

Local Program Report to the SCC Chatham County, August 18, 2022

On June 1, 2022, personnel from NCDEQ DEMLR conducted a formal review of the Chatham County Erosion and Sedimentation Control Program. The Chatham County program was last reviewed on 9/28/2017. The County has 6 staff that contribute approximately 4 full time equivalents to the erosion control program. The County requires an erosion and sediment control plan and land disturbing permit for all projects disturbing greater than 20,000 square feet or 25,000 square feet if only single-family residential development is involved. The County also requires a residential lot permit for any single-family residential development less than 25,000 square feet outside of a common plan of development. Jurisdiction of the program covers all areas within Chatham County except for Siler City and the portions of the Town of Cary which extend into the County. During the period from May 2021 through April 2022, the County conducted 647 plan reviews or re-reviews, issued 347 approvals and 330 disapprovals. During this period, the County also conducted 1480 inspections, issued 54 NOV's and 10 SWOs. The County can revoke a land disturbing permit which essentially stops all work on a project as well as place holds on building permits or certificates of occupancy as additional tools to bring a site into compliance. At the time of our review the County had 632 open projects. During our review of the program, we looked at three project files and conducted site inspections on those projects.

The following is a summary of the projects that were reviewed:

1. Project FXGD (FedEx Distribution):

This project consists of 45.86 acres disturbed for industrial development. The project file contained the approved plan, letter of approval, design calculations, a copy of the property deed and the FRO form. This project had recently begun construction and was in the process of installing measures and beginning grading. The plan for this project went through 5 review cycles and was approved by the County on 3/10/2022. The approved plan appeared adequate from a design standpoint; however, a few proposed measures did not have notes for maintenance. The County had not conducted any inspections of this site at the time of our review. No NOV or CPAs had been issued to this project at the time of our review. During the day of our review, clearing and grubbing was being completed and grading had begun. Skimmer basins, except for the large basin at the south end of the site, had been installed and stabilized. Some diversion ditches installed did not appear that they would properly convey water to the basins as designed. Diversions should be reinstalled per the construction details in the approved plans. Two basins were missing a stone pad below the skimmer device and one of these basins also did not have a skimmer device retrieval rope attached. One section of silt fence adjacent to the area being actively graded had begun to undermine and minor sediment was noted leaving the site. Silt fence had been installed surrounding a stockpile; however, this pile was located within 50 feet of a basin and needed to be relocated. The contractor mobilized and was beginning to move the stockpile as we were leaving the site. The basin slopes and surrounding areas appeared to be well stabilized. Overall, this site was out of compliance needing to reinstall diversion ditches, repair silt fence and clean up the minor offsite sediment. The County found this site out of compliance during their follow up inspection conducted on 6/17/2022. The County noted that a revised plan was needed to address changes in the construction sequence, diversion ditches and one of the sediment basins. The County found this site in compliance during an inspection conducted on

7/15/2022. The revisions to this plan went through two review cycles and were approved on 7/28/2022.

2. Chatham Park Section 7.1 Phase 1:

This project consists of 65.0 acres disturbed for residential development. The project file contained the approved plan, letter of approval, design calculations, a copy of the property deed, previous inspection reports and the FRO form. The approved plan for this project went through 2 review cycles and was approved by the County on 6/8/2021. The County approved a revised plan for this project on 12/21/2021 and another on 5/27/2022. The approved plan for this project appeared to be adequate. This project began construction in December 2021 and the County had conducted 5 inspections prior to the day of our review. No NOV's or CPAs had been issued to this project at the time of our review. During the day of our review grading was underway. A few inlet protection measures needed to be repaired or maintained throughout the site. Rills had begun to form along the slopes above one of the basins and needed to be repaired and re-stabilized. The County indicated that they have received multiple complaints regarding this site from surrounding property owners. The County indicated that no sediment has left the site and complaints were found to be a result of turbid water discharging from the site and flooding of the adjacent road. The County has worked with this developer to revise the plan in attempts to reduce the amount of water being released in this location. The County approved a large berm and diversion ditch to divert more water to the skimmer basin. This berm and diversion had recently been installed and matted. Larger wattles needed to be installed in the diversion and it was recommended to consider installing rock check dams. This project contains a proposed bridge across the stream running through the site. The County stated that since they conducted their last inspection of this site, the stream crossing mats had been removed and stone berms had been installed. These berms contained a mix of stone and soil and should be replaced with fresh stone or silt fence. Silt fence along the stream appeared to be well maintained and no signs of sediment loss could be noted. Slopes throughout the site had been stabilized and the construction entrances appeared to be well maintained. Due to time constraints, we conducted a partial inspection of this site. Overall, this site was out of compliance, needing to repair and maintain inlet protection measures throughout the site and repair rills on the slope above one of the basins. No offsite sedimentation was noted. The County conducted a follow up inspection on 6/23/2022 and found that previously noted corrective actions had not been completed. The County issued an NOV to this project on 6/23/2022 and found that all corrective actions had been completed during a follow up inspection conducted on 6/30/2022.

3. Adigun Medical Office:

This project consists of 2.7 acres disturbed for commercial development. The project file contained the approved plan, letter of approval, design calculations, previous inspection reports and the FRO form. A copy of the property deed was missing from the file. The approved plan for this project went through 3 review cycles and was approved by the County on 2/22/2021. The approved plan for this project appeared to be adequate. This project began construction in April of 2021 and the County had conducted 6 inspections prior to our review. No NOV's or CPAs had been issued to this project at the time of our review. During the day of our review, the parking area was being prepped for pavement and surrounding areas were being prepped for sod. The drainage ditch and dissipator pad at the discharge point appeared to be functioning and well maintained. The skimmer basin had begun to be transitioned to the permanent stormwater pond

prematurely and without approval from the County. The baffles needed to be reinstalled and the skimmer placed back into the basin to continue functioning until the drainage area has been stabilized. The leach field for the septic system had been cleared and the system installed; however, this area was not included on the approved plan. The County issued an NOV to this site on 6/6/2022 as a result of our inspection. The County conducted a follow up inspection on 6/15/2022 and found that all field corrective actions had been completed.

Positive Findings:

During our review we noted a few positive aspects about the Chatham County Local Erosion and Sediment Control Program including:

- The County has more restrictive criteria than the State when requiring an erosion and sediment control plan. The County requires a plan and land disturbing permit for all projects which will disturb greater than 20,000 sq. ft. or 25,000 sq. ft. if only single-family residential development is involved. The County also requires a residential disturbance permit be obtained for projects disturbing less than 20,000 sq. ft. and outside of a common plan of development.
- The County requires that any 404/401 permits must be obtained and submitted as part of the complete application prior to the approval of the erosion and sediment control plan.
- The County requires a preconstruction meeting for all projects.
- The County provides reference to the NCG01 permit process in their approval letters and on the County website.

Issues Noted and Required Actions:

During our review we found that the Chatham County Erosion and Sedimentation Control Program had deficiencies including:

- Documentation of land ownership was not kept in all project files.
- Some proposed measure's maintenance notes were not included in the approved plan.

The County shall implement the following changes to correct the deficiencies found during our review and noted above:

- Documentation of land ownership must be obtained prior to approval of a plan. 15A NCAC 04B.0188(c). County staff indicated that this item has recently been added to their plan review checklist and will be included in all project files moving forward.
- The County has developed a set of standard details and specifications which provides consistency in the design and implementation of measures; however, not all details contain maintenance notes and those missing were not included in the plan notes. County staff should ensure that maintenance requirements and guidance are contained within the approved plan prior to approving a plan. It is recommended to update all standard details to contain maintenance requirements within the detail notes.

Recommendations for Improvement:

DEMLR staff has also compiled a list of recommendations that would help to improve the program:

- The County stated that they were in the process of updating their local ordinance in accordance with the most recent Model Ordinance for Local Programs. Once the local ordinance is up to date, update all template letters and inspection reports to reflect the

most current references to the North Carolina Administrative Code, General Statutes and local ordinance. Template letters and inspection reports can be found on our [Local Program Reporting SharePoint site](#).

- Continue to monitor and provide guidance for NPDES violations including operating without a permit, improper concrete washout, and fuel containment on site during inspections. Note possible NPDES violations and refer to the NCDEQ Raleigh Regional Office when necessary.

Conclusion:

During our review we found that the Chatham County locally delegated erosion and sedimentation control program had some minor deficiencies. One project file was missing a copy of the property deed. The County stated that this had previously not been a requirement during plan reviews but had recently been added to the review checklist as a required piece of the complete application. The County has more restrictive criteria than the State as to when an ESC plan is required. Along with the issuance of NOV's and SWOs, the County has been able to use the holding of building permits, certificates of occupancy and the revocation of the land disturbing permit as tools to bring sites back into compliance. The County is in the process of updating their local ordinance and seeking additional staff. The County reports a low number of monthly inspections over the past year compared to the number of open projects each month. This can be partially attributed to staff turnover during September of 2021. The County's reports indicate a rebound in recent months but only indicate an inspection frequency closer to every 2-3 months. The County has recognized this unsustainable workload and has worked to get approval for additional staff. The County stated that 3 additional positions dedicated to the erosion control program have been approved in the 2023 fiscal year budget and are anticipated to be filled during the 1st FY quarter. County staff demonstrated their ability to conduct adequate plan reviews and inspections. While all three sites were out of compliance on the day of our review, the overall condition of two sites was good. Overall, slopes appeared to be appropriately stabilized and the approved construction sequences appeared to be followed. County staff conducted adequate inspections and noted all areas seen by State staff. The County is working to address the growing workload and bring their ordinance up to date. The County is using the tools available to them to bring sites into compliance and have demonstrated their knowledge and ability to effectively implement the local program's delegated authority. DEMLR staff recommends to "Continue Delegation" of the Chatham County Erosion and Sedimentation Control Program.

This report has been prepared based on the formal review of the Chatham County local program conducted on June 1, 2022 and will be presented to the SCC during its 2022 Q3 meeting on August 18, 2022.