

# COLLECTIONS SYSTEM PERMIT REVIEW



PREPARED BY: FRED SUMMERS, WWT2

NORTH CAROLINA RURAL WATER ASSOCIATION

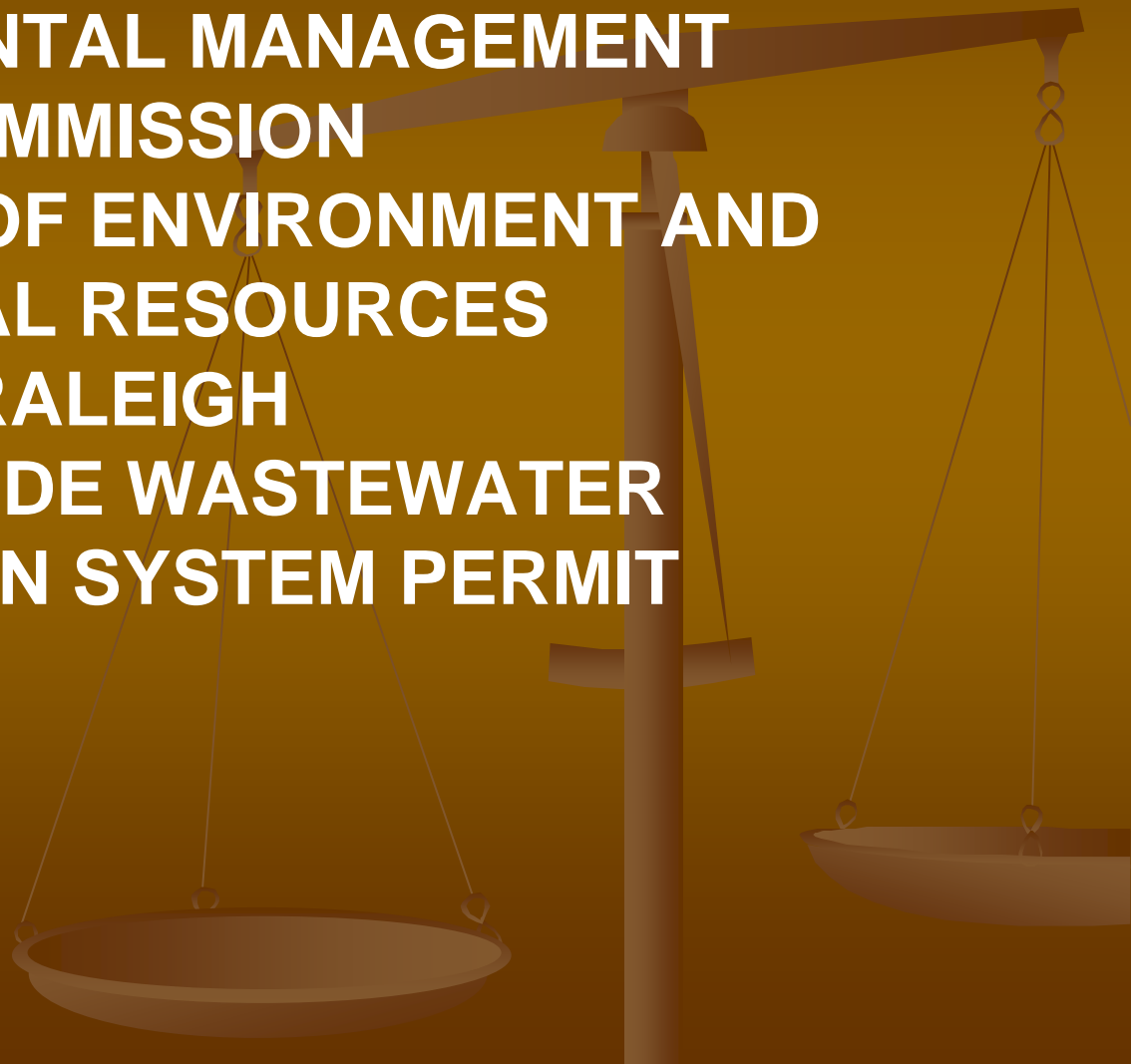
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**NORTH CAROLINA  
ENVIRONMENTAL MANAGEMENT  
COMMISSION  
DEPARTMENT OF ENVIRONMENT AND  
NATURAL RESOURCES  
RALEIGH  
SYSTEM-WIDE WASTEWATER  
COLLECTION SYSTEM PERMIT**



In accordance with the provisions of **Article 21 of Chapter 143, General Statutes of North Carolina** as amended, and other applicable Laws, Rules, and Regulations

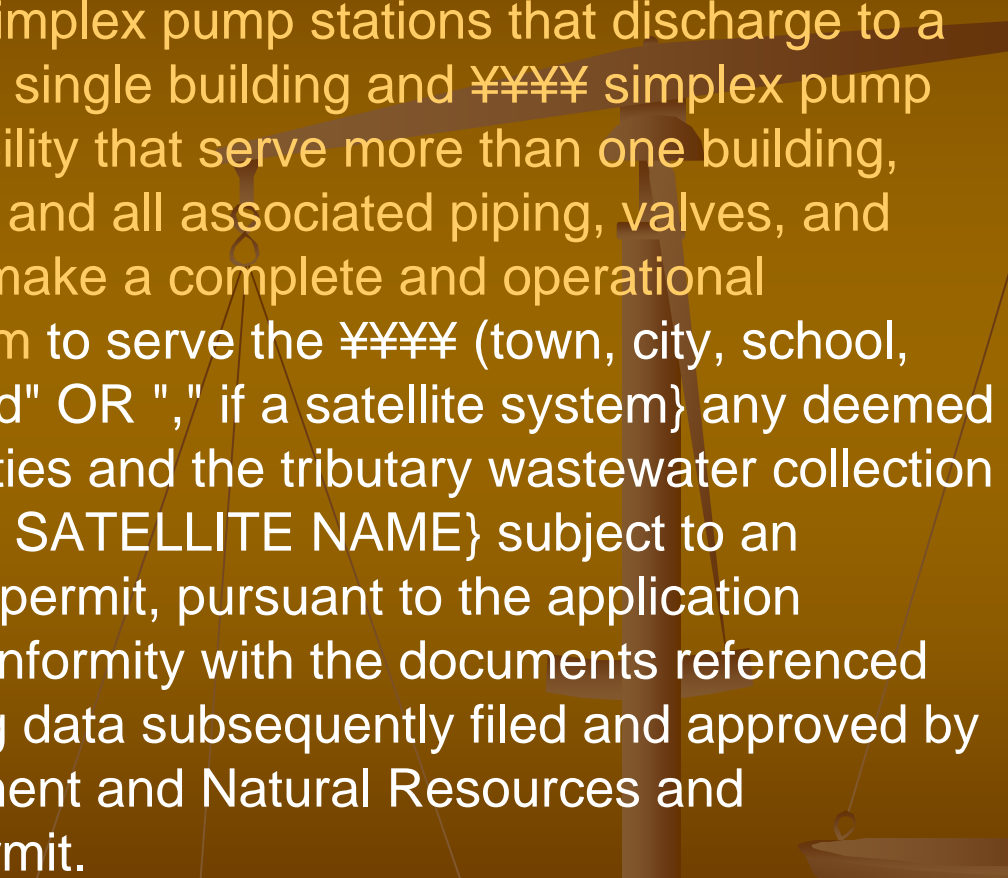
PERMISSION IS HEREBY GRANTED TO

¥¥¥¥ (Permittee)

¥¥¥¥ County

FOR THE

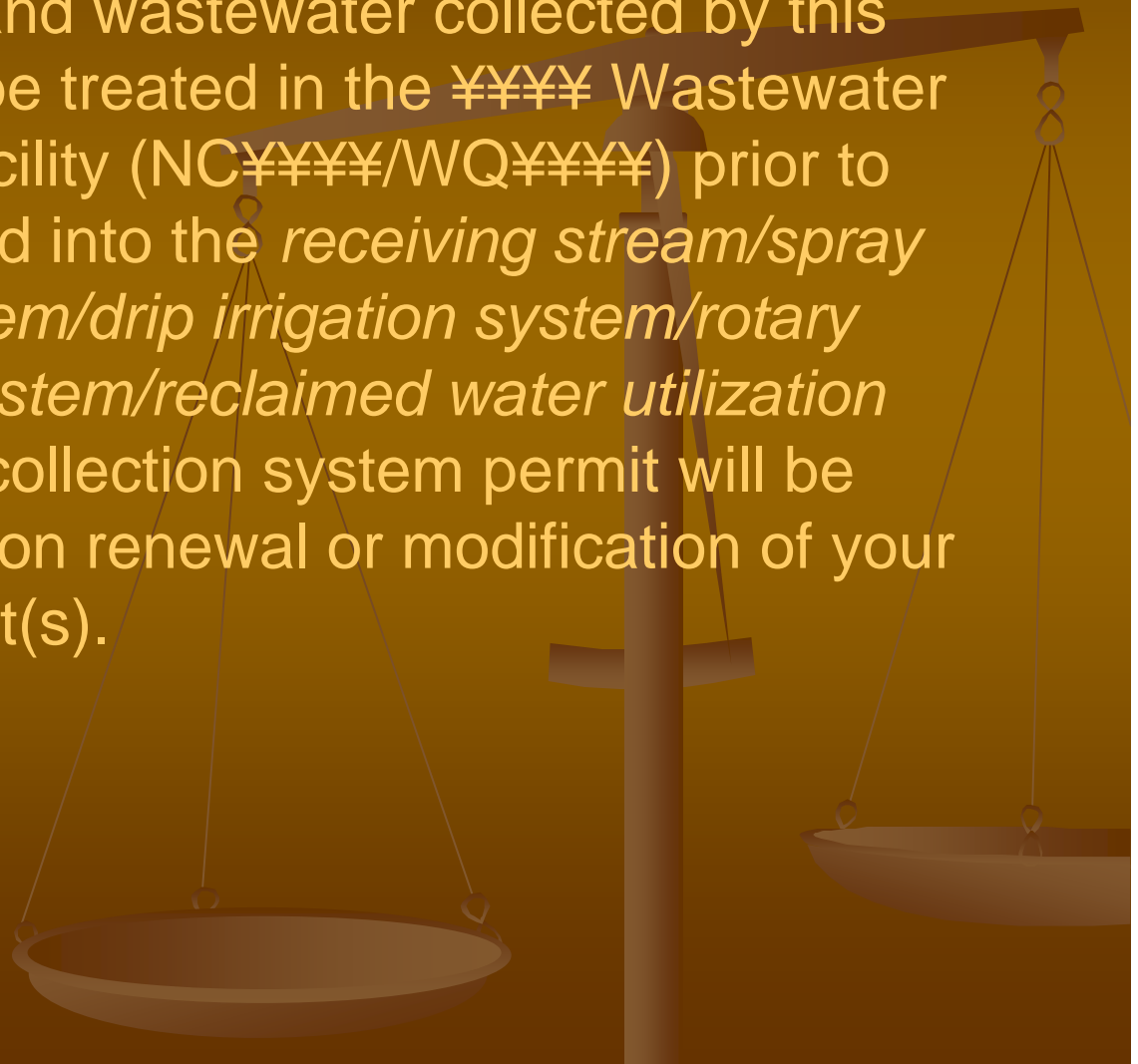
*operation and maintenance of a local sewer permitting program, pursuant to the local permit program approval for public gravity sewers [modify as necessary] granted by the North Carolina Environmental Management Commission on ¥¥¥¥, and in conformity with **15A NCAC 2H .0218** and other supporting data subsequently filed and approved by the Department of Environment and Natural Resources and considered a part of this permit;*  
*and*



operation and maintenance of a wastewater collection system consisting of, at the time of permit issuance, approximately 10 miles of gravity sewer, approximately 10 miles of vacuum sewer, approximately 10 miles of pressure sewer, approximately 10 miles of force main, 10 simplex pump stations that discharge to a pressure sewer and serve a single building and 10 simplex pump stations without pump reliability that serve more than one building, 10 duplex pump stations, and all associated piping, valves, and appurtenances required to make a complete and operational wastewater collection system to serve the 10 (town, city, school, resort community, etc.) {"and" OR ", " if a satellite system} any deemed permitted satellite communities and the tributary wastewater collection system serving the {ENTER SATELLITE NAME} subject to an individual collection system permit, pursuant to the application received on 10, and in conformity with the documents referenced therein and other supporting data subsequently filed and approved by the Department of Environment and Natural Resources and considered a part of this permit.

## I. PERFORMANCE STANDARDS

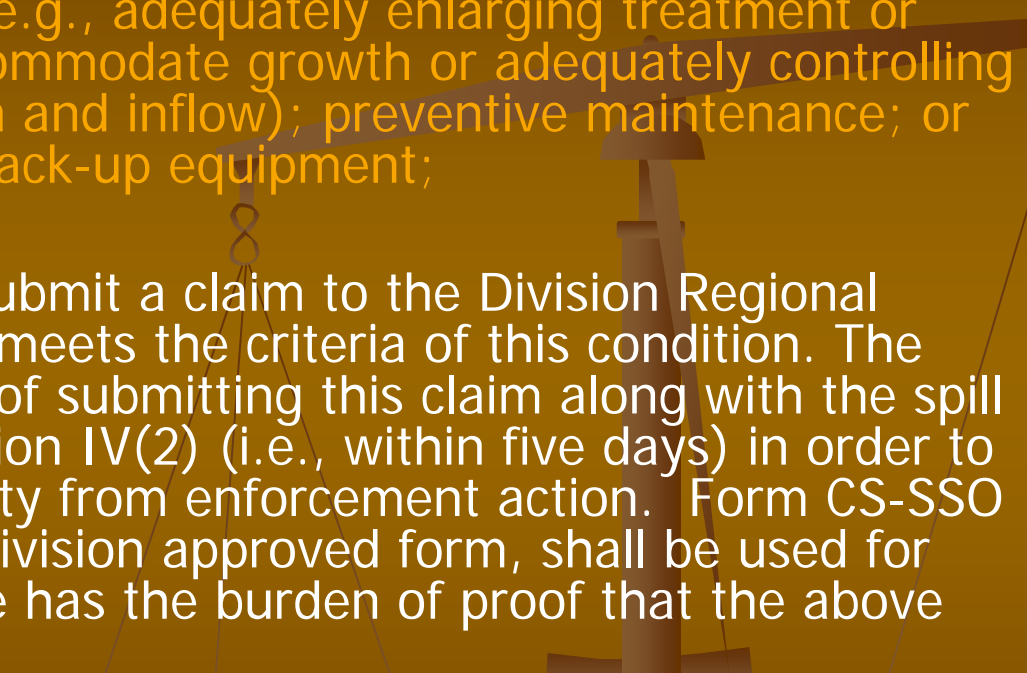
1. The sewage and wastewater collected by this system shall be treated in the ~~XXXX~~ Wastewater Treatment Facility (NC~~XXXX~~/WQ~~XXXX~~) prior to being disposed into the *receiving stream/spray irrigation system/drip irrigation system/rotary distribution system/reclaimed water utilization system*. This collection system permit will be referenced upon renewal or modification of your NPDES permit(s).



2. **The wastewater collection system shall be effectively managed, maintained and operated at all times so that there is no discharge to land or surface waters, nor any contamination of groundwater.** In the event that the wastewater collection system fails to perform satisfactorily, including the creation of nuisance conditions, the Permittee shall take immediate corrective actions, including actions that may be required by the Division of Water Quality (Division), such as the construction of additional or replacement sewer lines and/or equipment.

The Director may take enforcement action against the Permittee for sanitary sewer system discharges that must be reported to the Division as stipulated in Condition IV(2). This includes discharges that were caused by severe natural conditions or exceptional events **unless** the Permittee demonstrates through properly signed, contemporaneous operating logs, or other relevant evidence that:

A. The discharge was caused by severe natural conditions; there were no feasible alternatives to the discharge, such as the use of auxiliary treatment facilities, retention of untreated wastewater, reduction of inflow and infiltration, use of adequate back-up equipment, or an increase in the capacity of the system. This provision is not satisfied if, in the exercise of reasonable engineering judgment, the Permittee should have installed auxiliary or additional collection system components, wastewater retention or treatment facilities, adequate back-up equipment or should have reduced inflow and infiltration; or

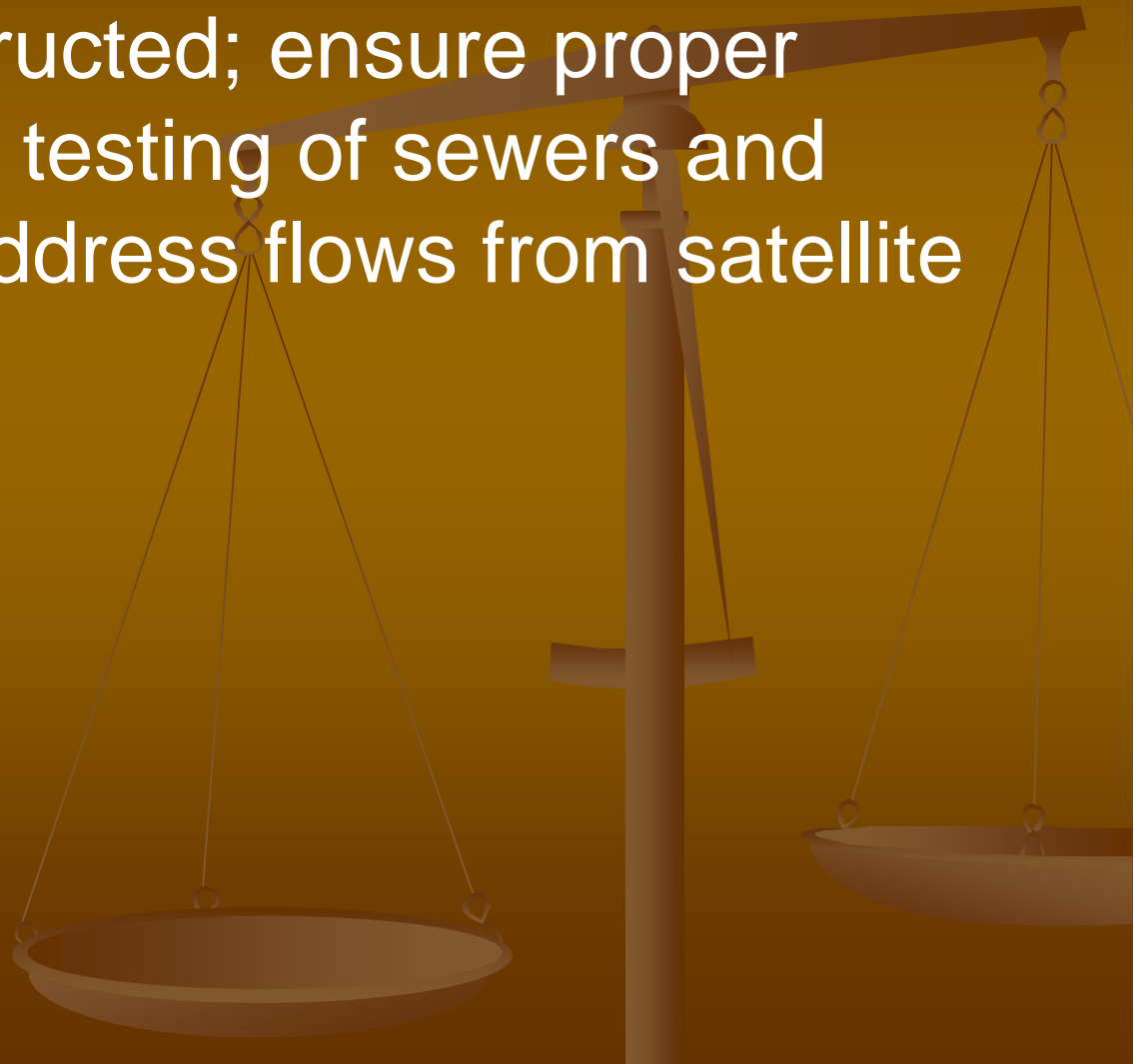
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- B. the discharge was exceptional, unintentional, temporary and caused by factors beyond the reasonable control of the Permittee; the discharge could not have been prevented by the exercise of reasonable control, such as proper management, operation and maintenance; adequate treatment facilities or collection system facilities or components (e.g., adequately enlarging treatment or collection facilities to accommodate growth or adequately controlling and preventing infiltration and inflow); preventive maintenance; or installation of adequate back-up equipment;
  - The Permittee can submit a claim to the Division Regional Office that the discharge meets the criteria of this condition. The Permittee has the option of submitting this claim along with the spill report required by Condition IV(2) (i.e., within five days) in order to be considered for immunity from enforcement action. Form CS-SSO Part II, or most current Division approved form, shall be used for any claims. The Permittee has the burden of proof that the above criteria have been met

The following locations have documented hydraulic capacity problems and have the potential to result in a sanitary sewer overflow (SSO). The Permittee currently has active plans in place to correct the problems at these locations with the required completion dates shown in parentheses. The rehabilitation project constitutes the replacement of XXX in the following areas:

- a.
- b.

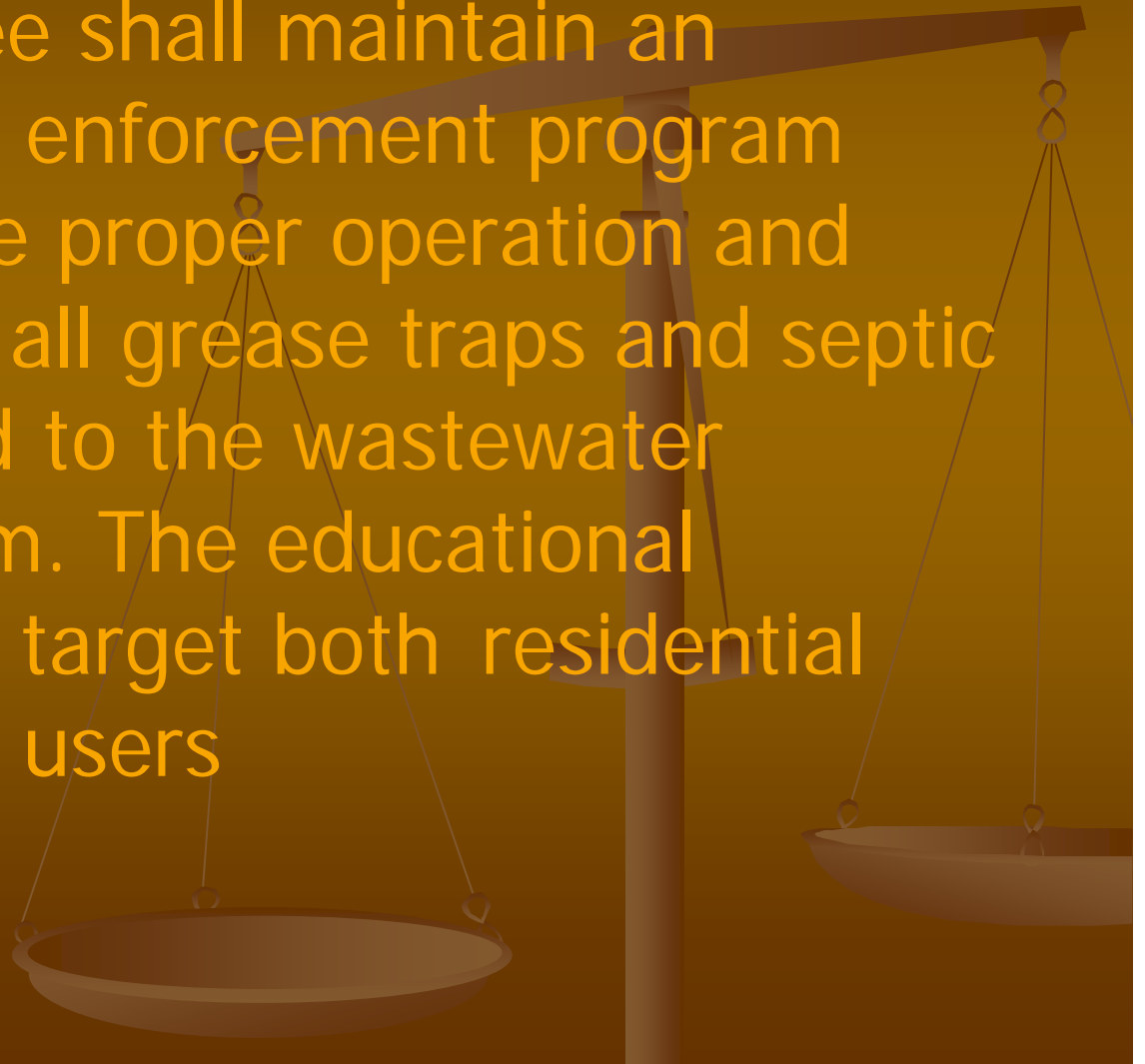
If a capacity-related SSO occurs at one of the above locations before construction is completed, enforcement actions shall not be taken by the Division against the Permittee for violating this condition. This relates to capacity-related SSOs only, and in no way absolves the Permittee from responsibility for discharges that were preventable, including but not limited to SSOs caused by grease, roots, etc. This exemption shall be valid for this condition only and shall be effective from the date of this permit's issuance until the correction completion date listed above or actual construction completion date, if before the estimated completion date. For any compliance schedules throughout the permit, include language requiring that the regional office be notified when the schedules are met.

3. The Permittee shall have the legal authority to implement the requirements of Condition I(4); require new sewers be properly constructed; ensure proper inspection and testing of sewers and laterals; and address flows from satellite systems.



# EDUCATION & ENFORCEMENT

4. The Permittee shall maintain an educational and enforcement program that requires the proper operation and maintenance of all grease traps and septic tanks connected to the wastewater collection system. The educational program should target both residential and commercial users

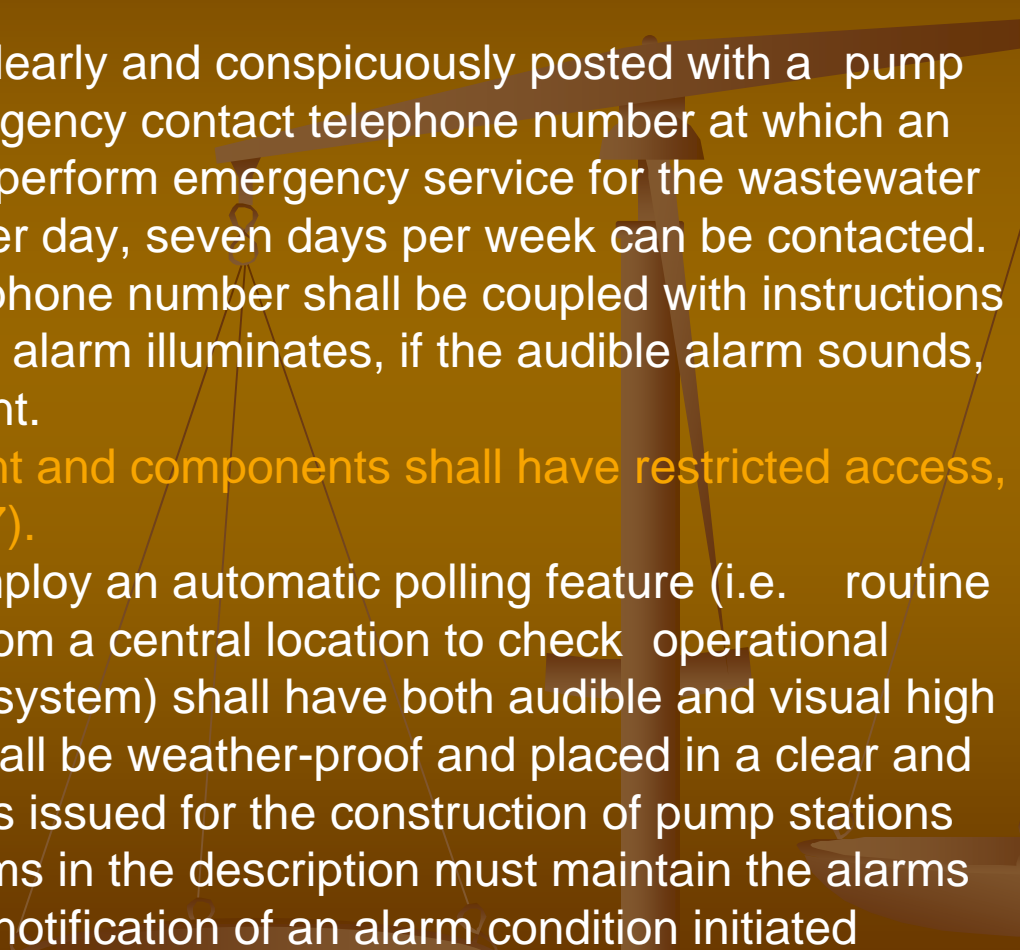


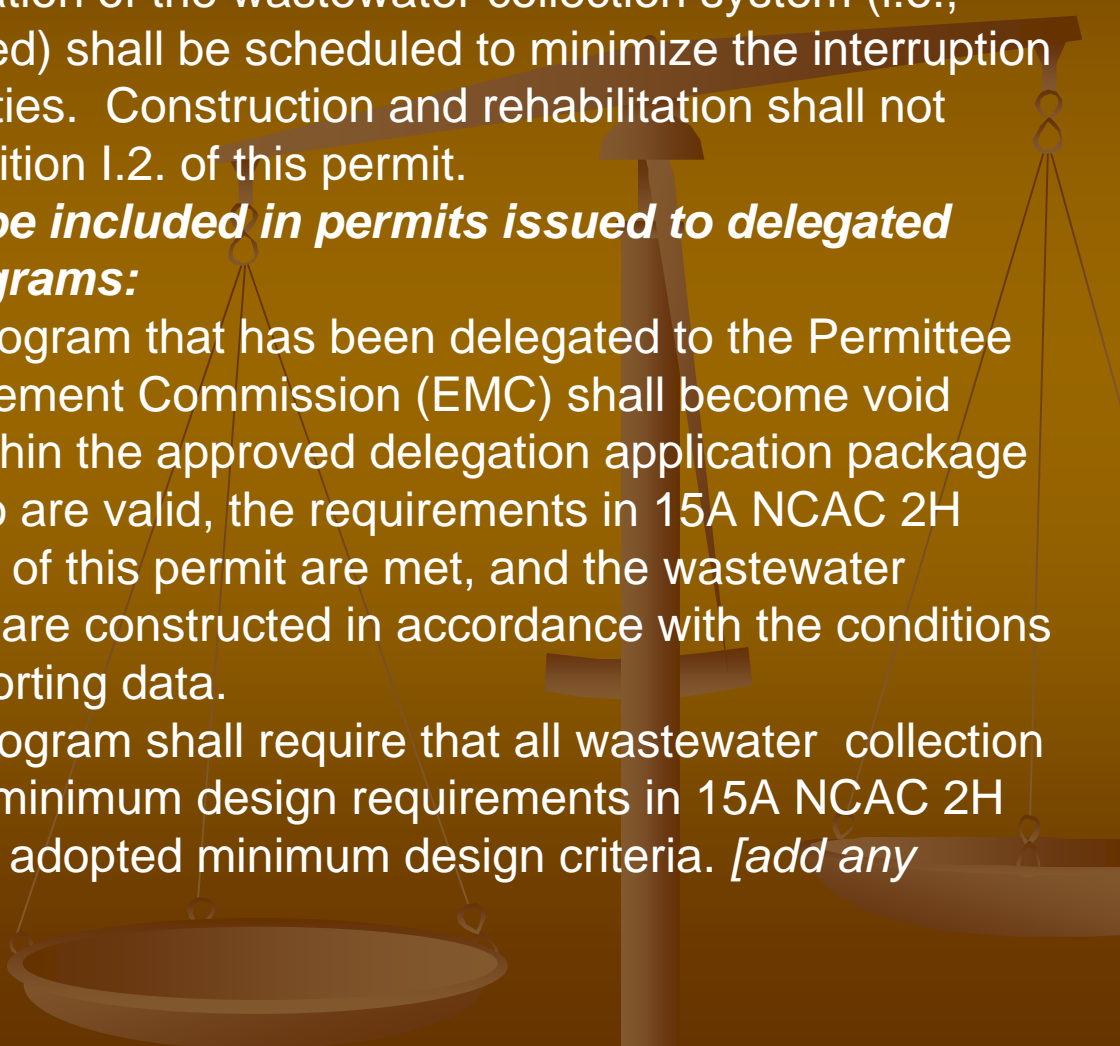
# CAPITAL IMPROVEMENT PLAN

- 5. The Permittee shall implement a Capital Improvement Plan (CIP) to designate funding for reinvestment into the wastewater collection system infrastructure. The CIP should address the short-term needs and long-term "master plan" concepts. The CIP should typically cover a three to five year period and include a goal statement, description of the project area, description of the existing facilities, known deficiencies (over a reasonable period) and forecasted future needs. Cost analysis is integral to the CIP

# OVERFLOW PIPING

- 6. Existing overflow piping from manholes and pump stations, excluding piping to approved equalization structures, known or discovered after permit issuance shall be immediately removed or permanently capped. Plugged emergency pumping connections are allowable for portable pumping or rerouting without intentionally bypassing the wastewater treatment facility.

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7. The Permittee shall maintain a contingency plan for pump failure at each pump station. If one of the pumps in a pump station containing multiple pumps fails, the process of repairing or replacing the pump shall be initiated immediately and the new parts or pump shall be installed as soon as possible. If the pump in a simplex pump station fails, it shall be replaced immediately.
  8. Each pump station shall be clearly and conspicuously posted with a pump station identifier and an emergency contact telephone number at which an individual who can initiate or perform emergency service for the wastewater collection system 24 hours per day, seven days per week can be contacted. This emergency contact telephone number shall be coupled with instructions for anyone to call if the visual alarm illuminates, if the audible alarm sounds, or if an emergency is apparent.
  9. Pump station sites, equipment and components shall have restricted access, per 15A NCAC 2H .0219(h)(7).
  10. Pump stations that do not employ an automatic polling feature (i.e. routine contact with pump stations from a central location to check operational status of the communication system) shall have both audible and visual high water alarms. The alarms shall be weather-proof and placed in a clear and conspicuous location. Permits issued for the construction of pump stations that included high water alarms in the description must maintain the alarms even if simple telemetry (i.e. notification of an alarm condition initiated

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11. For all newly constructed, modified and rehabilitated pump stations, equipment and components located within the pump station shall be corrosion-resistant and components in close proximity of the pump station shall be sealed within a corrosion-resistant coating or .
12. All construction and rehabilitation of the wastewater collection system (i.e., permitted or deemed permitted) shall be scheduled to minimize the interruption of service by the existing utilities. Construction and rehabilitation shall not result in the violation of Condition 1.2. of this permit.

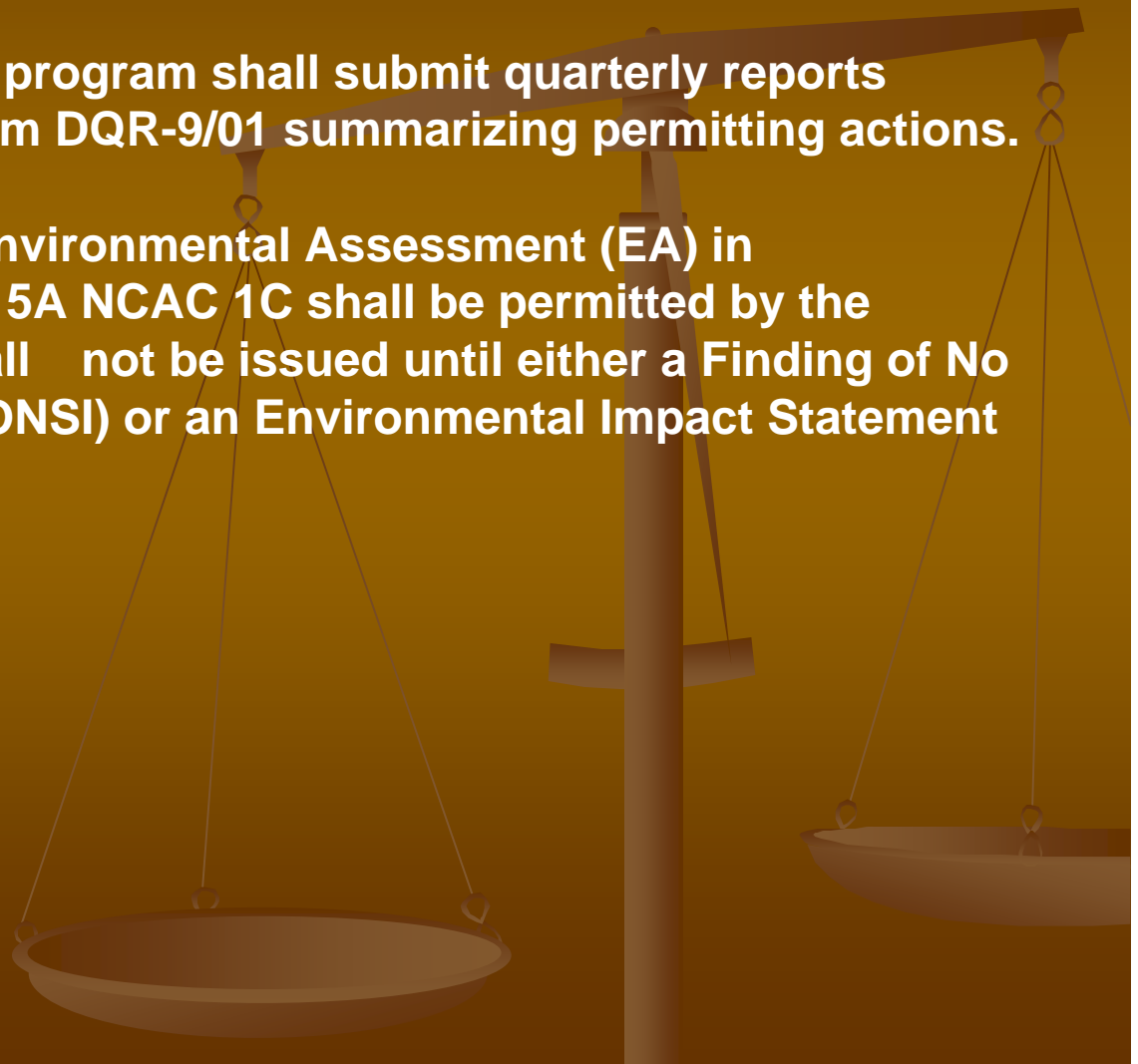
***The following conditions will be included in permits issued to delegated local sewer permitting programs:***

13. The local sewer permitting program that has been delegated to the Permittee by the Environmental Management Commission (EMC) shall become void unless the documentation within the approved delegation application package and any modifications thereto are valid, the requirements in 15A NCAC 2H .0218 are met, the conditions of this permit are met, and the wastewater collection system extensions are constructed in accordance with the conditions of this permit and other supporting data.
14. The local sewer permitting program shall require that all wastewater collection system extensions meet the minimum design requirements in 15A NCAC 2H .0219 as well as any Division adopted minimum design criteria. *[add any blanket variances here]*

15. The local sewer permitting program shall obtain approval from the ~~¥¥¥¥~~ Regional Office, telephone number ~~¥¥¥¥~~, prior to issuing any permits for wastewater collection system extensions to any wastewater treatment/disposal facility (ies). *[may be modified according to specific process]*

16. **The local sewer permitting program shall submit quarterly reports to the Division on Form DQR-9/01 summarizing permitting actions.**

17. **Activities that require an Environmental Assessment (EA) in accordance with the 15A NCAC 1C shall be permitted by the Division. Permits shall not be issued until either a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement (EIS) is released.**



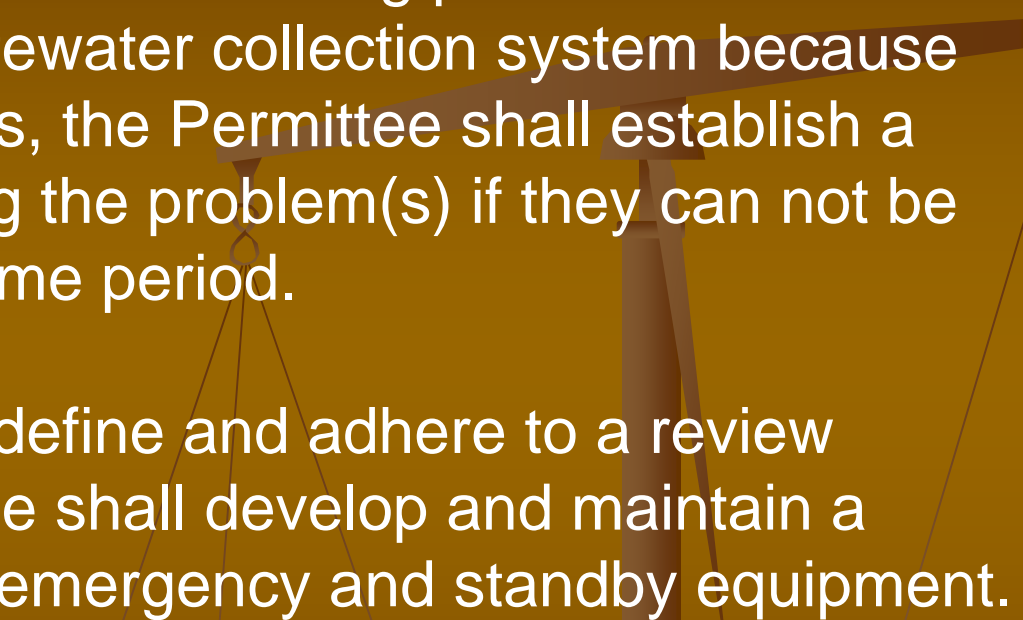
# CLASSIFICATION



II.

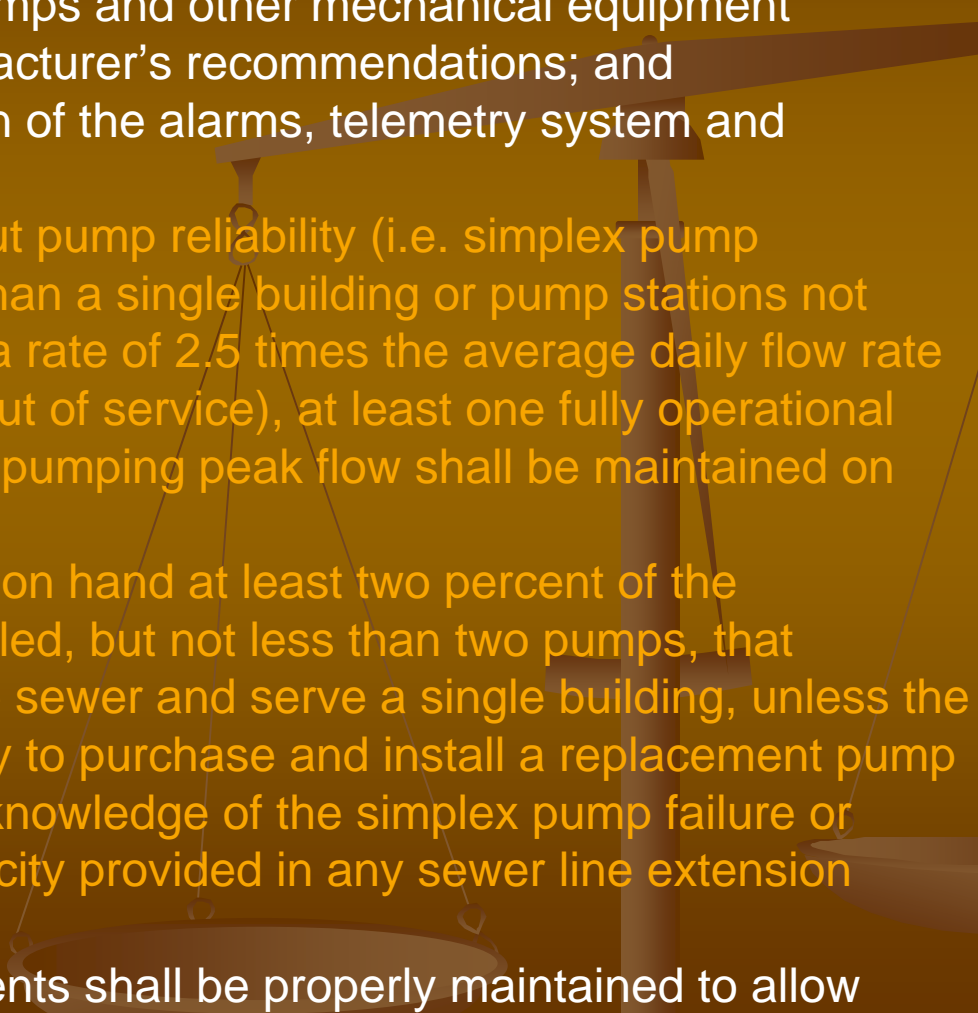
1.

Upon classification of the collection system by the Water Pollution Control System Operators Certification Commission (WPCSOCC), the Permittee shall designate and employ a certified operator to be in responsible charge (ORC) and one or more certified operator(s) to be back-up ORC(s) of the facilities in accordance with 15A NCAC 8G .0201. The ORC shall visit the system within 24 hours of knowledge of a bypass, spill, or overflow of wastewater from the system, unless visited by the Back-Up ORC, and shall comply with all other conditions of 15A NCAC 8G .0204.

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2. The Permittee shall develop and maintain a schedule for reviewing all inspection, maintenance, operational and complaint logs. Once recurring problems are identified in the wastewater collection system because of the review process, the Permittee shall establish a plan for addressing the problem(s) if they can not be resolved in a short time period.
  3. The Permittee shall define and adhere to a review period. The Permittee shall develop and maintain a schedule for testing emergency and standby equipment.

# HOUSEKEEPING AND INSPECTION



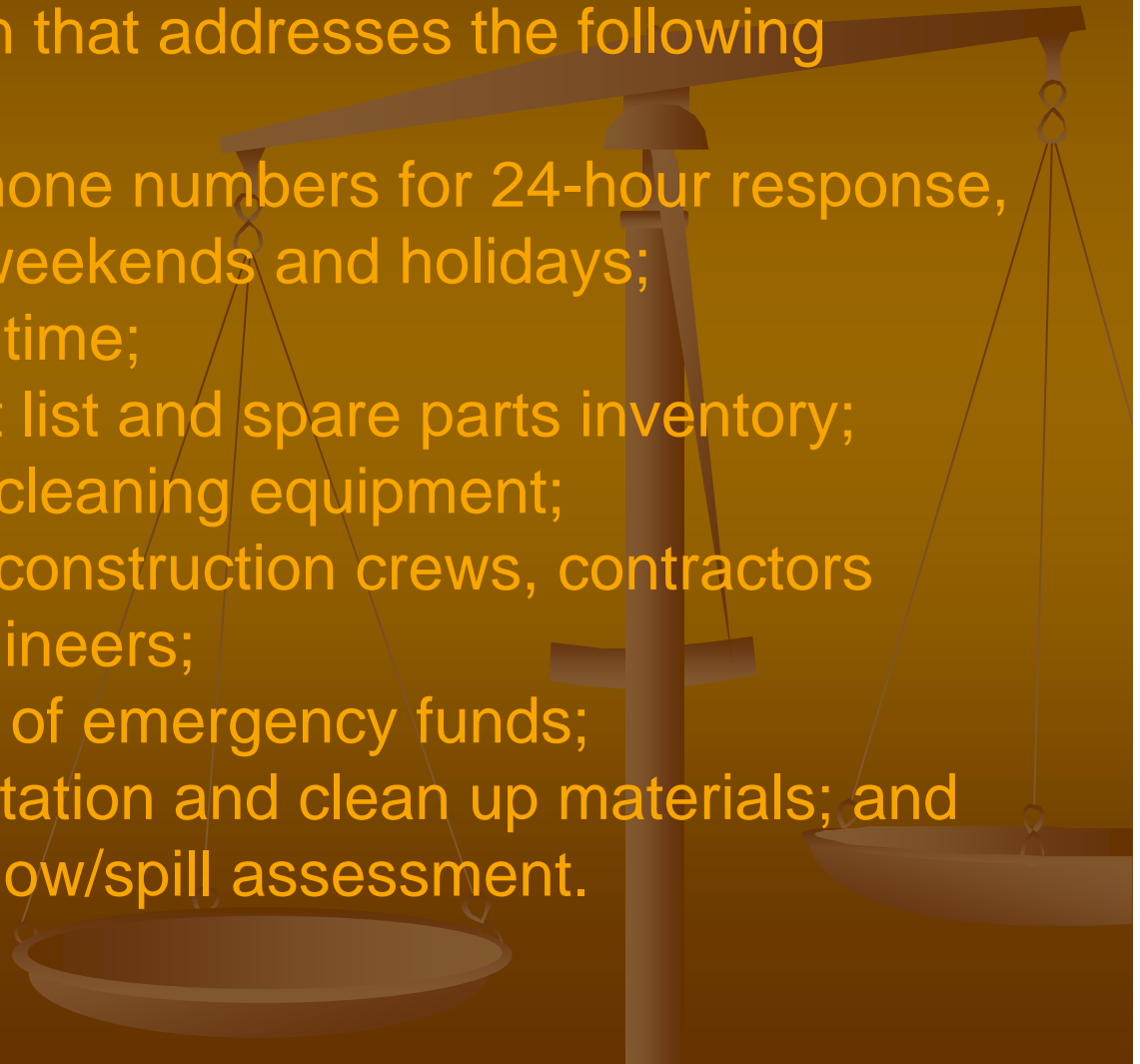
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4. The Permittee shall develop and conduct a routine pump station inspection and maintenance program, which shall include, but not be limited to, the following maintenance activities:
    - a. Cleaning and removing debris from the pump station structure, outside perimeter, and wet well;
    - b. Inspecting and exercising all valves;
    - c. Inspecting and lubricating pumps and other mechanical equipment according to the manufacturer's recommendations; and
    - d. Verifying the proper operation of the alarms, telemetry system and auxiliary equipment.
  5. For each pump station without pump reliability (i.e. simplex pump stations serving more than a single building or pump stations not capable of pumping at a rate of 2.5 times the average daily flow rate with the largest pump out of service), at least one fully operational spare pump capable of pumping peak flow shall be maintained on hand.
  6. The Permittee shall maintain on hand at least two percent of the number of pumps installed, but not less than two pumps, that discharge to a pressure sewer and serve a single building, unless the Permittee has the ability to purchase and install a replacement pump within 24 hours of first knowledge of the simplex pump failure or within the storage capacity provided in any sewer line extension permit.
  7. Rights-of-way and/or easements shall be properly maintained to allow accessibility to the wastewater collection system.

# 10% RULE!!!!!!!

8. The Permittee shall assess cleaning needs and develop and maintain a program for appropriately cleaning, whether by hydraulic or mechanical methods, all sewer lines. At least 10 percent of the wastewater collection system, selected at the discretion of the ORC, shall be cleaned each year. Preventative cleaning is not required for sewer lines less than five years old unless inspection otherwise reveals a necessity or as required by a sewer line extension permit.

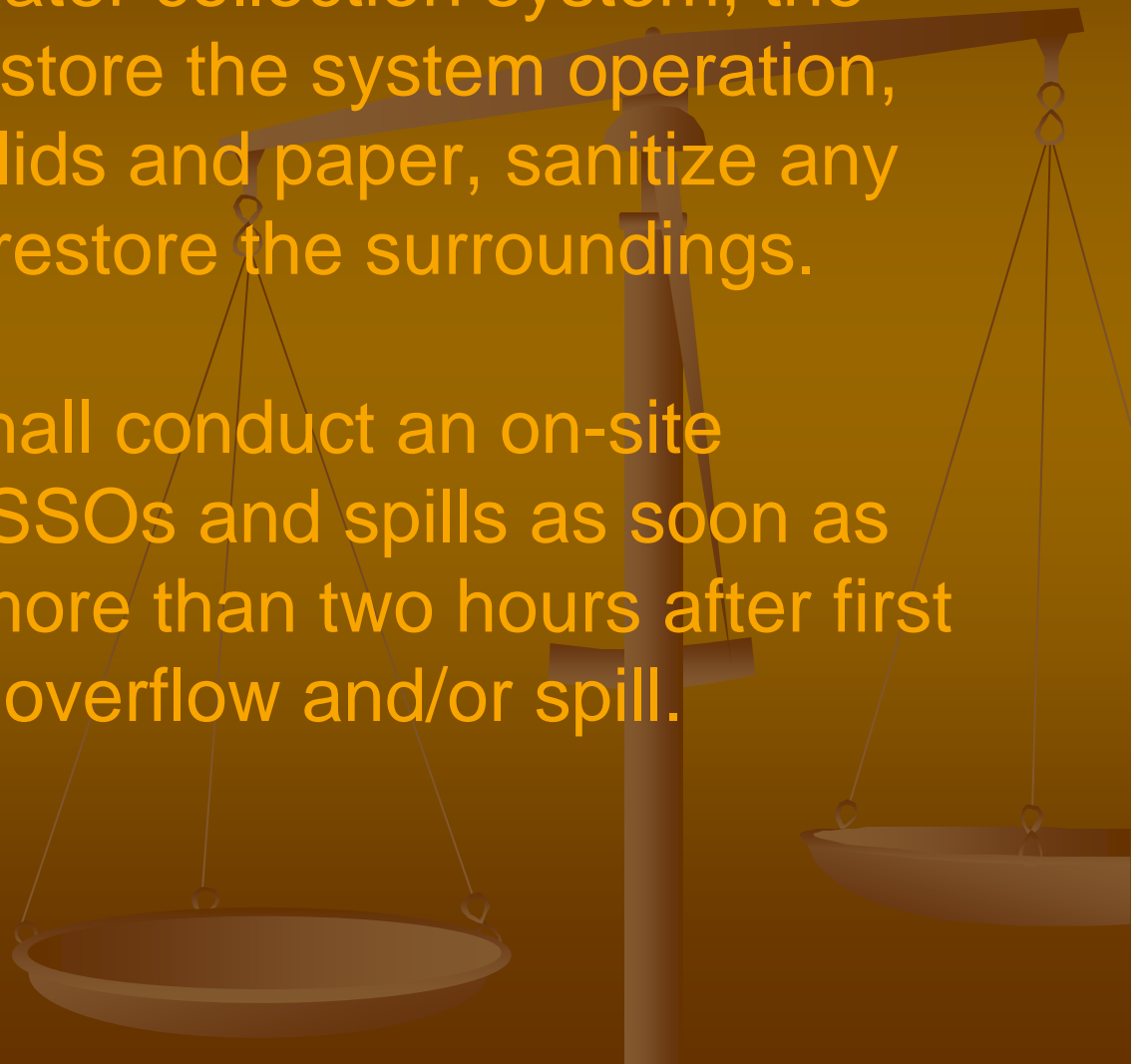
9. Adequate measures shall be taken to contain and properly dispose of Sanitary Sewer Overflows (SSOs) and spills. The Permittee shall maintain a Response Action Plan that addresses the following minimum items:

- a. Contact phone numbers for 24-hour response, including weekends and holidays;
- b. Response time;
- c. Equipment list and spare parts inventory;
- d. Access to cleaning equipment;
- e. Access to construction crews, contractors and/or engineers;
- f. Source (s) of emergency funds;
- g. Site sanitation and clean up materials; and
- h. Post-overflow/spill assessment.

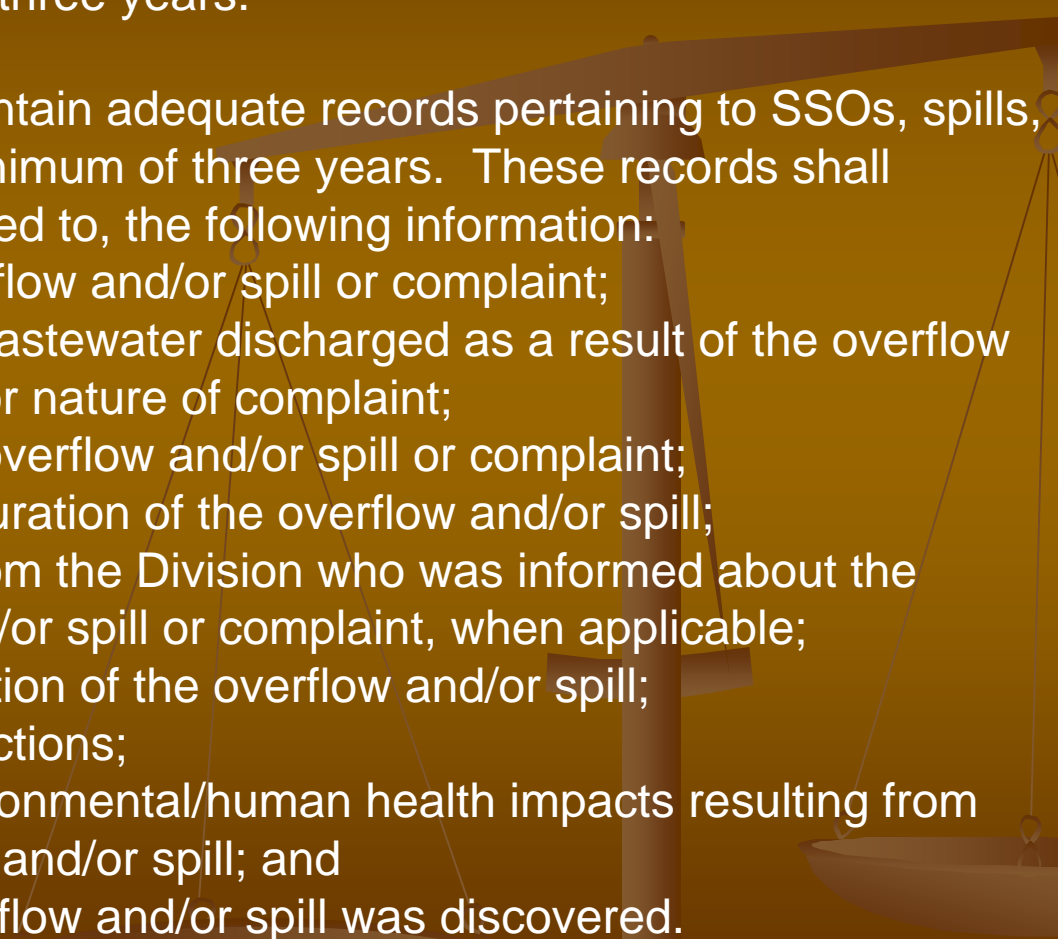


10. In the event of a discharge from or blockage within the wastewater collection system, the Permittee shall restore the system operation, remove visible solids and paper, sanitize any ground area and restore the surroundings.

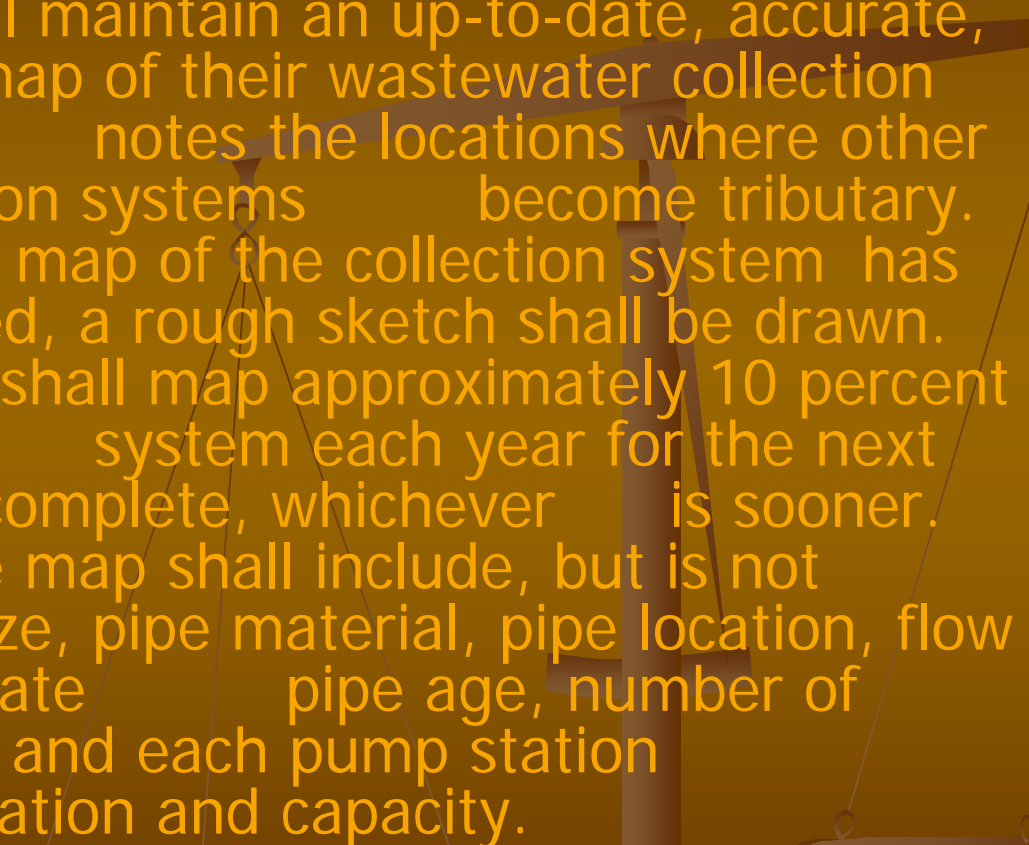
11. The Permittee shall conduct an on-site evaluation for all SSOs and spills as soon as possible, but no more than two hours after first knowledge of the overflow and/or spill.



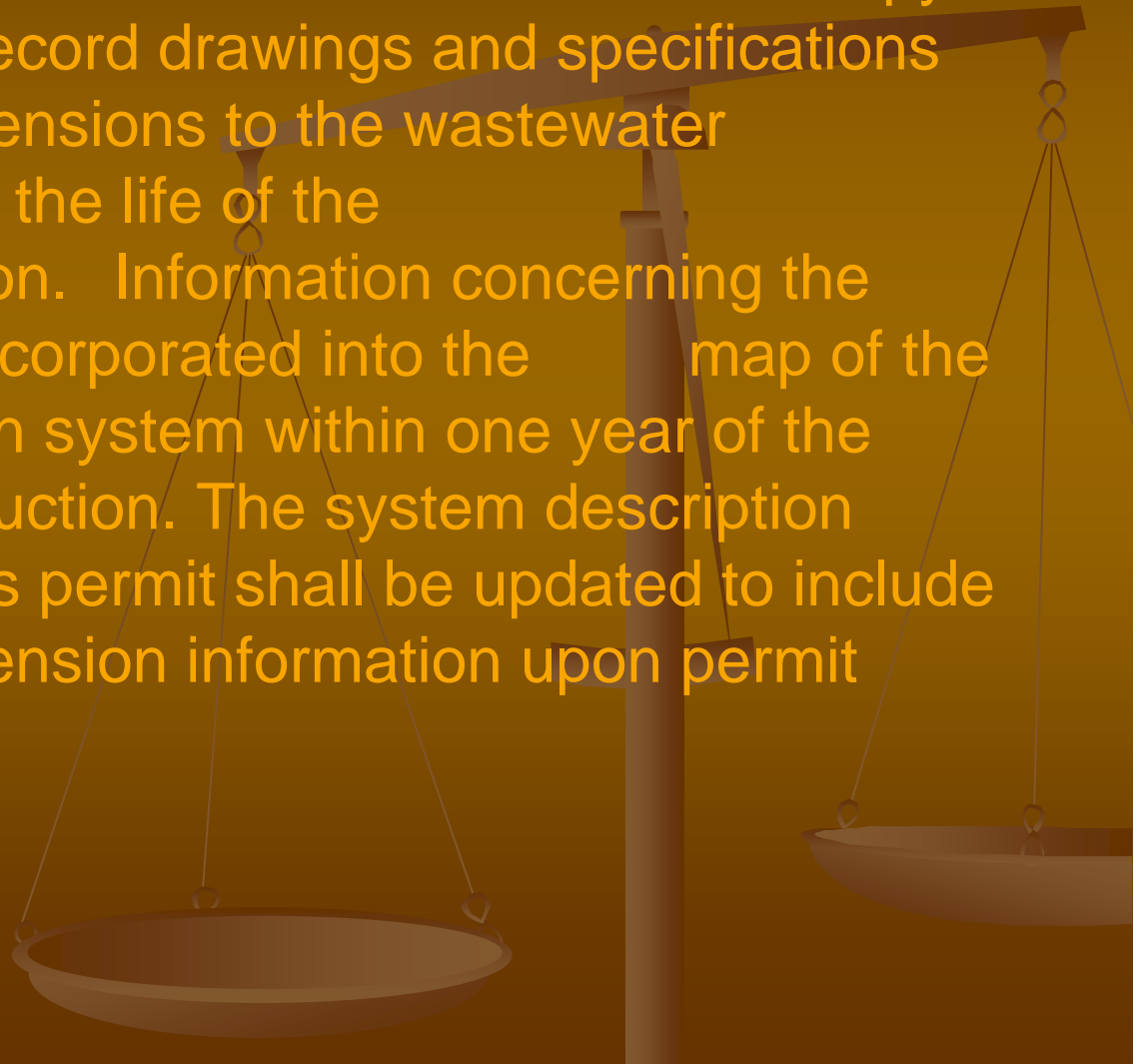
### III. RECORDS

1. Records shall be maintained to document compliance with Conditions I(4), II(2) - II(4), II(7) - II(8), IV(3) and V(1) -V(4). Records shall be kept on file for a minimum of three years.
  2. The Permittee shall maintain adequate records pertaining to SSOs, spills, and complaints for a minimum of three years. These records shall include, but are not limited to, the following information:
    - a. Date of overflow and/or spill or complaint;
    - b. Volume of wastewater discharged as a result of the overflow and/or spill or nature of complaint;
    - c. Location of overflow and/or spill or complaint;
    - d. Estimated duration of the overflow and/or spill;
    - e. Individual from the Division who was informed about the overflow and/or spill or complaint, when applicable;
    - f. Final destination of the overflow and/or spill;
    - g. Corrective actions;
    - h. Known environmental/human health impacts resulting from the overflow and/or spill; and
    - i. How the overflow and/or spill was discovered.
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# MAPPING REQUIREMENT

3. The Permittee shall maintain an up-to-date, accurate, comprehensive map of their wastewater collection system that also notes the locations where other wastewater collection systems become tributary. If a comprehensive map of the collection system has not been established, a rough sketch shall be drawn. The Permittee shall map approximately 10 percent of their collection system each year for the next ten years, or until complete, whichever is sooner. The comprehensive map shall include, but is not limited to: pipe size, pipe material, pipe location, flow direction, approximate pipe age, number of active service taps, and each pump station identification, location and capacity.
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4. The Permittee shall maintain records of all of the modifications and extensions to the collection system permitted herein. The Permittee shall maintain a copy of the construction record drawings and specifications for modifications/extensions to the wastewater collection system for the life of the modification/extension. Information concerning the extension shall be incorporated into the map of the wastewater collection system within one year of the completion of construction. The system description contained within this permit shall be updated to include this modification/extension information upon permit renewal.

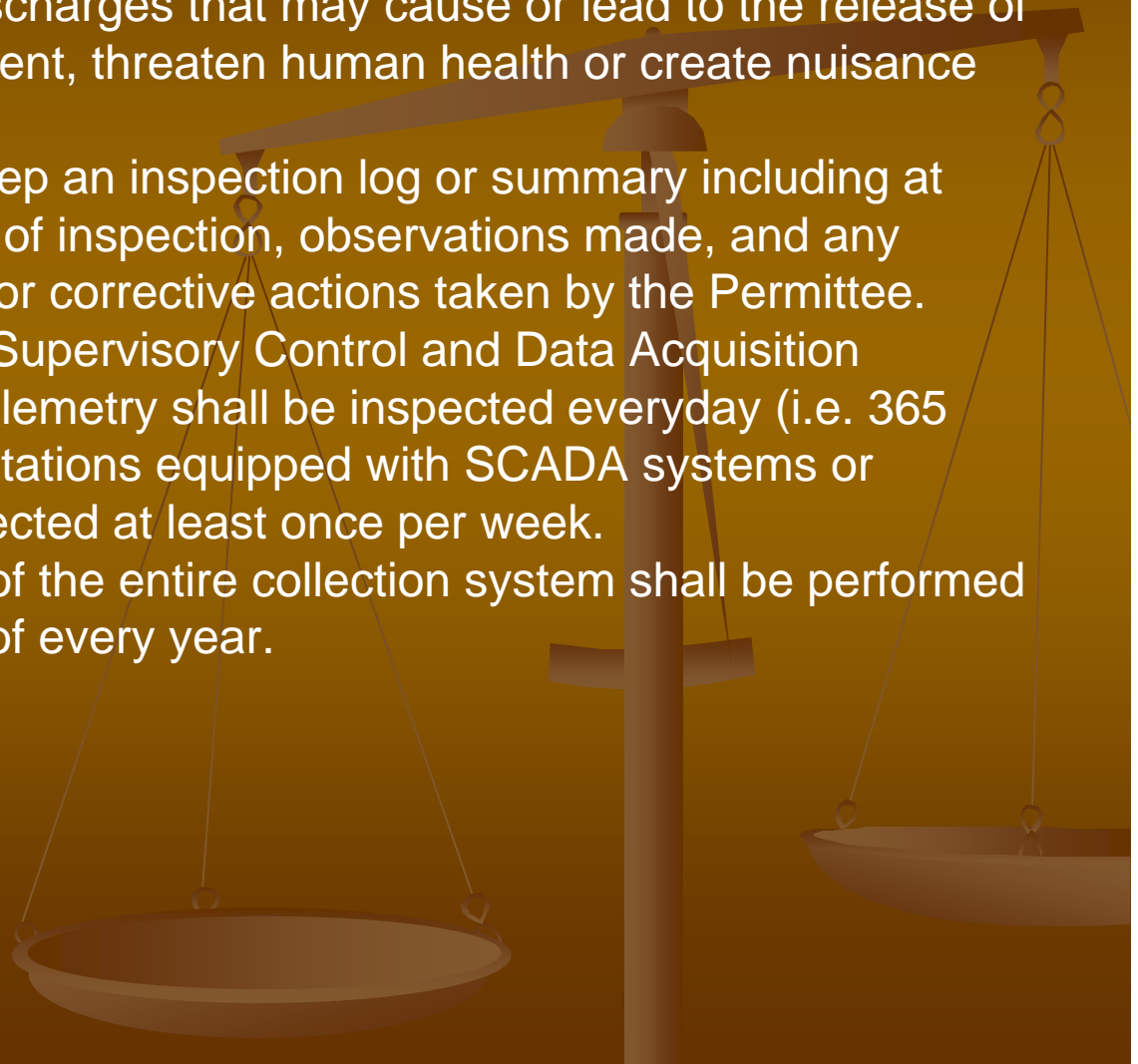


#### IV. MONITORING AND REPORTING REQUIREMENTS

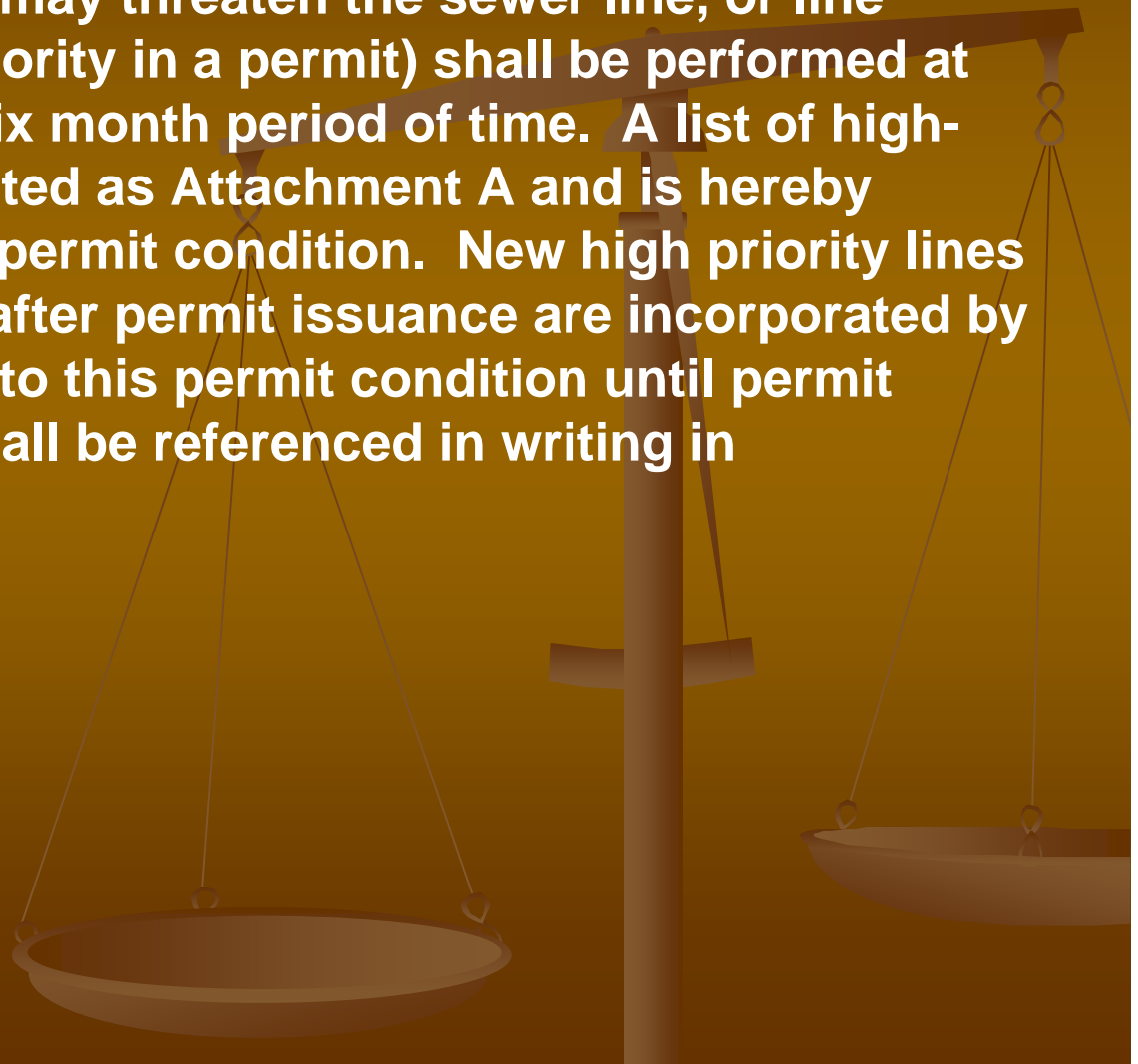
1. Any monitoring (including, but not necessarily limited to, wastewater flow, groundwater, surface water, soil or plant tissue analyses) deemed necessary by the Division to ensure surface water and groundwater protection will be established, and an acceptable sampling and reporting schedule shall be followed.
2. The Permittee shall verbally report to a person at the ~~xxx~~ Regional Office, at telephone number ~~xxx~~ as soon as possible, but in no case more than 24 hours following the occurrence or first knowledge of the occurrence of either of the following:
  - a. Any SSO and/or spill over 1,000 gallons; or
  - b. Any SSO and/or spill, regardless of volume, that reaches surface water. Voice mail messages or faxed information is permissible but this shall not be considered as the initial verbal report. Overflows and spills occurring outside normal business hours may also be reported to the Division of Emergency Management at telephone number (800) 858-0368 or (919) 733-3300. Persons reporting any of the above occurrences shall file a spill report by completing Part I of Form CS-SSO (or the most current Division approved form), within five days following first knowledge of the occurrence. This report shall outline the actions taken or proposed to ensure that the problem does not recur. Per Condition I(2), Part II of Form CS-SSO (or the most current Division approved form) can also be completed to show that the SSO was beyond control.
3. The Permittee shall meet the annual reporting and notification requirements provided in North Carolina General Statute §143-215.1C.

## V. INSPECTIONS

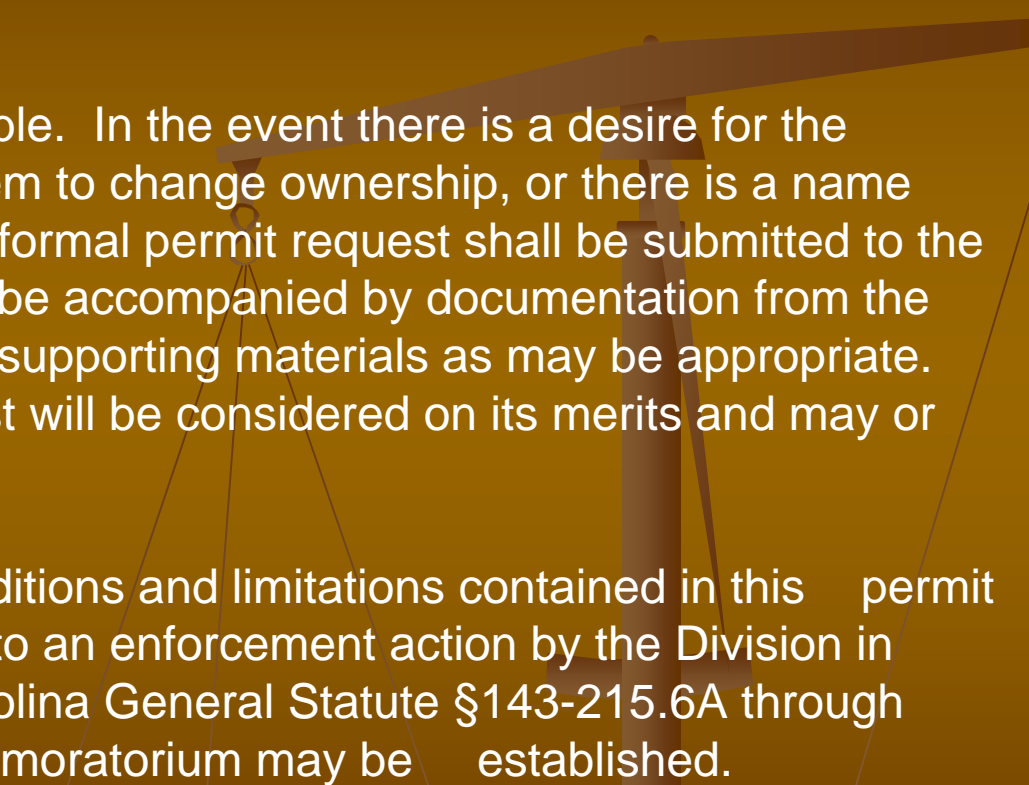
1. The Permittee or the Permittee's designee shall inspect the wastewater collection system regularly to prevent malfunctions and deterioration, operator errors, and discharges that may cause or lead to the release of wastes to the environment, threaten human health or create nuisance conditions.  
The Permittee shall keep an inspection log or summary including at least the date and time of inspection, observations made, and any maintenance, repairs, or corrective actions taken by the Permittee.
2. Pump stations without Supervisory Control and Data Acquisition (SCADA) systems or telemetry shall be inspected everyday (i.e. 365 days per year). Pump stations equipped with SCADA systems or telemetry shall be inspected at least once per week.
3. A general observation of the entire collection system shall be performed throughout the course of every year.

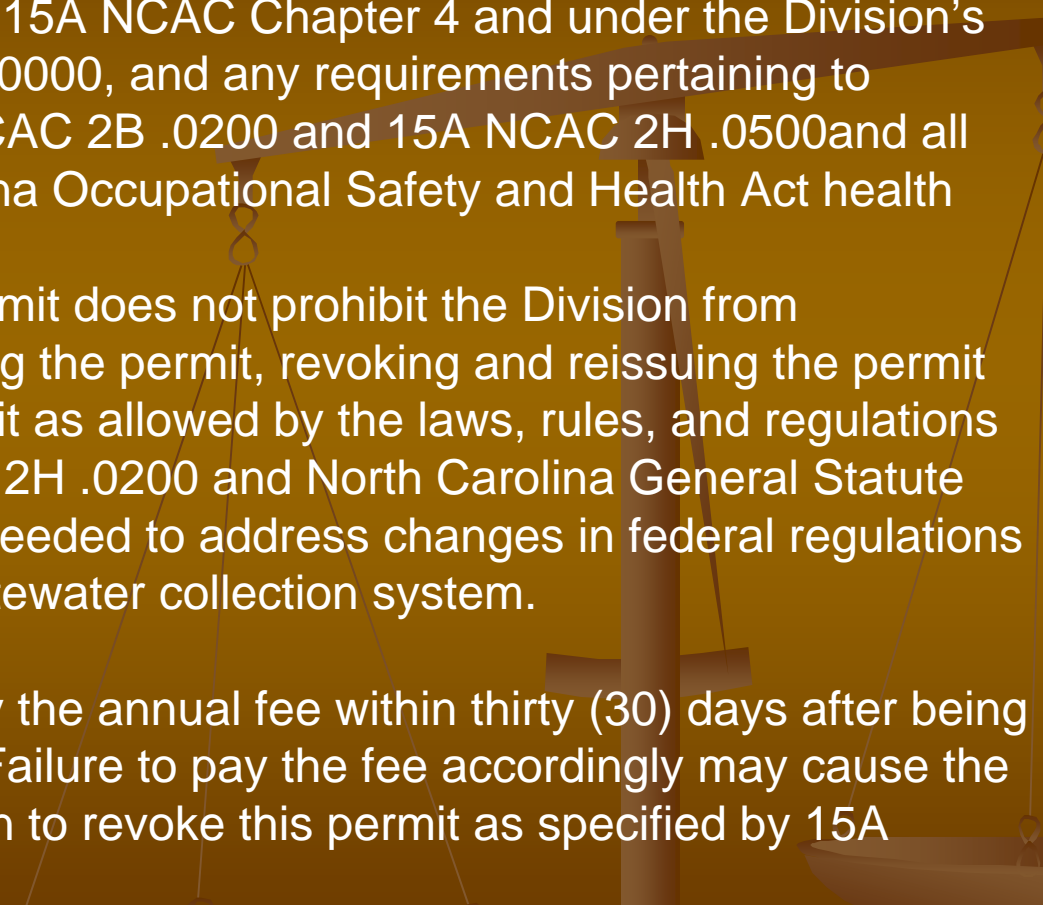


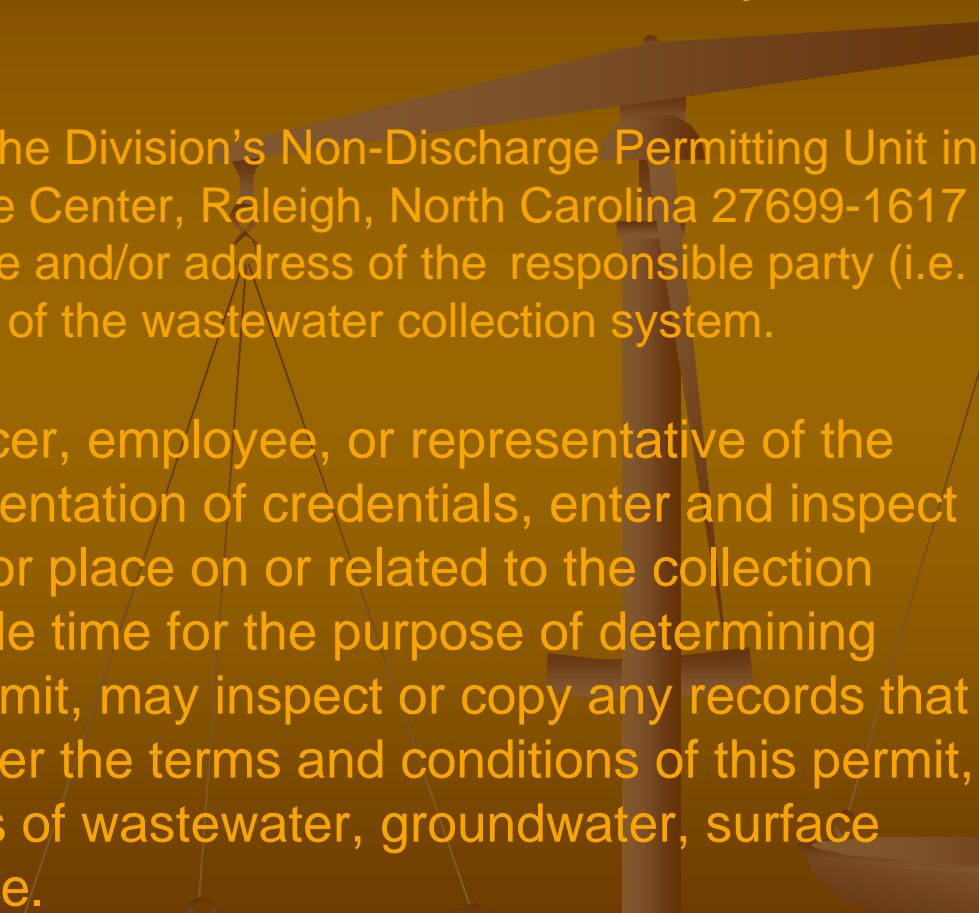
**4. Inspections of all high priority lines (i.e. aerial line, sub-waterway crossing, line contacting surface waters, siphon, line positioned parallel to stream banks that are subject to eroding in such a manner that may threaten the sewer line, or line designated as high-priority in a permit) shall be performed at least once per every six month period of time. A list of high-priority lines is presented as Attachment A and is hereby incorporated into this permit condition. New high priority lines installed or identified after permit issuance are incorporated by reference and subject to this permit condition until permit renewal where they shall be referenced in writing in Attachment A.**



## VI. GENERAL CONDITIONS

1. This permit shall become voidable unless the wastewater collection system is maintained and operated in accordance with the conditions of this permit and other supporting data.
  2. This permit is not transferable. In the event there is a desire for the wastewater collection system to change ownership, or there is a name change of the Permittee, a formal permit request shall be submitted to the Division. The request shall be accompanied by documentation from the parties involved, and other supporting materials as may be appropriate. The approval of this request will be considered on its merits and may or may not be approved.
  3. Failure to abide by the conditions and limitations contained in this permit may subject the Permittee to an enforcement action by the Division in accordance with North Carolina General Statute §143-215.6A through §143-215.6C, and a sewer moratorium may be established.
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4. The issuance of this permit does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e., local, state, and federal) having jurisdiction, including but not limited to applicable river buffer rules in 15A NCAC 2B .0200, soil erosion and sedimentation control requirements in 15A NCAC Chapter 4 and under the Division's General Permit NCG010000, and any requirements pertaining to wetlands under 15A NCAC 2B .0200 and 15A NCAC 2H .0500 and all applicable North Carolina Occupational Safety and Health Act health and safety standards.
  5. The issuance of this permit does not prohibit the Division from reopening and modifying the permit, revoking and reissuing the permit or terminating the permit as allowed by the laws, rules, and regulations contained in 15A NCAC 2H .0200 and North Carolina General Statute §143-215.1 et. al., or as needed to address changes in federal regulations with respect to the wastewater collection system.
  6. The Permittee shall pay the annual fee within thirty (30) days after being billed by the Division. Failure to pay the fee accordingly may cause the Division to initiate action to revoke this permit as specified by 15A NCAC 2H .0205(c)(4).

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7. The Permittee shall request its renewal at least six months prior to the expiration of this permit. Upon receipt of the request, the Commission will review the adequacy of the wastewater collection system described therein, and if warranted, will extend the permit for a period of time and under such conditions and limitations, as the Commission may deem appropriate.
  8. The Permittee shall notify the Division's Non-Discharge Permitting Unit in writing at 1617 Mail Service Center, Raleigh, North Carolina 27699-1617 of any changes to the name and/or address of the responsible party (i.e. mayor, city/town manager) of the wastewater collection system.
  9. Any duly authorized officer, employee, or representative of the Division may, upon presentation of credentials, enter and inspect any property, premises or place on or related to the collection system at any reasonable time for the purpose of determining compliance with this permit, may inspect or copy any records that must be maintained under the terms and conditions of this permit, and may obtain samples of wastewater, groundwater, surface water, soil, or plant tissue.

***The following condition will be used in permits for collections systems that are tributary to a collection system under separate ownership:***

10. This permit shall become voidable unless the agreement between ~~xxx~~ and ~~xxx~~ for the collection and final treatment of wastewater is ~~xxx~~ in full force and effect.

***The following condition will be used in permits for private collection systems that are required to execute an Operation Agreement in accordance with 15A NCAC 2H .0221:***

11. The Operational Agreement between the Permittee and the Environmental Management Commission is incorporated herein by reference and is a condition of this permit. Noncompliance with the terms of the Operational Agreement shall subject the Permittee to all sanctions provided by North Carolina General Statute §143-215.6A through §143-215.6C for violation of or failure to act in accordance with the terms and conditions of this permit.

Permit issued this the ~~xxx~~ day of ~~xxx~~, ~~xxx~~

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

DRAFT

Alan W. Klimek, P.E., Director

Division of Water Quality

By Authority of the Environmental Management Commission

**Permit Number ~~xxx~~**