



Regular Board Meeting
Tuesday, April 14, 2026
6:00 PM- Town Hall Commissioners Room

Call to Order- Mayor Tony Lapish

Invocation- Pastor Nile Sandeen of Lutheran Church of the Holy Trinity

Pledge of Allegiance- Mayor Tony Lapish

1. Public Forum

(Please state name, address and limit comments to 3 minutes or less)

2. Conflict of Interest

The Mayor and Commissioners are asked at this time to reveal if they have a Conflict of Interest with any item on the Agenda in order to be recused for that item.

(No member shall be excused from voting except upon matters involving the consideration of the member's own financial interest or official conduct or on matters on which the member is prohibited from voting under G.S. 14-234 or 160D-109(a). NC State Statute 160A-75 and no public official shall knowingly participate in making or administering a contract, including the award of money in the form of a grant, loan, or other appropriation, with any nonprofit with which that public official is associated. NC State Statute 14-234.3)

3. Approve Agenda (Pages 1-2)

4. Consent Agenda (Pages 3-157)

- A. Minutes March 10, 2026 (pages 3-7)
- B. Minutes March 21, 2026 Budget Workshop (pages 8-10)
- C. Budget Amendment #15 Town Parking Lot-N Main St. (page 11)
- D. Black Run Creek Dam Emergency Plan (pages 12-156)
- E. COG Resolution (page 157)

5. Staff Reports (Pages 158-191)

- A. Town Manager-Randy Holloway (page 158)
- B. Town Asst. Manager- Planning & Economic Development Director - Erin Burris (pages 159-164)
- C. Town Clerk/Finance Officer - Amy Schueneman (includes Project Cost updates pages 165-173)
- D. Human Resources/Events- Crystal Smith (page 174)
- E. Code Enforcement - Jim Sells (pages 175-178)
- F. Public Works- Derek Linker (page 179)
- G. Fire Department-Dustin Sneed (page 180)
- H. Cabarrus County Sheriff's Department (pages 181-191)

6. Old Business (Pages 192)

- A. Open Meetings Law Refresher (pages 192-200)

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- B. Receive update on the status of (pages 201-202):
- Lower Adams Creek Sewer Outfall Project
 - Water Distribution Improvements Project
 - Consider approving the construction of a proposed 12" waterline from North Drive along Jackson Street to the water treatment plant.
 - Water Treatment Plant Renovation Project
 - USDA Project

7. Mini Budget Workshop (Pages 203-211)

8. Adjournment

All agenda items and attachments are considered public records.

If you would like a copy of the Agenda Packet, which includes all documents related to the Board meeting, please visit <https://mtpleasantnc.gov> and look under the Government Tab to see the packet, agenda, and prior Board Minutes

Closed Session minutes are unavailable until released by the Board and/or the Town Attorney.



NORTH CAROLINA

Board of Commissioners Town Board Meeting Minutes Tuesday, March 10, 2026, at 6:00 P.M.

Attendance: Mayor Tony Lapish
Mayor Pro-Tem/Commissioner Lori Furr
Commissioner Steven Dixon
Commissioner Liz Poole
Commissioner Mike Steiner
Commissioner Justin Simpson
Town Administrator Randy Holloway
Town Attorney John Scarbrough
Town Clerk Amy Schueneman

Also Present: Crystal Smith, Erin Burris, Ally Schueneman, Pastor Nile Sandeen, Mike Poole, Chris Smith, Austin McDonald, Scott O'Loughlin, Duncan O'Sullivan, William Keziah, Neil Stallings, Allen Dobson, Dustin Sneed, Rodney Schueneman, Jeff Cook and 4 family members, and Tony Brewer.

CALL TO ORDER

Mayor Tony Lapish called the meeting to order.

INVOCATION

Pastor Nile Sandeen from the Lutheran Church of the Holy Trinity led the Board in prayer.

PLEDGE OF ALLEGIANCE

Mayor Lapish led the Pledge of Allegiance.

Mayor Lapish thanked the Staff for keeping the Town running. The staff works like a well-oiled machine. Each one has a job they fulfill, and it is by the book. The Board also must make the right decisions for the Town.

1. Public Forum

No one spoke.

2. Conflict of Interest

The Mayor and Commissioners are asked at this time to reveal if they have a Conflict of Interest with any item on the Agenda in order to be recused for that item.

(No member shall be excused from voting except upon matters involving the consideration of the member's own financial interest or official conduct or on matters on which the member is prohibited from voting under G.S. 14-234 or 160D-109(a), NC State Statute 160A-75 and no public official shall knowingly participate in making or administering a contract, including the award of money in the form of a grant, loan, or other appropriation, with any nonprofit with which that public official is associated. NC State Statute 14-234.3)

No one had a conflict of interest.

3. Approve Agenda

Mayor Lapish corrected item #6B by changing FY25/26 to FY24/25.

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A motion to approve the corrected Agenda was made by Commissioner Furr with a second by Commissioner Steiner. All Board Members were in favor. (5-0)

4. Consent Agenda

- A. Minutes February 10, 2026
- B. Minutes February 17, 2026 Special Called Meeting

Commissioner Simpson made a motion to approve the Consent Agenda with a second by Commissioner Dixon. All Board Members were in favor. (5-0)

5. Staff Reports

- A. Town Manager- Randy Holloway
- B. Town Asst. Manager- Planning & Economic Development Director – Erin Burris
- C. Town Clerk/Finance Officer – Amy Schueneman
- D. Human Resources/Events- Crystal Smith
- E. Code Enforcement/Grant Writer- Jim Sells
- F. Public Works- Daniel Crowell
- G. Fire Department-Dustin Sneed
- H. Cabarrus County Sheriff's Department

6. Presentation

A. Fire Chief Dustin Sneed –Retirement of Firefighter Jeff Cook (postponed from February 10, 2026)

Chief Sneed and Assistant Chief McDonald presented a plaque to Jeff Cook for the 20 years he served the Town of Mount Pleasant.

B. FY 24/25 Audit Presentation by Tony Brewer, CPA

Tony Brewer provided a handout to the Board that matched the presentation. *(Both are included in the Minute Book.)* The Town of Mount Pleasant received an UNQUALIFIED OPINION OR CLEAN - This means that the financials before you fairly represent the books and records of the Town as of 6/30/25 based on our audit procedures. General Fund revenues were up \$615,000 for the year. Also - expenses were up about \$325,000 mainly due to increases in capital outlay in the General Government, Salaries and wages in the Fire Department. The Street department and Cultural and Recreational departments showed decreases in expenditures compared to 2024.

As for the Bottom Line - Revenues were greater than expenditures in 2025 in the amount of 292K vs 568K in 2024.

Unassigned fund balance remains respectable at 102% of current year's expenditures compared to 114% in 2024

Water/Sewer revenues were up \$104,000. Total expenditures were down about \$35K mainly due to billing and water sewer administration and Water distribution expenditures.

As for the Bottom Line - Revenues were greater than expenditures by \$93K compared to a loss of \$49k in 2024. Collection rates remain well above the state average at 99.30%.

As you may recall from the last few years - LGC will no longer be issuing unit letters. Therefore, auditors are now required to report to the governing body Financial Performance Indicators and to notify the governing body of their requirement to submit a response to the LGC if there are Financial Performance Indicators of Concern Indicators OR if the audited financial statements included one or more deficiencies or other findings.

The governing body is required to develop a response and provide a plan of action to address each "Indicator of Concern". This response must be signed by a majority of the members of the governing body and be submitted to the LGC within 60 days of the auditor's presentation, For the 2025 year of Town of Mount Pleasant - there were no Performance indicators of concern nor deficiencies so the Town will not have to answer anything for 2025.

Several Board members asked questions about the performance indicators and if there was something to explain where the numbers came from. Mr. Brewer stated he would send the information to Town Staff to forward to the Board.

No action taken.

7. New Business

A. Theater Presentation/CVB Request

Allen Dobson, Board member of the Avett Theater, led the slideshow presentation (*copy in the Minute Book.*) on the plans for the renovation to the old Paula Theater. A fund-raising campaign is currently underway to raise \$4 million for the renovation and Audio-Visual equipment. Once \$2 million has been donated, construction will begin.

Erin Burris presented a Mount Pleasant Tourism Assistance plan (*copy in the Minute Book.*) to request \$800,000 (\$400,000 over two fiscal years) from the Cabarrus County Tourism Authority to assist in cost for the parking lot, building renovations, etc.

A motion to move forward with the CVB request was made by Commissioner Poole with a second by Commissioner Simpson. All Board Members were in favor. (5-0)

B. Consider adopting the Parade Safety Policy

Jim Sells presented the Parade Safety Policy. This policy is based on ANSI Parade Recommendations and what other local towns are doing. Several changes to the way parades will be conducted in the future are: limiting trailer size to 25', animals must be on a float or inside a car, candy must be handed out by walkers, etc. These changes will protect the participants and spectators while reducing liability on the Town.

A motion to approve the Parade Safety Policy was made by Commissioner Poole with a second by Commissioner Simpson. All Board Members were in favor. (5-0)

8. Old Business

A. Receive update on the status of:

Lower Adams Creek Sewer Outfall Project

On Wednesday, February 25, the Town held its monthly project meeting with Elite Infrastructure to receive updates on the Lower Adams Creek Sewer Outfall project. Included in this update is a summary of the work that has been completed since last month and work that is currently underway.

Here is a summary of the work that has been completed since last month and work that is currently underway. The Town has been providing the information it has been given by contractors and engineers working on the project:

- All sewer line installations have been completed and tested
- Punch list items identified by WSACC have been completed.
- Pasture Pump Station and Summer Street Pump Station have been inverted and decommissioned and are in the process of being removed. The sewer outfall is now active.
- Gates installation where the easement meets roads was postponed but will take place the first week of March.
- Soil and grass restoration will take place when the ground dries up from recent rain.

Water Distribution Improvements Project

N. Main Street (including Crestwood and Cook Street)

On N. Main Street between North Drive and Hwy. 73 (Franklin Street), waterline installation, pressure testing, certification, and tie-ins are complete, and the line is active. Flowable fill and asphalt patch are complete. Final restoration of impacted sidewalk, curb, and pavement will be completed in March.

S. Main Street

On S. Main Street between Hwy. 73 (Franklin St.) and Lee Street waterline installation, pressure testing, certification, and tie-ins are complete, and the line is active. Flowable fill and asphalt patch are complete. Final restoration of impacted sidewalk, curb, and pavement will be completed in March.

Hwy. 49

On Hwy. 49 between N. Main Street and Hwy. 73 waterline installation, pressure testing, certification, and tie-ins are complete, and the line is active. Sidewalk restoration has been completed.

W. Franklin Street (Hwy. 73)

On W. Franklin Street between N. Skyland Drive and Main Street, waterline installation, pressure testing, certification, and tie-ins are complete, and the line is active. Flowable fill/ABC Stone and asphalt patch are complete. The road reopened on February 20. Final restoration of impacted sidewalk, curb, and pavement will be completed in March.

E. Franklin Street (Hwy. 73)

On E. Franklin Street between Main Street to Blueberry Street, main waterline installation has been completed. Flowable fill/ABC stone and asphalt patch for the main line are complete. Service tie-ins and side street cutovers and tie-ins will be taking place through the first part of March. Localized periodic service disruptions are expected from March 9 through March 19 as each tie-in is completed. Final restoration of impacted sidewalk, curb, and pavement will be completed at the end of March.

There are remaining funds in the water project and engineering is being completed to replace the waterline from the Water Treatment Plant to the North Drive water tank to use some of those funds.

Water Treatment Plant Renovation Project

Randy Holloway updated the Board that the plant has been online since March 4th. Prior to the renovation it would take plant operators 12-14hrs to make 300,000 gallons of water. With the improvements, the same amount of water can be produced in 8hrs. The plant is operating 10hrs a day now, leaving time for the operators to do paperwork and backwash.

The Powder Activated Carbon (PAC) system still has not been permitted by DEQ yet because the water source has not been connected. The water source will be the new well which is being installed by Morgan Well this week.

B. Receive update from the meeting with Cabarrus County Board of Commissioners Budget Workshop concerning the Rural Fire Tax Rate.

Town Manager Randy Holloway, Chief Dustin Sneed, and Commissioner Dixon met with the Cabarrus County Board of Commissioners at their Budget Workshop to discuss the Rural Fire Tax Rate for Mount Pleasant response area along with three other Fire Departments asking for increases. The Rural Tax Rate increase is to cover the increasing cost to equipment and apparatus. Mr. Holloway told the Cabarrus County Board of Commissioners that the Town of Mount

Pleasant would ask for no more than a 2¢ increase and it may be less. The Town will discuss the increase in the Town’s Budget Workshop on March 21st.

The County Fire Marshall presented a plan at the County’s Budget Workshop to relocate Squad #410 to Mount Pleasant Fire Station. The Cabarrus County Board was very receptive to the plan because of the high regards held for the Mount Pleasant Fire Department and the ability to work with the Town of Mount Pleasant. Mr. Holloway will see if the Fire Marshall can condense the presentation and come to the Town’s Budget Workshop. If the Squad is relocated to Mount Pleasant there will be 4 firefighters added to the Town per shift by Squad #410 which will continue to fall under the Cabarrus County budget. This is \$1.3 million in personnel cost to help not only Mount Pleasant, but Cold Water, Georgeville, Northeast, etc. The cost to the Town would be to additional cost in utilities, fuel, etc. Four more people per shift is a big benefit to the area with minimal cost to the Town. This arrangement would be good for 2-3 years to see how it works, but for the long term it would be best for the Town to make Squad #410 members Town employees and pay salaries/benefits to keep everything equal.

9. Adjournment

Town Clerk reminded Board Members of the Budget Workshop which will be held Saturday, March 21st 8am-12pm in the conference room of Town Hall.

With nothing else to come before the Board, Commissioner Furr made a motion to adjourn. Commissioner Simpson seconded the motion. All Board Members were in favor. (5-0)

By our signatures, the following minutes were approved as submitted on Tuesday, April 14, 2026 in the Regular Meeting.

Town Clerk Amy Schueneman

Mayor Tony Lapish



**Town of Mt. Pleasant
Board of Commissioners
Budget Workshop Meeting
Town Hall- Conference Room
Saturday, March 21, 2026 at 8:00 A.M.**

Attendance: Mayor Tony Lapish
Mayor Pro-Tem/Commissioner Lori Furr
Commissioner Steven Dixon
Commissioner Liz Poole
Commissioner Justin Simpson
Commissioner Mike Steiner
Town Manager Randy Holloway (joined by Teams)
Town Clerk Amy Schueneman

Also Present: Erin Burris, Crystal Smith, Darrell Layton, Dustin Sneed, Austin McDonald, Trent Christenbury, and Ally Schueneman.

Mayor Lapish called the meeting to order and welcomed those attending, as well as opening the meeting with a prayer.

Mayor Lapish then turned the meeting over to Town Staff: Randy Holloway (on Teams), Erin Burris, Crystal Smith, and Amy Schueneman to present the Power Point presentation for the FY2026/2027 Budget Workshop.

**** A copy of the Power Point presentation, Tax Rate Comparisons, and Capital Improvement Lists are included with the Minutes of the Budget Workshop in the Minute Book. ****

Each slide was presented with any additional comments/discussion listed by page below.

Slide 7- The current projected Tax Revenue is \$110,713 for the Town without any increase to property taxes due to the Green Acres and Brighton Park Subdivisions. This is a 9.39% increase in revenue over the current Fiscal Year.

Slide 9- Estimated Tax Revenue was presented at the current rate of .39¢, as well as for a possible 1¢, 1.5¢, and 2¢ increase. Currently, 1¢ on the Tax Rate is \$32,068 in revenue.

Slide 10- The Rural Fire Tax Rate is increasing by \$9,035.45. Potential Rural Fire Tax Rate increases showed the differences in possible revenue. Currently, 1¢ on the Rural Fire Tax Rate is \$82,829 in revenue.

Slide 13- General Fund Unreserved Fund Balance is \$2,301,144. A list of projects showing the amount obligated/needed was presented leaving \$413,864 in remaining funds. The money is earmarked for these projects and will not be spent all at once, but over the next few years.

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Slide 19- The expected increases for Utilities, Sanitation, Law Enforcement, and Employee Benefits were listed and discussed. The Town has no control over these expenses and will have to use the projected increase to the revenue in Property Tax to cover the additional expense.

Slide 23- Compensation to Fire Personnel showed a 47.91% increase to hourly wages since FY2016/17 for an average annual increase of 5.99%. Current hourly base rate is \$17.00 with a request by the Fire Chief to increase it to \$18.00 (5.88% increase).

Slide 24- Chief Sneed stated that the Fire Department needed to increase the base pay to compete with other departments in the area. Also, the cost of an engine would be \$1.2million and would be 2-3 years out for delivery.

Slide 25- General Fund expenses are expected to increase by \$131,358 for FY2026/27. Most of the increase is due to Employee Benefits and the 5% COLA to stay ahead of inflation to keep salaries competitive following the Pay Study.

Slide 26- Water & Sewer Fund expenses are expected to increase by \$76,290 for FY2026/27. Most of the increase is due to Employee Benefits and the 5% COLA to stay ahead of inflation to keep salaries competitive following the Pay Study.

Slide 27- Chief Sneed asked if an extra bay could be added to the 5-Bay Storage Building requested by the Public Works Dept. for the Fire Department to use for storage of fire apparatus. Or if a 1-Bay storage unit could be placed at Public Works for the Fire Department.

Slide 28- Crystal Smith presented the estimated budgets for all 3 events for FY2026/27. The projected cost is \$51,720 or 1.65¢ on the Property Tax Rate. Cost saving options were presented to the Board with a request for guidance on what the Board would like the events to look like for next year. To help reduce the Fall Festival cost, the event will be moved back to the Town Hall campus instead of on N. Main St. This will drastically reduce the number of Deputies needed for security/roadblocks and the need for port-a-johns and golf carts. The Christmas events will remain the same as previous years since the fireworks and Christmas Market would add \$4,500+ to the budget.

Slide 29- Randy Holloway spoke with LKC Engineering about the Dutch Buffalo Creek Dam and Raw Water Intake Site Study that needed to be completed for future replacement. LKC can do the study with a *cost not to exceed* price of \$10,000. This study is needed to see the potential cost to replace the existing dam that was damaged and repaired after Hurricane Florence in 2018, as well as the electrical building at the intake site. This will be the first step to plan for replacement, and it is also needed to start discussions with USDA for a future loan/grant.

Slide 30- Once again, Town Staff mentioned the possibility of selling the 18 acres at the reservoir to put money back into the Water & Sewer Fund. The Board does not want to sell unless necessary because once it is gone, the Town will not have another asset for potential revenue. Randy Holloway stated that if sold it would go back on the tax books and help increase the Rural Fire Tax Rate, as well as cushioning the Water & Sewer Fund.

Slides 40-42- Board members asked for the last sentence on each of these 3 slides to read “no rate increase *to customers*” prior to the slide presentation being added to the website.

Slide 64- Potential Revenue from the 6 proposed/active developments will increase yearly revenue from Property Tax by an estimated \$832,650, Vehicle Tax revenue by an estimated \$73,273, and Water & Sewer Revenue by an estimated \$357,035 once the developments are completed.

Slide 72- Amy Schueneman presented potential increases needed for the Water & Sewer Fund for FY2026/27. The suggested increases are:

- .50¢ to water base rate
- .20¢ added to each of the water tier rates for water customers using more than 2,000 gallons of water per month
- \$1.00 to sewer base rate (WSACC sewer increase pass through)
- \$1.00 to the Waste Removal Fee to cover 2.8% CPI increase to Waste Pro fees

The total amount would be \$2.50 for the inside town customer using 2,000 gallons of water or less each month. If a customer uses more than 2,000 gallons of water, the cost would be increased by each tiered level reached. Example: Customer using 5,000 gallons of water would pay an extra \$1.00 to the water portion of the water bill on top of the \$2.50. Customers outside Town limits will also receive the base rate increases to water and sewer, but not the Waste Removal Fee since garbage service for out-of-Town residents is not provided by the Town. Board members agreed with the recommendation since cost for all supplies are increasing.

Slide 73- Third line of table should be \$32,068 not \$133,603.

Slides 75-76- After reviewing the Budget Impact for Payroll Items and the Effects of Tax Rate to FY2026/2027, Staff asked the Board to give an indication of their comfort level for a possible Tax Rate increase to both the Town Property Tax and the Rural Fire Tax. After discussing the possible tax rates, the Board felt a 1.5¢ increase would cover the requested increases for next year. The Board asked for the budget to be prepared at a 40.5¢ Town Tax Rate and a 12.5¢ Rural Tax Rate. Until all revenue numbers come in from the Cabarrus County Tax Collector and expenses from Vendors, the estimated amount going to Capital Reserve funds cannot be determined.

Following the Slide Presentation, Board members requested Staff to prepare a 3–5-year plan for future budget expenditures to forecast future tax increases and/or decreases needed for personnel, equipment, projects, etc.

ADJOURNMENT

After finishing the Budget Workshop Mayor Lapish closed the meeting.

By our signatures, the following minutes were approved as submitted and amended on Tuesday, April 14, 2026 in the Regular Meeting.

Town Clerk Amy Schueneman

Mayor Tony Lapish

SEAL



TOWN OF MOUNT PLEASANT, NORTH CAROLINA

TOWN COUNCIL AGENDA ITEM SUMMARY

Staff Report

Black Run Creek Emergency Action Plan

Department: Code Enforcement/Emergency Planning

Prepared by: Jim Sells

Date: March 16, 2026

ISSUE

Presentation and acknowledgement of the updated Emergency Action Plan (EAP) for the Black Run Creek Dam, which is classified by the State of North Carolina as a High Hazard Dam.

BACKGROUND

Emergency Action Plans are required by the North Carolina Dam Safety Program for High Hazard Dams. These plans provide procedures for responding to potential or actual dam failures and ensure coordination between dam owners, local emergency responders, and state agencies.

The most recent Emergency Action Plan for the Black Run Creek Dam was submitted in 2005. Because the plan had not been updated for many years, the Town was required to essentially develop a new Emergency Action Plan to meet current state standards.

ANALYSIS

Why this matters: A breach of the Black Run Creek Dam could impact portions of the community downstream, making it critical that emergency procedures are current and tested.

The updated plan includes:

- **Inundation Study:** Maps and analyzes areas downstream that could be affected by a breach under both “sunny day” and “rainy day” scenarios.
- **Community Impact Identification:** Identifies areas of the community that could experience flooding and may require evacuations or road closures.
- **Emergency Response Coordination:** Lists local agencies and resources needed to respond to a dam emergency, including Cabarrus County Emergency Management and local emergency services.
- **Notification Procedures:** Updated contact lists and procedures to ensure rapid communication during an emergency.

Copies of the plan will be maintained at Town Hall, the Water Treatment Facility, the North Carolina Department of Environmental Quality, and Cabarrus County Emergency Management.



The plan has been submitted to and approved by the North Carolina Department of Environmental Quality Dam Safety Program. It will be reviewed and resubmitted annually, and tabletop exercises will be conducted with relevant agencies to test and review the procedures.

CURRENT STATUS

The updated Black Run Creek Dam Emergency Action Plan has been submitted to and approved by the North Carolina Department of Environmental Quality Dam Safety Program, bringing the Town into compliance with current state requirements for High Hazard Dams.

FISCAL IMPACT

The inundation portion of the EAP was performed by Grimes Engineering for \$13,000.00 and staff time for the emergency plan portion.

STAFF RECOMMENDATION

Recommendation to adopt the Black Run Creek Emergency Action Plan as submitted.

REQUESTED COUNCIL ACTION\:

Adoption of the March 2026 Black Run Creek EAP as submitted.

RECOMMENDED MOTION:

Motion to adopt the 2026 Black Run Creek Emergency Action Plan.

Attachments:

- Black Run Creek Breach Report
- Black Run Creek Emergency Action Plan – March 2026
- North Carolina Department of Environmental Quality Approval
- EAP Inundation Figure – 5.2

JOSH STEIN
Governor

D. REID WILSON
Secretary

WILLIAM E. TOBY VINSON, JR.
Director



NORTH CAROLINA
Environmental Quality

Approval of Emergency Action Plan

March 12, 2026

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
7022 0410 0003 1102 7349

Town of Mount Pleasant
Attn: Randy Holloway
8590 Park Drive
Mount Pleasant, NC 28124
Phone: (704) 436-9800
Email: hollowayr@mtpleasantnc.gov

RE: Approval of Emergency Action Plan
Black Run Creek Dam
Cabarrus County
State Dam ID: CABAR-050

To Whom It May Concern:

This is in response to your latest revised submission dated March 2026 and received on March 12, 2026, of the Emergency Action Plan (EAP) for the subject dam in compliance with the Dam Safety Law of 1967.

This letter constitutes approval of the revised) EAP. Please forward copies of this EAP to Cabarrus County Emergency Management Agency for their use. In addition, please ensure that all parties involved in executing emergency actions are familiar with this EAP and that copies are kept in a readily accessible location for reference during a dam safety emergency.

EAPs are required to be updated and resubmitted annually to the North Carolina Dam Safety Program, one year from the anniversary date of this approval. Before this resubmittal, the EAP should be reviewed for correctness and modified to include any changes to the downstream hazards. If no updates are necessary to the EAP at the time of annual resubmittal, update the date of the EAP on each page and include a cover letter that states there have been no changes in the last year when resubmitting. The annually resubmitted EAP must use the most current EAP template available on the Dam Safety website at <https://deq.nc.gov/about/divisions/energy-mineral-and-land-resources/dam-safety/planning-dam-emergency>. Once approved, revised copies of the EAP should be distributed to all project stakeholders. The Dam Safety Program recommends that a Tabletop Exercise be conducted prior to the annual resubmission of the EAP.

Should the subject dam change ownership, a "Change of Ownership of a Dam" form must be completed by the new owner of the dam at the time of transfer in order to ensure the new owner receives important information concerning the subject dam, and the former owner be released from liability. The form may be located on the Dam Safety website at <https://deq.nc.gov/about/divisions/energy-mineral-and-land-resources/dam-safety/application-forms>. The completed form must be submitted via email to DamSafety@deq.nc.gov listing the change of ownership for the subject dam with its applicable state ID in the subject line.

There are additional guidance and resources available on the Dam Safety website at: <https://deq.nc.gov/about/divisions/energy-mineral-and-land-resources/energy-mineral-and-land-permits/dam-safety>. Also, to assist dam owners through outreach and education, the Association of State Dam Safety Officials' Owner



North Carolina Department of Environmental Quality | Division of Energy, Mineral and Land Resources
512 North Salisbury Street | 1612 Mail Service Center | Raleigh, North Carolina 27699-1612
919.707.9200

Randy Holloway
Approval of Emergency Action Plan
March 12, 2026
Page 2 of 2

Black Run Creek Dam
CABAR-050

Outreach Committee has developed three educational videos as a free resource for owners on critical basics of operating and maintaining a dam safely. The videos are 1) dam inspections, 2) spillways and outlet works, and 3) operation and maintenance plans. All the videos are available at: <https://damsafety.org/dam-owners>. These videos are the first in a series specific to owner education called the 'Dam Owner Academy.'

Thank you for your cooperation in maintaining and operating this dam to provide for public safety. For assistance, you may contact the Dam Safety Program in the Raleigh Central Office at telephone number (919) 707-9220 should you have questions concerning this matter.

Sincerely,



Jordan M. Pappas, PE
State Dam Safety Engineer

JMP/fmt

cc: Jerry Eplin, PE, Land Quality Regional Supervisor, MRO
Thomas E. Langan, PE, CFM, North Carolina Floodplain Mapping Program

File name: CABAR-050_20260312_Approved EAP_Black Run Creek Dam



North Carolina Department of Environmental Quality | Division of Energy, Mineral and Land Resources
512 North Salisbury Street | 1612 Mail Service Center | Raleigh, North Carolina 27699-1612
919.707.9200



Guidelines for Owner Completion of the Emergency Action Plan (EAP) (Template)

- Replace all highlighted text (**MAGENTA** and **BLUE**) with the appropriate information. **Once the document is final, please remove all highlighting.**
- If you need assistance in completing portions of this template highlighted in **BLUE**, information may be obtained from the Division of Energy, Mineral and Land Resources at (919) 707-9220 or DamSafety@ncdenr.gov.
- A list of county Emergency Managers is available at <https://www.ncdps.gov/emergency-management/em-community/directories/counties>. Contact your relevant Emergency Manager to ensure all addresses and contacts are current and that the implementation of EAPs have not instead been delegated to a local program in your area.
- **EAPs are required to be updated and resubmitted annually to the North Carolina Dam Safety Program, one year from the anniversary date of the most recent approval.** Before this resubmittal, the EAP should be reviewed for correctness and modified to include any changes to the downstream hazards. If no updates are necessary to the EAP at the time of annual resubmittal, update the date of the EAP on each page and include a cover letter that states there have been no changes in the last year when resubmitting. **The annually resubmitted EAP must use the most current EAP template available on the Dam Safety website at: <https://deq.nc.gov/about/divisions/energy-mineral-and-land-resources/dam-safety/planning-dam-emergency>.** The North Carolina Dam Safety Program recommends that a periodic test, including a tabletop exercise, is conducted prior to the annual resubmission of the EAP.
- Downstream inundation maps are required for all EAPs. Inundation maps should be developed using an engineering computer model (e.g., HEC-RAS Unsteady Model, or other two-dimensional hydraulic analysis model, etc.), as referenced in FEMA P-946, Federal Guidelines for Inundation Mapping of Flood Risks Associated with Dam Incidents and Failures. The HEC-RAS models are available to anyone at no cost from the US Army Corps of Engineers at: <https://www.hec.usace.army.mil/software/hec-ras/>.
 - The method used should include labeled two-foot interval topographic contours.
 - All electronic files and models must be submitted each time the EAP is submitted.
 - The inundation map should depict both the **Sunny-Day Breach** (simulating a piping failure with the reservoir at normal pool elevation) and the **Rainy-Day Breach** (simulating an overtopping failure at maximum pool elevation during passage of the SDF) inundation zones. The two scenarios may be shown on the same map or set of maps using different colors.
 - Note that using the 100-year flood elevations to determine “at risk” structures is not an appropriate methodology to satisfy this requirement.
 - The inundation map must clearly show all impacted structures, roads, railroads, and other well-known features (located within the inundation zone extent) and reference each on Residents/Business/Roads/Infrastructure at Risk (Table 5.1).
 - Provide all supporting methodology used to develop the inundation map including: **methodology used, assumptions made, modeling software used (if any), electronic files of the models, associated inputs, date of creation, legend table, compass, topographic contours, scale size, and direction arrows.**
- The North Carolina Dam Safety Program generally revises the EAP template (on an as-needed basis) and associated guidance in January of each year. All submitted EAPs must use the most current EAP template available on the Dam Safety website at: <https://deq.nc.gov/about/divisions/energy-mineral-and-land-resources/dam-safety/planning-dam-emergency>.

When completed, submit **one electronic copy** to → North Carolina Dam Safety Program
(DamSafety@ncdenr.gov)
Division of Energy, Mineral and Land Resources
1612 Mail Service Center
Raleigh, North Carolina 27699-1612
Phone: (919) 707-9220

Black Run Creek Dam

Emergency Action Plan (EAP)

State ID (First 5 Letters of County): CABAR-050

National Inventory of Dams ID (NID): NC01993

Cabarrus County, North Carolina

Revision Number: 03

March 2026

Dam Owner/Operator:

Town of Mount Pleasant
8590 Park Drive
Mount Pleasant, NC 28124
9-1-1
704-920-3000

EAP Coordinator:

Trent Christenbury, christenburyt@mtpleasantnc.us

O: 704-436-1268

24hr: 704-293-7260

Dam Owner's Engineer:

Richard McMillian, engineer@mtpleasantnc.us

O: 704-436-9800 ext. 1007

24hr: 704-956-3969

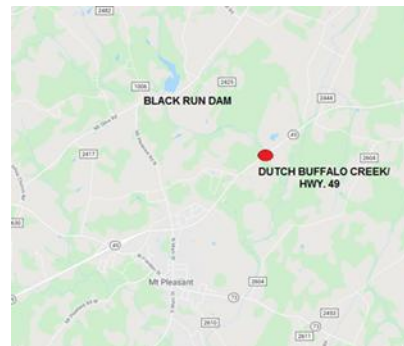


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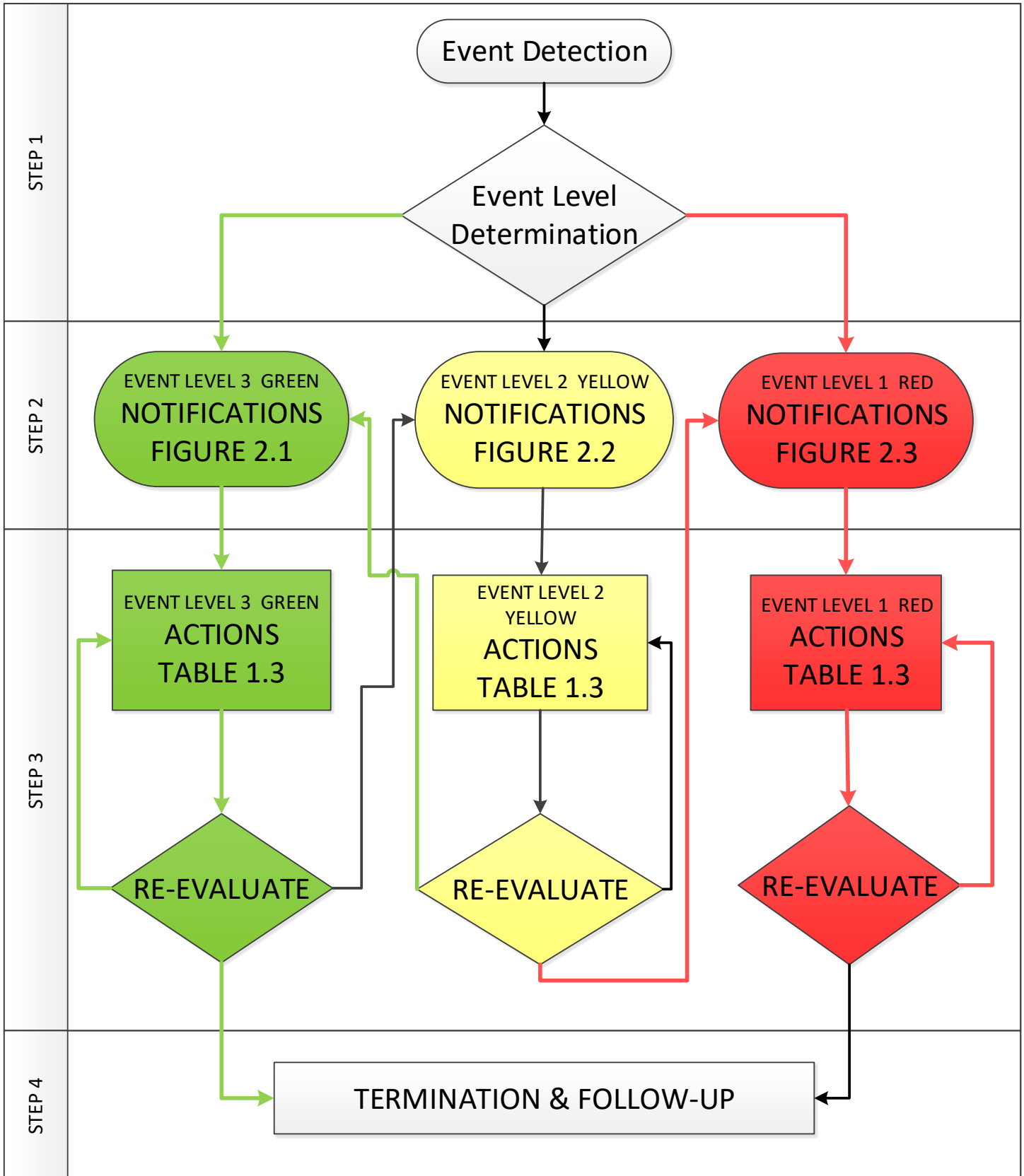
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EAP Overview

Figure 1.0 – EAP Flowchart



Summary of EAP Process

There are four steps that must be followed anytime an unusual or emergency event is detected at **Black Run Creek Dam**. The four steps are:

Step 1: Event Detection and Level Determination

During the initial step, an unusual event or emergency event is detected at the dam and classified by the **Trent Christenbury, Water Plant Supervisor** into one of the following event levels (reference Table 1.3):

Event Level 3, GREEN: Unusual event, slowly developing.

Event Level 2, YELLOW: Potential dam failure situation, rapidly developing.

Event Level 1, RED: Urgent!! Dam failure imminent or is in progress.

Step 2: Notifications and Communication

After the event level has been determined, notifications are made in accordance with the appropriate notification flowchart provided in Step 2 of this EAP.

Step 3: Expected Actions

After the initial notifications are made, **Trent Cristenbury, Water Plant Supervisor**, should refer to Table 1.3 and confer with **Richard McMillian, Engineer**, to develop and execute appropriate preventative actions. During this step of the EAP, there is a continuous process of taking action, assessing the status of the situation, and keeping others informed through communication channels established during the initial notifications. The EAP may go through multiple event levels during Steps 2 and 3 as the situation either improves or worsens.

Step 4: Termination and After-Action Review

Once the event has ended or been resolved, termination and follow-up procedures should be followed as outlined in Section 4 of this EAP. EAP operations can only be terminated after completing operations under Event Level 3 or Event Level 1. If Event Level 2 is declared, the operations must be designated Event Level 3 or Event Level 1 before terminating the EAP operations.

Statement of Purpose

1. The purpose of this plan is to prescribe procedures to be followed in the event of an emergency associated with the **Black Run Creek Dam**, which is caused by an unusually large flood or earthquake, a malfunction (hydraulic or structural) of the spillway, malicious human activity such as sabotage, vandalism or terrorism, or failure of the dam.
2. This EAP defines responsibilities and procedures to:
 - Identify unusual and unlikely conditions that may endanger the dam.
 - Initiate remedial actions to prevent dam failure or minimize the downstream impacts of a dam failure.
 - Initiate emergency actions to warn downstream residents of impending or actual failure of the dam.

Step 1: Event Detection and Level Determination

1.1 Event Detection

Daily surveillance, observation, and/or instrumentation readings at the site are the normal methods of detecting potential emergency situations. Unusual or emergency events may be detected by:

- Observations at or near the dam.
- Evaluation of instrumentation data.
- Earthquakes felt or reported in the vicinity of the dam.
- Forewarning of conditions that may cause an unusual event or emergency event at the dam (for example, severe weather or flash flood forecast).

1.2 Emergency Level Definitions

Event Level 1, RED - Urgent!! Dam failure imminent or is in progress.

This is an extremely urgent situation when a dam failure is occurring or is about to occur and cannot be prevented. When it is determined that no time is available to implement corrective measures to prevent failure, an order for the evacuation of residents in potential inundation areas shall be issued by the *Incident Commander*.

Event Level 2, YELLOW - Potential dam failure situation, rapidly developing.

This classification indicates that a situation is developing that could lead to dam failure, but there is not an immediate threat of dam failure. The *Town of Mount Pleasant* should closely monitor the condition of the dam and periodically report the status of the situation. A reasonable amount of time is available for analysis before deciding on the evacuation of residents. If the dam condition worsens and failure becomes imminent, the *Incident Commander* must be notified immediately of the change in the emergency level to evacuate the people at risk downstream.

If time permits, the *Town Engineer Richard McMillian* and *NC Dam Safety* officials should be contacted to evaluate the situation and recommend remedial actions to prevent failure of the dam. The *Town of Mount Pleasant* should initiate remedial repairs utilizing Appendix C. The time available to employ remedial actions may be in the scope of hours or days.

Event Level 3, GREEN - Unusual event, slowly developing.

This classification indicates a situation is developing but has not yet threatened the operation or structural integrity of the dam. The *Town's Engineer Richard McMillian* and *NC Dam Safety* should be contacted to investigate the situation and recommend actions to take. The condition of the dam should be closely monitored, especially during storm events, to detect any development of a potential or imminent dam failure situation.

See the following pages for guidance in determining the proper emergency level for various situations.

Table 1.3 – Event Level Determination Guidance and Action Data Sheet Index

Event	Condition	Emergency Level	Action Data Sheet
Unexpected Failure	Dam unexpectedly and without warning begins to fail	1	#1
Earth Spillway Flow	Reservoir water surface elevation at spillway crest or spillway is flowing with no active erosion	3	A3
	Spillway flowing with active gully erosion or flow that could result in flooding of people downstream if the reservoir level continues to rise	2	A2
	Spillway flowing with an advancing head cut that is threatening the control section or that is already flooding people downstream	1	A1
Embankment Overtopping	Reservoir level is 1 foot below the top of the dam	2	B2
	Water from the reservoir is flowing over the top of the dam	1	B1
Seepage	New seepage areas in or near the dam, water flowing clear	3	C3
	New seepage areas with cloudy discharge or increasing flow rate	2	C2
	Seepage with discharge greater than 10 gallons per minute	1	C1
Sinkholes	Observation of new sinkhole in reservoir area or on embankment	2	D2
	Rapidly enlarging sinkhole or new sinkholes forming	1	D1
Embankment Cracking	New cracks in the embankment greater than ¼-inch wide without seepage	3	E3
Embankment Movement	Visual movement/slippage of the embankment slope	2	F2
	Sudden or rapidly proceeding slides of the embankment slopes	1	F1
Instruments	Instrumentation readings beyond predetermined values	3	G3
Earthquake	Measurable earthquake felt or reported near the dam and the dam appears to be stable	3	H3
	Earthquake resulting in visible damage to the dam or appurtenances	1	H1
Security Threat	Reported, unverified bomb threat	3	I3
	Verified bomb threat that, if carried out, could result in damage to the dam or appurtenances with no impacts to the functioning of the dam	2	I2
	A detonated bomb that has resulted in damage to the dam or appurtenances	1	I1
Sabotage/ Vandalism	Damage to or modification to the dam or appurtenances with no impacts to the functioning of the dam	3	J3
	Damage to dam or appurtenances that has resulted in seepage flow	2	J2
	Damage to dam or appurtenances that has resulted in uncontrolled water release	1	J1
Blocked Culvert/ Spillway	Debris is blocking a spillway pipe, causing lake level to rise	3	K3
Spillways/ Structural	New minor spillway cracking, spalling, or damage to the spillway gate so that it is unable to be closed	3	L3
	New spillway cracking or spalling resulting from structure distress or gates become inoperable	2	L2
	Mass movement of the concrete structure	1	L1

1. If an event is not listed, **adapt an Action Data Sheet to a similar type of event and event level.**
2. If resources described in the Action Data Sheets are not available, **adapt available resources.**
3. If an event is not relevant to the dam, **clearly indicate the event is “NOT APPLICABLE” on the respective action data sheet.**
4. After the *Town of Mount Pleasant* and/or *Trent Christenbury* has determined the event level:
 - See Step 2: **GREEN**, **YELLOW** & **RED** notification flowcharts.
 - See Step 3: Action Data Sheets for specific actions per event level.

Step 2: Notifications and Communication

**Notification Flowchart, Event Level 3, GREEN
UNUSUAL EVENT, SLOWLY DEVELOPING**
(Can usually wait until regular business hours unless Event Level is elevated)

Figure 2.1

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Dam Owner/Operator
Town of Mount Pleasant
Randy Holloway, Manager
Phone Number O: (704)436-9800
24Hr: (704)796-3266

Dam Owner's Engineer
Richard McMillian
Phone Number O: 704-436-9800 ext. 1007
24Hr: 704-956-3969

NC Dam Safety
BUSINESS HOURS

Jerry Eplin
Mooresville Regional Office
Engineer
704-235-2100

Raleigh Central Office
919-707-9220 (Office)

**State 24-Hour
Emergency Watch**

800-858-0368

PERTINENT INFORMATION TO COMMUNICATE:

- *Your Name*
- *Your Location*
- *Your Phone Number*
- *Black Run Creek Dam* and *8315 Mt. Olive Road, Mt. Pleasant, NC*
- Flooding along the *Dutch Buffalo Creek* is possible
- *List of Personnel On-Site* and *Phone Numbers*
- *Reason for EAP Activation and Event Level*

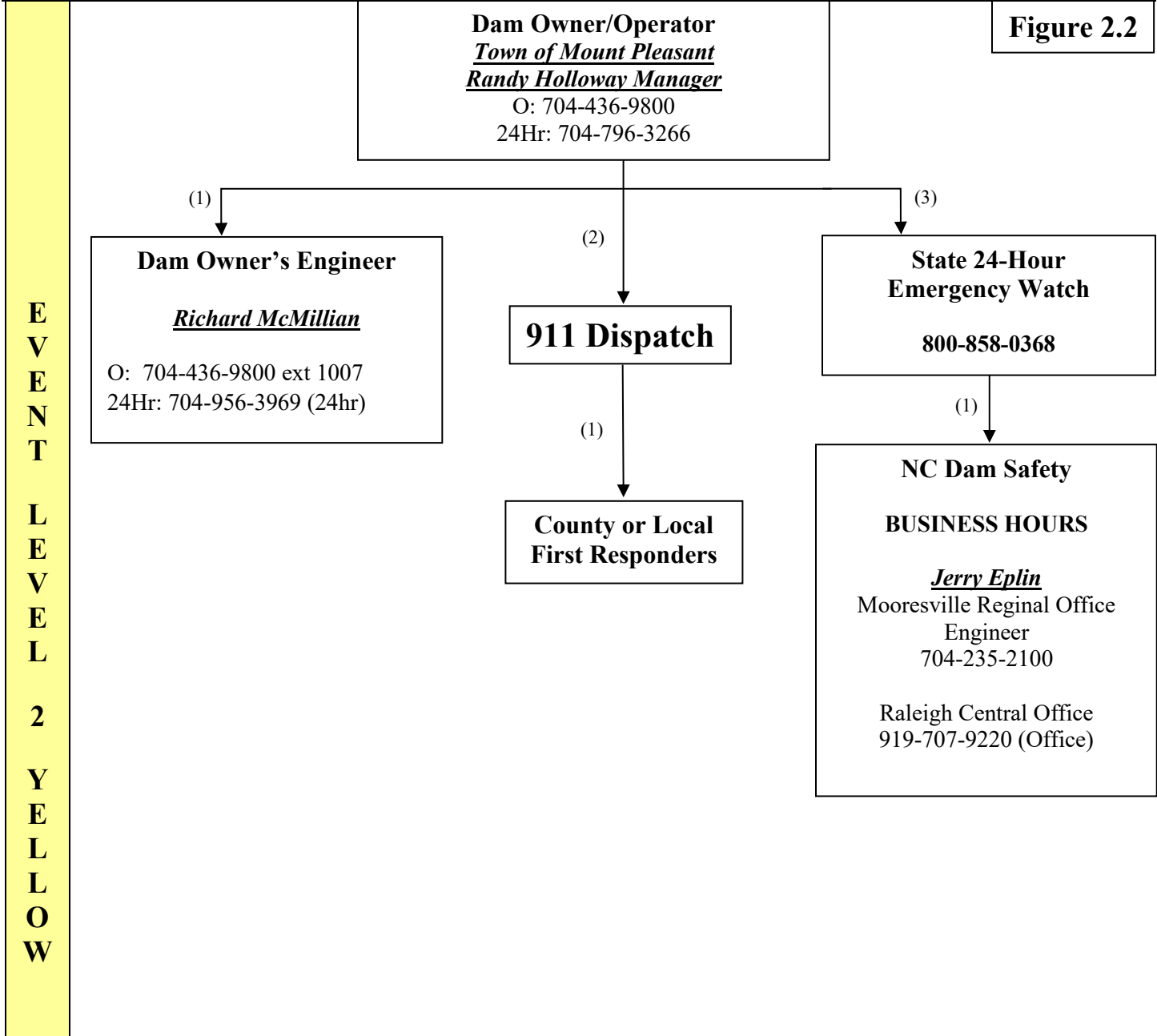
Notes:

(1), (2) denotes suggested call sequence.

See Emergency Services Contacts (Appendix B) for additional contacts and other emergency personnel.

**Notification Flowchart, Event Level 2, YELLOW
POTENTIAL DAM FAILURE SITUATION, RAPIDLY DEVELOPING**

Figure 2.2



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PERTINENT INFORMATION TO COMMUNICATE:

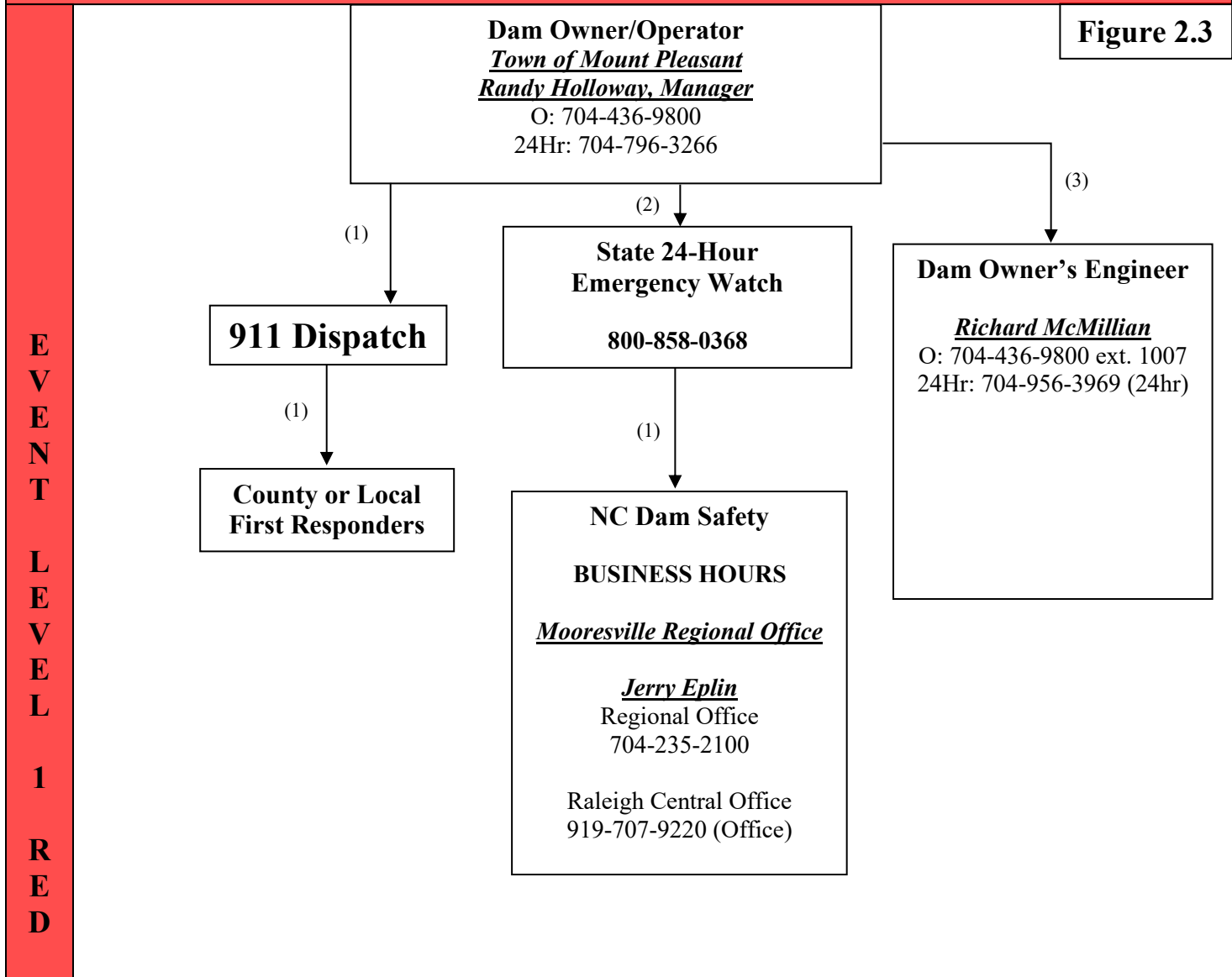
- Your Name
- Your Location
- Your Phone Number
- Black Run Creek Dam and 8315 Mt. Olive Road
- Flooding along the Dutch Buffalo Creek is possible
- List of Personnel On-Site and Phone Numbers
- Reason for EAP Activation and Event Level

Notes:
(1), (2) denotes suggested call sequence.

See Emergency Services Contacts (Appendix B) for additional contacts and other emergency personnel.

**Notification Flowchart, Event Level 1, RED
URGENT!! DAM FAILURE IMMINENT OR IS IN PROGRESS**

Figure 2.3



PERTINENT INFORMATION TO COMMUNICATE:

- The ***Black Run Creek Dam*** is failing. The downstream area must be evacuated immediately. I repeat, the ***Black Run Creek Dam*** is failing.
- ***Your Name***
- ***Your Location***
- ***Your Phone Number***
- ***Black Run Creek Dam*** and ***8315 Mt. Olive Road***
- ***List of Personnel On-Site*** and ***Phone Numbers***
- ***Reason for EAP Activation and Event Level***

Notes:

(1), (2) denotes suggested call sequence.

See Emergency Services Contacts (Appendix B) for additional contacts and other emergency personnel.

Step 3: Expected Actions

3.1 Action Data Sheets

1. The Action Data Sheets are to be used as guidance during an emergency event. If an event is not included in Table 1.3, it is recommended to adopt an Action Data Sheet from a similar event and event level. Table 1.3 depicts the Action Data Sheet Index to be used according to the event level. The Action Data Sheet should be reviewed by the ***Richard McMillian – Engineer*** when possible and time permits.
2. If the ***Incident Commander*** is not located on the dam, then it is recommended that two people split the following responsibilities:
 - a. One person at the dam to handle on site actions.
 - b. One person who can make the notifications.

LEVEL: 1, RED – UNEXPECTED FAILURE Defined as: “Dam unexpectedly and without warning begins to fail”		Sheet #1
RECOMMENDED ACTIONS		
<p><u>Town of Mount Pleasant, Randy Holloway, Manager assisted by Trent Christenbury, WTP Supervisor</u></p> <ol style="list-style-type: none"> 1. Ensure that Event Level 1 notifications on Figure 2.3 have been made. 2. Recommend to the <u>Incident Commander</u> IMMEDIATE EVACUATION downstream of the dam. 3. Stay a safe distance away from the dam. The immediate concern is the safety of the downstream public. 4. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). <p><u>Richard McMillian, Engineer</u></p> <ol style="list-style-type: none"> 1. Provide decision support and technical support to <u>Randy Holloway</u> and <u>Trent Christenbury</u> as appropriate. 2. Advise <u>Randy Holloway</u> and <u>Trent Christenbury</u> of dangerous conditions at the dam. <p><u>NC Dam Safety</u></p> <ol style="list-style-type: none"> 1. Provide decision support and technical support to the <u>Incident Commander</u> as appropriate. 		
RE-EVALUATION / DECISION Based upon Table 1.3		
<p>Evaluate conditions CONTINUOUSLY. Using Table 1.3, determine if:</p> <ol style="list-style-type: none"> A. The event remains at the current Event Level 1 (No change in situation). B. Event may be Terminated only when either: <ul style="list-style-type: none"> • There is no longer a threat of dam failure with no additional rainfall occurring AND it has been determined by <u>NC Dam Safety</u> staff to safely impound water or; • The dam has failed AND there is no longer a threat to the downstream public as determined by <u>NC Dam Safety</u> staff. <p>Notify all contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.</p>		
Based on this determination, follow the appropriate actions		
A) EVENT LEVEL 1 (NO CHANGE)	B) TERMINATION	
Continue recommended actions on this sheet	Go to Termination and After-Action Review (Step 4)	

LEVEL: 3, GREEN – EARTH SPILLWAY FLOW Defined as: “Reservoir water surface elevation at spillway crest or spillway is flowing with no active erosion”	Sheet A3
---	---------------------

RECOMMENDED ACTIONS

Randy Holloway, Town Manager

1. Ensure that Event Level 3 notifications on Figure 2.1 have been made.
2. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected **without compromising the safety of anyone performing these tasks**. Monitor water levels and spillway area for erosion at least daily.
3. Monitor off-site areas to include instrumentation (Applicable to all Action Data Sheets with reference to Instrumentation).
4. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2).
5. Contact **Rich McMillian, Engineer** at least daily to report the latest observations and conditions. If conditions change significantly, go to the **re-evaluation/decision section** and follow relevant steps immediately.

Richard McMillian, Engineer

1. Review all pertinent information to recommend appropriate actions to **Trent Chistenbury, WTP Supervisor** in conjunction with **NC Dam Safety**.
2. Provide oversight to corrective actions or work as required.
3. Observe conditions on site periodically and provide decision support as appropriate.

NC Dam Safety

1. Provide decision support and technical support to the **Incident Commander** and **Randy Holloway** as appropriate.

RE-EVALUATION / DECISION Based upon Table 1.3

Evaluate conditions at least daily or when conditions change significantly. Using Table 1.3, determine if:

- A. The event can be terminated when spillway flows cease.
- B. The event remains at the current Event Level 3 (No change in situation).
- C. The event warrants escalation to Event Level 2 if spillway flows with active gully erosion or flow that could result in flooding downstream or Event Level 1 if spillway flows with an advancing head cut that is threatening the control section or that is already flooding people downstream.

Notify **all** contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.

Based on this determination, follow the appropriate actions

A) TERMINATION	B) EVENT LEVEL 3 (NO CHANGE)	C) EVENT LEVEL ESCALATION
Go to Termination and After-Action Review (Step 4)	Continue recommended actions on this sheet	Go to Event Level 2 or Event Level 1 Steps 2 & 3

LEVEL: 2, YELLOW – EARTH SPILLWAY FLOW Defined as: “Spillway flowing with active gully erosion or flow that could result in flooding of people downstream if the reservoir level continues to rise”	Sheet A2
---	---------------------

RECOMMENDED ACTIONS

Randy Holloway, Town Manager or Trent Christenbury, WTP Supervisor

1. Ensure that Event Level 2 notifications on Figure 2.2 have been made.
2. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected **without compromising the safety of anyone performing these tasks**. Stay clear of water flows as they are very dangerous. Monitor water levels and spillway area for erosion every 2 hours for changes.
3. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2).
4. Monitor off-site areas to include instrumentation (Applicable to all Action Data Sheets with reference to Instrumentation).
5. Use a bottom drain, installed siphon, or pumps on site to provide additional drawdown of the lake level. Caution must be taken to not add additional flooding to properties downstream.
6. Contact the **Richard McMillian, Engineer** at least twice daily to report the latest observations and conditions. If conditions change significantly, go to the **re-evaluation/decision section** and follow relevant steps immediately.

Richard McMillian.

1. Review all pertinent information to recommend appropriate actions to **Trent Christenbury** in conjunction with **NC Dam Safety**.
2. Provide oversight to corrective actions or work as required.
3. Observe conditions on site periodically and provide decision support as appropriate.

NC Dam Safety

1. Provide decision support and technical support to the **Incident Commander** as appropriate.

RE-EVALUATION / DECISION Based upon Table 1.3

Evaluate conditions at least twice daily or when conditions change significantly. Using Table 1.3, determine if:

- A. The event warrants downgrade to Event Level 3 if spillway flows are decreasing with no additional rainfall occurring. Notify all contacts on Event Level 2 Notification Flowchart that the Event Level will be downgraded to Event Level 3.
- B. The event remains at the current Event Level 2 (No change in situation).
- C. The event warrants escalation to Event Level 1 if spillway flows with an advancing head cut that is threatening the control section or that is already flooding people downstream.

Notify **all** contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.

Based on this determination, follow the appropriate actions

A) EVENT LEVEL DOWNGRADE	B) EVENT LEVEL 2 (NO CHANGE)	C) EVENT LEVEL ESCALATION
Go to Event Level 3 Steps 2 & 3	Continue recommended actions on this sheet	Go to Event Level 1 Steps 2 & 3

LEVEL: 1, RED – EARTH SPILLWAY FLOW Defined as: “Spillway flowing with an advancing head cut that is threatening the control section or that is already flooding people downstream”	Sheet A1
---	---------------------

RECOMMENDED ACTIONS

Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor

1. Ensure that Event Level 1 notifications on Figure 2.3 have been made.
2. Recommend to the **Incident Commander** **IMMEDIATE EVACUATION** downstream of the dam.
3. Stay a safe distance away from the dam. The immediate concern is the safety of the downstream public.
4. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2).

Richard McMillian, Engineer

1. Provide decision support and technical support to **Randy Holloway** and **Trent Christenbury** as appropriate.
2. Advise **Randy Holloway** and **Trent Christenbury** of dangerous conditions at the dam.

NC Dam Safety

1. Provide decision support and technical support to the **Incident Commander** as appropriate.

RE-EVALUATION / DECISION Based upon Table 1.3

Evaluate conditions CONTINUOUSLY. Using Table 1.3, determine if:

- A. The event warrants downgrade to Event Level 2 or Event Level 3 if spillway flows have stopped with no additional rainfall occurring YET there is damage to the dam that prevents safe impoundment of water. All contacts on Event Level 1 Notification Flowchart shall be notified of a downgrade to Event Level 2 or Event Level 3.
- B. The event remains at the current Event Level 1 (No change in situation).
- C. Event may be Terminated only when either:
 - Spillway flows have stopped with no additional rainfall occurring AND it has been determined by **NC Dam Safety** staff to safely impound water or;
 - The dam has failed AND there is no longer a threat to the downstream public as determined by **NC Dam Safety** staff.

Notify **all** contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.

Based on this determination, follow the appropriate actions		
A) EVENT LEVEL DOWNGRADE	B) EVENT LEVEL 1 (NO CHANGE)	C) TERMINATION
Go to Event Level 2 or Event Level 3 Steps 2 & 3	Continue recommended actions on this sheet	Go to Termination and After-Action Review (Step 4)

<p>LEVEL: 2, YELLOW – EMBANKMENT OVERTOPPING Defined as: “Reservoir is 1 foot below the top of the dam”</p>	<p>Sheet B2</p>
---	----------------------------

RECOMMENDED ACTIONS

Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor

1. Ensure that Event Level 2 notifications on Figure 2.2 have been made.
2. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected **without compromising the safety of anyone performing these tasks**. Stay clear of water flows as they are very dangerous. Monitor water levels and spillway area for erosion every 2 hours for changes.
3. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2).
4. Monitor off-site areas to include instrumentation (Applicable to all Action Data Sheets with reference to Instrumentation).
5. Use a bottom drain, installed siphon, or pumps on site to provide additional drawdown of the lake level. Caution must be taken to not add additional flooding to properties downstream.
6. Contact the **Richard McMillian, Engineer** at least twice daily to report the latest observations and conditions. If conditions change significantly, go to the **re-evaluation/decision section** and follow relevant steps immediately.

Richard McMillian.

1. Review all pertinent information to recommend appropriate actions to **Trent Christenbury** in conjunction with **NC Dam Safety**.
2. Provide oversight to corrective actions or work as required.
3. Observe conditions on site periodically and provide decision support as appropriate.

NC Dam Safety

1. Provide decision support and technical support to the **Incident Commander** as appropriate.

RE-EVALUATION / DECISION Based upon Table 1.3

Evaluate conditions at least twice daily or when conditions change significantly. Using Table 1.3, determine if:

- A. The event can be terminated when the reservoir level is more than 1 foot below the top of the dam.
- B. The event remains at the current Event Level 2 (No change in situation).
- C. The event warrants escalation to Event Level 1 if water begins to overtop the embankment.

Notify **all** contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.

Based on this determination, follow the appropriate actions

A) TERMINATION	B) EVENT LEVEL 2 (NO CHANGE)	C) EVENT LEVEL ESCALATION
Go to Termination and After-Action Review (Step 4)	Continue recommended actions on this sheet	Go to Event Level 1 Steps 2 & 3

LEVEL: 1, RED – EMBANKMENT OVERTOPPING Defined as: “Water from the reservoir is flowing over the top of the dam”	Sheet B1
--	---------------------

RECOMMENDED ACTIONS

Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor

1. Ensure that Event Level 1 notifications on Figure 2.3 have been made.
2. Recommend to the ***Incident Commander*** **IMMEDIATE EVACUATION** downstream of the dam.
3. Well-vegetated embankment dams can withstand overtopping for a short amount of time. Monitor for changes in water flow as signs of the embankment eroding.
4. Stay a safe distance away from the dam. The immediate concern is the safety of the downstream public.
5. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2).

Richard McMillian, Engineer

1. Provide decision support and technical support to ***Randy Holloway*** and ***Trent Christenbury*** as appropriate.
2. Advise ***Randy Holloway*** and ***Trent Christenbury*** of dangerous conditions at the dam.

NC Dam Safety

1. Provide decision support and technical support to the ***Incident Commander*** as appropriate.

RE-EVALUATION / DECISION Based upon Table 1.3

Evaluate conditions CONTINUOUSLY. Using Table 1.3, determine if:

- A. The event warrants downgrade to Event Level 2 if spillway flows have stopped with no additional rainfall occurring YET there is damage to the dam that prevents safe impoundment of water. All contacts on Event Level 1 Notification Flowchart shall be notified of a downgrade to Event Level 2.
- B. The event remains at the current Event Level 1 (No change in situation).
- C. Event may be Terminated only when either:
 - Spillway flows have stopped with no additional rainfall occurring AND it has been determined by ***NC Dam Safety*** staff to safely impound water or;
 - The dam has failed AND there is no longer a threat to the downstream public as determined by ***NC Dam Safety*** staff.

Notify **all** contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.

Based on this determination, follow the appropriate actions

A) EVENT LEVEL DOWNGRADE	B) EVENT LEVEL 1 (NO CHANGE)	C) TERMINATION
Go to Event Level 2 Steps 2 & 3	Continue recommended actions on this sheet	Go to Termination and After-Action Review (Step 4)

LEVEL: 3, GREEN – SEEPAGE Defined as: “New seepage areas in or near the dam, water flowing clear”	Sheet C3
---	---------------------

RECOMMENDED ACTIONS

Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor

1. Ensure that Event Level 3 notifications on Figure 2.1 have been made.
2. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected **without compromising the safety of anyone performing these tasks**. Monitor water levels and seepage points for cloudy discharge or increased flow rates at least daily.
3. If conditions permit:
 - If the inflow source of the seepage is within the reservoir, plug the flow with available material – hay bales, bentonite, or plastic sheeting.
 - Place an inverted filter (layered sand and gravel) over the exit area to hold soil material in place.
 - Use a bottom drain, installed siphon, or pumps on site to provide additional drawdown of the lake level. Caution must be taken to not add additional flooding to properties downstream.
4. Monitor off-site areas to include instrumentation (Applicable to all Action Data Sheets with reference to Instrumentation).
5. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2).
6. Contact the **Richard McMillian, Engineer** at least daily to report the latest observations and conditions. If conditions change significantly, go to the **re-evaluation/decision section** and follow relevant steps immediately.

Richard McMillian

1. Review all pertinent information to recommend appropriate actions to **Trent Christenbury** in conjunction with **NC Dam Safety**.
2. Provide oversight to corrective actions or work as required.
3. Observe conditions on site periodically and provide decision support as appropriate.

NC Dam Safety

1. Provide decision support and technical support to the **Incident Commander** and as appropriate.

RE-EVALUATION / DECISION Based upon Table 1.3

Evaluate conditions at least daily or when conditions change significantly. Using Table 1.3, determine if:

- A. The event can be terminated when seepage flow has been remedied AND it has been determined by **NC Dam Safety** staff to safely impound water.
- B. The event remains at the current Event Level 3 (No change in situation).
- C. The event warrants escalation to Event Level 2 if new seepage occurs with cloudy discharge or increasing flow rate or Event Level 1 if seepage occurs with discharge greater than 10 gallons per minute.

Notify **all** contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.

Based on this determination, follow the appropriate actions

A) TERMINATION	B) EVENT LEVEL 3 (NO CHANGE)	C) EVENT LEVEL ESCALATION
Go to Termination and After-Action Review (Step 4)	Continue recommended actions on this sheet	Go to Event Level 2 or Event Level 1 Steps 2 & 3

LEVEL: 2, YELLOW – SEEPAGE Defined as: “New seepage areas with cloudy discharge or increasing flow rate”	Sheet C2
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RECOMMENDED ACTIONS

Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor

1. Ensure that Event Level 2 notifications on Figure 2.2 have been made.
2. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected **without compromising the safety of anyone performing these tasks**. Monitor water levels and seepage points for cloudy discharge or increased flow rates every 2 hours for changes.
3. If conditions permit:
 - If the inflow source of the seepage is within the reservoir, plug the flow with available material – hay bales, bentonite, or plastic sheeting.
 - Place an inverted filter (layered sand and gravel) over the exit area to hold soil material in place.
 - Use a bottom drain, installed siphon, or pumps on site to provide additional drawdown of the lake level. Caution must be taken to not add additional flooding to properties downstream.
4. Monitor off-site areas to include instrumentation (Applicable to all Action Data Sheets with reference to Instrumentation).
5. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2).
6. Contact the **Richard McMillian, Engineer** at least twice daily to report the latest observations and conditions. If conditions change significantly, go to the **re-evaluation/decision section** and follow relevant steps immediately.

Richard McMillian,

Review all pertinent information to recommend appropriate actions to **Trent Christenbury** in conjunction with **NC Dam Safety**.

1. Provide oversight to corrective actions or work as required.
2. Observe conditions on site periodically and provide decision support as appropriate.

NC Dam Safety

1. Provide decision support and technical support to the **Incident Commander** as appropriate.

RE-EVALUATION / DECISION Based upon Table 1.3

Evaluate conditions at least twice daily or when conditions change significantly. Using Table 1.3, determine if:

- A. The event warrants downgrade to Event Level 3 if the water level in the lake is lowered below the level of seepage. Notify all contacts on Event Level 2 Notification Flowchart that the Event Level will be downgraded to Event Level 3.
- B. The event remains at the current Event Level 2 (No change in condition).
- C. The event warrants escalation to Event Level 1 if seepage occurs with discharge greater than 10 gallons per minute.

Notify **all** contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.

Based on this determination, follow the appropriate actions

A) EVENT LEVEL DOWNGRADE	B) EVENT LEVEL 2 (NO CHANGE)	C) EVENT LEVEL ESCALATION
Go to Event Level 3 Steps 2 & 3	Continue recommended actions on this sheet	Go to Event Level 1 Steps 2 & 3

LEVEL: 1, RED – SEEPAGE Defined as: “Seepage with discharge greater than 10 gallons per minute”		Sheet C1
RECOMMENDED ACTIONS		
<p><u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u></p> <ol style="list-style-type: none"> 1. Ensure that Event Level 1 notifications on Figure 2.3 have been made. 2. Recommend to the <u>Incident Commander</u> IMMEDIATE EVACUATION downstream of the dam. 3. Well-vegetated embankment dams can withstand overtopping for a short amount of time. Monitor for changes in water flow as signs of the embankment eroding. 4. Stay a safe distance away from the dam. The immediate concern is the safety of the downstream public. 5. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). <p><u>Richard McMillian, Engineer</u></p> <ol style="list-style-type: none"> 1. Provide decision support and technical support to <u>Randy Holloway</u> and <u>Trent Christenbury</u> as appropriate. 2. Advise <u>Randy Holloway</u> and <u>Trent Christenbury</u> of dangerous conditions at the dam. <p><u>NC Dam Safety</u></p> <ol style="list-style-type: none"> 1. Provide decision support and technical support to the <u>Incident Commander</u> as appropriate. 		
RE-EVALUATION / DECISION Based upon Table 1.3		
<p>Evaluate conditions CONTINUOUSLY. Using Table 1.3, determine if:</p> <ol style="list-style-type: none"> A. The event warrants downgrade to Event Level 2 or Event Level 3 if seepage stops AND the water level the in the lake is lowered below the level of seepage YET there is damage to the dam that prevents safe impoundment of water. All contacts on Event Level 1 Notification Flowchart shall be notified of a downgrade to Event Level 2 or Event Level 3. B. The event remains at the current Event Level 1 (No change in situation). C. Event may be Terminated only when either: <ul style="list-style-type: none"> • Seepage flows have stopped AND it has been determined by <u>NC Dam Safety</u> staff to safely impound water or; • The dam has failed AND there is no longer a threat to the downstream public as determined by <u>NC Dam Safety</u> staff. <p>Notify all contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.</p>		
Based on this determination, follow the appropriate actions		
A) EVENT LEVEL DOWNGRADE	B) EVENT LEVEL 1 (NO CHANGE)	C) TERMINATION
Go to Event Level 2 or Event Level 3 Steps 2 & 3	Continue recommended actions on this sheet	Go to Termination and After-Action Review (Step 4)

LEVEL: 2, YELLOW – SINKHOLES Defined as: “Observation of new sinkhole in reservoir area or on embankment”	Sheet D2
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RECOMMENDED ACTIONS

Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor

1. Ensure that Event Level 2 notifications on Figure 2.2 have been made.
2. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected **without compromising the safety of anyone performing these tasks**. Monitor water levels and change in diameter or depth of sinkhole every 2 hours for changes.
3. If conditions permit:
 - If the inflow source of the seepage is within the reservoir, plug the flow with available material – hay bales, bentonite, or plastic sheeting.
 - Place an inverted filter (layered sand and gravel) over exit area of soil loss to hold soil material in place.
 - Use a bottom drain, installed siphon, or pumps on site to provide additional drawdown of the lake level until below the bottom of a sinkhole. Caution must be taken to not add additional flooding to properties downstream.
4. Monitor off-site areas to include instrumentation (Applicable to all Action Data Sheets with reference to Instrumentation).
5. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2).
6. Contact Randy Holloway at least twice daily to report the latest observations and conditions. If conditions change significantly, go to the **re-evaluation/decision section** and follow relevant steps immediately.

Randy Holloway

1. Review all pertinent information to recommend appropriate actions to Trent Christenbury in conjunction with NC Dam Safety.
2. Provide oversight to corrective actions or work as required.
3. Observe conditions on site periodically and provide decision support as appropriate.

NC Dam Safety

1. Provide decision support and technical support to the Incident Commander as appropriate.

RE-EVALUATION / DECISION Based upon Table 1.3

Evaluate conditions at least twice daily or when conditions change significantly. Using Table 1.3, determine if:

- A. The event can be terminated when the reservoir level is lowered below the bottom level of sinkhole.
- B. The event remains at the current Event Level 2 (No change in condition).
- C. The event warrants escalation to Event Level 1 if the sinkhole rapidly enlarges or new sinkholes form.

Notify **all** contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.

Based on this determination, follow the appropriate actions

A) TERMINATION	B) EVENT LEVEL 2 (NO CHANGE)	C) EVENT LEVEL ESCALATION
Go to Termination and After-Action Review (Step 4)	Continue recommended actions on this sheet	Go to Event Level 1 Steps 2 & 3

LEVEL: 1, RED – SINKHOLES Defined as: “Rapidly enlarging sinkhole or new sinkholes forming”		Sheet D1
RECOMMENDED ACTIONS		
<p><u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u></p> <ol style="list-style-type: none"> 1. Ensure that Event Level 1 notifications on Figure 2.3 have been made. 2. Recommend to the <u>Incident Commander</u> IMMEDIATE EVACUATION downstream of the dam. 3. Stay a safe distance away from the dam. The immediate concern is the safety of the downstream public. 4. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). <p><u>Richard McMillian, Engineer</u></p> <ol style="list-style-type: none"> 1. Provide decision support and technical support to <u>Randy Holloway</u> and <u>Trent Christenbury</u> as appropriate. 2. Advise <u>Randy Holloway</u> and <u>Trent Christenbury</u> of dangerous conditions at the dam. <p><u>NC Dam Safety</u></p> <ol style="list-style-type: none"> 1. Provide decision support and technical support to the <u>Incident Commander</u> as appropriate. 		
RE-EVALUATION / DECISION Based upon Table 1.3		
<p>Evaluate conditions CONTINUOUSLY. Using Table 1.3, determine if:</p> <ol style="list-style-type: none"> A. The event warrants downgrade to Event Level 2 if there is no longer an immediate threat of dam failure AND the water level in the lake is lowered below the bottom level of sinkhole YET there is damage to the dam that prevents safe impoundment of water. All contacts on Event Level 1 Notification Flowchart shall be notified of a downgrade to Event Level 2. B. The event remains at the current Event Level 1 (No change in situation). C. Event may be Terminated only when either: <ul style="list-style-type: none"> • There is no longer a threat of dam failure AND it has been determined by <u>NC Dam Safety</u> staff to safely impound water or; • The dam has failed AND there is no longer a threat to the downstream public as determined by <u>NC Dam Safety</u> staff. <p>Notify all contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.</p>		
Based on this determination, follow the appropriate actions		
A) EVENT LEVEL DOWNGRADE	B) EVENT LEVEL 1 (NO CHANGE)	C) TERMINATION
Go to Event Level 2 Steps 2 & 3	Continue recommended actions on this sheet	Go to Termination and After- Action Review (Step 4)

LEVEL: 3, GREEN – EMBANKMENT CRACKING		Sheet E3
Defined as: “New cracks in the embankment greater than ¼-inch wide without seepage”		
RECOMMENDED ACTIONS		
<u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP SUPERVISOR</u>		
<ol style="list-style-type: none"> 1. Ensure that Event Level 3 notifications on Figure 2.1 have been made. 2. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected without compromising the safety of anyone performing these tasks. Monitor water levels and crack widths for movement or seepage at least daily. 3. Use a bottom drain, installed siphon, or pumps on site to provide additional drawdown of the lake level to relieve pressure on the embankment. Caution must be taken to not add additional flooding to properties downstream. 4. Monitor off-site areas to include instrumentation (Applicable to all Action Data Sheets with reference to Instrumentation). 5. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). 6. Contact <u>Richard McMillian, Engineer</u> at least daily to report the latest observations and conditions. If conditions change significantly, go to the re-evaluation/decision section and follow relevant steps immediately. 		
<u>Richard McMillian</u>		
<ol style="list-style-type: none"> 1. Review all pertinent information to recommend appropriate actions to <u>Trent Christenbury</u> in conjunction with <u>NC Dam Safety</u>. 2. Provide oversight to corrective actions or work as required. 3. Observe conditions on site periodically and provide decision support as appropriate. 		
<u>NC Dam Safety</u>		
<ol style="list-style-type: none"> 1. Provide decision support and technical support to the <u>Incident Commander</u> and <u>Randy Holloway</u> as appropriate. 		
RE-EVALUATION / DECISION Based upon Table 1.3		
Evaluate conditions at least daily or when conditions change significantly. Using Table 1.3, determine if:		
<ol style="list-style-type: none"> A. The event can be terminated when embankment cracking has been remedied AND it has been determined by <u>NC Dam Safety</u> staff to safely impound water. B. The event remains at the current Event Level 3 (No change in situation). 		
Notify all contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.		
Based on this determination, follow the appropriate actions		
A) TERMINATION	B) EVENT LEVEL 3 (NO CHANGE)	
Go to Termination and After-Action Review (Step 4)	Continue recommended actions on this sheet	

LEVEL: 2, YELLOW – EMBANKMENT MOVEMENT Defined as: “Visual movement/slippage of the embankment slope”		Sheet F2
RECOMMENDED ACTIONS		
<u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u>		
<ol style="list-style-type: none"> 1. Ensure that Event Level 2 notifications on Figure 2.2 have been made. 2. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected without compromising the safety of anyone performing these tasks. Monitor water levels and development of new cracks or movements every 2 hours for changes. 3. If conditions permit: <ul style="list-style-type: none"> • Use a bottom drain, installed siphon, or pumps on site to provide additional drawdown of the lake level to relieve pressure on the embankment. Caution must be taken to not add additional flooding to properties downstream. • Stabilize slides on the downstream slope by weighting the toe area below the slide with additional soil, rock, or gravel. 4. Monitor off-site areas to include instrumentation (Applicable to all Action Data Sheets with reference to Instrumentation). 5. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). 6. Contact <u>Richard McMillian, Engineer</u> least twice daily to report the latest observations and conditions. If conditions change significantly, go to the re-evaluation/decision section and follow relevant steps immediately. 		
<u>Richard McMillian</u>		
<ol style="list-style-type: none"> 1. Review all pertinent information to recommend appropriate actions to <u>Trent Christenbury</u> in conjunction with <u>NC Dam Safety</u>. 2. Provide oversight to corrective actions or work as required. 3. Observe conditions on site periodically and provide decision support as appropriate. 		
<u>NC Dam Safety</u>		
<ol style="list-style-type: none"> 1. Provide decision support and technical support to the <u>Incident Commander</u> as appropriate. 		
RE-EVALUATION / DECISION Based upon Table 1.3		
Evaluate conditions at least twice daily or when conditions change significantly. Using Table 1.3, determine if:		
<ol style="list-style-type: none"> A. The event can be terminated when the reservoir level is lowered below the area of concern AND it has been determined by <u>NC Dam Safety</u> staff to safely impound water. B. The event remains at the current Event Level 2 (No change in situation). C. The event warrants escalation to Event Level 1 if the integrity of the dam appears to be threatened by sudden or rapidly proceeding slides of the embankment slopes. 		
Notify all contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.		
Based on this determination, follow the appropriate actions		
A) TERMINATION	B) EVENT LEVEL 2 (NO CHANGE)	C) EVENT LEVEL ESCALATION
Go to Termination and After-Action Review (Step 4)	Continue recommended actions on this sheet	Go to Event Level 1 Steps 2 & 3

LEVEL: 1, RED – EMBANKMENT MOVEMENT		Sheet F1
Defined as: “Sudden or rapidly proceeding slides of the embankment slopes”		
RECOMMENDED ACTIONS		
<u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u>		
<ol style="list-style-type: none"> 1. Ensure that Event Level 1 notifications on Figure 2.3 have been made. 2. Recommend to the <u>Incident Commander</u> IMMEDIATE EVACUATION downstream of the dam. 3. Stay a safe distance away from the dam. The immediate concern is the safety of the downstream public. 4. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). 		
<u>Richard McMillian, Engineer</u>		
<ol style="list-style-type: none"> 1. Provide decision support and technical support to <u>Randy Holloeay</u> and <u>Trent Christenbury</u> as appropriate. 2. Advise <u>Randy Holloway</u> and <u>Trent Christenbury</u> of dangerous conditions at the dam. 		
<u>NC Dam Safety</u>		
<ol style="list-style-type: none"> 1. Provide decision support and technical support to the <u>Incident Commander</u> as appropriate. 		
RE-EVALUATION / DECISION Based upon Table 1.3		
Evaluate conditions CONTINUOUSLY. Using Table 1.3, determine if:		
<ol style="list-style-type: none"> A. The event warrants downgrade to Event Level 2 if there is no longer an immediate threat of dam failure AND the water level in the lake is lowered below the bottom level of embankment fill YET there is damage to the dam that prevents safe impoundment of water. All contacts on Event Level 1 Notification Flowchart shall be notified of a downgrade to Event Level 2. B. The event remains at the current Event Level 1 (No change in situation). C. Event may be Terminated only when either: <ul style="list-style-type: none"> • There is no longer a threat of dam failure AND it has been determined by <u>NC Dam Safety</u> staff to safely impound water or; • The dam has failed AND there is no longer a threat to the downstream public as determined by <u>NC Dam Safety</u> staff. 		
Notify all contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.		
Based on this determination, follow the appropriate actions		
A) EVENT LEVEL DOWNGRADE	B) EVENT LEVEL 1 (NO CHANGE)	C) TERMINATION
Go to Event Level 2 Steps 2 & 3	Continue recommended actions on this sheet	Go to Termination and After- Action Review (Step 4)

LEVEL: 3, GREEN – INSTRUMENTS		Sheet G3
Defined as: “Instrumentation readings beyond predetermined values”		
RECOMMENDED ACTIONS		
<u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u>		
<ol style="list-style-type: none"> 1. Ensure that Event Level 3 notifications on Figure 2.1 have been made. 2. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected without compromising the safety of anyone performing these tasks. Monitor water levels and instrument readings for changes or anomalies at least daily. 3. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). 4. Contact <u>Richard McMillian, Engineer</u> at least daily to report the latest observations and conditions. If instrumentation readings at the dam are determined to indicate a potentially dangerous situation, go to the re-evaluation/decision section and follow relevant steps immediately. 		
<u>Richard McMillian</u>		
<ol style="list-style-type: none"> 1. Review all pertinent information to recommend appropriate actions to <u>Trent Christenbury</u> in conjunction with <u>NC Dam Safety</u>. 2. Provide oversight to corrective actions or work as required. 3. Observe conditions on site periodically and provide decision support as appropriate. 		
<u>NC Dam Safety</u>		
<ol style="list-style-type: none"> 1. Provide decision support and technical support to the <u>Incident Commander</u> and <u>Randy Holloway</u> as appropriate. 		
RE-EVALUATION / DECISION Based upon Table 1.3		
Evaluate conditions at least daily or when conditions change significantly. Using Table 1.3, determine if:		
<ol style="list-style-type: none"> A. The event can be terminated when instrumentation readings return to normal or if the instrument reading is determined to be invalid. B. The event remains at the current Event Level 3 (No change in situation). 		
Notify all contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.		
Based on this determination, follow the appropriate actions		
A) TERMINATION	B) EVENT LEVEL 3 (NO CHANGE)	
Go to Termination and After-Action Review (Step 4)	Continue recommended actions on this sheet	

LEVEL: 3, GREEN – EARTHQUAKE Defined as: “Measurable earthquake felt or reported near the dam and the dam appears to be stable”	Sheet H3
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RECOMMENDED ACTIONS

Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor

1. Ensure that Event Level 3 notifications on Figure 2.1 have been made.
2. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected **without compromising the safety of anyone performing these tasks.**
3. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2).
4. Be prepared for additional aftershocks.
5. Contact **Richard McMillian, Engineer** to report on the latest observations and conditions.
6. If an inspection has determined a potentially dangerous situation, go to the **re-evaluation/decision section** and follow relevant steps immediately.

Richard McMillian

1. Review all pertinent information to recommend appropriate actions to **Trent Christenbury** in conjunction with **NC Dam Safety**.
2. Provide oversight to corrective actions or work as required.
3. Observe conditions on site periodically and provide decision support as appropriate.

NC Dam Safety

1. Provide decision support and technical support to the **Incident Commander** and **Randy Holloway** as appropriate.

RE-EVALUATION / DECISION Based upon Table 1.3

Evaluate conditions at least daily or when conditions change significantly. Using Table 1.3, determine if:

- A. The event can be terminated when the dam has been determined to be stable and a sufficient amount of time has passed when additional aftershocks are not expected.
- B. The event remains at the current Event Level 3 (Until a complete inspection by **Richard McMillian, Engineer** and/or **NC Dam Safety** has determined the dam to be stable).
- C. The event warrants escalation to Event Level 1 if an inspection has determined the earthquake has resulted in visible damage to the dam or appurtenances.

Notify **all** contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.

Based on this determination, follow the appropriate actions

A) TERMINATION	B) EVENT LEVEL 3 (NO CHANGE)	C) EVENT LEVEL ESCALATION
Go to Termination and After-Action Review (Step 4)	Continue recommended actions on this sheet	Go to Event Level 1 Steps 2 & 3

LEVEL: 1, RED – EARTHQUAKE Defined as: “Earthquake resulting in visible damage to the dam or appurtenances”		Sheet H1
RECOMMENDED ACTIONS		
<u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u>		
1. Ensure that Event Level 1 notifications on Figure 2.3 have been made. 2. Recommend to the <u>Incident Commander</u> IMMEDIATE EVACUATION downstream of the dam. 3. Stay a safe distance away from the dam. The immediate concern is the safety of the downstream public. 4. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2).		
<u>Richard McMillian, Engineer</u>		
1. Provide decision support and technical support to <u>Randy Holloway</u> and <u>Trent Christenbury</u> as appropriate. 2. Advise <u>Randy Hololoway</u> and <u>Trent Christenbury</u> of dangerous conditions at the dam.		
<u>NC Dam Safety</u>		
1. Provide decision support and technical support to the <u>Incident Commander</u> as appropriate.		
RE-EVALUATION / DECISION Based upon Table 1.3		
Evaluate conditions CONTINUOUSLY. Using Table 1.3, determine if:		
A. The event warrants downgrade to Event Level 3 if there is no longer an immediate threat of dam failure AND water level in the lake is lowered below the bottom level of embankment fill YET there is damage to the dam that prevents safe impoundment of water. All contacts on Event Level 1 Notification Flowchart shall be notified of downgrade to Event Level 3. B. The event remains at the current Event Level 1 (No change in situation). C. Event may be Terminated only when either: <ul style="list-style-type: none"> • There is no longer a threat of dam failure AND it has been determined by <u>NC Dam Safety</u> staff to safely impound water or; • The dam has failed AND there is no longer a threat to the downstream public as determined by <u>NC Dam Safety</u> staff. 		
Notify all contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.		
Based on this determination, follow the appropriate actions		
A) EVENT LEVEL DOWNGRADE	B) EVENT LEVEL 1 (NO CHANGE)	C) TERMINATION
Go to Event Level 3 Steps 2 & 3	Continue recommended actions on this sheet	Go to Termination and After- Action Review (Step 4)

LEVEL: 3, GREEN – SECURITY THREAT Defined as: “Reported, unverified bomb threat”	Sheet I3
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RECOMMENDED ACTIONS

Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor

1. Ensure that Event Level 3 notifications on Figure 2.1 have been made.
2. Notify Local Law Enforcement to help evaluate the situation.
3. Access the dam only if the area has been cleared by Law Enforcement.
4. Stay a safe distance away from the dam. The immediate concern is the safety of the downstream public.
5. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2).
6. If an evaluation by Local Law Enforcement has determined a potentially dangerous situation, go to the **re-evaluation/decision section** and follow relevant steps immediately.

Richard McMillian, Engineer

1. Review all pertinent information to recommend appropriate actions to **Trent Christenbury** in conjunction with **NC Dam Safety**.
2. Provide oversight to corrective actions or work as required.
3. Observe conditions on site periodically and provide decision support as appropriate.

NC Dam Safety

1. Provide decision support and technical support to the **Incident Commander** and **Randy Holloway** as appropriate.

RE-EVALUATION / DECISION Based upon Table 1.3

Evaluate conditions at least daily or when conditions change significantly. Using Table 1.3, determine if:

- A. The event can be terminated when Local Law Enforcement has determined the security threat to be unsubstantiated.
- B. The event remains at the current Event Level 3 (No change in situation).
- C. The event warrants escalation to Event Level 2 if an evaluation has determined a substantiated security threat or Event Level 1 if the security threat has resulted in damage to the dam or appurtenances.

Notify **all** contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.

Based on this determination, follow the appropriate actions

A) TERMINATION	B) EVENT LEVEL 3 (NO CHANGE)	C) EVENT LEVEL ESCALATION
Go to Termination and After-Action Review (Step 4)	Continue recommended actions on this sheet	Go to Event Level 2 or Event Level 1 Steps 2 & 3

<p>LEVEL: 2, YELLOW – SECURITY THREAT Defined as: “Verified bomb threat that, if carried out, could result in damage to the dam or appurtenances with no impacts to the functioning of the dam”</p>		<p>Sheet 12</p>
<p>RECOMMENDED ACTIONS</p>		
<p><u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u></p> <ol style="list-style-type: none"> 1. Ensure that Event Level 2 notifications on Figure 2.2 have been made. 2. Notify Local Law Enforcement to help evaluate the situation. 3. Access the dam only if area has been cleared by Law Enforcement. 4. Stay a safe distance away from the dam. The immediate concern is the safety of the downstream public. 5. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). 6. If an inspection has determined a potentially dangerous situation, go to the re-evaluation/decision section and follow relevant steps immediately. 		
<p><u>Richard McMillian, Engineer</u></p> <ol style="list-style-type: none"> 1. Review all pertinent information to recommend appropriate actions to <u>Trent Christenbury</u> in conjunction with <u>NC Dam Safety</u>. 2. Provide oversight to corrective actions or work as required. 3. Observe conditions on site periodically and provide decision support as appropriate. 		
<p><u>NC Dam Safety</u></p> <ol style="list-style-type: none"> 1. Provide decision support and technical support to the <u>Incident Commander</u> as appropriate. 		
<p>RE-EVALUATION / DECISION Based upon Table 1.3</p>		
<p>Evaluate conditions at least twice daily or when conditions change significantly. Using Table 1.3, determine if:</p> <ol style="list-style-type: none"> A. The event warrants downgrade to Event Level 3 if the security threat is removed YET damage to the dam or appurtenances is in need of repair. Notify all contacts on Event Level 2 Notification Flowchart that the Event Level will be downgraded to Event Level 3. B. The event remains at the current Event Level 2 (No change in situation). C. The event warrants escalation to Event Level 1 if the security threat has resulted in damage to the dam or appurtenances. <p>Notify all contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.</p>		
<p>Based on this determination, follow the appropriate actions</p>		
<p>A) EVENT LEVEL DOWNGRADE</p>	<p>B) EVENT LEVEL 2 (NO CHANGE)</p>	<p>C) EVENT LEVEL ESCALATION</p>
<p>Go to Event Level 3 Steps 2 & 3</p>	<p>Continue recommended actions on this sheet</p>	<p>Go to Event Level 1 Steps 2 & 3</p>

LEVEL: 1, RED – SECURITY THREAT Defined as: “A detonated bomb that has resulted in damage to the dam or appurtenances”		Sheet II
RECOMMENDED ACTIONS		
<p><u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u></p> <ol style="list-style-type: none"> 1. Ensure that Event Level 1 notifications on Figure 2.3 have been made. 2. Recommend to the <u>Incident Commander</u> IMMEDIATE EVACUATION downstream of the dam. 3. Stay a safe distance away from the dam. The immediate concern is the safety of the downstream public. 4. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). <p><u>Richard McMillian, Engineer</u></p> <ol style="list-style-type: none"> 1. Provide decision support and technical support to <u>Randy Holloway</u> and <u>Trent Christenbury</u> as appropriate. 2. Advise <u>Randy Holloway</u> and <u>Trent Christenbury</u> of dangerous conditions at the dam. <p><u>NC Dam Safety</u></p> <ol style="list-style-type: none"> 1. Provide decision support and technical support to the <u>Incident Commander</u> as appropriate. 		
RE-EVALUATION / DECISION Based upon Table 1.3		
<p>Evaluate conditions CONTINUOUSLY. Using Table 1.3, determine if:</p> <ol style="list-style-type: none"> A. The event warrants downgrade to Event Level 2 or Event Level 3 if there is no longer an immediate threat of dam failure AND water level in the lake is lowered below the bottom level of embankment fill YET there is damage to the dam that prevents safe impoundment of water. All contacts on Event Level 1 Notification Flowchart shall be notified of downgrade to Event Level 2 or Event Level 3. B. The event remains at the current Event Level 1 (No change in situation). C. Event may be Terminated only when either: <ul style="list-style-type: none"> • There is no longer a threat of dam failure AND it has been determined by <u>NC Dam Safety</u> staff to safely impound water or; • The dam has failed AND there is no longer a threat to the downstream public as determined by <u>NC Dam Safety</u> staff. <p>Notify all contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.</p>		
Based on this determination, follow the appropriate actions		
A) EVENT LEVEL DOWNGRADE	B) EVENT LEVEL 1 (NO CHANGE)	C) TERMINATION
Go to Event Level 2 or Event Level 3 Steps 2 & 3	Continue recommended actions on this sheet	Go to Termination and After- Action Review (Step 4)

LEVEL: 3, GREEN – SABOTAGE/VANDALISM Defined as: “Damage to or modification to the dam or appurtenances with no impacts to the functioning of the dam”	Sheet J3
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RECOMMENDED ACTIONS

Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor

1. Ensure that Event Level 3 notifications on Figure 2.1 have been made.
2. Notify Local Law Enforcement to help evaluate the situation.
3. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected **without compromising the safety of anyone performing these tasks.**
4. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2).
5. Contact **Richard McMillian, Engineer** to report on the latest observations and conditions.
6. If an inspection has determined a potentially dangerous situation, go to the **re-evaluation/decision section** and follow relevant steps immediately.

Richard McMillian

1. Review all pertinent information to recommend appropriate actions to the **Trent Christenbury** on conjunction with **NC Dam Safety**.
2. Provide oversight to corrective actions or work as required.
3. Observe conditions on site periodically and provide decision support as appropriate.

NC Dam Safety

1. Provide decision support and technical support to the **Incident Commander** and **Trent Christenbury** as appropriate.

RE-EVALUATION / DECISION Based upon Table 1.3

Evaluate conditions at least daily or when conditions change significantly. Using Table 1.3, determine if:

- A. The event can be terminated when **Local Law Enforcement** has determined the sabotage/vandalism to have no impacts to the functioning of the dam.
- B. The event remains at the current Event Level 3 (No change in situation).
- C. The event warrants escalation to Event Level 2 if an evaluation has determined damage to the dam or appurtenances that has resulted in seepage flow or Event Level 1 if an evaluation has determined damage to the dam or appurtenances that has resulted in uncontrolled water release.

Notify **all** contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.

Based on this determination, follow the appropriate actions

A) TERMINATION	B) EVENT LEVEL 3 (NO CHANGE)	C) EVENT LEVEL ESCALATION
Go to Termination and After-Action Review (Step 4)	Continue recommended actions on this sheet	Go to Event Level 2 or Event Level 1 Steps 2 & 3

LEVEL: 2, YELLOW – SABOTAGE/VANDALISM Defined as: “Damage to dam or appurtenances that has resulted in seepage flow”		Sheet J2
RECOMMENDED ACTIONS		
<p><u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u></p> <ol style="list-style-type: none"> 1. Ensure that Event Level 2 notifications on Figure 2.2 have been made. 2. Notify Local Law Enforcement to help evaluate the situation. 3. Access the dam only if area has been cleared by Law Enforcement. 4. Stay a safe distance away from the dam. The immediate concern is the safety of the downstream public. 5. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). 6. If an inspection has determined a potentially dangerous situation, go to the re-evaluation/decision section and follow relevant steps immediately. <p><u>Richard McMillian, Engineer</u></p> <ol style="list-style-type: none"> 1. Review all pertinent information to recommend appropriate actions to <u>Trent Christenbury</u> in conjunction with <u>NC Dam Safety</u>. 2. Provide oversight to corrective actions or work as required. 3. Observe conditions on site periodically and provide decision support as appropriate. <p><u>NC Dam Safety</u></p> <ol style="list-style-type: none"> 1. Provide decision support and technical support to the <u>Incident Commander</u> as appropriate. 		
RE-EVALUATION / DECISION Based upon Table 1.3		
Evaluate conditions at least twice daily or when conditions change significantly. Using Table 1.3, determine if:		
<ol style="list-style-type: none"> A. The event warrants downgrade to Event Level 3 if the sabotage/vandalism has been remedied YET damage to the dam or appurtenances is in need of repair. Notify all contacts on Event Level 2 Notification Flowchart that the Event Level will be downgraded to Event Level 3. B. The event remains at the current Event Level 2 (No change in situation). C. The event warrants escalation to Event Level 1 if an evaluation has determined damage to the dam or appurtenances that has resulted in uncontrolled water release. Notify all contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.		
Based on this determination, follow the appropriate actions		
A) EVENT LEVEL DOWNGRADE	B) EVENT LEVEL 2 (NO CHANGE)	C) EVENT LEVEL ESCALATION
Go to Event Level 3 Steps 2 & 3	Continue recommended actions on this sheet	Go to Event Level 1 Steps 2 & 3

LEVEL: 1, RED – SABOTAGE/VANDALISM		Sheet J1
Defined as: “Damage to dam or appurtenances that has resulted in uncontrolled water release”		
RECOMMENDED ACTIONS		
<u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u>		
<ol style="list-style-type: none"> 1. Ensure that Event Level 1 notifications on Figure 2.3 have been made. 2. Recommend to the <u>Incident Commander</u> IMMEDIATE EVACUATION downstream of the dam. 3. Stay a safe distance away from the dam. The immediate concern is the safety of the downstream public. 4. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). 		
<u>Richard McMillian, Engineer</u>		
<ol style="list-style-type: none"> 1. Provide decision support and technical support to <u>Randy Holloway</u> and <u>Trent Christenbury</u> as appropriate. 2. Advise <u>Randy Holloway</u> and <u>Trent Christenbury</u> of dangerous conditions at the dam. 		
<u>NC Dam Safety</u>		
<ol style="list-style-type: none"> 1. Provide decision support and technical support to the <u>Incident Commander</u> as appropriate. 		
RE-EVALUATION / DECISION Based upon Table 1.3		
Evaluate conditions CONTINUOUSLY. Using Table 1.3, determine if:		
<ol style="list-style-type: none"> A. The event warrants downgrade to Event Level 2 or Event Level 3 if there is no longer an immediate threat of dam failure AND water level in the lake is lowered below the bottom level of embankment fill YET there is damage to the dam that prevents safe impoundment of water. All contacts on Event Level 1 Notification Flowchart shall be notified of downgrade to Event Level 2 or Event Level 3. B. The event remains at the current Event Level 1 (No change in situation). C. Event may be Terminated only when either: <ul style="list-style-type: none"> • There is no longer a threat of dam failure AND it has been determined by <u>NC Dam Safety</u> staff to safely impound water or; • The dam has failed AND there is no longer a threat to the downstream public as determined by <u>NC Dam Safety</u> staff. 		
Notify all contacts on the Notification Flowchart to advise of the current situation and anticipated strategies.		
Based on this determination, follow the appropriate actions		
A) EVENT LEVEL DOWNGRADE	B) EVENT LEVEL 1 (NO CHANGE)	C) TERMINATION
Go to Event Level 2 or Event Level 3 Steps 2 & 3	Continue recommended actions on this sheet	Go to Termination and After- Action Review (Step 4)

LEVEL: 3, GREEN – BLOCKED CULVERT/SPILLWAY Defined as: “Debris is blocking a spillway pipe, causing lake level to rise”		Sheet K3
RECOMMENDED ACTIONS		
<p><u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u></p> <ol style="list-style-type: none"> 1. Ensure that Event Level 3 notifications on Figure 2.1 have been made. 2. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected without compromising the safety of anyone performing these tasks. Monitor water levels and spillway area at least daily. 3. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). 4. Contact the <u>Richard McMillian, Engineer</u> at least daily to report the latest observations and conditions. If conditions change significantly, go to the re-evaluation/decision section and follow relevant steps immediately. <p><u>Richard McMillian</u></p> <ol style="list-style-type: none"> 1. Review all pertinent information to recommend appropriate actions to <u>Trent Christenbury</u> in conjunction with <u>NC Dam Safety</u> staff. 2. Provide oversight to corrective actions or work as required. 3. Observe conditions on site periodically and provide decision support as appropriate. <p><u>NC Dam Safety</u></p> <ol style="list-style-type: none"> 1. Provide decision support and technical support to the <u>Incident Commander</u> and <u>Randy Holloway</u> as appropriate. 		
RE-EVALUATION / DECISION Based upon Table 1.3		
Evaluate conditions at least daily or when conditions change significantly. Using Table 1.3, determine if: <ol style="list-style-type: none"> A. The event can be terminated when debris is removed from the spillway pipe and the reservoir level has returned to normal pool elevation. B. The event remains at the current Event Level 3 (No change in situation). Notify all contacts on the Notification Flowchart to advise of current situation and anticipated strategies.		
Based on this determination, follow the appropriate actions		
A) TERMINATION	B) EVENT LEVEL 3 (NO CHANGE)	
Go to Termination and After-Action Review (Step 4)	Continue recommended actions on this sheet	

LEVEL: 3, GREEN – SPILLWAYS/STRUCTURAL Defined as: “New minor spillway cracking, spalling, or damage to the spillway gate so that it is unable to be closed”		Sheet L3
RECOMMENDED ACTIONS		
<u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u>		
1. Ensure that Event Level 3 notifications on Figure 2.1 have been made. 2. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected without compromising the safety of anyone performing these tasks . Monitor water levels and crack widths for movement or seepage at least daily. 3. Use a bottom drain, installed siphon, or pumps on site to provide additional drawdown of the lake level to a safe elevation. Caution must be taken to not add additional flooding to properties downstream. 4. Install stop logs to isolate the impacted gate bay. 5. Monitor off-site areas to include instrumentation (Applicable to all Action Data Sheets with reference to Instrumentation). 6. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). 7. Contact <u>Richard McMillian, Engineer</u> , at least daily to report the latest observations and conditions. If conditions change significantly, go to the re-evaluation/decision section and follow relevant steps immediately.		
<u>Richard McMillian</u>		
1. Review all pertinent information to recommend appropriate actions to <u>Trent Christenbury</u> in conjunction with <u>NC Dam Safety</u> . 2. Provide oversight to corrective actions or work as required. 3. Observe conditions in site periodically and provide decision support as appropriate.		
<u>NC Dam Safety</u>		
1. Provide decision support and technical support to the <u>Incident Commander</u> and <u>Randy Holloway</u> as appropriate.		
RE-EVALUATION / DECISION Based upon Table 1.3		
Evaluate conditions at least daily or when conditions change significantly. Using Table 1.3, determine if:		
A. The event can be terminated when it has been determined the cracking, spalling, or damage to the spillway gate does not affect its ability to be closed. B. The event remains at the current Event Level 3 (No change in situation). C. The event warrants escalation to Event Level 2 if new spillway cracks or spalls result from structure distress or spillway gates become inoperable or Event Level 1 if mass movement of the concrete structure begins.		
Notify all contacts on the Notification Flowchart to advise of current situation and anticipated strategies.		
Based on this determination, follow the appropriate actions		
A) TERMINATION	B) EVENT LEVEL 3 (NO CHANGE)	C) EVENT LEVEL ESCALATION
Go to Termination and After-Action Review (Step 4)	Continue recommended actions on this sheet	Go to Event Level 2 or Event Level 1 Steps 2 & 3

LEVEL: 2, YELLOW – SPILLWAYS/STRUCTURAL Defined as: “New spillway cracking or spalling resulting from structure distress or gates become inoperable”		Sheet L2
RECOMMENDED ACTIONS		
<u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u>		
1. Ensure that Event Level 2 notifications on Figure 2.2 have been made. 2. Ensure that the dam and surrounding areas are carefully monitored, and every part of the dam is inspected without compromising the safety of anyone performing these tasks . Monitor water levels and development of new cracks or movements every 2 hours for changes. 3. If conditions permit: <ul style="list-style-type: none"> • Use a bottom drain, installed siphon, or pumps on site to provide additional drawdown of the lake level to a safe elevation. Caution must be taken to not add additional flooding to properties downstream. • Employ experienced, professional divers to assess the problem and possibly implement repairs, if necessary. • Install stop logs to isolate the impacted gate bay. 4. Monitor off-site areas to include instrumentation (Applicable to all Action Data Sheets with reference to Instrumentation). 5. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). 6. Contact <u>Richard McMillian, Engineer</u> , at least twice daily to report the latest observations and conditions. If conditions change significantly, go to the re-evaluation/decision section and follow relevant steps immediately.		
<u>Richard McMillian</u>		
1. Review all pertinent information to recommend appropriate actions to <u>Trent Christenbury</u> in conjunction with <u>NC Dam Safety</u> . 2. Provide oversight to corrective actions or work as required. 3. Observe conditions in site periodically and provide decision support as appropriate.		
<u>NC Dam Safety</u>		
1. Provide decision support and technical support to the <u>Incident Commander</u> as appropriate.		
RE-EVALUATION / DECISION Based upon Table 1.3		
Evaluate conditions at least twice daily or when conditions change significantly. Using Table 1.3, determine if:		
A. The event warrants downgrade to Event Level 3 if the reservoir level is lowered below the area of concern. Notify all contacts on Event Level 2 Notification Flowchart that the Event Level will be downgraded to Event Level 3. B. The event remains at the current Event Level 2 (No change in situation). C. The event warrants escalation to Event Level 1 if mass movement of the concrete structure begins.		
Notify all contacts on the Notification Flowchart to advise of current situation and anticipated strategies.		
Based on this determination, follow the appropriate actions		
A) EVENT LEVEL DOWNGRADE	B) EVENT LEVEL 2 (NO CHANGE)	C) EVENT LEVEL ESCALATION
Go to Event Level 3 Steps 2 & 3	Continue recommended actions on this sheet	Go to Event Level 1 Steps 2 & 3

LEVEL: 1, RED – SPILLWAYS/STRUCTURAL Defined as: “Mass movement of the concrete structure”		Sheet L1
RECOMMENDED ACTIONS		
<p><u>Randy Holloway, Town Manager assisted by Trent Christenbury, WTP Supervisor</u></p> <ol style="list-style-type: none"> 1. Ensure that Event Level 1 notifications on Figure 2.3 have been made. 2. Recommend to the <u>Incident Commander</u> IMMEDIATE EVACUATION downstream of the dam. 3. Stay a safe distance away from the dam. The immediate concern is the safety of the downstream public. 4. Record all information, observations, and actions on the Unusual or Emergency Event Log (Form 3.2). <p><u>Richard McMillian, Engineer</u></p> <ol style="list-style-type: none"> 1. Provide decision support and technical support to <u>Randy Holloway</u> and <u>Trent Christenbury</u> as appropriate. 2. Advise <u>Randy Holloway</u> and <u>Trent Christenbury</u> of dangerous conditions at the dam. <p><u>NC Dam Safety</u></p> <ol style="list-style-type: none"> 1. Provide decision support and technical support to the <u>Incident Commander</u> as appropriate. 		
RE-EVALUATION / DECISION Based upon Table 1.3		
<p>Evaluate conditions CONTINUOUSLY. Using Table 1.3, determine if:</p> <ol style="list-style-type: none"> A. The event warrants downgrade to Event Level 2 or Event Level 3 if there is no longer an immediate threat of dam failure AND water level in lake is lowered below the area of concern YET there is damage to the dam that prevents safe impoundment of water. All contacts on Event Level 1 Notification Flowchart shall be notified of a downgrade to Event Level 2 or Event Level 3. B. The event remains at the current Event Level 1 (No change in situation). C. Event may be Terminated only when either: <ul style="list-style-type: none"> • There is no longer a threat of dam failure AND it has been determined by <u>NC Dam Safety</u> staff to safely impound water or; • The dam has failed AND there is no longer a threat to the downstream public as determined by <u>NC Dam Safety</u> staff. <p>Notify all contacts on the Notification Flowchart to advise of current situation and anticipated strategies.</p>		
Based on this determination, follow the appropriate actions		
A) EVENT LEVEL DOWNGRADE	B) EVENT LEVEL 1 (NO CHANGE)	C) TERMINATION
Go to Event Level 2 or Event Level 3 Steps 2 & 3	Continue recommended actions on this sheet	Go to Termination and After-Action Review (Step 4)

Form 3.2 – Unusual or Emergency Event Log

(To Be Completed During an Emergency)

Dam Name: **Black Run Creek Dam**

County Name: **Cabarrus**

When and How the Event was Detected:

Weather Conditions:

General Description of the Emergency Situation:

Event Level Determination:

Created by (Name/Agency):

Date:	Time:	From:	Action/Event Progression:	Recorded By:

Step 4: Termination and After-Action Review

Our office recommends coordination of Step 4 with your *Cabarrus County Emergency Management* and the *Town Emergency Planner*. This section should be completed according to the different levels of emergency events. Our office is not seeking a termination and after-action review for each event/recommended action; the same termination and after-action review procedure can be developed for **Event Level 1, RED** and **Event Level 2, YELLOW**; however, a different response is needed for **Event Level 3, GREEN**.

Once EAP operations have begun under Event Levels 3, 2, or 1, the EAP operations must eventually be terminated and follow-up procedures completed. As shown in the EAP Flowchart (Figure 1.0), EAP operations can only be terminated after completing operations under Event Level 3 or Event Level 1. If Event Level 2 is declared, the operations must be designated Event Level 3 or Event Level 1 before terminating the EAP operations.

4.1 Termination Responsibilities

The *Incident Commander* is responsible for terminating the emergency response operation and relaying the decision to *Randy Holloway, Town Manager, Trent Christenbury, EAP Coordinator, Jim Sells, Emergency Planner,* and *Jason Burnett, Cabarrus County Emergency Management*. It is then the responsibility of each person to notify the same group of contacts that were notified during the original event notification process to inform those people that the event has been terminated.

Prior to termination of the Event Level 1 that has not caused actual dam failure, *Richard McMillian, Engineer* or *NC Dam Safety* will inspect the dam or require the inspection of the dam to determine whether any damage has occurred that could potentially result in loss of life, injury, or property damage. If it is determined that conditions do not pose a threat to people or property, the *Incident Commander* will be advised to terminate emergency response operations as described above.

Trent Christenbury, EAP Coordinator shall assure that the Unusual or Emergency Event Log (Form 3.2) is completed to document the emergency event and all actions that were taken. *Trent Christenbury* shall distribute copies of the completed log and a revised Record of Revisions and Updates (Appendix E) to all EAP document holders outlined in EAP Distribution Log (Appendix F).

4.2 After-Action Review

This is to be performed by *Jim Sells, Emergency Planner*.

Event Level 3, GREEN – Following the termination of an Event Level 3, ensure all parties that participated in the EAP activities are involved in a comprehensive review process. Impose a time frame within which the review is to be completed. During the review, document any EAP procedures that were followed effectively, as well as any ways that the EAP could be improved, and insert this document into Record of EAP Annual Review, Revision, and Periodic Test (Appendix D).

Event Level 2, YELLOW or **Event Level 1, RED** – Following the termination of an Event Level 2 or Event Level 1, ensure all parties that participated in the EAP activities are involved in a comprehensive review process. Impose a time frame within which the review is to be completed. During the review, document any EAP procedures that were followed effectively, as well as any ways that the EAP could be

improved, and insert this document into Record of EAP Annual Review, Revision, and Periodic Test (Appendix D). Note any extra measures that must be taken due to the increased severity of the event.

Event That Has Caused a Loss of Life, Injury or Property Damage – In addition to the course of action outlined above for Event Level 2 or Event Level 1, note any special procedures that must be followed in the event of loss of life, injury, or property damage. In general, a closer look should be taken at the EAP operations. As before, impose a reasonable time frame on the completion of these activities, and insert any conclusions into Record of EAP Annual Review, Revision, and Periodic Test (Appendix D).

Maps, Figures, and Supporting Data

ATTACHED

Maps, Figures, and Supporting Data

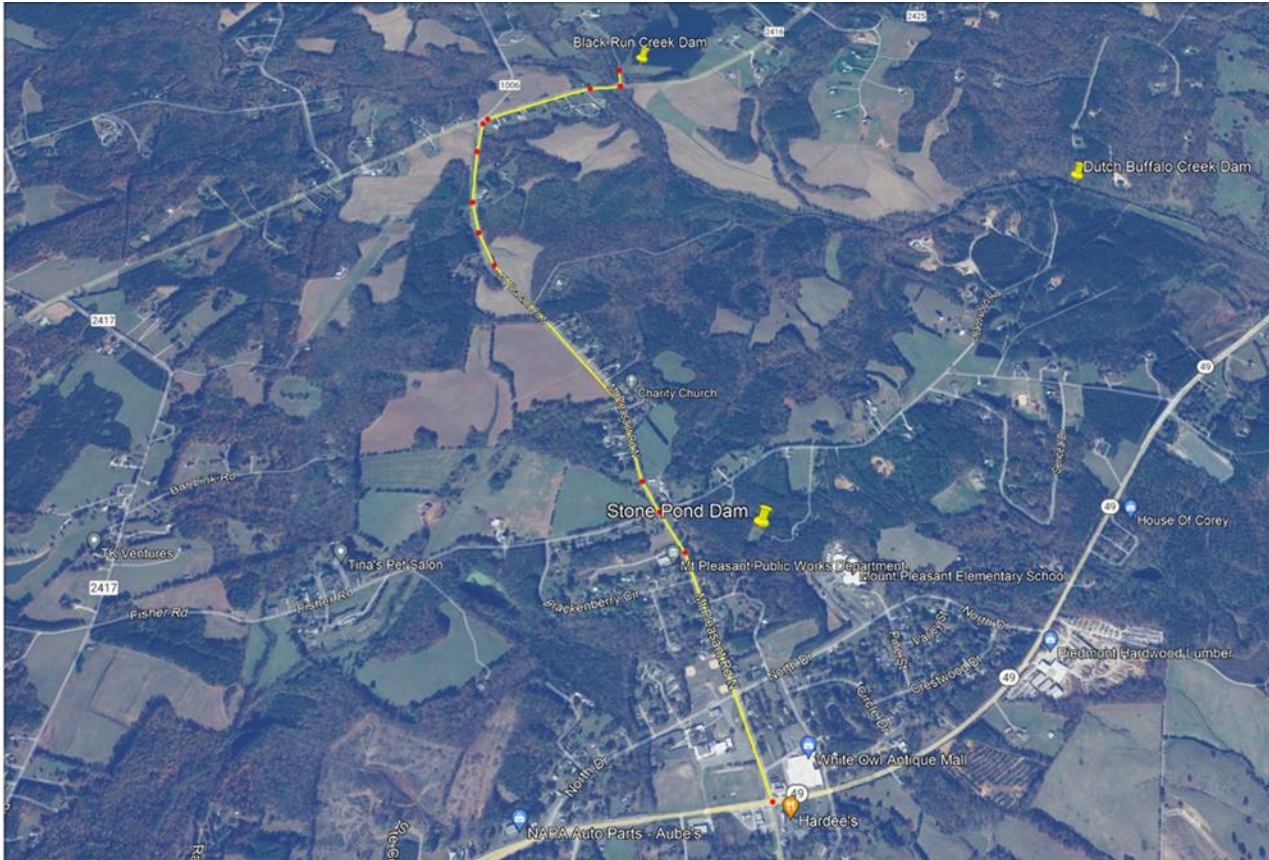
- Directions and Emergency Access Routes Map (Figure 5.1)
- Residents/Businesses/Roads/Infrastructure at Risk (Table 5.1)
- Downstream Inundation Study (Figure 5.2) **Detailed Map Attached.**
- NC Inventory of Dams Data Sheet (Figure 5.3)

Include any other maps, charts or figures deemed relevant in the case of an emergency event.

Figure 5.1 – Directions and Emergency Access Routes Map

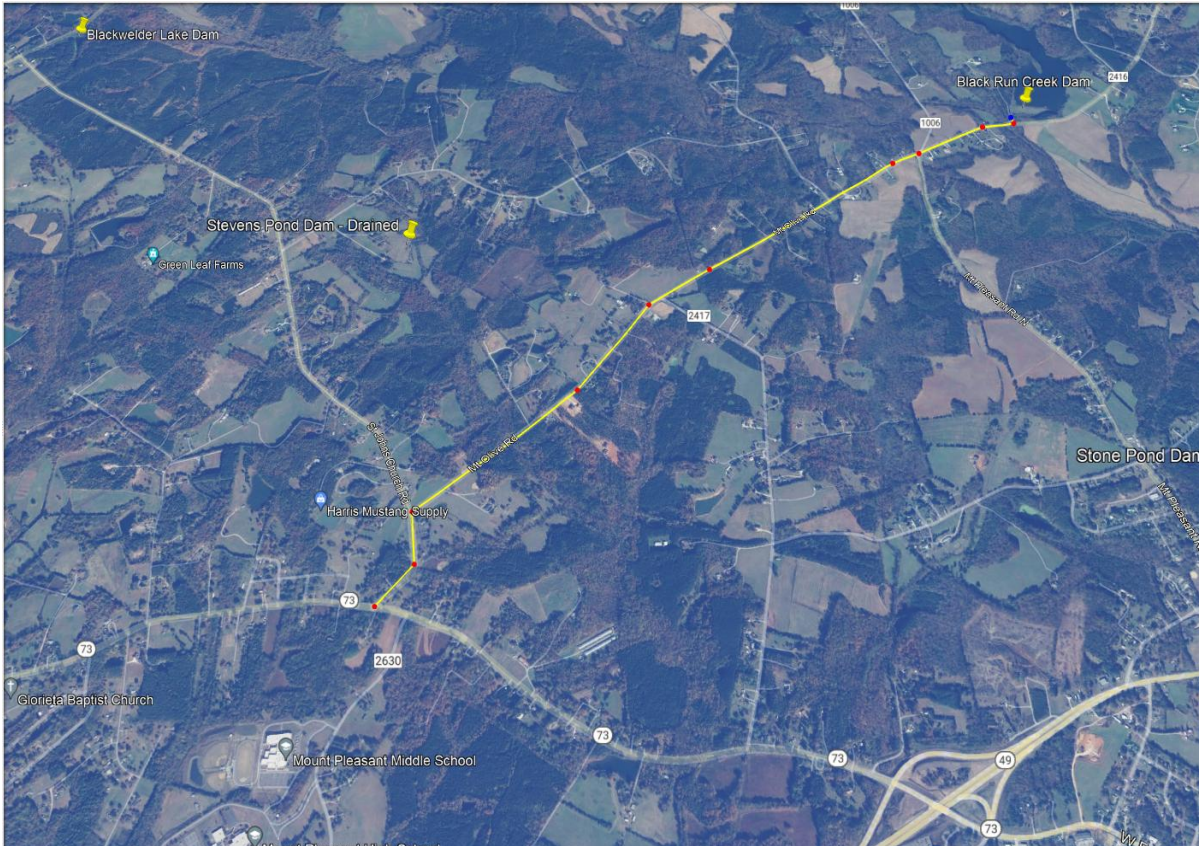
5.1.1 Southern Approach

Beginning at the intersection of N.C. Highway 49 and North Main Street in Mount Pleasant, NC (North Main Street will become Mt. Pleasant Road, State Road 1006 at the City Limits), proceed north on North Main Street for 2 miles to the intersection with Mount Olive Road (State Road: 2416). Turn right on Mt. Olive Road and then proceed .38 miles to a dirt drive on the left. The drive will be the first drive on the left after crossing the bridge over Dutch Buffalo Creek. Turn left on this road until the road forks and take the right fork. The recommended command post location will be the intersection of Mount Pleasant Road North and Mt. Olive Road.



5.1.2 Northern Approach

From Concord take NC Highway 73 East to the intersection with St. John's Church Road (State Road: 2414) proceed on St. John's Church Road for .30 miles to the intersection with Mt. Olive Road. Turn right onto Mt. Olive Road and proceed 2.15 miles to the intersection with Mt. Pleasant Road, North (State Road: 1006). Remain on Mt. Olive Road through the intersection for .38 miles to a dirt drive on the left. The drive will be the first drive on the left after crossing the bridge over Dutch Buffalo Creek. Turn left on this road until the road forks and take the right fork. The command post location will be the intersection of Mount Pleasant Road North and Mt. Olive Road.



5.1.3 Alternate Approach

From the intersection of North Carolina Highway 49 and Little Buffalo Creek Road (State Road: 2442) continue North on Little Buffalo Creek Road for 1.61 miles to the intersection with Fink Road (State Road: 2441). Turn left on Fink Road and continue for 1.32 miles to the intersection with Mt. Olive Road (State Road: 2416). Turn left on Mt. Olive Road and proceed for 1.46 miles to a private drive at 8675 Mt. Olive Road. The dam can be accessed from this private property should Mt. Olive Road be flooded due to a breach.



Table 5.1 – Residents/Businesses/Roads/Infrastructure at Risk

Summarize the list of entities as shown on the corresponding Downstream Inundation Study Map (Figure 5.2). All entity numbers listed below must match and be cross-referenced to the Downstream Inundation Study Map (Figure 5.2). Contact with be through The Cabarrus County Alert System.

ENTITY NUMBER	RESIDENT/BUSINESS/ROAD OR OTHER IMPACTED ENTITY	ENTITY PROPERTY ADDRESS	PROPOSED METHOD OF CONTACTING ENTITY	ENTITY'S DISTANCE DOWNSTREAM FROM DAM (MI)
1	RUTH BARRIER	8225 MOUNT OLIVE RD CONCORD, NC 28025	CABARRUS EMERGENCY ALERTS	0.1 MILES
	MOUNT OLIVER ROAD (SR 2416)	ROADWAY OVER MAIN CHANNEL	N/A	0.1 MILES
2	CATHERINE STARNES	8230 MOUNT OLIVE RD CONCORD, NC 28025	CABARRUS EMERGENCY ALERTS	0.1 MILES
	NC HWY 49	ROADWAY OVER MAIN CHANNEL	N/A	2.2 MILES
3	KENNETH LEPNER	449 DUTCH RD MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	4.0 MILES
4	JOSEPH & CONSTANCE ARNETTE	425 DUTCH RD MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	4.1 MILES
5	NED & KELLY MORGAN	440 DUTCH RD MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	4.1 MILES
6	DEREK & LORETTA LOUGHLIN	401 DUTCH RD MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	4.4 MILES
7	ETHAN LOUGHLIN	399 DUTCH RD MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	4.6 MILES
8	JAMES & JULIE CAMPBELL	301 DUTCH RD MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	4.8 MILES
	DUTCH ROAD (SR 2604)	ROADWAY ADJACENT TO MAIN CHANNEL	N/A	5.0 MILES

ENTITY NUMBER	RESIDENT/BUSINESS/ROAD OR OTHER IMPACTED ENTITY	ENTITY PROPERTY ADDRESS	PROPOSED METHOD OF CONTACTING ENTITY	ENTITY'S DISTANCE DOWNSTREAM FROM DAM (MI)
9	NC STATE HIGHWAY COMMISSION	150 DUTCH RD MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	5.1 MILES
10	NC STATE HIGHWAY COMMISSION	151 DUTCH RD MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	5.1 MILES
11	DARIN BURNS	9619 NC HWY 73E MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	5.3 MILES
	NC HWY 73	ROADWAY OVER MAIN CHANNEL	N/A	5.3 MILES
12	SOUTHERNS ROOTS SALON AND SPA LLC	9620 NC HWY 73E MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	5.4 MILES
13	ROBERT BYRD	9450 NC HWY 73E MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	5.4 MILES
	BOWMAN BARRIER ROAD (SR 2610)	ROADWAY OVER MAIN CHANNEL	N/A	6.1 MILES
14	VINCENT & MAUREEN VEZZA	8835 ERBACH LN MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.4 MILES
15	STUART & GRETCHEN WHEELER	8849 ERBACH LN MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.4 MILES
16	MATTHEW & LESLIE EARLY	8846 ERBACH LN MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.4 MILES
17	KEVIN & JULIE BUCK	8835 ERBACH LN MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.4 MILES
18	JEREMY & VICTORIA KILBY	8857 ERBACH LN MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.4 MILES

ENTITY NUMBER	RESIDENT/BUSINESS/ROAD OR OTHER IMPACTED ENTITY	ENTITY PROPERTY ADDRESS	PROPOSED METHOD OF CONTACTING ENTITY	ENTITY'S DISTANCE DOWNSTREAM FROM DAM (MI)
19	JAMES & PATRICIA BARRIER	9202 BOWMAN BARRIER RD MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.7 MILES
20	CHRISTOPHER & STACY BERRY	2830 ALISH TR MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.7 MILES
21	RICHARD & RACHEL HAMMAC	2835 ALISH TR MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.7 MILES
22	STACY CLEMONS	2831 ALISH TR MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.7 MILES
23	DOUGLAS & GAIL EDMONDS	2825 ALISH TR MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.7 MILES
24	JUDY REILLY	2817 ALISH TR MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.7 MILES
25	ADAM & BRITTANY ROGERS	2813 ALISH TR MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.7 MILES
26	LISA & VINCENT KOOB	2809 ALISH TR MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.7 MILES
27	DAVID & SANDRA COTHRAN	2805 ALISH TR MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.7 MILES
28	MICHAEL & KATHERINE STEINER	8880 OLDENBURG DR MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.8 MILES
29	BRIAN & JULIE SCOTT	8876 OLDENBURG DR MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.8 MILES

ENTITY NUMBER	RESIDENT/BUSINESS/ROAD OR OTHER IMPACTED ENTITY	ENTITY PROPERTY ADDRESS	PROPOSED METHOD OF CONTACTING ENTITY	ENTITY'S DISTANCE DOWNSTREAM FROM DAM (MI)
30	JENNIFER & CHRISTOPHER BUCHANAN	8872 OLDENBURG DR MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.8 MILES
31	ROBIN POLOZZI	8866 OLDENBURG DR MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.8 MILES
32	GARRET & AMY EVANS	8860 OLDENBURG DR MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	6.8 MILES
33	KRISTIN MILLS	4551 BARRIER STORE RD MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	8.6 MILES
	BARRIER STORE ROAD (SR 2622)	ROADWAY OVER MAIN CHANNEL	N/A	8.7 MILES
34	LORI FULMER	4576 BARRIER STORE RD MOUNT PLEASANT, NC 28124	CABARRUS EMERGENCY ALERTS	8.8 MILES
	MIAMI CHURCH ROAD	ROADWAY OVER MAIN CHANNEL	N/A	10.7 MILES
35	LESLIE & WILLIAM COUCH	7206 TIMOTHY DR CONCORD, NC 28025	CABARRUS EMERGENCY ALERTS	11.4 MILES
36	GARY & JOAN PETERS	7183 JOHN FURR RD CONCORD, NC 28025	CABARRUS EMERGENCY ALERTS	12.4 MILES
37	JOHNNY & LISA SMITH	7330 BARRIER-GEORGEVILLE RD CONCORD, NC 28025	CABARRUS EMERGENCY ALERTS	12.4 MILES
38	TIMOTHY & DINA HOLOWKO	7477 JOHN FURR RD CONCORD, NC 28025	CABARRUS EMERGENCY ALERTS	12.5 MILES
	NC HWY 200	ROADWAY OVER MAIN CHANNEL	CABARRUS EMERGENCY ALERTS	12.9 MILES

Figure 5.2 – Downstream Inundation Study

1. As required by NCGS § 143-215.31(a1) (2)(d), a downstream inundation map depicting areas affected by a dam failure and sudden release of the impoundment must be provided. Provide supporting methodology used to develop the inundation map including: methodology used, assumptions made, modeling software used (if any), electronic files of the models, associated inputs, date of creation, legend table, compass, topographic contours, scale size, and directional arrows. The inundation map should depict both the Sunny-Day Breach (simulating a piping failure with the reservoir at normal pool elevation) and the Rainy-Day Breach (simulating an overtopping failure at maximum pool elevation during passage of the SDF) inundation zones. The two scenarios may be shown on the same map or set of maps using different colors. Inundation maps should be developed using an engineering computer model (e.g., HEC-RAS Unsteady Model, or other two-dimensional hydraulic analysis model, etc.), as referenced in FEMA P-946, Federal Guidelines for Inundation Mapping of Flood Risks Associated with Dam Incidents and Failures. The HEC-RAS models are available to anyone at no cost from the US Army Corps of Engineers at: <https://www.hec.usace.army.mil/software/hec-ras/>. The inundation map must depict the inundated areas superimposed on recent aerial imagery or a topographic map (including labeled two-foot interval topographic contours) clearly showing all impacted structures, roads, railroads, and other well-known features (located within the inundation zone extent) and reference each on Residents/Business/Roads/Infrastructure at Risk (Table 5.1). Provide the following information at routine distance intervals on the inundation map: distance from embankment in miles, arrival time of breach wave in minutes, and maximum inundation depth in feet.
2. The downstream limit of the breach inundation zone analysis should be the most downstream point where habitable structures are not located in the non-hydrologic fair weather dam breach inundation zone and the with- and without-dam breach flood elevations for the hydrologic failure converging to a specified vertical tolerance of 1 foot, unless sufficient justification exists for a larger vertical tolerance. Please reference Section 8 of FEMA P-946, Federal Guidelines for Inundation Mapping of Flood Risks Associated with Dam Incidents and Failures for further clarification on the extent of downstream limits.
3. Inundation maps must be included within this EAP document, as they can be better distributed to emergency responders during an emergency within the same document.
4. Per NCGS § 143-215.31(a1)(2)(d), a downstream inundation map depicting areas affected by a dam failure and sudden release of the impoundment does not require preparation by a licensed professional engineer or a person under the responsible charge of a licensed professional engineer unless the dam is associated with a coal combustion residuals surface impoundment.
5. Inundation maps have been developed for this EAP from the best available information using reasonable assumptions and standardized methods. They are approximations of the maximum water surface extents resulting from a complete dam breach and draining of the full reservoir. Inundation maps are empirical hydrologic and hydraulic simulations that can only be field verified in the event of an actual breach. Evacuation areas and call lists should take into consideration the anticipated local impacts of flooding, knowledge of local infrastructure, both occupancy and ownership, and potentially interrupted services or cut-off access, which would be caused by dam failure. Depending upon actual circumstances, appropriate alert and evacuation areas could be either more or less extensive than the simulated inundation zones.

5.2 INUNDATION MAP

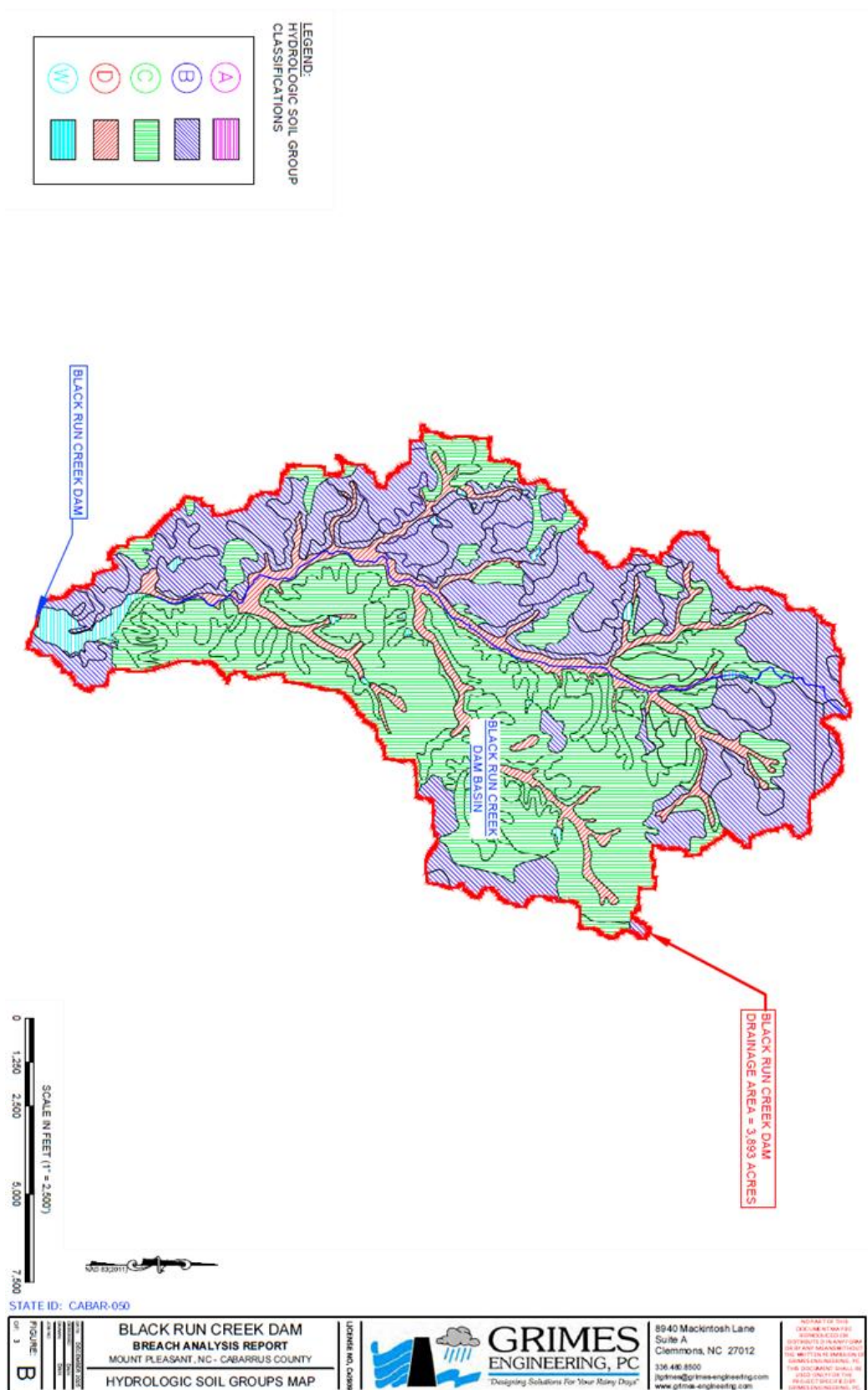


Figure 5.3 – NC Inventory of Dams Data Sheet

Black Run Creek Dam, CABAR-050-HIGH

General Information:

Alternate names: N/A	Regulatory Status: JURISDICTIONAL	Dam Status: IMPOUNDING
Dam Type: EARTH	Dam Purpose: WATER SUPPLY	Year Constructed: 1988
Region: MOORSEVILLE	Quadrangle: Mount Pleasant	Latitude: 35.4408
Longitude: -80.4370	River/Stream: BLACK RUN CREEK	River Basin: YADKIN-PEEDEE
Nearest Town: Mt. Pleasant	Distance Downstream: 3.0	

DETAILS

Structural Height (ft): 48	Norman Freeboard (ft): 10	Hydraulic Height (ft): 38
Crest Length (ft): 840	Crest Width (ft): 25	Up Stream slope XH:1V: 2.5
Downstream Slope: 3	Low Flow requirement (CFS): 0.2	Max Spillway Capacity (cfs): 4,100
Normal Pool Elevation: 610	Drainage Area (ac): 4,288	Surface Area (ac): 80
Normal Pool Cap.(ac-ft): 1200	Max Pool Capacity (ac/ft): 1,536	Bottom Drain? Y
Bottom Drain Operable? Y		

SPILLWAYS

Primer Spillway: Other/Concrete Chute **Emergency Spillway:** Other/SAME

INSPECTION INFOERMATION

Last Inspection Date: 01/18/2024 **Type Inspection:** Periodic **Inspectors:** Matthew Gigante
Next Routine Inspection: 01/18/2026

Comments:

Rip rap armor up stream slope. Small tress less than 6 inches on upstream slope. Mowed grass on dam top, downstream, toe contact and abutment.

ENFORCEMENT

NOD – N/A **DSO** – N/A **EAP?** Y **EAP Date:** 02/14/2005

HAZARD INFORMATION:

Hazard Class: High **Hazard Description:** Mount Olive Road, NC 49

CONTACTS:

Owner: Town of Mount Pleasant	PO Box 787 Mt. Pleasant, NC 28124	(704)436-9803
Engineer: Grimes Engineering, PC Mr. Dale Hyatt, PE, CFM	8940 Mackintosh Ln. Clemmons, NC 27012	(919)413-2754
Emergency 1: Cabarrus Co. Emergency Management Mr. Jason Burnett	30 Corban Ave., SE Concord, NC 28025	(704)920-2143
Emergency 2: Mt. Pleasant Emergency Planner Mr. Jim Sells	PO Box 787 Mt. Pleasant, 28124	(980)248-3341

DIRECTIONS:

MT. PLEASANT RD. NORTH FROM MT. PLEASANT TO RIGHT ON MT. OLIVE RD., DAM IS ABOUT ¼ MILE ON THE LEFT.

Appendices

Appendix A – Roles, Responsibilities, and Authority

Dam Owner/Operator – Town of Mount Pleasant, Randy Holloway, Manager

- As soon as an unusual or emergency event is observed or reported, immediately determine the emergency level.
 - **Event Level 1, RED**: Urgent!! Dam failure imminent or is in progress.
 - **Event Level 2, YELLOW**: Potential dam failure situation, rapidly developing.
 - **Event Level 3, GREEN**: Unusual event, slowly developing.
- Immediately notify the personnel in the order shown on the notification chart for the appropriate level.
- Provide updates of the situation to the **Incident Commander** dispatcher to assist them in making timely and accurate decisions regarding warnings and evacuations.
- Provide leadership to assure the EAP is reviewed and updated annually and copies of the revised EAP are distributed to all who received copies of the original EAP.

EAP Coordinator Trent Christenbury, Water Plant Supervisor

- **Dam Owner/Operator** may designate responsibilities above to an **EAP Coordinator**.
- Prepare required revisions to the EAP.
- Establish training seminars, coordination of EAP exercises, and after-action reviews.

Local Emergency Management Jason Burnette, Cabarrus County Emergency Management/Jim Sells, Town of Mount Pleasant Emergency Planner.

- Coordinate with local responders and dispatchers to ensure that each has an opportunity for input into the EAP, each has a copy of the EAP, and each is aware of their responsibilities.
- Assist in determining who the **Incident Commander** would be.
- During an event, maintain communication with **NC Dam Safety** staff.
- Assist owners in preparation of the Directions and Emergency Access Routes Map (Figure 5.1).
- Maintain communication with media when necessary.
- When an Event Level 2 situation occurs:
 - Prepare response personnel for possible evacuations that may be needed if a Level 1 situation occurs.
 - Alert the public as appropriate.
- When an Event Level 1 situation occurs:
 - Alert the public.
 - Immediately close roads and evacuate people within and possibly adjacent to the inundation area.
- Participate in the annual review and update of the EAP.

Incident Commander

- Serve as the primary contact person responsible for the coordination of all emergency actions.
- When an Event Level 2 situation occurs:
 - Prepare responders for possible evacuations that may be needed if a Level 1 situation occurs.
- When an Event Level 1 situation occurs:
 - Initiate warnings and order evacuation of people at risk downstream of the dam.
 - Notify **Local Emergency Management** to carry out the evacuation of people and close roads within the inundation area.
- Decide when to terminate the emergency.
- Participate in an annual review and update of the EAP.

Dam Owner's Engineer Richard McMillian, Engineer

- Advise the **Dam Owner/Operator** of the emergency level determination, if time permits.
- Advise the **Dam Owner/Operator** of remedial actions to take if a Level 2 event occurs, if time permits.
- Assist the **Dam Owner/Operator** in preparation of Action Data Sheets (Table 3.1).

NC Dam Safety

- Advise the **Incident Commander** of the emergency level determination, if time permits.
- Provide technical and other assistance to the **Incident Commander** as needed.
- Advise the **Dam Owner/Operator** of remedial actions to take if an Event Level 2 occurs, if time permits.

Appendix B – Emergency Services Contacts

Agency / Organization	Principal Contact	Physical Address	Office Phone Number	Alternate Phone Number	Agency Website or Email
State 24-Hour Emergency Watch (After-hours Contact for NC Dam Safety)	NC Emergency Operations Center	512 N. Salisbury Street, Raleigh, NC 28124	800-858-0368	919-733-3300	https://www.ncdps.gov/our-organization/emergency-management
Local 911 Call Center	Cabarrus County Sheriff's Communications	30 Corban Avenue, SE; Concord, NC 28025	911	704-783-3000	https://www.cabarruslaw.us/Home
Dam Owner/Operator	Randy Holloway, Town Manager	8590 Park Drive, Mount Pleasant, NC 28124	704-436-9800	704-796-5266	https://mtpleasantnc.gov/hollowayr@mtpleasantnc.us
EAP Coordinator	Trent Christenbury, Water Plant Supervisor	8590 Park Drive, Mount Pleasant, NC 28124	704-436-1269	704-793-7260	christenburyt@mtpleasantnc.us
Local Emergency Management	Jason Burnett	30 Corban Avenue, SE; Concord, NC 28025	704-920-2143	704-783-3000	jaburnett@cabarruscounty.us
Town Emergency Planner	Jim Sells	8590 Park Drive, Mount Pleasant, NC 28124	704-436-9800	980-248-3341	sellsj@mtpleasantnc.us
Dam Owner's Engineer	Richard McMillian	8590 Park Drive, Mount Pleasant, NC 28124	704-436-0388	704-956-3969	engineer@mtpleasantnc.gov
Cabarrus County Sheriff	Van Shaw	30 Corban Avenue SE Concord, NC 28025	704-920-3000	704-920-3000	sheriffsoffice@cabarruscounty.us
Mount Pleasant Fire Department	Dustin Sneed, Chief	1415 N. Main Street, Mt. Pleasant, NC 28124	704-436-6314	704-791-9365	dsneed@mtpleasantnc.us
NC State Highway Patrol	Officer on Duty NCSHP Communications	5780 S. Main Street Salisbury, NC 28147	800-233-3151	704-855-1047	https://www.ncshp.gov/
North Carolina Dam Safety Program (NCDEQ, Division of Energy, Mineral, and Land Resources)	Land Quality – Dam Safety Staff	Dam Safety Program 1612 Main Service Drive 512 N. Salisbury Street 5th Floor Raleigh, NC 27604	919-707-9220	919-733-3300 NCEOC	DamSafety@ncdenr.gov

Agency / Organization	Principal Contact	Physical Address	Office Phone Number	Alternate Phone Number	Agency Website or Email
North Carolina Division of Environmental Quality	Mooreville Regional Office	610 East Center Avenue, Suite 301, Mooreville, NC 28125	704-663-1699	704-235-2100	https://www.deq.nc.gov/about/contact/regional-offices/mooreville-regional-office
National Weather Service	Greenville/Spartanburg, SC NWS	GSP International Airport 1549 GSP Drive Greer, SC 29651	800-777-9896	864-848-3859	https://www.weather.gov/gsp/
NC Department of Transportation	Division 10	716 W. Main Street, Albemarle, NC 28001	704-982-3146	704-983-4400	https://apps.ncdot.gov/dot/directory/authenticated/UnitPage.aspx?id=649
NCDOT	Mount Pleasant Office	150 Dutch Road, Mount Pleasant, NC 28124	704-436-2913	704-982-3146	https://apps.ncdot.gov/dot/directory/authenticated/UnitPage.aspx?id=649

**Contacts for Local Governments will be made through communication centers.*

Appendix C – Locally Available Resources (Equipment, Labor, and Materials)

Provide the nearest contacts if not available locally.

RESOURCE TYPE	BUSINESS NAME	PHYSICAL ADDRESS	PHONE NUMBER	WEBSITE
Heavy Equipment	Herc Rentals	1150 Biscayne Drive Concord 28017	980-407-5923	https://www.hercrentals.com/locations.html
Heavy Equipment	Herc Rentals	4429 Equipment Drive Charlotte 28269	704-769-1509	https://www.hercrentals.com/locations.html
Heavy Equipment	Sunbelt Rentals	932 Concord Pkwy N Concord 28025	704-795-2540	sunbeltrentals.com
Heavy Equipment	Highway Equipment Company	305 Executive Park Drive, NE Concord 28025	980-781-4510	N/A
Heavy Equipment	City of Concord	242 General Services Dr Concord 28025	704-920-5555 704-920-5000 24hr	https://concordnc.gov/
Sand & Gravel Supply	Martin Marietta Aggregates (Concord)	7219 Wedington Road Concord 28027	704-786-8415	https://www.martinmarietta.com/
Sand and Gravel Supply	Vulcan Materials (Concord)	7680 Poplar Tend Rd Concord 28027	704-788-7833	https://www.vulcanmaterials.com/
Sand and Gravel Supply	Overcash Gravel and Grading (Concord)	1150 Shelton Road, NW Concord 28027	704-788-1603	N/A
Sand and Gravel Supply	NCDOT – Division 10 Mount Pleasant Site	150 Dutch Road Mt. Pleasant 28124	980-287-0040	https://apps.ncdot.gov/dot/directory/authenticated/UnitPage.aspx?id=2424
Ready-Mix Concrete Supply	Concrete Supply Company (Concord)	470 McGill Ave, NW Concord 28027	704-372-7500	https://concretesupplyco.com/
Ready-Mix Concrete	Concrete Supply Company (Kannapolis)	2461 Linda Ave Kannapolis 28081	704-372-7500	https://concretesupplyco.com/
Ready-Mix Concrete	A-1 Concrete	2059 Wilshire Ct Concord 28025	704-494-1861	https://a-oneconcrete.com/
Ready-Mix Concrete	Ready Mix of the Carolinas	364 Browns Hill Rd Locust 28097	704-888-2224	N/A
Pumps	Sunbelt Rental	932 Concord Pkwy N Concord 28025	704-795-2540	sunbeltrentals.com
Pumps	City of Concord	242 General Services Dr Concord 28025	704-920-5555 704-920-5000 24hr	www.concordnc.gov
Diving Service	City of Concord Police Dept.	41 Cabarrus Avenue, W Concord 28025	704-920-5000	www.concordnc.gov
Diving Service	Charlotte Fire Department	500 Dalton Ave Charlotte 28026	704-336-2441	https://www.charlottenc.gov/Public-Safety/Fire-Department/Contact-Us
Sandbags	Lowes Home Improvement Concord	940 Concord Pkwy, N Concord 28027	704-720-9000	www.lowes.com

RESOURCE TYPE	BUSINESS NAME	PHYSICAL ADDRESS	PHONE NUMBER	WEBSITE
Sandbags	Lowes Home Improvement Concord 2	8670 Concord Mills Blvd Concord 28027	704-652-4500	www.lowes.com
Sandbags	Lowes Home Improvement Kannapolis	3025 Dale Earnhardt Blvd Kannapolis 28083	704-720-9810	www.lowes.com
Sandbags	Tractor Supply Concord	101 Commercial Park Dr Concord 28027	704-782-2462	https://www.tractorsupply.com/tsc/store/Concord-NC-28027_464
Sandbags	Home Depot Kannapolis	3313 Cloverleaf Plaza Kannapolis 28083	704-786-8300	homedepot.com
Aerial Surveillance	City of Concord (Drone)	35 Cabarrus Avenue, W Concord 28025	704-920-5000	www.concordnc.gov
Aerial Surveillance	NCSHP (Helicopter)	5780 S. Main Street Salisbury, NC 28147	800-233-3151	https://www.ncshp.gov/
Aerial Surveillance	Charlotte Police Dept.	601 E. Trade Street Charlotte 28202	704-336-7600	https://www.charlottenc.gov/cmpd/Home
Barricades	NCDOT Mt. Pleasant	150 Dutch Road Mt. Pleasant 28124	704-436-2913 704-983-4400	www.ncdot.gov
Barricades	City of Concord	242 General Services Dr Concord 28025	704-920-5555 704-920-5000	www.concordnc.gov
Barricades	MP Public Works	90 North Main Street Mt. Pleasant 28124	704-920-2353	www.mtpleasantnc.gov
Swift Water Rescue	City of Concord Fire	100 Warren C. Coleman Blvd Concord 28025	704-920-5000	www.concordnc.gov
Swift Water Rescue	Mt. Pleasant Fire Department	1415 N. Main Street Mt. Pleasant 28124	704-920-5000	www.mtpleasantnc.gov
Shelters	American Red Cross	2425 Park Road Charlotte 28203	704-376-1661	https://www.redcross.org/local/north-carolina/about-us/locations/charlotte-metro-north-carolina.html
Shelters	Cabarrus Emergency Management	30 Corban Ave, SE Concord, 28025	704-920-2143 704-920-5000	https://www.cabarruscounty.us/Home
Boats	Concord Fire Department	100 Warren C. Coleman Blvd Concord 28027	704-920-5000	www.concordnc.gov
Boats	Mt. Pleasant Fire Department	1415 N. Main Street Mt. Pleasant 28124	704-920-5000	www.mtpleasantnc.gov

Appendix D – Record of EAP Annual Review, Revision, and Periodic Test

EAPs are required to be updated and resubmitted annually to the North Carolina Dam Safety Program, one year from the anniversary date of the most recent approval. Before this resubmittal, the EAP should be reviewed for correctness and modified to include any changes to the downstream hazards. If no updates are necessary to the EAP at the time of annual resubmittal, update the date of the EAP on each page and include a cover letter that states there have been no changes in the last year when resubmitting. The annually resubmitted EAP must use the most current EAP template available on the Dam Safety website at: <https://deq.nc.gov/about/divisions/energy-mineral-and-land-resources/dam-safety/planning-dam-emergency>.

The North Carolina Dam Safety Program recommends that a periodic test, including a tabletop exercise, is conducted prior to the annual resubmission of the EAP.

EAP Annual Review:

The *Town Emergency Planner* at a minimum will be responsible for:

1. Determining if downstream hazards have changed and updating Residents/Businesses/Roads/Infrastructure at Risk (Table 5.1) accordingly.
2. Contacting all individuals on the notification flow charts to verify or update names, phone numbers, and specified positions.
3. Contacting and updating the information in Emergency Services Contacts (Appendix B).
4. Contacting and updating the information in Locally Available Resources (Equipment, Labor, and Materials) (Appendix C).

EAP Periodic Test:

The *Town Emergency Planner* at a minimum will be responsible for:

1. Inviting all agencies involved within the EAP.
2. Coordinating the development of a tabletop exercise (develop objectives, scenario, messages, after-action review).
3. Hosting and facilitating the tabletop exercise.

Revision:

***Jim Sells, Town Emergency Planner* is responsible for updating the EAP document and ensuring that all copies of the EAP document are revised. The EAP document held by the **Town Emergency Planner** is the master EAP document. When revisions occur, the **Town Emergency Planner** will provide the revised pages and a revised Record of Revisions and Updates (Appendix E) to all the EAP document holders listed in EAP Distribution Log (Appendix F). The document holders are responsible for revising outdated copies of the respective document(s) whenever revisions are received. Outdated pages shall be immediately discarded to avoid any confusion with the revisions.**

Appendix F – EAP Distribution Log

Copy Number	Agency / Organization
1	Randy Holloway, Town of Mount Pleasant, Town Manager 8590 Park Drive 704-436-9800 hollowayr@mtpleasantnc.gov
2	North Carolina Dam Safety Program 1612 Mail Service Center Raleigh, North Carolina 27699-1612 919-707-9220 DamSafety@ncdenr.gov
3	Trent Christenbury, Water Plant Supervisor 8700 Foil Street Mount Pleasant, NC 28124 704-436-1269 christenburyt@mtpleasantnc.gov
4	Jim Sells, Emergency Planner 8590 Park Drive Mount Pleasant, NC 28124 704-436-9800 ext. 1006 sellsj@mtpleasantnc.gov
5	Jason Burnett, Emergency Management Coordinator – Cabarrus County PO Box 707 Concord, NC 28025 704-920-2415 jaburnett@cabarruscounty.us
6	Richard McMillian 8590 Park Drive Mount Pleasant, NC 28124 704-436-9800, ext. 1007 engineer@mtpleasantnc.us

Appendix G – Engineering Documents

ATTACHED.

Include all available engineering records and documentation, including but not limited to:

- Hydrology and Hydraulics Memorandum summarizing the analyses performed and assumptions to evaluate the dam breach inundation boundaries and develop the dam breach inundation maps. Include computer programs used, versions, etc.
- Reservoir Area – Capacity Curve
- Principal Spillway Rating Curve
- Emergency Spillway (Top of Dam) Rating Curve
- Annotated Site Pictures
- Plan View of the Dam
- As-Built and/or Survey Drawings

Appendix H – Glossary of Terms

Abutment	The part of the valley side against which the dam is constructed. The left and right abutments of dams are defined with the observer looking downstream from the dam.
Appurtenances	Structures incident to or annexed to dams essential to the proper operation, maintenance or functioning of the dam. This includes such structures as spillways, low-level outlet works, and water conduits, such as tunnels, pipelines, or penstocks, either through a dam or its abutments.
Breach	An opening through the dam that allows draining of the reservoir. A controlled breach is an intentionally constructed opening. An uncontrolled breach is an unintended failure of the dam.
Control section	An usually level segment in the profile of an open channel spillway above which water in the reservoir discharges through the spillway.
Dam	An artificial barrier generally constructed across a watercourse to impound or divert water.
Emergency spillway	The appurtenant structure that provides the controlled conveyance of excess water through, over, or around the dam.
Incident Commander	(IC) is responsible for directing and/or controlling resources under explicit legal, agency, or delegated authority. The individual responsible for the overall management of the response is called the Incident Commander. For responses under the National Response System (NRS), the pre-designated On-Scene Coordinator (OSC) generally assumes the role of Incident Commander.
Instrumentation	An arrangement of devices installed into or near dams that provide measurements to evaluate the structural behavior and other performance parameters of the dam and spillway structures. Examples include seepage measuring weirs, piezometers, inclinometers and survey monuments.
Low-level outlet works	An appurtenant structure, usually consisting of a pipe through the embankment or principal spillway structure equipped with a valve, whose purpose is to allow lowering the lake level.
Principal spillway	The appurtenant structure that conveys normal inflow through or around the embankment.
Reservoir	The body of water is impounded or potentially impounded by the dam.
Seepage	The natural movement of water through the embankment, foundation, or abutment of the dam.
SERT (State Emergency Response Team)	A collection of state agencies, non-profits, and voluntary organizations which provide support to local government agencies in their response, recovery, preparedness, and mitigation of natural & technological hazard.
Unusual Event	An event which takes place, or a condition which develops, that is not normally encountered in the routine operation of the dam and reservoir or necessitates a variation from the operating procedures.

Dam Breach Analysis Report

December 15, 2025

Black Run Creek Dam

(State ID: CABAR-050)

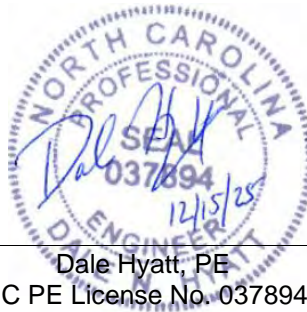
Mount Pleasant, NC – Cabarrus County



Prepared for:

Town of Mount Pleasant

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Introduction

This breach analysis report serves as the analysis necessary for the inundation modeling and mapping for the updated Emergency Action Plan (EAP) for Black Run Creek Dam.

Background Information

Black Run Creek Dam (CABAR-050) is classified as High Hazard by North Carolina Department of Environmental Quality (NCDEQ). The spillway system for Black Run Creek Dam has been analyzed with updated hydrologic and hydraulic modeling. This updated analysis and breach modeling have focused on the following scenarios:

- Sunny day piping failure (normal pool) at Black Run Creek Dam
- Rainy day overtopping failure at Black Run Creek Dam (*1/2-PMP, 12-hour design storm*)

Note: PMP = Probable Maximum Precipitation

Findings

This report summarizes our Hydrologic and Hydraulic (H&H) modeling for the breach analyses of Black Run Creek Dam. The H&H modeling results were determined using the US Army Corps of Engineers computer modeling program HEC-HMS version 4.13.

Black Run Creek Dam was analyzed for a “sunny day” piping failure as well as a “rainy day” overtopping failure. The “rainy-day” failure of Black Run Creek Dam was analyzed during the ½-PMP design storm. Note, the overtopping of the dam during the ½-PMP design storm was forced as the dam does not overtop during the ½-PMP design storm. The drainage area, hydrologic soil groups and land use cover conditions for the hydraulic portion of this analysis are provided in the Appendix-A.

Storm rainfall depths for modeling the watershed were determined from the recent NC PMP Study and Tool. A 12-hour duration was used for the 1/2-PMP storm event as it results in the highest peak water surface elevation as compared to other durations. Detailed rainfall data from the PMP tool is included in Appendix-A.

Stage-storage and elevation data was developed from LiDAR data for Cabarrus County.



Black Run Creek Dam

The overall existing spillway system at **Black Run Creek Dam** consists of the following:

- Primary Spillway – 200’ concrete level weir. Weir crest elevation 609.0’
- Top of Dam – 625’ vegetated level dam top. Crest elevation 619.5’

The existing height of Black Run Creek Dam is approximately 48.5 feet (from the downstream toe EL. 571.0+/- to top of the dam EL. 619.5) and the lake is approximately 29.0 feet deep at normal pool (as measured from EL 609.0 normal pool to EL 580.0 pond bottom). The normal pool impoundment area is approximately 49.2 acres with approximately 727.2 acre-feet of normal pool storage at EL. 609.0. The impoundment area at the existing top of dam is approximately 72.8 acres with approximately 1,376 acre-feet of total storage at EL. 619.5.

Breach model assumptions for **Black Run Creek Dam**:

- *SUNNY DAY BREACH (Piping failure)*
 - Breach trigger elevation is 609.0 (normal pool).
 - Breach bottom width is 48.6 feet (Froehlich).
 - Development time is 0.60 hours (Froehlich).
- *RAINY DAY BREACH (Overtopping failure)*
 - Breach trigger elevation is 620.5 (forced), in the 1/2-PMP storm event which is top of dam EL 619.5 plus 1.0 feet.
 - Breach bottom width is 87.9 feet (Froehlich).
 - Development time is 0.62 hours (Froehlich).

Hydrologic modeling input data:

The details of our modeling input data and subsequent results are provided below for the existing spillway system at Black Run Creek Dam. Additional engineering analysis input data and output data are provided in the attached Appendix-A. Our modeling is based on the assumption that there will be no debris blockage in the spillway systems or downstream reaches.

<u>Black Run Creek Dam Basin</u>	<u>Black Run Creek Dam</u>
Drainage Area	3,893 acres
Curve Number	68
Time of Concentration	121.1 minutes
Lag Time	72.7 minutes
Peak Rate Factor	484



Breach input data for **Black Run Creek Dam**:

Sunny Day Breach data:

	<u>Black Run Creek Dam</u>
Breach Method	Piping
Top of Dam Elevation	619.5 ft
Initial Water Surface Elevation	609.0 ft
Bottom Elevation	580.0 ft
Breach Width	48.6 ft
Breach Side Slopes	1.0-H:1.0-V
Breach Development Time	0.60 hours
Piping Coefficient	0.70
Breach Trigger Method	Elevation
Breach Trigger Elevation	609.2 ft

Rainy Day Dam Breach data:

	<u>Black Run Creek Dam</u>
Breach Method	Overtopping
Top of Dam Elevation	619.5 ft
Initial Water Surface Elevation	609.0 ft
Bottom Elevation	580.0 ft
Breach Width	87.9 ft
Breach Side Slopes	1.0-H:1.0-V
Breach Development Time	0.62 hours
Breach Trigger Method	Elevation
Breach Trigger Elevation	620.5 ft



Hydrologic and hydraulic modeling results for **Black Run Creek Dam:****Storm Event #1: Sunny Dam Breach Failure (No Rainfall)**

	Existing Conditions <u>(with breach)</u>
Peak Inflow	6.1 cfs (baseflow)
Peak Outflow	7,169 cfs
Top of Dam Elevation	619.5 ft
Normal Pool Elevation	609.0 ft
Normal Freeboard	10.5 ft
Peak Water Surface Elevation	609.0 ft

Storm Event #2 1/2-PMP, 12 Hour Design Storm (14.52 inches)

	Existing Conditions <u>(with breach)</u>
Peak Inflow	25,246 cfs
Peak Outflow	48,391 cfs
Top of Dam Elevation	619.5 ft
Normal Pool Elevation	609.0 ft
Normal Freeboard	10.5 ft
Peak Water Surface Elevation	620.5 ft
Breach Trigger Elevation	620.5 ft
Overtopping of Dam (forced)	1.0 ft

Inundation Mapping

The resulting HEC-HMS sunny day and rainy day breach outflow hydrographs were copied into HEC-RAS version 6.0 and modeled as unsteady state flows downstream of Black Run Creek Dam. Downstream riverine modeling and mapping of the sunny day and rainy day breach inundation areas were terminated at a point where differences in water surface elevations from the modeled breach and no-breach scenarios were less than one foot for the 1/2-PMP design storm.

Conclusion

This breach analysis report serves as the analysis necessary for the inundation modeling and mapping for the updated Emergency Action Plan (EAP). This analysis has focused on the 1/2-PMP, 12-hour design storm for Black Run Creek Dam.



APPENDIX - A



1. SITE PHOTOS





SITE PHOTOS: Black Run Creek Dam





SITE PHOTOS: Black Run Creek Dam





Primary Spillway
Outlet Area



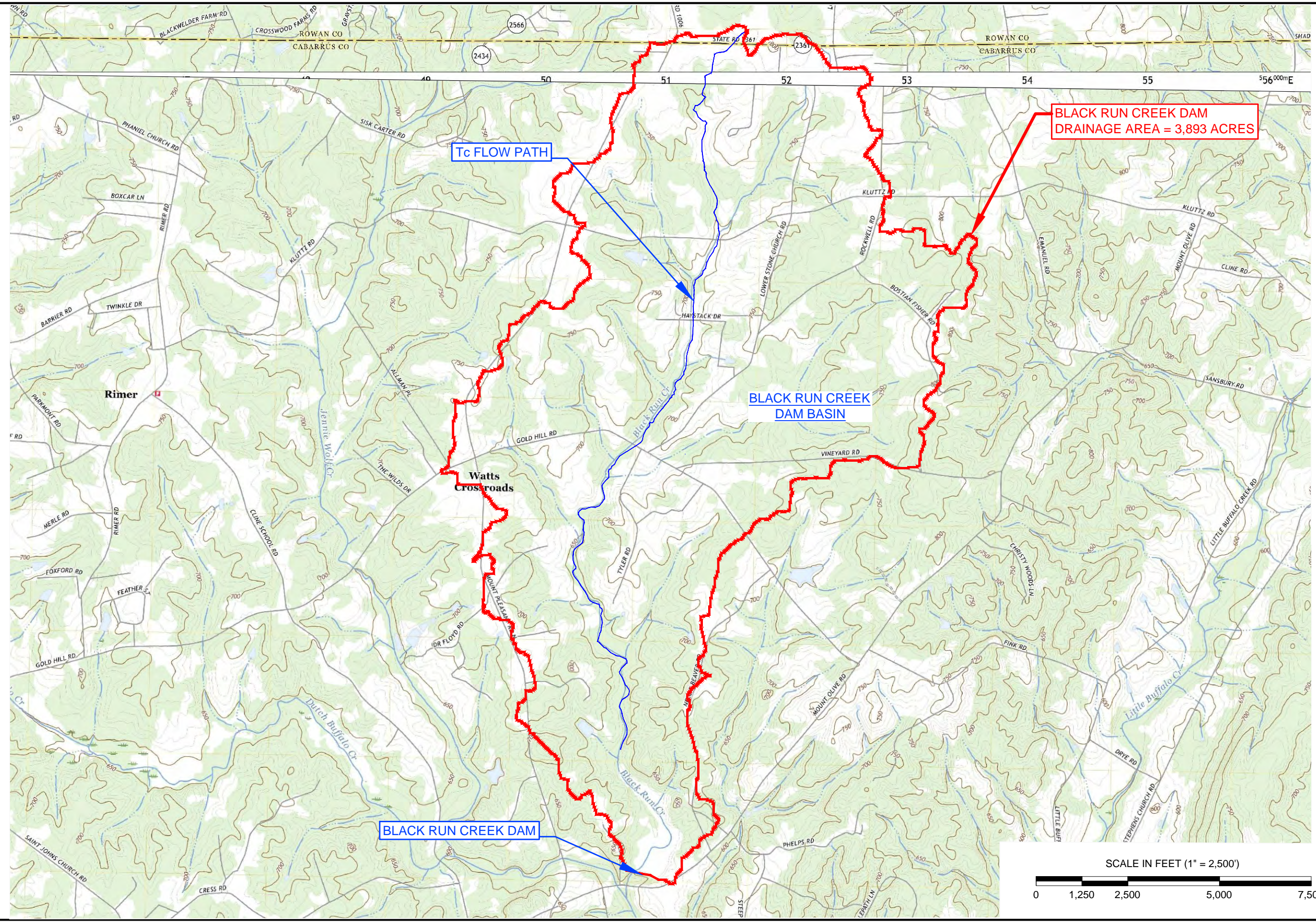


2. HYDROLOGY & HYDRAULICS



2.1 Watershed Boundary & Baseflow





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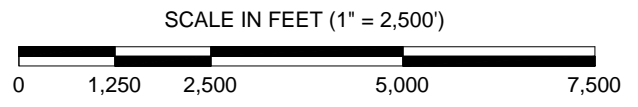
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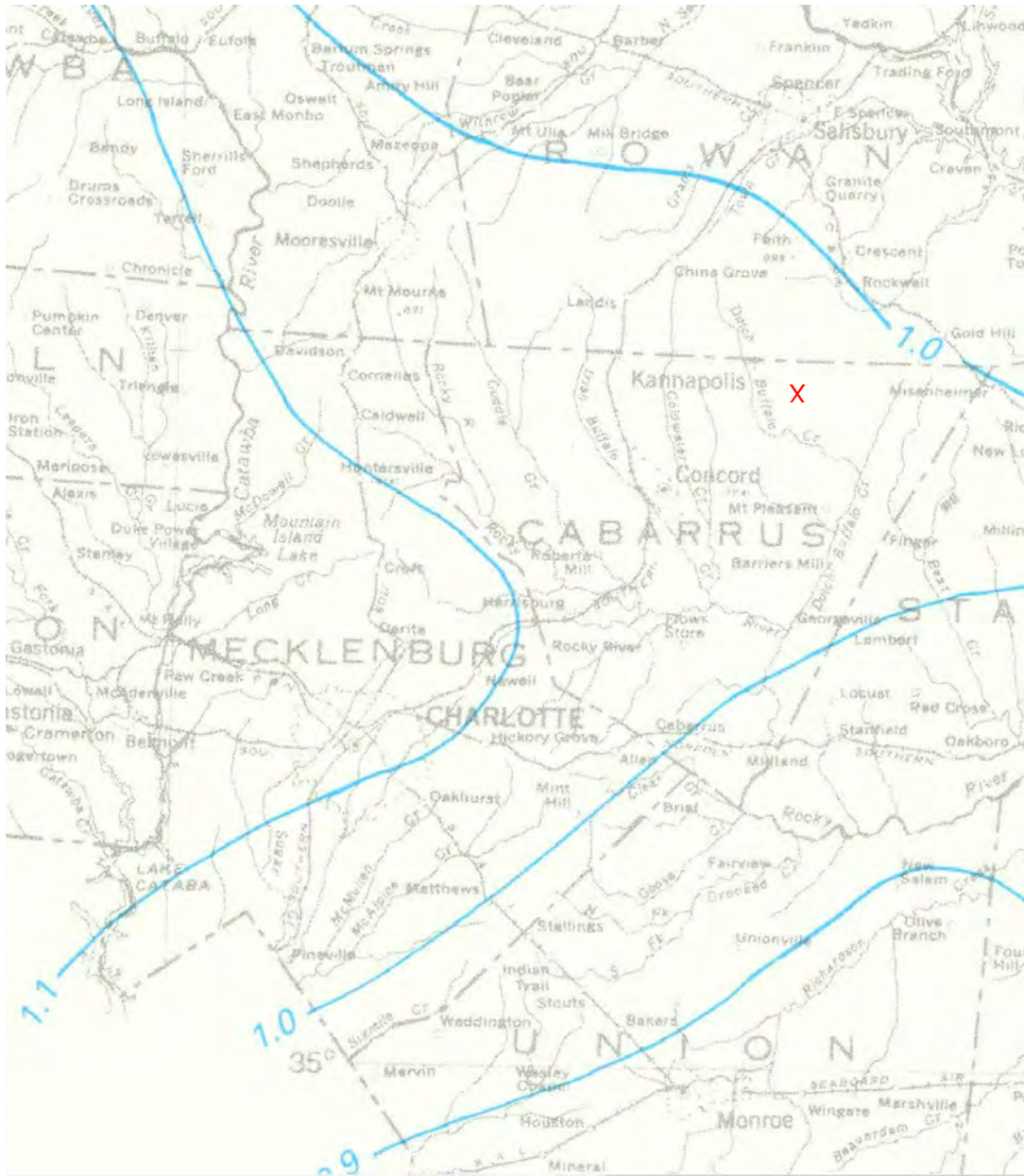
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**BLACK RUN CREEK DAM
BREACH ANALYSIS REPORT**
MOUNT PLEASANT, NC - CABARRUS COUNTY
DRAINAGE AREA MAP

STATE ID: CABAR-050
DATE: DECEMBER 2025
DESIGNED: DNH
DRAWN: DNH
JOB NO:
FIGURE: **A**
OF: 3



Baseflow:



Black Run Creek Dam (CABAR-050)

Mount Pleasant, NC - Cabarrus County

Baseflow Multiplier = 1.0 cfs / sq.

Watershed Delineation:				
Baseflow multiplier =				1.00 cfs/sq. mi.
Black Run Creek Dam	169,574,228 sq. feet =	3,893 acres =	6.0826 sq. miles	Baseflow
				6.1 cfs

Black Run Creek Dam
Mount Pleasant, NC – Cabarrus County

2.2 Rainfall



Cumulative Rainfall - 12-Hour Duration 10th Percentile (local)

Project Name = Black Run Creek Dam
 Project Number =
 Designer = DNH
 Date = 12/8/2025
 Design Storm 1/2 PMP

Full PMP = 29.040 inches (12-HOUR)
 Design Storm Precipitation = 14.52 inches (12-HOUR)

Calculated Distribution ==>

		Full		1/2				Full		1/2	
Time (min)	Time (hours)	PMP Precip (inches)	PMP Precip (inches)	PMP Precip (inches)	PMP Precip (inches)	Time (min)	Time (hours)	PMP Precip (inches)	PMP Precip (inches)	PMP Precip (inches)	PMP Precip (inches)
0.0	0.00	0.00	0.00	0.00	0.00	365.0	6.08	9.30	4.65		
5.0	0.08	0.047	0.02	0.047	0.02	370.0	6.17	9.74	4.87		
10.0	0.17	0.094	0.05	0.094	0.05	375.0	6.25	10.19	5.09		
15.0	0.25	0.141	0.07	0.141	0.07	380.0	6.33	10.65	5.33		
20.0	0.33	0.188	0.09	0.188	0.09	385.0	6.42	11.11	5.56		
25.0	0.42	0.235	0.12	0.235	0.12	390.0	6.50	11.58	5.79		
30.0	0.50	0.282	0.14	0.282	0.14	395.0	6.58	12.06	6.03		
35.0	0.58	0.329	0.16	0.329	0.16	400.0	6.67	12.56	6.28		
40.0	0.67	0.376	0.19	0.376	0.19	405.0	6.75	13.06	6.53		
45.0	0.75	0.423	0.21	0.423	0.21	410.0	6.83	13.56	6.78		
50.0	0.83	0.469	0.23	0.469	0.23	415.0	6.92	14.06	7.03		
55.0	0.92	0.516	0.26	0.516	0.26	420.0	7.00	14.56	7.28		
60.0	1.00	0.563	0.28	0.563	0.28	425.0	7.08	15.08	7.54		
65.0	1.08	0.610	0.31	0.610	0.31	430.0	7.17	15.60	7.80		
70.0	1.17	0.657	0.33	0.657	0.33	435.0	7.25	16.11	8.06		
75.0	1.25	0.704	0.35	0.704	0.35	440.0	7.33	16.63	8.32		
80.0	1.33	0.751	0.38	0.751	0.38	445.0	7.42	17.17	8.58		
85.0	1.42	0.798	0.40	0.798	0.40	450.0	7.50	17.69	8.84		
90.0	1.50	0.845	0.42	0.845	0.42	455.0	7.58	18.21	9.10		
95.0	1.58	0.892	0.45	0.892	0.45	460.0	7.67	18.75	9.37		
100.0	1.67	0.939	0.47	0.939	0.47	465.0	7.75	19.28	9.64		
105.0	1.75	0.986	0.49	0.986	0.49	470.0	7.83	19.82	9.91		
110.0	1.83	1.033	0.52	1.033	0.52	475.0	7.92	20.37	10.19		
115.0	1.92	1.080	0.54	1.080	0.54	480.0	8.00	20.91	10.45		
120.0	2.00	1.127	0.56	1.127	0.56	485.0	8.08	21.44	10.72		
125.0	2.08	1.174	0.59	1.174	0.59	490.0	8.17	21.98	10.99		
130.0	2.17	1.221	0.61	1.221	0.61	495.0	8.25	22.53	11.27		
135.0	2.25	1.268	0.63	1.268	0.63	500.0	8.33	23.07	11.54		
140.0	2.33	1.314	0.66	1.314	0.66	505.0	8.42	23.61	11.80		
145.0	2.42	1.361	0.68	1.361	0.68	510.0	8.50	24.14	12.07		
150.0	2.50	1.408	0.70	1.408	0.70	515.0	8.58	24.68	12.34		
155.0	2.58	1.455	0.73	1.455	0.73	520.0	8.67	25.21	12.61		
160.0	2.67	1.502	0.75	1.502	0.75	525.0	8.75	25.75	12.87		
165.0	2.75	1.549	0.77	1.549	0.77	530.0	8.83	26.26	13.13		
170.0	2.83	1.596	0.80	1.596	0.80	535.0	8.92	26.80	13.40		
175.0	2.92	1.643	0.82	1.643	0.82	540.0	9.00	27.35	13.68		
180.0	3.00	1.690	0.85	1.690	0.85	545.0	9.08	27.40	13.70		
185.0	3.08	1.690	0.85	1.690	0.85	550.0	9.17	27.44	13.72		
190.0	3.17	1.690	0.85	1.690	0.85	555.0	9.25	27.49	13.75		
195.0	3.25	1.690	0.85	1.690	0.85	560.0	9.33	27.54	13.77		
200.0	3.33	1.690	0.85	1.690	0.85	565.0	9.42	27.58	13.79		
205.0	3.42	1.690	0.85	1.690	0.85	570.0	9.50	27.63	13.82		
210.0	3.50	1.690	0.85	1.690	0.85	575.0	9.58	27.68	13.84		
215.0	3.58	1.690	0.85	1.690	0.85	580.0	9.67	27.73	13.86		
220.0	3.67	1.690	0.85	1.690	0.85	585.0	9.75	27.77	13.89		
225.0	3.75	1.690	0.85	1.690	0.85	590.0	9.83	27.82	13.91		
230.0	3.83	1.690	0.85	1.690	0.85	595.0	9.92	27.87	13.93		
235.0	3.92	1.739	0.87	1.739	0.87	600.0	10.00	27.91	13.96		
240.0	4.00	1.826	0.91	1.826	0.91	605.0	10.08	27.96	13.98		
245.0	4.08	1.954	0.98	1.954	0.98	610.0	10.17	28.01	14.00		
250.0	4.17	2.113	1.06	2.113	1.06	615.0	10.25	28.05	14.03		
255.0	4.25	2.272	1.14	2.272	1.14	620.0	10.33	28.10	14.05		
260.0	4.33	2.439	1.22	2.439	1.22	625.0	10.42	28.15	14.07		
265.0	4.42	2.637	1.32	2.637	1.32	630.0	10.50	28.20	14.10		
270.0	4.50	2.858	1.43	2.858	1.43	635.0	10.58	28.24	14.12		
275.0	4.58	3.088	1.54	3.088	1.54	640.0	10.67	28.29	14.14		
280.0	4.67	3.322	1.66	3.322	1.66	645.0	10.75	28.34	14.17		
285.0	4.75	3.584	1.79	3.584	1.79	650.0	10.83	28.38	14.19		
290.0	4.83	3.851	1.93	3.851	1.93	655.0	10.92	28.43	14.21		
295.0	4.92	4.117	2.06	4.117	2.06	660.0	11.00	28.48	14.24		
300.0	5.00	4.418	2.21	4.418	2.21	665.0	11.08	28.52	14.26		
305.0	5.08	4.731	2.37	4.731	2.37	670.0	11.17	28.57	14.29		
310.0	5.17	5.054	2.53	5.054	2.53	675.0	11.25	28.62	14.31		
315.0	5.25	5.390	2.70	5.390	2.70	680.0	11.33	28.66	14.33		
320.0	5.33	5.729	2.86	5.729	2.86	685.0	11.42	28.71	14.36		
325.0	5.42	6.075	3.04	6.075	3.04	690.0	11.50	28.76	14.38		
330.0	5.50	6.450	3.22	6.450	3.22	695.0	11.58	28.81	14.40		
335.0	5.58	6.825	3.41	6.825	3.41	700.0	11.67	28.85	14.43		
340.0	5.67	7.209	3.60	7.209	3.60	705.0	11.75	28.90	14.45		
345.0	5.75	7.620	3.81	7.620	3.81	710.0	11.83	28.95	14.47		
350.0	5.83	8.031	4.02	8.031	4.02	715.0	11.92	28.99	14.50		
355.0	5.92	8.439	4.22	8.439	4.22	720.0	12.00	29.04	14.52		

2.3 Time of Concentration & Lagtime



DNH

Cabarrus NOAA-B County, North Carolina

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
Black Run							
SHEET	100	0.0300	0.800				0.509
SHALLOW	1080	0.0185	0.050				0.137
CHANNEL	3421	0.0146	0.045	8.00	6.00	4.848	0.196
CHANNEL	19323	0.0056	0.045	15.00	6.00	4.564	1.176

Time of Concentration 2.018
=====

Black Run Creek Dam

$T_c = 2.018 \text{ hours} \times 60 \text{ minutes/hour} = 121.1 \text{ minutes}$

$\text{Lagtime} = 0.6 \times 121.1 \text{ minutes} = 72.7 \text{ minutes}$

2.4 Curve Number



Curve Number

Black Run Creek Dam (CABAR-050)

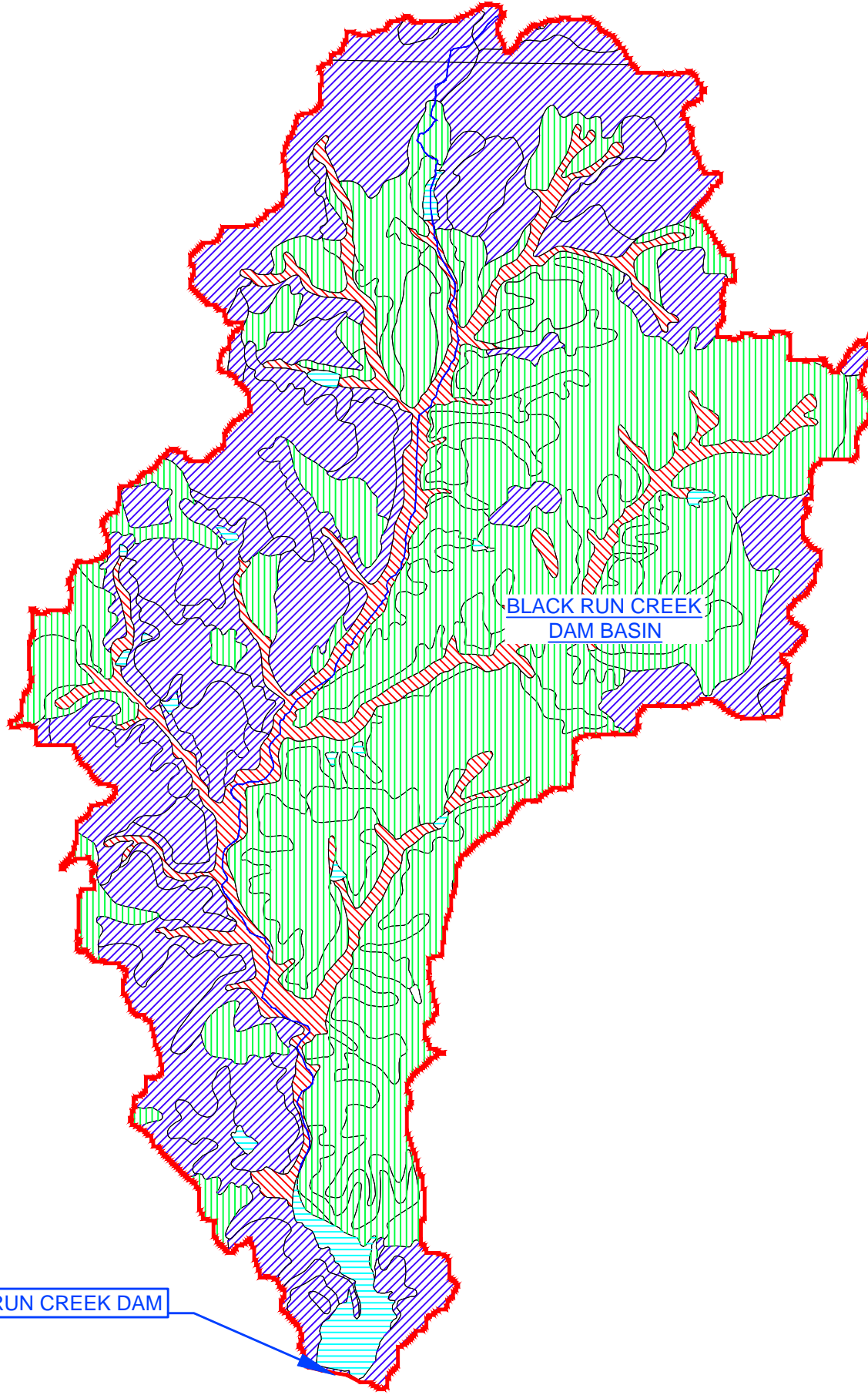
Mount Pleasant, NC - Cabarrus County

Black Run Creek Dam						
TR-55 Description	HSG				Total Area	Multiplier
	A	B	C	D	Acres	CN*Acres
Residential (1 acre lots)		68			26.2	1,782
Woods, Good Condition		55			478.3	26,307
Open Space, Good Condition		61			1,067.9	65,142
Residential (1 acre lots)			79		43.5	3,437
Woods, Good Condition			70		734.4	51,408
Open Space, Good Condition			74		1,105.8	81,829
Residential (1 acre lots)				84	5.3	445
Woods, Good Condition				77	155.3	11,958
Open Space, Good Condition				80	208.2	16,656
Water				98	68.1	6,674
					3,893.0	265,636.8
Average Curve Number =					68	

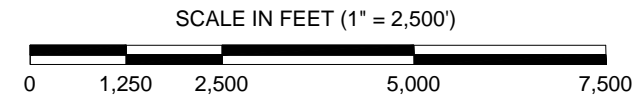
LEGEND:
HYDROLOGIC SOIL GROUP
CLASSIFICATIONS

(A)	
(B)	
(C)	
(D)	
(W)	

BLACK RUN CREEK DAM



BLACK RUN CREEK DAM
DRAINAGE AREA = 3,893 ACRES



NAD 83(2011)

STATE ID: CABAR-050

BLACK RUN CREEK DAM
BREACH ANALYSIS REPORT
MOUNT PLEASANT, NC - CABARRUS COUNTY
HYDROLOGIC SOIL GROUPS MAP

DATE: DECEMBER 2025
DESIGNED: DNH
DRAWN: DNH
JOB NO:
FIGURE:
OF: 3

B

LICENSE NO. C-2909




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ENGINEERING, PC
"Designing Solutions For Your Rainy Days"

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MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines


 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available


Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cabarrus County, North Carolina
 Survey Area Data: Version 25, Sep 2, 2025

Soil Survey Area: Rowan County, North Carolina
 Survey Area Data: Version 24, Sep 10, 2025

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 13, 2022—May 9, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaB	Badin channery silt loam, 2 to 8 percent slopes	C	64.8	1.7%
BaD	Badin channery silt loam, 8 to 15 percent slopes	C	23.9	0.6%
BaF	Badin channery silt loam, 15 to 45 percent slopes	C	3.7	0.1%
CcB2	Cecil sandy clay loam, 2 to 8 percent slopes, moderately eroded	B	176.9	4.5%
ChA	Chewacla sandy loam, 0 to 2 percent slopes, frequently flooded	B/D	364.2	9.4%
CuB2	Cullen clay loam, 2 to 8 percent slopes, moderately eroded	B	440.4	11.3%
CuD2	Cullen clay loam, 8 to 15 percent slopes, moderately eroded	B	247.7	6.4%
DAM	Dam		1.1	0.0%
EnB	Enon sandy loam, 2 to 8 percent slopes	C	1,138.0	29.2%
EnD	Enon sandy loam, 8 to 15 percent slopes	C	303.4	7.8%
GeB2	Georgeville silty clay loam, 2 to 8 percent slopes, moderately eroded	B	10.2	0.3%
IdB	Iredell loam, 2 to 6 percent slopes	C/D	4.4	0.1%
KkB	Kirksey silt loam, 1 to 6 percent slopes	C	51.2	1.3%
LdB2	Lloyd clay loam, 2 to 8 percent slopes, moderately eroded	B	392.5	10.1%
LdD2	Lloyd clay loam, 8 to 15 percent slopes, moderately eroded	B	79.1	2.0%
MeB	Mecklenburg loam, 2 to 8 percent slopes	C	169.4	4.3%
MeD	Mecklenburg loam, 8 to 15 percent slopes	C	99.4	2.6%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
PaF	Pacolet sandy loam, 15 to 35 percent slopes	B	5.6	0.1%
PoF	Poindexter loam, 15 to 45 percent slopes	C	28.9	0.7%
TaB	Tarrus silt loam, 2 to 8 percent slopes	B	149.7	3.8%
TaD	Tarrus silt loam, 8 to 15 percent slopes	B	0.1	0.0%
W	Water		68.9	1.8%
Subtotals for Soil Survey Area			3,823.6	98.2%
Totals for Area of Interest			3,893.8	100.0%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CeB2	Cecil sandy clay loam, 2 to 8 percent slopes, moderately eroded	B	17.4	0.4%
LdB2	Lloyd clay loam, 2 to 8 percent slopes, moderately eroded	B	28.2	0.7%
SeB	Sedgefield fine sandy loam, 1 to 6 percent slopes	C/D	0.2	0.0%
UwB2	Uwharrie silty clay loam, 2 to 8 percent slopes, moderately eroded	B	24.3	0.6%
UwC2	Uwharrie silty clay loam, 8 to 15 percent slopes, moderately eroded	B	0.1	0.0%
Subtotals for Soil Survey Area			70.2	1.8%
Totals for Area of Interest			3,893.8	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

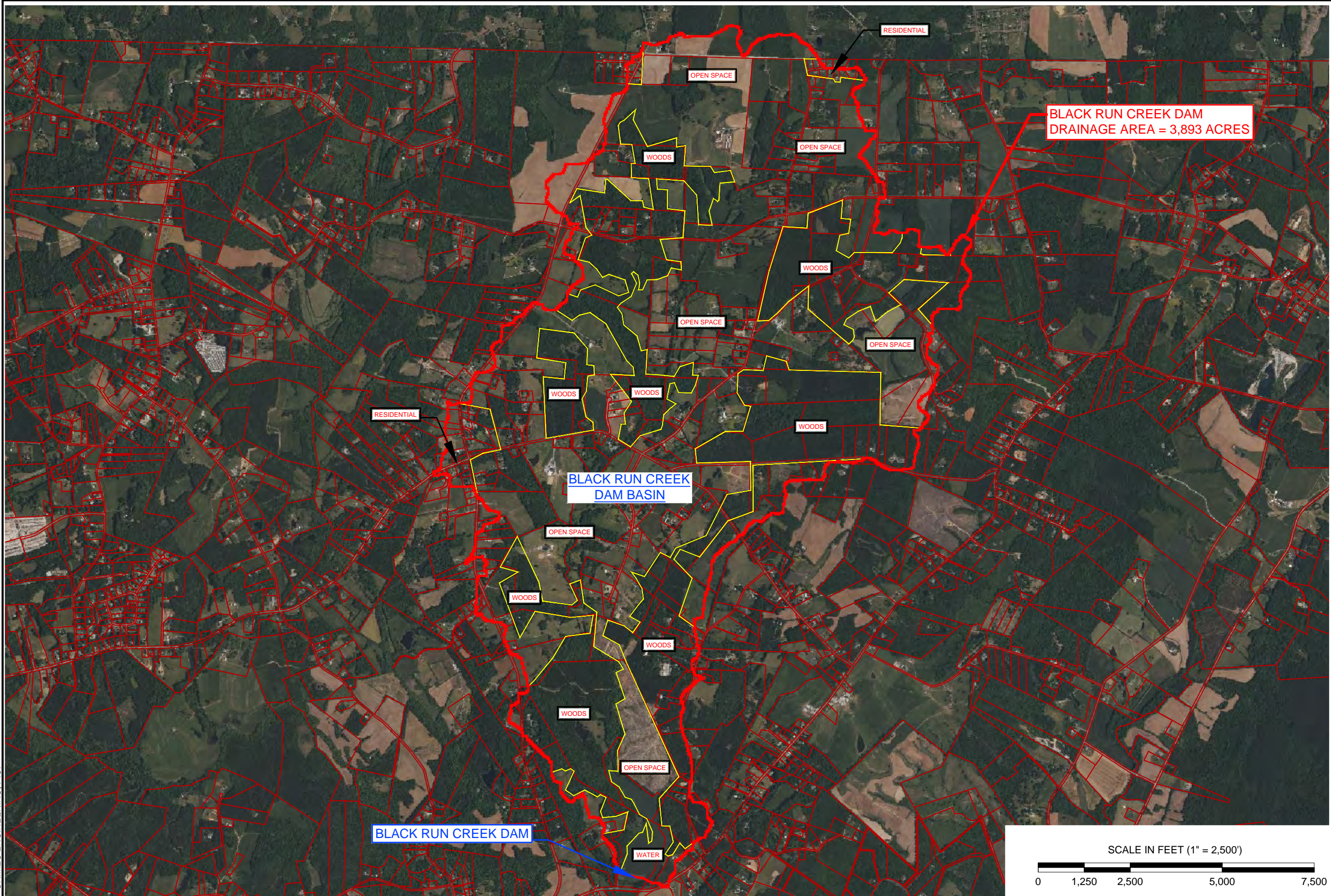
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



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LICENSE NO. C-2909

**BLACK RUN CREEK DAM
BREACH ANALYSIS REPORT**
MOUNT PLEASANT, NC - CABARRUS COUNTY
LAND USE MAP

STATE ID: CABAR-050
DATE: DECEMBER 2025
DESIGNED: DNH
DRAWN: DNH
JOB NO:
FIGURE: C
OF: 3

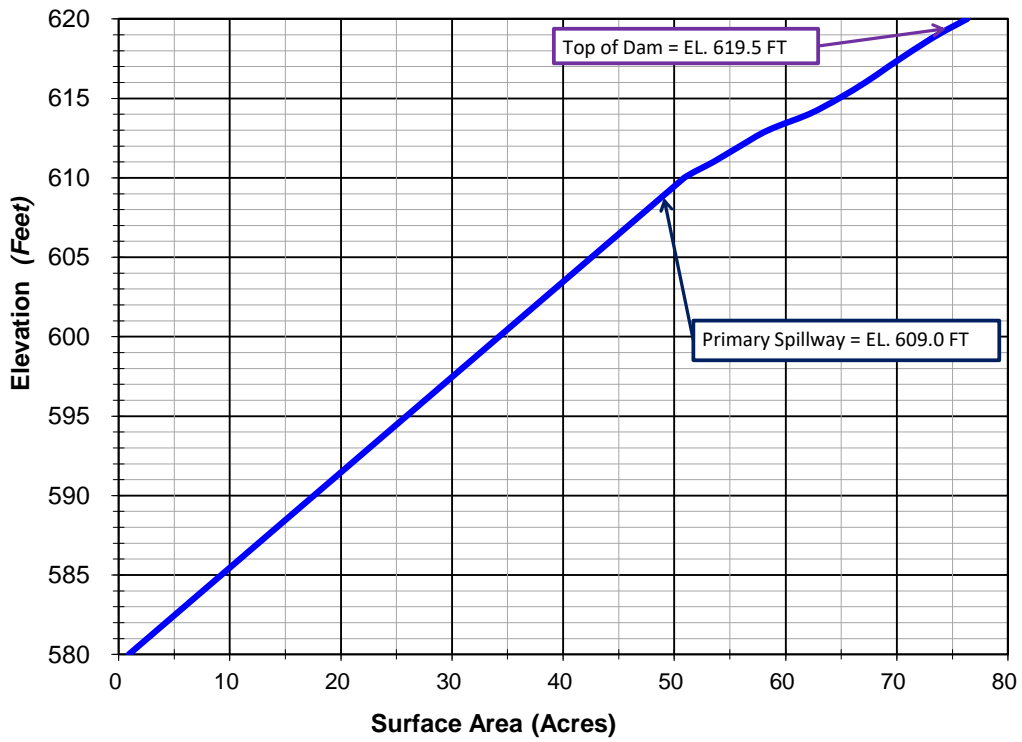
NAD 83(2011)

2.5 Stage Storage



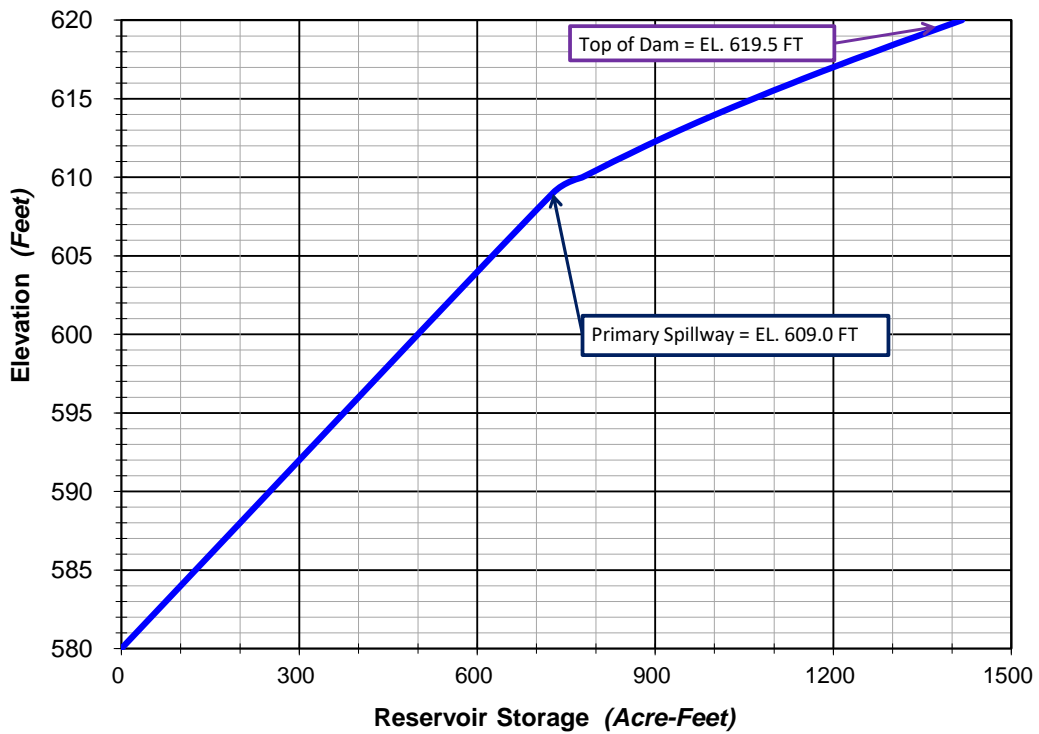
Elevation - Area Curve

Black Run Creek Dam (CABAR-050)



Elevation - Storage Curve

Black Run Creek Dam (CABAR-050)

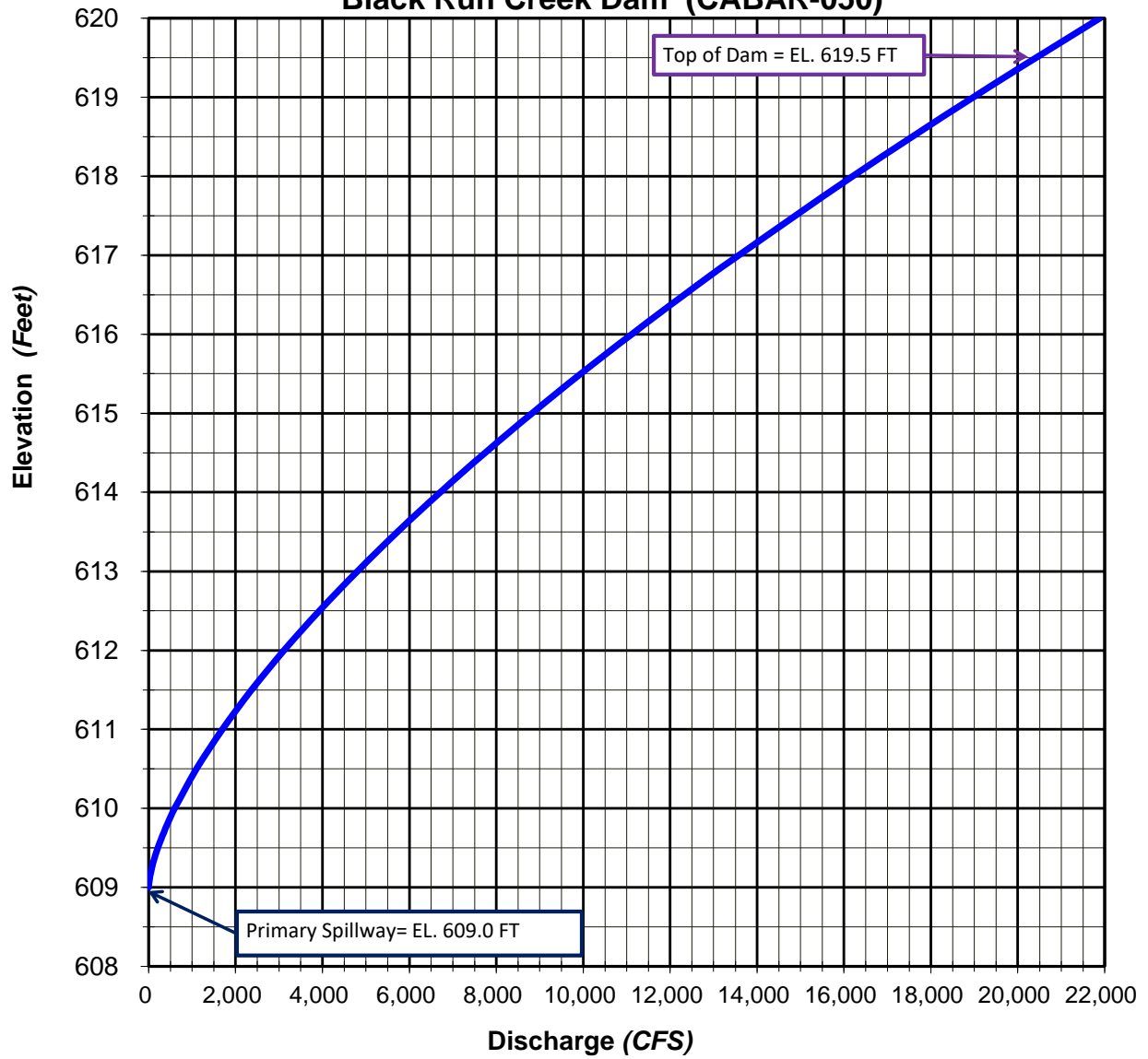


2.6 Spillway Modeling Input Data



Primary Spillway Rating Curve

Black Run Creek Dam (CABAR-050)



3. DAM FAILURE MODELING RESULTS



3.1 “Sunny-Day”



**ESTIMATION OF DAM BREACH PARAMETERS
USING THE FROELICH 2008 METHOD**

PROJECT: Black Run Creek Dam - "Sunny"

BREACH INPUT PARAMETERS:

Select Failure Mode From Drop-Down Menu:

Height of water over base elevation of breach (H_w) =	29.0	Feet
Volume of water in the reservoir at the time of failure (V_w) =	727.0	Acre-Feet
Reservoir Surface Area at H_w (A_s) =	49.2	Acres
Height of breach (H_b) =	29.0	Feet
Failure Mode Factor (K_o) =	1	
Breach Side-Slope Ratio (Z_b) =	1	Z(H):1(V)
Dam Size Class:	Small	Assumes Full Reservoir At Time of Breach.

CALCULATED BREACH CHARACTERISTICS:

Average Breach Width (B_{avg}) =	77.6	Feet
Bottom Width of Breach (B_b) =	48.6	Feet
Breach Formation Time (T_f) =	0.60	Hours
Storage Intensity (SI) =	25.1	Acre Feet/Foot
Predicted Peak Flow (Q_p) =	20809	Cubic Feet per Second

RESULTS CHECK:

Average Breach Width Divided by Height of Breach (B_{avg}/H_b) =	2.68	If (B_{avg}/H_b) > 0.6, Full Breach Development is Anticipated
Erosion Rate (ER), Calculated as (B_{avg}/T_f) =	129.3	
Erosion Rate Divided by Height of Water Over Base of Breach (ER/H_w) =	4.5	If $1.6 < (ER/H_w) < 21$, Erosion Rate is Assumed Reasonable

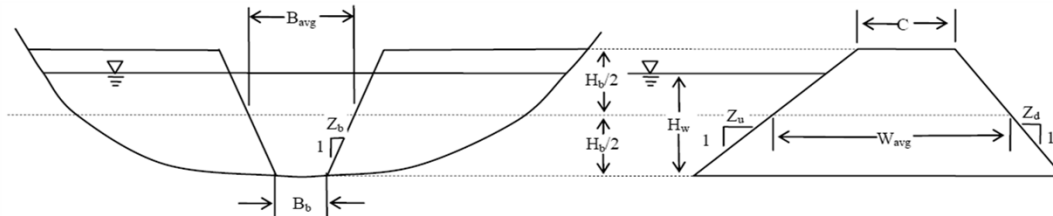
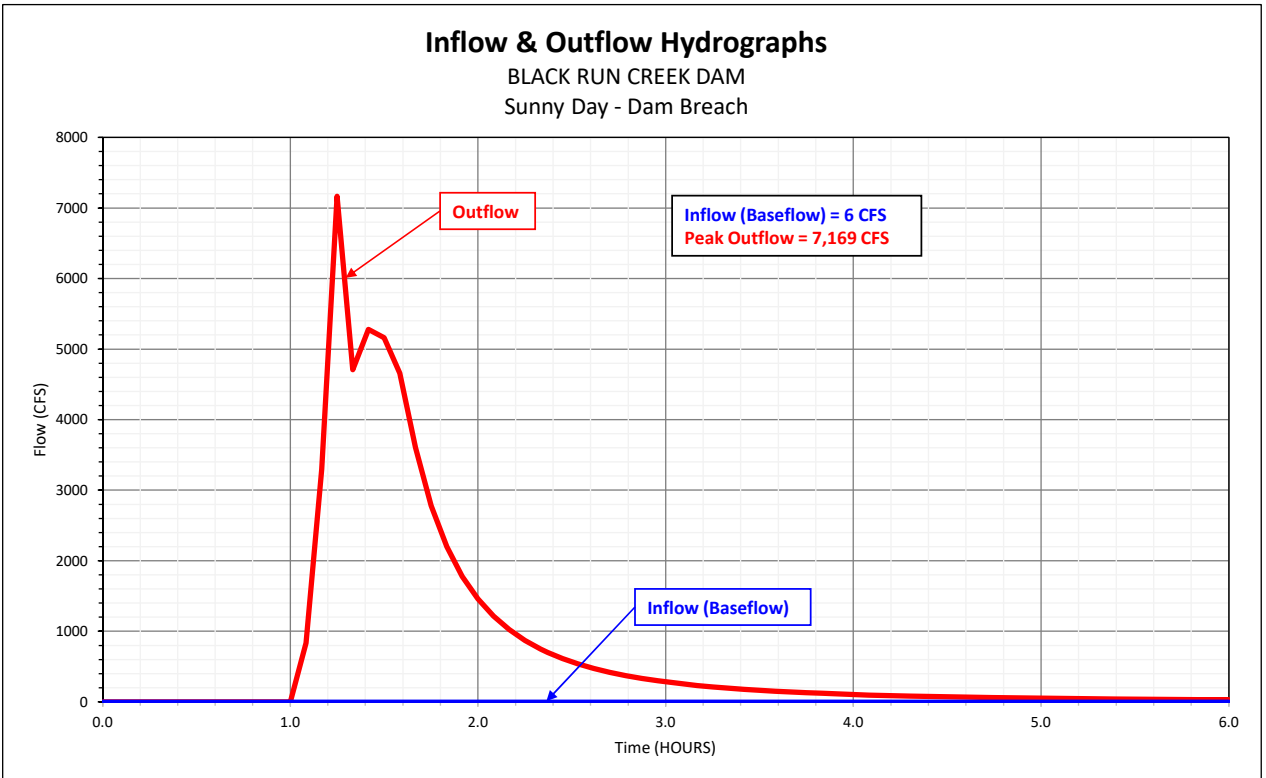
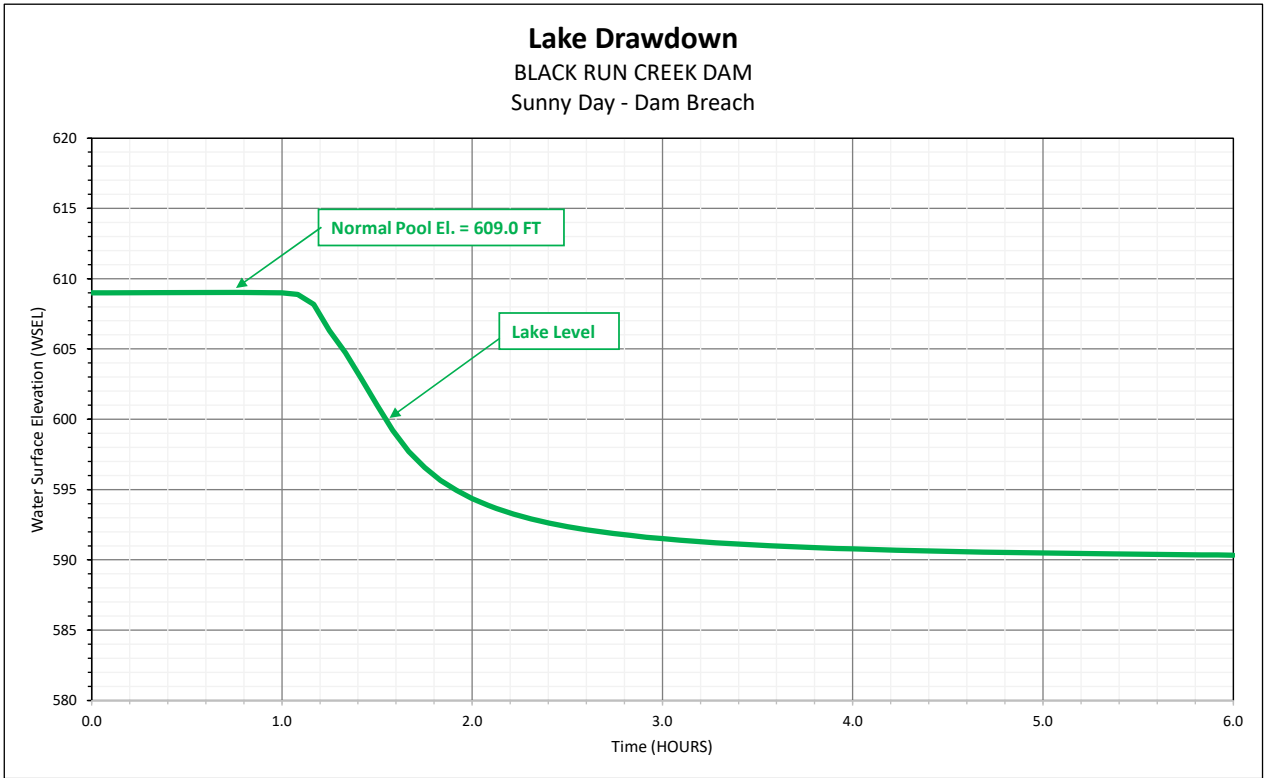


Figure 1- Breach Variable Definition Sketch

Black Run Creek Dam



Sunny Day HEC-RAS Results

HEC-RAS Plan: Sunny River: DutchBuffaloCr Reach: Reach-1 Profile: Max WS

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	70778	Max WS	6758.67	569.25	588.86		589.79	0.001178	7.96	1290.06	210.35	0.34
Reach-1	70488	Max WS	6792.36	569.00	588.80		589.44	0.000828	6.63	1605.95	255.02	0.28
Reach-1	70451	Culvert										
Reach-1	70385	Max WS	6817.85	569.00	584.56		586.23	0.003162	10.99	1125.20	236.21	0.54
Reach-1	70236	Max WS	6265.28	567.93	574.62	577.01	582.06	0.045326	21.96	311.96	108.06	1.77
Reach-1	70093	Max WS	6430.36	562.68	574.66	572.65	576.67	0.004705	11.95	925.51	234.29	0.65
Reach-1	69532	Max WS	6120.47	560.08	570.84	569.65	573.45	0.006860	13.30	647.67	202.57	0.77
Reach-1	69129	Max WS	5243.73	557.16	569.57	565.88	570.87	0.002802	9.47	906.64	318.29	0.50
Reach-1	68715	Max WS	5412.54	556.95	568.94		569.74	0.002120	8.02	1521.73	695.23	0.44
Reach-1	68173	Max WS	5213.97	556.69	566.26	566.61	567.81	0.005720	11.08	1020.33	627.42	0.68
Reach-1	67635	Max WS	5054.95	553.26	564.02	563.51	565.12	0.003383	9.34	1268.11	712.62	0.54
Reach-1	67015	Max WS	4909.22	551.47	562.04	561.55	563.02	0.003198	8.95	1302.25	603.03	0.52
Reach-1	66324	Max WS	4856.99	548.03	558.69		560.53	0.004970	11.24	622.39	132.59	0.65
Reach-1	65676	Max WS	4798.35	545.92	556.34		557.55	0.003665	9.47	898.70	295.16	0.56
Reach-1	64984	Max WS	4772.64	542.10	553.11		554.86	0.004771	11.27	718.35	143.39	0.63
Reach-1	64677	Max WS	4772.08	540.74	552.13		553.42	0.003102	9.33	641.40	99.28	0.52
Reach-1	64266	Max WS	4768.79	539.68	550.42		552.00	0.004008	10.13	516.75	72.92	0.59
Reach-1	63784	Max WS	4766.94	538.50	548.41		549.96	0.004473	10.06	520.74	77.66	0.61
Reach-1	63206	Max WS	4757.42	536.72	545.62		547.19	0.005137	10.09	495.06	75.64	0.65
Reach-1	62702	Max WS	4749.17	534.23	544.86		545.50	0.001283	6.45	762.35	93.42	0.38
Reach-1	62470	Max WS	4748.96	532.99	544.74	539.34	545.25	0.000843	5.71	856.42	92.14	0.32
Reach-1	62450	Inl Struct										
Reach-1	62434	Max WS	4733.75	532.79	544.21		544.99	0.001769	7.27	789.49	113.60	0.40
Reach-1	62154	Max WS	4709.03	531.94	543.47		544.45	0.002321	8.13	728.73	106.16	0.46
Reach-1	61492	Max WS	4667.85	530.11	542.28		543.06	0.001752	7.37	906.70	215.30	0.40
Reach-1	60805	Max WS	4669.82	529.92	540.50	537.58	541.57	0.003005	8.65	1022.00	484.62	0.51
Reach-1	60170	Max WS	4447.49	529.16	538.05	537.57	539.14	0.004355	9.14	1147.70	525.89	0.59
Reach-1	59279	Max WS	4356.54	526.20	535.49	532.08	536.17	0.002013	6.94	1034.98	801.06	0.42
Reach-1	59203	Bridge										
Reach-1	59124	Max WS	4290.79	525.95	533.62		534.88	0.004560	9.10	560.27	503.07	0.60
Reach-1	58546	Max WS	4198.81	520.87	531.81		532.77	0.002544	8.19	934.47	401.58	0.47
Reach-1	57498	Max WS	4031.59	518.71	529.77		530.39	0.001805	6.96	1579.91	720.68	0.40
Reach-1	56961	Max WS	3942.80	518.70	528.81		529.32	0.002038	6.91	1442.25	604.20	0.41
Reach-1	55844	Max WS	3705.37	515.60	526.65	522.74	527.34	0.001840	6.97	984.70	709.70	0.40
Reach-1	54935	Max WS	3331.88	514.64	525.33		525.77	0.001353	5.86	1356.72	843.27	0.34
Reach-1	53647	Max WS	3210.67	512.23	523.44		524.04	0.001451	6.30	687.33	400.68	0.36
Reach-1	52521	Max WS	3099.66	511.01	521.79		522.39	0.001549	6.32	615.59	255.93	0.37
Reach-1	51618	Max WS	3051.32	508.76	520.76		521.22	0.001011	5.54	676.94	167.63	0.30
Reach-1	50557	Max WS	3007.88	507.64	519.78		520.20	0.000908	5.30	702.18	98.19	0.29
Reach-1	49575	Max WS	2928.19	507.17	519.02		519.36	0.000770	4.78	759.52	106.11	0.26
Reach-1	48648	Max WS	2847.25	506.62	518.41		518.69	0.000669	4.44	866.53	261.18	0.25
Reach-1	47300	Max WS	2707.06	504.99	517.62		517.88	0.000525	4.15	773.22	154.55	0.22
Reach-1	46535	Max WS	2456.56	504.20	517.27		517.50	0.000491	4.12	1200.80	643.05	0.21
Reach-1	45673	Max WS	2229.40	503.95	516.93		517.12	0.000399	3.70	1305.61	758.85	0.19
Reach-1	44714	Max WS	1949.78	503.71	516.62		516.77	0.000319	3.29	1205.00	616.89	0.17
Reach-1	43848	Max WS	1874.60	502.78	516.44		516.53	0.000183	2.60	1360.42	427.99	0.13
Reach-1	42933	Max WS	1848.71	504.83	516.26		516.30	0.000297	2.17	1897.07	535.53	0.12
Reach-1	42763	Max WS	1839.83	504.83	516.11	509.44	516.26	0.000769	3.21	944.98	370.05	0.19
Reach-1	42696	Bridge										
Reach-1	42606	Max WS	1824.06	503.80	514.77		514.91	0.000880	3.12	792.77	253.96	0.20
Reach-1	42248	Max WS	1789.52	503.71	514.38		514.58	0.001074	3.66	633.59	241.38	0.22
Reach-1	41968	Max WS	1779.20	503.30	514.18		514.32	0.000758	3.10	836.95	316.31	0.19
Reach-1	41569	Max WS	1766.87	503.03	513.86		514.01	0.000866	3.32	867.09	410.53	0.20
Reach-1	41069	Max WS	1747.65	502.59	513.34		513.57	0.001055	3.91	580.93	300.27	0.23
Reach-1	40570	Max WS	1695.36	502.16	512.74		512.96	0.001402	3.96	660.58	409.52	0.25
Reach-1	40024	Max WS	1633.77	501.51	512.24		512.38	0.000835	3.40	1004.74	632.57	0.20
Reach-1	39228	Max WS	1587.38	500.54	511.71		511.85	0.000815	3.14	811.44	612.13	0.20
Reach-1	38938	Max WS	1574.21	500.28	511.52		511.64	0.000831	3.14	1046.27	761.19	0.20
Reach-1	38674	Max WS	1555.55	500.05	511.13	505.22	511.38	0.001453	4.06	444.98	927.39	0.25
Reach-1	38600	Bridge										
Reach-1	38551	Max WS	1503.50	500.55	510.72		511.02	0.001489	4.52	410.43	975.49	0.27
Reach-1	38108	Max WS	1449.00	500.23	510.48		510.53	0.000502	2.37	1496.32	1043.48	0.15
Reach-1	37557	Max WS	1401.28	500.13	510.27		510.32	0.000522	2.30	1584.19	1166.70	0.15
Reach-1	37142	Max WS	1354.75	499.76	510.05		510.11	0.000819	2.53	1388.32	1029.52	0.18
Reach-1	36656	Max WS	1317.69	499.01	509.79		509.84	0.000425	2.19	1284.31	916.21	0.14
Reach-1	36181	Max WS	1293.73	498.74	509.50		509.60	0.000697	2.67	797.49	408.09	0.18
Reach-1	35472	Max WS	1266.35	498.66	509.14		509.23	0.000589	2.51	889.16	395.63	0.17
Reach-1	34912	Max WS	1247.70	498.54	508.86		508.91	0.000543	2.23	1167.43	919.57	0.16
Reach-1	34331	Max WS	1234.06	498.42	508.22		508.40	0.001474	3.41	467.12	308.31	0.25
Reach-1	33793	Max WS	1225.47	498.30	507.63		507.76	0.000956	3.04	609.54	327.31	0.21
Reach-1	33311	Max WS	1220.84	497.92	507.02		507.18	0.001542	3.31	504.93	225.11	0.26
Reach-1	32836	Max WS	1216.46	497.58	506.31		506.48	0.001498	3.36	472.62	198.02	0.26
Reach-1	32421	Max WS	1214.46	497.19	505.67		505.85	0.001526	3.41	383.02	117.79	0.25
Reach-1	31986	Max WS	1211.31	496.78	505.19		505.32	0.000882	2.92	418.49	80.52	0.20
Reach-1	31513	Max WS	1206.72	496.33	504.78		504.91	0.000864	2.91	418.64	96.90	0.19
Reach-1	31123	Max WS	1203.25	495.97	504.52		504.61	0.000655	2.50	481.38	75.82	0.17
Reach-1	30581	Max WS	1196.20	495.56	504.09		504.22	0.000820	2.86	418.69	58.83	0.19
Reach-1	30040	Max WS	1191.44	495.18	503.75		503.84	0.000584	2.44	549.52	270.03	0.17

HEC-RAS Plan: Sunny River: DutchBuffaloCr Reach: Reach-1 Profile: Max WS (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	29527	Max WS	1187.19	495.13	503.34		503.47	0.000918	2.95	430.57	180.35	0.20
Reach-1	28955	Max WS	1174.12	494.96	502.81		502.94	0.001011	3.01	463.65	217.13	0.21
Reach-1	28574	Max WS	1168.10	494.66	502.50		502.63	0.000745	2.92	481.16	215.39	0.20
Reach-1	28071	Max WS	1149.44	494.53	502.12		502.26	0.000804	3.00	492.41	428.27	0.21
Reach-1	27552	Max WS	1127.21	494.15	501.69		501.83	0.000865	3.06	486.27	327.33	0.22
Reach-1	26961	Max WS	1107.75	493.57	501.35		501.44	0.000489	2.49	515.83	229.21	0.17
Reach-1	26326	Max WS	1095.65	493.06	501.06		501.15	0.000480	2.51	617.48	328.87	0.17
Reach-1	25841	Max WS	1089.73	492.55	500.84		500.93	0.000450	2.43	606.91	280.47	0.16
Reach-1	25292	Max WS	1086.83	491.79	500.62	494.90	500.70	0.000408	2.32	493.38	191.47	0.15
Reach-1	25224		Bridge									
Reach-1	25146	Max WS	1085.77	490.82	499.50		499.59	0.000434	2.37	457.64	63.48	0.16
Reach-1	23956	Max WS	1075.17	489.82	498.95		499.03	0.000508	2.21	487.16	64.80	0.14
Reach-1	23186	Max WS	1065.17	489.29	498.59		498.68	0.000409	2.38	453.57	195.08	0.15
Reach-1	22708	Max WS	1064.16	488.29	498.46		498.51	0.000231	1.89	904.85	629.78	0.12
Reach-1	21585	Max WS	1060.53	487.75	498.10		498.20	0.000583	2.56	458.41	192.04	0.18
Reach-1	21145	Max WS	1053.82	487.50	497.89		497.98	0.000460	2.42	476.01	174.40	0.16
Reach-1	20682	Max WS	1044.51	487.14	497.66		497.76	0.000523	2.58	445.80	189.08	0.17
Reach-1	20281	Max WS	1032.26	486.80	497.42		497.54	0.000639	2.80	396.81	150.14	0.19
Reach-1	19856	Max WS	1020.80	486.65	497.21		497.31	0.000508	2.50	464.96	327.37	0.17
Reach-1	19276	Max WS	1015.45	486.21	496.99		497.06	0.000411	2.18	757.12	429.08	0.15
Reach-1	18718	Max WS	1014.18	485.71	496.78		496.85	0.000379	2.24	562.34	217.54	0.15
Reach-1	18434	Max WS	1013.52	485.83	496.69		496.75	0.000333	2.09	564.78	139.33	0.14
Reach-1	17975	Max WS	1012.02	486.01	496.33		496.50	0.000923	3.45	430.35	161.25	0.23
Reach-1	17496	Max WS	1009.64	486.05	496.01		496.12	0.000633	2.72	387.64	106.77	0.19
Reach-1	17154	Max WS	1004.87	486.06	495.82		495.93	0.000603	2.58	476.62	388.06	0.19
Reach-1	16798	Max WS	996.96	486.07	495.60		495.71	0.000633	2.64	466.91	257.48	0.19
Reach-1	16441	Max WS	989.51	486.12	495.50		495.55	0.000205	1.76	733.80	346.23	0.11
Reach-1	16068	Max WS	980.46	486.14	495.40		495.46	0.000302	2.08	745.40	398.91	0.13
Reach-1	15640	Max WS	970.14	486.14	495.28		495.34	0.000283	2.01	591.95	279.30	0.13
Reach-1	15313	Max WS	956.36	486.17	495.22		495.26	0.000229	1.79	993.42	809.98	0.12
Reach-1	14514	Max WS	913.39	486.20	495.04	489.03	495.09	0.000236	1.80	586.71	594.69	0.12
Reach-1	14458		Bridge									
Reach-1	14362	Max WS	913.39	483.71	492.54		492.60	0.000261	1.82	503.21	78.39	0.12
Reach-1	13931	Max WS	909.20	483.54	492.32		492.43	0.000537	2.61	351.71	71.96	0.17
Reach-1	13267	Max WS	897.34	483.19	491.98		492.08	0.000547	2.52	407.50	200.84	0.17
Reach-1	12865	Max WS	886.11	483.16	491.82		491.90	0.000375	2.19	497.79	226.97	0.15
Reach-1	12271	Max WS	875.43	482.91	491.60		491.68	0.000386	2.23	407.46	95.10	0.15
Reach-1	11897	Max WS	871.20	482.88	491.39		491.50	0.000584	2.58	337.11	50.49	0.18
Reach-1	11205	Max WS	865.72	482.63	490.88		491.02	0.000805	2.93	296.12	54.77	0.20
Reach-1	10468	Max WS	859.69	482.37	490.23		490.38	0.000952	3.11	280.61	83.43	0.22
Reach-1	9962	Max WS	850.71	482.23	489.87		489.97	0.000674	2.63	363.48	149.56	0.19
Reach-1	9439	Max WS	842.35	482.02	489.35		489.51	0.001165	3.29	279.96	124.41	0.24
Reach-1	8910	Max WS	836.39	481.77	488.66		488.85	0.001438	3.52	266.49	91.45	0.27
Reach-1	8393	Max WS	831.35	481.56	487.81		488.01	0.001853	3.60	230.87	54.30	0.31
Reach-1	7555	Max WS	826.00	479.62	486.77		486.89	0.000840	2.81	293.91	52.76	0.21
Reach-1	6937	Max WS	822.31	478.90	486.08		486.25	0.001226	3.34	246.56	44.01	0.25
Reach-1	6353	Max WS	819.10	477.55	485.53		485.66	0.000817	2.90	282.13	45.13	0.20
Reach-1	5556	Max WS	814.34	476.57	484.99		485.08	0.000627	2.50	325.70	53.33	0.18
Reach-1	4867	Max WS	809.94	475.86	484.60		484.69	0.000530	2.36	342.90	53.60	0.16
Reach-1	4241	Max WS	804.50	475.52	484.05		484.20	0.001044	3.11	272.87	77.11	0.23
Reach-1	3203	Max WS	793.45	474.95	483.54	478.25	483.56	0.000132	1.24	641.66	102.34	0.09
Reach-1	3104		Bridge									
Reach-1	2938	Max WS	793.45	476.08	483.39		483.44	0.000334	1.72	461.33	123.68	0.13
Reach-1	2721	Max WS	791.14	475.76	482.99		483.21	0.002006	3.84	235.64	57.42	0.30
Reach-1	1407	Max WS	784.47	474.01	480.98		481.14	0.001335	3.16	248.51	51.98	0.25
Reach-1	1099	Max WS	782.71	473.75	480.57		480.72	0.001380	3.14	249.18	56.21	0.26
Reach-1	596	Max WS	779.39	473.13	480.08	476.83	480.18	0.000808	2.51	310.79	65.13	0.20

3.2 1/2-PMP, 12-Hour Design Storm



**ESTIMATION OF DAM BREACH PARAMETERS
USING THE FROELICH 2008 METHOD**

PROJECT: Black Run Creek Dam - "Rainy"

BREACH INPUT PARAMETERS:

Select Failure Mode From Drop-Down Menu: **OVERTOPPING**

Height of water over base elevation of breach (H_w) =	40.5	Feet
Volume of water in the reservoir at the time of failure (V_w) =	1,450.0	Acre-Feet
Reservoir Surface Area at H_w (A_s) =	65.0	Acres
Height of breach (H_b) =	39.5	Feet
Failure Mode Factor (K_o) =	1.3	
Breach Side-Slope Ratio (Z_b) =	1	Z(H):1(V)
Dam Size Class:	Small	Assumes Full Reservoir At Time of Breach.

CALCULATED BREACH CHARACTERISTICS:

Average Breach Width (B_{avg}) =	127.4	Feet
Bottom Width of Breach (B_b) =	87.9	Feet
Breach Formation Time (T_f) =	0.62	Hours
Storage Intensity (SI) =	35.8	Acre Feet/Foot
Predicted Peak Flow (Q_p) =	43095	Cubic Feet per Second

RESULTS CHECK:

Average Breach Width Divided by Height of Breach (B_{avg}/H_b) =	3.23	If (B_{avg}/H_b) > 0.6, Full Breach Development is Anticipated
Erosion Rate (ER), Calculated as (B_{avg}/T_f) =	204.7	
Erosion Rate Divided by Height of Water Over Base of Breach (ER/H_w) =	5.1	If $1.6 < (ER/H_w) < 21$, Erosion Rate is Assumed Reasonable

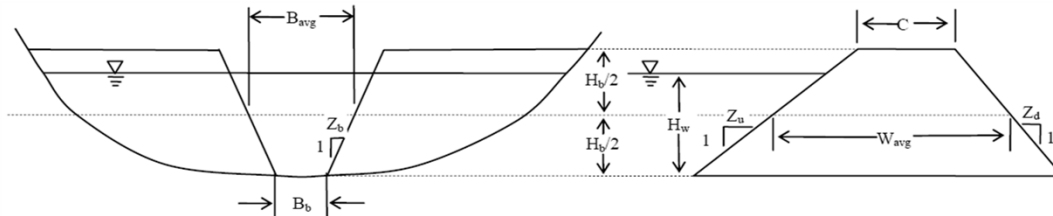
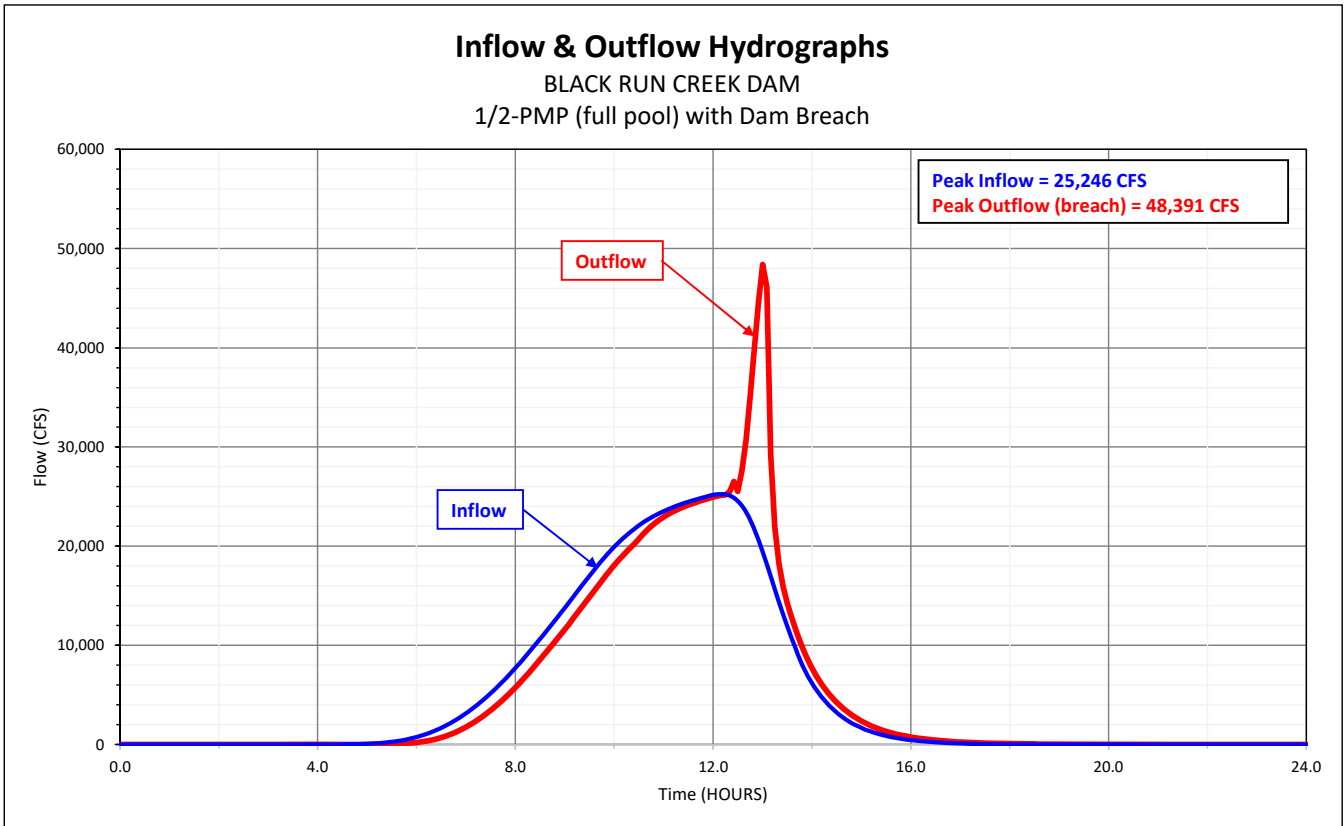
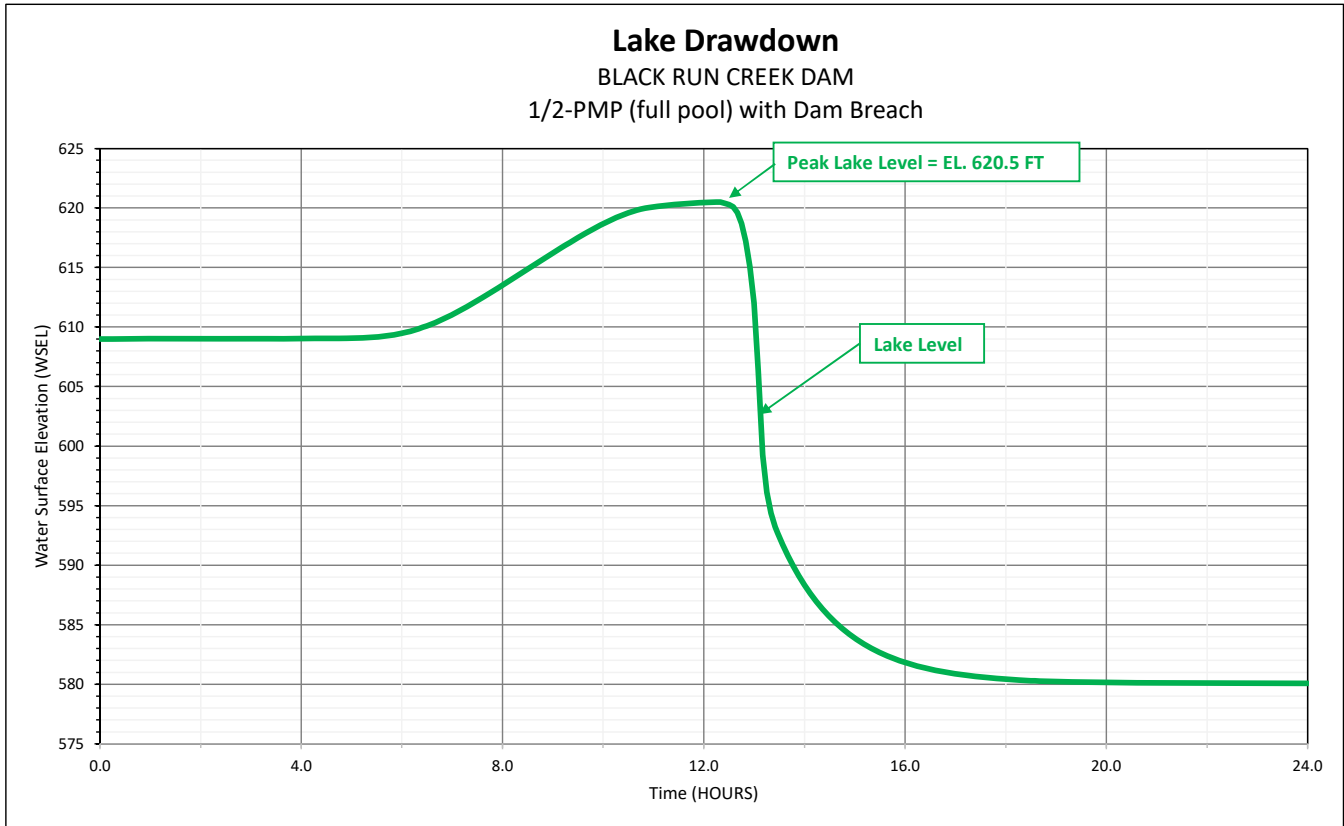


Figure 1- Breach Variable Definition Sketch



HEC-RAS River: DutchBuffaloCr Reach: Reach-1 Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	59124	Max WS	Rainy No-Breach	32714.46	525.95	544.94		545.25	0.000907	7.68	12607.37	1197.70	0.32
Reach-1	59124	Max WS	Rainy Breach	43242.75	525.95	547.08		547.42	0.000921	8.33	15201.79	1225.59	0.32
Reach-1	58546	Max WS	Rainy No-Breach	32599.29	520.87	543.22		545.05	0.003056	15.23	6532.45	698.99	0.59
Reach-1	58546	Max WS	Rainy Breach	42071.90	520.87	545.02		547.28	0.003508	17.24	7460.07	715.31	0.64
Reach-1	57498	Max WS	Rainy No-Breach	32430.40	518.71	541.34		541.97	0.001414	10.45	11055.81	865.77	0.40
Reach-1	57498	Max WS	Rainy Breach	41926.12	518.71	542.87		543.67	0.001702	12.01	12393.15	880.73	0.44
Reach-1	56961	Max WS	Rainy No-Breach	32220.63	518.70	540.81		541.15	0.000918	8.25	10396.64	819.42	0.32
Reach-1	56961	Max WS	Rainy Breach	40546.54	518.70	542.26		542.68	0.001062	9.29	11598.39	841.36	0.35
Reach-1	55844	Max WS	Rainy No-Breach	32194.79	515.60	540.23		540.34	0.000329	5.35	20174.89	1548.20	0.20
Reach-1	55844	Max WS	Rainy Breach	40302.13	515.60	541.61		541.75	0.000382	5.99	22320.20	1566.99	0.21
Reach-1	54935	Max WS	Rainy No-Breach	36150.98	514.64	539.95		540.04	0.000281	5.05	21124.92	1455.93	0.18
Reach-1	54935	Max WS	Rainy Breach	42925.07	514.64	541.29		541.40	0.000301	5.42	23093.99	1468.04	0.19
Reach-1	53647	Max WS	Rainy No-Breach	35975.27	512.23	539.37		539.62	0.000520	7.21	16208.07	1067.73	0.25
Reach-1	53647	Max WS	Rainy Breach	42845.41	512.23	540.65		540.95	0.000580	7.87	17588.61	1080.30	0.27
Reach-1	52521	Max WS	Rainy No-Breach	35956.05	511.01	538.70		539.02	0.000566	7.63	12051.02	743.66	0.26
Reach-1	52521	Max WS	Rainy Breach	42713.23	511.01	539.90		540.28	0.000645	8.40	12944.08	750.14	0.28
Reach-1	51618	Max WS	Rainy No-Breach	35822.95	508.76	538.12		538.54	0.000599	8.18	10638.86	701.95	0.27
Reach-1	51618	Max WS	Rainy Breach	41930.01	508.76	539.24		539.73	0.000675	8.92	11440.39	733.67	0.29
Reach-1	50557	Max WS	Rainy No-Breach	35811.32	507.64	537.48		537.91	0.000628	8.47	12019.03	1004.41	0.28
Reach-1	50557	Max WS	Rainy Breach	41853.17	507.64	538.54		539.03	0.000692	9.12	13104.95	1043.32	0.30
Reach-1	49575	Max WS	Rainy No-Breach	35783.53	507.17	537.20		537.33	0.000226	5.12	21082.72	1638.37	0.17
Reach-1	49575	Max WS	Rainy Breach	41679.34	507.17	538.24		538.38	0.000249	5.50	22797.64	1663.51	0.18
Reach-1	48648	Max WS	Rainy No-Breach	35754.01	506.62	536.80		537.12	0.000453	7.28	14183.78	980.44	0.24
Reach-1	48648	Max WS	Rainy Breach	41495.92	506.62	537.79		538.15	0.000512	7.91	15160.58	993.36	0.26
Reach-1	47300	Max WS	Rainy No-Breach	35687.07	504.99	535.43		536.55	0.001112	11.47	9570.56	597.33	0.38
Reach-1	47300	Max WS	Rainy Breach	41114.17	504.99	536.16		537.55	0.001330	12.76	10017.66	619.10	0.41
Reach-1	46535	Max WS	Rainy No-Breach	35678.85	504.20	535.27		535.39	0.000240	5.36	19612.45	1349.26	0.17
Reach-1	46535	Max WS	Rainy Breach	41054.91	504.20	536.00		536.14	0.000277	5.86	20592.62	1366.35	0.19
Reach-1	45673	Max WS	Rainy No-Breach	35666.30	503.95	535.05		535.19	0.000252	5.50	17386.47	1075.95	0.18
Reach-1	45673	Max WS	Rainy Breach	40965.41	503.95	535.73		535.90	0.000296	6.05	18124.34	1091.28	0.19
Reach-1	44714	Max WS	Rainy No-Breach	35653.57	503.71	534.69		534.93	0.000404	6.95	14840.18	989.64	0.23
Reach-1	44714	Max WS	Rainy Breach	40874.45	503.71	535.30		535.59	0.000477	7.66	15453.60	1006.21	0.25
Reach-1	43848	Max WS	Rainy No-Breach	35642.53	502.78	534.22		534.61	0.000510	7.93	12246.07	1015.66	0.26
Reach-1	43848	Max WS	Rainy Breach	40730.73	502.78	534.74		535.21	0.000609	8.76	12638.05	1030.82	0.28
Reach-1	42933	Max WS	Rainy No-Breach	35630.96	504.83	533.93		534.06	0.000387	5.01	16200.56	1124.55	0.17
Reach-1	42933	Max WS	Rainy Breach	40726.64	504.83	534.40		534.56	0.000462	5.54	16731.23	1138.99	0.19
Reach-1	42763	Max WS	Rainy No-Breach	36629.20	504.83	533.67	523.97	534.04	0.001114	7.89	11414.27	847.27	0.27
Reach-1	42763	Max WS	Rainy Breach	41725.77	504.83	534.08	524.90	534.53	0.001326	8.70	11770.73	862.95	0.29
Reach-1	42696		Bridge										
Reach-1	42606	Max WS	Rainy No-Breach	36629.20	503.80	533.17		533.59	0.001017	7.72	12620.75	906.26	0.27
Reach-1	42606	Max WS	Rainy Breach	41725.77	503.80	533.59		534.09	0.001216	8.53	13000.10	917.50	0.29
Reach-1	42248	Max WS	Rainy No-Breach	36626.58	503.71	532.78		533.19	0.001129	7.99	10327.74	689.62	0.27
Reach-1	42248	Max WS	Rainy Breach	41724.62	503.71	533.11		533.61	0.001380	8.90	10554.25	695.04	0.30
Reach-1	41968	Max WS	Rainy No-Breach	36625.25	503.30	532.52		532.88	0.000861	7.20	10253.49	657.09	0.25
Reach-1	41968	Max WS	Rainy Breach	41724.15	503.30	532.79		533.24	0.001067	8.06	10427.63	661.63	0.27
Reach-1	41569	Max WS	Rainy No-Breach	36623.68	503.03	532.31		532.53	0.000650	6.09	12590.71	790.49	0.21
Reach-1	41569	Max WS	Rainy Breach	41723.68	503.03	532.53		532.80	0.000812	6.85	12758.92	794.36	0.23
Reach-1	41069	Max WS	Rainy No-Breach	36622.19	502.59	531.99		532.21	0.000611	6.23	11900.63	758.59	0.21
Reach-1	41069	Max WS	Rainy Breach	41646.39	502.59	532.12		532.40	0.000772	7.02	11996.87	760.41	0.23
Reach-1	40570	Max WS	Rainy No-Breach	36621.40	502.16	531.80		531.93	0.000417	4.82	14141.64	829.81	0.16
Reach-1	40570	Max WS	Rainy Breach	41640.09	502.16	531.87		532.04	0.000533	5.46	14202.04	830.64	0.19
Reach-1	40024	Max WS	Rainy No-Breach	36620.67	501.51	531.73		531.78	0.000149	3.13	22666.89	1428.18	0.10
Reach-1	40024	Max WS	Rainy Breach	41634.84	501.51	531.78		531.84	0.000191	3.55	22742.16	1433.27	0.12
Reach-1	39228	Max WS	Rainy No-Breach	36619.87	500.54	531.63		531.69	0.000182	3.47	23407.95	1610.22	0.12
Reach-1	39228	Max WS	Rainy Breach	41629.58	500.54	531.65		531.73	0.000234	3.94	23445.79	1610.42	0.13
Reach-1	38938	Max WS	Rainy No-Breach	36619.73	500.28	531.58		531.64	0.000205	3.60	23480.40	1777.90	0.12

HEC-RAS River: DutchBuffaloCr Reach: Reach-1 Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	38938	Max WS	Rainy Breach	41628.52	500.28	531.59		531.66	0.000264	4.08	23497.87	1777.96	0.14
Reach-1	38674	Max WS	Rainy No-Breach	13200.00	500.05	531.55	513.91	531.55	0.000016	0.97	27451.69	1768.41	0.03
Reach-1	38674	Max WS	Rainy Breach	13200.00	500.05	531.55	513.91	531.55	0.000016	0.97	27451.69	1768.41	0.03
Reach-1	38600		Bridge										
Reach-1	38551	Max WS	Rainy No-Breach	35921.78	500.55	526.59		526.63	0.000186	3.17	22309.75	1490.19	0.11
Reach-1	38551	Max WS	Rainy Breach	40698.00	500.55	527.57		527.63	0.000197	3.35	23828.15	1634.80	0.12
Reach-1	38108	Max WS	Rainy No-Breach	35920.03	500.23	526.53		526.57	0.000146	2.76	23887.62	1527.13	0.10
Reach-1	38108	Max WS	Rainy Breach	40664.79	500.23	527.52		527.56	0.000155	2.91	25418.97	1624.68	0.10
Reach-1	37557	Max WS	Rainy No-Breach	35916.33	500.13	526.47		526.51	0.000146	2.69	23698.37	1505.38	0.10
Reach-1	37557	Max WS	Rainy Breach	40620.74	500.13	527.45		527.50	0.000155	2.84	25204.87	1605.63	0.10
Reach-1	37142	Max WS	Rainy No-Breach	35911.91	499.76	526.42		526.46	0.000166	2.73	24216.18	1818.07	0.10
Reach-1	37142	Max WS	Rainy Breach	40580.13	499.76	527.40		527.44	0.000173	2.86	26030.22	1880.34	0.11
Reach-1	36656	Max WS	Rainy No-Breach	35904.84	499.01	526.29		526.37	0.000275	3.87	18600.79	1174.76	0.14
Reach-1	36656	Max WS	Rainy Breach	40527.27	499.01	527.26		527.35	0.000301	4.16	19751.26	1216.14	0.15
Reach-1	36181	Max WS	Rainy No-Breach	35895.47	498.74	526.04		526.20	0.000566	5.38	14652.13	1167.45	0.20
Reach-1	36181	Max WS	Rainy Breach	40111.66	498.74	527.00		527.17	0.000564	5.52	15787.60	1194.08	0.20
Reach-1	35472	Max WS	Rainy No-Breach	35717.59	498.66	525.39		525.88	0.001421	8.67	10034.38	753.32	0.32
Reach-1	35472	Max WS	Rainy Breach	40101.42	498.66	526.32		526.85	0.001497	9.13	10745.88	783.16	0.33
Reach-1	34912	Max WS	Rainy No-Breach	35708.91	498.54	525.14		525.21	0.000218	3.32	20209.41	1375.18	0.12
Reach-1	34912	Max WS	Rainy Breach	40064.38	498.54	526.07		526.14	0.000230	3.50	21499.24	1417.33	0.13
Reach-1	34331	Max WS	Rainy No-Breach	35692.66	498.42	524.96		525.05	0.000345	4.11	17554.55	1360.88	0.15
Reach-1	34331	Max WS	Rainy Breach	40006.51	498.42	525.87		525.97	0.000356	4.29	18817.76	1391.91	0.16
Reach-1	33793	Max WS	Rainy No-Breach	35674.27	498.30	524.74		524.85	0.000423	4.68	16707.86	1397.21	0.17
Reach-1	33793	Max WS	Rainy Breach	39693.37	498.30	525.65		525.77	0.000427	4.83	17996.95	1429.57	0.17
Reach-1	33311	Max WS	Rainy No-Breach	35541.77	497.92	524.27		524.59	0.000994	7.07	10880.34	846.44	0.26
Reach-1	33311	Max WS	Rainy Breach	39687.33	497.92	525.16		525.51	0.001024	7.37	11643.33	860.28	0.27
Reach-1	32836	Max WS	Rainy No-Breach	35395.96	497.58	523.31		524.06	0.001957	9.86	7532.07	626.57	0.37
Reach-1	32836	Max WS	Rainy Breach	39378.16	497.58	524.14		524.96	0.002087	10.44	8058.69	648.07	0.39
Reach-1	32421	Max WS	Rainy No-Breach	35392.91	497.19	522.89		523.26	0.001147	7.32	9243.83	732.58	0.27
Reach-1	32421	Max WS	Rainy Breach	39373.29	497.19	523.70		524.11	0.001181	7.61	9852.05	753.95	0.28
Reach-1	31986	Max WS	Rainy No-Breach	35230.19	496.78	522.45		522.78	0.001061	7.23	11295.51	865.88	0.26
Reach-1	31986	Max WS	Rainy Breach	39358.95	496.78	523.26		523.61	0.001118	7.59	11998.95	890.73	0.27
Reach-1	31513	Max WS	Rainy No-Breach	35225.62	496.33	521.93		522.27	0.001124	7.42	10633.17	854.34	0.27
Reach-1	31513	Max WS	Rainy Breach	39007.71	496.33	522.71		523.08	0.001162	7.71	11307.20	869.20	0.27
Reach-1	31123	Max WS	Rainy No-Breach	35051.05	495.97	521.58		521.87	0.000852	6.76	12438.83	946.61	0.25
Reach-1	31123	Max WS	Rainy Breach	38995.46	495.97	522.35		522.67	0.000903	7.11	13177.15	973.92	0.26
Reach-1	30581	Max WS	Rainy No-Breach	35041.99	495.56	521.13		521.37	0.000943	6.79	13998.05	1293.23	0.24
Reach-1	30581	Max WS	Rainy Breach	38600.84	495.56	521.89		522.14	0.000957	6.99	14987.36	1323.81	0.25
Reach-1	30040	Max WS	Rainy No-Breach	34861.16	495.18	520.86		520.96	0.000363	4.45	17828.92	1272.11	0.16
Reach-1	30040	Max WS	Rainy Breach	38582.83	495.18	521.60		521.72	0.000385	4.68	18789.45	1297.91	0.17
Reach-1	29527	Max WS	Rainy No-Breach	34856.01	495.13	520.71		520.79	0.000317	3.94	19137.18	1360.39	0.14
Reach-1	29527	Max WS	Rainy Breach	38557.55	495.13	521.45		521.54	0.000334	4.13	20151.55	1378.52	0.15
Reach-1	28955	Max WS	Rainy No-Breach	34847.37	494.96	520.58		520.64	0.000227	3.33	20147.53	1297.25	0.12
Reach-1	28955	Max WS	Rainy Breach	38523.31	494.96	521.31		521.38	0.000240	3.50	21102.10	1307.94	0.12
Reach-1	28574	Max WS	Rainy No-Breach	34841.07	494.66	520.51		520.57	0.000203	3.69	20758.18	1297.09	0.13
Reach-1	28574	Max WS	Rainy Breach	38198.91	494.66	521.24		521.31	0.000213	3.86	21708.09	1306.33	0.14
Reach-1	28071	Max WS	Rainy No-Breach	34830.18	494.53	520.42		520.48	0.000190	3.60	22085.03	1307.02	0.13
Reach-1	28071	Max WS	Rainy Breach	38195.71	494.53	521.15		521.21	0.000201	3.78	23036.18	1315.84	0.13
Reach-1	27552	Max WS	Rainy No-Breach	34816.00	494.15	520.32		520.38	0.000233	3.94	24737.39	1507.23	0.14
Reach-1	27552	Max WS	Rainy Breach	38188.29	494.15	521.04		521.10	0.000246	4.13	25827.93	1521.99	0.14
Reach-1	26961	Max WS	Rainy No-Breach	34799.05	493.57	520.23		520.28	0.000135	3.19	24535.53	1587.30	0.11
Reach-1	26961	Max WS	Rainy Breach	38176.98	493.57	520.94		521.00	0.000143	3.34	25679.02	1608.02	0.11
Reach-1	26326	Max WS	Rainy No-Breach	34696.84	493.06	520.13		520.19	0.000184	3.73	21995.01	1409.55	0.13
Reach-1	26326	Max WS	Rainy Breach	38161.71	493.06	520.84		520.91	0.000194	3.90	22998.61	1417.11	0.13
Reach-1	25841	Max WS	Rainy No-Breach	34695.46	492.55	519.95		520.09	0.000395	5.41	19324.25	1179.14	0.19
Reach-1	25841	Max WS	Rainy Breach	38147.87	492.55	520.65		520.80	0.000422	5.69	20149.05	1186.39	0.19

HEC-RAS River: DutchBuffaloCr Reach: Reach-1 Profile: Max WS (Continued)

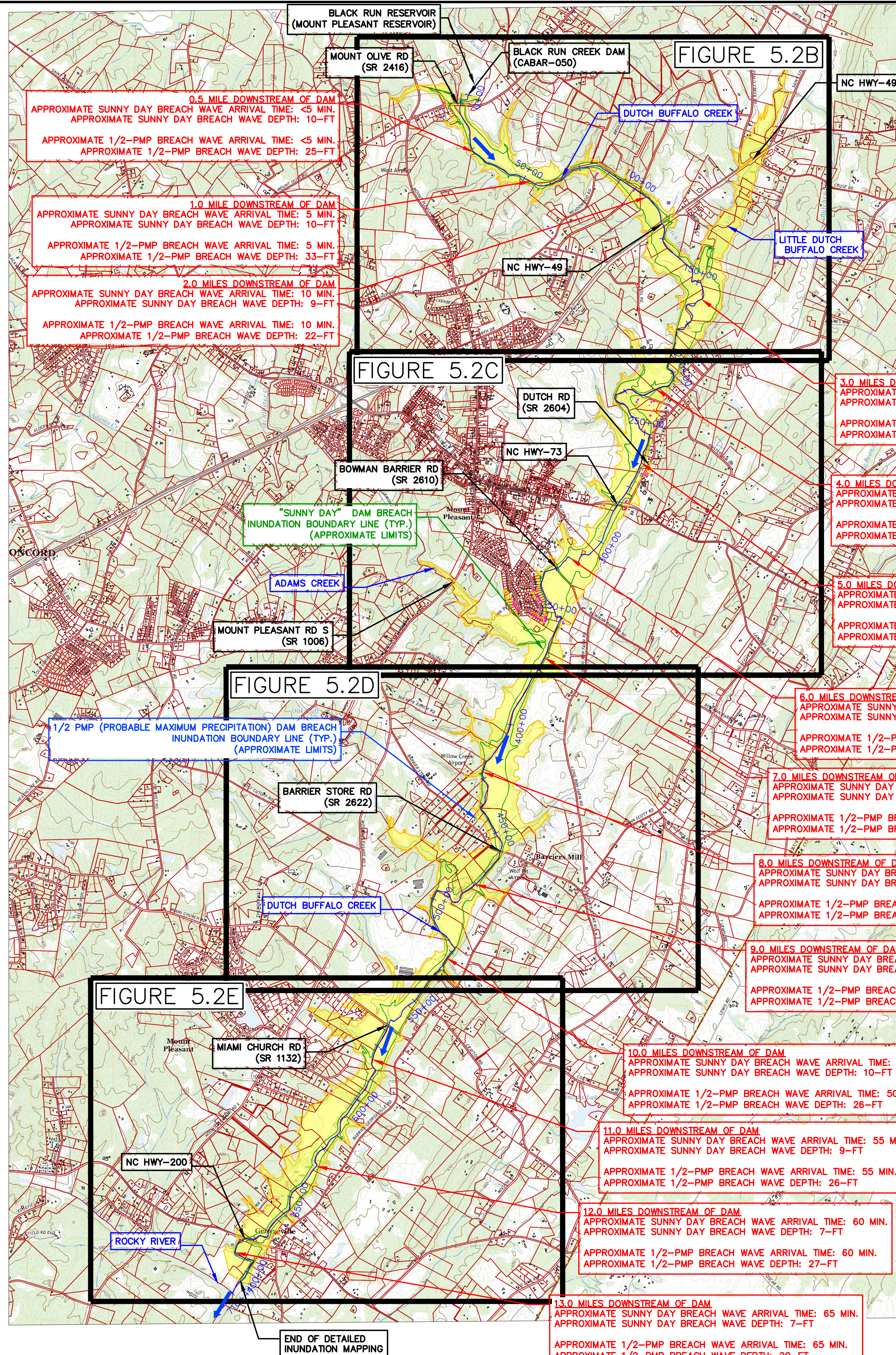
Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	25292	Max WS	Rainy No-Breach	34692.04	491.79	519.40	510.69	519.93	0.001051	8.63	10839.49	838.57	0.30
Reach-1	25292	Max WS	Rainy Breach	38132.05	491.79	520.09	511.42	520.62	0.001077	8.89	12339.50	853.24	0.30
Reach-1	25224		Bridge										
Reach-1	25146	Max WS	Rainy No-Breach	34477.67	490.82	517.46		518.36	0.001676	10.50	8898.14	785.53	0.37
Reach-1	25146	Max WS	Rainy Breach	37737.83	490.82	518.23		519.16	0.001706	10.81	9473.90	800.99	0.38
Reach-1	23956	Max WS	Rainy No-Breach	34125.00	489.82	515.40		516.03	0.002021	9.43	10648.63	1138.36	0.34
Reach-1	23956	Max WS	Rainy Breach	37088.52	489.82	516.16		516.80	0.001998	9.58	11541.40	1199.61	0.34
Reach-1	23186	Max WS	Rainy No-Breach	33907.16	489.29	514.73		514.78	0.000238	3.81	26778.63	1921.43	0.14
Reach-1	23186	Max WS	Rainy Breach	36722.77	489.29	515.50		515.55	0.000236	3.88	28261.46	1933.61	0.14
Reach-1	22708	Max WS	Rainy No-Breach	33707.05	488.29	514.60		514.65	0.000191	3.53	23793.13	1674.47	0.13
Reach-1	22708	Max WS	Rainy Breach	36710.33	488.29	515.37		515.42	0.000192	3.62	25094.50	1702.75	0.13
Reach-1	21585	Max WS	Rainy No-Breach	33705.70	487.75	514.56		514.59	0.000123	2.79	26813.72	1869.25	0.10
Reach-1	21585	Max WS	Rainy Breach	36701.43	487.75	515.33		515.36	0.000123	2.86	28255.40	1876.78	0.10
Reach-1	21145	Max WS	Rainy No-Breach	33704.28	487.50	514.53		514.56	0.000135	2.98	25271.08	1732.48	0.11
Reach-1	21145	Max WS	Rainy Breach	36694.35	487.50	515.29		515.34	0.000137	3.06	26607.91	1742.92	0.11
Reach-1	20682	Max WS	Rainy No-Breach	33701.07	487.14	514.47		514.51	0.000142	3.06	24552.51	1631.78	0.11
Reach-1	20682	Max WS	Rainy Breach	36681.02	487.14	515.24		515.28	0.000145	3.14	25810.93	1642.31	0.11
Reach-1	20281	Max WS	Rainy No-Breach	33697.88	486.80	514.40		514.46	0.000209	3.61	22913.29	1506.26	0.13
Reach-1	20281	Max WS	Rainy Breach	36669.90	486.80	515.17		515.23	0.000213	3.72	24071.86	1514.10	0.13
Reach-1	19856	Max WS	Rainy No-Breach	33694.38	486.65	514.32		514.39	0.000224	3.79	20365.67	1300.35	0.14
Reach-1	19856	Max WS	Rainy Breach	36659.41	486.65	515.09		515.16	0.000229	3.92	21365.73	1312.77	0.14
Reach-1	19276	Max WS	Rainy No-Breach	33688.62	486.21	514.03		514.26	0.000610	6.23	13239.17	815.72	0.23
Reach-1	19276	Max WS	Rainy Breach	36644.78	486.21	514.78		515.03	0.000631	6.48	13854.28	820.97	0.24
Reach-1	18718	Max WS	Rainy No-Breach	33578.96	485.71	513.21		513.93	0.001451	9.59	6799.07	444.02	0.35
Reach-1	18718	Max WS	Rainy Breach	36492.17	485.71	513.92		514.70	0.001511	9.99	7115.46	450.06	0.36
Reach-1	18434	Max WS	Rainy No-Breach	33444.24	485.83	511.94		513.72	0.002942	13.24	4380.32	349.87	0.50
Reach-1	18434	Max WS	Rainy Breach	36297.59	485.83	512.57		514.48	0.003055	13.75	4605.37	356.59	0.51
Reach-1	17975	Max WS	Rainy No-Breach	33279.61	486.01	511.40		512.20	0.002272	11.63	6711.01	579.30	0.44
Reach-1	17975	Max WS	Rainy Breach	36291.71	486.01	512.07		512.90	0.002320	11.99	7098.15	590.19	0.44
Reach-1	17496	Max WS	Rainy No-Breach	33276.24	486.05	510.98		511.28	0.000856	6.97	9831.11	739.82	0.27
Reach-1	17496	Max WS	Rainy Breach	36053.09	486.05	511.64		511.96	0.000870	7.17	10323.35	745.90	0.27
Reach-1	17154	Max WS	Rainy No-Breach	33093.16	486.06	510.65		510.99	0.000919	7.23	9159.56	679.95	0.28
Reach-1	17154	Max WS	Rainy Breach	36048.18	486.06	511.30		511.67	0.000959	7.54	9606.26	693.50	0.29
Reach-1	16798	Max WS	Rainy No-Breach	33090.82	486.07	510.15		510.65	0.001284	8.46	7752.10	590.58	0.33
Reach-1	16798	Max WS	Rainy Breach	35782.31	486.07	510.78		511.31	0.001313	8.73	8128.09	598.52	0.34
Reach-1	16441	Max WS	Rainy No-Breach	32887.31	486.12	509.68		510.23	0.001174	8.49	7706.98	587.73	0.32
Reach-1	16441	Max WS	Rainy Breach	35479.93	486.12	510.30		510.88	0.001204	8.76	8071.69	595.48	0.33
Reach-1	16068	Max WS	Rainy No-Breach	32662.33	486.14	509.36		509.76	0.001075	7.90	8649.73	661.67	0.30
Reach-1	16068	Max WS	Rainy Breach	35476.64	486.14	509.97		510.40	0.001115	8.20	9056.71	670.25	0.31
Reach-1	15640	Max WS	Rainy No-Breach	32658.86	486.14	508.93		509.31	0.000976	7.50	8649.67	675.89	0.29
Reach-1	15640	Max WS	Rainy Breach	35146.30	486.14	509.53		509.92	0.000993	7.71	9064.25	714.68	0.29
Reach-1	15313	Max WS	Rainy No-Breach	32650.96	486.17	508.90		508.99	0.000325	4.32	16953.43	1410.93	0.17
Reach-1	15313	Max WS	Rainy Breach	35140.73	486.17	509.51		509.60	0.000325	4.40	17815.88	1423.93	0.17
Reach-1	14514	Max WS	Rainy No-Breach	32419.70	486.20	508.66	499.67	508.76	0.000356	4.52	16215.47	1521.89	0.18
Reach-1	14514	Max WS	Rainy Breach	35114.95	486.20	509.26	499.98	509.37	0.000361	4.64	17149.21	1560.51	0.18
Reach-1	14458		Bridge										
Reach-1	14362	Max WS	Rainy No-Breach	32419.70	483.71	508.55		508.61	0.000204	3.59	22272.61	1867.82	0.13
Reach-1	14362	Max WS	Rainy Breach	34809.21	483.71	509.17		509.23	0.000203	3.65	23434.74	1887.04	0.13
Reach-1	13931	Max WS	Rainy No-Breach	32408.45	483.54	508.46		508.51	0.000213	3.65	21721.18	1679.39	0.13
Reach-1	13931	Max WS	Rainy Breach	34806.29	483.54	509.08		509.14	0.000213	3.72	22764.63	1691.55	0.13
Reach-1	13267	Max WS	Rainy No-Breach	32389.25	483.19	508.32		508.38	0.000201	3.44	20074.09	1385.06	0.13
Reach-1	13267	Max WS	Rainy Breach	34796.36	483.19	508.94		509.00	0.000204	3.53	20931.63	1393.71	0.13
Reach-1	12865	Max WS	Rainy No-Breach	32211.08	483.16	508.13		508.28	0.000418	5.19	12740.91	863.51	0.19
Reach-1	12865	Max WS	Rainy Breach	34788.44	483.16	508.74		508.90	0.000431	5.36	13269.92	868.83	0.19
Reach-1	12271	Max WS	Rainy No-Breach	32207.63	482.91	507.75		508.06	0.000894	7.57	12898.21	919.49	0.28

HEC-RAS River: DutchBuffaloCr Reach: Reach-1 Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	12271	Max WS	Rainy Breach	34529.52	482.91	508.35		508.68	0.000910	7.76	13451.66	925.32	0.28
Reach-1	11897	Max WS	Rainy No-Breach	32027.32	482.88	507.42		507.69	0.000961	7.36	12818.33	934.64	0.27
Reach-1	11897	Max WS	Rainy Breach	34523.96	482.88	508.01		508.30	0.000985	7.58	13376.80	940.72	0.28
Reach-1	11205	Max WS	Rainy No-Breach	32019.58	482.63	506.94		507.08	0.000636	5.81	16387.00	1257.80	0.22
Reach-1	11205	Max WS	Rainy Breach	34254.89	482.63	507.53		507.68	0.000637	5.92	17135.04	1266.91	0.22
Reach-1	10468	Max WS	Rainy No-Breach	31845.40	482.37	506.63		506.70	0.000295	3.98	17638.10	1310.99	0.15
Reach-1	10468	Max WS	Rainy Breach	34233.47	482.37	507.22		507.29	0.000300	4.09	18416.68	1322.84	0.15
Reach-1	9962	Max WS	Rainy No-Breach	31841.56	482.23	506.52		506.57	0.000188	3.27	21733.07	1580.09	0.12
Reach-1	9962	Max WS	Rainy Breach	34210.36	482.23	507.12		507.17	0.000191	3.35	22668.55	1588.88	0.12
Reach-1	9439	Max WS	Rainy No-Breach	31835.25	482.02	506.47		506.49	0.000114	2.49	26246.09	1857.07	0.09
Reach-1	9439	Max WS	Rainy Breach	33996.44	482.02	507.06		507.09	0.000114	2.54	27346.38	1869.11	0.09
Reach-1	8910	Max WS	Rainy No-Breach	31827.17	481.77	506.37		506.42	0.000204	3.35	23192.22	1475.92	0.12
Reach-1	8910	Max WS	Rainy Breach	33993.57	481.77	506.96		507.01	0.000207	3.44	24063.82	1483.74	0.13
Reach-1	8393	Max WS	Rainy No-Breach	31819.25	481.56	506.17		506.30	0.000462	5.25	17527.79	1189.25	0.20
Reach-1	8393	Max WS	Rainy Breach	33988.59	481.56	506.75		506.89	0.000469	5.38	18226.48	1201.12	0.20
Reach-1	7555	Max WS	Rainy No-Breach	31804.84	479.62	505.77		505.94	0.000497	5.61	12736.98	1003.43	0.20
Reach-1	7555	Max WS	Rainy Breach	33975.39	479.62	506.35		506.53	0.000504	5.74	13324.68	1025.89	0.20
Reach-1	6937	Max WS	Rainy No-Breach	31788.95	478.90	505.59		505.67	0.000295	4.27	19208.59	1302.52	0.15
Reach-1	6937	Max WS	Rainy Breach	33958.62	478.90	506.17		506.25	0.000301	4.38	19962.55	1310.71	0.15
Reach-1	6353	Max WS	Rainy No-Breach	31721.95	477.55	505.08		505.47	0.001059	8.28	12114.03	1127.49	0.29
Reach-1	6353	Max WS	Rainy Breach	33849.86	477.55	505.64		506.04	0.001090	8.52	12759.39	1193.29	0.29
Reach-1	5556	Max WS	Rainy No-Breach	31713.84	476.57	504.27		504.72	0.001104	8.22	10198.71	1058.44	0.29
Reach-1	5556	Max WS	Rainy Breach	33844.17	476.57	504.87		505.25	0.000979	7.87	12106.40	1082.29	0.28
Reach-1	4867	Max WS	Rainy No-Breach	31702.91	475.86	503.82		504.02	0.000599	6.11	13556.17	902.00	0.22
Reach-1	4867	Max WS	Rainy Breach	33833.29	475.86	504.41		504.63	0.000613	6.28	14094.32	914.14	0.22
Reach-1	4241	Max WS	Rainy No-Breach	31690.71	475.52	503.59		503.68	0.000318	4.44	18512.72	1191.81	0.16
Reach-1	4241	Max WS	Rainy Breach	33819.90	475.52	504.18		504.27	0.000325	4.57	19218.48	1204.95	0.16
Reach-1	3203	Max WS	Rainy No-Breach	31673.18	474.95	502.62	491.87	503.46	0.000999	8.39	5547.14	1070.82	0.30
Reach-1	3203	Max WS	Rainy Breach	33799.99	474.95	503.16	492.31	504.06	0.001046	8.71	5703.73	1082.26	0.31
Reach-1	3104		Bridge										
Reach-1	2938	Max WS	Rainy No-Breach	31668.92	476.08	495.40		498.44	0.005845	15.45	2780.75	897.67	0.67
Reach-1	2938	Max WS	Rainy Breach	33786.22	476.08	495.69		498.98	0.006200	16.10	2852.11	905.57	0.69
Reach-1	2721	Max WS	Rainy No-Breach	31664.88	475.76	495.76		495.98	0.001318	6.82	10256.35	1042.95	0.29
Reach-1	2721	Max WS	Rainy Breach	33783.25	475.76	496.11		496.34	0.001345	6.98	10620.80	1045.48	0.29
Reach-1	1407	Max WS	Rainy No-Breach	31656.29	474.01	495.13		495.34	0.001056	6.29	11368.61	1368.45	0.27
Reach-1	1407	Max WS	Rainy Breach	33777.00	474.01	495.47		495.69	0.001066	6.40	11836.17	1373.15	0.27
Reach-1	1099	Max WS	Rainy No-Breach	31651.85	473.75	494.88		495.14	0.001108	6.91	11422.01	1451.74	0.29
Reach-1	1099	Max WS	Rainy Breach	33773.66	473.75	495.22		495.48	0.001117	7.03	11915.82	1460.44	0.29
Reach-1	596	Max WS	Rainy No-Breach	31641.06	473.13	494.53	490.34	494.71	0.000801	5.91	14307.69	1898.24	0.24
Reach-1	596	Max WS	Rainy Breach	33765.37	473.13	494.87	490.55	495.05	0.000802	5.98	14953.43	1904.89	0.24

NOTES:

1. INUNDATION MAP PREPARED USING HEC-RAS STREAM MODELS OBTAINED FROM NORTH CAROLINA FLOOD RISK INFORMATION SYSTEM (FRIS) AND FLOW DATA DETERMINED FROM DETAILED ENGINEERING ANALYSIS AND MODELING.
2. THE METHODS, PROCEDURES, AND ASSUMPTIONS USED TO DELINEATE THE INUNDATION AREAS SHOWN ON THIS MAP ARE APPROXIMATE AND SHOULD ONLY BE USED AS A GUIDELINE FOR ESTABLISHING EVACUATION ZONES. ACTUAL AREAS INUNDATED WILL DEPEND ON ACTUAL FAILURE OF FLOOD CONDITIONS AND MAY DIFFER FROM AREAS SHOWN ON THIS MAP. (FERC 2007).
3. USGS TOPOGRAPHIC IMAGE AND MAPPING BASED ON ESRI GIS SOURCE DATA.
4. INUNDATION BOUNDARY WAS DELINEATED USING 1 FT ELEVATION CONTOURS OBTAINED FROM NC OneMap.
5. INUNDATED AREAS AND POTENTIALLY AT RISK STRUCTURES ARE NOT NECESSARILY LIMITED TO THOSE SHOWN. OTHER LOCATIONS MAY BE DESIGNATED BY APPROPRIATE EMERGENCY PERSONNEL BASED ON CIRCUMSTANCES OF AN ACTUAL EVENT OR CONDITIONS THAT VARY FROM THE METHODOLOGIES, ASSUMPTIONS, AND STANDARDS USED TO PREPARE THIS DOCUMENT.



LEGEND

- PARCEL LINE
- STREAM CENTERLINE
- 12 AT RISK STRUCTURE LABEL (TABLE 5.1)
- AT RISK STRUCTURE (TABLE 5.1)
- 1/2 PMP INUNDATION BOUNDARY
- SUNNY DAY INUNDATION BOUNDARY

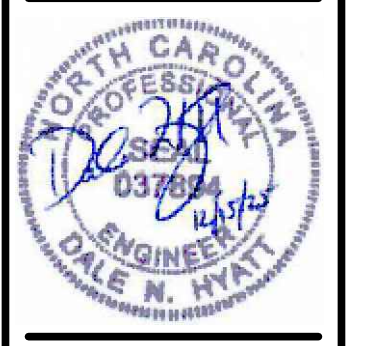
SCALE IN FEET (1" = 2,400')

0 1,200 2,400 4,800

FINAL DRAWING - FOR REVIEW PURPOSES ONLY

MARK	REVISIONS	BY	DATE

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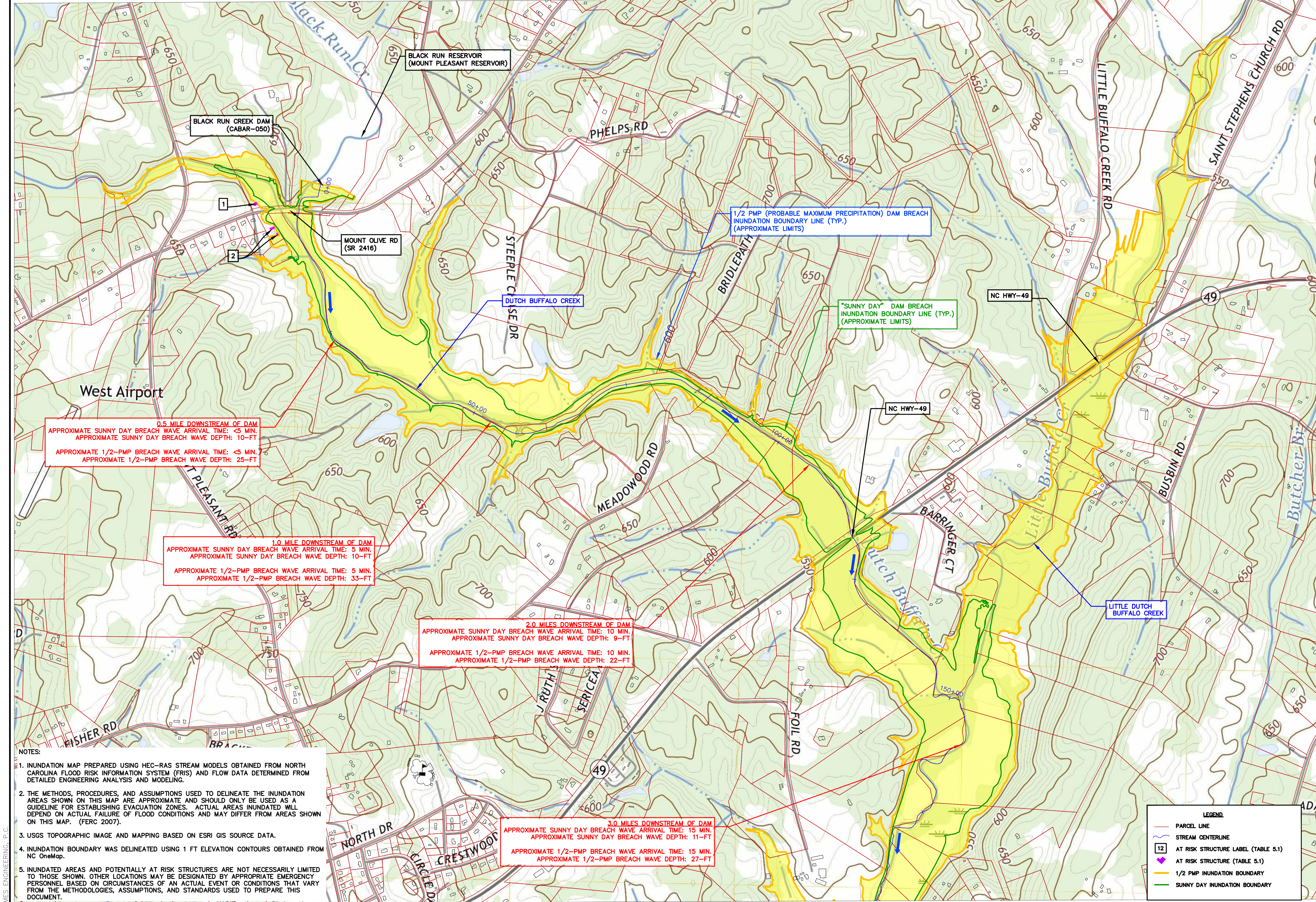
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 Clanton, NC 27012

LICENSE NO. C-2909

**BLACK RUN CREEK DAM
 EMERGENCY ACTION PLAN**
 MOUNT PLEASANT, NC - CABARRUS COUNTY
 MAP OF DOWNSTREAM HAZARDS
 OVERALL MAP SHEET

DATE: DECEMBER 2025
 DESIGNED: DNH
 DRAWN: DNH
 JOB NO:
 FIGURE: **5.2A**
 OF: 1

CABAR-050



0.5 MILE DOWNSTREAM OF DAM
 APPROXIMATE SUNNY DAY BREACH WAVE ARRIVAL TIME: <5 MIN.
 APPROXIMATE SUNNY DAY BREACH WAVE DEPTH: 10-FT
 APPROXIMATE 1/2-PMP BREACH WAVE ARRIVAL TIME: <5 MIN.
 APPROXIMATE 1/2-PMP BREACH WAVE DEPTH: 25-FT

1.0 MILE DOWNSTREAM OF DAM
 APPROXIMATE SUNNY DAY BREACH WAVE ARRIVAL TIME: 5 MIN.
 APPROXIMATE SUNNY DAY BREACH WAVE DEPTH: 10-FT
 APPROXIMATE 1/2-PMP BREACH WAVE ARRIVAL TIME: 5 MIN.
 APPROXIMATE 1/2-PMP BREACH WAVE DEPTH: 33-FT

2.0 MILES DOWNSTREAM OF DAM
 APPROXIMATE SUNNY DAY BREACH WAVE ARRIVAL TIME: 10 MIN.
 APPROXIMATE SUNNY DAY BREACH WAVE DEPTH: 9-FT
 APPROXIMATE 1/2-PMP BREACH WAVE ARRIVAL TIME: 10 MIN.
 APPROXIMATE 1/2-PMP BREACH WAVE DEPTH: 22-FT

3.0 MILES DOWNSTREAM OF DAM
 APPROXIMATE SUNNY DAY BREACH WAVE ARRIVAL TIME: 15 MIN.
 APPROXIMATE SUNNY DAY BREACH WAVE DEPTH: 11-FT
 APPROXIMATE 1/2-PMP BREACH WAVE ARRIVAL TIME: 15 MIN.
 APPROXIMATE 1/2-PMP BREACH WAVE DEPTH: 27-FT

- NOTES:
1. INUNDATION MAP PREPARED USING HEC-RAS STREAM MODELS OBTAINED FROM NORTH CAROLINA FLOOD RISK INFORMATION SYSTEM (FRIS) AND FLOW DATA DETERMINED FROM DETAILED ENGINEERING ANALYSIS AND MODELING.
 2. THE METHODS, PROCEDURES, AND ASSUMPTIONS USED TO DELINEATE THE INUNDATION AREAS SHOWN ON THIS MAP ARE APPROXIMATE AND SHOULD ONLY BE USED AS A GUIDELINE FOR ESTABLISHING EVACUATION ZONES. ACTUAL AREAS INUNDATED WILL DEPEND ON ACTUAL FAILURE OF FLOOD CONDITIONS AND MAY DIFFER FROM AREAS SHOWN ON THIS MAP. (FERC 2007).
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LEGEND

	PARCEL LINE
	STREAM CENTERLINE
	AT RISK STRUCTURE LABEL (TABLE 5.1)
	AT RISK STRUCTURE (TABLE 5.1)
	1/2 PMP INUNDATION BOUNDARY
	SUNNY DAY INUNDATION BOUNDARY

SCALE IN FEET (1" = 600')

0 300 600 1,200

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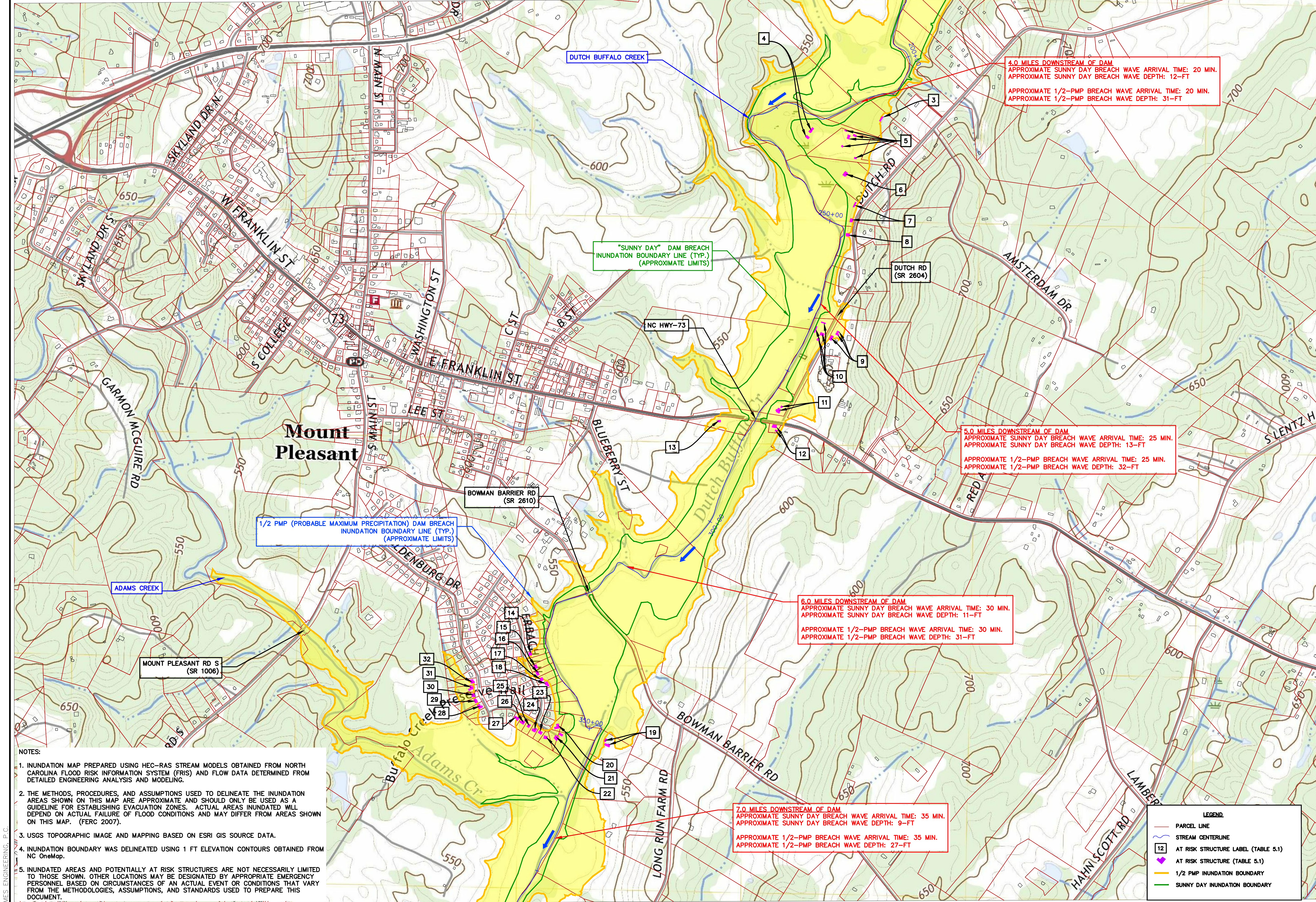
LICENSE NO. C-2909

**BLACK RUN CREEK DAM
 EMERGENCY ACTION PLAN**
 MOUNT PLEASANT, NC - CABARRUS COUNTY
 MAP OF DOWNSTREAM HAZARDS
 SHEET 2 OF 5

DATE: DECEMBER 2025
 DESIGNED: DNH
 DRAWN: DNH
 JOB NO:
 FIGURE: **5.2B**
 OF: 1

MARK	REVISIONS	BY	DATE

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- NOTES:
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4.0 MILES DOWNSTREAM OF DAM
 APPROXIMATE SUNNY DAY BREACH WAVE ARRIVAL TIME: 20 MIN.
 APPROXIMATE SUNNY DAY BREACH WAVE DEPTH: 12-FT
 APPROXIMATE 1/2-PMP BREACH WAVE ARRIVAL TIME: 20 MIN.
 APPROXIMATE 1/2-PMP BREACH WAVE DEPTH: 31-FT

5.0 MILES DOWNSTREAM OF DAM
 APPROXIMATE SUNNY DAY BREACH WAVE ARRIVAL TIME: 25 MIN.
 APPROXIMATE SUNNY DAY BREACH WAVE DEPTH: 13-FT
 APPROXIMATE 1/2-PMP BREACH WAVE ARRIVAL TIME: 25 MIN.
 APPROXIMATE 1/2-PMP BREACH WAVE DEPTH: 32-FT

6.0 MILES DOWNSTREAM OF DAM
 APPROXIMATE SUNNY DAY BREACH WAVE ARRIVAL TIME: 30 MIN.
 APPROXIMATE SUNNY DAY BREACH WAVE DEPTH: 11-FT
 APPROXIMATE 1/2-PMP BREACH WAVE ARRIVAL TIME: 30 MIN.
 APPROXIMATE 1/2-PMP BREACH WAVE DEPTH: 31-FT

7.0 MILES DOWNSTREAM OF DAM
 APPROXIMATE SUNNY DAY BREACH WAVE ARRIVAL TIME: 35 MIN.
 APPROXIMATE SUNNY DAY BREACH WAVE DEPTH: 9-FT
 APPROXIMATE 1/2-PMP BREACH WAVE ARRIVAL TIME: 35 MIN.
 APPROXIMATE 1/2-PMP BREACH WAVE DEPTH: 27-FT

LEGEND

- PARCEL LINE
- STREAM CENTERLINE
- 12 AT RISK STRUCTURE LABEL (TABLE 5.1)
- AT RISK STRUCTURE (TABLE 5.1)
- 1/2 PMP INUNDATION BOUNDARY
- SUNNY DAY INUNDATION BOUNDARY

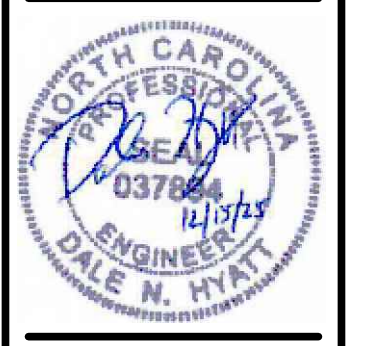
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0 300 600 1,200

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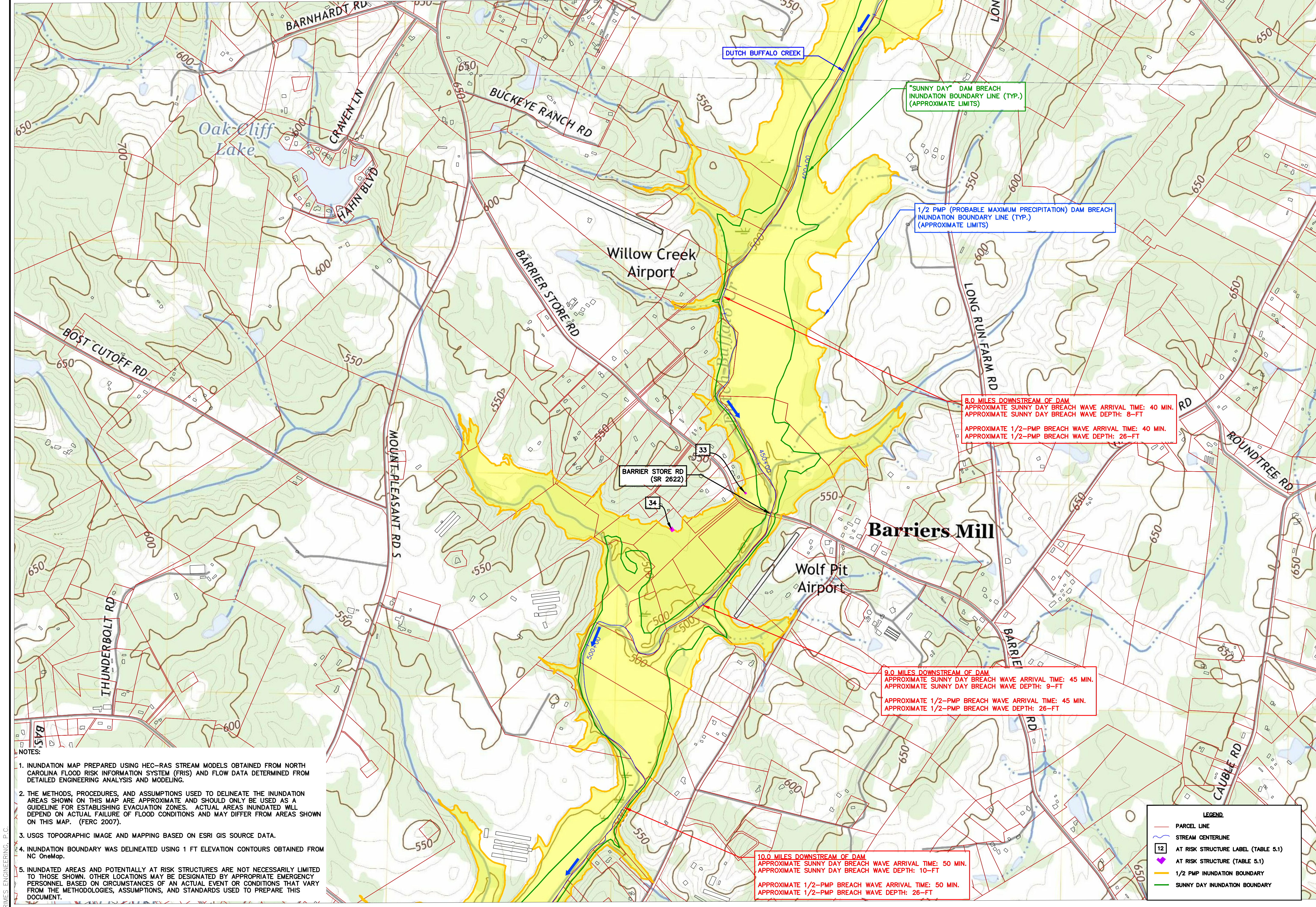
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**BLACK RUN CREEK DAM
 EMERGENCY ACTION PLAN**
 MOUNT PLEASANT, NC - CABARRUS COUNTY
 MAP OF DOWNSTREAM HAZARDS
 SHEET 3 OF 5

DATE: DECEMBER 2025
 DESIGNED: DNH
 DRAWN: DNH
 JOB NO:
 FIGURE: 5.2C
 OF: 1

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LEGEND

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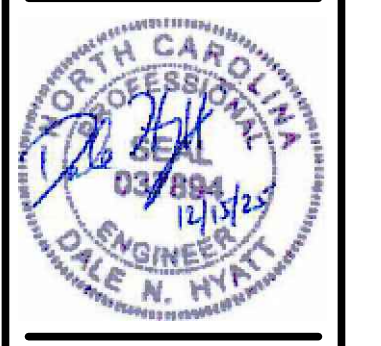
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 MAP OF DOWNSTREAM HAZARDS
 SHEET 4 OF 5**

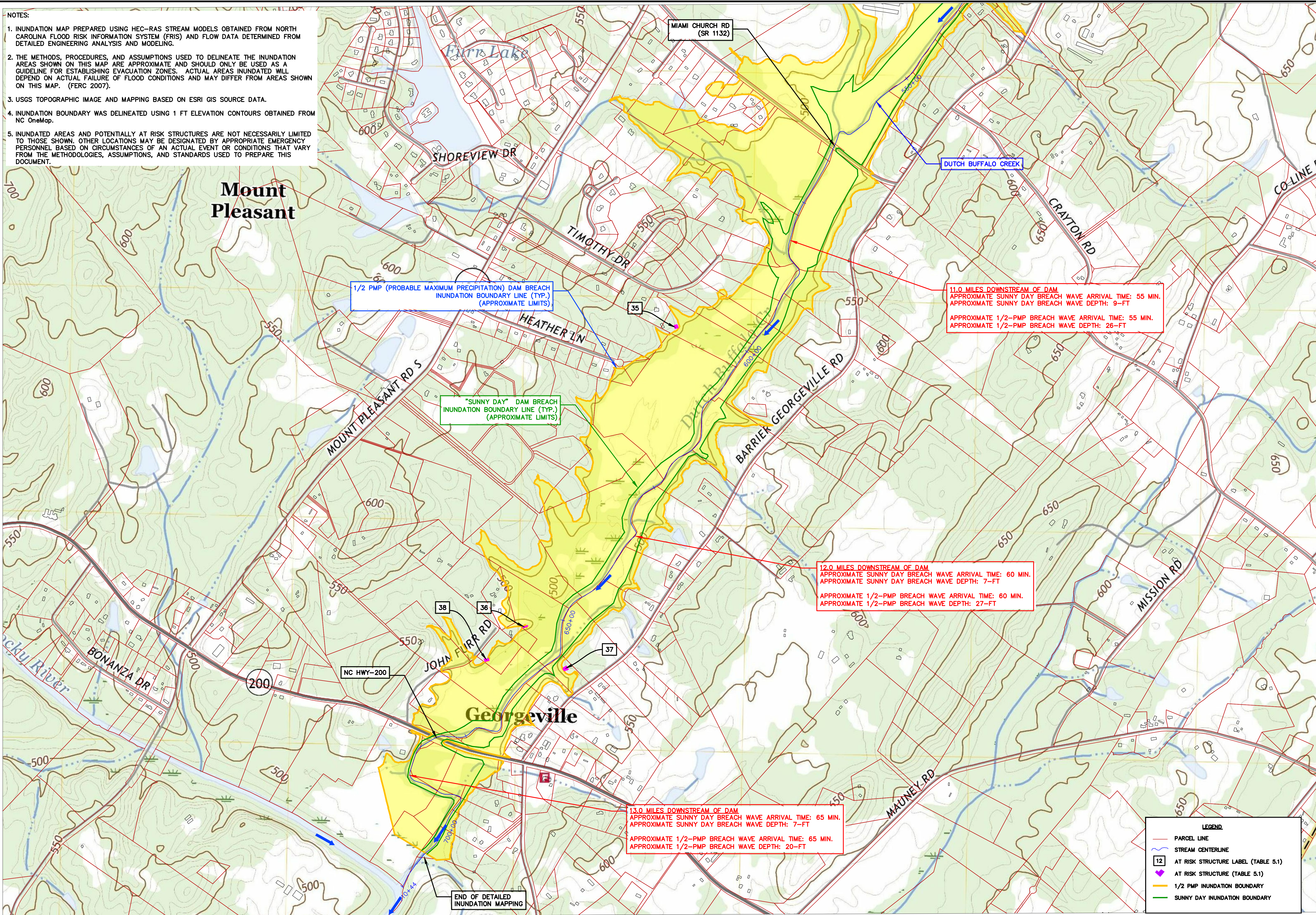
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CABAR-050

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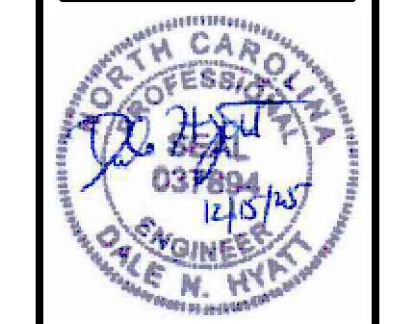


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 MAP OF DOWNSTREAM HAZARDS
 SHEET 5 OF 5**

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 OF: 1

CABAR-050

SCALE IN FEET (1" = 600')
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RESOLUTION FOR MEMBERSHIP IN CENTRALINA REGIONAL COUNCIL

WHEREAS, NC General Statutes 160A-470 and 153A-445 authorize municipalities and counties to form and to join councils of governments that address regional issues and opportunities by offering a variety of planning, coordination, advocacy and technical assistance services; and

WHEREAS, Centralina Regional Council was created to serve the needs of a nine-county region that includes Anson, Cabarrus, Gaston, Lincoln, Mecklenburg, Rowan, Stanly and Union Counties; and

WHEREAS, the mission of Centralina Regional Council is to lead regional collaboration and spark local action to expand opportunity and improve quality of life; and

WHEREAS, the Town of Mount Pleasant desires to join with other municipalities and counties that are members of Centralina Regional Council; and

WHEREAS, the Town of Mount Pleasant Board of Commissioners affirms the benefits of regional cooperation among local governments and their elected and appointed officials.

NOW, THEREFORE, BE IT RESOLVED by the Town of Mount Pleasant Board of Commissioners that the Town of Mount Pleasant hereby ratifies the Centralina Regional Council Charter and affirms its membership in the organization, pending a majority vote of the member governments of Centralina Regional Council.

This the 14th day of April, 2026.

Mayor Tony Lapish

seal

ATTEST:

Amy Schueneman, Town Clerk

TOWN OF MOUNT PLEASANT

An equal opportunity provider, employer, and lender.

8590 Park Drive | PO Box 787 | Mount Pleasant, NC 28124 | 704.436.9800 | mtplesantnc.gov

MEMORANDUM

To: Mayor and Town Board

From: Randy Holloway, Town Manager

Date: April 14, 2026

RE: Manager's report for March 2026

Please find listed below an update / overview for the month of March 2026

- Continued working with Staff, Graver Engineering and NCDEQ to keep the PAC project plans moving forward. The well has been drilled down to 460' with a flow of 130 gallons per minute. The PAC system needs a minimum of 60 gpm so the well should handle that with no problem. Morgan Well is taking samples of the water to report to NCDEQ and that should be completed in a couple of weeks. The floating curtain for the lagoon has been delivered. We hope to have the PAC system permitted and running by early to mid-May.
- Worked with Staff to bring the water plant back online and it has been up and running with some minor issues since March 11, 2026.
- Continued working with Staff, LKC and State Utility to review and approve items for change orders for the water line and sewer project to keep the projects moving forward. Worked with Staff, LKC and State Utility to work out the details of adding a new 12" water line from the water treatment plant to the North Drive water tank to increase the reliability of the water distribution system. There are sufficient funds remaining from the overall project to pay for this additional project. The Assistant Manager has a comprehensive update to her monthly report.
- Continued worked with Staff to keep the State funded sidewalk project and the North Washington Drive projects moving forward.
- Continued working with Staff to keep the proposed Town parking lot behind Buddy's restaurant moving forward.
- Continued working with Staff on the FY26/27 budget process.
- Participated in the monthly water and sewer project update meetings.
- Attended the monthly WSACC meeting.
- Attended a meeting with the Fire Chief and Cabarrus County to discuss increasing the rural fire tax and the possibility of co-locating Cabarrus County Squad 410 at Mount Pleasant Fire Department.



To: Mayor & Board of Commissioners
From: Erin Burris, AICP, Assistant Town Manager & Planning Director
Date: April 14, 2026
Re: Monthly Update for Planning, Economic Development, & Infrastructure Projects

Active Planning & Zoning Cases

SITE 2023-01 PROPEL CHURCH

Description: Site plan for religious institution
Location: 7801 NC Highway 73 E
Cabarrus County Parcel Number(s): 5660-96-0201
Zoning: OI Office & Institutional
Area: approx. 6.8 acres
Estimated Sewer Capacity Usage: 1,520gpd (5gal per seat)
Current Status: Revised site plan received to address TRC comments (dormant for two years). Under review.

SUB 2024-01 ADAMS CREEK SUBDIVISION

Description: Major subdivision construction plans for 60-lot single-family residential subdivision. Property annexed and zoned in 2020 and rezoned with Preliminary Plat approval in 2024.
Location: 929, 941, and 827 Walker Road
Cabarrus PIN: 5650-95-6345, 5660-05-0225, & 5650-95-8958
Current Zoning: CZ RM Conditional Zoning Residential Medium Density
Area: approx.. 30 acres
Proposed Density: 2.0 dwelling units per acre
Estimated Sewer Capacity Usage: 13,500gpd (Town Board approval needed for allocation)
Current Status: Construction plan submittal received. To be distributed to Technical Review Committee for review.

SITE 2026-01 YOST PROPERTY

Description: Site plan to construct counseling office
Location: 5623 NC Hwy. 49 N
Cabarrus PIN: 5650-82-0012
Current Zoning: Conditional Zoning Office & Institutional (CZ OI)
Area: 1.04 acres
Current Status: Waiting for formal site plan submittal.

SUB 2026-01 PLEASANT SPRINGS SUBDIVISION (& REZ 2026-03)

Description: Proposed major subdivision preliminary plat for 89 lot single-family residential subdivision. Property was initially annexed into the Town limits in 2019 and zoned RH and C-2. Applicant proposes rezoning 7.3 acres of C-2 zoning to RH zoning.
Location: 5122 & 5130 NC Highway 49 N (near intersection of Hwy. 49 and Cold Springs Rd.)
Cabarrus PIN: 5660-34-5579
Current Zoning: RH Residential High Density (approx. 31.5 acres) & C-2 General Commercial (approx. 7.3 acres)
Proposed Zoning: Request to rezone 7.34 acres of C-2 to RH. All other zoning to remain the same
Area: 38.8 acres

Proposed Density: 2.3 dwelling units per acre

Estimated Sewer Capacity Usage: 20,025 gpd (Town Board approval required for allocation)

Current Status: Technical Review Committee reviewed proposed plat and provided comments. Waiting on revised plat submittal. Will be scheduled for Planning & Zoning Board review following completion of revisions.

SUB 2025-01 N. MAIN STREET INFILL SUBDIVISION (revised)

Description: Preliminary plat for proposed 17-lot infill subdivision on N. Main Street.

Location: 816 N. Main Street

Cabarrus PINs: 5670-16-6055 & 5670-15-7981

Current Zoning: RM Residential Medium Density

Area: 7.90 acres

Proposed Density: 2.15 dwelling units per acre

Estimated Sewer Capacity Usage: 3,825 gpd

Current Status: First submittal of Preliminary Plat reviewed by Technical Review Committee (TRC). Comments provided to engineer April 7, 2025. Revised plan received January 5, 2026 and reviewed by TRC. Comments provided. Have not receive revised plans. Has not been scheduled for Planning & Zoning Board review.

SITE 2025-01 HARRIS MUSTANG SUPPLY

Description: Request construct a 12,000 square foot building with office, retail, and warehouse space

Location: 6705 NC Highway 49 N

Cabarrus PIN: 5660-34-5579

Zoning: CZ I-1 Light Industrial

Area: 4.93 acres

Estimated Sewer Capacity Usage: 0 gpd (project to utilize well and septic)

Current Status: Construction underway.

SITE 2024-01 UWHARRIE BANK

Description: Construction of new approximately 6,000sf bank building

Location: 8320 W. Franklin St.

Cabarrus County Parcel Number(s): 5670-13-6357

Current Zoning: CC Center City

Area: 3.707 acres (approximately 1 acre portion of site to be used)

Estimated Sewer Capacity Usage: existing tap for previous building

Current Status: Construction nearing completion.

SUB 2020-03 BRIGHTON PARK

Description: 178-lot single-family subdivision with community clubhouse and pool. Plans for development of this property were originally initiated in 2008.

Applicant: Niblock Homes

Location: Southwest corner of NC Highway 73 and NC Highway 49

Cabarrus County Parcel Number: 5660-56-4096, 6785, 8647, & 9681

Zoning: RM Residential Medium Density

Area: 86.77 acres

Density: 2.05 dwelling units per acre

Estimated Sewer Capacity Usage: 28,560gpd for first three phases and 14,160gpd for last two phases (42,720gpd total, allocated in development agreement 6/17/2022)

Current Status: Phase 1 Final Plat (58 lots) recorded. Bonded improvements are being completed. Zoning Permits being issued (17 issued to date, 40 remaining in Phase 1).

SUB 2017-01 GREEN ACRES

Description: 37-lot single-family subdivision. Plans for development of this property were originally initiated in 2008.

Location: NC Highway 73 at Green Acres Circle

Cabarrus County Parcel Number(s): 5651-70-6355

Zoning: RM CZ Conditional Residential Medium Density

Area: 14.92 acres

Density: 2.28 dwelling units per acre

Estimated Sewer Capacity Usage: 8,880gpd (allocated in development agreement 7/12/2022)

Current Status: Final Plat recorded. Zoning Permits being issued (all 37 zoning permits issued). Preparing for final engineering and zoning inspection for release of bonds and development agreement.

Code of Ordinances

During Fiscal Year 25-26, codification and updates to Part 4 Public Works and Part 6 Licensing and Regulation will be completed.

WSACC Sewer Treatment Capacity Allocation

The WSACC Wastewater Capacity Distribution #1 Memo dated July 22, 2025 shows that Mount Pleasant has a total of 133,438gpd of allocation. Distribution #14 added 9,574 gpd to Mount Pleasant's allocation. The Town's updated sewer allocation spreadsheet shows 38,700gpd of pending non-strategic reserve and 8,308gpd of strategic reserve remaining to be allocated through the 30MGD Rocky River Regional Wastewater Treatment Plant (RRWWTP) expansion. Allocation expires after two years, if developments have not moved forward with construction plans. WSACC flow acceptance expires after two years following construction plan approval.

Permits

March2026 permit list attached at end of report.

Infrastructure Projects

Information on all infrastructure projects is provided on the Town's project website at <https://mpncfuture.com/>
Below is a summary of project descriptions, overall schedule, funding sources, and status from the website:

WATER DISTRIBUTION IMPROVEMENTS (12-INCH WATER MAINS) – NEARING COMPLETION

- **Project Description:** This project will replace old 6-inch water lines (most installed in 1937) with new 12-inch water mains along Main Street (North Drive to Lee Street), Franklin Street (Skyland Drive to Blueberry Street), Cook Street (Main Street to N. Washington Street), and Highway 49 (Main Street to Highway 73 interchange). This is a total of approximately 4 miles of waterline. This project will improve both water quality and fire flow throughout the Town. Click [here](#) to view the proposed improvements map.
- **Schedule:** This project began February 10, 2025 with substantial completion scheduled by the end of 2025. Contracted completion date is May 6, 2026.
- **Funding Source:** \$9,988,029 State Budget allocation from federal ARPA funds
- **Status:** Nearing completion-Approximately 98% complete. Information about road closures and service interruptions will be posted on social media. Latest update can be viewed at: <https://mpncfuture.com/Dev/ID/1055/Waterline-Project-Monthly-Update--March-27-2026>

LOWER ADAMS CREEK SEWER OUTFALL – COMPLETE (ONLY PUNCHLIST ITEMS REMAINING)

- **Project Description:** This project was originally planned to be completed by the Water and Sewer Authority of Cabarrus County (WSACC) in 2009. The project never came to fruition, so the Town is picking up the project where it left off. This project will retire the Summer Street and Pasture pump

stations. Click [here](#) to view the proposed Lower Adams Creek Sewer Outfall map. Click [here](#) to see a composite map of all proposed sewer improvements.

- **Schedule:** This project began March 3, 2025 with completion by March 2026.
- **Funding Source:** \$5,822,971 State Budget allocation from federal ARPA funds
- **Status:** Complete. Latest update can be viewed at:
<https://mpncfuture.com/Dev/ID/1054/Lower-Adams-Creek-Sewer-Outfall-Project-Monthly-Update-February-26-2026>

WATER INTAKE & TREATMENT IMPROVEMENTS – NEARING COMPLETION

- **Project Description:** The Town worked with the North Carolina Department of Environmental Quality (NCDEQ) and three different consulting engineers to determine the necessary water intake and treatment upgrades and changes to improve drinking water quality and bring disinfection byproduct levels into compliance. All internal components and filter media the Water Treatment Plant are being replaced, a new Powder Activated Carbon (PAC) system is being installed, and the ground storage tank will be cleaned and coated and have new pipes and pumps installed. The Town plans to utilize a well to feed the PAC system and supplement the water from Dutch Buffalo Creek.
- **Schedule:** Recommendations from engineering firms were provided in February 2025. The implementation and installation of improvements began March 2025. The water treatment plant will be shut down to complete water treatment plant, PAC, and ground storage improvements August through December of 2025. Water will be purchased from the City of Concord during this time.
- **Funding Source:** Approximately \$1,600,000 total cost utilizing \$1,000,000 State Budget allocation (redirected by technical correction in state budget from S. Skyland Drive/Allman Road extension water lines). Approximately \$600,000 to be used from Water/Sewer fund balance. Additional funding is being pursued to complete needed improvements.
- **Status:** Nearing Completion-Approximately 98% complete. Water Treatment Plant, ground storage, and clear well upgrades and testing have been completed. Water Treatment Plant started producing water the week of March 4. Powder Activated Carbon (PAC) system building has been constructed and system has been set up. NCDEQ has approved well location. Well to be drilled second week of March. Waiting on final NCDEQ approval of engineering for PAC integration, following well installation. PAC system should be active during spring.

N. WASHINGTON STREET SIDEWALK – ENGINEERING COMPLETE

- **Project Description:** The Town adopted an NCDOT-funded Pedestrian Project Acceleration Plan in 2020 and has been pursuing funding to complete priority sidewalk segments since that time. The first sidewalk project will complete 900 feet of sidewalk, curb & gutter on the southern end of N. Washington St. between Park Drive and E. Franklin Street. This also includes a new stormwater culvert and slightly wider travel lanes. Phase 2 on S. Washington Street is not included in this project.
[N. Washington Street cut-sheet excerpt from Project Acceleration Plan](#)
- **Schedule:** Engineering is complete. Final approvals are underway. Right-of-way acquisition to begin in April 2026. The project is expected to go to bid in spring of 2026 with construction to begin mid-year.
- **Funding Source:** In the state's 2023 budget, \$2.7 million was directed to the Town of Mount Pleasant to complete priority sidewalk segments.
- **Status:** Volkert Engineering has completed engineering plans. Right-of-way acquisition exhibits received. Staff to begin on right-of-way acquisition in April.

FRANKLIN STREET SIDEWALKS - IN PRELIMINARY ENGINEERING

- **Project Description:** The Town adopted an NCDOT-funded Pedestrian Project Acceleration Plan in 2020 and has been pursuing funding to complete priority sidewalk segments since that time. There were three segments identified on Franklin Street: Duchess Drive to Halifax Street, Halifax Street to Main Street, and

Main Street to Blueberry Street. The Town worked with NCDOT to design a project for one or more of these segments to stay within available funds. Click here for excerpts from the Project Acceleration Plan. Each segment is being evaluated for feasibility with available funds.

[Franklin Street \(Duchess Drive to Halifax Street\) cut-sheet from Project Acceleration Plan](#)

[Franklin Street \(Halifax Street to Main Street\) cut-sheet from Project Acceleration Plan](#)

[Franklin Street \(Main Street to Blueberry Street\) cut-sheet from Project Acceleration Plan](#)

After getting cost estimates from NCDOT, it was determined that only the E. Franklin Street section of sidewalk, curb & gutter between Main Street and Blueberry Street could be completed with available funding. This segment was chosen because it will also be able to correct several stormwater issues along the corridor.

- **Schedule:** NCDOT provided a timeline that shows completion of E. Franklin Street sidewalk during 2029. There is currently no funding source identified for completion of sidewalk on W. Franklin Street.
- **Funding Source:** Estimated project cost-\$3.2 million. Funding from remainder of \$2.7 million state directed grant (after completion of N. Washington Street) as min. 20% match with federal CMAQ/CRP grant funding. A grant deadline extension has been requested in order to complete the E. Franklin Street sidewalk project.
- **Status:** Staff is currently working with NCDOT to design and administer sidewalk, curb & gutter improvements on E. Franklin Street, which will also help with stormwater issues in that area and can be coordinated with the Downtown Stormwater project.

DOWNTOWN SOUTHWEST QUADRANT PARKING – IN ENGINEERING

- **Project Description:** The Town’s Comprehensive Plan, adopted in 2017 and updated in 2025 includes a strategy to improve downtown parking. McAdams Engineering prepared a conceptual parking plan for the southwest quadrant of downtown which will provide approximately 160 parking spaces when complete. [Downtown Southwest Quadrant Parking Conceptual Plan](#)
- **Schedule:** Project engineering is scheduled to begin in November 2025 with estimated completion of Phase 1 parking by the end of 2026. Completion of other phases depends on cost estimates.
- **Funding Source:** Town General Fund (cost estimate being prepared)
- **Status:** Engineering is underway.

DOWNTOWN STORMWATER MITIGATION & UTILITY DUCT BANK - IN ENGINEERING / GRANT APPLICATION

- **Project Description:** Since Hurricane Florence in 2018, the Town has been working with NCDOT, Duke Energy, Windstream, Spectrum and contract engineers to implement necessary improvements to the Downtown stormwater system and place overhead utilities into underground duct bank. In 2020, the Town received a federal grant to study the stormwater issues in downtown and to update the Mount Pleasant National Register Historic District documentation in an effort to protect historic buildings. Following the completion of the study, it was determined that stormwater inlets and conveyances in downtown were undersized. The utility duct bank installation was an identified strategy in both the 2017 Comprehensive Plan and the update of the plan adopted in 2025 in order to achieve the goal to "cultivate a vibrant and attractive downtown atmosphere that residents and visitors enjoy while enhancing community character through the preservation of historic resources." The project involves the installation of properly sized inlets and conveyances along N. Main Street, W. Franklin Street, beside and behind the Old Barringer Motors building, and under Barringer Drive as well as the installation of underground utility duct bank within one block each direction of the Square (intersection of Highway 73 and Main Street). [Downtown Stormwater Study Existing Conditions](#) [Utility Duct Bank Schematic](#) [Comprehensive Plan Illustration](#)
- **Schedule:** The project had originally been scheduled to run concurrently with the waterline project. However, the FEMA Building Resilient Infrastructure in Communities (BRIC) grant program, which the project had been selected for, was cancelled in April of 2025 by the current federal administration.

Click [here](#) to view article about cancellation. The Town is now attempting to apply for a FEMA Hazard Mitigation Fund Grant through the NC Department of Public Safety while the state of North Carolina is pursuing the reinstatement of the BRIC grant through the courts. This pushes the original timeline back approximately four years, with an estimated completion date of 2029, if the Town is able to secure funding. The Town will attempt to work with NCDOT to complete the portion of the project that is located within the state right-of-way concurrently with the E. Franklin Street sidewalk project. The Town will attempt to complete the portions not within the state right-of-way concurrently with the downtown southwest quadrant parking lot project in 2026.

- **Funding Source:** Total cost estimate - \$5.44 million. Town pursuing Hazard Mitigation Fund Program (HMFP) grant. 2022 FEMA BRIC grant cancelled (however State Attorney General's office recently won lawsuit in federal court to reinstate funding-waiting on how this might affect project).
- **Status:** Staff submitted the Hazard Mitigation Grant application packet to the North Carolina Department of Public Safety for initial review on December 15. Department of Public Safety sent a request for information. Staff submitted additional information in mid-February and is waiting to hear back.

**TOWN OF MOUNT PLEASANT
COMPARISON BUDGET VS ACTUAL -March 2026**

	CURRENT BUDGET	YTD ACTUAL	DIFFERENCE	
GENERAL GOVERNMENT				
Town Hall	114,973.00	87,855.93	27,117.07	76%
Governing Body	40,068.00	28,872.42	11,195.58	72%
Admin	338,259.00	219,663.87	118,595.13	65%
Planning & Zoning	122,556.00	87,259.78	35,296.22	71%
	615,856.00	423,652.00	192,204.00	69%
PUBLIC SAFETY				
Law Enforcement	247,339.00	123,891.38	123,447.62	50%
Fire Department	1,258,662.00	834,048.38	424,613.62	66%
	1,506,001.00	957,939.76	548,061.24	64%
PUBLIC WORKS				
Operations Center	61,840.00	44,944.75	16,895.25	73%
Streets	240,029.00	64,626.79	175,402.21	27%
Sanitation	173,586.00	113,655.33	59,930.67	65%
Buildings & Grounds	95,475.00	69,521.06	25,953.94	73%
	570,930.00	292,747.93	278,182.07	51%
CULTURE/REC	94,571.00	61,316.80	33,254.20	65%
DEBT SERVICE				
Debt Service Principal	230,543.00	171,715.45	58,827.55	74%
Debt Service Interest	109,032.00	85,012.57	24,019.43	78%
	339,575.00	256,728.02	82,846.98	76%
TOTAL	3,126,933.00	1,079,389.50	1,134,548.49	
WATER/SEWER				
Admin	947,247.00	444,261.52	502,985.48	47%
Operations Center	24,140.00	\$ 18,543.22	5,596.78	77%
Water	210,280.00	161,991.81	48,288.19	77%
Sewer	441,279.00	305,620.65	135,658.35	69%
Water Treatment Plant	438,177.00	320,511.77	117,665.23	73%
	2,061,123.00	1,250,928.97	810,194.03	61%
DEBT SERVICE				
Debt Service Principal	109,671.00	9,467.52	100,203.48	9%
Debt Service Interest	138,753.00	3,661.08	135,091.92	3%
	248,424.00	13,128.60	235,295.40	5%
TOTAL	2,309,547.00	1,277,186.17	1,032,360.83	
COMBINED	5,436,480.00	2,356,575.67	3,079,904.33	

#26 State Grant-Waterline Capital Project (\$9,988,029)

<u>Date</u>	<u>To/From</u>	<u>check #</u>	<u>Amount</u>	<u>Reason</u>	<u>Remaining Balance</u>
	STATE ARPA GRANT		\$9,988,029.00		\$9,988,029.00
9/1/2022	LKC Engineering, PLLC	1001	-\$11,700.00	Invoice #22-2626	\$9,976,329.00
9/12/2022	LKC Engineering, PLLC	1002	-\$11,700.00	Invoice #22-2661	\$9,964,629.00
9/22/2022	LKC Engineering, PLLC	1003	-\$5,850.00	Invoice 22-2536	\$9,958,779.00
12/19/2022	LKC Engineering, PLLC	1004	-\$11,700.00	Invoice# 22-2931	\$9,947,079.00
1/17/2023	LKC Engineering, PLLC	1005	-\$11,700.00	Invoice# 23-3037	\$9,935,379.00
2/16/2023	LKC Engineering, PLLC	1006	-\$11,700.00	Invoice # 23-3134	\$9,923,679.00
3/22/2023	LKC Engineering, PLLC	1007	-\$11,700.00	Invoice# 23-3176	\$9,911,979.00
4/19/2023	LKC Engineering, PLLC	1008	-\$5,850.00	Invoice# 23-3253	\$9,906,129.00
5/11/2023	LKC Engineering, PLLC	1009	-\$5,850.00	Invoice # 23-3388	\$9,900,279.00
6/21/2023	LKC Engineering, PLLC	1010	-\$11,700.00	Invoice# 23-3424	\$9,888,579.00
7/19/2023	LKC Engineering, PLLC	1011	-\$5,850.00	Invoice# 23-3533	\$9,882,729.00
7/26/2023	Purchased 200 Checks	ACH	-\$337.02	Purchased 200 Checks for account	\$9,882,391.98
10/12/2023	LKC Engineering, PLLC	1021	-\$74,100.00	Reference# 4926	\$9,808,291.98
11/9/2023	LKC Engineering, PLLC	1022	-\$29,900.00	Reference# 4926 Batch# 986399	\$9,778,391.98
12/7/2023	LKC Engineering, PLLC	1023	-\$29,900.00	Reference# 4926 Batch 1006562	\$9,748,491.98
1/26/2024	NC DEQ	1025	-\$400.00	Reference# 620 Batch 1026828	\$9,748,091.98
1/26/2024	NC DEQ	1024	-\$900.00	Reference # 620 Batch 1026828	\$9,747,191.98
2/13/2024	LKC Engineering, PLLC	1026	-\$14,950.00	Inv 24-4114	\$9,732,241.98
4/16/2024	LKC Engineering, PLLC	1027	-\$14,950.00	Inv 24-4234	\$9,717,291.98
7/17/2024	LKC Engineering, PLLC	1028	-\$14,950.00	Inv 24-4499	\$9,702,341.98
9/5/2024	First Bank	1029	-\$490.66	Ad for bids in Independent Tribune	\$9,701,851.32
9/9/2024	Greater Diversity News	1030	-\$329.52	ad for bids	\$9,701,521.80
9/20/2024	LKC Engineering, PLLC	1031	-\$16,400.00	Inv 24-4711	\$9,685,121.80
10/18/2024	LKC Engineering, PLLC	1032	-\$26,000.00	inv 24-4819	\$9,659,121.80
11/4/2024	First Bank CC	1033	-\$420.37	2nd ad for bids Independent Tribune	\$9,658,701.43
11/8/2024	LKC Engineering, PLLC	1034	-\$9,000.00	Inv 24-4869	\$9,649,701.43
1/10/2024	LKC Engineering, PLLC	1035	-\$16,650.00	Inv 24-5047	\$9,633,051.43
1/27/2025	NC DEQ Stormwater Permit	E-check	-\$120.00	annual stormwater permit	\$9,632,931.43
2/19/2025	LKC Engineering, PLLC	1036	-\$15,700.00	Inv 25-5142	\$9,617,231.43
5/9/2025	LKC Engineering, PLLC	1037	-\$15,700.00	Inv 25-5219	\$9,601,531.43
5/9/2025	State Utility Contractors	1038	-\$694,983.00	Pay App 1	\$8,906,548.43
5/9/2025	State Utility Contractors	1039	-\$32,688.66	Pay App 1 Sales Tax	\$8,873,859.77
6/20/2025	LKC Engineering, PLLC	1040	-\$15,700.00	Inv 25-5337	\$8,858,159.77
6/20/2025	State Utility Contractors	1041	-\$494,384.25	Pay App 2	\$8,363,775.52
6/26/2025	LKC Engineering, PLLC	1042	-\$54,950.00	Inv 25-5429 and 25-5530	\$8,308,825.52
6/26/2025	State Utility Contractors	1043	-\$1,020,242.58	Pay App #3 & #4	\$7,288,582.94
7/22/2025	Water Works Metrology, LLC	1044	-\$5,315.11	Inv 3025254- large water meter sizes	\$7,283,267.83
9/3/2025	LKC Engineering, PLLC	1045	-\$54,950.00	Inv 25-5633 & Inv 25-5743	\$7,228,317.83
9/3/2025	State Utility Contractors	1046	-\$717,679.11	Pay App #5	\$6,510,638.72
10/6/2025	LKC Engineering, PLLC	1047	-\$23,550.00	Inv 25-5856	\$6,487,088.72
10/6/2025	State Utility Contractors	1048	-\$1,239,536.41	Pay App #6 & #7	\$5,247,552.31
10/31/2025	LKC Engineering, PLLC	1049	-\$23,550.00	Inv 25-5962	\$5,224,002.31
10/31/2025	State Utility Contractors	1050	-\$860,670.49	Pay App #8	\$4,363,331.82
12/18/2025	LKC Engineering, PLLC	1051	-\$15,700.00	Inv 25-6022	\$4,347,631.82
12/18/2025	State Utility Contractors	1052	-\$727,752.52	Pay App #9	\$3,619,879.30
2/16/2026	LKC Engineering, PLLC	1053	-\$37,680.00	Inv 25-6258 & 25-6172	\$3,582,199.30
2/16/2026	State Utility Contractors	1054	-\$660,379.90	Pay App #10 & part of Pay App #11	\$2,921,819.40
2/20/2026	NC DEQ Stormwater Permit	1055	-\$131.25	Inv 019548	\$2,921,688.15

#27 State Grant-Sewer-Lower Adams Creek Sewer Project (\$5,822,971)

<u>Date</u>	<u>To/From</u>	<u>check #</u>	<u>Amount</u>	<u>Reason</u>	<u>Remaining Balance</u>
	STATE ARPA GRANT		\$5,822,971.00		\$5,822,971.00
2/16/2024	LKC Engineering	1001	-\$15,700.00	Invoice# 23-3137	\$5,807,271.00
3/22/2023	LKC Engineering	1002	-\$7,850.00	Invoice# 23-3175	\$5,799,421.00
4/19/2023	LKC Engineering	1003	-\$7,850.00	Invoice# 23-3252	\$5,791,571.00
5/11/2023	LKC Engineering	1004	-\$31,400.00	Invoice# 23-3387	\$5,760,171.00
6/21/2023	LKC Engineering	1005	-\$15,700.00	Invoice# 23-3425	\$5,744,471.00
7/19/2023	LKC Engineering	1006	-\$31,400.00	Invoice# 23-3532	\$5,713,071.00
7/26/2023	200 Checks for account	ACH	-\$348.26	Checks for account	\$5,712,722.74
8/21/2023	LKC Engineering	1021	-\$31,400.00	Inv 23-3601	\$5,681,322.74
9/11/2023	LKC Engineering	1022	-\$31,400.00	Inv 23-3631	\$5,649,922.74
10/12/2023	LKC Engineering	1023	-\$31,400.00	Inv 23-3718	\$5,618,522.74
12/7/2023	LKC Engineering	1024	-\$15,700.00	Inv 23-3881	\$5,602,822.74
1/23/2024	LKC Engineering	1025	-\$15,700.00	Inv 24-4011	\$5,587,122.74
2/12/2024	NC DEQ	1027	-\$1,300.00	Erosion Control Permit	\$5,585,822.74
2/13/2024	NC DEQ	1028	-\$600.00	Sewer Extension Fast Track App	\$5,585,222.74
3/9/2024	LKC Engineering	1029	-\$31,400.00	Inv 24-4166	\$5,553,822.74
4/16/2024	LKC Engineering	1030	-\$15,700.00	Inv 24-4230	\$5,538,122.74
7/17/2024	LKC Engineering	1031	-\$34,410.00	Inv 24-4544	\$5,503,712.74
9/5/2024	First Bank	1033	-\$455.51	Ad for bids in Independent Tribune	\$5,503,257.23
9/9/2024	Greater Diversity News	1034	-\$300.88	Ad for bids	\$5,502,956.35
9/20/2024	LKC Engineering	1035	-\$7,200.00	inv 24-4759	\$5,495,756.35
10/18/2024	LKC Engineering	1036	-\$20,000.00	Inv 24-4815	\$5,475,756.35
1/10/2025	LKC Engineering	1037	-\$5,000.00	Inv 24-5046	\$5,470,756.35
1/27/2025	DEMLR Stormwater Permit	E-check	-\$120.00	annual permit NCC250278	\$5,470,636.35
2/10/2025	LKC Engineering	1038	-\$27,200.00	Inv 24-4759, 24-4815	\$5,443,436.35
2/19/2025	LKC Engineering	1039	-\$13,823.18	Inv 25-5141	\$5,429,613.17
5/16/2025	Elite Infrastructure Group	1040	-\$68,091.25	Pay App #1	\$5,361,521.92
5/16/2025	LKC Engineering	1041	-\$13,700.00	Inv 25-5218	\$5,347,821.92
6/1/2025	Elite Infrastructure Group	1042	-\$852,791.25	Pay App #2	\$4,495,030.67
6/1/2025	LKC Engineering	1043	-\$13,700.00	Inv 25-5336	\$4,481,330.67
7/11/2025	Elite Infrastructure Group	1044	-\$100,000.00	Pay App #3 advance	\$4,381,330.67
7/28/2025	Elite Infrastructure Group	1045	-\$100,000.00	Pay App #3 advance	\$4,281,330.67
7/29/2025	Elite Infrastructure Group	1046	-\$550,671.00	Pay App # 3 & #4	\$3,730,659.67
7/29/2025	LKC Engineering	1047	-\$54,800.00	Inv 25-5428 and 25-5529	\$3,675,859.67
8/25/2025	Elite Infrastructure Group	1048	-\$200,000.00	Advance Pay App #5	\$3,475,859.67
9/4/2025	Elite Infrastructure Group	1049	-\$512,368.50	Pay App #5 & #6	\$2,963,491.17
9/4/2025	LKC Engineering	1050	-\$54,800.00	Inv 25-5632 & Inv 25-5742	\$2,908,691.17
9/26/2025	Elite Infrastructure Group	1051	-\$385,617.75	Pay App #7	\$2,523,073.42
9/26/2025	LKC Engineering	1052	-\$27,400.00	Inv 25-5855	\$2,495,673.42
11/21/2025	Elite Infrastructure Group	1053	-\$588,083.25	Pay App #8	\$1,907,590.17
11/21/2025	LKC Engineering	1054	-\$13,700.00	Inv 25-5961	\$1,893,890.17
2/6/2026	Elite Infrastructure Group	1055	-\$1,213,815.00	Pay App #9, 10, & 11	\$680,075.17
2/6/2026	LKC Engineering	1056	-\$54,800.00	Inv-25-6081, 25-6170, 25-6257	\$625,275.17
2/20/2026	NC DEQ	CC	-\$131.25	Inv 019680	\$625,143.92

#29 State Grant-Sidewalk Capital Project (\$2.7 million)

<u>Date</u>	<u>To/From</u>	<u>check #</u>	<u>Amount</u>	<u>Reason</u>	<u>Remaining Balance</u>
	State Grant		\$2,700,000.00		\$2,700,000.00
5/20/2024	LE Wooten & Company	4001	-\$115.00	on-site engineering	\$2,699,885.00
5/20/2024	Volkert, Inc	4002	-\$7,720.00	engineering	\$2,692,165.00
6/11/2024	Volkert, Inc	1001	-\$16,860.00	Invoice 00205073	\$2,675,305.00
7/17/2024	Volkert, Inc	1002	-\$10,601.60	Invoice 00306075	\$2,664,703.40
8/13/2024	Volkert, Inc	1003	-\$14,502.50	Invoice 00407073	\$2,650,200.90
9/17/2024	Volkert, Inc	1004	-\$16,992.62	Invoice 00508084	\$2,633,208.28
10/11/2024	Volkert, Inc	1005	-\$2,439.78	Invoice 00609078	\$2,630,768.50
11/15/2024	Volkert, Inc	1006	-\$5,782.75	Invoice 00710083	\$2,624,985.75
12/3/2024	Seven Parts Surveying	1007	-\$1,200.00	11.26.24 invoice	\$2,623,785.75
12/16/2024	Volkert, Inc	1008	-\$19,817.13	Invoice 00811096	\$2,603,968.62
1/17/2025	Volkert, Inc	1009	-\$6,353.75	Invoice 00912086	\$2,597,614.87
2/19/2025	Volkert, Inc	1010	-\$10,608.57	Invoice 01001082	\$2,587,006.30
3/14/2025	Volkert, Inc	1011	-\$6,648.75	Inv-01102084	\$2,580,357.55
3/31/2025	Volkert, Inc	1012	-\$14,860.00	Invoice 01203093	\$2,565,497.55
5/12/2025	Volkert, Inc	1013	\$1,457.50	Invoice 01304091	\$2,566,955.05
5/31/2025	Volkert, Inc	1014	\$265.00	Invoice 01405094	\$2,567,220.05
7/22/2025	Volkert, Inc	1015	\$2,120.00	Invoice 01506091	\$2,569,340.05
8/26/2025	Volkert, Inc	1016	-\$2,833.55	Invoice 01607091	\$2,566,506.50
8/28/2025	LCJ Construction Co., INC	1017	-\$18,840.00	Inv 2583	\$2,547,666.50
9/15/2025	Volkert, Inc	1018	-\$16,248.75	Invoice 01708092	\$2,531,417.75
12/18/2025	Volkert, Inc	1019	-\$8,333.75	Inv 01809081	\$2,523,084.00
1/15/2026	Volkert, Inc	1020	-\$37,896.25	Inv 01911102	\$2,485,187.75
3/16/2026	Volkert, Inc	1021	-\$4,049.41	Inv 02101092	\$2,481,138.34

#30 State Grant-Park Dr waterline Capital Project (\$100,000)

<u>Date</u>	<u>To/From</u>	<u>check #</u>	<u>Amount</u>	<u>Reason</u>	<u>Remaining Balance</u>
	STATE GRANT				\$100,000.00
8/14/2024	Wooten Company	1002	-\$875.00	Inv 81227	\$99,125.00

#31 State Grant- WTP Renovation Capital Project (\$985,000)

<u>Date</u>	<u>To/From</u>	<u>check #</u>	<u>Amount</u>	<u>Reason</u>	<u>Remaining Balance</u>
	STATE GRANT AWARDED		\$985,000.00		\$985,000.00
4/2/2025	WesTech Engineering	1001	-\$124,370.92	Inv 106326	\$860,629.08
7/11/2025	WesTech Engineering	1002	-\$202,586.84	Inv 106326	\$658,042.24
7/11/2025	First Bank Credit Card	1003	-\$31.40	used CC to overnight check to WesTech	\$658,010.84
7/22/2025	NC DEQ	1004	-\$317.00	Public Water Supply Plan Review Fee	\$657,693.84
7/22/2025	Miller Lumber Co.	1005	-\$72.00	wood for SCADA stand at Cold Springs/Hwy 73	\$657,621.84
7/22/2025	Charles R Underwood	1006	-\$4,133.95	Inv 32326 for SCADA installation	\$653,487.89
7/30/2025	Homer Clay Electric	1007	-\$3,953.00	Invoices 1079 & 1080	\$649,534.89
7/30/2025	DA Moore Corp	1008	-\$615.25	Invoice 62587	\$648,919.64
8/5/2025	First Bank Credit Card	1009	-\$7,239.09	Badger (hydrovac) & AL Lowder (dumpster)	\$641,680.55
8/7/2025	Morgan Well & Pump	1010	-\$3,250.00	Inv 20110 test water in old well	\$638,430.55
8/7/2025	Seven Parts Surveying, PLLC	1011	-\$4,675.00	Survey Atwoods property & recomb plat	\$633,755.55
8/15/2025	NORIT	1012	-\$125,190.00	Inv RN25302613 for PAC System	\$508,565.55
9/5/2025	First Bank Credit Card	1013	-\$11.00	certified mail for NORIT check	\$508,554.55
9/5/2025	AL Lowder, Inc	1014	-\$60.61	Inv 180120 dumpster for WesTech	\$508,493.94
9/9/2025	Garver Engineering	1015	-\$61,927.05	Inv 2501169-1 engineering for PAC System	\$446,566.89
9/16/2025	City of Concord	1016	-\$22,652.25	water usage to 9/10/25	\$423,914.64
9/16/2025	Utility Services Co, Inc	1017	-\$47,847.00	Inv 631775 cleaning/ painting clear well	\$376,067.64
9/18/2025	Garver Engineering	1018	-\$9,304.00	Inv 2501169-2	\$366,763.64
9/16/2025	First Bank	ACH	-\$25.00	ACH Wire Fee for purchase of Atwood property	\$366,738.64
9/24/2025	Hartsell & Williams PA	ACH	-\$18,927.00	property purchase at lagoon-8510 Circle Dr.	\$347,811.64
9/25/2025	AL Lowder, Inc	1019	-\$457.22	Inv 180583 empty dumpster	\$347,354.42
10/6/2025	WesTech Engineering	1020	-\$394,160.34	Inv S-INV104884 FINAL payment	-\$46,805.92
10/20/2025	City of Concord	101	-\$65,994.89	water bill	-\$112,800.81
10/24/2025	AL Lowder, Inc	102	-\$160.50	Inv 181038	-\$112,961.31
12/1/2025	City of Concord	103	-\$39,342.96	water bill	-\$152,304.27
12/8/2025	AL Lowder, Inc	104	-\$464.01	Inv 181618	-\$152,768.28
12/18/2025	Harper Corp	105	-\$187,950.00	Inv 26-430-10-55#1	-\$340,718.28
1/2/2026	City of Concord	106	-\$21,098.38	11/10-12/10/25 water bill	-\$361,816.66
1/12/2026	Garver Engineering	107	-\$6,337.50	Inv 2501169-3	-\$368,154.16
1/12/2026	LCJ Construction	108	-\$226,000.00	Inv 2663 PAC System building	-\$594,154.16
1/16/2026	City of Concord	109	-\$28,934.65	12/10/25-1/10/2026 water bill	-\$623,088.81
2/16/2026	City of Concord	110	-\$33,065.94	1/10-2/10/26	-\$656,154.75
2/16/2026	Utility Services Co, Inc	111	-\$46,793.00	Inv 641538 clean clearwell	-\$702,947.75
2/18/2026	DEQ Public Water Supply	112	-\$400.00	well permit	-\$703,347.75
3/13/2026	Sonic Pure	113	-\$7,204.31	Inv 2026/00030 baffle curtain	-\$710,552.06
3/16/2026	The Harper Corp	114	-\$62,650.00	Inv 10-055 Final payment	-\$773,202.06
3/24/2026	Garver Engineering	116	-\$5,999.80	Inv 2501169-4	-\$805,837.08
3/24/2026	City of Concord	117	-\$32,635.02	2/10-3/10/26 water bill	-\$805,837.08

#32 S. Main St Parking Lot Capital Project

(Funded by General Fund-Fund Balance)

<u>Date</u>	<u>To/From</u>	<u>check #</u>	<u>Amount</u>	<u>Reason</u>	<u>Total Cost</u>
5/21/2024	McAdams	1002	\$4,582.50	Inv 152952-engineering	\$4,582.50
6/21/2024	McAdams	1003	\$3,382.50	Inv 153858	\$7,965.00
8/21/2024	McAdams	1004	\$2,035.00	Inv 155577 -Final	\$10,000.00
3/24/2026	McAdams	1005	\$23,195.75	Inv 179769 & 182006	\$33,195.75

#33 Downtown Storm Drainage Capital Project

(Funded by General Fund-Fund Balance)

<u>Date</u>	<u>To/From</u>	<u>check #</u>	<u>Amount</u>	<u>Reason</u>	<u>Balance</u>
5/21/2024	McAdams	1001	\$1,437.50	Inv 152384-Engineering	\$1,437.50
6/21/2024	McAdams	1002	\$29,650.05	Inv 153715	\$31,087.55
7/9/2024	McAdams	1003	\$27,665.00	Inv 154871	\$58,752.55
8/13/2024	McAdams	1004	\$12,639.72	Inv 155999	\$71,392.27
9/20/2024	McAdams	1005	\$437.50	Inv 157786	\$71,829.77
10/11/2024	McAdams	1006	\$1,937.50	Inv 158576	\$73,767.27
11/15/2025	McAdams	1007	\$4,465.00	Inv 159894	\$78,232.27
12/16/2024	McAdams	1008	\$16,678.75	Inv 161257	\$94,911.02
1/13/2025	McAdams	1009	\$10,440.00	Inv 162332	\$105,351.02
2/19/2025	McAdams	1010	\$5,625.00	Inv 163919	\$110,976.02
3/17/2025	McAdams	1015	\$2,360.00	Inv 165144	\$113,336.02
4/23/2025	McAdams	1012	\$1,862.50	Inv 166804	\$115,198.52
6/1/2025	McAdams	1013	\$13,039.40	Inv 167979	\$128,237.92
6/9/2025	McAdams	1014	\$3,744.10	Inv 169118	\$131,982.02
7/22/2025	McAdams	1016	\$2,735.40	Inv 171389	\$134,717.42
8/26/2025	McAdams	1017	\$26,217.50	Inv 172344	\$160,934.92
9/23/2025	McAdams	1018	\$3,308.70	Inv 173579	\$164,243.62
2/12/2026	McAdams	1019	\$7,500.00	Inv 179056	\$171,743.62



Date: April 2, 2026
To: Mayor and Town Board of Commissioners
From: Crystal Smith, Human Resources Director / Events Coordinator

CWS

Listed below are activities for the month of March 2026

General Business:

- Attended March Town Board meeting
- Attended EDC Communication Committee Monthly Meeting
- Worked with Town Manager, Assistant Manager, and Finance Officer on Salary increase projections, forecasting department line-item amounts, and finalizing the budget presentation
- Attended the annual Budget workshop.

Customer Service Area:

- Generated 1333 bills (which includes 647 ebills) totaling \$117,289.58
- Ten (10) customers were disconnected for non-payment.
- Bill reminder notification to customers on Constant Contact: 225 customers received either email/text notification.
- Staff worked together to contact customers being affected by the Water Project side street tie-ins. Most customers were appreciative of the calls.
- Lead Line Survey Update: 120 Water is the company we have been working with on this project and there was no cost to the Town. They have been working on the Survey since March 23.
- Update on installation of meters at Brighton Park and Green Acres Subdivisions:
 - Brighton Park – 11 homes have been sold.
 - Green Acres – 33 homes have sold (out of 37 homes being built).

Human Resources Area:

- Participated in Zoom monthly State Health Plan webinar
- Discussed NCLM ADA Website Compliance with Granite Sky. Staff will have further discussions with Granite Sky and develop a plan starting in May. The Town has until April 2027 to make our website(s) ADA Compliant.

Events Area:

- Continue working on 2026 Events:
 - Independence Parade & Celebration – Saturday, June 27, 2025
 - Parade @ 5 pm
 - DJ @ Town Hall Park following the Parade @ 6 pm
 - Featured Band this year: The Tonez (The Tonez are an 8-piece band dedicated to keeping crowds dancing to a mix of Motown, Rock, Disco, Funk, R&B, and Beach music.
- Fall Festival 2026 – Saturday, October 3, 10am - 3:30pm
- Christmas Parade/Tree Lighting – Saturday December 5
 - Parade @ 3:30pm
 - Tree Lighting @ 5:30pm

CODE ENFORCEMENT/EMERGENCY MANAGEMENT

Monthly Report: March 2026

Case Status

New Cases	14
Cases Cleared	15
Referred	1

New Cases

Case #	Location	Reference
026-019-C	Various	Cargo containers in various locations. This is related to a previous case regarding cargo containers being used as accessory buildings in several locations. Of the 5 initial locations, 3 remain. One location is in the process of closure while the remaining 2 appear to be outside the window for action to be taken. One property is owned by the Town. Sent the case for review to Manager and Asst. Manager.
026-019-C	6705 NC Hwy 49, N	The new Harris Mustang site. Two signs have been erected without a permit. NOV has been sent to owner.
026-020-G	Possible grant for dam rehabilitation	Reviewed the application and discovered the Town was not able to apply due to this being for High Hazard Dams damaged during Helene.
026-022-EM	Black Run EAP	State has approved EAP. Presenting to Board for approval in April.
026-023-C	8527 Walnut Street, S	Occupant cut pompous grass and placed on storm drain. Sent a LOI and public works cleared.
026-024-EM	Parade safety brochure	Created a safety brochure covering the policy changes for participants.
026-025-C	593 North Main Street	Abandoned vehicle. LOI sent.
026-026-C	8539 Walnut Street	Storm drainage ditch with restricted flow. Riprap placed in the drainage ditch years ago by the Town is restricting storm water flow and causing bank deterioration. Evaluated the site with the Town engineer who concurred. He will be in contact with Public Works for a solution.
026-027-EM	Parade Safety PowerPoint	Developed a PowerPoint for participants to review prior to the parade as required in the policy.
026-028-C	8005 Hwy 49, N	NAPA banner sign
026-029-C	Sign Sweep	59 signs
026-030-C	Adjacent to 878 Duchess Drive	Cloth collection bins are placed in the street right of way. Also block line of site at intersection.
026-031-C	Duchess Drive	Cargo trailer without tag parked on the street. Referred to Cabarrus County Sheriff's Department.

026-032-C	Green Acres Subdivision	Multiple signs continue to be placed in the street right of way. Contacted owners.
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DAILY OPERATIONS SUMMARY

Action	Number
Code Enforcement	15
Emergency Management	6
Golf Cart Inspection	0
Grants	1
Investigation	0
Meeting	1
Other	5
Recheck	14
Sign Sweep (59 signs)	1
Training	0
TOTAL	43

Daily Work Log

MONTH

March 2026

Day	Address	Case #	Code	Notes
02	1765 Garmon McGuire	026-024-C	R	Rechecked site of illegal burn
02	1773 Garmon McGuire Road	Monitoring	C	Reviewed the case files and aerial photographs of the area. Multiple violations are visible just in aerial photography including new construction, buildings on multiple lots, debris, etc...
02	1475 B Street	Monitoring	C	Checked several possible abandoned/junked vehicles.
03	Oldenburg	n/a	O	Response to inquiry about new construction in Oldenburg.
03	Monthly Report	n/a	O	Monthly report for February 2026.
03	Rechecked sign locations	n/a	R	Rechecked s
03	75 Brackenbury Circle	025-084-C	R	Kudzu has been cleared from behind the properties.
05	Cargo Containers	n/a	C	
05	Black Run Creek Dam	025-147-EM	R	Checked status of most recent dam inspection. Items have been corrected.
05	Black Run Creek Dam	n/a	O	Called NCDEQ regarding status of the ownership application. Local form could not be found. Purchased from WSACC in 2017.
09	Garmon McGuire Road	Monitoring	O	Compiled a report on the conditions and sent to Town Manager and Assistant Town Manager for review.

09	Case review	n/a	O	Reviewed open cases for a quarterly status report for April 2026.
10	Multiple locations	026-129-C	C	Compiled a report on the remaining locations with cargo trailers (023-089-C and 023-097-C).
10	Prepared for Board presentation on parade policy.	025-163-EM	EM	Prepared for board presentation and presented the new parade policy. Policy passed.
10	9115 East Franklin	025-157-C	R	Rechecked the concrete debris in front of the residence. No change. Found a Facebook Market Place” add requesting someone to remove. Prepared a NOV.
11	Town Hall	Parade meeting	M	Meeting to discuss next steps after the Board approved the policy. Will design a power point for training and a brochure.
11	Black Run Creek Dam	025-113-EM	EM	Revised plan after State Review (the inundation map did not attach) and resubmitted.
12	Black Run Creek Dam	025-113-EM	EM	Plan approved by the state.
14	1725 Short Street	026-001-C	C	Mechanic called stating he was working on the vehicle.
16	Black Run Creek Dam	026-022-EM	EM	Prepared agenda item for Board Meeting.
16	1074 North College St	026-016-C	R	Vehicle still parked in side yard on dirt surface. Issued a NOV.
16	9250 Historic Hill Drive	026-017-C	R	Vehicle still in driveway.
16	6705 NC Hwy 49, N	026-020-C	C	Issued a LOI for Harris Mustang non-permitted signs.
16	Dam Grant	026-021-G	G	Reviewed the NCDEQ guidance for a dam grant for the Town Manager. Changes in the grant still do not allow for application unless it is a high hazard dam and damaged in Hurricane Helene. The request was for the Dutch Buffalo creek dam which is neither.
17	9115 East Franklin Street	025-157-C	C	Mailed a NOV to the occupant.
17	1725 Short Street	026-001-C	R	Recheck the RV for progress. Vehicle still has not been moved.
17	8527 S. Walnut Street	026-023-C	C	LOI for debris placed on storm drain.
17	9115 East Franklin Street	025-157-C	R	Debris has not been moved. Issued a NOV.
18	Parade Brochure	026-024-EM	EM	Created a brochure for the parade policy.
23	9250 Historic Hill Drive	026-017-C	R	After receiving no replies and the unit still parking in front of the house, contacted the property owner for a better address. They were unaware of the issue. Mailed a second LOI.
23	1725 Short Street	026-001-C	R	Vehicle remains issued NOV and posted the vehicle with an abandoned/junk vehicle NOV with a deadline of April 03, 2026.

23	8539 S. Walnut Street	026-026-C	C	Rip rap installed by the Town outside of the right-of-way is causing erosion and flooding during heavy rain events. Visited the site with the Engineer who supported the findings. Engineer is to talk with Public Works on how to correct the issue.
24	Parade Training Power point	026-027-EM	EM	Developed a Power point presentation on the new parade policy for participant training.
27	6705 NC Hwy 49, N	026-020-C	R	Signs remain. Issued a NOV to owners.
27	Sign Sweep	026-029-C	SS	59 signs
27	593 North Main Street	026-025-C	C	LOI for vehicle with no tag and parked in front of the residence.
30	1725 Short Street	026-001-C	R	Mechanic called regarding progress on the RV and requested time over the weekend to complete repairs. Advised he had until April 03, 2026 as noted in the NOV and posted on the unit. He stated it should be done.
30	8005 Hwy 49, N	026-028-C	C	LOI for a banner sign at NAPA
31	8527 S. Walnut Street	026-023-C	R	Debris has been removed.
31	Dutchess Drive	023-053-C 026-031-C	C	Sent information regarding original case with commercial trailer parked at this location. Trailer is back at the location with no tag and this was also provided to the Planning Director to send to CCSD.
31	Dutchess Drive	025-030-C	C	Kiosks for clothes collection are placed in the street right behind the stop sign. Good Steward Ministries. Sent a LOI to the owners. Also spoke with the owners. The company also has Kiosks at the White Owl.
31	Green Acres Realtor Signs	026-032-C	C	This company continues to replace signs taken during sign sweeps. Zoning Director called and spoke with the Realtor regarding the issue.
31	Parking lot behind Smoke Pit.	026-033-C	C	Pavement was being conducted at this location an a vehicle was found parked in the site. The owners had been notified of the paving project. Unable to contact owners. Contacted Carter's Towing to move the vehicle to a parking spot in the portion of the parking lot not impacted. The vehicle does not have a current tag and will be monitored. Also discussed the situation with a business owner who had not been notified of the paving.

MEMORANDUM

To: Mayor and Town Board

From: Derek Linker, Public Works

Date: March 12, 2026

Please find listed below an update / overview for the month of March , 2026

New:

- Completed monthly meter reads
- Water Cut-Offs
- Responded to 3 pump station alarm calls
- Responded to 5 after hour customer calls
- Picked up 10 dump truck loads of brush which equals 120 cubic yards of brush
- Completed work orders for various issues
- Installed more water meters in Green Acres developments
- Assisted State Utilities in locating & turning valves for tie ins so they could finish East Franklin Tie ins are done
- Had Clayton Wright come out and fix some issues at the water plant and lagoon on their SCADA system
- Had Clayton Wright install the SCADA system at the Concord water valve

Ongoing:

- Public works mows and maintains approximately 18 acres each week to biweekly depending on conditions as well as ground maintenance at all 7 of our sewer pump stations
- 7 pump stations are checked once a week which includes a visit to each station checking dialer status and recording run times. Alarm floats are pulled and checked and stations cleaned monthly in accordance to NC DWQ standards
- Weekly Chlorine monitoring is done on Mondays & Fridays and consists of pulling samples from 3 different test sites
- Due to the volume of brush/yard debris collection typically takes 1 to 1.5 days of the week especially during leaf season

Mayor and Commissioner's,

- In March we responded to 97 calls.
- The full-time employees contacted SCBA training.
- (This week) Engine 19 has returned from the shop and is back in service. They repaired the emissions issues, blown head gasket and had to put a new head on it. Also changed out leaking pressure gauges.
- Attended budget meeting with town council and staff.

As always thank you for your continued support!

Dustin Sneed
Fire Chief
Mt. Pleasant Fire Dept.

Cabarrus County Sheriff's Office

253 / Mt. Pleasant

Law Calls for Service

01/01/2026 - 03/31/2026

		Jan-2026	Feb-2026	Mar-2026
DISPATCHED	Total	50	43	61
	ALL ANIMAL CONTROL CALLS	1	1	2
	ASSAULT	0	1	1
	ASSIST COUNTY FIRE DEPARTMENT	1	1	1
	ASSIST DSS	0	0	1
	ASSIST EMS	2	0	2
	BANK ALARM	0	0	1
	BREAKING AND ENTERING IN PROG	1	0	0
	BREAKING AND ENTERING OF RESD	0	0	1
	BREAKING ENTER OF VEHICLE	0	0	1
	BURGLAR ALARM	4	2	2
	CARELESS RECKLESS DRIVING	1	2	4
	CELL PHONE 911 HANGUP	0	0	1
	COMMITMENT PAPERS	0	1	1
	COMMUNICATING THREATS	0	0	1
	DEATH	1	0	0
	DISCHARGE FIREARMS	0	1	0
	DISPUTE (ANYONE)	1	4	6
	DOMESTIC ASSIST	0	0	1
	DOMESTIC DISTURBANCE	1	0	0
	ESCORT	1	1	3
	FOLLOW UP	3	2	1
	FRAUD / FORGERY	1	1	1
	GUNSHOT WOUND	0	0	1
	IDENTITY THEFT	0	1	0
	INTOXICATED DRIVER	1	0	0
	LARCENY	0	0	2
	LIVESTOCK	1	0	1
	OPEN DOOR	0	0	1
	OVERDOSE / POISONING	0	0	1
	PROPERTY DAMAGE	1	1	2
	RECOVERED PROPERTY	0	1	0
	ROAD HAZARD	1	1	1
	SERVICE CALL LAW	3	6	4

		Jan-2026	Feb-2026	Mar-2026
DISPATCHED	STOLEN VEHICLE	1	0	0
	STRANDED MOTORIST	3	1	0
	STRUCTURE FIRE	2	1	0
	SUSPICIOUS SUBJECT	3	6	2
	SUSPICIOUS VEHICLE	1	1	1
	THREATENING SUICIDE	0	0	1
	TRAFFIC ACC PROPERTY DAMAGE	10	6	4
	TRAFFIC ACCIDENT PI	1	0	1
	TRAFFIC STOP	0	0	1
	TRESPASSING	2	1	1
	WARRANT	0	0	1
	WELFARE CHECK (PERSON)	2	0	5
	OFFICER-INITIATED	Total	593	590
	50 B OR C	0	0	1
	ALL ANIMAL CONTROL CALLS	0	0	2
	ANIMAL CONTROL FOLLOW UP	0	0	2
	CAC BITE	0	0	1
	CIVIL PROCESS	6	5	9
	COMMUNITY CONTACT	5	3	1
	ESCORT	1	0	0
	FOLLOW UP	0	1	4
	FRAUD / FORGERY	1	0	1
	GOVT SECURITY CHECK	19	19	10
	IMPROPERLY PARKED VEH	0	0	1
	INVESTIGATION	1	1	0
	LARCENY	0	0	1
	OPEN DOOR	0	1	0
	ROAD HAZARD	1	0	0
	SECURITY CHECK	177	176	244
	SEX CRIME	0	1	0
	SPECIAL EVENT	5	5	2
	SRO ASSIST ADMIN	74	75	68
	SRO CAMERA REVIEW	11	14	15
	SRO DARE	16	4	6
	SRO DRILL	5	4	7
	SRO DRUG INVESTIGATION	0	0	1
	SRO INVESTIGATION	0	0	1
	SRO MENTOR/COUNSEL	93	99	86
	SRO PARENT MEETING	3	1	4

		Jan-2026	Feb-2026	Mar-2026
OFFICER-INITIATED	SRO SAFETY CHECK	96	29	3
	SRO SCHOOL EVENT	1	1	0
	SRO SECURITY CHECK	52	108	132
	SRO THREAT	0	0	2
	SRO THREAT ASSESSMENT	3	3	4
	SRO WELFARE CHECK	1	0	0
	STRANDED MOTORIST	1	2	1
	SUSPICIOUS SUBJECT	1	3	1
	SUSPICIOUS VEHICLE	1	3	3
	TRAFFIC ACC PROPERTY DAMAGE	1	0	0
	TRAFFIC STOP	16	31	18
	WARRANT	1	1	0
	WELFARE CHECK (PERSON)	1	0	0

Event #	Date Time	Street	Case #	callsource
LARCENY 1				
26051503	Mar 18 18:35	PAGE ST		E911
ALL ANIMAL CONTROL CALLS 2				
26056774	Mar 25 16:55	B ST		PHONE
26057644	Mar 26 16:36	E FRANKLIN ST	2603260020	PHONE
ASSAULT 1				
26044931	Mar 8 9:13	NC HWY 49 N		PHONE
ASSIST COUNTY FIRE DEPARTMENT 1				
26059416	Mar 29 16:57	EASTOVER DR		PHONE
ASSIST DSS 1				
26042627	Mar 4 17:52	E FRANKLIN ST		PHONE
ASSIST EMS 2				
26044566	Mar 7 13:36	PAGE ST		PHONE
26058330	Mar 27 14:51	E FRANKLIN ST		PHONE
BANK ALARM 1				
26040616	Mar 2 13:03	S MAIN ST		PHONE
BREAKING AND ENTERING OF RESD 1				
26048786	Mar 14 20:46	SHORT ST		PHONE
BURGLAR ALARM 2				
26040691	Mar 2 13:54	S MAIN ST		PHONE
26049060	Mar 15 13:51	ARNOLD WAY		PHONE
CARELESS RECKLESS DRIVING 4				
26044475	Mar 7 8:50	NC HWY 73 E/W FRANKLIN ST		PHONE
26045759	Mar 9 19:28	LEE ST/S MAIN ST		PHONE
26054956	Mar 23 16:50	E FRANKLIN ST		PHONE

26055080	Mar 23 20:16	NC HWY 49 N	PHONE
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CELL PHONE 911 HANGUP 1

26055155	Mar 23 22:30	ROSS CIR	PHONE
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COMMITMENT PAPERS 1

26043396	Mar 5 15:56	NEW ST	PHONE
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COMMUNICATING THREATS 1

26054021	Mar 22 14:02	WADE ST	2603220006 PHONE
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DISPUTE (ANYONE) 5

26041649	Mar 3 16:06	NEW ST	PHONE
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26041792	Mar 3 20:18	SHORT ST	PHONE
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26046813	Mar 11 12:16	NC HWY 49 N	PHONE
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26048720	Mar 14 18:32	N MAIN ST	PHONE
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26055095	Mar 23 20:57	WADE ST	PHONE
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DOMESTIC ASSIST 1

26049776	Mar 16 18:21	N MAIN ST	PHONE
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ESCORT 3

26043786	Mar 6 9:31	COOK ST	PHONE
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26048525	Mar 14 10:07	N COLLEGE ST	PHONE
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26059284	Mar 29 11:42	COOK ST	PHONE
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FRAUD / FORGERY 1

26054258	Mar 22 23:00	NC HWY 73 E	PHONE
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GUNSHOT WOUND 1

26043735	Mar 6 8:15	E FRANKLIN ST	2603060003 PHONE
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LARCENY 1

26051850	Mar 19 9:07	OLDENBURG DR	PHONE
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LIVESTOCK 1

26047287	Mar 12 8:52	E FRANKLIN ST	2603120008 PHONE
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OPEN DOOR 1

26056964	Mar 26 2:44	W FRANKLIN ST	PHONE
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OVERDOSE / POISONING 1

26047824	Mar 13 4:48	EASTOVER DR	PHONE
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PROPERTY DAMAGE 2

26054982	Mar 23 17:42	SHORT ST	PHONE
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26058994	Mar 28 17:27	N MAIN ST	PHONE
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ROAD HAZARD 1

26045288	Mar 9 6:38	E FRANKLIN ST	PHONE
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SERVICE CALL LAW 4

26040420	Mar 2 9:49	ARNOLD WAY	PHONE
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26047257	Mar 12 8:04	OLEANDER ST	PHONE
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26053942	Mar 22 10:30	NEW ST	PHONE
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26060182	Mar 30 16:00	CRESTWOOD DR	PHONE
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SUSPICIOUS SUBJECT 2

26040090	Mar 1 18:33	NC HWY 49 N	PHONE
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26054448	Mar 23 9:11	SUMMER ST	PHONE
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SUSPICIOUS VEHICLE 1

26041906	Mar 4 0:32	NC HWY 49 N	PHONE
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THREATENING SUICIDE 1

26046226	Mar 10 13:30	EASTOVER DR	PHONE
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TRAFFIC ACC PROPERTY DAMAGE 4

26047417	Mar 12 12:34	NC HWY 49 N	2603120012	PHONE
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26048035	Mar 13 12:48	NC HWY 49 N	2603130003	PHONE
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26053207	Mar 20 20:57	E FRANKLIN ST	PHONE
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26057575	Mar 26 15:22	ERBACH LN	PHONE
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TRAFFIC ACCIDENT PI 1

26059341	Mar 29 13:41	NC HWY 49 N/N MAIN ST	2603290003	PHONE
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TRAFFIC STOP 1

26059016	Mar 28 18:21	W FRANKLIN ST/PAGE ST	PHONE
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TRESPASSING 1

26042606	Mar 4 17:20	N WASHINGTON ST	PHONE
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WARRANT 1

26042697	Mar 4 19:55	E FRANKLIN ST	PHONE
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WELFARE CHECK (PERSON) 5

26043494	Mar 5 18:58	SHORT ST	PHONE
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26048239	Mar 13 18:27	WALNUT ST/N MAIN ST	PHONE
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26050864	Mar 18 1:16	HISTORIC HILL DR	PHONE
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26053494	Mar 21 12:39	W FRANKLIN ST	PHONE
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26058566	Mar 27 20:51	E FRANKLIN ST	PHONE
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BREAKING ENTER OF VEHICLE 1

26056963	Mar 26 2:40	S COLLEGE ST	2603260001 W911
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DISPUTE (ANYONE) 1

26053228	Mar 20 21:40	LEE ST	W911
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FOLLOW UP 1

26047947	Mar 13 10:36	CIRCLE DR	XFER
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Total Disp. CFS: 61

Cabarrus County Sheriff's Office

Mt Pleasant

Traffic Stop, Citation, & Arrest Data

03/01/2026 - 03/31/2026

Traffic Stop Data with CAD Event Disposition (Zone 253)

TRAFFIC STOP	
CHECK 10-4	1
CITATION ISSUED	6
CLEAR CALL	1
VERBAL WARNING	11
Total	19

Citation Data (Mt Pleasant)

Total # of Citations: 29	Total # of Charges: 39
	Charges
DRIVING LEFT OF CENTER	1
DWLR NOT IMPAIRED REV	2
EXCEEDING POSTED SPEED	1
EXPIRED OPERATORS LIC	1
EXPIRED REGISTRATION CARD/TAG	5
FAIL CARRY REGISTRATION CARD	1
FAIL CARRY VALID DRIVERS LIC	1
FAIL TO STOP-STEADY RED LIGHT	1
FOLLOWING TOO CLOSELY	2
NO LIABILITY INSURANCE	1
NO MOTORCYCLE ENDORSEMENT	2
NO OPERATORS LICENSE	3
REG PLAT IMPROPERLY ATTACHED	1
SPEED VIOLATION	8
SPEEDING	5
UNSAFE PASSING YELLOW LINE	1
WHITE LIGHT REAR/DR/FORWARD	1
WINDOW TINTING VIOLATION	2
Total	39

Arrest Data (Mt Pleasant)

Case #	Charge	City
ON-VIEW 2		
2603210011	RESISTING PUBLIC OFFICERS	MOUNT PLEASANT
2603260001	LARCENY AFTER BREAK/ENTERING	MOUNT PLEASANT
WARRANT 1		
	ORDER FOR ARREST	MOUNT PLEASANT

Cabarrus County Sheriff's Office

ABC
8840 E Franklin St,
Mt Pleasant, NC

Arrest & Citation Data
LAW ENFORCEMENT USE ONLY - DO NOT RELEASE

3/1/2026 - 3/31/2026

MOOREHEAD, ANDREW WHITFIELD - W/M 36

25-1217-0003	03/04/26	8500 E FRANKLIN ST	T - WARRANT FOR ARREST	PAT	CSO
370 - SECOND DEG SEX EXPLOIT MINOR			F		

CAUTHEN, MARGARET MICHELLE - W/F 42

26-0326-0001	03/26/26	1325 S COLLEGE ST	O - ON-VIEW ARREST	PAT	CSO
23F - BREAK OR ENTER MOTOR VEHICLE			F		
23F - BREAK OR ENTER MOTOR VEHICLE			F		
220 - LARCENY AFTER BREAK/ENTERING			F		
220 - LARCENY AFTER BREAK/ENTERING			F		
220 - BREAKING AND OR ENTERING (F)			F		
220 - BREAKING AND OR ENTERING (F)			F		
220 - BREAKING OR ENTERING (M)			M		
90J - TRESPASS-2ND DEGREE			M		

Cabarrus County Sheriff's Office

ABC
8840 E Franklin St,
Mt Pleasant, NC

Arrest & Citation Data
LAW ENFORCEMENT USE ONLY - DO NOT RELEASE

3/1/2026 - 3/31/2026

Charge by Misdemeanor or Felony

	F	M	Total
BREAK OR ENTER MOTOR VEHICLE	2	0	2
BREAKING AND OR ENTERING (F)	2	0	2
BREAKING OR ENTERING (M)	0	1	1
LARCENY AFTER BREAK/ENTERING	2	0	2
SECOND DEG SEX EXPLOIT MINOR	1	0	1
TRESPASS-2ND DEGREE	0	1	1
Total	7	2	9



MOUNT PLEASANT

EST. 1859

NORTH CAROLINA

Open Meeting Law

April 14, 2026

Purpose of Open Meeting Law

Government
Accountability



Government
Efficiency

Ensures transparency by public by requiring:

- Notice
- Open Deliberations
- Public Access

Allows government to efficiently manage operations by:

- Providing for certain deliberations in executive session
- Maintains confidentiality of certain records of executive session

NCGS Article 33C, Meetings of Public Bodies states: "Whereas the public bodies that administer the legislative, policy-making, quasi-judicial, administrative, and advisory functions of North Carolina and its political subdivisions exist solely to conduct the people's business, it is the public policy of North Carolina that the hearings, deliberations, and actions of these bodies be conducted openly."



So, what
does all
this really
mean??

Open Meeting Law “101”

GS 143-318.11

All Board meetings and committee meetings must be open to the public and provide appropriate notice in advance of the meeting date, time and location:

- Regular Meetings: 7 Days
- Special Meetings: 48 hours (Special Meetings include subcommittee meetings)
- Emergency Meetings: Immediate after notice is given to all board members

AND, all meeting minutes should be taken and approved at every meeting, and minutes should be kept in a location available to the public.

Closed Session “101”

GS 143-318.11

Closed Session Procedures:

- State the purpose of going into closed session verbally and in the meeting minutes [some reasons to go into closed session include consulting with attorney, expansion(real estate/business negotiation), employment contracts, personnel matters, criminal matters]
- ***Closed session discussion must be kept confidential UNTIL the closed session minutes are “opened” to the public.***
- Maintain limited closed session minutes. Keep these notes separate from open meeting minutes. Minutes should give a general account so a person not in attendance would have a reasonable understanding of what happened.
- **All voting must take place in regular open session.**

Closed Session “101” Continued...

What do you do if you want to make a decision based on the closed session discussion?

1. Make a motion to come out of closed session and vote to come out of closed session
2. Make a motion that states to the public what the vote is for

REMEMBER! You must come out of closed session to adjourn the meeting!

Electronic “discussion” of Town Business

Electronic “discussions” of Town business involving board members could be mistaken as a meeting and are in violation of the open meeting law.



BUT, we can communicate via email and texts, just remember to NOT REPLY ALL to the email or text. You can, however, reply, individually to the email/text sender.

The Town could also have a conference call / Zoom meeting BUT we must provide a location and means for the public to listen to the meeting. The meeting notice should indicate where the public may listen.



“MATM” (What?)

Aka “Meeting after the Meeting..”

According to GS 143-318.11, anytime you have more than TWO board members together DISCUSSING Town business it can be misinterpreted as an “Open Meeting.”

As previously noted, discussing municipal business with a quorum of board members outside of an open meeting violates the Open Meeting Law.

Obviously, a quorum of the municipal board should not be discussing business if they are not at a meeting open to the public; however, they may also avoid a lawsuit by taking extra effort not to discuss topics on the record so there is no appearance of an unlawful meeting. Talk about the ballgame, talk about the weather, talk about what’s for dinner, but

MATM IS A MISDEMENOR IN A COURT OF LAW

Additional Resources

Additional information can be found by searching *Coates' Canons: NC Local Government Law Blog* (<http://sogweb.sog.unc.edu/blogs/localgovt>) using the keyword "open meetings." Also see David M. Lawrence, *Open Meetings and Local Governments in North Carolina: Some Questions and Answers* (UNC School of Government, 7th ed. 2008).

About the Author

Frayda S. Bluestein is a School of Government faculty member specializing in local government law.



AGENDA ITEM:

Receive update on the status of:

- Lower Adams Creek Sewer Outfall Project
- Water Distribution Improvements Project
 - o Consider approving the construction of a proposed 12” waterline from North Drive along Jackson Street to the water treatment plant.
- Water Treatment Plant Renovation Project
- USDA Project

NARRATIVE:

An update on the projects listed above will be given.

RECOMMENDATION:

Open

TOWN OF MOUNT PLEASANT

An equal opportunity provider, employer, and lender.

8590 Park Drive | PO Box 787 | Mount Pleasant, NC 28124 | 704.436.9800 | mtplesantnc.org



AGENDA ITEM:

Consider approving the construction of a proposed 12” waterline from North Drive along Jackson Street to the water treatment plant.

NARRATIVE:

As the Water Project ends, contingency funds are left within the State Grant. The State Grant is American Rescue Plan Funds appropriated from the NC General Assembly 2021 Appropriations Act (SL-2021-180) under Section 12.13 (f). Once the project is completed, all remaining funds will go back to the State.

To use part of the remaining funds, the Town would like to run a 12” waterline from North Drive along Jackson Street to the water treatment plant. The estimated cost is within the remaining funds.

Staff are waiting for the cost estimate sheet from LKC Engineering. Total amount for the waterline will be available at the meeting.

RECOMMENDATION:

Motion to approve the construction of a proposed 12” waterline from North Drive along Jackson Street to the water treatment plant and allow the Town Manager to execute all documents necessary to complete the project.



AGENDA ITEM:

Mini-Budget Workshop

NARRATIVE:

The following items will be discussed:

- Leases & Rentals
- Retirement Contribution by Town increased since the Budget Workshop from 16.75% to 17.5% which includes the 2.4% surcharge
- 20¢ increase to each sewer tier rate over 2,000 gallons
- Board Stipends will be based on 13 payments instead of 12 starting July 1, 2026 (Mayor \$553.85 and Commissioners \$230.77)
- Fall Festival with VFP/Library
- Commercial Roll-out Containers
- 5-year Financial Plan-Fire
- 5-year Financial Plan-General Fund (W&S)
- Capital Reserve & Outlay
- FY2627 Budget Proposal
- Questions

RECOMMENDATION:

Open

TOWN OF MOUNT PLEASANT

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8590 Park Drive | PO Box 787 | Mount Pleasant, NC 28124 | 704.436.9800 | mtplesantnc.gov

Budget Worksheet for FY26/27

1.5¢ Tax INCREASE

Date: 4/8/2026

GL Account	Fund	GLAcct Desc	Current Bgt	Requested	Notes
General Fund REVENUE					
11-3011-900	11	TAXES AD VALOREM CURRENT	\$1,064,174.22	\$1,196,420.75	97%- collection rate
11-3011-910	11	TAXES AD VALOREM PRIOR YEAR	\$5,000.00	\$5,000.00	
11-3011-920	11	TAXES AD VALOREM VEH. CURRENT	\$84,974.53	\$102,364.92	97%- collection rate
11-3011-930	11	TAXES AD VALORE, VEH PRIOR	\$0.00	\$0.00	
11-3011-940	11	TAX PENALTIES & INTEREST	\$2,500.00	\$3,000.00	
11-3011-960	11	DEMO FEES-Code Enforcement LIENS	\$400.00	\$400.00	
11-3013-900	11	STATE-Sales & Use Tax	\$400,000.00	\$400,000.00	
11-3014-900	11	STATE-Utilities Sales Tax	\$82,000.00	\$90,000.00	
11-3014-910	11	STATE-Telecommunication Tax	\$7,200.00	\$7,200.00	
11-3014-920	11	STATE-Video Programming Tax	\$10,200.00	\$10,300.00	
11-3014-930	11	STATE- Alcoholic Beverage Taxes	\$7,800.00	\$7,800.00	
11-3020-900	11	Permits & Fees	\$6,000.00	\$7,500.00	
11-3020-910	11	Extra Trash Can Fees	\$8,000.00	\$9,100.00	
11-3020-920	11	Waste Disposal Fees	\$40,000.00	\$54,000.00	Up \$1 to \$6 per month INCREASE to cover Waste Pro Increase
11-3034-900	11	STATE- Solid Waste Disposal Tax	\$1,800.00	\$2,000.00	
11-3034-910	11	FEMA GRANT	\$0.00	\$0.00	
11-3035-920	11	Powell Bill Allocation	\$61,000.00	\$60,000.00	
11-3037-910	11	Cabarrus EMS Matching Grant	\$1,500.00	\$1,500.00	
11-3037-911	11	Cab. Co. FD-Staffing Grant	\$27,240.00	\$27,240.00	
11-3040-900	11	CONTRACT FIRE-CABARRUS	\$882,585.47	\$1,019,837.66	
11-3040-910	11	CONTRACT FIRE-CAB. SALES TAX D	\$202,393.00	\$196,556.33	TOTAL Cab Co \$1,243,633.99
11-3061-900	11	INVESTMENT EARNINGS	\$40,000.00	\$80,000.00	
11-3061-910	11	Coronavirus Relief Fund	\$0.00	\$0.00	
11-3061-911	11	AFG-grant FD Plymo Vent	\$0.00	\$0.00	
11-3061-922	11	SCIF-State Grant Funds	\$0.00	\$0.00	
11-3061-923	11	ESHPP Grant	\$0.00	\$0.00	
11-3062-900	11	Rent & Key Deposits	\$30,000.00	\$9,600.00	loosing Restored Hope Therapy renter
11-3065-900	11	ABC Store Revenue	\$0.00	\$0.00	
11-3090-900	11	Miscellaneous Revenue	\$4,000.00	\$6,000.00	
11-3090-903	11	Events Revenue	\$3,000.00	\$3,000.00	
11-3090-920	11	Fines	\$0.00	\$0.00	
11-3091-900	11	Appropriation of Fund Balance	\$203,804.57	\$40,500.00	Articulator Loader \$40,500,
11-3091-920	11	TRANSFER OPERATING-IN	\$0.00	\$0.00	
11-3091-921	11	TRANSFER IN - CAPITAL RESERVE	\$28,000.00	\$0.00	
11-3091-930	11	Transfer - Other	\$0.00	\$0.00	
11-3092-900	11	Sale of Assets	\$0.00	\$0.00	
11-3092-910	11	Insurance Proceeds	\$50,000.00	\$0.00	
11-3093-900	11	OTHER FINANCING SOURCES-INST.F	\$0.00	\$0.00	
General Fund Revenue Totals			\$3,253,571.79	\$3,339,319.66	

General Fund EXPENSES

Current Bgt Requested

11-4010-340	ADMIN-Contracted Services	\$6,000.00	\$6,000.00	
11-4010-412	ADMIN-Utilities	\$22,072.82	\$23,000.00	
11-4010-430	ADMIN-Maint. & Repair Building	\$16,000.00	\$16,000.00	
11-4010-431	ADMIN-Maint & Repair Vehicle & Equipment	\$800.00	\$1,000.00	2 SUV's now
11-4010-520	ADMIN-Insurance-Property & Casualty	\$63,000.00	\$63,000.00	
11-4010-530	ADMIN-Telephone	\$6,000.00	\$8,242.00	
11-4010-612	ADMIN- Cleaning Supplies	\$600.00	\$600.00	
11-4010-626	ADMIN-Fuel	\$500.00	\$750.00	2 SUV's now
11-4010-720	ADMIN-Capital Outlay Buildings	\$0.00	\$0.00	
	Town Hall	\$114,972.82	\$118,592.00	
		<u>Current/Req</u>	<u>Requested</u>	
11-4011-140	Mayor Stipend	\$7,200.00	\$7,200.00	
11-4011-141	Board Member Stipend	\$15,000.00	\$15,000.00	
11-4011-220	Elected Officials FICA	\$1,750.00	\$1,698.30	
11-4011-242	Elected Officials-Education & Travel	\$400.00	\$400.00	
11-4011-290	Cabarrus County-Election Fees	\$8,318.00	\$8,318.00	
11-4011-330	Cabarrus Economic Development	\$2,500.00	\$2,000.00	
11-4011-331	Cabarrus County MPO	\$500.00	\$700.00	
11-4011-531	Communication Expense	\$600.00	\$600.00	
11-4011-610	Meetings and Supplies	\$2,500.00	\$3,500.00	?Summit meal
11-4011-800	Board Miscellaneous	\$1,300.00	\$1,300.00	
	Governing Body	\$40,068.00	\$40,716.30	
		<u>Current/Req</u>	<u>Requested</u>	
11-4015-110	ADMIN-Salaries & Wages	\$88,507.18	\$79,839.97	Salaries at 5.5% COLA
11-4015-115	ADMIN- Longevity	\$1,250.00	\$1,250.00	
11-4015-116	Additional Earnings-LUMP SUM	\$4,300.00	\$0.00	
11-4015-210	HEALTH INS- STATE HEALTH PLAN (MEDICAL)	\$13,893.40	\$9,400.00	
11-4015-213	INS-DENTAL/VISION/Life	\$575.00	\$555.00	
11-4015-220	ADMIN-FICA	\$9,546.58	\$10,143.13	
11-4015-230	ADMIN -NC State Retirement	\$12,526.91	\$13,418.12	14.35% to 17.5%
11-4015-232	ADMIN -401K	\$4,579.78	\$3,833.75	
11-4015-241	ADMIN-Dues & Subscriptions	\$4,800.00	\$6,000.00	Surety Bonds, UNC-SOG, NCLM annual dues
11-4015-242	ADMIN-Education & Travel	\$6,000.00	\$6,000.00	
11-4015-260	Insurance-Worker's Comp	\$3,000.00	\$3,000.00	Not billed until May
11-4015-320	Attorney Fees	\$15,000.00	\$18,750.00	increasing from \$200/hr to \$250/hr
11-4015-321	Auditor/Bookkeeper Fees	\$13,000.00	\$14,500.00	Tony Brewer CPA \$12,000, Joe Haney \$7,500
11-4015-323	Tax Collection Fee-Cabarrus County	\$2,500.00	\$2,000.00	
11-4015-324	Tax Penalty Paid to School System	\$1,000.00	\$750.00	
11-4015-325	Contract Services- Engineering Admin	\$51,200.00	\$53,000.00	
11-4015-335	Town Branding	\$4,000.00	\$2,000.00	
11-4015-340	ADMIN-Contracted Services (Randy)	\$50,000.00	\$52,750.00	
11-4015-341	ADMIN-Contracted IT Services	\$12,000.00	\$13,500.00	
11-4015-342	ADMIN- Copier Contract	\$5,000.00	\$5,000.00	
11-4015-531	Employee Phone Expense	\$3,120.00	\$3,120.00	
11-4015-540	Advertising	\$2,500.00	\$1,500.00	
11-4015-611	Office Supplies & Postage	\$8,000.00	\$8,000.00	

11-4015-615	11	Computers & Software	\$13,500.00	\$14,500.00
11-4015-631	11	Office Staff Uniforms	\$750.00	\$750.00
11-4015-720	11	Capital Reserve- Municipal Complex & Park Improve	\$0.00	\$0.00
11-4015-740	11	Capital Outlay-Vehicles & Equipment	\$0.00	\$0.00
11-4015-760	11	Capital Outlay-Land Acquisition/Improvements	\$0.00	\$0.00
11-4015-800	11	ADMIN. Miscellaneous	\$7,709.90	\$7,000.00
		Administration/Billing	\$338,258.75	\$330,559.97
			<u>Current Btl</u>	<u>Requested</u>
11-4019-110	11	P&Z Clerk-Salary	\$6,995.70	\$7,411.92
11-4019-111	11	Code Enforcement Salary PT	\$20,800.00	\$21,944.00
11-4019-112	11	Planning Director -Salary	\$44,826.50	\$48,057.34
11-4019-141	11	Planning & Zoning Board Stipend	\$7,200.00	\$7,200.00
11-4019-210	11	HEALTH INS - STATE HEALTH PLAN (MEDICAL)	\$5,525.00	\$6,110.00
11-4019-213	11	INS-DENTAL/VISION/Life	\$325.00	\$360.75
11-4019-220	11	FICA	\$6,106.40	\$6,472.91
11-4019-230	11	NC State Retirement	\$7,436.49	\$9,707.12
11-4019-232	11	401K	\$2,591.11	\$2,773.46
11-4019-241	11	Dues & Subscriptions	\$1,500.00	\$4,585.97
11-4019-242	11	Education & Travel	\$1,800.00	\$1,800.00
11-4019-315	11	Attorney Fees	\$0.00	\$0.00
11-4019-320	11	Contracted Services-Planning	\$3,000.00	\$1,000.00
11-4019-330	11	Abatement & Demolition	\$5,000.00	\$5,000.00
11-4019-335	11	Pleasant Life	\$1,000.00	\$1,000.00
11-4019-340	11	Studies	\$0.00	\$0.00
11-4019-465	11	Downtown Development	\$3,000.00	\$3,000.00
11-4019-466	11	Facade Improvement & Mural Program	\$0.00	\$0.00
11-4019-467	11	Economic Development	\$0.00	\$0.00
11-4019-540	11	Advertising	\$2,000.00	\$2,000.00
11-4019-611	11	Office Supplies & Postage	\$1,500.00	\$1,500.00
11-4019-612	11	Resources & Manuals	\$500.00	\$500.00
11-4019-631	11	Code Enforcement-Uniforms	\$250.00	\$250.00
11-4019-800	11	Code Enforcement- Miscellaneous	\$1,200.00	\$1,200.00
		Planning & Economic Development	\$122,556.20	\$131,873.47
			<u>Current Btl</u>	<u>Requested</u>
11-4021-320	11	Contract Services-Cab Co Deputies	\$219,126.00	\$229,716.00
11-4021-431	11	Law Enforcement-Vehicle Maintenance	\$1,000.00	\$3,000.00
11-4021-610	11	Law Enforcement-Supplies	\$800.00	\$800.00
11-4021-611	11	Law Enforcement-Admin Services Fee	\$21,913.00	\$22,972.00
11-4021-626	11	Law Enforcement-Fuel	\$4,500.00	\$5,000.00
11-4021-740	11	Law Enforcement-Capital Outlay Vehicles & Equipme	\$0.00	\$0.00
		Law Enforcement	\$247,339.00	\$261,488.00
			<u>Current Btl</u>	<u>Requested</u>
11-4022-116	11	FD Additional Earnings-LUMP SUM	\$6,000.00	\$0.00
11-4022-120	11	FD SALARY & WAGES-PT	\$695,593.29	\$749,534.30
11-4022-121	11	FD PAY PER CALL	\$1,020.00	\$1,020.00
11-4022-210	11	FD HEALTH INS - STATE HEALTH PLAN (MEDICAL)	\$28,050.00	\$32,430.00

Extra moved to Dues & Subscriptions-no Benchmark

computer programs for P&Z per year (\$4585.97)

11-4022-213	11	INS-DENTAL/VISION/Life	\$1,650.00	\$1,914.25
11-4022-220	11	FD FICA	\$53,749.92	\$57,417.40
11-4022-230	11	FD NC State Retirement	\$28,829.91	\$40,000.94
11-4022-232	11	FD 401K	\$10,045.26	\$11,428.84
11-4022-241	11	FD DUES & SUBSCRIPTIONS	\$12,500.00	\$12,500.00
11-4022-242	11	FD Training/Public Education & Prevention	\$4,000.00	\$4,000.00
11-4022-243	11	FD Physicals	\$2,500.00	\$2,500.00
11-4022-244	11	FD Background Checks	\$500.00	\$500.00
11-4022-260	11	FD INSURANCE-WORKER COMP	\$23,000.00	\$28,000.00
11-4022-321	11	FD Auditing Fees	\$4,000.00	\$4,500.00
11-4022-340	11	FD Contracted Services	\$17,020.00	\$17,020.00
11-4022-412	11	FD Utilities	\$24,000.00	\$24,000.00
11-4022-430	11	FD MAINT. & REPAIR-Building	\$15,000.00	\$15,000.00
11-4022-431	11	FD MAINT. & REPAIR-Vehicles & Equipment	\$50,000.00	\$60,000.00
11-4022-520	11	FD-INSURANCE Property & Casualty	\$47,500.00	\$54,000.00
11-4022-530	11	FD Telephone	\$4,100.00	\$2,800.00
11-4022-531	11	FD COMMUNICATIONS-Mobile	\$2,000.00	\$2,500.00
11-4022-610	11	FD Station/Supplies & Materials	\$5,000.00	\$5,000.00
11-4022-611	11	FD Office Supplies	\$4,234.00	\$3,000.00
11-4022-612	11	FD Fire & Rescue Supplies	\$18,000.00	\$18,000.00
11-4022-613	11	FD Uniforms	\$5,600.00	\$5,600.00
11-4022-614	11	FD EMS Supplies	\$4,000.00	\$4,000.00
11-4022-615	11	FD Computers & Software	\$20,000.00	\$10,000.00
11-4022-616	11	FD-PPE (Personal Protective Equipment)	\$35,796.56	\$38,000.00
11-4022-626	11	FD-Fuel	\$20,500.00	\$20,500.00
11-4022-720	11	FD-Capital Outlay-Building	\$0.00	\$81,241.93
11-4022-730	11	FD-Cap Reserve-Radio Replacement	\$25,000.00	\$25,000.00
11-4022-740	11	FD-Capital Outlay-Vehicles & Equipment	\$75,000.00	\$25,000.00
11-4022-750	11	FD- Personnel Capital Reserve	\$0.00	\$0.00
11-4022-800	11	FD- Miscellaneous	\$14,473.52	\$14,000.00
Fire Department			\$1,258,662.46	\$1,370,407.66
			<u>Current Bgt</u>	<u>Requested</u>
11-4030-340	11	PW-Contracted Services	\$1,440.00	\$1,440.00
11-4030-412	11	PW-Utilities	\$48,000.00	\$53,000.00
11-4030-430	11	PW-Maint & Repair - Building	\$3,500.00	\$3,500.00
11-4030-520	11	PW-Insurance-Property & Casualty	\$3,600.00	\$3,600.00
11-4030-530	11	PW-Telephone	\$2,600.00	\$2,760.00
11-4030-611	11	PW-Office Supplies	\$500.00	\$500.00
11-4030-720	11	PW-Capital Outlay-Building	\$0.00	\$15,000.00
11-4030-800	11	PW-Miscellaneous	\$2,200.00	\$2,200.00
Operations Center			\$61,840.00	\$82,000.00
			<u>Current Bgt</u>	<u>Requested</u>
11-4031-120	11	PW-Salaries & Wages	\$31,459.10	\$35,041.20
11-4031-122	11	PT-Salaries-Public Works Manager	\$4,659.20	\$4,925.44
11-4031-210	11	HEALTH INS - State Health Plan (Medical)	\$5,440.00	\$6,016.00
11-4031-213	11	INS-DENTAL/VISION/Life	\$320.00	\$355.20
			Total Budgeted \$1,605,495.73 (Town \$361,861.74)	
			\$1,370,407.66	ADD DEBT SERVICE-Smeal loan \$48119.12 & Fire Station loan \$186,968.95 = \$235,088.07

11-4031-220	PW-FICA	\$2,763.05	\$3,057.45
11-4031-230	PW-NC State Retirement	\$4,514.38	\$6,132.21
11-4031-232	PW-401K	\$1,572.95	\$1,752.06
11-4031-242	PW-Education & Travel	\$500.00	\$4,000.00
11-4031-260	INSURANCE-Workman's Comp	\$4,500.00	\$4,500.00
11-4031-320	Contract Services (ENGINEERING)	\$0.00	\$0.00
11-4031-321	Contracted Services	\$0.00	\$0.00
11-4031-422	PW- Snow & Ice Removal	\$1,800.00	\$1,800.00
11-4031-431	PW-Maint & Repair- Vehicles & Equipment	\$8,000.00	\$8,000.00
11-4031-432	PW-Maint & Repair- Sidewalks	\$8,000.00	\$8,000.00
11-4031-433	PW-Maint & Repair- Streets	\$12,500.00	\$12,500.00
11-4031-434	PW Maint & Repairs- Parking Lot	\$5,000.00	\$5,000.00
11-4031-610	PW-Dept. Supplies & Materials	\$3,500.00	\$3,500.00
11-4031-626	PW Fuel	\$2,500.00	\$2,500.00
11-4031-730	PW Capital Outlay-Infrastructure & Streets	\$82,000.00	\$28,004.32 REDUCED TO BALANCE BUDGET
11-4031-740	PW-Capital Outlay-Vehicle & Equipment	\$0.00	\$0.00
11-4031-800	PW-POWELL Fund Expenditure	\$61,000.00	\$60,000.00
	Streets	\$240,028.68	\$195,083.88
		<u>Current Bal</u>	<u>Requested</u>
11-4032-330	Sanitation-Contract for Recycling	\$27,492.00	\$32,030.00 up 10% plus more homes
11-4032-340	Sanitation-Contract for Trash/Bulk Waste	\$101,094.00	\$117,812.00 up 10% plus more homes
11-4032-421	Sanitation-Landfill Fees	\$45,000.00	\$45,000.00
11-4032-610	Sanitation-Dept Supplies & Materials	\$0.00	\$12,500.00 order more Trash cans
	Sanitation	\$173,586.00	\$207,342.00
		<u>Current Bal</u>	<u>Requested</u>
11-4033-120	BG-Salaries & Wages	\$55,053.42	\$61,322.11
11-4033-122	BG-PT-Public Works Manager	\$8,153.60	\$8,619.52
11-4033-210	BG-HEALTH INS - STATE HEALTH PLAN (Medical)	\$9,520.00	\$10,528.00
11-4033-213	BG-INS-DENTAL/VISION	\$560.00	\$621.60
11-4033-220	BG-FICA	\$4,835.34	\$5,350.53
11-4033-230	BG- NC State Retirement	\$7,900.17	\$10,731.37
11-4033-232	BG-401K	\$2,752.67	\$3,066.11
11-4033-260	BG-INSURANCE-Worker's Comp	\$2,500.00	\$2,500.00
11-4033-431	BG-Maint. & Repair-Vehicles & Equipment	\$1,800.00	\$1,800.00
11-4033-610	BG-Dept. Supplies & Materials	\$2,400.00	\$2,400.00
11-4033-740	BG-Capital Outlay- Equipment	\$0.00	\$40,500.00 1/2 of cost for Articulator Loader-order end FY26/27 then pay remainder in FY27/28
	Building & Grounds	\$95,475.20	\$147,439.24
		<u>Current Bal</u>	<u>Requested</u>
11-4051-430	Property Maintenance	\$61,921.00	\$65,000.00
11-4051-720	Capital Outlay-Buildings & Structures	\$0.00	\$0.00
11-4051-821	MT. Pleasant Beautification	\$2,500.00	\$2,500.00
11-4051-825	Cabarrus Health Alliance-West Nile Spray	\$450.00	\$450.00
11-4051-850	Independence Celebration	\$20,500.00	\$25,545.00
11-4051-851	Christmas Parade/Tree Lighting	\$2,200.00	\$6,150.00
11-4051-852	Arts/Cultural Services	\$3,300.00	\$3,300.00
11-4051-853	Christmas Decorations	\$1,300.00	\$1,300.00

11-4051-854	11	Events Expense (Fall Festival)	\$0.00	\$13,375.00
11-4051-855	11	Trailhead at Mailbu Rd	\$2,400.00	\$2,400.00
		Recreation & Culture	\$94,571.00	\$120,020.00
			<u>Current Bgt</u>	<u>Requested</u>
11-4071-002	11	FIRE Truck Smeal PRINCIPAL	\$37,932.68	\$39,087.40
11-4071-005	11	Town Hall SUV Principal	\$7,609.88	\$7,998.35
11-4071-006	11	Fire Dept Renovation PRINCIPAL	\$125,000.00	\$125,000.00
11-4071-007	11	Mun. Complex & Park Imp PRINCIPAL	\$60,000.00	\$60,000.00
		Debt Service PRINCIPLE	\$230,542.56	\$232,085.75
			<u>Current Bgt</u>	<u>Requested</u>
11-4072-002	11	FIRE Truck Smeal INTEREST	\$10,186.44	\$9,031.72
11-4072-005	11	Town Hall SUV Interest	\$1,354.48	\$965.93
11-4072-006	11	Fire Dept. Renovation INTEREST	\$65,872.43	\$61,968.95
11-4072-007	11	Mun. Complex & Park Imp INTEREST	\$31,618.77	\$29,745.09
		Debt Service INTEREST	\$109,032.12	\$101,711.69
		General Fund TOTALS	\$3,126,932.79	\$3,339,319.96

Water & Sewer Fund Revenue

			Current Bgt	Requested
21-3016-900	21	WATER CHARGES	\$780,594.97	\$814,560.97
21-3016-910	21	SEWER CHARGES	\$690,200.00	\$710,000.00
21-3020-900	21	TAP AND DEPOSIT FEES	\$15,000.00	\$9,500.00
21-3020-905	21	Mailed Bill Fee	\$8,700.00	\$8,500.00
21-3020-910	21	Application & Transfer Fees	\$3,000.00	\$6,000.00
21-3020-920	21	PENALTIES	\$22,300.00	\$22,300.00
21-3025-900	21	Loan Proceeds	\$0.00	\$0.00
21-3034-901	21	ARPA-AIA Grant-Water \$150,000	\$150,000.00	\$0.00
21-3034-902	21	ARPA-AIA Grant-Sewer \$150,000	\$150,000.00	\$0.00
21-3034-903	21	ARPA-AIA Grant-Storm Water \$350,000	\$350,000.00	\$0.00
21-3061-900	21	INVESTMENT EARNINGS	\$30,000.00	\$5,000.00
21-3090-900	21	MISCELLANEOUS	\$1,000.00	\$2,000.00
21-3090-902	21	FEMA -Reimbursements	\$0.00	\$0.00
21-3090-903	21	PFAS-Class Action Lawsuit Revenue	\$0.00	\$0.00
21-3090-920	21	Meters Purchased by Contractors	\$17,065.00	\$8,000.00
21-3091-900	21	APPROPRIATION OF W&S FUND BALA	\$61,129.85	\$47,847.00
21-3091-910	21	Transfer from Capital Projects	\$0.00	\$0.00
21-3091-920	21	TRANSFER OPERATING-IN	\$6,759.00	\$0.00
21-3091-930	21	Transfer IN-ARP grant funds (supplanting)	\$0.00	\$0.00
21-3092-900	21	SALE OF ASSETS	\$0.00	\$0.00
21-3092-910	21	INSURANCE PROCEEDS	\$0.00	\$0.00
21-3093-900	21	OTHER FINANCING SOURCES-INST F	\$0.00	\$0.00
21-3094-900	21	Lease Revenue Cell Phone Satellites	\$23,800.00	\$25,000.00
		Water & Sewer Fund Revenue Totals	\$2,309,548.82	\$1,658,707.97

\$814,560.97 .50¢ added to base rate (\$7,032) and .20¢ added to each tier level (\$26,934)
 \$710,000.00 WSACC increase \$10,000, add 20¢ to sewer tier rates
 \$5,000.00 No Fund Balance to earn interest
 \$8,000.00 Green Acres done, Niblock slow-(14 homes for the year)
 \$47,847.00 Ground Storage tank 1 of 3 years remaining of maint done in 25/26

Water & Sewer Fund EXPENSES

	Current Bgt	Requested
21-4015-115 21 LONGEVITY - WATER & SEWER ADMIN	\$250.00	\$250.00
21-4015-116 21 Additional Earnings-LUMP SUM	\$3,700.00	\$0.00
21-4015-120 21 SALARIES & WAGES	\$128,812.25	\$131,758.28
21-4015-210 21 HEALTH INS - STATE HEALTH PLAN (Medical)	\$18,895.60	\$17,860.00
21-4015-213 21 INS-DENTAL/VISION/Life	\$950.00	\$1,054.50
21-4015-220 21 FICA	\$12,253.08	\$10,079.51
21-4015-230 21 NC State Retirement	\$17,769.87	\$22,596.14
21-4015-232 21 WS-ADMIN 401K	\$6,376.59	\$6,456.04
21-4015-241 21 DUES & SUBSCRIPTIONS	\$1,300.00	\$1,300.00
21-4015-260 21 INSURANCE-WORKMAN'S COMP	\$2,000.00	\$2,000.00
21-4015-320 21 Contract Services-Engineer Admin	\$51,200.00	\$53,000.00
21-4015-321 21 AUDITOR FEES	\$12,000.00	\$12,000.00
21-4015-322 21 Attorney Fees	\$1,000.00	\$0.00
21-4015-340 21 Admin-Contracted Services (Randy)	\$0.00	\$0.00
21-4015-342 21 Admin- Copier Contract	\$5,000.00	\$4,800.00
21-4015-345 21 Studies	\$13,000.00	\$0.00
21-4015-442 21 EQUIPMENT LEASE	\$0.00	\$0.00
21-4015-470 21 Credit Card Processing Fees	\$5,000.00	\$3,000.00
21-4015-531 21 Employee Phone Expense	\$2,040.00	\$2,040.00
21-4015-611 21 OFFICE SUPPLIES & POSTAG	\$8,000.00	\$6,000.00
21-4015-613 21 UNIFORMS	\$5,000.00	\$5,500.00
21-4015-626 21 FUEL	\$2,000.00	\$2,500.00
21-4015-700 21 ARPA AIA Grant-Water \$150,000	\$150,000.00	\$0.00
21-4015-701 21 ARPA AIA Grant-Sewer \$150,000	\$150,000.00	\$0.00
21-4015-702 21 ARPA AIA Grant-Storm Water \$350,000	\$350,000.00	\$0.00
21-4015-800 21 Miscellaneous	\$700.00	\$700.00
W/S Admin/Billing	\$947,247.39	\$282,894.47
	<u>Current Bgt</u>	<u>Requested</u>
21-4030-340 21 CONTRACTED SERVICES	\$1,440.00	\$2,856.46
21-4030-412 21 UTILITIES	\$12,500.00	\$14,000.00
21-4030-430 21 MAINT. & REPAIR-BUILDING	\$1,200.00	\$1,400.00
21-4030-520 21 INSURANCE-PROPERTY & CAUSALITY	\$1,000.00	\$1,000.00
21-4030-530 21 TELEPHONE	\$7,500.00	\$7,000.00
21-4030-611 21 OFFICE SUPPLIES	\$500.00	\$1,000.00
21-4030-720 21 CAPITAL OUTLAY-BUILDING	\$0.00	\$0.00
Operations Center	\$24,140.00	\$27,256.46
	<u>Current Bgt</u>	<u>Requested</u>
21-4034-120 21 SALARIES & WAGES-WATER	\$55,053.42	\$61,322.11
21-4034-122 21 PT-Public Works Manager	\$8,153.60	\$8,619.52
21-4034-210 21 HEALTH INS-STATE HEALTH PLAN (Medical)	\$9,520.00	\$10,528.00
21-4034-213 21 INS-DENTAL/VISION/Life	\$560.00	\$621.60
21-4034-220 21 FICA-WATER	\$4,835.34	\$5,350.53
21-4034-230 21 Water- NC State Retirement	\$7,900.17	\$10,731.37

21-4034-232	21	WATER-401K	\$2,752.67	\$3,066.11	
21-4034-242	21	EDUCATION & TRAVEL-WATER	\$2,400.00	\$10,000.00	Certifications for PW employess-includes hotel stays
21-4034-320	21	CONTRACT SERVICES-WATER	\$19,500.00	\$12,500.00	Garrow ORC \$7800, Mueller annual Maint \$2050
21-4034-411	21	WATER PURCHASES-WATER	\$5,000.00	\$0.00	
21-4034-430	21	Maint & Repair HYDRANTS	\$5,000.00	\$5,000.00	
21-4034-431	21	MAINT. & REPAIR-VEHICLE & EQUI	\$3,000.00	\$3,000.00	
21-4034-432	21	MAINT. & REPAIR-WATER LINES	\$15,000.00	\$10,000.00	
21-4034-433	21	MAINT. & REPAIR-METERS	\$55,065.00	\$30,000.00	
21-4034-610	21	DEPARTMENT SUPPLIES-WATER	\$15,000.00	\$10,000.00	
21-4034-730	21	CAPITAL OUTLAY-INFRASTRUCTURE-	\$0.00	\$0.00	
21-4034-740	21	CAPITAL OUTLAY-VEHICLES & EQUI	\$0.00	\$0.00	
21-4034-800	21	MISCELLANEOUS	\$1,540.00	\$1,000.00	
		Water Dept.	\$210,280.20	\$181,739.24	
			<u>Current Bgt</u>	<u>Requested</u>	
21-4035-120	21	SALARIES & WAGES-SEWER	\$55,053.42	\$61,322.11	
21-4035-122	21	PT-Public Works Manager	\$8,153.60	\$8,619.52	
21-4035-210	21	HEALTH INS-STATE HEALTH PLAN (Medical)	\$9,520.00	\$10,528.00	
21-4035-213	21	INS-DENTAL/VISION/Life	\$560.00	\$621.60	
21-4035-220	21	FICA-SEWER	\$4,835.34	\$5,350.53	
21-4035-230	21	Sewer- NC State Retirement	\$7,900.17	\$10,731.37	
21-4035-232	21	SEWER-401K	\$2,752.67	\$3,066.11	
21-4035-242	21	EDUCATION & TRAVEL-SEWER	\$2,400.00	\$1,700.00	Certifications for PW employess-includes hotel stays
21-4035-411	21	SEWER TREATMENT	\$307,000.00	\$317,000.00	WSACC \$10,000 increase
21-4035-431	21	MAINT. & REPAIR-VEHICLE & EQUI	\$2,000.00	\$2,000.00	
21-4035-432	21	MAINT. & REPAIR-SEWER LINES	\$10,000.00	\$5,000.00	
21-4035-433	21	MAINT. & REPAIR-PUMP STATIONS	\$24,564.08	\$12,500.00	
21-4035-434	21	Maint. & Repair- Manholes/Covers	\$0.00	\$0.00	
21-4035-610	21	DEPARTMENT SUPPLIES & MATERIAL	\$5,000.00	\$2,500.00	
21-4035-730	21	CAPITAL OUTLAY-INFRASTRUCTURE	\$0.00	\$0.00	
21-4035-740	21	CAPITAL OUTLAY-VEHICLE & EQUIP	\$0.00	\$0.00	
NEW		CAPITAL RESERVE-FIELDSTONE PUMP STATIONS		\$0.00	new
21-4035-800	21	MISCELLANEOUS-SEWER	\$1,540.00	\$1,000.00	
		Sewer Dept.	\$441,279.28	\$441,939.24	
			<u>Current Bgt</u>	<u>Requested</u>	
21-4037-115	21	PLANT-LONGEVITY	\$0.00	\$0.00	
21-4037-116	21	Additional Earnings-LUMP SUM	\$2,300.00	\$0.00	
21-4037-120	21	SALARIES & WAGES-PLANT	\$127,088.00	\$143,402.67	
21-4037-122	21	PT-SALARY-PLANT	\$8,640.00	\$9,115.20	
21-4037-210	21	HEALTH INS-STATE HEALTH PLAN (Medical)	\$17,000.00	\$18,800.00	
21-4037-213	21	INS-DENTAL/VISION/Life	\$1,000.00	\$1,110.00	
21-4037-220	21	FICA-PLANT	\$10,559.19	\$11,667.62	
21-4037-230	21	Plant- NC State Retirement	\$18,237.13	\$25,095.47	
21-4037-232	21	Plant 401K	\$6,469.40	\$7,170.13	
21-4037-241	21	DUES & SUBSCRIPTIONS-PLANT	\$6,000.00	\$6,500.00	SCADA annual fees 2 accts, DEQ annual permits, Emp dues for certs
21-4037-242	21	EDUCATION & TRAVEL-PLANT	\$1,500.00	\$2,500.00	
21-4037-260	21	WORKER'S COMP-PLANT	\$3,300.00	\$3,400.00	Not billed until May

21-4037-330	21	CONTRACT SERVICES-PLANT	\$40,000.00	\$86,567.94	Maint Contract for Tanks (\$84,167.94) use fund balance of \$47,847, KDT \$2400,
21-4037-412	21	UTILITIES-PLANT (POWER)	\$52,000.00	\$45,000.00	
21-4037-430	21	MAINT & REPAIR BLDG- PLANT	\$26,833.43	\$25,000.00	
21-4037-431	21	MAINT & REPAIR-VEHICLE-PLANT	\$1,300.00	\$1,300.00	
21-4037-433	21	MAINTENANCE - EQUIPMENT-PLANT	\$22,000.00	\$15,000.00	
21-4037-434	21	Dredging	\$0.00	\$0.00	
21-4037-520	21	INSURANCE (PROPERTY)-PLANT	\$4,100.00	\$4,200.00	
21-4037-530	21	TELEPHONE-PLANT	\$2,100.00	\$2,160.00	
21-4037-531	21	Communications Expense	\$1,600.00	\$1,680.00	
21-4037-610	21	Lab & Testing Supplies	\$22,500.00	\$21,000.00	
21-4037-611	21	OFFICE SUPPLIES-PLANT	\$1,000.00	\$800.00	
21-4037-612	21	CHEMICALS-PLANT	\$45,000.00	\$33,750.00	reduced by 25%
21-4037-613	21	Uniforms/ PPE for WTP	\$750.00	\$1,000.00	
21-4037-615	21	COMPUTERS & SOFTWARE-PLANT	\$1,200.00	\$1,000.00	
21-4037-626	21	FUEL-PLANT	\$700.00	\$500.00	
21-4037-720	21	CAPITAL OUTLAY BLDG	\$0.00	\$0.00	
21-4037-721	21	CAPITAL OUTLAY FACILITIES & EQUIP - PLANT	\$0.00	\$0.00	
21-4037-800	21	MISC-PLANT	\$15,000.00	\$8,734.73	
		Water Treatment Plant	\$438,177.15	\$476,453.76	
			<u>Current Bgt</u>	<u>Requested</u>	
21-4071-005	21	PW Ford 450 Truck w/crane Principal	\$12,671.31	\$13,259.41	
21-4071-006	21	USDA-Empire Dr Pump Station, Manholes, ABCSt	\$97,000.00	\$97,000.00	
		Debt Service PRINCIPAL	\$109,671.31	\$110,259.41	
			<u>Current Bgt</u>	<u>Requested</u>	
21-4072-005	21	PW Ford 450 Truck w/crane Interest	\$4,833.49	\$4,245.39	
21-4072-006	21	USDA-Empire Dr Pump St, Manholes, ABCSt Interes	\$133,920.00	\$133,920.00	
		Debt Service INTEREST	\$138,753.49	\$138,165.39	
		Water & Sewer TOTALS	\$2,309,548.82	\$1,658,707.97	