

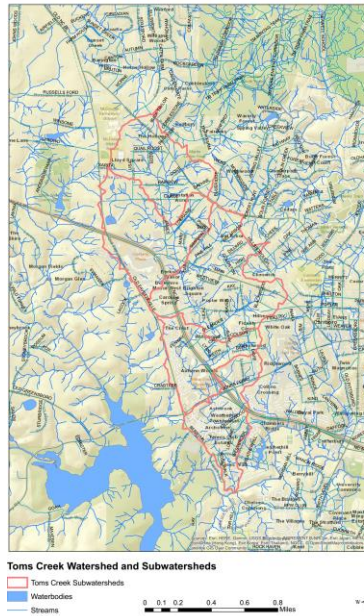
STORMWATER UTILITY MONTHLY REPORT

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PART 1: WATER QUANTITY DRIVEN WORK

1. RainReady Study Follow Up



Project Description: In 2019, the Council directed staff to move forward with a pilot study due to the persistent and ongoing need to address flooding issues, with the upper Toms Creek watershed serving as the geographic focus.

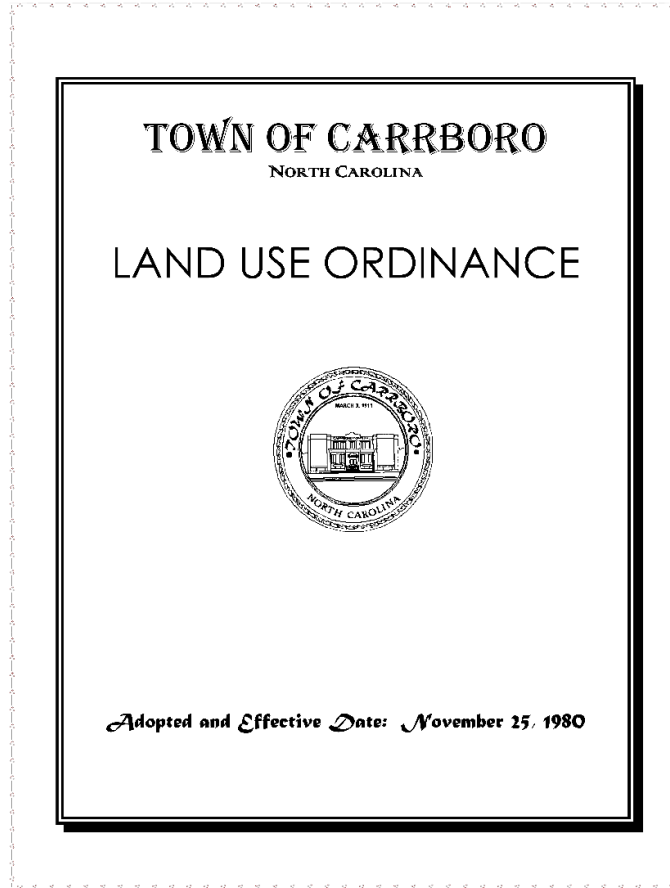
Project Background: For the Toms Creek watershed, flooding and drainage is a recurring and important theme. The upper watershed has received the most attention in recent years due to the degree of flooding and drainage issues experienced by residential property owners both in the regulated floodplain and other areas. A watershed-based approach is needed to comprehensively address the issues that exist. An emerging concern is resiliency in consideration of the growing number of recent intense storms and the potential for a shift to more flooding in the future due to climate change.

Status: Active. The Town contracted with the Center for Neighborhood Technology (CNT), resulting in a “RainReady” report in May 2020. Sungate Design has also completed engineering assessments for drainage issues along High Street and Goldston Ave as well as at the intersection of Keith Road and Lynjn Drive, and a project ordinance has been approved. **The Stormwater Advisory Commission received information on RainReady follow up work at their November meeting and provided review comments at their December meeting. A Barred Owl neighborhood meeting was held in November. Staff continue to pursue related follow up actions as recommended in the RainReady study. With regards to the stormwater infrastructure improvements, easements are being pursued and a construction bid will be ready to be posted within the next month.**

Fiscal and Staffing Considerations: There could be further implementation costs because of these projects. Any fiscal impact resulting from financial assistance to be provided as part of a new program will be determined through administrative and policy level review. There has been and will continue to be a staff impact associated with technical assistance. This impact will increase if staff will be administering a new program.

Additional Information: Additional information is available from multiple Council agenda items from 2013-2019. A [project website](#) has been created with relevant historical and project related information.

2. Land Use Ordinance Stormwater Provisions Review



Project Description: LUO stormwater provisions are under review.

Project Background: At the April 16, 2019 meeting, the Council referred further review of the stormwater provisions in the LUO to staff and the Stormwater Advisory Commission in consideration of the flooding and drainage impacts being experienced and elevated risk for increasing impacts due to climate change.

Status: Planning. This has been referred to Stormwater and Planning staff, Sungate Design, and the Stormwater Advisory Commission. Staff and Sungate are currently researching and considering the scope of potential changes and anticipate working with the SWAC later in 2021.

Fiscal and Staffing Considerations: There is no fiscal impact with reviewing and amending the LUO. There will be a staff impact with performing the review.

Additional Information:

<https://carrboro.legistar.com/LegislationDetail.aspx?ID=3919560&GUID=59CDD594-2973-4C2B-813C-738A1CF5707B&Options=&Search>

<http://www.townofcarrboro.org/DocumentCenter/View/698/Article-XVI-Floodways-Floodplains-Drainage-and-Erosion-PDF>

3. FEMA Hazard Mitigation Grant Program Applications (Acquisition and Elevation)



Project Description: The information presented below is for an acquisition project for 116 Carol Street, and a new elevation project for 100 James Street

Project Background: Following on Hurricane Florence and Tropical Storm Michael, FEMA announced new rounds of HMGP funding. In addition to the Lorraine Street properties discussed above, two additional homeowners at 116 Carol Street and 100 James Street (properties included in previous HMGP applications for acquisitions that did not move forward) have responded and were included in Letters of Interest submitted by the Town to the NC Department of Public Safety (NCDPS). Staff submitted one Letter of Interest for an acquisition project for 116 Carol Street and a second Letter of Interest for elevation of the home at 100 James Street in early 2019. Staff received notification in the summer of 2019 that the NCDPS would accept applications.

Status: Applications in Review. Application materials for the 116 Carol acquisition were submitted to the State in October 2019 under Hurricane Florence. Application materials for the 100 James Street elevation were submitted to the State in November 2019 under Tropical Storm Michael. Staff regularly check on the status, which has remained “pending obligation” since the applications were submitted. If approved, staff will follow up with pursuit of entering into (a) grant agreement(s) for one or both projects.

Fiscal and Staffing Considerations: If the Town is able to successfully enter into grant agreements (one for acquisition and one for elevation), costs for work covered by the grants will first be borne by the Town and then reimbursed to the Town with a combination of both Federal and State funds covering eligible costs, provided that all grant requirements are met. Elevation costs can be reimbursed at up to \$175k per home and acquisition costs at up to \$276k per home. Projects must be able to be completed with actual (not just budgeted costs) not exceeding these values to be eligible to receive grant funds. While there would be a significant staff impact to administer the grant funds, the staff capacity is sufficient to do so should FEMA decide to move forward.

Additional Information:

https://www.fema.gov/media-library-data/1493317448449-b83f27544e36b7bf67913f964a56b15a/HMA_Homeowners_Guide_040717_508.pdf

4. FEMA Public Assistance: Damage Recovery from Hurricane Florence



Overview

Public Assistance (PA) is FEMA's largest grant program providing funds to assist communities responding to and recovering from major disasters or emergencies declared by the President. The program provides emergency assistance to save lives and protect property, and assists with permanently restoring community infrastructure affected by a federally declared incident.

Eligible Applicants

Eligible applicants include states, federally recognized tribal governments (including Alaska Native villages and organizations so long as they are not privately owned), U.S. territories, local governments, and certain private non-profit (PNP) organizations.

PNPs must have "an effective ruling letter from the U.S. Internal Revenue Service, granting tax exemption under sections 501(c), (d), or (e) of the Internal Revenue Code of 1954, or satisfactory evidence from the State that the nonrevenue producing organization or entity is a nonprofit one organized or doing business under State law."¹ Additionally, for a PNP operated facility to be eligible, the PNP must demonstrate the facility provides a critical service or provides a non-critical, but essential government service and is open to the general public. A facility that provides a critical service is defined as one used for an educational, utility, emergency, or medical purpose.²

Project Categories

FEMA processes PA grant funding according to the type of work the applicant undertakes. Eligible work must be required as a result of the declared incident, be located in the designated area, be the legal responsibility of the applicant, and be undertaken at a reasonable cost.

Eligible work is classified into the following categories:

Emergency Work

Category A: Debris removal
Category B: Emergency protective measures

Permanent Work

Category C: Roads and bridges
Category D: Water control facilities
Category E: Public buildings and contents
Category F: Public utilities
Category G: Parks, recreational, and other facilities

Federal funding guidelines for each of these categories are listed in the *Public Assistance Program and Policy Guide*, which is located [online at https://www.fema.gov/media-library/assets/documents/11781](https://www.fema.gov/media-library/assets/documents/11781).

Application Process

After a federal declaration, the recipient (i.e. state, tribe, or territory) conducts Applicant Briefings to inform potential applicants (i.e. state, local, tribal, territorial, and PNP officials) of the assistance available and how to apply. Applicants must then file a Request for Public Assistance within 30 days of the date their respective area is designated by the federal declaration.

Following the approved request, FEMA and the applicants will conduct additional meetings to discuss disaster

Project Description: The Town has been working through the FEMA Public Assistance process for damage recovery from Hurricane Florence. This aspect of Public Assistance is associated with covering the costs for debris removal, emergency protective measures, restoring roads, equipment and facilities to pre-storm conditions, and administrative costs. It is considered separately from the activities described in #11 below, although also under the Public Assistance umbrella.

Project Background: Stormwater staff have been leading the Town's pursuit of FEMA Public Assistance funding. Staff have submitted claims for losses not covered by insurance and have been working with FEMA/NCDPS staff to document and receive reimbursement, as well as reimbursement for staff time associated with emergency response and follow up. This process has been underway since the winter.

Status: Closeout. The Florence damage recovery work and reimbursal has been completed. Staff are working with NCDPS and FEMA to close out the final review now that the stream restoration project (#11) is complete. The Town received \$106k in reimbursement for this project in July and expect to receive up to \$100k in addition in the near future.

Fiscal and Staffing Considerations: The Town has received about \$200k in uninsured costs from FEMA to date and could receive up to about \$100k of additional funds. This work has required over 500 hundred hours of Stormwater staff time.

Additional Information:

https://www.fema.gov/media-library-data/1534520496845-4b41646e3d8839c768deb3a7f4ded513/PADeliveryModelFactSheetFINAL_Updated_052418.pdf
https://www.fema.gov/pdf/government/grant/pa/fema323_app_handbk.pdf

PART 2: WATER QUALITY & FEDERAL/STATE REGULATORY DRIVEN WORK

5. NPDES Town Wide Permit

What is an MS4 Permit Compliance Audit?

An MS4 Audit is a structured review of the Stormwater Management Program to evaluate whether the MS4 is meeting the requirements specified in the NPDES MS4 Permit & Stormwater Management Plan (SWMP)



AKA do you have your ducks in a row?

Department of Environmental Quality



Regulatory Requirement: The Town is regulated under a town wide permit that requires the Town to implement a comprehensive stormwater management program that includes six minimum measures:

- (1) Public education and outreach on stormwater impacts
- (2) Public involvement/participation
- (3) Illicit discharge detection and elimination
- (4) Construction site stormwater runoff control (delegated to Orange County)
- (5) Post-construction stormwater management for new development and redevelopment, and
- (6) Pollution prevention/good housekeeping for municipal operations.

The initial Carrboro permit was issued effective July 1, 2005, renewed in 2011, and again in 2017.

Background: In 1990, under the authority of the federal Clean Water Act and starting with large (population >100k) municipalities (and industries), EPA began regulating stormwater runoff. In 2000, the scope was extended to smaller municipalities, and EPA delegated the authority to the State to issue these municipalities (including Carrboro) a stormwater permit.

Status: Regulatory Review Complete. The planned EPA/State NPDES Phase II stormwater permit audit was completed in August 2020. A Notice of Violation, as anticipated and previously reported, was provided in November 2020. Staff presented a draft Stormwater Management Plan to the Stormwater Advisory Commission in early January and subsequently submitted this plan to the NCDEQ. **NCDEQ formally accepted the plan and reissued the permit in December.**

Fiscal and Staffing Considerations: Preparing for and follow up from this audit and improving the Town's permit compliance and record keeping activities has been and will continue to be a significant undertaking.

Additional Information:

<https://deq.nc.gov/about/divisions/energy-mineral-and-land-resources/stormwater/stormwater-program/npdes-ms4-permitting>

6. Stormwater Control Measure Maintenance and Inspection Program



Background: The Town’s Land Use Ordinance (LUO) has required “Stormwater Control Measures” (SCMs) as part of development projects. SCMs treat runoff to reduce both water quantity and quality impacts. Since 2007, the LUO¹ has articulated requirements for private landowner maintenance of SCMs. (Prior to 2007, this responsibility was implicit rather than explicit.) In early 2020, the Council approved a rate increase to support the necessary capacity to expand program efforts in general, and specifically including SCM compliance oversight. In August 2020, NCDEQ audited the Town’s performance for its permit. Past oversight of SCM maintenance was a recognized permit performance deficiency. Moving forward with a compliant and comprehensive Town wide SCM maintenance oversight program is also seen as an immediate and effective action that the Town can take for flood/climate change resilience since there are many existing SCMs for which performance can be improved with proper maintenance, and risks of poorer future performance can also be avoided through preventative maintenance.

Status: Active. Staff have been actively moving forward with the SCM maintenance and inspection program activities in recent months with goals of:

- 1) A letter being sent to all owners of Town permitted SCMs outlining their responsibilities and clear communications about the program and what will be happening going forward (initiated in November 2020);
- 2) All owners of Town permitted SCMs being required to initiate their own annual reporting of their maintenance and inspection efforts;
- 3) Stormwater staff committing to complete staff inspections of all Town permitted SCMs.

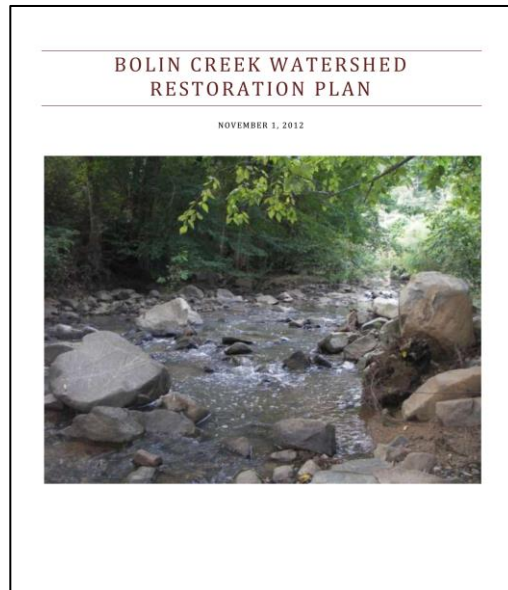
Staff have been reporting on activities to the Stormwater Advisory Commission. **The requirement for the first annual reporting from owners was December 31. Stormwater staff have been and will continue to be working with property owners and their consultants to provide assistance with maintenance and inspection activities for these Town regulated SCMs.**

Fiscal and Staffing Considerations: This activity is requiring a significant amount of staff time.

Additional Information: <http://www.townofcarrboro.org/751/Maintenance-and-Inspection>

¹ [Section 15-263.1 Maintenance of Structural BMPs](#)

7. Bolin Creek Watershed Restoration Plan Implementation



Regulatory Requirement: The downstream extent of Bolin Creek in Carrboro, and into Chapel Hill, is on the state/federal list of impaired waters. Local actions are needed to improve water quality.

Background: Carrboro staff worked with Chapel Hill and other local, state and federal agency staff in 2006 to create the Bolin Creek Watershed Restoration Team (BCWRT) because of the impaired waters listing. At the time, the Bolin Creek watershed was selected as one of only 7 watersheds in the state to receive focused state and federal assistance in preparing grant applications and leveraging other resources to remove Bolin Creek from the impaired waters list. The BCWRT's long term goal is to improve the health of Bolin Creek and its tributaries and remove it from the impaired waters list. This is an ambitious goal that will require a robust commitment for many years to come.

Status: Active. Between 2012 and 2020, watershed restoration plan implementation was inactive due to insufficient staff capacity and funding resources. In early spring, 2021, the Town Council approved and the Stormwater Advisory Commission reviewed the submittal of an EPA/NCDEQ 319 grant application with 3 HOAs in the Bolin Forest neighborhood and other partners to address an eroding gully as a restoration and demonstration project. The application was submitted in early May 2021. **Since November, staff have reviewed the draft contract agreement with NCDEQ, and are currently coordinating with project partners (9) on Memoranda of Agreements (MOAs). As soon as the MOAs are ready for execution, staff will present a Council agenda item accepting the grant award and creating a project ordinance. If the Council approves the grant award, the project work will begin.**

Fiscal and Staffing Considerations: The application is based on the Town offering an in kind but not cash match for the grant. There will be a staff impact with grant administration.

Additional Information:

<https://townofcarrboro.org/280/Bolin-Creek-Watershed-Restoration>