and treat stormwater through a sequence of pools, riffles, and cascades. RSCs are used to stabilize eroded gullies and promote infiltration. (These can also be installed in regulated areas.)

Upland Areas

Critical Area Planting/Erosion Control

An area of highly erodible land that cannot be stabilized by turf management strategies that is planted with perennial vegetative cover.

Disconnected Impervious Surface

The practice of directing stormwater runoff from impervious areas to properly sized, sloped, and vegetated pervious surfaces. Both roofs and paved areas can be disconnected and treated by vegetated areas.

Vegetated Swales

A natural or constructed channel that is graded to required dimensions and established in turf or other vegetation to

provide for the stable conveyance of runoff.

Rain Garden

A shallow depression in the ground that captures runoff from a driveway or roof and allows it to soak into the ground, capturing pollutants.

Cisterns

Rainwater harvesting systems used to collect and store rainwater. They are intended to reduce stormwater runoff, encourage runoff infiltration, and conserve water.

Ineligible Practices

While not exhaustive, the list below indicates practice that, in general, are not eligible for cost-sharing through this program. (Other options may be available for residents interested in pursuing ineligible practices or activities, such as through referrals to other agencies and/or assistance in applying for funding beyond what is available from this program.)

- Concerns around creek overbanking and flood mitigation projects (e.g., acquisition, building elevation, floodproofing)
- Crawlspace sealing; and interior moisture issues (mold, mildew, etc.)
- Minor yard flooding; moisture and ponding; other grading/drainage improvements, either on a single lot or across lots, groundwater-related issues
- Channelization of runoff or piping a natural stream; removal of instream debris
- Stream restoration projects requiring state and federal permitting
- Required maintenance or rehabilitation of Stormwater Control Measures permitted under the Land Use Ordinance.

6.0 Applying for Cost-Share

Property owners who have received a technical assessment and plan to implement practices may apply for financial assistance (cost-share). To apply, the property owner must submit an application. An application for projects across multiple lots must be signed by 100 percent of the affected property owners.

Applications for cost-share will be reviewed per the procedures outlined in this document.

7.0 Cost-Share Approval Process

Preliminary plans and cost estimates for eligible projects will be prepared. These projects will be scored based on the Watershed Restoration Residential Assistance Program Ranking Sheet. (See ranking sheet at the end of this document.) The list of projects will be presented to the Stormwater Advisory Commission to prioritize projects based on the scoring and available funding. Additional review and determination of Town cost-share awards for each project will be pursued as outlined in this section. Staff will then notify all project applicants of the cost-sharing determination, required maintenance activities, and any other project details. The project applicant/property owner will then decide whether to proceed. (See Figure 1 in this section for a summary of the approval process.)

Projects not funded will remain on the list and may be funded in subsequent fiscal years. Approved projects will undergo a final review, and cost-share will be determined by stakeholders as indicated in the table below.

	Town Cost-Share Contribution		
	> \$30,000	\$5,000-\$30,000	Up to \$5,000
Application Evaluation	Stormwater Staff/Public Works Director/Stormwater Advisory Commission	Stormwater Staff/Public Works Director	Stormwater Staff
Application/Project Approval	Town Manager/Town Council	Stormwater Advisory Commission	Stormwater Staff/Public Works Director
Authorization Instrument	Executed Agreement	Executed Agreement	Letter of Notification

Figure 1. Process Summary



8.0 Project Cost-Sharing Details

The decision to fund a project will ultimately be based on how much money is available in the approved program budget and the project's prioritization. Projects not funded in the upcoming fiscal year will be maintained on the list and may be funded in subsequent years. Property owners will be notified once their project has been approved for funding and should notify Town staff if they would like their application to be withdrawn at any point in the process.

The Town's contribution to the cost of implementing approved projects will be a percentage of the total acceptable cost of implementing the project, subject to available Town funding and funding priorities. Acceptable costs of implementing an approved project may include costs for design, soil testing, surveying, construction, installation, materials, equipment, inspection, oversight, and/or supplies necessary for implementation, as determined by the Town staff based on information provided by the applicant and the results of the site assessment.

Cost-Share

Applicants may be eligible to receive 50-100% of the allowable cost associated with the installation of eligible practices as listed in Section 4. This amount is subject to a maximum cost-share amount (per parcel) of \$15,000 for stream, riparian, and regenerative stormwater projects and \$7,500 for other projects. This maximum may be exceeded in special circumstances at the Town's discretion and per the approval guidelines for projects deemed to be of high importance and as available funding allows. The amount of the Town's cost-share percentage is to be determined based on the practice(s) selected and determination of the applicable economic criteria for the owner/applicant per the table below.

Town Cost-Share Percentage

Economic Criteria*	Eligible Practices (defined above)	
	Practices in Regulated Areas	Upland Practices
Owner is eligible for affordable housing assistance or income at time of application is <80% of AMI	100%	100%
Owner's income at time of application is between 80% AMI and 115% AMI	75%	50%
Owner's income at time of application is > 115% than AMI	50%	0%

**Applicants self-certification of adjusted taxable income relative to the Area Median Income (AMI) as defined by HUD for the Durham-Chapel Hill Metro Area at the time of application. (The Town reserves the right to request documentation (most recent tax return) on a case-by-case basis.)*

Conditions Required for Cost-Sharing

1. The project shall be the most cost effective, reasonable, and practical alternative to correct the existing problem, as determined by staff. Any excess costs shall be borne entirely by the property owner.
2. The owner(s) must execute an agreement with the Town that meets Town requirements prior to the Town's proceeding with the project. This includes agreeing to pay for the owner's share of the cost of work defined in the agreement, to record a maintenance agreement for the improvements with the Orange County Registrar of Deeds, and to complete and submit regular inspection reports.
3. The property owner(s) may be responsible for the proper removal of any trees or other encumbrances that would impede the performance of the work.
4. The Town reserves the right to refuse to cost share in any project that is determined to be excessive in cost or of limited benefit or otherwise not desirable, as determined by the Town.
5. Non-qualifying projects or projects without current funding may be pursued by the property owner provided that all required local, state, or federal permits and approvals are obtained prior to starting construction.

Types of Cost-Share Contracts

The Town may share in the cost, as described above, using one of the following options, as mutually agreed upon.¹

1. The Town bears the practice installation expense. The Town will hire a Licensed and Bonded Contractor to install the practice/s on the landowner's property. Upon completion of the project and final inspection and acceptance by Town staff and the owner(s), the contractor will be paid by the Town and the maintenance agreement will be recorded with the Orange County Registrar of Deeds. Annual reports will be prepared as required for the maintenance term.

¹ One of these two approaches will be used for each project. A written agreement will be created prior to project initiation that addresses additional details of project completion.

2. The property owner(s) will bear the practice installation expense. Upon completion of the project and final inspection and acceptance by Town staff and the owner(s), the final cost will be determined and any necessary adjustment to the Town’s cost will be made, and reimbursement provided within 60 days of the request. The landowner will record the maintenance agreement with the Orange County Registrar of Deeds. The landowner will provide Town staff with annual reports as required for the maintenance term.

9.0 Design Requirements

Qualifying, eligible projects shall be designed using the following criteria:

- The proposed project shall align with the requirements set forth above in “Eligible and ineligible activities.”
- The proposed project shall meet current Town design standards to the maximum extent practical; where a Town design standard does not exist but a State/federal standard exists, the project shall meet applicable State or federal design standards.
- Existing open channels shall not be piped except under extenuating circumstances or for special engineering reasons.
- Streams and their associated riparian buffers shall be protected to the maximum extent practical. Impacts to the riparian buffers must meet requirements listed in Section XVI, Part III of the Town’s LUO.
- Project design details and specifications will be developed and cost-shared on a case-by-case basis.
- All materials for the project shall be as determined to be necessary by the Town.

10.0 Maintenance Requirements

For privately maintained improvements, a maintenance plan to which the property owner shall adhere will be included as an exhibit to the agreement or be attached to the letter of notification. This agreement will be recorded by the property owner with Orange County. The property owner shall maintain and keep in good repair and condition the improvements for the maintenance term provided in the table below and shall submit maintenance reports on forms provided by the Town as required below or as otherwise defined in the agreement.

	Town Cost Contribution	
	> \$5,000	< \$5,000
Maintenance Period	10 years	5 years
Maintenance Reports	Annually by property owner	

At staff discretion, the Town may adjust the maintenance period or waive the maintenance requirement and will specify such requirement in the maintenance plan for the project.

The property owner will properly maintain and submit reports to the Town on the continued maintenance of the project for the duration of time per the above table. An applicable maintenance plan will be developed by the Town or its designee on the basis of the cost share, type, complexity, and standard requirements of the feature being installed. The Town may require, at its discretion, that the maintenance plan be recorded with the Orange County Register of Deeds and tied to the Parcel Identification Number of the property where it is located and potentially properties adjacent to the project.

The property owner shall submit reports to the Town annually to certify that maintenance is being performed on the project to ensure its continued function. Such reports shall be made on templates provided by the Town or its designee.

At staff discretion, improvements, or modifications to the project after completion may require additional professional oversight and/or inspection during the maintenance period.

If the property owner is not able or is not willing to fulfill its obligation via the agreement to inspect, maintain and repair the project for the full term of the agreement, the property owner or the Town may request that either of the following arrangements be pursued:

- A. The property owner repays project costs incurred by the Town. The repayment amount will be determined by the Town.
- B. The property owner transfers to another party responsibility for inspecting, maintaining, and repairing the project for the remainder of the maintenance term. The transferee will sign an agreement with the Town assuming this liability.

11.0 Reporting

Town staff will report to the Stormwater Advisory Commission quarterly, and Town staff and the Stormwater Advisory Commission will report to the Town Council annually, regarding projects approved and implemented and funds committed and expended under this program.

12.0 Implementation Details and Future Modifications

The technical and administrative procedures to implement the program will be developed by staff and reviewed by the Stormwater Advisory Commission. This program design document will be periodically reviewed and updated by Stormwater staff and the Stormwater Advisory Commission. Significant modifications will require review and approval by the Public Works Director, Town Manager, and Town Council.

Watershed Restoration Residential Assistance Program Ranking Sheet

Project Information	
Applicant Name: _____	Date: _____
Property Address: _____	PIN: _____
Assessment Completed by: _____	Date: _____

Stormwater Connectivity	Score
Stormwater is directly connected to	
Not Connected	0
To a regulated buffer	5
To an ephemeral channel	10
To an intermittent channel	15
To a perennial channel	20
Total	
Treated Impervious Area Size	Score
Less than 500 sq. ft. impervious	2
500 to 1,000 sq. ft. impervious	5
1,000 to 1,500 sq. ft. impervious	10
1,500 to 2,000 sq. ft. impervious	15
2,000 sq. ft. greater	20
Total	
Landscape Enhancement Plan*	Score
Landscape Enhancement Plan	10
No Landscape Enhancement Plan	0
Total	

Maintenance Term	Score
5-year maintenance	5
10-year maintenance	10
Total	
Type of Practice	Score
Streambank Stabilization	25
Buffer Establishment/Critical Area Planting/ Regenerative Stormwater	20
Rain Garden/Disconnected Impervious	15
Vegetated Swale	10
Cistern	5
Total	
Total cost to remove a Lb. of Nitrogen	Score
< \$2,000	15
\$2,000 to \$3,000	10
>\$3,000 per lb.	5
Total	
TOTAL Ranking SCORE	

*Defined as an enhancement other than the eligible practices that results in an ecological improvement such as a decrease in impervious area, soil quality improvements that increase infiltration and organic carbon content, habitat connectivity, native and bird/pollinator friendly plantings, increase in tree canopy and woody vegetation, halting and avoiding use of herbicides and fertilizers, and invasive species management.