# A. Local Program Report to the SCC February 2018

# 1. City of Newton

On October 20, 2017, personnel from NCDEQ, DEMLR, conducted a review of City of Newton's Sedimentation and Erosion Local Program. One staff member contributes 0.2 full time equivalent to the program. The City requires sediment and erosion control plans for sites that have an area of one acre or more. Per your totals in the last 12 months, you had conducted 6 plan reviews, 3 of them being been approved. The City has currently 4 active projects. The City conducted 12 site inspections. In this time frame, 2 Notices of Violations and 1 Stop Work Order have been issued. During our review of the program, we inspected 2 sites and reviewed 2 plans that had already been approved.

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

#### • <u>1500 Prodlein Drive Expansion</u>

This project consists of 7 acres and was being constructed for a commercial development. The file for this project included FRO, plan, calculations and an approval letter. The erosion and sediment control plan was approved on June 7. 2017. The approved plan for this site was not adequate. The FRO form was not notarized. Ditch calculations were not provided. One of the diversion ditches was bypassing the skimmer basin. This would allow construction stormwater to leave the site without being treated. The site was last inspected on June 9, 2017. The report mentions the site was not in compliance with SPCA but violations were not identified. The second inspection was not conducted until October 20, 2017. The site was active during the visit. During our inspection, the site was not in compliance. Some sediment was also observed tracked on the nearby street. Violations included failure to follow the approved plan, failure to provide adequate ground cover, failure to take all reasonable measures and failure to maintain measures. Some issues we noticed during our inspection are: 1) Construction entrance was filled with mud. 2) Concrete wash out area was shown on the plan, but was not installed. There was concrete spilled at numerous locations. 3) The skimmer basin was not installed as per the approved plan. There were no baffles and skimmer in the basin. There was some erosion on the slope of the basin. 4) Construction stormwater was not treated before leaving the site. Water from the basin was pumped to the City's sewer line. 5) A dissipater for ditch was not provided. 6) Inlet protection was not provided for some stormwater inlets. A Notice of Violation (NOV) need to be issued immediately for this site. DEMLR will issue the NOV for General Permit NCG 010000. A few recommendations were made in the field. 1) Repair and maintain construction entrance. 2) Remove off-site sedimentation and reinstall silt fence as per the approved plan. 3) Remove all concrete spills and provide a concrete washout area as shown on the plan for use. 4) Install skimmer basin as per the approved plan. Install baffles. Stop pumping out water from the basin and bypassing baffles. 5) Provide adequate ground cover on all the slopes of the skimmer basin. 6) Provide protections for all stormwater inlets.

# <u>Abenathy Laurels-New Healthcare Building</u>

This This project consists of 3.08 acres, and was being constructed for an institutional development. The file for this project included a FRO, plan, calculations, approval letter and inspections. The erosion and sediment control plan was approved on December 3, 2015. The approved plan for this site was not adequate. Ditch calculations were not provided. The details for skimmer basin and skimmer were not provided. The site was not active during the visit. The site was inspected two different times. The site was last inspected on May 26, 2016. The second inspection was not conducted until October 20, 2017. During our inspection, the site was not in compliance. Violations included failure to follow approved plan and failure to take reasonable measures. Some sediment observed tracked on the nearby street. The construction entrance was not well maintained. A few recommendations were made in the field: 1) Remove sediment tracked on the paved road. 2) Provide some fresh stone on the construction entrance.

# **Conclusion:**

The City should implement the following recommendations to improve the program:

- 1. Inspect the sites more frequently (at least once a month and more if needed. Please send us all the inspection reports for active projects moving forward.
- 2. Document all the internal inspection reports.
- 3. Continue requiring that adequate ground cover be provided within the time limits of the local ordinance and approved plan.
- 4. Continue to check for self-inspection records on site.
- 5. Make sure that sediment and erosion control measures such as construction entrance, silt fence are well maintained.
- 6. Do not approve the plan until all calculations, details and specifications are submitted.
- 7. Do not issue NOV with "Letter of Approval" letter head.
- 8. Immediately issue NOV if there is off-site sedimentation.
- 9. Make sure that the construction stormwater is treated before it leaves the site.
- 10. Make sure that the FRO form is notarized.

Staff recommends continued delegation of the program contingent upon implementing the above recommendations.

# CITY OF NEWTON



P.O. Box 550 · Newton, N.C. 28658 · phone 628.695.4305 · fax 628.465.7412

January 25, 2018

Jeevan Neupane Department of Environmental Quality 1612 Mail Service Center Raleigh, NC 27699

Dear Mr. Neupane:

This letter is in response to your letter dated December 6, 2017. In the letter you requested that the City implement the following recommendations to improve our program:

- 1. Inspect the sites more frequently (at least once a month and more if needed. Please send us all the inspection reports for active projects moving forward.
- 2. Document all the internal inspection reports.
- 3. Continue requiring that adequate ground cover be provided within the time limits of the local ordinance and approved plan.
- 4. Continue to check for self-inspection records on site.
- 5. Make sure that sediment and erosion control measures such as construction entrance, silt fence are well maintained.
- 6. Do not approve the plan until all calculations, details and specifications are submitted.
- 7. Do not issue NOV with "Letter of Approval" letter head.
- 8. Immediately issue NOV if there is off-site sedimentation.
- 9. Make sure that the construction stormwater is treated before it leaves the site.
- 10. Make sure that the FRO form is notarized.

We have reviewed the recommendations and have agreed to implement the DEMLR's recommendations. If you need any further information, please feel free to call me at 828-695-4326.

Sincerely,

Sincerely,

alex Fulbright

Alex Fulbright Assistant Planning Director

# 2. City of Archdale

On November 29, 2017, personnel from NCDEQ, DEMLR, conducted a review of the City of Archdale's Sedimentation and Erosion Local Program. One staff member contributes 0.2 full time equivalents to the program. The City requires all projects to apply for sediment and erosion control permits independent of the disturbed acres. However, the City requires sediment and erosion control plans for sites that have an area of one acre or more. Per your totals in the last 12 months, you had conducted 4 plan reviews, all of them having been approved. The City has currently 1active current project. The City conducted 22 site inspections. In this time frame, no Notices of Violations or Stop Work Orders have been issued. During our review of the program, we reviewed 2 projects and inspected 2 sites

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

# • Diamond Keep Phase II

This project consists of 13.26 acres and was being constructed for a residential development. The file for this project included FRO, plan, deed, inspections, calculations and an approval letter. The erosion and sediment control plan was approved on September 8, 2017. The approved plan for this site was adequate. Construction started on September 8, 2017. The site was inspected three different times. The site was last inspected on November 28, 2017, and was in compliance. The site was active during our visit and was in compliance. Inactive areas were provided with adequate temporary and permanent ground cover. Sediment control measures such silt fence, construction entrance, inlet protection, and a skimmer basin were installed and well maintained.

# Taco Bell Restaurant

This project consists of 0.5 acres, and was being constructed for a commercial development. The file for this project included FRO, plan, calculations, approval letter and inspections. Construction started on April 10, 2017. The site was inspected five different times. The site was closed on July 27, 2017. All disturbed areas were stabilized. The site is now open to public

# Conclusion:

The City of Archdale is inspecting sites on a frequent basis which is appreciated. The City should implement the following recommendations to improve the program:

- 1. Require ground stabilization table on the approved plan.
- 2. Ensure that a concrete washout area is provided if concrete works are proposed.

Staff recommends continued delegation of the program

# 3. City of High point

On November 30, 2017 personnel from NCDEQ, Land Quality Section, conducted a review of the City of High Point's Sediment and Erosion Control Program. Three staff members contribute two full time equivalents to the sediment and erosion control program. According to the totals, the City had conducted a total 92 plan reviews, with 56 approvals and 56 disapprovals in the last 12 months. The City has currently 81 active projects, 19 of which have disturbed acre less than 1 acre. The City requires erosion and sediment control plans for all land-disturbing activities that have disturbed area of 1 acre or more. The City also requires erosion and sediment control plans for sites with disturbed areas less than 1 acre if the disturbance is near to surface waters. The City has conducted 411 inspections during this time frame. Three Notices of Violation were issued during this time frame. No Stop Work Orders and Civil Penalties were issued in the last 12 months. During our review of the program, we inspected four sites and reviewed four plans that had already been approved.

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

# • Wesleyan Education Center

This project consisted of 58.66 acres and was being constructed for an institutional development. The file for this project included FRO, plan, deeds, inspections and a letter of approval. The erosion and sediment control plan was approved on June 30, 2017. The approved plan for this site was found to be adequate. Construction started on July 12, 2017. This site was inspected three different times. The site was last inspected on November 27, 2017, and was in compliance. The site was in compliance during our inspection. Sediment control measures were installed and maintained. Adequate ground cover was provided on slopes and inactive areas.

# • North Borough

This project consisted of 64.9 acres and was being constructed for a residential development. The file for this project included FRO, plan, deeds, inspections and a letter of approval. The erosion and sediment control plan was approved on January 23, 2017. The approved plan for this site was found to be adequate. Construction started on January 25, 2017. This site was inspected seven different times. The site was last inspected on November 28, 2017, and was in compliance. A NOV was issued on April 25, 2017 and was extended on June 2, 2017. The NOV was lifted on July 14, 2017. The site was in compliance during our inspection. Sediment control measures were installed and maintained. Adequate ground cover was provided on slopes and inactive areas

#### Holland House Showroom Renovation and Addition

This project consisted of 2 acres and was being constructed for a commercial development. The file for this project included FRO, plan, deeds, inspections, and a letter of approval. The erosion and sediment control plan was approved on May 11, 2017. The approved plan for this site was found to be adequate. Construction started on June 9, 2017. This site was inspected just once on November 27, 2017, and was not in compliance. The site was also not in compliance during our inspection. Slight off-site sedimentation was observed on the nearby road. Violations included failure to follow approved plan, failure to maintain measures and failure to provide reasonable measures. Silt fences were damaged at numerous locations. Inlet protections were not installed on some storm drains. A few recommendations were made in the field: 1) Remove sediment from the nearby road. 2) Install inlet protections on all storm drains. 3) Repair and maintain silt fences.

# AAA Storage

This project consisted of 4.9 acres and was constructed for commercial development. The file for this project included FRO, calculations, plan, inspections, and a letter of approval. The erosion and sediment control plan was approved on August 24, 2017. Construction started on September 1, 2017. The site was inspected 4 different times. The site was last inspected on November 29, 2017 and was in compliance. A NOV was issued for this site on November 17, 2017. The site was brought into compliance per NOV, and NOV was lifted on November 29, 2017. The site was active during our inspection, and was in compliance. A few recommendations were made in the field: 1) Repair and maintain baffles 2) Provide adequate ground cover on slope and bare areas upon completion. 3)Stabilize the diversion ditch existing to the basin.

# **Conclusion:**

The City should implement the following recommendation to improve the City of High Point's Sediment and Erosion Control program:

- 1. Inspect sites more frequently (least once a month) and document the inspections.
- 2. Continue requiring that adequate ground cover be provided within the time limits.
- 3. Update the inspection form and include a section on potential NPDES Violations. If NPDES permit is not followed and there are any potential NPDES violations, it needs to be mentioned in the inspection report.

Staff recommends continued delegation of the program.

# 4. Town of Holly Springs

On December 12, 2017, personnel from NCDEQ, Land Quality Section, conducted a review of the Town of Holly Springs' Sedimentation and Erosion Control Program. Four staff members contribute 2 full-time equivalents to the program. The town is currently 1 staff short and looking to hire a sediment and erosion control inspector. The Town requires sediment and erosion control plans for the sites that have a disturbed area of 20,000 square feet or more. Per your totals, you had conducted 352 plan reviews, 61 of which have been approved with 291 being disapproved in the last 12 months. The Town currently has 152 active projects. The Town conducted 3072 inspections during this time frame. In this same time frame, 3 Notices of Violations were issued. The town has not issued any Civil Penalties and Stop Work Orders during this time frame. During our review of the program, we inspected four sites and reviewed four plans that had already been approved. All the sites we inspected received 1.75 inches of precipitation over the last 48 hours

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

# • <u>2018 Market</u>

This project consisted of 67.5 acres, and was being constructed for a residential development. The file for this project included a FRO, deed, plan, approval letter, calculations and inspections. The erosion and sediment control plan was approved on December 29, 2015. The location and details of Concrete Washout Area was not provided on the plan. The site was inspected 30 different times. The site was last inspected on November 21, 2017 and was not in compliance. The site was active during the visit. During our inspection, the site was in compliance. Most of the issues mentioned on inspection report from November 21, 2017 were addressed. Permanent and temporary ground cover were adequately provided. All slopes and bare areas including stockpiles were stabilized. Sediment control measures were installed and functioning. A few recommendations were made in the field: 1) Repair and maintain baffles in some skimmer basins. 2) Repair and maintain erosion caused from the recent precipitation. 3) Provide a wooden or rock pad for skimmers.

# • Duke Primary Care

This project consisted of 8.1 acres, and was being constructed for a commercial development. The file for this project included a FRO, plan, deed, calculation and approval letter. The erosion and sediment control plan was approved on October 18, 2017. Fertilizer and mulch rate, dewatering time for skimmers and ditch calculations were not provided on the approved plan. Construction started on October 18, 2017. The site was inspected 6 different times. The site was last inspected on December 7, 2017. During the last inspection, the site was in compliance with minor maintenance needed. The site was active during the visit. During our inspection, the site was in compliance. Permanent and temporary

ground cover were adequately provided. A recommendation was made in the field: Provide adequate ground cover on all bare and inactive areas upon completion.

#### • <u>5605 Honey cut Road-Single Family Residence</u>

This project consisted of 2.4 acres, and was being constructed for a residential development. The file for this project included a FRO, plan, approval letter, calculations and inspections. The erosion and sediment control plan was approved on October 17, 2017. Ditch calculations were not provided on the approved plan. The site was inspected 3 different times. The site was last inspected on December 4, 2017 and was in compliance. The site was active during the visit. During our inspection, the site was in compliance. A recommendation was made in the field: Provide adequate ground cover on all bare inactive areas including side slopes of the swale.

# • <u>Stonemath Phase 3</u>

This project consisted of 18 acres, and was being constructed for a residential development. The file for this project included a FRO, plan, approval letter, deed, calculations and inspections. The erosion and sediment control plan was approved on July 12, 2017. Silt fence around top of the culvert was not shown on the plan. Concrete washout detail and silt bag detail were not provided. Construction sequence for installation of temporary stream crossing and transition to permanent crossing was not provided. The site was inspected 3 times. The site was last inspected on November 28, 2017 and was in compliance. Permanent and temporary ground cover were adequately provided. All slopes and bare areas including stockpiles were stabilized. Sediment control measures were installed and functioning.

# Conclusion:

The Town of Holly Springs should implement the following recommendations to improve the program:

- 1. Continue requiring that adequate ground cover be provided within the time limits of the local ordinance and approved plan.
- 2. Conduct a formal inspection with documentation at least once a month and more if needed.
- 3. Ensure that the designated concrete washout location is provided onsite if any concrete works are proposed.
- 4. Require the location and details for the silt bag on the plan.
- 5. Require a rock or wooden pad for skimmers.
- 6. Ensure that outlet structures must withdraw water from basin surface if drainage area is 1 acre or more.

- 7. Plan reviews for the town should focus more on water conveyance. Slope drains should be required for slopes over 10 feet in height to ensure that stormwater is being conveyed in a non-erosive manner down slopes.
- 8. Plan reviews for the town should require construction details and construction sequences for stream crossings.

Staff recommends continued delegation of the program.

# 5. <u>Town of Apex</u>

On December 13, 2017 personnel from NCDEQ, Land Quality Section, conducted a review of the Town of Apex's Sedimentation and Erosion Control Program. Four staff members contribute 2.75 full-time equivalents to the program. The Town requires sediment and erosion control plans for the sites that have a disturbed area of 20,000 square feet or more. The Town requires a soil erosion and sediment control installation and maintenance agreement to be signed by the land disturbing party for the sites that are less than 20,000 square feet. Per your totals, you had conducted 115 plan reviews, 48 of which have been approved with 67 being disapproved in the last 12 months. The Town currently has currently107 active projects. The Town conducted 902 inspections during this time frame. In this same time frame, 16 Notices of Violations, 3 Civil Penalties and 1 Stop Work Order have been issued. During our review of the program, we inspected four sites and reviewed four plans that had already been approved. All the sites we inspected received 1.75 inches of precipitation over the last 48 hours

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

# • <u>Crestmont Phase 4 and 5</u>

This project consisted of 17.6 acres, and was being constructed for a residential development. The file for this project included a FRO, NOV, plan, approval letter, calculations and inspections. The disturbed acres information was not provided in FRO. The erosion and sediment control plan was approved on July 14, 2016. A NOV was issued on April 26, 2017 which was lifted on June 27, 2017. The site was active during the visit. The site was inspected 9 different times. The site was last inspected on November 13, 2017 and was in compliance. During our inspection, the site was also in compliance. Permanent and temporary ground cover were adequately provided. All slopes and bare areas were stabilized. Sediment control measures were installed and maintained.

# • <u>ALDI, Apex</u>

This project consisted of 3.7 acres, and was being constructed for a commercial development. The file for this project included a FRO, plan, calculation and approval letter. The erosion and sediment control plan was approved on November 8, 2017. The approved plan for this site was found to be adequate. No formal

inspections were conducted for this site. The site was active during the visit. During our inspection, the site was in compliance. Permanent and temporary ground cover were adequately provided. All slopes and bare areas were stabilized. Sediment

#### Haley Farm

This project consisted of 4.3 acres, and was being constructed for a residential development. The file for this project included a FRO, plan, approval letter, calculations and inspections. The erosion and sediment control plan was approved on July 12, 2017. Silt fence around stockpile was not shown on the plan. Dewatering time for the skimmer was not provided. Tacking rate mentioned was 300 gallons per acre. As per the standard, the tacking rate should be 400 gallons per acre. Devices to direct run-off into the basin were not provided on the plan. The silt fence depth shown on the plan was 6 inches down along the trench. It needs to be at least 8 inches down. The site was inspected once on October 28, 2017 and was in compliance. The site was active during the visit. During our inspection, the site was also in compliance. A few recommendations were made in the field: 1) Provide adequate ground cover on all bare and inactive areas upon completion. 2) Repair and maintain rill erosion on the slope. 3) Install berms to direct run-off and sediment into the basin.

#### • Greenmoor Phase 2

This project consisted of 83 acres, and was being constructed for a residential development. The file for this project included a FRO, plan, approval letter, calculations and inspections. The erosion and sediment control plan was approved on October 31, 2016. Silt fence around stockpile was not shown on the plan. Tacking rate mentioned on the plan was insufficient. Tacking rate mentioned was 300 gallons per acre. As per the standard, the tacking rate should be 400 gallons per acre. Devices to direct run-off into the basin were not provided on the plan. The silt fence depth shown on the plan was 6 inches down along the trench. The site was active during the visit. Concrete washout detail and silt bag detail were not provided. The site was inspected once on October 28, 2017 and was in compliance. During our inspection, the site was not in compliance. Violations included failure to follow approved plan, failure to take all reasonable measures and failure to maintain measures. Some issues we noticed during our inspections are: 1) Baffles were removed from Skimmer Basin #2. 2) Skimmer Basin #3C was removed with the Town's permission to install sewer line, but the site was not graded to divert the runoff into other basins. 3) Some inlet protections were not maintained. 4) Skimmers in Basins #5 and #8 were not installed properly, and they needed maintenance. A few recommendations were made in the field: 1) Install baffles in Skimmer Basin #2. 2) Repair and maintain inlet protection. 3) Provide adequate ground cover on all bare and inactive areas upon completion. 4) Provide conveyance to direct run-off into other skimmer basins. Ensure that the skimmer

basin is adequately sized for the new drainage area. 6) Install skimmers Basins #5 and #8 as per the approved plan and maintain them.

# Conclusion:

The Town of Apex should implement the following recommendations to improve the program:

- 1. Continue requiring that adequate ground cover be provided within the time limits of the local ordinance and approved plan.
- 2. Continue to check for self-inspection records on site.
- 3. Conduct a formal inspection at least once a month and more if needed.
- 4. Make sure that the designated concrete washout location is provided onsite if any concrete works are proposed.
- 5. Require the location and details for the silt bag on the plan.
- 6. Update the Town's standard detail for silt fence as per the State's Design Manual.
- 7. Recommend tacking rate as 400 gallons per acre.
- 8. To prevent erosion from slope of the basin, require temporary slope drain to direct run-off into the basin.

Staff recommends continued delegation of the program.

# 6. <u>Village of Whispering Pines</u>

On January 10, 2018, personnel from NCDEQ, Land Quality Section, conducted a review of the Village of Whispering Pines' Sedimentation and Erosion Control Program. Two staff members contribute 0.25 full-time equivalents to the program. The village has current 57 projects, all of which are single family home sites that are less than an acre. The village contracts with private engineering companies to review the sediment and erosion control plan. The village requires sediment and erosion control plan if: 1) More than one acre of land is disturbed. 2) Any portion of the land disturbed is located within 150 feet of watercourse or wetland. 3) Any portion of the land disturbed includes slope of 3:1 or greater. 4) Any portion of the land disturbed is located within critical areas identified on a village map as "Erosion and Sedimentation Control Critical Areas. The village has 1 project with disturbed area more than an acre, and it is under review. The village has reviewed 96 plans, with all approvals. The village indicates that it conducts an inspection once per week for each project, however no written inspections where completed and placed in the project folders. During our review of the program, we inspected three sites and reviewed four plans that had already been approved.

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

# <u>Airport Road Booster Pump Station</u>

This project consisted of 0.53 acres, and was being constructed for a commercial development. The file for this project included a plan, application and a receipt. The village considers an application of the land as a FRO. The form also needs to be notarized. The erosion and sediment control plan was approved on December 8,

2017 and was adequate. No documented inspections where found on file for this project. The site was not inspected as construction had not been started.

# • <u>512 Golden Leaf Circle</u>

This project consisted of 0.5 acre, and was being constructed for a residential project. The file for this project included a plan, application/FRO, and a receipt. The erosion and sediment control plan was approved on May 25, 2017, and was adequate. No documented inspections where found. The site has not received a Notice of Violation. The site was at the final stage of construction. The site was in compliance during our inspection. All bare and inactive areas were well stabilized.

# • <u>67 Cardinal Dr</u>

This project consisted 0.7 acre and was being constructed for a residential project. The file for this project included a plan, application/FRO, and a receipt. The erosion and sediment control plan was approved on October 20, 2017 and was adequate. No documented inspections where found. The site has not received a Notice of Violation. The site was active at the time of the inspection and was out of compliance. Violations included failure to follow approved plan and failure to take all reasonable measures to protect all public and private property from damage by land disturbing activities. Silt fences were not installed on all low areas. A few recommendations were made in the field: 1) Repair and maintain silt fences until adequate ground cover on all bare and inactive areas

# • <u>19 Martin Dr</u>

This project consisted 0.7 acre and was being constructed for a residential project. The file for this project included a plan, application/FRO, and a receipt. The erosion and sediment control plan was approved on November 2, 2017 and was adequate. No documented inspections where found. The site has not received a Notice of Violation. The site was active at the time of the inspection and was out of compliance. Violations included failure to follow approved plan, failure to take all reasonable measures to protect all public and private property from damage by land disturbing activities, and failure to maintain measures. Silt fences were not installed on low areas and silt fences were damaged and needed some maintenance on some locations. A few recommendations were made in the field: 1) Install silt fences on all low areas. 2) Repair and maintain silt fences. 3) Provide adequate ground cover on all bare and inactive areas.

# **Conclusion:**

The Village of Whispering Pines should implement the following recommendations to improve the program:

- 1. Check for self-inspection records on site, for projects one acre or larger in disturbed area.
- 2. Please provide the new combined self-inspection form when approving erosion control plans for projects one acre or larger in disturbed area.
- 3. Invite staff from the Fayetteville Regional Office to come and participate in plan reviews.
- 4. The local program may be visiting sites with an adequate frequency, however without proper documentation this cannot be established. The Village must fill out an inspection report and document whether or not each site is in compliance with the village's ordinance. DEMLR will send a template of a standard inspection form that the village can use as guidance. A minimum of one documented inspection per month per project is recommended.
- 5. The Village needs to update the FRO form and include more information about the project and financially responsible party. DEMLR will send a standard template of FRO that the village can use as a guidance.
- 6. Ensure that the contracted engineering company are not allowed to review the plan prepared by themselves.
- 7. Send monthly activity and enforcement reports to DEMLR.

Staff recommends continuing the review, with a follow-up in three months.

# 7. County of Iredell

On January 22, 2018, personnel from NCDEQ, Land Quality Section, conducted a review of the Iredell County's Sedimentation and Erosion Control Program. Three staff members contribute 2 full-time equivalents to the program. Per your totals, you had conducted 147 plan reviews, 9 of which have been disapproved with 138 being approved in the last 12 months. The county currently has 185 active projects. The county conducted 1,767 inspections during this time frame. In this same time frame, 12 Notices of Violations, 11 civil penalties and 1 stop work order were issued. During our review of the program, we inspected four sites and reviewed four plans that had already been approved. All the sites we inspected received approximately 8 inches of snow five days prior to the review.

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

# • Longtree Waterfront

This project consisted of 17.9 acres, and was being constructed for a residential development. The file for this project included a FRO, deed, plan, approval letter, calculations and inspections. The erosion and sediment control plan was approved on July 24, 2017. Conversion of the skimmer basin into a stormwater pond was not mentioned in the construction sequence. The location of stockpile and sediment control measures to prevent potential sediment loss from the pile were not provided in the approved plan. Construction started in October 2017. The site was inspected 4 different times. The site was last inspected on January 4, 2018 and was not in

compliance. The site was active during the visit. During our inspection, the site was compliance. Double rows of silt fences were provided at some locations to prevent potential sediment loss. Slope drains with outlet protection were provided to ensure that run-off is being conveyed in a non-erosive manner down basin slopes. A few recommendations were made in the field: 1) Repair and maintain construction entrance. 2) Install silt fence around the stockpile to prevent potential sediment damage. 3) Provide adequate ground cover on all bare and inactive areas. 4) Stabilize all slopes as per NPDES requirement.

#### • Stafford Phase 2

This project consisted of 40 acres, and was being constructed for a residential development. The file for this project included a FRO, plan, deed, calculation, inspection and approval letter. The erosion and sediment control plan was approved on April 22, 2016. The NPDES 7-15 days ground stabilization table was not provided on the approved plan. Construction started on May 2016. The site was inspected 16 different times. The site was last inspected on December 15, 2017 and was not in compliance. The site was active during the visit. During our inspection, the site was in compliance, but needed some maintenance. Basin slopes had some rills and gullies which need to be repaired. A few other recommendations were made in the field. 1) Provide adequate ground cover on all bare and inactive areas upon completion. 2) Provide anchors for slope drains that are greater than 10 feet in length. 3) Provide a stone or wooden pad for skimmers.

# • <u>New Kennel Facility</u>

This project consisted of 4.67 acres, and was being constructed for a commercial development. The file for this project included a FRO, plan, approval letter, calculations and inspections. The erosion and sediment control plan was approved on September 19, 2017. Skimmer detail was not provided in the approved plan. Construction started in November 2017. The site was inspected 3 different times. The site was last inspected on January 10, 2018 and was not in compliance. During our inspection, the site was also not in compliance Violations included failure to follow approved plan, failure to take all reasonable measures to protect all public and private property from damage, and failure to maintain measures. The site was active during the visit. Some issues we noticed were: 1) Construction entrance was filled with mud. 2) Sediment was observed tracked on the road. 3) Rain gauge was not provided onsite. NPDES self-inspection records were not available on site. 4) Silt fence was damaged at some locations. 5) Outlet protection was not provided on some stormwater pipes. A few recommendations were made in the field: 1) Provide adequate ground cover on all bare inactive areas upon completion. 2) Stabilize all slopes as per NPDES requirement. 3) Repair and maintain construction entrance. 4) Remove sediment tracked on the paved road. 5) Repair and maintain silt fences as necessary. 6) Provide outlet protection for all stormwater drains. 7) Keep a raingauge and NPDES self-inspection records onsite. 8) Provide a stone or wooden pad for skimmers.

# • **Bury Property Office Ware House**

This project consisted of 2.5 acres, and was being constructed for a commercial development. The file for this project included a FRO, plan, approval letter, deed, calculations and inspections. The erosion and sediment control plan was approved on December 11, 2017. Construction started on the third week of December 2017. The site was inspected 2 different times. The site was last inspected on January 8, 2018 and was not in compliance. The site was also not in compliance during our inspection. Violations included failure to follow approved plan, failure to take all reasonable measures to protect all public and private property from damage, and failure to maintain measures. Some issues we noticed were: 1) Construction entrance was filled with mud. 2) Sediment was observed tracked on the road. 3) NPDES self-inspection records were not available on site. 4) Silt fence was damaged at some locations. 5) Outlet protection was not provided on some stormwater pipes. 6) Baffles in sediment trap needed maintenance. A few recommendations were made in the field: 1) Provide adequate ground cover on all bare inactive areas upon completion. 2) Stabilize all slopes as per NPDES requirement. 3) Repair and maintain construction entrance. 4) Remove sediment tracked on the paved road. 5) Repair and maintain silt fences as necessary.

# Conclusion:

- 1. Check for self-inspection records on site, for projects one acre or larger in disturbed area.
- 2. Continue requiring that adequate ground cover be provided within the time limits of the local ordinance and approved plan.
- 3. Plan reviews for the county should require the location of stockpile and sediment control measures around the pile to prevent potential sediment damage.
- 4. Ensure that the designated concrete washout location is provided onsite if any concrete works are proposed.
- 5. Require a rock or wooden pad for skimmers.
- 6. Plan reviews for the county should require conversion of skimmer basin into stormwater pond be mentioned in construction sequence.
- 7. Ensure that stockpiles are be at least 50 feet away from the water bodies if possible.
- 8. Send monthly activity and enforcement reports to DEMLR.

Staff recommends continued delegation of the program.

# 8. County of Rowan

On January 26, 2018, personnel from NCDEQ, Land Quality Section, conducted a review of the Rowan County's Sedimentation and Erosion Control Program. One staff member contributes 0.75 full-time equivalent to the program. Per your totals, you had conducted 33 plan reviews, 8 of which have been disapproved with 25 being approved in the last 12 months. The county currently has 31 active projects. The county conducted 122 inspections during this time frame. In this same time frame, 8 Notices of Violations and 1 stop work order were issued. During our review of the program, we inspected four sites and reviewed four plans that had already been approved.

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

# <u>Alexander Glen</u>

This project consisted of 32 acres, and was being constructed for a residential development. The file for this project included a FRO FORM, plan, approval letter, calculations and inspections. The erosion and sediment control plan was approved on September 21, 2017. Ditch calculations were not provided on the plan. Construction started on December 1, 2017. The site was inspected just once on December 14, 2018 and was in compliance. The site was active during the visit. During our inspection, the site was not compliance. Violations included failure to follow approved plan, failure to take all reasonable measures to protect all public and private property form damage, and failure to maintain measures. Some issues we noticed were: 1) Construction entrance was filled with mud. 2) Installation of two of the skimmer basins were not completed. A few recommendations were made in the field: 1) Repair and maintain the construction entrance. 2) Complete the installation of skimmer basins. Provide baffles and skimmer as mentioned on the approved plan. 3) Provide adequate ground cover on all bare inactive areas upon completion

# • Customer Glass Products

This project consisted of 1.6 acres, and was being constructed for a commercial development. The file for this project included a FRO form, plan, calculation, inspection and approval letter. The erosion and sediment control plan was approved on September 29, 2016. Approved plan was adequate. Construction started on November 15, 2016. The site was inspected 5 different times. The site was last inspected on January 6, 2018 and was in compliance. The site was not active during the visit. During our inspection, the site was in compliance. Most of the areas were well stabilized. The skimmer basin was converted into a stormwater pond.

# Home 2 Suites

This project consisted of 1.5 acres, and was being constructed for a commercial development. The file for this project included a FRO form, plan, approval letter, calculations and inspections. The erosion and sediment control plan was approved on June 20, 2017. The approved plan was not adequate. Construction sequence was not provided. Basin without a skimmer was proposed. Since the drainage area was more than an acre, a skimmer is required to dewater form the basin surface. The details for the sediment trap and location and detail of concrete washout area were not provided. Construction started on December 1, 2017. The site was inspected 3 different times. The site was last inspected on January 24, 2018 and was not in compliance. During our inspection, the site was also not in compliance Violations included failure to follow approved plan, failure to take all reasonable measures to protect all public and private property form damage and failure to maintain measures. The site was active during the visit. Some issues we noticed were: 1) Baffles and a skimmer were not installed in the basin. 2) Concrete was not being washed at a designated location. Sediment was observed tracked on the road. 3) NPDES self-inspection records were not available on site. A few recommendations were made in the field: 1) Install skimmer and baffles in the basin. 2) Provide a designated location for concrete washout area. 3) Provide adequate ground cover on all bare inactive areas upon completion. 3) Keep a rain-gauge and NPDES selfinspection records onsite.

# • Dollar General

This project consisted of 1.5 acres, and was being constructed for a commercial development. The file for this project included a FRO form, plan, approval letter, calculations and inspections. The erosion and sediment control plan was approved on September 21, 2017. Construction started on October 14, 2017. The site was inspected just once on December 14, 2017 and was in compliance. The site was also in compliance during our inspection. The skimmer basin was converted into a stormwater pond. Temporary ground cover was provided; however, permanent ground cover was not established on all the disturbed areas. Some disturbed areas were being stabilized with matting during the inspection. A recommendation was made in the field: Ensure that the site is fully stabilized with a permanent ground cover before converting the skimmer basin into a stormwater pond.

# **Conclusion:**

- 1. Inspect the site at least once a month and more if needed
- 2. Check for self-inspection records on site, for projects one acre or larger in disturbed area.
- 3. Continue requiring that adequate ground cover be provided within the time limits of the local ordinance and approved plan.

- 4. Plan reviews for the county should require a dewatering device in the basin if the drainage area is 1 acre or more.
- 5. Require the designated concrete washout location is provided onsite if any concrete works are proposed.
- 6. Ensure that stockpiles are at least 50 feet away from the water bodies if possible.
- 7. Ensure that the site is permanently stabilized before converting the skimmer basin into a stormwater pond.

Staff recommends continued delegation of the program.